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March 3, 2020

VIA OVERNIGHT CARRIER

Mr. Brian Dietz
Program Administrator Land Restoration Program
Land and Material Administration Maryland Department of the Environment
1800 Washington Road, Suite 625
Baltimore, Maryland 21230

Re: Transmittal of the Technical Memorandum; September 2019 Surface Water Sampling Results
for Frog Mortar Creek
Martin State Airport, 701 Wilson Point Road, Middle River,Maryland

Dear Mr. Dietz:

For your information, please find enclosed two hard copies with CDs of the above-referenced document. This technical memorandum presents sampling results for surface water samples collected in September from Frog Mortar Creek adjacent to the Dump Road Area at Martin State Airport in Middle River, Maryland.

If you have any questions or require any additional information please contact me by phone at 301-548-2223, or via e-mail at charles.trione@lmco.com.

Sincerely,

Charles Trione
Project Lead, Environmental
Remediation Lockheed Martin
Corporation

cc: (via email without enclosure)
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TECHNICAL MEMORANDUM: SEPTEMBER 2019 SURFACE WATER SAMPLING RESULTS FOR FROG MORTAR CREEK MARTIN STATE AIRPORT 701 WILSON POINT ROAD MIDDLE RIVER, MARYLAND

Prepared for:
Lockheed Martin Corporation

Prepared by:
Tetra Tech, Inc.

March 2020

Approved by:

Revision: 0

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ACRONYMS AND ABBREVIATIONS

AWQC	ambient water quality criteria
BTAG	Biological Technical Advisory Group
BLM	biotic ligand model
BTEX	benzene, toluene, ethylbenzene, and xylenes
cis-1,2-DCE	*cis*-1,2-dichloroethene
COMAR	Code of Maryland Regulations
cVOC	chlorinated volatile organic compound
DOC	dissolved organic carbon
DRA	Dump Road Area
EESH	energy, environment, safety and health
EL	Edwards Lane
ESWS	ecological surface water screening level
GIS	geographic information system
IDW	investigation derived waste
Lockheed Martin	Lockheed Martin Corporation
MAA	Maryland Aviation Administration
MDE	Maryland Department of the Environment
MDANG	Maryland Air National Guard
mg/L	milligram(s) per liter
MSA	Martin State Airport
µg/L	microgram(s) per liter
NOAA	National Oceanic and Atmospheric Administration
NRWQC	national recommended water quality criteria
PDF	portable document format
PPE	personal protective equipment
SVOC	semivolatile organic compound

TB	trip blank
TCE	trichloroethene
Tetra Tech	Tetra Tech, Inc.
USEPA	United States Environmental Protection Agency
VC	vinyl chloride
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 sampling results for surface water samples collected in Frog Mortar Creek adjacent to the Dump Road Area (DRA) at Martin State Airport (MSA) in Middle River, Maryland (see Figure 1-1). Surface water was sampled according to the *2019 Surface Water Sampling Work Plan* (Tetra Tech, 2019a). This technical memorandum presents the analytical results for surface water samples collected from Frog Mortar Creek on September 9, 2019.

This investigation obtained additional chemical and spatial-distribution data for volatile organic compounds (VOCs) and metals in creek surface water that might emanate from a groundwater plume at the Dump Road Area of Martin State Airport, and chemical and spatial-distribution data for volatile organic compounds possibly originating from upgradient sources. Results herein are compared to screening levels intended to protect human health and the environment. These data will provide information to:

- evaluate the interaction between Frog Mortar Creek and shallow groundwater in the Dump Road Area
- assess possible localized seepage of contaminated groundwater to creek surface water, using sampling locations for nine established western-shoreline transects, four single-sampling locations between transects, and one eastern-shoreline transect
- assess human health risks for recreational users of Frog Mortar Creek
- update modeling for shallow-groundwater flow patterns and groundwater discharge to Frog Mortar Creek

This technical memorandum is organized as follows:

Section 2—Site Background and Previous Investigations: Briefly describes the site and previous Frog Mortar Creek investigations.

Section 3—Investigation Approach and Methodology: Presents the technical approach and field methodology used for surface water sampling.

Section 4—Results: Presents the investigation results.

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

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

SECTION 2
SITE BACKGROUND AND PREVIOUS INVESTIGATIONS

Martin State Airport (MSA) is at 701 Wilson Point Road in Middle River, Maryland, bounded by Frog Mortar Creek to the east and Stansbury Creek to the west (Figure 2-1); both are tidal tributaries of the Chesapeake Bay. The Maryland Aviation Administration (MAA) currently operates MSA on behalf of the Maryland Department of Transportation. The current MSA property (approximately 775 acres) consists of an administration building (the Main Terminal building), aircraft hangars, a 7,000-foot-long runway, and several taxiways. MAA manages more than 130,000 square feet of heated hangar space and 190 smaller aircraft hangars. MSA hosts the Maryland State Police aviation unit, Baltimore County Police aviation and marine units, the Baltimore City Police aviation unit, and the Glenn L. Martin Museum. A portion of MSA is leased to the United States Air Force for use by the Maryland Air National Guard (MDANG). MSA is also home to several commercial tenants that provide fuels and lubricants, helicopter avionics repair, and flight instruction (MAA, 2018).

The area under investigation is Frog Mortar Creek, which is east of and adjacent to the Dump Road Area (DRA) site at MSA (Figures 2-1 and 2-2). The DRA currently consists mostly of open meadows, mowed grass, and heavily wooded areas (as modified by the construction of the extraction and treatment system noted below); however, it also includes a portion of Taxiway Tango and extends to the airport runway. Taxiway Tango is a concrete and asphalt taxiway used by MDANG for military aircraft operations. The airport runway is also used by state-owned and private aircraft.

An extraction and treatment system for DRA groundwater was constructed in 2017 and is currently operational at the DRA site. This extraction and treatment system consists of 16 groundwater extraction wells, underground piping, and a building that houses components to treat groundwater containing volatile organic compounds (VOCs), semi-volatile organic

compounds (SVOCs), and metals detected at concentrations above Maryland Department of the Environment (MDE) groundwater standards. The wells and underground piping pump groundwater from the surficial aquifer to the aboveground treatment building, creating a "hydraulic barrier" that captures groundwater and prevents such contaminants from migrating off-site. The treatment building is 60-feet-wide and 170-feet-long (10,200 square feet) and is near Frog Mortar Creek in the eastern-central portion of the DRA (Figure 2-2). Treated groundwater is tested routinely and subsequently discharged to Frog Mortar Creek via an MDE-permitted outfall.

Detailed environmental studies have been conducted at the DRA since 1991, when MAA removed drums discovered near Taxiway Tango (Figure 2-2). Subsequent environmental studies at MSA have demonstrated that soil, pond sediment, and groundwater at the DRA have been impacted by VOCs, SVOCs, and metals resulting from historical dumping and backfilling. The following constituents (including several metals) have been detected in DRA groundwater at concentrations exceeding state groundwater standards:

- ***chlorinated VOCs*** (cVOCs)—including trichloroethene (TCE), *cis*-1,2-dichloroethene (*cis*-1,2-DCE), and vinyl chloride (VC)
- ***petroleum-related VOCs***—such as benzene, toluene, ethylbenzene, and xylenes (BTEX)
- ***1,4-dioxane***—Maryland does not have a groundwater standard for this compound, but concentrations at the site have exceeded standards proposed or promulgated by other states.
- ***metals***—arsenic, barium, beryllium, cadmium, chromium, copper, hexavalent chromium (in two wells, in 2008 only), iron, lead, manganese, mercury, nickel, selenium, thallium, vanadium, and zinc

Frog Mortar Creek is hydraulically downgradient of and receives groundwater discharging from the DRA. The constituents listed above have been detected in surface water samples collected from Frog Mortar Creek. Surface water samples have been collected from Frog Mortar Creek since 1997, and multiple rounds of samples have been collected annually since 2010. Studies at Frog Mortar Creek from 1997–2017, and details of the area's physical setting, land use, physiography, and surface/subsurface conditions (i.e., soils, hydrology, and geology), are

summarized in the *2018 Surface Water Sampling Report for Frog Mortar Creek* (Tetra Tech, 2019b), and therefore are not repeated herein.

SECTION 3
INVESTIGATION APPROACH AND METHODOLOGY

Previous surface-water sampling data for Frog Mortar Creek support the need for ongoing monitoring to assess the extent to which surface water is affected by groundwater discharged from the Dump Road Area (DRA). The September 2019 data will support this ongoing effort and will also be used to assess the effectiveness of the extraction, containment, and treatment system. The chlorinated volatile organic compounds (cVOCs) trichloroethene (TCE), *cis*-1,2-dichloroethene (*cis*-1,2-DCE), and vinyl chloride (VC), and several metals, have previously been detected in Frog Mortar Creek surface water samples at concentrations exceeding ecological and/or human health screening-criteria; these analytes have also been detected in groundwater at the DRA.

Detected chemical concentrations in surface water obtained from Frog Mortar Creek were evaluated by comparing them to United States Environmental Protection Agency (USEPA) or Maryland screening levels and site-specific screening levels. These screening criteria include USEPA national recommended water quality criteria (NRWQC), Maryland ambient water quality criteria (AWQC), USEPA Biological Technical Advisory Group (BTAG) surface water screening-benchmarks, and site-specific screening levels for swimming developed by Lockheed Martin Corporation (Lockheed Martin). The September 2019 sampling is the fifth of six surface-water sampling rounds planned for 2019. The September sampling round assessed water quality during the end of the summer season, when a high amount of surface water recreational use would be expected in Frog Mortar Creek.

3.1 SURFACE WATER SAMPLING

3.1.1 Surface Water Sampling and Chemical Analyses

Forty-four surface water samples were collected from Frog Mortar Creek adjacent to the DRA site on September 9, 2019. Sampling locations are shown in Figure 3-1. Four samples were

collected along each of nine transects spaced approximately 350 feet apart along the western shoreline of the creek; these transects are designated MSA-SW37, MSA-SW38, MSA-SW39, MSA-SW40, MSA-SW41, MSA-SW42, MSA-SW43, MSA-SW44, and MSA-SW45.

Four samples were also collected along a transect extending out from the eastern shoreline of the creek at 3301 Edwards Lane (EL); this transect is designated EL-SW01 (see Figure 3-1). Four additional near-shore samples were collected between transects MSA-SW42 and MSA-SW40 (MSA-SW46A), MSA-SW40 and MSA-SW38 (MSA-SW47A), MSA-SW38 and MSA-SW41 (MSA-SW48A), and MSA-SW41 and MSA-SW43 (MSA-SW49A). These four locations were first sampled in July 2015 to assess constituent concentrations between transects exhibiting the highest VOC concentrations, and were also included in the September 2019 sampling round.

Along each transect, one sample was collected near the shoreline ("A" sample), one was collected approximately 50 feet from the shoreline ("B" sample), one was collected approximately 100 feet from the shoreline ("C" sample), and one was collected approximately 200 feet from the shoreline ("D" sample). All samples were collected approximately one foot below the water surface. All sampling locations were surveyed in the Maryland State Plane North American Datum 1983 (in feet), using a handheld global positioning system receiver.

Table 3-1 outlines the sampling and chemical analysis program. Western-shoreline transect samples (MSA-SW37 through MSA-SW45) were analyzed for the following constituents:

- VOCs, by SW846 Method 8260C
  (including Freon 113 [1,1,2-trichloro-1,2,2-trifluoroethane],
  Freon 22 [chlorodifluoromethane], and tentatively identified compounds)
- dissolved metals (filtered in the field), by SW846 Methods 6020/7470A
- hardness, by Standard Method SM 2340B
- hexavalent chromium, by USEPA Method 218.6
- dissolved organic carbon (DOC), by USEPA Method 9060; collected at all "B" transect locations

The last bullet (above, for DOC) describes newly added parameters first added in June 2019 and continued in the July, August, and September 2019 rounds; samples were collected and analyzed

for DOC at all "B" locations within each transect (including the Edwards Lane transect). These samples provide the DOC data required to run the biotic ligand model (BLM), which is used to calculate the (aquatic life freshwater) screening level for copper.

Historically, concentrations of metals (other than arsenic and barium) above screening criteria have been found predominantly in areas adjacent to or near the western shoreline. Additionally, metal concentrations (except barium) in eastern shoreline-transect samples (i.e., EL-SW01A–D) collected in 2012 were less than the screening criteria; therefore, the eastern shoreline-transect samples were not analyzed for metals and were analyzed only for VOCs. Hexavalent chromium and total chromium have been detected in DRA groundwater; therefore, all western-shoreline samples except SW46A–SW49A were also analyzed for hexavalent chromium. SW46A–SW49A were sampled for VOCs only, as they were added to the sampling program to target areas between transects exhibiting high VOC concentrations. Water quality parameters (including temperature, pH, specific conductance, salinity, turbidity, dissolved oxygen, and oxidation-reduction potential) were measured and recorded at the time of sampling, as was the water depth at all surface-water sampling locations. Sampling information was documented on sample log sheets (see Appendix A).

Water depth measurements were also obtained from the staff gauge at 3301 Edwards Lane before sampling (0.75 meters [2.46 feet] at 0951 hours) and after sampling (0.91 meters [2.98 feet] at 1253 hours). Mean tidal-flux in the Middle River, Maryland area is approximately 1.6 feet (National Oceanic and Atmospheric Administration [NOAA], 2015). A 2011 study by Lockheed Martin sought to ascertain the effects of tides and sampling depths on contaminant concentrations in Frog Mortar Creek (Tetra Tech, 2012). The tidal phase relative to the time of sample collection appears to influence the VOC concentrations detected, particularly in the samples collected 50 feet from shore. In general, VOC concentrations in "B-series" samples (collected 50 feet from shore) were greater at low tide than at high tide, irrespective of sampling depth. Therefore, during this sampling round, all samples were collected during low tide.

Samples were collected as grab samples from approximately one foot below the water surface using the direct-fill sampling technique. VOC samples were collected using a stainless steel discrete-interval sampler (also known as a "bacon bomb" sampler). The sampler was lowered to

approximately one foot below the water surface, the check valve was engaged to allow the sampler to fill, the sampler was then brought to the surface, and the water was removed through a valve to fill three laboratory-cleaned, hydrochloric-acid preserved, 40-milliliter sample vials. The discrete-interval sampler was cleaned after each use by rinsing it with distilled water over the creek. No decontamination fluids were collected during this sampling.

Hexavalent chromium samples were collected in pre-cleaned bottles containing a buffer solution. Each bottle was filtered in the field using a peristaltic pump. Hexavalent chromium samples were expedited to the laboratory so they could be analyzed within the prescribed 24-hour (since collection) holding time. Field-filtered metals samples (i.e., samples for metals other than hexavalent chromium) were collected using a peristaltic pump and preserved to the appropriate pH level in the field with nitric acid. Field-filtered DOC samples were collected using a peristaltic pump and preserved to the appropriate pH level in the field with sulfuric acid. No duplicates were collected during this sampling round. A trip blank (one per cooler containing VOC samples) was submitted for VOC analysis for quality assurance/quality control purposes.

3.1.2 Documentation

A master site logbook was maintained as an overall record of site field activities. Sample documentation includes completed chain of custody forms and surface-water-specific sample log-sheets. Chain of custody forms are standardized to summarize and document pertinent sample information, such as sample identification and type, matrix, date and time of collection, preservation, and the analysis requested. Sample-custody procedures document sample acquisition and integrity. September 2019 log sheets for surface water samples are in Appendix A. Chain of custody forms and data-validation reports are in Appendix B (on compact disc).

3.1.3 Sample Nomenclature and Handling

Surface water samples collected from transects MSA-SW37 through MSA-SW49A are identified with a unique sample-identification tag. Surface water samples are labeled with an “MSA-SW” prefix, followed by the sample transect number, the profile location (“A,” “B,” “C,” or “D”), and the six-digit sampling date. Similarly, surface water samples collected from Edwards Lane

transects are identified with an "EL-SW01" prefix, the profile location ("A," "B," "C," or "D"), and the six-digit sampling date. For example, the surface water sample collected on September 9, 2019 from MSA-SW37A would be labeled "MSA-SW37A-090919." The trip blank was labeled with a "TB" prefix followed by the sample's six-digit submittal date (e.g., TB-090919).

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. Chain of custody protocols were used throughout sample handling to assure the evidentiary integrity of sample containers. These protocols demonstrate that the samples were handled and transferred in a manner that would prevent or detect possible tampering.

Sample containers were released under signature from the laboratory and accepted under signature by the sampler(s) or other individual(s) responsible for maintaining custody, until the sample containers could be transferred to the sampler(s). Transport containers returning to the laboratory were sealed with strapping tape and a tamper-resistant custody seal. The custody seal contains the signature of the individual releasing the transport container, along with the date and time.

3.1.4 Equipment Decontamination

This project required minimal equipment decontamination. Both dedicated and disposable equipment was used for surface water sampling, to reduce the need for decontamination and eliminate potential cross-contamination of samples. The discrete-interval sampler was cleaned after each use by rinsing with distilled water. Equipment was cleaned over the (creek) water after each sample had been collected. No decontamination fluids were collected during sampling.

3.1.5 Waste Management

Investigation derived waste (IDW) consists of personal protective equipment (PPE) and disposable equipment (filters, tubing, etc.) generated during field sampling. PPE IDW was brushed off, placed in trash bags along with the disposable equipment, and disposed of in a facility trash receptacle designated by facility personnel.

3.2 DATA MANAGEMENT

Laboratory data-handling procedures met the requirements of the laboratory subcontract. All analytical and field data are maintained in project files, including copies of chain of custody forms, sample log forms, sampling location maps, and documentation of quality assurance and data corrections.

3.2.1 Data Tracking and Control

A cradle-to-grave sample tracking system was used from the beginning to the end of sampling. The field operations leader began and coordinated sample tracking before mobilizing the sampling team to the field. Preprinted sample-container labels generated before fieldwork began were reviewed to ensure that they were accurate and adhered to work plan requirements. The project manager coordinated with the analytical laboratory to ensure that the laboratory was aware of the number and type of samples and analyses that would be submitted.

During field sampling, the field operations leader forwarded the chain of custody to a designated project assistant and to the laboratory. The project assistant confirmed that the chain of custody provided the information required by the work plan. This allowed early detection of errors made in the field so that adjustments could be made before sample analyses.

After successful completion of all requested analyses, the laboratory submitted an electronic deliverable for each sample delivery group. When all electronic deliverables had been received from the laboratory, the project assistant checked the laboratory submittal to determine whether the laboratory had performed all analyses requested. All analyses requested for this project were performed.

3.2.2 Sample Information

Data from field measurements were recorded using appropriate sample log sheets and were summarized in tabular form, as were the raw instrument-data from the laboratory. 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. Sample log sheets are in Appendix A.

3.2.3 Project Data Compilation

The analytical laboratory generated an Adobe Acrobat® portable document format (PDF) file of the analytical data package, as well as an electronic database deliverable. The electronic database was checked against the PDF file provided by the laboratory and updated as required, based on data-qualifier flags applied during data validation. All data, such as units of measure and chemical nomenclature, were corrected as necessary to be consistent with the project database.

3.2.4 Geographic Information System

Data management systems for this investigation consists of a relational database and geographic information system (GIS) to manage environmental information pertaining to MSA housed in the energy, environment, safety and health (EESH) GIS system. The relational database stores chemical, geological, hydrogeological, and other environmental data collected during environmental investigations. The GIS, created from the relational database, contains subsets of the larger data pool. The GIS allows environmental data to be posted onto base maps to graphically represent project information. Compiled sampling, chemical, and positional data from this investigation were incorporated into the EESH GIS system.

3.3 DATA REVIEW

Data from the laboratory were entered into a sample database and evaluated against risk-based criteria. Data were validated (to evaluate data completeness, holding times, calibrations, precision, accuracy, laboratory and field-blank contamination, and detection limits) concurrent with the data evaluation. These reviews were based on USEPA national functional guidelines for both inorganic and organic data review (USEPA, 2017a, b) and the specifics of the analytical methods used. Data from this sampling event consist of chemical results for surface water samples. Data-validation reports and chain of custody forms are in Appendix B (on compact disc) as PDF files. A table with all analytical data for September 2019 Frog Mortar Creek surface water samples, including nondetects, is in Appendix C.

Collectively, these data are acceptable for their intended uses (site characterization and risk assessment), except for data qualified as unreliable (UR or R flags). The data qualifiers (i.e., flags) listed below were applied to the chemical results presented in this report. Several

flags appear in the chemical-results tables in Section 4, and all flags appear in Appendices B and C:

J The analyte is considered present in the sample but at an estimated value that 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 is considered not detected at the reported value.

UJ The analyte is not detected; however, the quantitation or detection limit may be inaccurate or imprecise.

UR The analyte was not detected, but the result is unreliable due to deficiencies in satisfying quality control criteria.

SECTION 4
RESULTS

4.1 SURFACE WATER DATA AND SCREENING CRITERIA

Validated chemical data from the Frog Mortar Creek surface water samples collected in September 2019 were used to generate a statistical summary table (Table 4-1) and a table summarizing positive detections of chemical analytes (Table 4-2). Samples collected from western transects were analyzed for volatile organic compounds (VOCs) (including fuel-related compounds such as benzene, toluene, ethylbenzene, and xylenes [BTEX] and tentatively identified compounds), dissolved (i.e., filtered) metals, hexavalent chromium, and hardness. Samples from locations SW46A, SW47A, SW48A, and SW49A and the eastern-shoreline-transect samples (e.g., EL-SW01) were analyzed for VOCs only, for the reasons described in Section 3.1.1. Dissolved organic carbon (DOC) was analyzed at "B" locations within each transect, excluding the eastern-shoreline transect. 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 national recommended water quality criteria (NRWQC) for freshwater acute and chronic aquatic-organism exposures, and NRWQC for human health aquatic-organism-consumption (USEPA, 2002, 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 [COMAR], 2016)
- USEPA 2007 Freshwater biotic ligand model (BLM) v. 3.41.2.45 for acute and chronic dissolved copper (USEPA 2007)
- site-specific screening levels for swimming developed for trichloroethene (TCE), *cis*-1,2-dichloroethene (*cis*-1,2-DCE), and vinyl chloride (VC)

NRWQC, AWQC, and most BTAG screening levels for metals represent concentrations of dissolved metals in the water column; therefore, only dissolved-metals analyses were performed.

BTAG screening levels for arsenic, mercury, molybdenum, selenium, and thallium are based on total metals concentrations. Since only dissolved metals were analyzed during this sampling round, results for these metals are not directly comparable to BTAG criteria. The NRWQC and BTAG screening values for six dissolved metals (cadmium, chromium, lead, nickel, silver, and zinc) were adjusted using the methodology in the National Recommended Water Quality Criteria (USEPA, 2016) and Region III Biological Technical Advisory Group Freshwater Screening Benchmarks (USEPA, 2006). That method recommends adjusting the criteria for these metals using the lowest site-specific hardness (for each round) if it is less than 400 milligrams per liter (mg/L). If site-specific data indicate a hardness greater than 400 mg/L, the method recommends adjusting the criteria using a hardness of 400 mg/L. The lowest hardness value for September 2019 was 430 mg/L, so the screening levels have been adjusted to 400 mg/L based on the method's recommendation.

As stated above, USEPA has revised the criterion for screening dissolved copper in freshwater environments; it now requires calculation based on the biotic ligand model (BLM) (USEPA, 2007). The BLM uses temperature, pH, salinity, copper concentrations, hardness concentrations, and dissolved organic carbon (DOC) concentrations to determine the dissolved copper criterion. During each sampling round in Frog Mortar Creek, the water quality parameters of temperature, pH, and salinity were collected at each sampling point. Therefore, BLM-calculated dissolved copper criteria are readily available, by running each data set (36 sampling sites; eastern shoreline and near-shore discreet locations do not include metals analysis) through the model and using the geomean of the calculated criterion. To improve the accuracy of the BLM, nine DOC samples were added to the sampling program, and samples for DOC were collected at all "B" transect locations (excluding the Edwards Lane transect). However, during the September 2019 round, the water quality probes appear to have malfunctioned, as the pH and salinity concentrations detected by the probes were well out of the normal ranges observed during previous monitoring rounds. Specifically, pH values were as low as 5.33 standard units in September 2019. Therefore, the average pH value, 7.47 standard units, across all four previous monitoring events in 2019 (included in Appendix D) were used to calculate the BLM for September 2019.

The new BLM-generated criterion for dissolved copper is compared to copper concentrations detected during the current sampling round in Table 4-2. The resulting modeled criteria (chronic 7.74 micrograms per liter [µg/L]; acute 12.46 µg/L) are more stringent than the previously used NRWQC and BTAG values but did not result in any copper exceedances in September 2019 samples (see Table 4-2). Calculations for average DOC at Frog Mortar Creek, and the average pH value used in lieu of the September data, the BLM model output, and the USEPA fact sheet for the 2007 freshwater BLM are in Appendix D.

TCE, *cis*-1,2-DCE, and VC results are also compared to site-specific screening levels developed by Lockheed Martin Corporation (Lockheed Martin) at the request of the Maryland Department of the Environment (MDE); these values are used to assess risks posed to recreational users of Frog Mortar Creek. These screening levels were developed to protect the health of swimmers near the Dump Road Area (DRA) shoreline, assuming they have long-term exposure to surface water (i.e., assumed four hours of swimming per day, 70 days per year, for 30 years). These swimming criteria are used because they provide the most conservative (i.e., most protective of human health) screening levels for Frog Mortar Creek.

Gray shading in Table 4-2 indicates a result that exceeds one or more of the constituent's surface-water screening criteria. A table summarizing analytical data, including nondetect results and detection limits, is attached as Appendix C.

4.2 SURFACE WATER SAMPLING RESULTS

Two VOCs and 12 metals were detected in the September 2019 surface water samples; their analytical results are summarized below and in Tables 4-1 and 4-2. Table 4-3 and Figure 4-1 compare September 2019 results for TCE, *cis*-1,2-DCE, and VC to results detected during the previous sampling round (August 2019) and the sampling round from one year ago (September 2018). Since most data discussed herein share the "MSA" prefix, it is dropped when referring to transects or samples (e.g., "SW39" refers to transect MSA-SW39), to improve readability. Any discussion related to samples collected from the Edwards Lane transect (e.g., EL-SW01A) will be similarly identified (i.e., SW01A–SW01D) in the text. In addition, many of the lower VOC detections are estimated (i.e., *J*-qualified); these qualifiers (flags) are also dropped in the following discussion, to improve readability (see Table 4-2 for these details).

4.2.1 Volatile Organic Compounds

The most frequently detected VOC in September 2019 was tertiary-butyl alcohol, which was detected in eight of 44 samples. Trichloroethene (TCE), vinyl chloride (VC), and *cis*-1,2-dichloroethene (*cis*-1,2-DCE) were not detected in September 2019, similar to July and August 2019.

September 2019 cVOC concentrations (see Table 4-3) continue to be lower as compared to previous years. As *cis*-1,2-DCE, TCE, and VC were not detected, no cVOC exceeds its lowest screening level (i.e., their respective swimming criteria of 300 µg/L, 10 µg/L, and 0.75 µg/L).

In previous sampling rounds, surface water samples from transects SW38, SW40, and SW41 (all on the western shore of Frog Mortar Creek) have typically had the highest TCE concentrations. TCE results from September 2019 are nondetect, as were those from the previous two months (July and August 2019). The highest of the two TCE detections in June 2019 (0.29 µg/L) occurred in transect SW37 at locations A and B, the closest two locations to shore. TCE was detected in 24 of 44 samples last year (September 2019), with a maximum of 2 µg/L.

As stated earlier, *cis*-1,2-DCE was not detected during the current sampling round (September 2019) or in the previous two sampling rounds (July and August 2019) (see Table 4-1; Figure 4-1). *cis*-1,2-DCE was detected in 30 of 44 samples with a maximum of 2.1 µg/L in March 2019, and in 36 of 44 samples in September 2018, with a maximum of 4.4 µg/L; therefore, a decreasing trend for *cis*-1,2-DCE has been indicated over time.

When detected in previous rounds, the distributions of TCE, *cis*-1,2-DCE, and VC in the higher concentration transects tended to decrease with increasing distance from the shore. This trend was not observed in September 2019, as TCE, *cis*-1,2-DCE, and VC were nondetect.

VC was not detected in the current round (September 2019) or previous round (August 2019) but was detected at a lower frequency (in 14 of 44 samples) than one year ago in the September 2018 round. VC exceeded its lowest (swimming) screening level at three locations during March 2019, but no VC exceedances have been detected since.

The two remaining (and only) VOCs (carbon disulfide and tertiary-butyl alcohol) detected during the current round (September 2019) were at concentrations less than their respective screening levels.

4.2.2 Metals

Barium is ubiquitous in creek samples and has been detected in (varying) narrow concentration ranges in all samples collected in the creek since its surface water was first analyzed for barium in 2010. Consistent with historical results, dissolved barium concentrations (34 µg/L–37 µg/L) at all sampled locations during this sampling round exceed its lowest screening level (4 µg/L) protective of ecological receptors. The highest barium concentration (37 µg/L) occurred at sampling locations SW40A, SW40C, SW42A, SW44C, and SW45C. Barium concentrations in September 2019 are higher than those detected last round (range of 10 µg/L to 13 µg/L in August 2019) and are higher than those detected last year (range of 6 µg/L to 7.9 µg/L in September 2018).

Arsenic was detected during this round at concentrations ranging from 1.3 µg/L to 2.5 µg/L, with the highest concentrations reported at SW37B, SW38B, and SW42D (Table 4-1). All arsenic detections exceeded the human health consumption-of-organism-only criterion (0.14 µg/L). In previous events, arsenic concentrations have been consistently lower than the range of arsenic background concentrations (2.2 µg/L–3.9 µg/L) detected in samples collected as part of Lockheed Martin's larger-scale investigation of Frog Mortar Creek in 2007–2008 (Tetra Tech, 2009). However, the arsenic ranges detected in June 2019 (1.2 µg/L-2.5 µg/L) and July 2019 (2.5-3.4 µg/L) differ from the previous trend and resemble the background concentrations detected in earlier investigations. Detected September 2019 arsenic concentrations are in a similar range to those detected the previous month in August 2019 and are also similar to but less than those detected last year in September 2018 (1.6 µg/L–2.8 µg/L).

Ten other metals (antimony, beryllium, chromium, cobalt, copper, mercury, molybdenum, nickel, selenium, and thallium) were detected at low concentrations in September 2019. September 2019 copper concentrations do not exceed the lowest copper screening value, which is the BLM-calculated chronic NRWQC and the ecological surface water screening criterion (both are 7.74 µg/L), and no copper detections exceeded the model-calculated acute criterion of

12.46 µg/L. All other detected metals concentrations were below their respective screening criteria, except for one selenium exceedance (1.2 µg/L) of its ecological surface water criterion (1 µg/L), one beryllium exceedance (0.89 µg/L) of its ecological surface water screening level (0.66 µg/L), and five mercury exceedances of its ecological surface water criterion (0.026 µg/L). The single exceedances of beryllium and selenium were only slightly above their respective criteria and were both detected at location SW37B. The five mercury exceedances (range of 0.13 µg/L to 0.18 µg/L) were in the only five samples in which it was detected (at sampling locations SW43C, SW43D, SW44A, SW44B, and SW44C) and were well below both its acute (1.4 µg/L) and chronic (0.7 µg/L) NRWQC screening values.

4.2.3 Hexavalent Chromium

Hexavalent chromium has been detected in DRA groundwater, and therefore is included in the surface water monitoring program each sampling round. However, it was not detected in the September 2019 sampling round, nor was it detected in 2018, or in any sampling round to date this year (March, June, July, or August). Hexavalent chromium was detected in Frog Mortar Creek surface water samples during one event in 2016 (March), as well as in three events in 2017 (July, August, and September). Intermittent low concentrations of hexavalent chromium were detected in Frog Mortar Creek samples before March 2016, within narrow concentration ranges (e.g., 0.028–0.085 µg/L in March 2015, and 0.12–0.16 µg/L in June 2015). The absence of hexavalent chromium detections in September 2019 is consistent with previous sampling results.

SECTION 5
SUMMARY

The Lockheed Martin Corporation September 2019 Frog Mortar Creek surface-water investigation results are summarized below:

- Surface water samples were collected on September 9, 2019, and chemically analyzed to assess concentrations of chemical constituents in Frog Mortar Creek, and particularly to evaluate creek surface-water quality near the Dump Road Area (DRA). Each sample was collected at approximately one foot below the water surface.

- Samples were collected along each of nine transects spaced approximately 350 feet apart (for 36 samples) along the western shoreline of Frog Mortar Creek, and from one transect along the eastern shoreline (4 samples). Along each transect, one sample was collected near the shoreline ("A" sample), one was collected approximately 50 feet from the shoreline ("B" sample), one was collected approximately 100 feet from the shoreline ("C" sample), and one was collected approximately 200 feet from the shoreline ("D" sample). In addition to the samples collected along transects, four single-point shoreline samples were collected, including SW46A (between transects SW42 and SW40), SW47A (between transects SW40 and SW38), SW48A (between transects SW38 and SW41), and SW49A (between transects SW41 and SW43).

- Frog Mortar Creek samples collected along the western shoreline were analyzed for volatile organic compounds (VOCs), dissolved (filtered) metals, hexavalent chromium, and hardness. Samples SW46A through SW49A, and those collected along the eastern shoreline, were only analyzed for volatile organic compounds.

- Dissolved organic carbon (DOC) samples were added to the sampling program at all "B" transect locations, excluding the Edwards Lane transect, providing current data that was used as input to the biotic ligand model (BLM), which calculated the screening criterion for copper.

- The data were validated in accordance with the United States Environmental Protection Agency (USEPA) Region III Modifications to the National Functional Guidelines for Data Review (USEPA, 1993, 1994), and the specifics of the analytical methods used.

- Sampling results were screened against (1) United States Environmental Protection Agency Region 3 Biological Technical Advisory Group (BTAG) ecological screening-benchmarks for freshwater; (2) United States Environmental Protection Agency national recommended water quality criteria (NRWQC) for acute and chronic aquatic-organism exposures and for human health aquatic-organism-consumption; (3) Maryland ambient

water quality criteria (AWQC) for acute and chronic aquatic-organism exposures and for human health aquatic-organism-consumption; (4) site-specific screening levels developed to evaluate risks to recreational swimmers from exposure to the three most frequently detected volatile organic compounds in surface water: trichloroethene (TCE), *cis*-1,2-dichloroethene (*cis*-1,2-DCE), and vinyl chloride (VC); and (5) the 2007 United States Environmental Protection Agency freshwater biotic ligand model (BLM, v. 3.41.2.45) for dissolved copper.

- Volatile organic compounds (carbon disulfide and tertiary-butyl alcohol) and 12 metals, excluding hexavalent chromium, were detected in the September 2019 surface water samples. Detected concentrations of all volatile organic compounds and most metals (except arsenic, barium, beryllium, mercury, and selenium) were less than human health consumption-of-organism and ecological screening levels.

- Trichloroethene, *cis*-1,2-dichloroethene, and vinyl chloride were not detected during the September 2019 sampling round (see Figure 4-1).

- Trichloroethene, *cis*-1,2-dichloroethene, and vinyl chloride were not detected on the eastern shoreline. These results are consistent with previous data indicating that volatile organic compound concentrations in this area of Frog Mortar Creek are below their respective site-specific swimming criteria.

- Dissolved barium exceeded its ecological screening level in all 36 samples collected in September 2019. Historical sampling has demonstrated that barium is ubiquitous in creek samples; the September 2019 concentrations (34 µg/L–37 µg/L) are higher than those detected in August 2019 (10 µg/L–13 µg/L) and are higher than those detected last year in September 2018 (6 µg/L–7.9 µg/L).

- Arsenic was detected in all 36 samples in which it was analyzed for during this round, with concentrations ranging from 1.3 µg/L to 2.5 µg/L. All arsenic detections exceeded the human health consumption-of-organism-only criterion (0.14 µg/L). The September 2019 results are lower than the range of typical background arsenic concentrations (2.2 µg/L–3.9 µg/L) established during Lockheed Martin's larger-scale 2007–2008 Frog Mortar Creek investigation, are similar to those detected in August 2019 (1.9 µg/L–2.4 µg/L), and are lower than those detected last year in September 2018 (1.6 µg/L–2.8 µg/L). In previous events, arsenic concentrations have been lower than the range of arsenic background concentrations.

- Ten other metals (antimony, beryllium, chromium, cobalt, copper, mercury, molybdenum, nickel, selenium, and thallium) were detected at low concentrations in September 2019. No copper concentrations exceeded its lowest screening value, which is the biotic ligand model-calculated chronic National Recommended Water Quality Criteria and the ecological surface water screening criterion (both are 7.74 µg/L).

- Most other detected metals concentrations were below their respective screening criteria, except for beryllium, mercury, and selenium. One selenium exceedance (1.2 µg/L at

SW37B) slightly exceeded its ecological surface water criterion (1 µg/L), as did one beryllium concentration (0.89 µg/L at SW37B; ecological surface water screening level of 0.66 µg/L).

- Mercury (range of 0.13 µg/L–0.18 µg/L) exceeded its ecological surface water criterion (0.026 µg/L) at five sampling locations (SW43C, SW43D, SW44A, SW44B, and SW44C). The mercury exceedances occurred at the only five locations in which it was detected and were well below both its acute (1.4 µg/L) and chronic (0.7 µg/L) national recommended water quality criteria screening values.

- All thirty-six copper concentrations were less than the biotic ligand model-calculated chronic national recommended water quality criterion and the ecological surface water screening criterion (both are 7.74 µg/L), while no copper detections exceeded the model-calculated acute criterion of 12.46 µg/L.

- Dissolved hexavalent chromium was not detected in any sample collected in September 2019. Hexavalent chromium was not detected in any of the six sampling events in 2018 or any of the 2019 events to date (March, June, July, and August), but was detected in July, August, and September 2017.

SECTION 6
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FIGURES

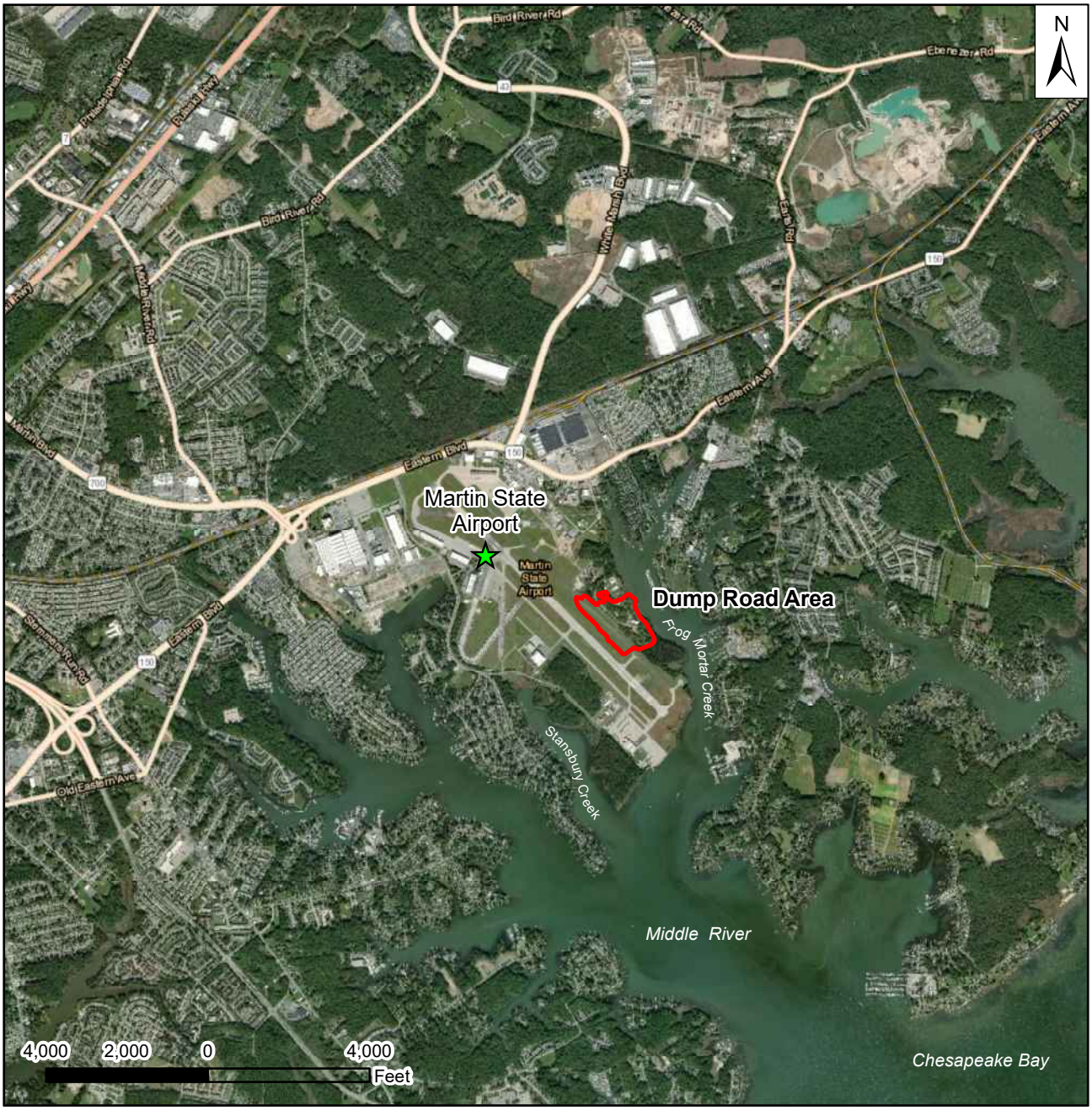
Figure 1-1 Martin State Airport, Dump Road Area and Frog Mortar Creek Location Map

Figure 2-1 Martin State Airport and Surrounding Features

Figure 2-2 Site Features and Areas of Concern, Dump Road Area

Figure 3-1 September 2019 Surface Water Sampling Locations, Frog Mortar Creek

Figure 4-1 Concentrations of Trichloroethene, cis-1,2-Dichloroethene, and Vinyl Chloride along Surface Water Sampling Transects for September 2018, August 2019, and September 2019 Frog Mortar Creek



Aerial photograph provided by ESRI's ArcGIS Online World Imagery map service (© 2017 ESRI and its data suppliers).

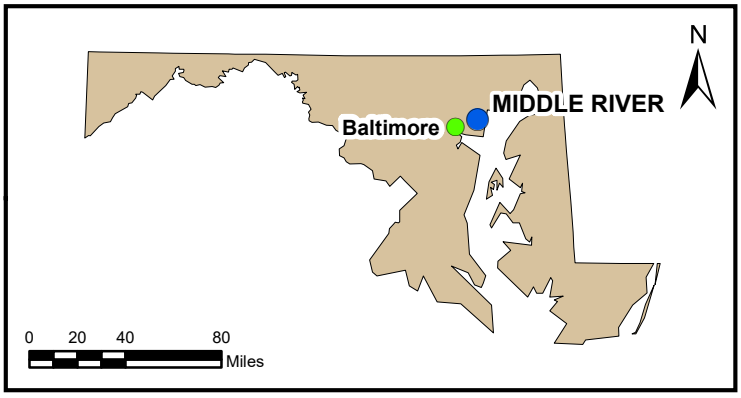


FIGURE 1-1
MARTIN STATE AIRPORT
DUMP ROAD AREA AND FROG MORTAR CREEK LOCATION MAP

Lockheed Martin, Martin State Airport
Middle River, Maryland

DATE MODIFIED:	CREATED BY:
09/10/18	JEE

TETRA TECH

Map Document: (P:\GIS\Lockheed_MSA\MapDocs\MXD\dra_sitemap_dec2015.mxd)
09/10/18 -- JEE

2017 aerial photograph provided by the State of Maryland.

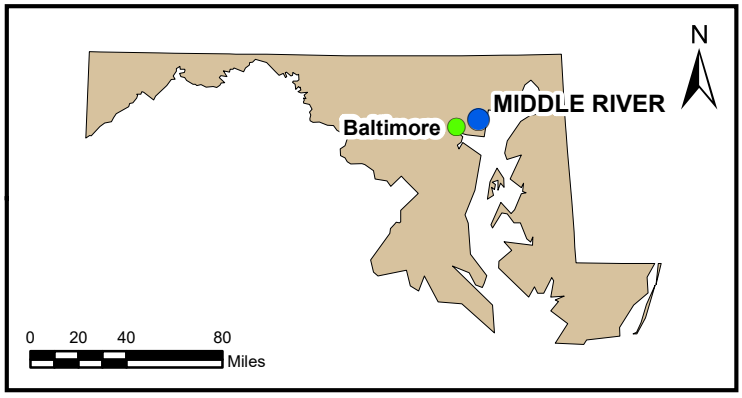


FIGURE 2-1

MARTIN STATE AIRPORT AND SURROUNDING FEATURES

Lockheed Martin, Martin State Airport
Middle River, Maryland

DATE MODIFIED:	CREATED BY:
09/12/18	JEE

TETRA TECH

Map Document: (P:\GIS\Lockheed_MSA\MapDocs\MXD\msa_sitemap_sep2018.mxd)
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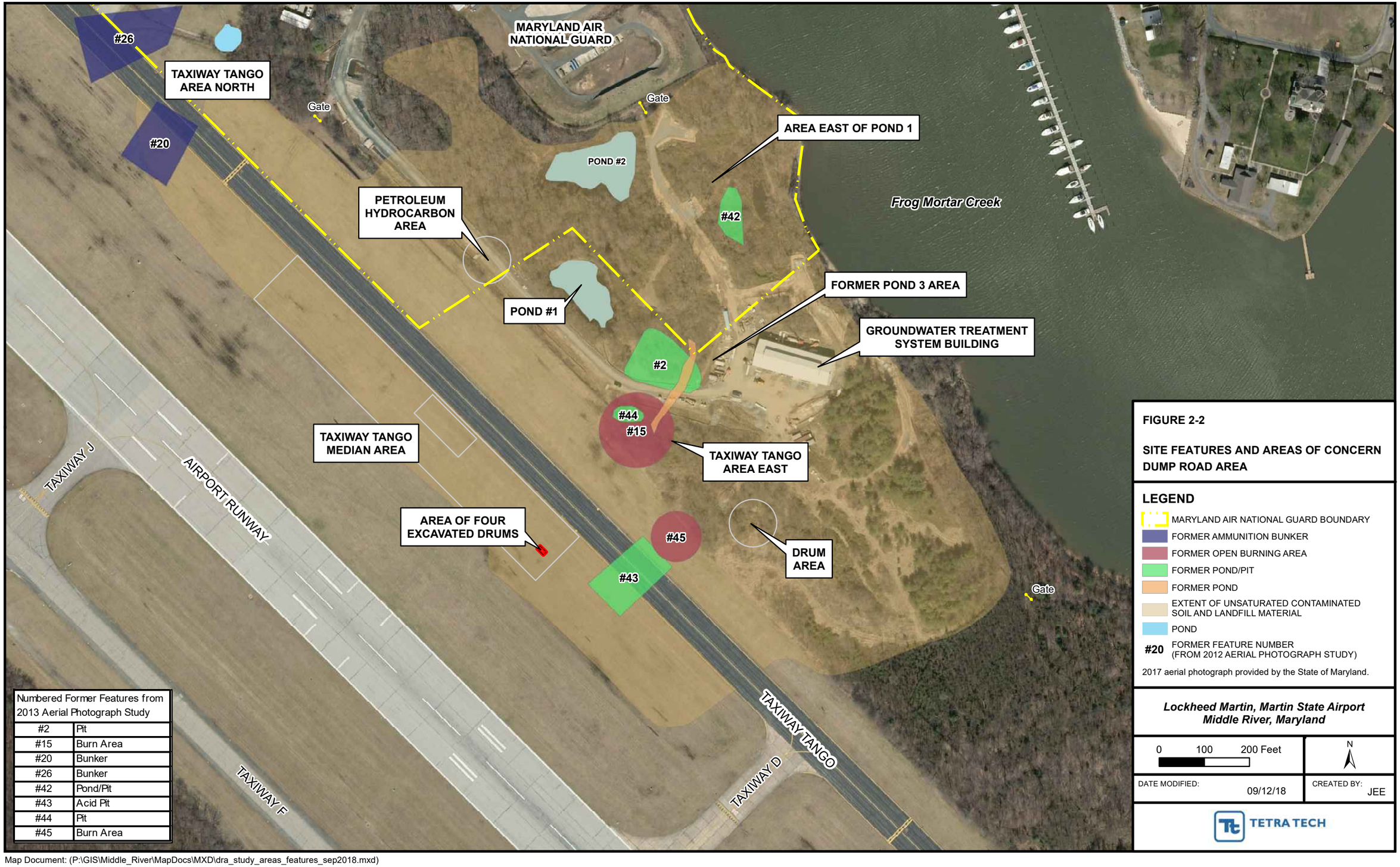


Numbered Former Features from 2013 Aerial Photograph Study	
#2	Pit
#15	Burn Area
#20	Bunker
#26	Bunker
#42	Pond/Pit
#43	Acid Pit
#44	Pit
#45	Burn Area

FIGURE 2-2

SITE FEATURES AND AREAS OF CONCERN
DUMP ROAD AREA

LEGEND

- MARYLAND AIR NATIONAL GUARD BOUNDARY
- FORMER AMMUNITION BUNKER
- FORMER OPEN BURNING AREA
- FORMER POND/PIT
- FORMER POND
- EXTENT OF UNSATURATED CONTAMINATED SOIL AND LANDFILL MATERIAL
- POND
- **#20** FORMER FEATURE NUMBER (FROM 2012 AERIAL PHOTOGRAPH STUDY)

2017 aerial photograph provided by the State of Maryland.

Lockheed Martin, Martin State Airport
Middle River, Maryland

0 100 200 Feet

N

DATE MODIFIED: 09/12/18

CREATED BY: JEE

TETRA TECH

Map Document: (P:\GIS\Middle_River\MapDocs\MXD\dra_study_areas_features_sep2018.mxd)
09/12/18 -- JEE

FIGURE 3-1

SEPTEMBER 2019 SURFACE WATER SAMPLING LOCATIONS FROG MORTAR CREEK

LEGEND

- SURFACE WATER SAMPLING LOCATION
- GROUNDWATER MONITORING WELL
- ABANDONED WELL
- OUTLINE OF FORMER COVE
- MARYLAND AIR NATIONAL GUARD BOUNDARY
- EXTENT OF UNSATURATED CONTAMINATED SOIL AND LANDFILL MATERIAL - DUMP ROAD AREA
- POND

Samples collected September 9, 2019.
2017 aerial photograph provided by the State of Maryland.

Lockheed Martin, Martin State Airport
Middle River, Maryland

0 150 300 Feet

N

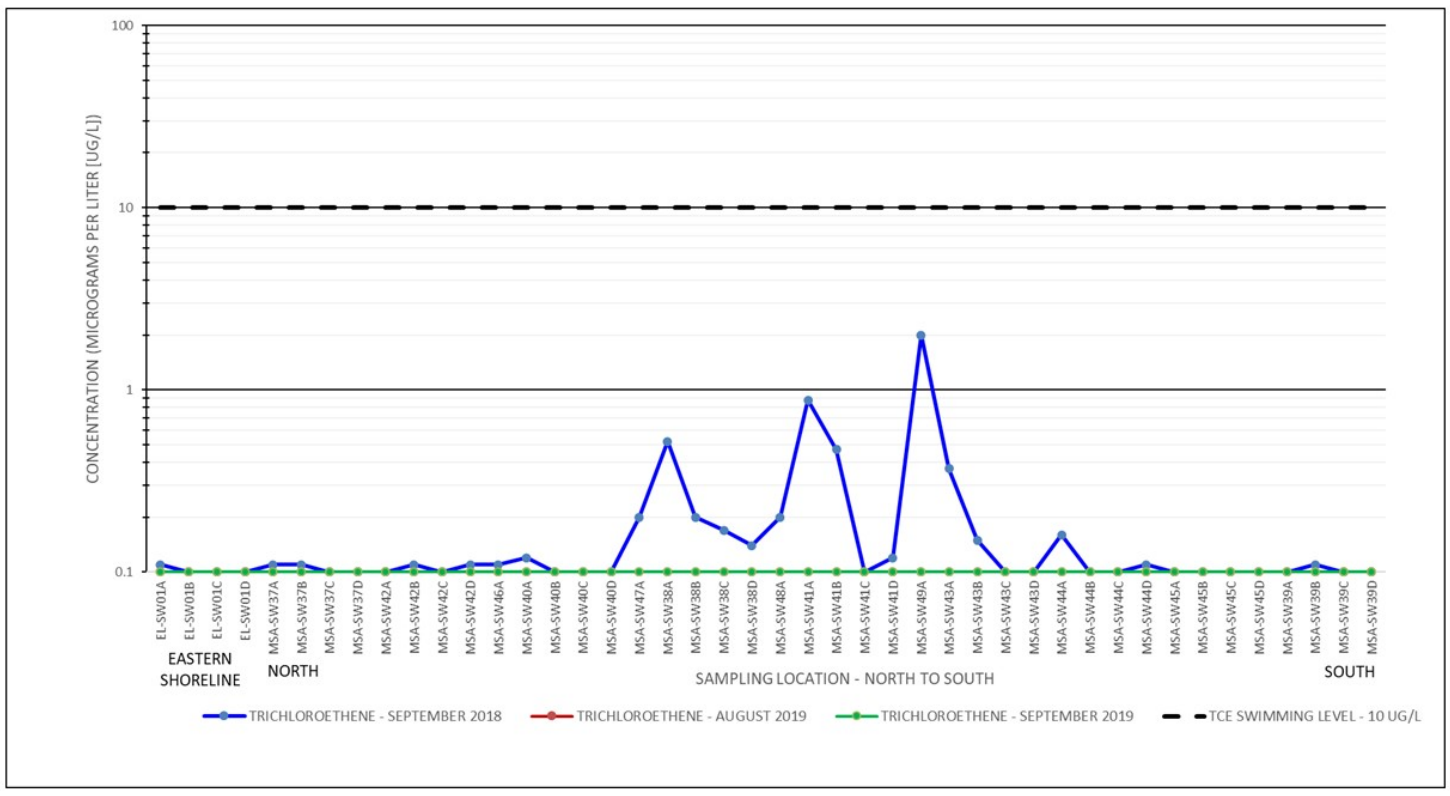
DATE MODIFIED: 01/03/20

CREATED BY: PFO

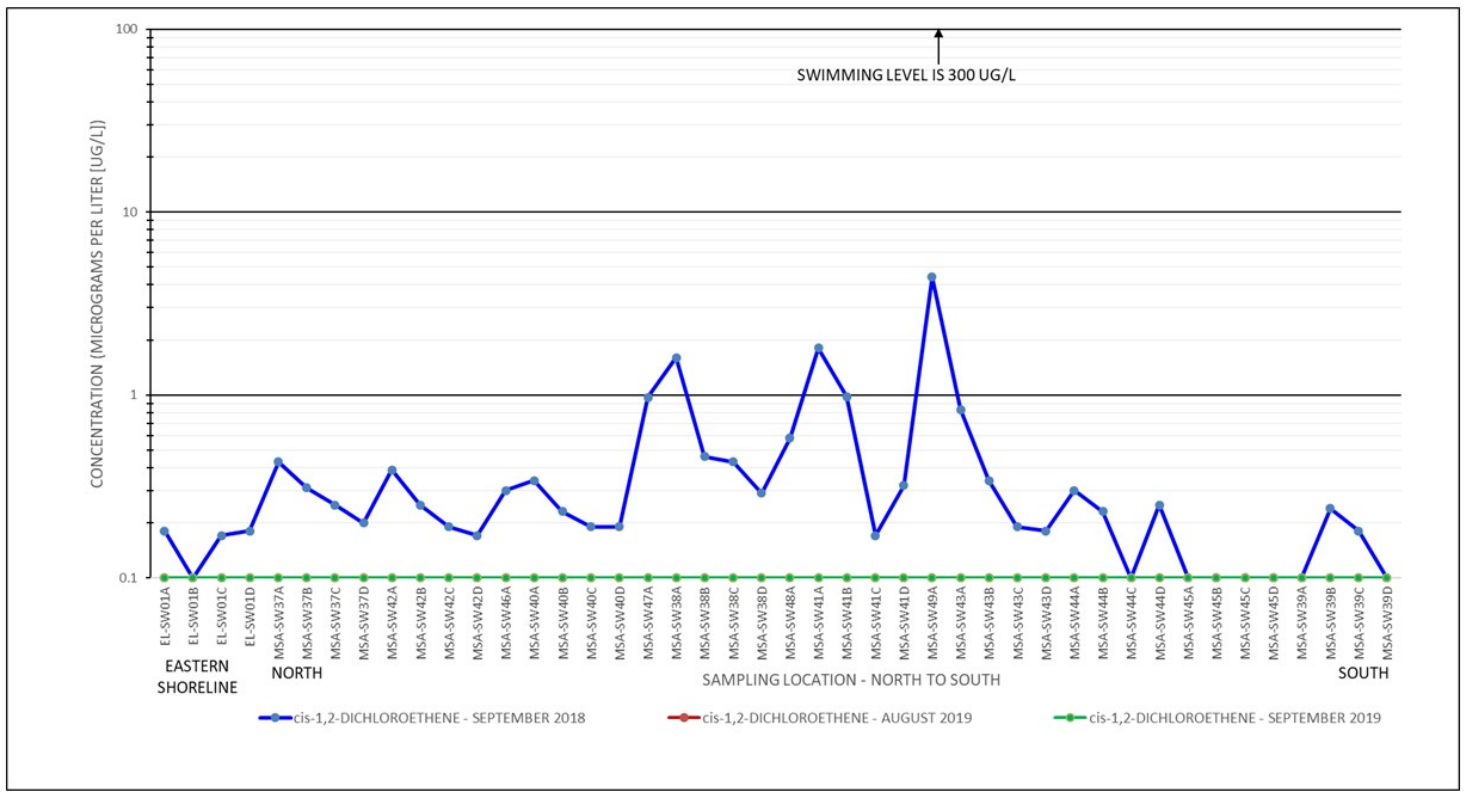
TETRA TECH

Map Document: (P:\GIS\Lockheed_MSA\MapDocs\MXD\fmc_sw_samplocs_jan2020.mxd)
01/03/20 -- PFO

TRICHLOROETHENE



CIS-1,2-DICHLOROETHENE



VINYL CHLORIDE

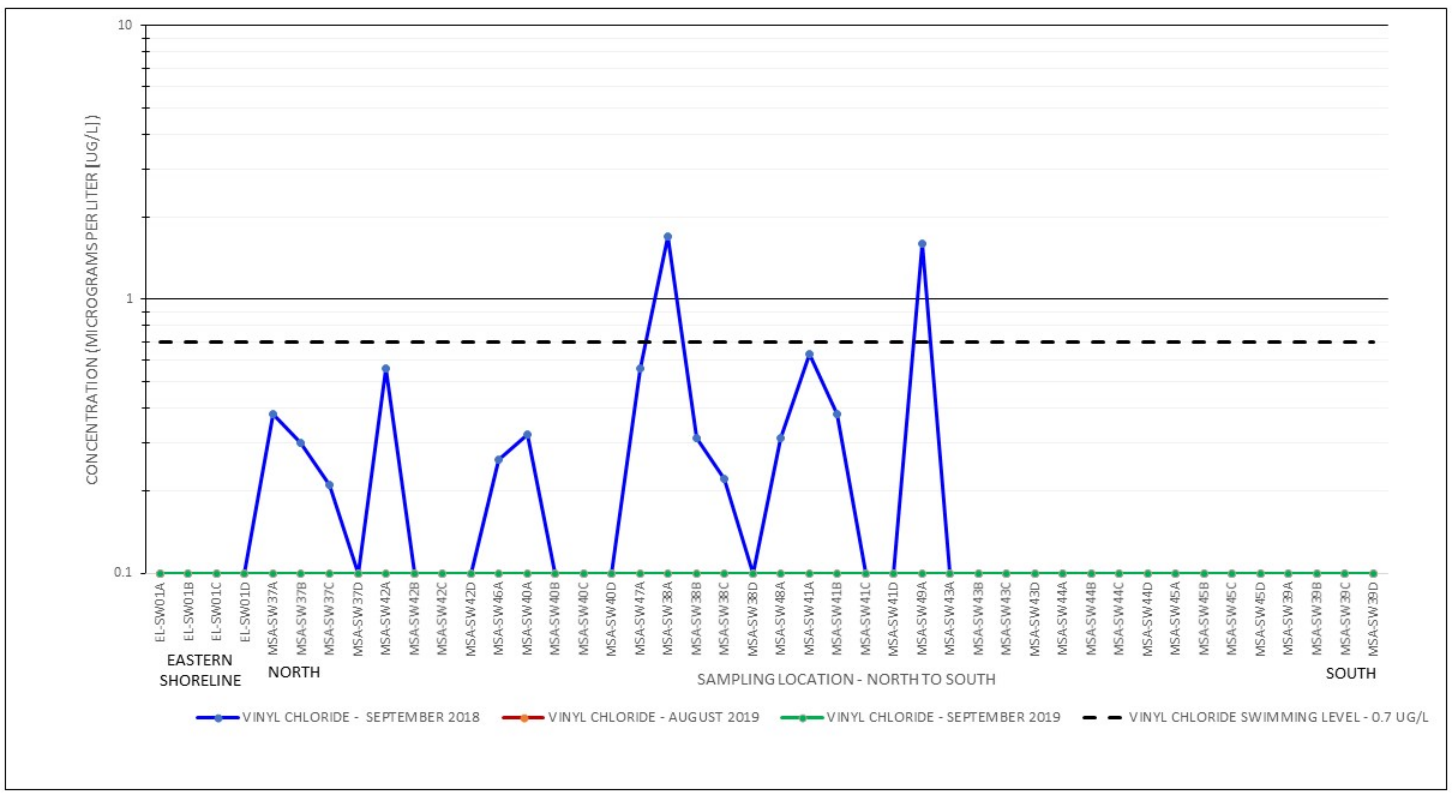


FIGURE 4-1

CONCENTRATIONS OF TRICHLOROETHENE, cis-1,2-DICHLOROETHENE AND VINYL CHLORIDE ALONG SURFACE WATER SAMPLING TRANSECTS FOR SEPTEMBER 2018, AUGUST 2019, AND SEPTEMBER 2019 FROG MORTAR CREEK

Lockheed Martin, Martin State Airport Middle River, Maryland

DATE MODIFIED:	CREATED BY:
1/2/20	JAM

TETRA TECH

TABLES

Table 3-1 List of Samples and Chemical Analyses for Surface Water—September 2019

Table 4-1 Summary of Analytes Detected in Surface Water Samples—September 2019

Table 4-2 Detected Analytes and Screening-Level Exceedances in Surface Water Samples—September 2019

Table 4-3 Comparison of Primary Volatile Organic Compound Results Detected in Surface Water for the September 2018, August 2019, and September 2019 Sampling Rounds

Table 3-1

List of Samples and Chemical Analyses for Surface Water-September 2019
Frog Mortar Creek, Middle River, Maryland

	Analyses Performed[1] (Method)				
	Volatile Organic Compounds[2]	Dissolved Metals	Hexavalent Chromium	Hardness	Dissolved Organic Carbon
Sample Location ID	(USEPA 8260C)	(USEPA 6020/7470A)	(USEPA 218.6)	(SM 2340B)	(USEPA 9060)
MSA-SW37A	X	X	X	X	
MSA-SW37B	X	X	X	X	X
MSA-SW37C	X	X	X	X	
MSA-SW37D	X	X	X	X	
MSA-SW38A	X	X	X	X	
MSA-SW38B	X	X	X	X	X
MSA-SW38C	X	X	X	X	
MSA-SW38D	X	X	X	X	
MSA-SW39A	X	X	X	X	
MSA-SW39B	X	X	X	X	X
MSA-SW39C	X	X	X	X	
MSA-SW39D	X	X	X	X	
MSA-SW40A	X	X	X	X	
MSA-SW40B	X	X	X	X	X
MSA-SW40C	X	X	X	X	
MSA-SW40D	X	X	X	X	
MSA-SW41A	X	X	X	X	
MSA-SW41B	X	X	X	X	X
MSA-SW41C	X	X	X	X	
MSA-SW41D	X	X	X	X	
MSA-SW42A	X	X	X	X	
MSA-SW42B	X	X	X	X	X
MSA-SW42C	X	X	X	X	
MSA-SW42D	X	X	X	X	
MSA-SW43A	X	X	X	X	
MSA-SW43B	X	X	X	X	X
MSA-SW43C	X	X	X	X	
MSA-SW43D	X	X	X	X	
MSA-SW44A	X	X	X	X	
MSA-SW44B	X	X	X	X	X
MSA-SW44C	X	X	X	X	
MSA-SW44D	X	X	X	X	
MSA-SW45A	X	X	X	X	
MSA-SW45B	X	X	X	X	X
MSA-SW45C	X	X	X	X	
MSA-SW45D	X	X	X	X	
MSA-SW46A	X				
MSA-SW47A	X				
MSA-SW48A	X				
MSA-SW49A	X				
EL-SW01A	X				
EL-SW01B	X				
EL-SW01C	X				
EL-SW01D	X				

1 Temperature, pH, specific conductance, salinity, turbidity, dissolved oxygen, and oxidation-reduction potential of each sample was measured and recorded in the field

2 Includes Freon 113 (1,1,2-trichloro-1,2,2-trifluoroethane), Freon 22 (chlorodifluoromethane), and tentatively identified compounds

SM - standard method

Table 4-1

Statistical Summary of Analytes Detected in Surface Water Samples—September 2019
Frog Mortar Creek, Middle River, Maryland

Parameter	September 2019 Frog Mortar Creek Surface Water Samples										
	Frequency of Detection		Minimum concentration (detects)	Maximum concentration (detects)	Sample of Maximum Concentration Detected	Location of Maximum Concentration Detected	Average of Detected Results	Average of All Results	Minimum concentration (nondetects)	Maximum concentration (nondetects)	Standard deviation
	Number	Percent									
Volatile organic compounds (µg/L)											
CARBON DISULFIDE	1/44	2	0.43 J	0.43 J	EL-SW01A-090919	EL-SW01A	0.43	0.14659	0.28	0.28	0.043719145
TERTIARY-BUTYL ALCOHOL	8/44	18	1.7 J	3.3 J	MSA-SW43D-090919	MSA-SW43D	2.3	1.113636	1.7	1.7	0.601969987
Dissolved (filtered) metals (µg/L)											
ANTIMONY	1/36	3	0.61 J	0.61 J	MSA-SW37B-090919	MSA-SW37B	0.61	0.294027	0.57	0.57	0.054166667
ARSENIC	36/36	100	1.3 J	2.5 J	MSA-SW37B,38B,42D-090919	MSA-SW37B,38B,42D	2.055555	2.055555	NULL	NULL	0.280249322
BARIUM	36/36	100	34	37	MSA-SW40AC,42A,44C,45C-090919	MSA-SW40AC,42A,44C,45C	35.416666	35.416666	NULL	NULL	0.906326967
BERYLLIUM	4/36	11	0.36 J	0.89 J	MSA-SW37B-090919	MSA-SW37B	0.61	0.205555	0.31	0.31	0.158338596
CHROMIUM	5/36	14	1.1 J	3.3	MSA-SW41C-090919	MSA-SW41C	1.7	0.658055	0.98	0.98	0.523279873
COBALT	25/36	69	0.19 J	0.32 J	MSA-SW37C,40C-090919	MSA-SW37C,40C	0.2376	0.194027	0.19	0.19	0.074218013
COPPER	36/36	100	3.4	6.2	MSA-SW37C-090919	MSA-SW37C	4.661111	4.661111	NULL	NULL	0.640659383
MERCURY	5/36	14	0.13 J	0.18 J	MSA-SW44A-090919	MSA-SW44A	0.148	0.076527	0.13	0.13	0.029924177
MOLYBDENUM	36/36	100	1.1 J	2 J	MSA-SW37B-090919	MSA-SW37B	1.219444	1.219444	NULL	NULL	0.192456963
NICKEL	36/36	100	1.9 J	2.8	MSA-SW44A-090919	MSA-SW44A	2.083333	2.083333	NULL	NULL	0.152127766
SELENIUM	2/36	6	1 J	1.2 J	MSA-SW37A-090919	MSA-SW37A	1.1	0.481388	0.89	0.89	0.154029733
THALLIUM	2/36	6	0.39 J	0.44 J	MSA-SW37B-090919	MSA-SW37B	0.415	0.1175	0.2	0.2	0.073421484
Miscellaneous parameters (mg/L)											
CALCIUM HARDNESS as $CaCO_3$	36/36	100	74	82	MSA-SW45C-090919	MSA-SW45C	77.555555	77.555555	NULL	NULL	1.811778045
DISSOLVED ORGANIC CARBON	9/9	100	2.2	2.5	MSA-SW42B-090919	MSA-SW42B	2.333333	2.333333	NULL	NULL	0.08660254
HARDNESS as $CaCO_3$	36/36	100	430	470	MSA-SW39B-090919, MSA-SW45C-090919	MSA-SW39B, MSA-SW45C	445.555555	445.555555	NULL	NULL	10.2662956
MAGNESIUM HARDNESS as $CaCO_3$	36/36	100	360	390	MSA-SW39B-090919, MSA-SW45C-090919	MSA-SW39B, MSA-SW45C	368.333333	368.333333	NULL	NULL	8.451542547

All samples were collected on September 9, 2019.
For non-detects, 1/2 sample quantitation limit was used as a proxy concentration when perfoming calculations.
1/2 the detection limit was used for B qualified data.
J - estimated value
µg/L - micrograms per liter
mg/L - milligrams per liter

Table 4-2

Detected Analytes and Screening-Level Exceedances in Surface Water Samples—September 2019
Frog Mortar Creek, Middle River, Maryland

LOCATION SAMPLE ID SAMPLE DATE	National Recommended Water Quality Criteria[1]		Ecological Surface Water Screening Level[2]	Human Health Consumption of Organism Only[1][3]	Swimming Screening Levels[4]	EL-SW01A EL-SW01A-090919 20190909	EL-SW01B EL-SW01B-090919 20190909	EL-SW01C EL-SW01C-090919 20190909	EL-SW01D EL-SW01D-090919 20190909	MSA-SW37A MSA-SW37A-090919 20190909	MSA-SW37B MSA-SW37B-090919 20190909	MSA-SW37C MSA-SW37C-090919 20190909
	Acute	Chronic										
Volatile organic compounds (µg/L)												
CARBON DISULFIDE	NA	NA	0.92	NA	NA	0.43 J	--	--	--	--	--	--
TERTIARY-BUTYL ALCOHOL	NA	NA	NA	NA	NA	--	--	--	--	--	--	--
Dissolved (filtered) metals (µg/L)												
ANTIMONY	NA	NA	30	640	NA	NA	NA	NA	NA	--	0.61 J	--
ARSENIC	340	150	NA	0.14	NA	NA	NA	NA	NA	2.3 J	2.5 J	2.3 J
BARIUM	NA	NA	4	NA	NA	NA	NA	NA	NA	35	35	34
BERYLLIUM	NA	NA	0.66	NA	NA	NA	NA	NA	NA	0.59 J	0.89 J	0.36 J
CHROMIUM[5]	569.76	74.11	74.11	NA	NA	NA	NA	NA	NA	--	--	--
COBALT	NA	NA	23	NA	NA	NA	NA	NA	NA	0.3 J	0.28 J	0.32 J
COPPER[6]	12.46	7.74	7.74	NA	NA	NA	NA	NA	NA	5.2	6.1	6.2
MERCURY	1.4	0.77	0.026	NA	NA	NA	NA	NA	NA	--	--	--
MOLYBDENUM	NA	NA	NA	NA	NA	NA	NA	NA	NA	1.9 J	2 J	1.4 J
NICKEL[5]	375.35	41.69	41.69	4600	NA	NA	NA	NA	NA	2.1	2.2	2.1
SELENIUM	NA	5	1	4200	NA	NA	NA	NA	NA	1.2 J	1 J	--
THALLIUM	NA	NA	0.8	0.47	NA	NA	NA	NA	NA	0.39 J	0.44 J	--
Miscellaneous parameters (mg/L)												
CALCIUM HARDNESS as $CaCO_3$	NA	NA	NA	NA	NA	NA	NA	NA	NA	77	77	76
DISSOLVED ORGANIC CARBON	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	2.4	NA
HARDNESS as $CaCO_3$	NA	NA	NA	NA	NA	NA	NA	NA	NA	440	440	430
MAGNESIUM HARDNESS as $CaCO_3$	NA	NA	NA	NA	NA	NA	NA	NA	NA	360	360	360

-- No detection or not sampled
All samples were collected on September 9, 2019
For non-detects, 1/2 sample quantitation limit was used as proxy.
1/2 the detection limit was used to calculate statistics for B qualified data.
J - estimated value
µg/L - micrograms per liter
mg/L - milligrams per liter

Table 4-2

Detected Analytes and Screening-Level Exceedances in Surface Water Samples—September 2019
Frog Mortar Creek, Middle River, Maryland

LOCATION SAMPLE ID SAMPLE DATE	National Recommended Water Quality Criteria[1]		Ecological Surface Water Screening Level[2]	Human Health Consumption of Organism Only[1][3]	Swimming Screening Levels[4]	MSA-SW37D MSA-SW37D-090919 20190909	MSA-SW38A MSA-SW38A-090919 20190909	MSA-SW38B MSA-SW38B-090919 20190909	MSA-SW38C MSA-SW38C-090919 20190909	MSA-SW38D MSA-SW38D-090919 20190909	MSA-SW39A MSA-SW39A-090919 20190909	MSA-SW39B MSA-SW39B-090919 20190909
	Acute	Chronic										
Volatile organic compounds (µg/L)												
CARBON DISULFIDE	NA	NA	0.92	NA	NA	--	--	--	--	--	--	--
TERTIARY-BUTYL ALCOHOL	NA	NA	NA	NA	NA	--	--	2.1 J	--	--	2.7 J	--
Dissolved (filtered) metals (µg/L)												
ANTIMONY	NA	NA	30	640	NA	--	--	--	--	--	--	--
ARSENIC	340	150	NA	0.14	NA	1.9 J	1.7 J	2.5 J	2 J	1.8 J	1.9 J	1.3 J
BARIUM	NA	NA	4	NA	NA	35	35	35	35	35	35	36
BERYLLIUM	NA	NA	0.66	NA	NA	--	--	--	--	--	--	--
CHROMIUM[5]	569.76	74.11	74.11	NA	NA	--	--	--	--	--	--	--
COBALT	NA	NA	23	NA	NA	0.26 J	0.24 J	0.23 J	0.23 J	0.21 J	--	--
COPPER[6]	12.46	7.74	7.74	NA	NA	5.9	3.9	4.6	4.2	4.2	3.4	3.7
MERCURY	1.4	0.77	0.026	NA	NA	--	--	--	--	--	--	--
MOLYBDENUM	NA	NA	NA	NA	NA	1.3 J	1.1 J	1.2 J	1.2 J	1.2 J	1.1 J	1.2 J
NICKEL[5]	375.35	41.69	41.69	4600	NA	1.9 J	2	2.1	2	2	2	2
SELENIUM	NA	5	1	4200	NA	--	--	--	--	--	--	--
THALLIUM	NA	NA	0.8	0.47	NA	--	--	--	--	--	--	--
Miscellaneous parameters (mg/L)												
CALCIUM HARDNESS as $CaCO_3$	NA	NA	NA	NA	NA	78	76	76	76	75	77	81
DISSOLVED ORGANIC CARBON	NA	NA	NA	NA	NA	NA	NA	2.3	NA	NA	NA	2.2
HARDNESS as $CaCO_3$	NA	NA	NA	NA	NA	440	440	440	440	430	450	470
MAGNESIUM HARDNESS as $CaCO_3$	NA	NA	NA	NA	NA	370	360	360	360	360	370	390

-- No detection or not sampled
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1/2 the detection limit was used to calculate statistics for B qualified data.
J - estimated value
µg/L - micrograms per liter
mg/L - milligrams per liter

Table 4-2

Detected Analytes and Screening-Level Exceedances in Surface Water Samples—September 2019
Frog Mortar Creek, Middle River, Maryland

LOCATION SAMPLE ID SAMPLE DATE	National Recommended Water Quality Criteria[1]		Ecological Surface Water Screening Level[2]	Human Health Consumption of Organism Only[1][3]	Swimming Screening Levels[4]	MSA-SW39C MSA-SW39C-090919 20190909	MSA-SW39D MSA-SW39D-090919 20190909	MSA-SW40A MSA-SW40A-090919 20190909	MSA-SW40B MSA-SW40B-090919 20190909	MSA-SW40C MSA-SW40C-090919 20190909	MSA-SW40D MSA-SW40D-090919 20190909	MSA-SW41A MSA-SW41A-090919 20190909
	Acute	Chronic										
Volatile organic compounds (µg/L)												
CARBON DISULFIDE	NA	NA	0.92	NA	NA	--	--	--	--	--	--	--
TERTIARY-BUTYL ALCOHOL	NA	NA	NA	NA	NA	--	--	--	--	--	--	--
Dissolved (filtered) metals (µg/L)												
ANTIMONY	NA	NA	30	640	NA	--	--	--	--	--	--	--
ARSENIC	340	150	NA	0.14	NA	1.7 J	2 J	2.1 J	1.9 J	2.2 J	2.4 J	1.5 J
BARIUM	NA	NA	4	NA	NA	36	34	37	36	37	34	35
BERYLLIUM	NA	NA	0.66	NA	NA	--	--	--	--	--	--	--
CHROMIUM[5]	569.76	74.11	74.11	NA	NA	--	--	--	--	--	--	--
COBALT	NA	NA	23	NA	NA	--	--	0.27 J	0.26 J	0.32 J	0.24 J	0.2 J
COPPER[6]	12.46	7.74	7.74	NA	NA	3.9	4.6	4.3	4.7	4.6	4.2	4.2
MERCURY	1.4	0.77	0.026	NA	NA	--	--	--	--	--	--	--
MOLYBDENUM	NA	NA	NA	NA	NA	1.2 J	1.1 J	1.2 J	1.2 J	1.2 J	1.1 J	1.1 J
NICKEL[5]	375.35	41.69	41.69	4600	NA	2.3	1.9 J	2	2.2	2	2	2
SELENIUM	NA	5	1	4200	NA	--	--	--	--	--	--	--
THALLIUM	NA	NA	0.8	0.47	NA	--	--	--	--	--	--	--
Miscellaneous parameters (mg/L)												
CALCIUM HARDNESS as $CaCO_3$	NA	NA	NA	NA	NA	81	77	78	78	77	74	76
DISSOLVED ORGANIC CARBON	NA	NA	NA	NA	NA	NA	NA	NA	2.3	NA	NA	NA
HARDNESS as $CaCO_3$	NA	NA	NA	NA	NA	460	450	450	450	440	430	440
MAGNESIUM HARDNESS as $CaCO_3$	NA	NA	NA	NA	NA	380	370	370	370	370	360	360

-- No detection or not sampled
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1/2 the detection limit was used to calculate statistics for B qualified data.
J - estimated value
µg/L - micrograms per liter
mg/L - milligrams per liter

Table 4-2

Detected Analytes and Screening-Level Exceedances in Surface Water Samples—September 2019
Frog Mortar Creek, Middle River, Maryland

LOCATION SAMPLE ID SAMPLE DATE	National Recommended Water Quality Criteria[1]		Ecological Surface Water Screening Level[2]	Human Health Consumption of Organism Only[1][3]	Swimming Screening Levels[4]	MSA-SW41B MSA-SW41B-090919 20190909	MSA-SW41C MSA-SW41C-090919 20190909	MSA-SW41D MSA-SW41D-090919 20190909	MSA-SW42A MSA-SW42A-090919 20190909	MSA-SW42B MSA-SW42B-090919 20190909	MSA-SW42C MSA-SW42C-090919 20190909	MSA-SW42D MSA-SW42D-090919 20190909
	Acute	Chronic										
Volatile organic compounds (µg/L)												
CARBON DISULFIDE	NA	NA	0.92	NA	NA	--	--	--	--	--	--	--
TERTIARY-BUTYL ALCOHOL	NA	NA	NA	NA	NA	--	--	--	--	--	--	--
Dissolved (filtered) metals (µg/L)												
ANTIMONY	NA	NA	30	640	NA	--	--	--	--	--	--	--
ARSENIC	340	150	NA	0.14	NA	1.9 J	2 J	1.9 J	2.4 J	2.4 J	2 J	2.5 J
BARIUM	NA	NA	4	NA	NA	35	35	36	37	36	35	35
BERYLLIUM	NA	NA	0.66	NA	NA	--	--	--	0.6 J	--	--	--
CHROMIUM[5]	569.76	74.11	74.11	NA	NA	--	3.3	--	--	--	1.1 J	--
COBALT	NA	NA	23	NA	NA	0.21 J	0.21 J	0.21 J	0.27 J	0.26 J	0.23 J	0.22 J
COPPER[6]	12.46	7.74	7.74	NA	NA	4.2	4.6	4.3	4.1	5	5.6	5.4
MERCURY	1.4	0.77	0.026	NA	NA	--	--	--	--	--	--	--
MOLYBDENUM	NA	NA	NA	NA	NA	1.2 J	1.2 J	1.2 J	1.2 J	1.2 J	1.1 J	1.1 J
NICKEL[5]	375.35	41.69	41.69	4600	NA	2.1	2.2	2	2	2.1	2.1	2.2
SELENIUM	NA	5	1	4200	NA	--	--	--	--	--	--	--
THALLIUM	NA	NA	0.8	0.47	NA	--	--	--	--	--	--	--
Miscellaneous parameters (mg/L)												
CALCIUM HARDNESS as $CaCO_3$	NA	NA	NA	NA	NA	78	77	77	78	78	76	76
DISSOLVED ORGANIC CARBON	NA	NA	NA	NA	NA	2.3	NA	NA	NA	2.5	NA	NA
HARDNESS as $CaCO_3$	NA	NA	NA	NA	NA	440	450	450	450	440	430	440
MAGNESIUM HARDNESS as $CaCO_3$	NA	NA	NA	NA	NA	360	370	370	370	370	360	360

-- No detection or not sampled
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1/2 the detection limit was used to calculate statistics for B qualified data.
J - estimated value
µg/L - micrograms per liter
mg/L - milligrams per liter

Table 4-2

Detected Analytes and Screening-Level Exceedances in Surface Water Samples—September 2019
Frog Mortar Creek, Middle River, Maryland

LOCATION SAMPLE ID SAMPLE DATE	National Recommended Water Quality Criteria[1]		Ecological Surface Water Screening Level[2]	Human Health Consumption of Organism Only[1][3]	Swimming Screening Levels[4]	MSA-SW43A MSA-SW43A-090919 20190909	MSA-SW43B MSA-SW43B-090919 20190909	MSA-SW43C MSA-SW43C-090919 20190909	MSA-SW43D MSA-SW43D-090919 20190909	MSA-SW44A MSA-SW44A-090919 20190909	MSA-SW44B MSA-SW44B-090919 20190909	MSA-SW44C MSA-SW44C-090919 20190909
	Acute	Chronic										
Volatile organic compounds (µg/L)												
CARBON DISULFIDE	NA	NA	0.92	NA	NA	--	--	--	--	--	--	--
TERTIARY-BUTYL ALCOHOL	NA	NA	NA	NA	NA	2.3 J	--	--	3.3 J	--	1.8 J	--
Dissolved (filtered) metals (µg/L)												
ANTIMONY	NA	NA	30	640	NA	--	--	--	--	--	--	--
ARSENIC	340	150	NA	0.14	NA	2 J	2.3 J	2.3 J	2.4 J	1.9 J	2 J	2 J
BARIUM	NA	NA	4	NA	NA	35	36	35	35	36	36	37
BERYLLIUM	NA	NA	0.66	NA	NA	--	--	--	--	--	--	--
CHROMIUM[5]	569.76	74.11	74.11	NA	NA	--	--	1.3 J	--	1.3 J	1.5 J	--
COBALT	NA	NA	23	NA	NA	0.19 J	0.2 J	--	0.19 J	0.2 J	--	--
COPPER[6]	12.46	7.74	7.74	NA	NA	4.4	4.5	4.7	4.7	4.9	4.8	4.9
MERCURY	1.4	0.77	0.026	NA	NA	--	--	0.15 J	0.15 J	0.18 J	0.13 J	0.13 J
MOLYBDENUM	NA	NA	NA	NA	NA	1.2 J	1.1 J	1.2 J	1.1 J	1.3 J	1.2 J	1.2 J
NICKEL[5]	375.35	41.69	41.69	4600	NA	2.1	2	2.1	2	2.8	2.1	2.1
SELENIUM	NA	5	1	4200	NA	--	--	--	--	--	--	--
THALLIUM	NA	NA	0.8	0.47	NA	--	--	--	--	--	--	--
Miscellaneous parameters (mg/L)												
CALCIUM HARDNESS as $CaCO_3$	NA	NA	NA	NA	NA	76	78	78	77	79	78	80
DISSOLVED ORGANIC CARBON	NA	NA	NA	NA	NA	NA	2.3	NA	NA	NA	2.3	NA
HARDNESS as $CaCO_3$	NA	NA	NA	NA	NA	440	450	450	440	460	440	450
MAGNESIUM HARDNESS as $CaCO_3$	NA	NA	NA	NA	NA	360	370	370	360	380	370	370

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J - estimated value
µg/L - micrograms per liter
mg/L - milligrams per liter

Table 4-2

Detected Analytes and Screening-Level Exceedances in Surface Water Samples—September 2019
Frog Mortar Creek, Middle River, Maryland

LOCATION SAMPLE ID SAMPLE DATE	National Recommended Water Quality Criteria[1]		Ecological Surface Water Screening Level[2]	Human Health Consumption of Organism Only[1][3]	Swimming Screening Levels[4]	MSA-SW44D MSA-SW44D-090919 20190909	MSA-SW45A MSA-SW45A-090919 20190909	MSA-SW45B MSA-SW45B-090919 20190909	MSA-SW45C MSA-SW45C-090919 20190909	MSA-SW45D MSA-SW45D-090919 20190909	MSA-SW46A MSA-SW46A-090919 20190909	MSA-SW47A MSA-SW47A-090919 20190909
	Acute	Chronic										
Volatile organic compounds (µg/L)												
CARBON DISULFIDE	NA	NA	0.92	NA	NA	--	--	--	--	--	--	--
TERTIARY-BUTYL ALCOHOL	NA	NA	NA	NA	NA	1.7 J	--	2.3 J	--	--	--	--
Dissolved (filtered) metals (µg/L)												
ANTIMONY	NA	NA	30	640	NA	--	--	--	--	--	NA	NA
ARSENIC	340	150	NA	0.14	NA	1.9 J	2 J	2.1 J	1.9 J	2.1 J	NA	NA
BARIUM	NA	NA	4	NA	NA	36	34	34	37	36	NA	NA
BERYLLIUM	NA	NA	0.66	NA	NA	--	--	--	--	--	NA	NA
CHROMIUM[5]	569.76	74.11	74.11	NA	NA	--	--	--	--	--	NA	NA
COBALT	NA	NA	23	NA	NA	--	--	0.19 J	--	--	NA	NA
COPPER[6]	12.46	7.74	7.74	NA	NA	4.9	3.9	4.9	5	5.1	NA	NA
MERCURY	1.4	0.77	0.026	NA	NA	--	--	--	--	--	NA	NA
MOLYBDENUM	NA	NA	NA	NA	NA	1.2 J	1.1 J	1.1 J	1.2 J	1.1 J	NA	NA
NICKEL[5]	375.35	41.69	41.69	4600	NA	2.1	1.9 J	2.1	2.1	2.1	NA	NA
SELENIUM	NA	5	1	4200	NA	--	--	--	--	--	NA	NA
THALLIUM	NA	NA	0.8	0.47	NA	--	--	--	--	--	NA	NA
Miscellaneous parameters (mg/L)												
CALCIUM HARDNESS as $CaCO_3$	NA	NA	NA	NA	NA	80	77	76	82	81	NA	NA
DISSOLVED ORGANIC CARBON	NA	NA	NA	NA	NA	NA	NA	2.4	NA	NA	NA	NA
HARDNESS as $CaCO_3$	NA	NA	NA	NA	NA	460	440	440	470	460	NA	NA
MAGNESIUM HARDNESS as $CaCO_3$	NA	NA	NA	NA	NA	380	370	370	390	380	NA	NA

-- No detection or not sampled
All samples were collected on September 9, 2019
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1/2 the detection limit was used to calculate statistics for B qualified data.
J - estimated value
µg/L - micrograms per liter
mg/L - milligrams per liter

Table 4-2

Detected Analytes and Screening-Level Exceedances in Surface Water Samples—September 2019
Frog Mortar Creek, Middle River, Maryland

LOCATION SAMPLE ID SAMPLE DATE	National Recommended Water Quality Criteria[1]		Ecological Surface Water Screening Level[2]	Human Health Consumption of Organism Only[1][3]	Swimming Screening Levels[4]	MSA-SW48A MSA-SW48A-090919 20190909	MSA-SW49A MSA-SW49A-090919 20190909	QC TB-090919 20190909
	Acute	Chronic						
Volatile organic compounds (µg/L)								
CARBON DISULFIDE	NA	NA	0.92	NA	NA	--	--	--
TERTIARY-BUTYL ALCOHOL	NA	NA	NA	NA	NA	--	2.2 J	--
Dissolved (filtered) metals (µg/L)								
ANTIMONY	NA	NA	30	640	NA	NA	NA	NA
ARSENIC	340	150	NA	0.14	NA	NA	NA	NA
BARIUM	NA	NA	4	NA	NA	NA	NA	NA
BERYLLIUM	NA	NA	0.66	NA	NA	NA	NA	NA
CHROMIUM[5]	569.76	74.11	74.11	NA	NA	NA	NA	NA
COBALT	NA	NA	23	NA	NA	NA	NA	NA
COPPER[6]	12.46	7.74	7.74	NA	NA	NA	NA	NA
MERCURY	1.4	0.77	0.026	NA	NA	NA	NA	NA
MOLYBDENUM	NA	NA	NA	NA	NA	NA	NA	NA
NICKEL[5]	375.35	41.69	41.69	4600	NA	NA	NA	NA
SELENIUM	NA	5	1	4200	NA	NA	NA	NA
THALLIUM	NA	NA	0.8	0.47	NA	NA	NA	NA
Miscellaneous parameters (mg/L)								
CALCIUM HARDNESS as $CaCO_3$	NA	NA	NA	NA	NA	NA	NA	NA
DISSOLVED ORGANIC CARBON	NA	NA	NA	NA	NA	NA	NA	NA
HARDNESS as $CaCO_3$	NA	NA	NA	NA	NA	NA	NA	NA
MAGNESIUM HARDNESS as $CaCO_3$	NA	NA	NA	NA	NA	NA	NA	NA

-- No detection or not sampled
All samples were collected on September 9, 2019
For non-detects, 1/2 sample quantitation limit was used as proxy.
1/2 the detection limit was used to calculate statistics for B qualified data.
J - estimated value
µg/L - micrograms per liter
mg/L - milligrams per liter

Table 4-3

Comparison of Primary Volatile Organic Compound Results Detected in Surface Water for the September 2018, August 2019, and September 2019 Sampling Rounds
Frog Mortar Creek, Middle River, Maryland

Location ID	Trichloroethene concentrations (µg/L)			*cis* -1,2-Dichloroethene concentrations (µg/L)			Vinyl chloride concentrations (µg/L)		
	Sep 5, 2018	Aug 8, 2019	Sep 9, 2019	Sep 5, 2018	Aug 8, 2019	Sep 9, 2019	Sep 5, 2018	Aug 8, 2019	Sep 9, 2019
Average-Detections	**0.2825**	**NA**	**NA**	**0.5197**	**NA**	**NA**	**0.5529**	**NA**	**NA**
Average-All Samples[(1)]	**0.1768**	**0.05**	**0.05**	**0.4397**	**0.08**	**0.08**	**0.2441**	**0.1**	**0.1**
Maximum Concentration	**2**	**NA**	**NA**	**4.4**	**NA**	**NA**	**1.7**	**NA**	**NA**
No. of Detections/Samples	**24/44**	**0/44**	**0/44**	**36/44**	**0/44**	**0/44**	**14/44**	**0/44**	**0/44**
EL-SW01A	0.11 J	--	--	0.18 J	--	--	--	--	--
EL-SW01B	--	--	--	--	--	--	--	--	--
EL-SW01C	--	--	--	0.17 J	--	--	--	--	--
EL-SW01D	--	--	--	0.18 J	--	--	--	--	--
MSA-SW37A	0.11 J	--	--	0.43 J	--	--	0.38 J	--	--
MSA-SW37B	0.11 J	--	--	0.31 J	--	--	0.3 J	--	--
MSA-SW37C	--	--	--	0.25 J	--	--	0.21 J	--	--
MSA-SW37D	--	--	--	0.2 J	--	--	--	--	--
MSA-SW38A	0.52 J	--	--	1.6	--	--	1.7	--	--
MSA-SW38B	0.2 J	--	--	0.46 J	--	--	0.31 J	--	--
MSA-SW38C	0.17 J	--	--	0.43 J	--	--	0.22 J	--	--
MSA-SW38D	0.14 J	--	--	0.29 J	--	--	--	--	--
MSA-SW39A	--	--	--	--	--	--	--	--	--
MSA-SW39B	0.11 J	--	--	0.24 J	--	--	--	--	--
MSA-SW39C	--	--	--	0.18 J	--	--	--	--	--
MSA-SW39D	--	--	--	--	--	--	--	--	--
MSA-SW40A	0.12 J	--	--	0.34 J	--	--	0.32 J	--	--
MSA-SW40B	--	--	--	0.23 J	--	--	--	--	--
MSA-SW40C	--	--	--	0.19 J	--	--	--	--	--
MSA-SW40D	--	--	--	0.19 J	--	--	--	--	--
MSA-SW41A	0.88 J	--	--	1.8	--	--	0.63	--	--
MSA-SW41B	0.47 J	--	--	0.98 J	--	--	0.38 J	--	--
MSA-SW41C	--	--	--	0.17 J	--	--	--	--	--
MSA-SW41D	0.12 J	--	--	0.32 J	--	--	--	--	--
MSA-SW42A	--	--	--	0.39 J	--	--	0.56	--	--
MSA-SW42B	0.11 J	--	--	0.25 J	--	--	--	--	--
MSA-SW42C	--	--	--	0.19 J	--	--	--	--	--
MSA-SW42D	0.11 J	--	--	0.17 J	--	--	--	--	--
MSA-SW43A	0.37 J	--	--	0.83 J	--	--	--	--	--
MSA-SW43B	0.15 J	--	--	0.34 J	--	--	--	--	--
MSA-SW43C	0.1 J	--	--	0.19 J	--	--	--	--	--
MSA-SW43D	0.1 J	--	--	0.18 J	--	--	--	--	--
MSA-SW44A	0.16 J	--	--	0.3 J	--	--	--	--	--
MSA-SW44B	--	--	--	0.23 J	--	--	--	--	--
MSA-SW44C	--	--	--	--	--	--	--	--	--
MSA-SW44D	0.11 J	--	--	0.25 J	--	--	--	--	--
MSA-SW45A	--	--	--	--	--	--	--	--	--
MSA-SW45B	--	--	--	--	--	--	--	--	--
MSA-SW45C	--	--	--	--	--	--	--	--	--
MSA-SW45D	--	--	--	--	--	--	--	--	--
MSA-SW46A	0.11 J	--	--	0.3 J	--	--	0.26 J	--	--
MSA-SW47A	0.2 J	--	--	0.97 J	--	--	0.56	--	--
MSA-SW48A	0.2 J	--	--	0.58 J	--	--	0.31 J	--	--
MSA-SW49A	2	--	--	4.4	--	--	1.6	--	--

Averages were calculated using 1/2 sample quantitation limit (nondetects) and 1/2 the detection limit (B-qualified data).

APPENDICES

Appendix A—Field Measurements for Water Quality and Surface-Water-Sample Log Sheets

Appendix B—Data-Validation Reports

Appendix C—Chemical-Results Data Table

Appendix D—Biotic Ligand Model Calculations and EPA 2007 BLM Fact Sheet

APPENDIX A—FIELD MEASUREMENTS FOR WATER QUALITY AND SURFACE-WATER-SAMPLE LOG SHEETS

Water Quality Field Parameters-September 2019
Frog Mortar Creek
Lockheed Martin, Martin State Airport, Middle River Maryland

Sample ID		Date	Time	pH	Specific conductance (S.C.)	Temperature (Temp.)	Turbidity	Dissolved oxygen (DO)	Salinity	Oxidation-reduction potential (ORP)	Water Depth
Location	Date ID	mo/day/year	24-hour units	Standard unit (S.U.)	MilliSiemens per centimeter (mS/cm)	Degrees Celsius (°C)	Nephelometric turbidity unit (NTU)	Milligrams per liter (mg/L)	Parts per thousand (ppt)	MilliVolts (mV)	Meters
EL-SW01A	-090919	9/9/2019	0951	5.33	4.83	25.1	6.08	12.59	2.6	197	0.34
EL-SW01B	-090919	9/9/2019	1000	5.67	4.87	24.9	4.60	9.15	2.6	183	0.84
EL-SW01C	-090919	9/9/2019	1004	5.36	4.92	24.8	5.11	8.80	2.6	179	1.21
EL-SW01D	-090919	9/9/2019	1007	5.36	4.93	24.8	4.91	8.71	2.6	178	1.68
MSA-SW37A	-090919	9/9/2019	1243	5.35	4.71	26.0	5.67	7.84	2.5	139	0.44
MSA-SW37B	-090919	9/9/2019	1247	5.36	4.79	26.0	5.13	7.82	2.6	121	1.23
MSA-SW37C	-090919	9/9/2019	1250	5.36	4.78	26.0	5.05	7.89	2.6	132	1.60
MSA-SW37D	-090919	9/9/2019	1253	5.36	4.78	25.9	5.24	7.86	2.6	136	1.77
MSA-SW38A	-090919	9/9/2019	1149	5.37	4.70	25.50	7.08	7.85	2.5	155	0.44
MSA-SW38B	-090919	9/9/2019	1153	5.37	4.72	25.50	4.58	7.85	2.5	127	1.45
MSA-SW38C	-090919	9/9/2019	1158	5.37	4.73	25.60	4.57	7.83	2.5	138	1.51
MSA-SW38D	-090919	9/9/2019	1201	5.37	4.73	25.70	4.57	7.84	2.5	142	1.96
MSA-SW39A	-090919	9/9/2019	1015	5.36	5.09	24.60	4.34	8.29	2.70	150	0.67
MSA-SW39B	-090919	9/9/2019	1022	5.35	5.09	24.70	5.06	8.31	2.70	153	1.36
MSA-SW39C	-090919	9/9/2019	1029	5.36	5.08	24.80	4.21	8.22	2.70	155	1.54
MSA-SW39D	-090919	9/9/2019	1031	5.35	5.05	24.80	4.83	8.20	2.70	156	1.74
MSA-SW40A	-090919	9/9/2019	1209	5.36	4.74	25.60	8.81	7.85	2.50	139	0.44
MSA-SW40B	-090919	9/9/2019	1212	5.37	4.73	25.90	4.62	7.79	2.50	140	1.08
MSA-SW40C	-090919	9/9/2019	1218	5.37	4.67	25.80	5.00	7.83	2.50	144	1.47
MSA-SW40D	-090919	9/9/2019	1223	5.38	4.74	26.00	5.57	7.73	2.50	147	1.80
MSA-SW41A	-090919	9/9/2019	1129	5.37	4.72	25.30	13.40	7.93	2.50	144	0.50
MSA-SW41B	-090919	9/9/2019	1132	5.38	4.73	25.40	5.25	7.89	2.50	143	1.28
MSA-SW41C	-090919	9/9/2019	1136	5.37	4.74	25.40	5.00	7.89	2.50	147	1.45
MSA-SW41D	-090919	9/9/2019	1141	5.37	4.74	25.40	4.98	7.88	2.50	150	1.96
MSA-SW42A	-090919	9/9/2019	1230	5.36	4.70	26.20	11.28	7.74	2.50	150	0.44
MSA-SW42B	-090919	9/9/2019	1232	5.37	4.73	26.20	4.87	7.78	2.50	103	1.14
MSA-SW42C	-090919	9/9/2019	1236	5.37	4.79	26.00	4.97	7.80	2.60	123	1.36
MSA-SW42D	-090919	9/9/2019	1239	5.36	4.78	25.90	5.35	7.93	2.60	130	1.78
MSA-SW43A	-090919	9/9/2019	1110	5.36	4..75	25.20	4.15	7.95	2.50	142	1.19
MSA-SW43B	-090919	9/9/2019	1115	5.39	4.78	25.30	4.59	7.91	2.60	144	1.64
MSA-SW43C	-090919	9/9/2019	1118	5.38	4.81	25.30	4.56	7.90	2.60	147	1.75
MSA-SW43D	-090919	9/9/2019	1121	5.38	4.78	25.20	4.45	7.92	2.60	149	1.80
MSA-SW44A	-090919	9/9/2019	1054	5.36	4.77	25.20	9.88	7.98	2.60	158	0.38
MSA-SW44B	-090919	9/9/2019	1058	5.37	4.79	25.10	4.72	8.02	2.60	136	1.54
MSA-SW44C	-090919	9/9/2019	1101	5.37	4.83	25.20	4.29	7.99	2.60	143	1.79
MSA-SW44D	-090919	9/9/2019	1105	5.37	4.81	25.10	4.34	8.10	2.60	147	1.80
MSA-SW45A	-090919	9/9/2019	1036	5.35	4.94	24.80	5.02	8.04	2.60	188	0.56
MSA-SW45B	-090919	9/9/2019	1046	5.36	4.84	24.90	4.58	8.11	2.60	157	1.80
MSA-SW45C	-090919	9/9/2019	1045	5.36	4.84	24.90	4.51	8.10	2.60	157	1.80
MSA-SW45D	-090919	9/9/2019	1049	5.36	4.84	25.00	4.28	8.05	2.60	156	1.80
MSA-SW46A	-090919	9/9/2019	1227	5.36	4.720	25.90	5.20	7.83	2.50	149	0.71
MSA-SW47A	-090919	9/9/2019	1205	5.37	4.710	25.80	5.33	7.80	2.50	147	0.52
MSA-SW48A	-090919	9/9/2019	1144	5.37	4.700	25.40	6.50	7.89	2.50	155	0.53
MSA-SW49A	-090919	9/9/2019	1124	5.38	4.710	25.50	7.53	7.86	2.50	154	0.51

Tetra Tech

SURFACE WATER SAMPLE LOG SHEET

Project Site Name: Frog Mortar Creek, Martin State Airport
Project No.: 112IC08735

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

Sample ID No.: EL-SW01A -090919
Sample Location: EL-SW01A
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:	9/9/2019	(Visual)	(S.U.)	(mS/cm)	(^{0}C)	(NTU)	(mg/L)	(ppt)	mV
Time:	0951								
Depth:	1 ft below water	**clear**	**5.33**	**4.83**	**25.10**	**6.08**	**12.59**	**2.6**	**197**
Method:	Grab								

SAMPLE COLLECTION INFORMATION:

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

OBSERVATIONS / NOTES:

Water depth 0.3429 meters

MAP:

Circle if Applicable:

MS/MSD	Duplicate ID No.:

Signature(s):

Tetra Tech

SURFACE WATER SAMPLE LOG SHEET

Project Site Name: Frog Mortar Creek, Martin State Airport
Project No.: 112IC08735

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

Sample ID No.: EL-SW01B -090919
Sample Location: EL-SW01B
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:	9/9/2019	(Visual)	(S.U.)	(mS/cm)	(^{0}C)	(NTU)	(mg/L)	(ppt)	mV
Time:	1000								
Depth:	1 ft below water	**clear**	**5.67**	**4.87**	**24.9**	**4.6**	**9.15**	**2.6**	**183**
Method:	Grab								

SAMPLE COLLECTION INFORMATION:

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

OBSERVATIONS / NOTES:

Water depth 0.8382 meters

MAP:

Circle if Applicable:

MS/MSD	Duplicate ID No.:

Signature(s):

Tetra Tech

SURFACE WATER SAMPLE LOG SHEET

Project Site Name: Frog Mortar Creek, Martin State Airport
Project No.: 112IC08735

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

Sample ID No.: EL-SW01C -090919
Sample Location: EL-SW01C
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:	9/9/2019	(Visual)	(S.U.)	(mS/cm)	(^{0}C)	(NTU)	(mg/L)	(ppt)	mV
Time:	1004								
Depth:	1 ft below water	**clear**	**5.36**	**4.92**	**24.80**	**5.11**	**8.8**	**2.6**	**179**
Method:	Grab								

SAMPLE COLLECTION INFORMATION:

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

OBSERVATIONS / NOTES:

Water depth 1.2065 meters

MAP:

Circle if Applicable:

MS/MSD	Duplicate ID No.:

Signature(s):

Tetra Tech

SURFACE WATER SAMPLE LOG SHEET

Project Site Name: Frog Mortar Creek, Martin State Airport
Project No.: 112IC08735

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

Sample ID No.: EL-SW01D -090919
Sample Location: EL-SW01D
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:	9/9/2019	(Visual)	(S.U.)	(mS/cm)	(^{0}C)	(NTU)	(mg/L)	(ppt)	mV
Time:	1007								
Depth:	1 ft below water	**clear**	**5.36**	**4.93**	**24.8**	**4.91**	**8.71**	**2.6**	**178**
Method:	Grab								

SAMPLE COLLECTION INFORMATION:

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

OBSERVATIONS / NOTES:

Water depth 1.6764 meters

MAP:

Circle if Applicable:

MS/MSD	Duplicate ID No.:

Signature(s):

Tetra Tech

SURFACE WATER SAMPLE LOG SHEET

Project Site Name: Frog Mortar Creek, Martin State Airport
Project No.: 112IC08735

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

Sample ID No.: MSA-SW37A -090919
Sample Location: MSA-SW37A
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:	9/9/2019	(Visual)	(S.U.)	(mS/cm)	(^{0}C)	(NTU)	(mg/L)	(ppt)	mV
Time:	1243								
Depth:	1 ft below water	**clear**	**5.35**	**4.71**	**26**	**5.67**	**7.84**	**2.5**	**139**
Method:	Grab								

SAMPLE COLLECTION INFORMATION:

Analysis	Preservative	Container Requirements	Collected
VOCs + TICs	HCL pH<2	3 - 40 mL glass vials	Yes
Dissolved metals + Hardness	HNO_3 pH<2	1 - 500 mL plastic filtered	Yes
Dissolved Hexavalent chromium	cr6 buffer	1 - 250 mL plastic filtered	Yes

OBSERVATIONS / NOTES:

Water depth 0.4445 meters

MAP:

Circle if Applicable:

MS/MSD	Duplicate ID No.:

Signature(s):

Tetra Tech

SURFACE WATER SAMPLE LOG SHEET

Project Site Name: Frog Mortar Creek, Martin State Airport
Project No.: 112IC08735

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

Sample ID No.: MSA-SW37B -090919
Sample Location: MSA-SW37B
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:	9/9/2019	(Visual)	(S.U.)	(mS/cm)	(^{0}C)	(NTU)	(mg/L)	(ppt)	mV
Time:	1247								
Depth:	1 ft below water	**clear**	**5.36**	**4.79**	**26**	**5.13**	**7.82**	**2.6**	**121**
Method:	Grab								

SAMPLE COLLECTION INFORMATION:

Analysis	Preservative	Container Requirements	Collected
VOCs + TICs	HCL pH<2	3 - 40 mL glass vials	Yes
Dissolved metals + Hardness	HNO_3 pH<2	1 - 500 mL plastic filtered	Yes
Dissolved Hexavalent chromium	cr6 buffer	1 - 250 mL plastic filtered	Yes

OBSERVATIONS / NOTES:

Water depth 1.23444 meters

MAP:

Circle if Applicable:

MS/MSD	Duplicate ID No.:

Signature(s):

Tetra Tech

SURFACE WATER SAMPLE LOG SHEET

Project Site Name: Frog Mortar Creek, Martin State Airport
Project No.: 112IC08735

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

Sample ID No.: MSA-SW37C -090919
Sample Location: MSA-SW37C
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:	9/9/2019	(Visual)	(S.U.)	(mS/cm)	(^{0}C)	(NTU)	(mg/L)	(ppt)	mV
Time:	1250								
Depth:	1 ft below water	**clear**	**5.36**	**4.78**	**26**	**5.05**	**7.89**	**2.6**	**132**
Method:	Grab								

SAMPLE COLLECTION INFORMATION:

Analysis	Preservative	Container Requirements	Collected
VOCs + TICs	HCL pH<2	3 - 40 mL glass vials	Yes
Dissolved metals + Hardness	HNO_3 pH<2	1 - 500 mL plastic filtered	Yes
Dissolved Hexavalent chromium	cr6 buffer	1 - 250 mL plastic filtered	Yes

OBSERVATIONS / NOTES:

Water depth 1.6002 meters

MAP:

Circle if Applicable:

MS/MSD	Duplicate ID No.:

Signature(s):

Tetra Tech

SURFACE WATER SAMPLE LOG SHEET

Project Site Name: Frog Mortar Creek, Martin State Airport
Project No.: 112IC08735

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

Sample ID No.: MSA-SW37D -090919
Sample Location: MSA-SW37D
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:	9/9/2019	(Visual)	(S.U.)	(mS/cm)	(^{0}C)	(NTU)	(mg/L)	(ppt)	mV
Time:	1253								
Depth:	1 ft below water	**clear**	**5.36**	**4.78**	**25.9**	**5.24**	**7.86**	**2.6**	**136**
Method:	Grab								

SAMPLE COLLECTION INFORMATION:

Analysis	Preservative	Container Requirements	Collected
VOCs + TICs	HCL pH<2	3 - 40 mL glass vials	Yes
Dissolved metals + Hardness	HNO_3 pH<2	1 - 500 mL plastic filtered	Yes
Dissolved Hexavalent chromium	cr6 buffer	1 - 250 mL plastic filtered	Yes

OBSERVATIONS / NOTES:

Water depth 1.7653 meters

MAP:

Circle if Applicable:

MS/MSD	Duplicate ID No.:

Signature(s):

Tetra Tech

SURFACE WATER SAMPLE LOG SHEET

Project Site Name: Frog Mortar Creek, Martin State Airport
Project No.: 112IC08735

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

Sample ID No.: MSA-SW38A -090919
Sample Location: MSA-SW38A
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:	9/9/2019	(Visual)	(S.U.)	(mS/cm)	(^{0}C)	(NTU)	(mg/L)	(ppt)	mV
Time:	1149								
Depth:	1 ft below water	**clear**	**5.37**	**4.7**	**25.5**	**7.08**	**7.85**	**2.5**	**155**
Method:	Grab								

SAMPLE COLLECTION INFORMATION:

Analysis	Preservative	Container Requirements	Collected
VOCs + TICs	HCL pH<2	3 - 40 mL glass vials	Yes
Dissolved metals + Hardness	HNO_3 pH<2	1 - 500 mL plastic filtered	Yes
Dissolved Hexavalent chromium	cr6 buffer	1 - 250 mL plastic filtered	Yes

OBSERVATIONS / NOTES:

Water depth 0.4445 meters

MAP:

Circle if Applicable:

MS/MSD	Duplicate ID No.:

Signature(s):

Tetra Tech

SURFACE WATER SAMPLE LOG SHEET

Project Site Name: Frog Mortar Creek, Martin State Airport
Project No.: 112IC08735

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

Sample ID No.: MSA-SW38B -090919
Sample Location: MSA-SW38B
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:	9/9/2019	(Visual)	(S.U.)	(mS/cm)	(^{0}C)	(NTU)	(mg/L)	(ppt)	mV
Time:	1153								
Depth:	1 ft below water	**clear**	**5.37**	**4.72**	**25.50**	**4.58**	**7.85**	**2.5**	**127**
Method:	Grab								

SAMPLE COLLECTION INFORMATION:

Analysis	Preservative	Container Requirements	Collected
VOCs + TICs	HCL pH<2	3 - 40 mL glass vials	Yes
Dissolved metals + Hardness	HNO_3 pH<2	1 - 500 mL plastic filtered	Yes
Dissolved Hexavalent chromium	cr6 buffer	1 - 250 mL plastic filtered	Yes

OBSERVATIONS / NOTES:

Water depth 1.4 meters

MAP:

Circle if Applicable:

MS/MSD	Duplicate ID No.:

Signature(s):

Tetra Tech

SURFACE WATER SAMPLE LOG SHEET

Project Site Name: Frog Mortar Creek, Martin State Airport
Project No.: 112IC08735

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

Sample ID No.: MSA-SW38C -090919
Sample Location: MSA-SW38C
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:	9/9/2019	(Visual)	(S.U.)	(mS/cm)	(^{0}C)	(NTU)	(mg/L)	(ppt)	mV
Time:	1158								
Depth:	1 ft below water	**clear**	**5.37**	**4.73**	**25.60**	**4.57**	**7.83**	**2.5**	**138**
Method:	Grab								

SAMPLE COLLECTION INFORMATION:

Analysis	Preservative	Container Requirements	Collected
VOCs + TICs	HCL pH<2	3 - 40 mL glass vials	Yes
Dissolved metals + Hardness	HNO_3 pH<2	1 - 500 mL plastic filtered	Yes
Dissolved Hexavalent chromium	cr6 buffer	1 - 250 mL plastic filtered	Yes

OBSERVATIONS / NOTES:

Water depth 1.5113 meters

MAP:

Circle if Applicable:

MS/MSD	Duplicate ID No.:

Signature(s):

Tetra Tech

SURFACE WATER SAMPLE LOG SHEET

Project Site Name: Frog Mortar Creek, Martin State Airport
Project No.: 112IC08735

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

Sample ID No.: MSA-SW38D -090919
Sample Location: MSA-SW38D
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:	9/9/2019								
Time:	1201	(Visual)	(S.U.)	(mS/cm)	(^{0}C)	(NTU)	(mg/L)	(ppt)	mV
Depth:	1 ft below water	**clear**	**5.37**	**4.73**	**25.7**	**4.57**	**7.84**	**2.5**	**142**
Method:	Grab								

SAMPLE COLLECTION INFORMATION:

Analysis	Preservative	Container Requirements	Collected
VOCs + TICs	HCL pH<2	3 - 40 mL glass vials	Yes
Dissolved metals + Hardness	HNO_3 pH<2	1 - 500 mL plastic filtered	Yes
Dissolved Hexavalent chromium	cr6 buffer	1 - 250 mL plastic filtered	Yes

OBSERVATIONS / NOTES:

Water depth 2.0 meters

MAP:

Circle if Applicable:

MS/MSD	Duplicate ID No.:

Signature(s):

Tetra Tech

SURFACE WATER SAMPLE LOG SHEET

Project Site Name: Frog Mortar Creek, Martin State Airport
Project No.: 112IC08735

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

Sample ID No.: MSA-SW39A -090919
Sample Location: MSA-SW39A
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:	9/9/2019	(Visual)	(S.U.)	(mS/cm)	(^{0}C)	(NTU)	(mg/L)	(ppt)	mV
Time:	1015								
Depth:	1 ft below water	**clear**	**5.36**	**5.09**	**24.6**	**4.34**	**8.29**	**2.7**	**150**
Method:	Grab								

SAMPLE COLLECTION INFORMATION:

Analysis	Preservative	Container Requirements	Collected
VOCs + TICs	HCL pH<2	3 - 40 mL glass vials	Yes
Dissolved metals + Hardness	HNO_3 pH<2	1 - 500 mL plastic filtered	Yes
Dissolved Hexavalent chromium	cr6 buffer	1 - 250 mL plastic filtered	Yes

OBSERVATIONS / NOTES:

Water depth 0.6731 meters

MAP:

Circle if Applicable:

MS/MSD	Duplicate ID No.:

Signature(s):

Tetra Tech

SURFACE WATER SAMPLE LOG SHEET

Project Site Name: Frog Mortar Creek, Martin State Airport
Project No.: 112IC08735

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

Sample ID No.: MSA-SW39B -090919
Sample Location: MSA-SW39B
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:	9/9/2019	(Visual)	(S.U.)	(mS/cm)	(^{0}C)	(NTU)	(mg/L)	(ppt)	mV
Time:	1022								
Depth:	1 ft below water	**clear**	**5.35**	**5.09**	**24.7**	**5.06**	**8.31**	**2.7**	**153**
Method:	Grab								

SAMPLE COLLECTION INFORMATION:

Analysis	Preservative	Container Requirements	Collected
VOCs + TICs	HCL pH<2	3 - 40 mL glass vials	Yes
Dissolved metals + Hardness	HNO_3 pH<2	1 - 500 mL plastic filtered	Yes
Dissolved Hexavalent chromium	cr6 buffer	1 - 250 mL plastic filtered	Yes

OBSERVATIONS / NOTES:

Water depth 1.4 meters

MAP:

Circle if Applicable:

MS/MSD	Duplicate ID No.:

Signature(s):

Tetra Tech

SURFACE WATER SAMPLE LOG SHEET

Project Site Name: Frog Mortar Creek, Martin State Airport
Project No.: 112IC08735

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

Sample ID No.: MSA-SW39C -090919
Sample Location: MSA-SW39C
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:	9/9/2019	(Visual)	(S.U.)	(mS/cm)	(^{0}C)	(NTU)	(mg/L)	(ppt)	mV
Time:	1029								
Depth:	1 ft below water	**clear**	**5.36**	**5.08**	**24.8**	**4.21**	**8.22**	**2.7**	**155**
Method:	Grab								

SAMPLE COLLECTION INFORMATION:

Analysis	Preservative	Container Requirements	Collected
VOCs + TICs	HCL pH<2	3 - 40 mL glass vials	Yes
Dissolved metals + Hardness	HNO_3 pH<2	1 - 500 mL plastic filtered	Yes
Dissolved Hexavalent chromium	cr6 buffer	1 - 250 mL plastic filtered	Yes

OBSERVATIONS / NOTES:

Water depth 1.5 meters

MAP:

Circle if Applicable:

MS/MSD	Duplicate ID No.:

Signature(s):

Tetra Tech

SURFACE WATER SAMPLE LOG SHEET

Project Site Name: Frog Mortar Creek, Martin State Airport
Project No.: 112IC08735

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

Sample ID No.: MSA-SW39D -090919
Sample Location: MSA-SW39D
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:	9/9/2019								
Time:	1031	(Visual)	(S.U.)	(mS/cm)	(^{0}C)	(NTU)	(mg/L)	(ppt)	mV
Depth:	1 ft below water	**clear**	**5.35**	**5.08**	**24.8**	**4.83**	**8.2**	**2.7**	**156**
Method:	Grab								

SAMPLE COLLECTION INFORMATION:

Analysis	Preservative	Container Requirements	Collected
VOCs + TICs	HCL pH<2	3 - 40 mL glass vials	Yes
Dissolved metals + Hardness	HNO_3 pH<2	1 - 500 mL plastic filtered	Yes
Dissolved Hexavalent chromium	cr6 buffer	1 - 250 mL plastic filtered	Yes

OBSERVATIONS / NOTES:

Water depth 1.7399 meters

MAP:

Circle if Applicable:

MS/MSD	Duplicate ID No.:

Signature(s):

Tetra Tech

SURFACE WATER SAMPLE LOG SHEET

Project Site Name: Frog Mortar Creek, Martin State Airport
Project No.: 112IC08735

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

Sample ID No.: MSA-SW40A -090919
Sample Location: MSA-SW40A
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:	9/9/2019	(Visual)	(S.U.)	(mS/cm)	(^{0}C)	(NTU)	(mg/L)	(ppt)	mV
Time:	1209								
Depth:	1 ft below water	**clear**	**5.36**	**4.74**	**25.60**	**8.81**	**7.85**	**2.5**	**139**
Method:	Grab								

SAMPLE COLLECTION INFORMATION:

Analysis	Preservative	Container Requirements	Collected
VOCs + TICs	HCL pH<2	3 - 40 mL glass vials	Yes
Dissolved metals + Hardness	HNO_3 pH<2	1 - 500 mL plastic filtered	Yes
Dissolved Hexavalent chromium	cr6 buffer	1 - 250 mL plastic filtered	Yes

OBSERVATIONS / NOTES:

Water depth 0.4445 meters

MAP:

Circle if Applicable:

MS/MSD	Duplicate ID No.:

Signature(s):

Tetra Tech

SURFACE WATER SAMPLE LOG SHEET

Project Site Name: Frog Mortar Creek, Martin State Airport
Project No.: 112IC08735

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

Sample ID No.: MSA-SW40B -090919
Sample Location: MSA-SW40B
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:	9/9/2019	(Visual)	(S.U.)	(mS/cm)	(^{0}C)	(NTU)	(mg/L)	(ppt)	mV
Time:	1212								
Depth:	1 ft below water	**clear**	**5.37**	**4.73**	**25.90**	**4.62**	**7.79**	**2.5**	**140**
Method:	Grab								

SAMPLE COLLECTION INFORMATION:

Analysis	Preservative	Container Requirements	Collected
VOCs + TICs	HCL pH<2	3 - 40 mL glass vials	Yes
Dissolved metals + Hardness	HNO_3 pH<2	1 - 500 mL plastic filtered	Yes
Dissolved Hexavalent chromium	cr6 buffer	1 - 250 mL plastic filtered	Yes

OBSERVATIONS / NOTES:

Water depth 1.0795 meters

MAP:

Circle if Applicable:

MS/MSD	Duplicate ID No.:

Signature(s):

Tetra Tech

SURFACE WATER SAMPLE LOG SHEET

Project Site Name: Frog Mortar Creek, Martin State Airport
Project No.: 112IC08735

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

Sample ID No.: MSA-SW40C -090919
Sample Location: MSA-SW40C
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:	9/9/2019	(Visual)	(S.U.)	(mS/cm)	(^{0}C)	(NTU)	(mg/L)	(ppt)	mV
Time:	1218								
Depth:	1 ft below water	**clear**	**5.37**	**4.67**	**25.80**	**5.00**	**7.83**	**2.5**	**144**
Method:	Grab								

SAMPLE COLLECTION INFORMATION:

Analysis	Preservative	Container Requirements	Collected
VOCs + TICs	HCL pH<2	3 - 40 mL glass vials	Yes
Dissolved metals + Hardness	HNO_3 pH<2	1 - 500 mL plastic filtered	Yes
Dissolved Hexavalent chromium	cr6 buffer	1 - 250 mL plastic filtered	Yes

OBSERVATIONS / NOTES:

Water depth 1.4732 meters

MAP:

Circle if Applicable:

MS/MSD	Duplicate ID No.:

Signature(s):

Tetra Tech

SURFACE WATER SAMPLE LOG SHEET

Project Site Name: Frog Mortar Creek, Martin State Airport
Project No.: 112IC08735

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

Sample ID No.: MSA-SW40D -090919
Sample Location: MSA-SW40D
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:	9/9/2019	(Visual)	(S.U.)	(mS/cm)	(^{0}C)	(NTU)	(mg/L)	(ppt)	mV
Time:	1223								
Depth:	1 ft below water	**clear**	**5.38**	**4.74**	**26.00**	**5.57**	**7.73**	**2.5**	**147**
Method:	Grab								

SAMPLE COLLECTION INFORMATION:

Analysis	Preservative	Container Requirements	Collected
VOCs + TICs	HCL pH<2	3 - 40 mL glass vials	Yes
Dissolved metals + Hardness	HNO_3 pH<2	1 - 500 mL plastic filtered	Yes
Dissolved Hexavalent chromium	cr6 buffer	1 - 250 mL plastic filtered	Yes

OBSERVATIONS / NOTES:

Water depth 1.8034 meters

MAP:

Circle if Applicable:

MS/MSD	Duplicate ID No.:

Signature(s):

Tetra Tech

SURFACE WATER SAMPLE LOG SHEET

Project Site Name: Frog Mortar Creek, Martin State Airport
Project No.: 112IC08735

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

Sample ID No.: MSA-SW41A -090919
Sample Location: MSA-SW41A
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:	9/9/2019	(Visual)	(S.U.)	(mS/cm)	(^{0}C)	(NTU)	(mg/L)	(ppt)	mV
Time:	1129								
Depth:	1 ft below water	**clear**	**5.37**	**4.72**	**25.30**	**13.40**	**7.93**	**2.5**	**144**
Method:	Grab								

SAMPLE COLLECTION INFORMATION:

Analysis	Preservative	Container Requirements	Collected
VOCs + TICs	HCL pH<2	3 - 40 mL glass vials	Yes
Dissolved metals + Hardness	HNO_3 pH<2	1 - 500 mL plastic filtered	Yes
Dissolved Hexavalent chromium	cr6 buffer	1 - 250 mL plastic filtered	Yes

OBSERVATIONS / NOTES:

Water depth 0.4953 meters

MAP:

Circle if Applicable:

MS/MSD	Duplicate ID No.:

Signature(s):

Tetra Tech

SURFACE WATER SAMPLE LOG SHEET

Project Site Name: Frog Mortar Creek, Martin State Airport
Project No.: 112IC08735

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

Sample ID No.: MSA-SW41B -090919
Sample Location: MSA-SW41B
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:	9/9/2019	(Visual)	(S.U.)	(mS/cm)	(^{0}C)	(NTU)	(mg/L)	(ppt)	mV
Time:	1132								
Depth:	1 ft below water	**clear**	**5.38**	**4.73**	**25.40**	**5.25**	**7.89**	**2.5**	**143**
Method:	Grab								

SAMPLE COLLECTION INFORMATION:

Analysis	Preservative	Container Requirements	Collected
VOCs + TICs	HCL pH<2	3 - 40 mL glass vials	Yes
Dissolved metals + Hardness	HNO_3 pH<2	1 - 500 mL plastic filtered	Yes
Dissolved Hexavalent chromium	cr6 buffer	1 - 250 mL plastic filtered	Yes

OBSERVATIONS / NOTES:

Water depth 1.2827 meters

MAP:

Circle if Applicable:

MS/MSD	Duplicate ID No.:

Signature(s):

Tetra Tech

SURFACE WATER SAMPLE LOG SHEET

Project Site Name: Frog Mortar Creek, Martin State Airport
Project No.: 112IC08735

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

Sample ID No.: MSA-SW41C -090919
Sample Location: MSA-SW41C
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:	9/9/2019	(Visual)	(S.U.)	(mS/cm)	(^{0}C)	(NTU)	(mg/L)	(ppt)	mV
Time:	1136								
Depth:	1 ft below water	**clear**	**5.37**	**4.74**	**25.40**	**5.00**	**7.89**	**2.5**	**147**
Method:	Grab								

SAMPLE COLLECTION INFORMATION:

Analysis	Preservative	Container Requirements	Collected
VOCs + TICs	HCL pH<2	3 - 40 mL glass vials	Yes
Dissolved metals + Hardness	HNO_3 pH<2	1 - 500 mL plastic filtered	Yes
Dissolved Hexavalent chromium	cr6 buffer	1 - 250 mL plastic filtered	Yes

OBSERVATIONS / NOTES:

Water depth 1.4478 meters

MAP:

Circle if Applicable:

MS/MSD	Duplicate ID No.:

Signature(s):

Tetra Tech

SURFACE WATER SAMPLE LOG SHEET

Project Site Name: Frog Mortar Creek, Martin State Airport
Project No.: 112IC08735

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

Sample ID No.: MSA-SW41D -090919
Sample Location: MSA-SW41D
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:	9/9/2019	(Visual)	(S.U.)	(mS/cm)	(^{0}C)	(NTU)	(mg/L)	(ppt)	mV
Time:	1141								
Depth:	1 ft below water	**clear**	**5.37**	**4.74**	**25.40**	**4.98**	**7.88**	**2.5**	**150**
Method:	Grab								

SAMPLE COLLECTION INFORMATION:

Analysis	Preservative	Container Requirements	Collected
VOCs + TICs	HCL pH<2	3 - 40 mL glass vials	Yes
Dissolved metals + Hardness	HNO_3 pH<2	1 - 500 mL plastic filtered	Yes
Dissolved Hexavalent chromium	cr6 buffer	1 - 250 mL plastic filtered	Yes

OBSERVATIONS / NOTES:

Water depth 1.95834 meters

MAP:

Circle if Applicable:

MS/MSD	Duplicate ID No.:

Signature(s):

Tetra Tech

SURFACE WATER SAMPLE LOG SHEET

Project Site Name: Frog Mortar Creek, Martin State Airport
Project No.: 112IC08735

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

Sample ID No.: MSA-SW42A -090919
Sample Location: MSA-SW42A
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:	9/9/2019	(Visual)	(S.U.)	(mS/cm)	(^{0}C)	(NTU)	(mg/L)	(ppt)	mV
Time:	1230								
Depth:	1 ft below water	**clear**	**5.36**	**4.70**	**26.20**	**11.28**	**7.74**	**2.5**	**150**
Method:	Grab								

SAMPLE COLLECTION INFORMATION:

Analysis	Preservative	Container Requirements	Collected
VOCs + TICs	HCL pH<2	3 - 40 mL glass vials	Yes
Dissolved metals + Hardness	HNO_3 pH<2	1 - 500 mL plastic filtered	Yes
Dissolved Hexavalent chromium	cr6 buffer	1 - 250 mL plastic filtered	Yes

OBSERVATIONS / NOTES:

Water depth 0.4445 meters

MAP:

Circle if Applicable:

MS/MSD	Duplicate ID No.:

Signature(s):

Tetra Tech

SURFACE WATER SAMPLE LOG SHEET

Project Site Name: Frog Mortar Creek, Martin State Airport
Project No.: 112IC08735

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

Sample ID No.: MSA-SW42B -090919
Sample Location: MSA-SW42B
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:	9/9/2019	(Visual)	(S.U.)	(mS/cm)	(^{0}C)	(NTU)	(mg/L)	(ppt)	mV
Time:	1232								
Depth:	1 ft below water	**clear**	**5.37**	**4.73**	**26.20**	**4.87**	**7.78**	**2.5**	**103**
Method:	Grab								

SAMPLE COLLECTION INFORMATION:

Analysis	Preservative	Container Requirements	Collected
VOCs + TICs	HCL pH<2	3 - 40 mL glass vials	Yes
Dissolved metals + Hardness	HNO_3 pH<2	1 - 500 mL plastic filtered	Yes
Dissolved Hexavalent chromium	cr6 buffer	1 - 250 mL plastic filtered	Yes

OBSERVATIONS / NOTES:

Water depth 1.143 meters

MAP:

Circle if Applicable:

MS/MSD	Duplicate ID No.:

Signature(s):

Tetra Tech

SURFACE WATER SAMPLE LOG SHEET

Project Site Name: Frog Mortar Creek, Martin State Airport
Project No.: 112IC08735

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

Sample ID No.: MSA-SW42C -090919
Sample Location: MSA-SW42C
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:	9/9/2019								
Time:	1236	(Visual)	(S.U.)	(mS/cm)	(^{0}C)	(NTU)	(mg/L)	(ppt)	mV
Depth:	1 ft below water	**clear**	**5.37**	**4.79**	**26.00**	**4.97**	**7.80**	**2.6**	**123**
Method:	Grab								

SAMPLE COLLECTION INFORMATION:

Analysis	Preservative	Container Requirements	Collected
VOCs + TICs	HCL pH<2	3 - 40 mL glass vials	Yes
Dissolved metals + Hardness	HNO_3 pH<2	1 - 500 mL plastic filtered	Yes
Dissolved Hexavalent chromium	cr6 buffer	1 - 250 mL plastic filtered	Yes

OBSERVATIONS / NOTES:

Water depth 1.4 meters

MAP:

Circle if Applicable:

MS/MSD	Duplicate ID No.:

Signature(s):

Tetra Tech

SURFACE WATER SAMPLE LOG SHEET

Project Site Name: Frog Mortar Creek, Martin State Airport
Project No.: 112IC08735

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

Sample ID No.: MSA-SW42D -090919
Sample Location: MSA-SW42D
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:	9/9/2019	(Visual)	(S.U.)	(mS/cm)	(^{0}C)	(NTU)	(mg/L)	(ppt)	mV
Time:	1239								
Depth:	1 ft below water	**clear**	**5.36**	**4.78**	**25.90**	**5.35**	**7.93**	**2.6**	**130**
Method:	Grab								

SAMPLE COLLECTION INFORMATION:

Analysis	Preservative	Container Requirements	Collected
VOCs + TICs	HCL pH<2	3 - 40 mL glass vials	Yes
Dissolved metals + Hardness	HNO_3 pH<2	1 - 500 mL plastic filtered	Yes
Dissolved Hexavalent chromium	cr6 buffer	1 - 250 mL plastic filtered	Yes

OBSERVATIONS / NOTES:

Water depth 1.778 meters

MAP:

Circle if Applicable:

MS/MSD	Duplicate ID No.:

Signature(s):

Tetra Tech

SURFACE WATER SAMPLE LOG SHEET

Project Site Name: Frog Mortar Creek, Martin State Airport
Project No.: 112IC08735

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

Sample ID No.: MSA-SW43A -090919
Sample Location: MSA-SW43A
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:	9/9/2019	(Visual)	(S.U.)	(mS/cm)	(^{0}C)	(NTU)	(mg/L)	(ppt)	mV
Time:	1110								
Depth:	1 ft below water	**clear**	**5.36**	**4..75**	**25.20**	**4.15**	**7.95**	**2.5**	**142**
Method:	Grab								

SAMPLE COLLECTION INFORMATION:

Analysis	Preservative	Container Requirements	Collected
VOCs + TICs	HCL pH<2	3 - 40 mL glass vials	Yes
Dissolved metals + Hardness	HNO_3 pH<2	1 - 500 mL plastic filtered	Yes
Dissolved Hexavalent chromium	cr6 buffer	1 - 250 mL plastic filtered	Yes

OBSERVATIONS / NOTES:

Water depth 1.1938 meters

MAP:

Circle if Applicable:

MS/MSD	Duplicate ID No.:

Signature(s):

Tetra Tech

SURFACE WATER SAMPLE LOG SHEET

Project Site Name: Frog Mortar Creek, Martin State Airport
Project No.: 112IC08735

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

Sample ID No.: MSA-SW43B -090919
Sample Location: MSA-SW43B
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:	9/9/2019	(Visual)	(S.U.)	(mS/cm)	(^{0}C)	(NTU)	(mg/L)	(ppt)	mV
Time:	1115								
Depth:	1 ft below water	**clear**	**#REF!**	**4.78**	**25.30**	**4.59**	**7.91**	**2.6**	**144**
Method:	Grab								

SAMPLE COLLECTION INFORMATION:

Analysis	Preservative	Container Requirements	Collected
VOCs + TICs	HCL pH<2	3 - 40 mL glass vials	Yes
Dissolved metals + Hardness	HNO_3 pH<2	1 - 500 mL plastic filtered	Yes
Dissolved Hexavalent chromium	cr6 buffer	1 - 250 mL plastic filtered	Yes

OBSERVATIONS / NOTES:

Water depth 1.6 meters

MAP:

Circle if Applicable:

MS/MSD	Duplicate ID No.:

Signature(s):

Tetra Tech

SURFACE WATER SAMPLE LOG SHEET

Project Site Name: Frog Mortar Creek, Martin State Airport
Project No.: 112IC08735

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

Sample ID No.: MSA-SW43C -090919
Sample Location: MSA-SW43C
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:	9/9/2019	(Visual)	(S.U.)	(mS/cm)	(^{0}C)	(NTU)	(mg/L)	(ppt)	mV
Time:	1118								
Depth:	1 ft below water	**clear**	**5.39**	**4.81**	**25.30**	**4.56**	**7.90**	**2.6**	**147**
Method:	Grab								

SAMPLE COLLECTION INFORMATION:

Analysis	Preservative	Container Requirements	Collected
VOCs + TICs	HCL pH<2	3 - 40 mL glass vials	Yes
Dissolved metals + Hardness	HNO_3 pH<2	1 - 500 mL plastic filtered	Yes
Dissolved Hexavalent chromium	cr6 buffer	1 - 250 mL plastic filtered	Yes

OBSERVATIONS / NOTES:

Water depth 1.7526 meters

MAP:

Circle if Applicable:

MS/MSD	Duplicate ID No.:

Signature(s):

Tetra Tech

SURFACE WATER SAMPLE LOG SHEET

Project Site Name: Frog Mortar Creek, Martin State Airport
Project No.: 112IC08735

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

Sample ID No.: MSA-SW43D -090919
Sample Location: MSA-SW43D
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:	9/9/2019	(Visual)	(S.U.)	(mS/cm)	(^{0}C)	(NTU)	(mg/L)	(ppt)	mV
Time:	1121								
Depth:	1 ft below water	**clear**	**5.38**	**4.78**	**25.20**	**4.45**	**7.92**	**2.6**	**149**
Method:	Grab								

SAMPLE COLLECTION INFORMATION:

Analysis	Preservative	Container Requirements	Collected
VOCs + TICs	HCL pH<2	3 - 40 mL glass vials	Yes
Dissolved metals + Hardness	HNO_3 pH<2	1 - 500 mL plastic filtered	Yes
Dissolved Hexavalent chromium	cr6 buffer	1 - 250 mL plastic filtered	Yes

OBSERVATIONS / NOTES:

Water depth 1.8034 meters

MAP:

Circle if Applicable:

MS/MSD	Duplicate ID No.:

Signature(s):

Tetra Tech

SURFACE WATER SAMPLE LOG SHEET

Project Site Name: Frog Mortar Creek, Martin State Airport
Project No.: 112IC08735

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

Sample ID No.: MSA-SW44A -090919
Sample Location: MSA-SW44A
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:	9/9/2019	(Visual)	(S.U.)	(mS/cm)	(^{0}C)	(NTU)	(mg/L)	(ppt)	mV
Time:	1054								
Depth:	1 ft below water	**clear**	**5.38**	**4.77**	**25.20**	**9.88**	**7.98**	**2.6**	**158**
Method:	Grab								

SAMPLE COLLECTION INFORMATION:

Analysis	Preservative	Container Requirements	Collected
VOCs + TICs	HCL pH<2	3 - 40 mL glass vials	Yes
Dissolved metals + Hardness	HNO_3 pH<2	1 - 500 mL plastic filtered	Yes
Dissolved Hexavalent chromium	cr6 buffer	1 - 250 mL plastic filtered	Yes

OBSERVATIONS / NOTES:

Water depth 0.381 meters

MAP:

Circle if Applicable:

MS/MSD	Duplicate ID No.:

Signature(s):

Tetra Tech

SURFACE WATER SAMPLE LOG SHEET

Project Site Name: Frog Mortar Creek, Martin State Airport
Project No.: 112IC08735

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

Sample ID No.: MSA-SW44B -090919
Sample Location: MSA-SW44B
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:	9/9/2019	(Visual)	(S.U.)	(mS/cm)	(^{0}C)	(NTU)	(mg/L)	(ppt)	mV
Time:	1058								
Depth:	1 ft below water	**clear**	**5.37**	**4.79**	**25.10**	**4.72**	**8.02**	**2.6**	**136**
Method:	Grab								

SAMPLE COLLECTION INFORMATION:

Analysis	Preservative	Container Requirements	Collected
VOCs + TICs	HCL pH<2	3 - 40 mL glass vials	Yes
Dissolved metals + Hardness	HNO_3 pH<2	1 - 500 mL plastic filtered	Yes
Dissolved Hexavalent chromium	cr6 buffer	1 - 250 mL plastic filtered	Yes

OBSERVATIONS / NOTES:

Water depth 1.5367 meters

MAP:

Circle if Applicable:

MS/MSD	Duplicate ID No.:

Signature(s):

Tetra Tech

SURFACE WATER SAMPLE LOG SHEET

Project Site Name: Frog Mortar Creek, Martin State Airport
Project No.: 112IC08735

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

Sample ID No.: MSA-SW44C -090919
Sample Location: MSA-SW44C
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:	9/9/2019	(Visual)	(S.U.)	(mS/cm)	(^{0}C)	(NTU)	(mg/L)	(ppt)	mV
Time:	1101								
Depth:	1 ft below water	**clear**	**5.37**	**4.83**	**25.20**	**4.29**	**7.99**	**2.6**	**143**
Method:	Grab								

SAMPLE COLLECTION INFORMATION:

Analysis	Preservative	Container Requirements	Collected
VOCs + TICs	HCL pH<2	3 - 40 mL glass vials	Yes
Dissolved metals + Hardness	HNO_3 pH<2	1 - 500 mL plastic filtered	Yes
Dissolved Hexavalent chromium	cr6 buffer	1 - 250 mL plastic filtered	Yes

OBSERVATIONS / NOTES:

Water depth 1.7907 meters

MAP:

Circle if Applicable:

MS/MSD	Duplicate ID No.:

Signature(s):

Tetra Tech

SURFACE WATER SAMPLE LOG SHEET

Project Site Name: Frog Mortar Creek, Martin State Airport
Project No.: 112IC08735

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

Sample ID No.: MSA-SW44D -090919
Sample Location: MSA-SW44D
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:	9/9/2019	(Visual)	(S.U.)	(mS/cm)	(^{0}C)	(NTU)	(mg/L)	(ppt)	mV
Time:	1105								
Depth:	1 ft below water	**clear**	**5.37**	**4.81**	**25.10**	**4.34**	**8.10**	**2.6**	**147**
Method:	Grab								

SAMPLE COLLECTION INFORMATION:

Analysis	Preservative	Container Requirements	Collected
VOCs + TICs	HCL pH<2	3 - 40 mL glass vials	Yes
Dissolved metals + Hardness	HNO_3 pH<2	1 - 500 mL plastic filtered	Yes
Dissolved Hexavalent chromium	cr6 buffer	1 - 250 mL plastic filtered	Yes

OBSERVATIONS / NOTES:

Water depth 1.8034 meters

MAP:

Circle if Applicable:

MS/MSD	Duplicate ID No.:

Signature(s):

Tetra Tech

SURFACE WATER SAMPLE LOG SHEET

Project Site Name: Frog Mortar Creek, Martin State Airport
Project No.: 112IC08735

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

Sample ID No.: MSA-SW45A -090919
Sample Location: MSA-SW45A
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:	9/9/2019								
Time:	1036	(Visual)	(S.U.)	(mS/cm)	(^{0}C)	(NTU)	(mg/L)	(ppt)	mV
Depth:	1 ft below water	**clear**	**5.35**	**4.94**	**24.80**	**5.02**	**8.04**	**2.6**	**188**
Method:	Grab								

SAMPLE COLLECTION INFORMATION:

Analysis	Preservative	Container Requirements	Collected
VOCs + TICs	HCL pH<2	3 - 40 mL glass vials	Yes
Dissolved metals + Hardness	HNO_3 pH<2	1 - 500 mL plastic filtered	Yes
Dissolved Hexavalent chromium	cr6 buffer	1 - 250 mL plastic filtered	Yes

OBSERVATIONS / NOTES:

Water depth 0.5588 meters

MAP:

Circle if Applicable:

MS/MSD	Duplicate ID No.:

Signature(s):

Tetra Tech

SURFACE WATER SAMPLE LOG SHEET

Project Site Name: Frog Mortar Creek, Martin State Airport
Project No.: 112IC08735

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

Sample ID No.: MSA-SW45B -090919
Sample Location: MSA-SW45B
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:	9/9/2019	(Visual)	(S.U.)	(mS/cm)	(^{0}C)	(NTU)	(mg/L)	(ppt)	mV
Time:	1046								
Depth:	1 ft below water	**clear**	**5.36**	**4.84**	**24.90**	**4.58**	**8.11**	**2.6**	**157**
Method:	Grab								

SAMPLE COLLECTION INFORMATION:

Analysis	Preservative	Container Requirements	Collected
VOCs + TICs	HCL pH<2	3 - 40 mL glass vials	Yes
Dissolved metals + Hardness	HNO_3 pH<2	1 - 500 mL plastic filtered	Yes
Dissolved Hexavalent chromium	cr6 buffer	1 - 250 mL plastic filtered	Yes

OBSERVATIONS / NOTES:

Water depth 1.8034 meters

MAP:

Circle if Applicable:

MS/MSD	Duplicate ID No.:

Signature(s):

Tetra Tech

SURFACE WATER SAMPLE LOG SHEET

Project Site Name: Frog Mortar Creek, Martin State Airport
Project No.: 112IC08735

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

Sample ID No.: MSA-SW45C -090919
Sample Location: MSA-SW45C
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:	9/9/2019	(Visual)	(S.U.)	(mS/cm)	(^{0}C)	(NTU)	(mg/L)	(ppt)	mV
Time:	1045								
Depth:	1 ft below water	**clear**	**5.36**	**4.84**	**24.90**	**4.51**	**8.10**	**2.6**	**157**
Method:	Grab								

SAMPLE COLLECTION INFORMATION:

Analysis	Preservative	Container Requirements	Collected
VOCs + TICs	HCL pH<2	3 - 40 mL glass vials	Yes
Dissolved metals + Hardness	HNO_3 pH<2	1 - 500 mL plastic filtered	Yes
Dissolved Hexavalent chromium	cr6 buffer	1 - 250 mL plastic filtered	Yes

OBSERVATIONS / NOTES:

Water depth 1.8034 meters

MAP:

Circle if Applicable:

MS/MSD	Duplicate ID No.:

Signature(s):

Tetra Tech

SURFACE WATER SAMPLE LOG SHEET

Project Site Name: Frog Mortar Creek, Martin State Airport
Project No.: 112IC08735

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

Sample ID No.: MSA-SW45D -090919
Sample Location: MSA-SW45D
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:	9/9/2019	(Visual)	(S.U.)	(mS/cm)	(^{0}C)	(NTU)	(mg/L)	(ppt)	mV
Time:	1049								
Depth:	1 ft below water	**clear**	**5.36**	**4.84**	**25.00**	**4.28**	**8.05**	**2.6**	**156**
Method:	Grab								

SAMPLE COLLECTION INFORMATION:

Analysis	Preservative	Container Requirements	Collected
VOCs + TICs	HCL pH<2	3 - 40 mL glass vials	Yes
Dissolved metals + Hardness	HNO_3 pH<2	1 - 500 mL plastic filtered	Yes
Dissolved Hexavalent chromium	cr6 buffer	1 - 250 mL plastic filtered	Yes

OBSERVATIONS / NOTES:

Water depth 1.8034 meters

MAP:

Circle if Applicable:

MS/MSD	Duplicate ID No.:

Signature(s):

Tetra Tech

SURFACE WATER SAMPLE LOG SHEET

Project Site Name: Frog Mortar Creek, Martin State Airport
Project No.: 112IC08735

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

Sample ID No.: MSA-SW46A -090919
Sample Location: MSA-SW46A
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:	9/9/2019	(Visual)	(S.U.)	(mS/cm)	(^{0}C)	(NTU)	(mg/L)	(ppt)	mV
Time:	1227								
Depth:	1 ft below water	**clear**	**5.36**	**4.72**	**25.90**	**5.20**	**7.83**	**2.5**	**149**
Method:	Grab								

SAMPLE COLLECTION INFORMATION:

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

OBSERVATIONS / NOTES:

Water depth 0.7112 meters

MAP:

Circle if Applicable:

MS/MSD	Duplicate ID No.:

Signature(s):

Tetra Tech

SURFACE WATER SAMPLE LOG SHEET

Project Site Name: Frog Mortar Creek, Martin State Airport
Project No.: 112IC08735

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

Sample ID No.: MSA-SW47A -090919
Sample Location: MSA-SW47A
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:	9/9/2019	(Visual)	(S.U.)	(mS/cm)	(^{0}C)	(NTU)	(mg/L)	(ppt)	mV
Time:	1205								
Depth:	1 ft below water	**clear**	**5.37**	**4.71**	**25.80**	**5.33**	**7.80**	**2.5**	**147**
Method:	Grab								

SAMPLE COLLECTION INFORMATION:

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

OBSERVATIONS / NOTES:

Water depth 0.5207 meters

MAP:

Circle if Applicable:

MS/MSD	Duplicate ID No.:

Signature(s):

Tetra Tech

SURFACE WATER SAMPLE LOG SHEET

Project Site Name: Frog Mortar Creek, Martin State Airport
Project No.: 112IC08735

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

Sample ID No.: MSA-SW48A -090919
Sample Location: MSA-SW48A
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:	9/9/2019	(Visual)	(S.U.)	(mS/cm)	(^{0}C)	(NTU)	(mg/L)	(ppt)	mV
Time:	1144								
Depth:	1 ft below water	**clear**	**5.37**	**4.70**	**25.40**	**6.50**	**7.89**	**2.5**	**155**
Method:	Grab								

SAMPLE COLLECTION INFORMATION:

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

OBSERVATIONS / NOTES:

Water depth 0.5334 meters

MAP:

Circle if Applicable:

MS/MSD	Duplicate ID No.:

Signature(s):

Tetra Tech

SURFACE WATER SAMPLE LOG SHEET

Project Site Name: Frog Mortar Creek, Martin State Airport
Project No.: 112IC08735

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

Sample ID No.: MSA-SW49A -090919
Sample Location: MSA-SW49A
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:	9/9/2019								
Time:	1124	(Visual)	(S.U.)	(mS/cm)	(^{0}C)	(NTU)	(mg/L)	(ppt)	mV
Depth:	1 ft below water	**clear**	**5.38**	**4.71**	**25.50**	**7.53**	**7.86**	**2.5**	**154**
Method:	Grab								

SAMPLE COLLECTION INFORMATION:

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

OBSERVATIONS / NOTES:

Water depth 0.508 meters

MAP:

Circle if Applicable:

MS/MSD	Duplicate ID No.:

Signature(s):

APPENDIX B—DATA-VALIDATION REPORTS

TETRA TECH

INTERNAL CORRESPONDENCE

TO: **S. BRENNER** **DATE:** **DECEMBER 10, 2019**

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

SUBJECT: **ORGANIC & INORGANIC DATA VALIDATION – VOC/DISSOLVED METALS/ HARDNESS**
LOCKHEED MARTIN CORPORATION (LMC) – MARTIN STATE AIRPORT (MSA)
FROG MORTAR CREEK SURFACE WATER SAMPLING
SDG 240-118610-1

SAMPLES: 45/Aqueous/VOC

EL-SW01A-090919	EL-SW01B-090919	EL-SW01C-090919
EL-SW01D-090919	MSA-SW37A-090919	MSA-SW37B-090919
MSA-SW37C-090919	MSA-SW37D-090919	MSA-SW38A-090919
MSA-SW38B-090919	MSA-SW38C-090919	MSA-SW38D-090919
MSA-SW39A-090919	MSA-SW39B-090919	MSA-SW39C-090919
MSA-SW39D-090919	MSA-SW40A-090919	MSA-SW40B-090919
MSA-SW40C-090919	MSA-SW40D-090919	MSA-SW41A-090919
MSA-SW41B-090919	MSA-SW41C-090919	MSA-SW41D-090919
MSA-SW42A-090919	MSA-SW42B-090919	MSA-SW42C-090919
MSA-SW42D-090919	MSA-SW43A-090919	MSA-SW43B-090919
MSA-SW43C-090919	MSA-SW43D-090919	MSA-SW44A-090919
MSA-SW44B-090919	MSA-SW44C-090919	MSA-SW44D-090919
MSA-SW45A-090919	MSA-SW45B-090919	MSA-SW45C-090919
MSA-SW45D-090919	MSA-SW46A-090919	MSA-SW47A-090919
MSA-SW48A-090919	MSA-SW49A-090919	TB-090919

36/Aqueous/Dissolved Metals/Hardness

MSA-SW37A-090919	MSA-SW37B-090919	MSA-SW37C-090919
MSA-SW37D-090919	MSA-SW38A-090919	MSA-SW38B-090919
MSA-SW38C-090919	MSA-SW38D-090919	MSA-SW39A-090919
MSA-SW39B-090919	MSA-SW39C-090919	MSA-SW39D-090919
MSA-SW40A-090919	MSA-SW40B-090919	MSA-SW40C-090919
MSA-SW40D-090919	MSA-SW41A-090919	MSA-SW41B-090919
MSA-SW41C-090919	MSA-SW41D-090919	MSA-SW42A-090919
MSA-SW42B-090919	MSA-SW42C-090919	MSA-SW42D-090919
MSA-SW43A-090919	MSA-SW43B-090919	MSA-SW43C-090919
MSA-SW43D-090919	MSA-SW44A-090919	MSA-SW44B-090919
MSA-SW44C-090919	MSA-SW44D-090919	MSA-SW45A-090919
MSA-SW45B-090919	MSA-SW45C-090919	MSA-SW45D-090919

Overview

The sample set for LMC-MSA Frog Mortar Creek, SDG 240-118610-1 consisted of forty-four (44) aqueous environmental samples and one (1) trip blank. All forty-five (45) aqueous samples were analyzed for Volatile Organic Compounds (VOC). Thirty-six (36) aqueous samples were analyzed for dissolved metals and hardness. No field duplicate sample pair was included in this SDG.

The samples were collected by Tetra Tech, Inc. on September 9, 2019 and analyzed by TestAmerica, Inc. All analyses were conducted in accordance with SW-846 Methods 8260C, 6020, 7470A, 9060, and Standard Methods SM 2340B analytical and reporting protocols.

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

Major

- As stated in the laboratory case narrative, 2-chloroethyl vinyl ether cannot be reliably recovered in an acid preserved samples. All samples in this SDG were acid preserved. The non-detected results reported for 2-chloroethyl vinyl ether were qualified as rejected, (UR) in the acid preserved samples.

Minor

- The VOC continuing calibration performed on instrument A3UX19 on 09/13/2019 @ 16:17 had Percent Differences (%Ds) for acetone, t-butyl alcohol, 1,2,4-trichlorobenzene, hexachlorobutadiene, and 1,2,3-trichlorobenzene exceeded the 20% quality control limit. Samples associated with analytical batch #240-400639 were affected. The non-detected results reported for these compounds in the affected samples were qualified as estimated, (UJ). Detected results for t-butyl alcohol were qualified as estimated, (J).

- The VOC continuing calibration performed on instrument A3UX19 on 09/14/2019 @ 12:23 had %Ds for 1,2,4-trichlorobenzene, hexachlorobutadiene, and 1,2,3-trichlorobenzene which exceeded the 20% quality control limit. Samples associated with analytical batch #240-400715 were affected. The non-detected results reported for these compounds in the affected samples were qualified as estimated, (UJ).

- The VOC continuing calibration performed on instrument A3UX19 on 09/17/2019 @ 18:33 had a %D for 1,1,2-trichloro-1,2,2-trifluoroethane, 1,2,4-trichlorobenzene, and hexachlorobutadiene, which exceeded the 20% quality control limit. Samples associated with analytical batch #240-401172-1 were affected. The detected and non-detected results reported for this compound in the affected samples were qualified as estimated, (J) and (UJ), respectively.

- Lead and tungsten were detected in a method blank (400294) at 0.562 ug/L and 2.69 ug/L, respectively. The aforementioned analytes were detected below the laboratory reporting limit. Detected results for tungsten in the associated batch were qualified as nondetected (U). No action was required for lead because all results were nondetected.

- Beryllium was detected in a continuing calibration blank at a concentration below the reporting limit. Detections of beryllium in associated samples below the reporting limit were qualified as nondetected (U).

- The matrix spike and matrix spike duplicate recoveries for mercury were greater than the upper quality control limit in sample MSA-SW42A-090919. No action was required because all results in the associated preparation batch, 400304, were acceptable.

- A Tentatively Identified Compound (TIC) search was performed for the compound chlorodifluoromethane for thirty-six of the samples. The laboratory did not detect this compound in the samples in this SDG. The laboratory assigned a Reporting Limit (RL) of 1 µg/L. Because the GC/MS was not calibrated for this compound, the RL is not considered precise. The non-detected results reported for chlorodifluoromethane were qualified as estimated, (UJ).

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

Notes

Non-detected results were reported to the MDL.

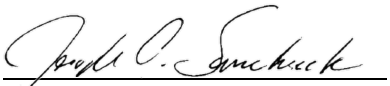
The matrix spike for mercury was greater than the upper quality control limit in sample MSA-SW37A-090919. The matrix spike duplicate was acceptable. No action was required because all results in the associated preparation batch, 400304, were acceptable.

Executive Summary

Laboratory Performance: A few VOC continuing calibration %Ds exceeded 20%. Non-detected chlorodifluoromethane results were estimated because the compound was evaluated via TIC library search.

Other Factors Affecting Data Quality: 2-Chloroethyl vinyl ether results were rejected because the samples were acid preserved. Matrix spike recoveries for mercury were high. Results below the RL were estimated.

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



Tetra Tech, Inc.
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: 08735	NSAMPLE	EL-SW01A-090919			EL-SW01B-090919			EL-SW01C-090919			EL-SW01D-090919		
SDG: 240-118610-1	LAB_ID	240-118610-37			240-118610-38			240-118610-39			240-118610-40		
FRACTION: OV	SAMP_DATE	9/9/2019			9/9/2019			9/9/2019			9/9/2019		
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
1,1,1,2-TETRACHLOROETHANE		0.14	U		0.14	U		0.14	U		0.14	U	
1,1,1-TRICHLOROETHANE		0.24	U		0.24	U		0.24	U		0.24	U	
1,1,2,2-TETRACHLOROETHANE		0.13	U		0.13	U		0.13	U		0.13	U	
1,1,2-TRICHLOROTRIFLUOROETHANE		0.41	U		0.41	U		0.41	U		0.41	U	
1,1-DICHLOROETHANE		0.17	U		0.17	U		0.17	U		0.17	U	
1,1-DICHLOROETHENE		0.19	U		0.19	U		0.19	U		0.19	U	
1,1-DICHLOROPROPENE		0.14	U		0.14	U		0.14	U		0.14	U	
1,2,3-TRICHLOROBENZENE		0.54	UJ	C	0.54	UJ	C	0.54	UJ	C	0.54	UJ	C
1,2,3-TRICHLOROPROPANE		0.24	U		0.24	U		0.24	U		0.24	U	
1,2,3-TRIMETHYLBENZENE		0.14	U		0.14	U		0.14	U		0.14	U	
1,2,4-TRICHLOROBENZENE		0.26	UJ	C	0.26	UJ	C	0.26	UJ	C	0.26	UJ	C
1,2,4-TRIMETHYLBENZENE		0.07	U		0.07	U		0.07	U		0.07	U	
1,2-DIBROMO-3-CHLOROPROPANE		0.91	U		0.91	U		0.91	U		0.91	U	
1,2-DIBROMOETHANE		0.12	U		0.12	U		0.12	U		0.12	U	
1,2-DICHLOROBENZENE		0.15	U		0.15	U		0.15	U		0.15	U	
1,2-DICHLOROETHANE		0.21	U		0.21	U		0.21	U		0.21	U	
1,2-DICHLOROPROPANE		0.15	U		0.15	U		0.15	U		0.15	U	
1,3-DICHLOROBENZENE		0.15	U		0.15	U		0.15	U		0.15	U	
1,3-DICHLOROPROPANE		0.21	U		0.21	U		0.21	U		0.21	U	
1,4-DICHLOROBENZENE		0.16	U		0.16	U		0.16	U		0.16	U	
2,2-DICHLOROPROPANE		0.31	U		0.31	U		0.31	U		0.31	U	
2-BUTANONE		1.2	U		1.2	U		1.2	U		1.2	U	
2-CHLOROETHYL VINYL ETHER		0.26	UR	M	0.26	UR	M	0.26	UR	M	0.26	UR	M
2-CHLOROTOLUENE		0.15	U		0.15	U		0.15	U		0.15	U	
2-HEXANONE		0.54	U		0.54	U		0.54	U		0.54	U	
4-CHLOROTOLUENE		0.09	U		0.09	U		0.09	U		0.09	U	
4-ISOPROPYLTOLUENE		0.13	U		0.13	U		0.13	U		0.13	U	
4-METHYL-2-PENTANONE		0.42	U		0.42	U		0.42	U		0.42	U	
ACETONE		5.4	U		5.4	U		5.4	U		5.4	U	
BENZENE		0.13	U		0.13	U		0.13	U		0.13	U	
BROMOBENZENE		0.12	U		0.12	U		0.12	U		0.12	U	
BROMOCHLOROMETHANE		0.14	U		0.14	U		0.14	U		0.14	U	
BROMODICHLOROMETHANE		0.17	U		0.17	U		0.17	U		0.17	U	
BROMOFORM		0.76	U		0.76	U		0.76	U		0.76	U	
BROMOMETHANE		0.42	U		0.42	U		0.42	U		0.42	U	

PROJ_NO: 08735	NSAMPLE	MSA-SW37A-090919			MSA-SW37B-090919			MSA-SW37C-090919			MSA-SW37D-090919		
SDG: 240-118610-1	LAB_ID	240-118610-1			240-118610-2			240-118610-3			240-118610-4		
FRACTION: OV	SAMP_DATE	9/9/2019			9/9/2019			9/9/2019			9/9/2019		
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
1,1,1,2-TETRACHLOROETHANE		0.14	U		0.14	U		0.14	U		0.14	U	
1,1,1-TRICHLOROETHANE		0.24	U		0.24	U		0.24	U		0.24	U	
1,1,2,2-TETRACHLOROETHANE		0.13	U		0.13	U		0.13	U		0.13	U	
1,1,2-TRICHLOROTRIFLUOROETHANE		0.41	U		0.41	U		0.41	U		0.41	U	
1,1-DICHLOROETHANE		0.17	U		0.17	U		0.17	U		0.17	U	
1,1-DICHLOROETHENE		0.19	U		0.19	U		0.19	U		0.19	U	
1,1-DICHLOROPROPENE		0.14	U		0.14	U		0.14	U		0.14	U	
1,2,3-TRICHLOROBENZENE		0.54	UJ		0.54	UJ		0.54	UJ		0.54	UJ	
1,2,3-TRICHLOROPROPANE		0.24	UJ	C	0.24	UJ	C	0.24	UJ	C	0.24	UJ	C
1,2,3-TRIMETHYLBENZENE		0.14	U		0.14	U		0.14	U		0.14	U	
1,2,4-TRICHLOROBENZENE		0.26	UJ	C	0.26	UJ	C	0.26	UJ	C	0.26	UJ	C
1,2,4-TRIMETHYLBENZENE		0.07	U		0.07	U		0.07	U		0.07	U	
1,2-DIBROMO-3-CHLOROPROPANE		0.91	U		0.91	U		0.91	U		0.91	U	
1,2-DIBROMOETHANE		0.12	U		0.12	U		0.12	U		0.12	U	
1,2-DICHLOROBENZENE		0.15	U		0.15	U		0.15	U		0.15	U	
1,2-DICHLOROETHANE		0.21	U		0.21	U		0.21	U		0.21	U	
1,2-DICHLOROPROPANE		0.15	U		0.15	U		0.15	U		0.15	U	
1,3-DICHLOROBENZENE		0.15	U		0.15	U		0.15	U		0.15	U	
1,3-DICHLOROPROPANE		0.21	U		0.21	U		0.21	U		0.21	U	
1,4-DICHLOROBENZENE		0.16	U		0.16	U		0.16	U		0.16	U	
2,2-DICHLOROPROPANE		0.31	U		0.31	U		0.31	U		0.31	U	
2-BUTANONE		1.2	U		1.2	U		1.2	U		1.2	U	
2-CHLOROETHYL VINYL ETHER		0.26	UR	M	0.26	UR	M	0.26	UR	M	0.26	UR	M
2-CHLOROTOLUENE		0.15	U		0.15	U		0.15	U		0.15	U	
2-HEXANONE		0.54	U		0.54	U		0.54	U		0.54	U	
4-CHLOROTOLUENE		0.09	U		0.09	U		0.09	U		0.09	U	
4-ISOPROPYLTOLUENE		0.13	U		0.13	U		0.13	U		0.13	U	
4-METHYL-2-PENTANONE		0.42	U		0.42	U		0.42	U		0.42	U	
ACETONE		5.4	UJ	C	5.4	UJ	C	5.4	UJ	C	5.4	UJ	C
BENZENE		0.13	U		0.13	U		0.13	U		0.13	U	
BROMOBENZENE		0.12	U		0.12	U		0.12	U		0.12	U	
BROMOCHLOROMETHANE		0.14	U		0.14	U		0.14	U		0.14	U	
BROMODICHLOROMETHANE		0.17	U		0.17	U		0.17	U		0.17	U	
BROMOFORM		0.76	U		0.76	U		0.76	U		0.76	U	
BROMOMETHANE		0.42	U		0.42	U		0.42	U		0.42	U	

PROJ_NO: 08735	NSAMPLE	MSA-SW38A-090919			MSA-SW38B-090919			MSA-SW38C090919			MSA-SW38D-090919		
SDG: 240-118610-1	LAB_ID	240-118610-5			240-118610-6			240-118610-7			240-118610-8		
FRACTION: OV	SAMP_DATE	9/9/2019			9/9/2019			9/9/2019			9/9/2019		
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
1,1,1,2-TETRACHLOROETHANE		0.14	U		0.14	U		0.14	U		0.14	U	
1,1,1-TRICHLOROETHANE		0.24	U		0.24	U		0.24	U		0.24	U	
1,1,2,2-TETRACHLOROETHANE		0.13	U		0.13	U		0.13	U		0.13	U	
1,1,2-TRICHLOROTRIFLUOROETHANE		0.41	U		0.41	U		0.41	U		0.41	U	
1,1-DICHLOROETHANE		0.17	U		0.17	U		0.17	U		0.17	U	
1,1-DICHLOROETHENE		0.19	U		0.19	U		0.19	U		0.19	U	
1,1-DICHLOROPROPENE		0.14	U		0.14	U		0.14	U		0.14	U	
1,2,3-TRICHLOROBENZENE		0.54	UJ		0.54	UJ		0.54	UJ		0.54	UJ	
1,2,3-TRICHLOROPROPANE		0.24	UJ	C	0.24	UJ	C	0.24	UJ	C	0.24	UJ	C
1,2,3-TRIMETHYLBENZENE		0.14	U		0.14	U		0.14	U		0.14	U	
1,2,4-TRICHLOROBENZENE		0.26	UJ	C	0.26	UJ	C	0.26	UJ	C	0.26	UJ	C
1,2,4-TRIMETHYLBENZENE		0.07	U		0.07	U		0.07	U		0.07	U	
1,2-DIBROMO-3-CHLOROPROPANE		0.91	U		0.91	U		0.91	U		0.91	U	
1,2-DIBROMOETHANE		0.12	U		0.12	U		0.12	U		0.12	U	
1,2-DICHLOROBENZENE		0.15	U		0.15	U		0.15	U		0.15	U	
1,2-DICHLOROETHANE		0.21	U		0.21	U		0.21	U		0.21	U	
1,2-DICHLOROPROPANE		0.15	U		0.15	U		0.15	U		0.15	U	
1,3-DICHLOROBENZENE		0.15	U		0.15	U		0.15	U		0.15	U	
1,3-DICHLOROPROPANE		0.21	U		0.21	U		0.21	U		0.21	U	
1,4-DICHLOROBENZENE		0.16	U		0.16	U		0.16	U		0.16	U	
2,2-DICHLOROPROPANE		0.31	U		0.31	U		0.31	U		0.31	U	
2-BUTANONE		1.2	U		1.2	U		1.2	U		1.2	U	
2-CHLOROETHYL VINYL ETHER		0.26	UR	M	0.26	UR	M	0.26	UR	M	0.26	UR	M
2-CHLOROTOLUENE		0.15	U		0.15	U		0.15	U		0.15	U	
2-HEXANONE		0.54	U		0.54	U		0.54	U		0.54	U	
4-CHLOROTOLUENE		0.09	U		0.09	U		0.09	U		0.09	U	
4-ISOPROPYLTOLUENE		0.13	U		0.13	U		0.13	U		0.13	U	
4-METHYL-2-PENTANONE		0.42	U		0.42	U		0.42	U		0.42	U	
ACETONE		5.4	UJ	C	5.4	UJ	C	5.4	UJ	C	5.4	UJ	C
BENZENE		0.13	U		0.13	U		0.13	U		0.13	U	
BROMOBENZENE		0.12	U		0.12	U		0.12	U		0.12	U	
BROMOCHLOROMETHANE		0.14	U		0.14	U		0.14	U		0.14	U	
BROMODICHLOROMETHANE		0.17	U		0.17	U		0.17	U		0.17	U	
BROMOFORM		0.76	U		0.76	U		0.76	U		0.76	U	
BROMOMETHANE		0.42	U		0.42	U		0.42	U		0.42	U	

PROJ_NO: 08735	NSAMPLE	MSA-SW39A-090919			MSA-SW39B-090919			MSA-SW39C-090919			MSA-SW39D-090919		
SDG: 240-118610-1	LAB_ID	240-118610-9			240-118610-10			240-118610-11			240-118610-12		
FRACTION: OV	SAMP_DATE	9/9/2019			9/9/2019			9/9/2019			9/9/2019		
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
1,1,1,2-TETRACHLOROETHANE		0.14	U		0.14	U		0.14	U		0.14	U	
1,1,1-TRICHLOROETHANE		0.24	U		0.24	U		0.24	U		0.24	U	
1,1,2,2-TETRACHLOROETHANE		0.13	U		0.13	U		0.13	U		0.13	U	
1,1,2-TRICHLOROTRIFLUOROETHANE		0.41	U		0.41	U		0.41	U		0.41	U	
1,1-DICHLOROETHANE		0.17	U		0.17	U		0.17	U		0.17	U	
1,1-DICHLOROETHENE		0.19	U		0.19	U		0.19	U		0.19	U	
1,1-DICHLOROPROPENE		0.14	U		0.14	U		0.14	U		0.14	U	
1,2,3-TRICHLOROBENZENE		0.54	UJ		0.54	UJ		0.54	UJ		0.54	UJ	
1,2,3-TRICHLOROPROPANE		0.24	UJ	C	0.24	UJ	C	0.24	UJ	C	0.24	UJ	C
1,2,3-TRIMETHYLBENZENE		0.14	U		0.14	U		0.14	U		0.14	U	
1,2,4-TRICHLOROBENZENE		0.26	UJ	C	0.26	UJ	C	0.26	UJ	C	0.26	UJ	C
1,2,4-TRIMETHYLBENZENE		0.07	U		0.07	U		0.07	U		0.07	U	
1,2-DIBROMO-3-CHLOROPROPANE		0.91	U		0.91	U		0.91	U		0.91	U	
1,2-DIBROMOETHANE		0.12	U		0.12	U		0.12	U		0.12	U	
1,2-DICHLOROBENZENE		0.15	U		0.15	U		0.15	U		0.15	U	
1,2-DICHLOROETHANE		0.21	U		0.21	U		0.21	U		0.21	U	
1,2-DICHLOROPROPANE		0.15	U		0.15	U		0.15	U		0.15	U	
1,3-DICHLOROBENZENE		0.15	U		0.15	U		0.15	U		0.15	U	
1,3-DICHLOROPROPANE		0.21	U		0.21	U		0.21	U		0.21	U	
1,4-DICHLOROBENZENE		0.16	U		0.16	U		0.16	U		0.16	U	
2,2-DICHLOROPROPANE		0.31	U		0.31	U		0.31	U		0.31	U	
2-BUTANONE		1.2	U		1.2	U		1.2	U		1.2	U	
2-CHLOROETHYL VINYL ETHER		0.26	UR	M	0.26	UR	M	0.26	UR	M	0.26	UR	M
2-CHLOROTOLUENE		0.15	U		0.15	U		0.15	U		0.15	U	
2-HEXANONE		0.54	U		0.54	U		0.54	U		0.54	U	
4-CHLOROTOLUENE		0.09	U		0.09	U		0.09	U		0.09	U	
4-ISOPROPYLTOLUENE		0.13	U		0.13	U		0.13	U		0.13	U	
4-METHYL-2-PENTANONE		0.42	U		0.42	U		0.42	U		0.42	U	
ACETONE		5.4	UJ	C	5.4	UJ	C	5.4	UJ	C	5.4	UJ	C
BENZENE		0.13	U		0.13	U		0.13	U		0.13	U	
BROMOBENZENE		0.12	U		0.12	U		0.12	U		0.12	U	
BROMOCHLOROMETHANE		0.14	U		0.14	U		0.14	U		0.14	U	
BROMODICHLOROMETHANE		0.17	U		0.17	U		0.17	U		0.17	U	
BROMOFORM		0.76	U		0.76	U		0.76	U		0.76	U	
BROMOMETHANE		0.42	U		0.42	U		0.42	U		0.42	U	

PROJ_NO: 08735	NSAMPLE	MSA-SW40A-090919			MSA-SW40B-090919			MSA-SW40C-090919			MSA-SW40D-090919		
SDG: 240-118610-1	LAB_ID	240-118610-13			240-118610-14			240-118610-15			240-118610-16		
FRACTION: OV	SAMP_DATE	9/9/2019			9/9/2019			9/9/2019			9/9/2019		
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
1,1,1,2-TETRACHLOROETHANE		0.14	U		0.14	U		0.14	U		0.14	U	
1,1,1-TRICHLOROETHANE		0.24	U		0.24	U		0.24	U		0.24	U	
1,1,2,2-TETRACHLOROETHANE		0.13	U		0.13	U		0.13	U		0.13	U	
1,1,2-TRICHLOROTRIFLUOROETHANE		0.41	U		0.41	U		0.41	U		0.41	U	
1,1-DICHLOROETHANE		0.17	U		0.17	U		0.17	U		0.17	U	
1,1-DICHLOROETHENE		0.19	U		0.19	U		0.19	U		0.19	U	
1,1-DICHLOROPROPENE		0.14	U		0.14	U		0.14	U		0.14	U	
1,2,3-TRICHLOROBENZENE		0.54	UJ		0.54	UJ		0.54	UJ		0.54	UJ	
1,2,3-TRICHLOROPROPANE		0.24	UJ	C	0.24	UJ	C	0.24	UJ	C	0.24	UJ	C
1,2,3-TRIMETHYLBENZENE		0.14	U		0.14	U		0.14	U		0.14	U	
1,2,4-TRICHLOROBENZENE		0.26	UJ	C	0.26	UJ	C	0.26	UJ	C	0.26	UJ	C
1,2,4-TRIMETHYLBENZENE		0.07	U		0.07	U		0.07	U		0.07	U	
1,2-DIBROMO-3-CHLOROPROPANE		0.91	U		0.91	U		0.91	U		0.91	U	
1,2-DIBROMOETHANE		0.12	U		0.12	U		0.12	U		0.12	U	
1,2-DICHLOROBENZENE		0.15	U		0.15	U		0.15	U		0.15	U	
1,2-DICHLOROETHANE		0.21	U		0.21	U		0.21	U		0.21	U	
1,2-DICHLOROPROPANE		0.15	U		0.15	U		0.15	U		0.15	U	
1,3-DICHLOROBENZENE		0.15	U		0.15	U		0.15	U		0.15	U	
1,3-DICHLOROPROPANE		0.21	U		0.21	U		0.21	U		0.21	U	
1,4-DICHLOROBENZENE		0.16	U		0.16	U		0.16	U		0.16	U	
2,2-DICHLOROPROPANE		0.31	U		0.31	U		0.31	U		0.31	U	
2-BUTANONE		1.2	U		1.2	U		1.2	U		1.2	U	
2-CHLOROETHYL VINYL ETHER		0.26	UR	M	0.26	UR	M	0.26	UR	M	0.26	UR	M
2-CHLOROTOLUENE		0.15	U		0.15	U		0.15	U		0.15	U	
2-HEXANONE		0.54	U		0.54	U		0.54	U		0.54	U	
4-CHLOROTOLUENE		0.09	U		0.09	U		0.09	U		0.09	U	
4-ISOPROPYLTOLUENE		0.13	U		0.13	U		0.13	U		0.13	U	
4-METHYL-2-PENTANONE		0.42	U		0.42	U		0.42	U		0.42	U	
ACETONE		5.4	UJ	C	5.4	UJ	C	5.4	UJ	C	5.4	UJ	C
BENZENE		0.13	U		0.13	U		0.13	U		0.13	U	
BROMOBENZENE		0.12	U		0.12	U		0.12	U		0.12	U	
BROMOCHLOROMETHANE		0.14	U		0.14	U		0.14	U		0.14	U	
BROMODICHLOROMETHANE		0.17	U		0.17	U		0.17	U		0.17	U	
BROMOFORM		0.76	U		0.76	U		0.76	U		0.76	U	
BROMOMETHANE		0.42	U		0.42	U		0.42	U		0.42	U	

PROJ_NO: 08735	NSAMPLE	MSA-SW41A-090919			MSA-SW41B-090919			MSA-SW41C-090919			MSA-SW41D-090919		
SDG: 240-118610-1	LAB_ID	240-118610-17			240-118610-18			240-118610-19			240-118610-20		
FRACTION: OV	SAMP_DATE	9/9/2019			9/9/2019			9/9/2019			9/9/2019		
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
1,1,1,2-TETRACHLOROETHANE		0.14	U		0.14	U		0.14	U		0.14	U	
1,1,1-TRICHLOROETHANE		0.24	U		0.24	U		0.24	U		0.24	U	
1,1,2,2-TETRACHLOROETHANE		0.13	U		0.13	U		0.13	U		0.13	U	
1,1,2-TRICHLOROTRIFLUOROETHANE		0.41	U		0.41	U		0.41	U		0.41	U	
1,1-DICHLOROETHANE		0.17	U		0.17	U		0.17	U		0.17	U	
1,1-DICHLOROETHENE		0.19	U		0.19	U		0.19	U		0.19	U	
1,1-DICHLOROPROPENE		0.14	U		0.14	U		0.14	U		0.14	U	
1,2,3-TRICHLOROBENZENE		0.54	UJ		0.54	UJ		0.54	UJ		0.54	UJ	
1,2,3-TRICHLOROPROPANE		0.24	UJ	C	0.24	UJ	C	0.24	UJ	C	0.24	UJ	C
1,2,3-TRIMETHYLBENZENE		0.14	U		0.14	U		0.14	U		0.14	U	
1,2,4-TRICHLOROBENZENE		0.26	UJ	C	0.26	UJ	C	0.26	UJ	C	0.26	UJ	C
1,2,4-TRIMETHYLBENZENE		0.07	U		0.07	U		0.07	U		0.07	U	
1,2-DIBROMO-3-CHLOROPROPANE		0.91	U		0.91	U		0.91	U		0.91	U	
1,2-DIBROMOETHANE		0.12	U		0.12	U		0.12	U		0.12	U	
1,2-DICHLOROBENZENE		0.15	U		0.15	U		0.15	U		0.15	U	
1,2-DICHLOROETHANE		0.21	U		0.21	U		0.21	U		0.21	U	
1,2-DICHLOROPROPANE		0.15	U		0.15	U		0.15	U		0.15	U	
1,3-DICHLOROBENZENE		0.15	U		0.15	U		0.15	U		0.15	U	
1,3-DICHLOROPROPANE		0.21	U		0.21	U		0.21	U		0.21	U	
1,4-DICHLOROBENZENE		0.16	U		0.16	U		0.16	U		0.16	U	
2,2-DICHLOROPROPANE		0.31	U		0.31	U		0.31	U		0.31	U	
2-BUTANONE		1.2	U		1.2	U		1.2	U		1.2	U	
2-CHLOROETHYL VINYL ETHER		0.26	UR	M	0.26	UR	M	0.26	UR	M	0.26	UR	M
2-CHLOROTOLUENE		0.15	U		0.15	U		0.15	U		0.15	U	
2-HEXANONE		0.54	U		0.54	U		0.54	U		0.54	U	
4-CHLOROTOLUENE		0.09	U		0.09	U		0.09	U		0.09	U	
4-ISOPROPYLTOLUENE		0.13	U		0.13	U		0.13	U		0.13	U	
4-METHYL-2-PENTANONE		0.42	U		0.42	U		0.42	U		0.42	U	
ACETONE		5.4	UJ	C	5.4	UJ	C	5.4	UJ	C	5.4	UJ	C
BENZENE		0.13	U		0.13	U		0.13	U		0.13	U	
BROMOBENZENE		0.12	U		0.12	U		0.12	U		0.12	U	
BROMOCHLOROMETHANE		0.14	U		0.14	U		0.14	U		0.14	U	
BROMODICHLOROMETHANE		0.17	U		0.17	U		0.17	U		0.17	U	
BROMOFORM		0.76	U		0.76	U		0.76	U		0.76	U	
BROMOMETHANE		0.42	U		0.42	U		0.42	U		0.42	U	

PROJ_NO: 08735	NSAMPLE	MSA-SW42A-090919			MSA-SW42B-090919			MSA-SW42C-090919			MSA-SW42D-090919		
SDG: 240-118610-1	LAB_ID	240-118610-21			240-118610-22			240-118610-23			240-118610-24		
FRACTION: OV	SAMP_DATE	9/9/2019			9/9/2019			9/9/2019			9/9/2019		
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
1,1,1,2-TETRACHLOROETHANE		0.14	U		0.14	U		0.14	U		0.14	U	
1,1,1-TRICHLOROETHANE		0.24	U		0.24	U		0.24	U		0.24	U	
1,1,2,2-TETRACHLOROETHANE		0.13	U		0.13	U		0.13	U		0.13	U	
1,1,2-TRICHLOROTRIFLUOROETHANE		0.41	U		0.41	U		0.41	U		0.41	U	
1,1-DICHLOROETHANE		0.17	U		0.17	U		0.17	U		0.17	U	
1,1-DICHLOROETHENE		0.19	U		0.19	U		0.19	U		0.19	U	
1,1-DICHLOROPROPENE		0.14	U		0.14	U		0.14	U		0.14	U	
1,2,3-TRICHLOROBENZENE		0.54	UJ	C	0.54	UJ	C	0.54	UJ	C	0.54	UJ	C
1,2,3-TRICHLOROPROPANE		0.24	U		0.24	U		0.24	U		0.24	U	
1,2,3-TRIMETHYLBENZENE		0.14	U		0.14	U		0.14	U		0.14	U	
1,2,4-TRICHLOROBENZENE		0.26	UJ	C	0.26	UJ	C	0.26	UJ	C	0.26	UJ	C
1,2,4-TRIMETHYLBENZENE		0.07	U		0.07	U		0.07	U		0.07	U	
1,2-DIBROMO-3-CHLOROPROPANE		0.91	U		0.91	U		0.91	U		0.91	U	
1,2-DIBROMOETHANE		0.12	U		0.12	U		0.12	U		0.12	U	
1,2-DICHLOROBENZENE		0.15	U		0.15	U		0.15	U		0.15	U	
1,2-DICHLOROETHANE		0.21	U		0.21	U		0.21	U		0.21	U	
1,2-DICHLOROPROPANE		0.15	U		0.15	U		0.15	U		0.15	U	
1,3-DICHLOROBENZENE		0.15	U		0.15	U		0.15	U		0.15	U	
1,3-DICHLOROPROPANE		0.21	U		0.21	U		0.21	U		0.21	U	
1,4-DICHLOROBENZENE		0.16	U		0.16	U		0.16	U		0.16	U	
2,2-DICHLOROPROPANE		0.31	U		0.31	U		0.31	U		0.31	U	
2-BUTANONE		1.2	U		1.2	U		1.2	U		1.2	U	
2-CHLOROETHYL VINYL ETHER		0.26	UR	M	0.26	UR	M	0.26	UR	M	0.26	UR	M
2-CHLOROTOLUENE		0.15	U		0.15	U		0.15	U		0.15	U	
2-HEXANONE		0.54	U		0.54	U		0.54	U		0.54	U	
4-CHLOROTOLUENE		0.09	U		0.09	U		0.09	U		0.09	U	
4-ISOPROPYLTOLUENE		0.13	U		0.13	U		0.13	U		0.13	U	
4-METHYL-2-PENTANONE		0.42	U		0.42	U		0.42	U		0.42	U	
ACETONE		5.4	U		5.4	U		5.4	U		5.4	U	
BENZENE		0.13	U		0.13	U		0.13	U		0.13	U	
BROMOBENZENE		0.12	U		0.12	U		0.12	U		0.12	U	
BROMOCHLOROMETHANE		0.14	U		0.14	U		0.14	U		0.14	U	
BROMODICHLOROMETHANE		0.17	U		0.17	U		0.17	U		0.17	U	
BROMOFORM		0.76	U		0.76	U		0.76	U		0.76	U	
BROMOMETHANE		0.42	U		0.42	U		0.42	U		0.42	U	

PROJ_NO: 08735	NSAMPLE	MSA-SW43A-090919			MSA-SW43B-090919			MSA-SW43C-090919			MSA-SW43D-090919		
SDG: 240-118610-1	LAB_ID	240-118610-25			240-118610-26			240-118610-27			240-118610-28		
FRACTION: OV	SAMP_DATE	9/9/2019			9/9/2019			9/9/2019			9/9/2019		
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
1,1,1,2-TETRACHLOROETHANE		0.14	U		0.14	U		0.14	U		0.14	U	
1,1,1-TRICHLOROETHANE		0.24	U		0.24	U		0.24	U		0.24	U	
1,1,2,2-TETRACHLOROETHANE		0.13	U		0.13	U		0.13	U		0.13	U	
1,1,2-TRICHLOROTRIFLUOROETHANE		0.41	U		0.41	U		0.41	U		0.41	U	
1,1-DICHLOROETHANE		0.17	U		0.17	U		0.17	U		0.17	U	
1,1-DICHLOROETHENE		0.19	U		0.19	U		0.19	U		0.19	U	
1,1-DICHLOROPROPENE		0.14	U		0.14	U		0.14	U		0.14	U	
1,2,3-TRICHLOROBENZENE		0.54	UJ	C	0.54	UJ	C	0.54	UJ	C	0.54	UJ	C
1,2,3-TRICHLOROPROPANE		0.24	U		0.24	U		0.24	U		0.24	U	
1,2,3-TRIMETHYLBENZENE		0.14	U		0.14	U		0.14	U		0.14	U	
1,2,4-TRICHLOROBENZENE		0.26	UJ	C	0.26	UJ	C	0.26	UJ	C	0.26	UJ	C
1,2,4-TRIMETHYLBENZENE		0.07	U		0.07	U		0.07	U		0.07	U	
1,2-DIBROMO-3-CHLOROPROPANE		0.91	U		0.91	U		0.91	U		0.91	U	
1,2-DIBROMOETHANE		0.12	U		0.12	U		0.12	U		0.12	U	
1,2-DICHLOROBENZENE		0.15	U		0.15	U		0.15	U		0.15	U	
1,2-DICHLOROETHANE		0.21	U		0.21	U		0.21	U		0.21	U	
1,2-DICHLOROPROPANE		0.15	U		0.15	U		0.15	U		0.15	U	
1,3-DICHLOROBENZENE		0.15	U		0.15	U		0.15	U		0.15	U	
1,3-DICHLOROPROPANE		0.21	U		0.21	U		0.21	U		0.21	U	
1,4-DICHLOROBENZENE		0.16	U		0.16	U		0.16	U		0.16	U	
2,2-DICHLOROPROPANE		0.31	U		0.31	U		0.31	U		0.31	U	
2-BUTANONE		1.2	U		1.2	U		1.2	U		1.2	U	
2-CHLOROETHYL VINYL ETHER		0.26	UR	M	0.26	UR	M	0.26	UR	M	0.26	UR	M
2-CHLOROTOLUENE		0.15	U		0.15	U		0.15	U		0.15	U	
2-HEXANONE		0.54	U		0.54	U		0.54	U		0.54	U	
4-CHLOROTOLUENE		0.09	U		0.09	U		0.09	U		0.09	U	
4-ISOPROPYLTOLUENE		0.13	U		0.13	U		0.13	U		0.13	U	
4-METHYL-2-PENTANONE		0.42	U		0.42	U		0.42	U		0.42	U	
ACETONE		5.4	U		5.4	U		5.4	U		5.4	U	
BENZENE		0.13	U		0.13	U		0.13	U		0.13	U	
BROMOBENZENE		0.12	U		0.12	U		0.12	U		0.12	U	
BROMOCHLOROMETHANE		0.14	U		0.14	U		0.14	U		0.14	U	
BROMODICHLOROMETHANE		0.17	U		0.17	U		0.17	U		0.17	U	
BROMOFORM		0.76	U		0.76	U		0.76	U		0.76	U	
BROMOMETHANE		0.42	U		0.42	U		0.42	U		0.42	U	

PROJ_NO: 08735	NSAMPLE	MSA-SW44A-090919			MSA-SW44B-090919			MSA-SW44C-090919			MSA-SW44D-090919		
SDG: 240-118610-1	LAB_ID	240-118610-29			240-118610-30			240-118610-31			240-118610-32		
FRACTION: OV	SAMP_DATE	9/9/2019			9/9/2019			9/9/2019			9/9/2019		
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
1,1,1,2-TETRACHLOROETHANE		0.14	U		0.14	U		0.14	U		0.14	U	
1,1,1-TRICHLOROETHANE		0.24	U		0.24	U		0.24	U		0.24	U	
1,1,2,2-TETRACHLOROETHANE		0.13	U		0.13	U		0.13	U		0.13	U	
1,1,2-TRICHLOROTRIFLUOROETHANE		0.41	U		0.41	U		0.41	U		0.41	U	
1,1-DICHLOROETHANE		0.17	U		0.17	U		0.17	U		0.17	U	
1,1-DICHLOROETHENE		0.19	U		0.19	U		0.19	U		0.19	U	
1,1-DICHLOROPROPENE		0.14	U		0.14	U		0.14	U		0.14	U	
1,2,3-TRICHLOROBENZENE		0.54	UJ	C	0.54	UJ	C	0.54	UJ	C	0.54	UJ	C
1,2,3-TRICHLOROPROPANE		0.24	UJ	C	0.24	U		0.24	U		0.24	U	
1,2,3-TRIMETHYLBENZENE		0.14	U		0.14	U		0.14	U		0.14	U	
1,2,4-TRICHLOROBENZENE		0.26	UJ	C	0.26	UJ	C	0.26	UJ	C	0.26	UJ	C
1,2,4-TRIMETHYLBENZENE		0.07	U		0.07	U		0.07	U		0.07	U	
1,2-DIBROMO-3-CHLOROPROPANE		0.91	U		0.91	U		0.91	U		0.91	U	
1,2-DIBROMOETHANE		0.12	U		0.12	U		0.12	U		0.12	U	
1,2-DICHLOROBENZENE		0.15	U		0.15	U		0.15	U		0.15	U	
1,2-DICHLOROETHANE		0.21	U		0.21	U		0.21	U		0.21	U	
1,2-DICHLOROPROPANE		0.15	U		0.15	U		0.15	U		0.15	U	
1,3-DICHLOROBENZENE		0.15	U		0.15	U		0.15	U		0.15	U	
1,3-DICHLOROPROPANE		0.21	U		0.21	U		0.21	U		0.21	U	
1,4-DICHLOROBENZENE		0.16	U		0.16	U		0.16	U		0.16	U	
2,2-DICHLOROPROPANE		0.31	U		0.31	U		0.31	U		0.31	U	
2-BUTANONE		1.2	U		1.2	U		1.2	U		1.2	U	
2-CHLOROETHYL VINYL ETHER		0.26	UR	M	0.26	UR	M	0.26	UR	M	0.26	UR	M
2-CHLOROTOLUENE		0.15	U		0.15	U		0.15	U		0.15	U	
2-HEXANONE		0.54	U		0.54	U		0.54	U		0.54	U	
4-CHLOROTOLUENE		0.09	U		0.09	U		0.09	U		0.09	U	
4-ISOPROPYLTOLUENE		0.13	U		0.13	U		0.13	U		0.13	U	
4-METHYL-2-PENTANONE		0.42	U		0.42	U		0.42	U		0.42	U	
ACETONE		5.4	U	C	5.4	U		5.4	U		5.4	U	
BENZENE		0.13	U		0.13	U		0.13	U		0.13	U	
BROMOBENZENE		0.12	U		0.12	U		0.12	U		0.12	U	
BROMOCHLOROMETHANE		0.14	U		0.14	U		0.14	U		0.14	U	
BROMODICHLOROMETHANE		0.17	U		0.17	U		0.17	U		0.17	U	
BROMOFORM		0.76	U		0.76	U		0.76	U		0.76	U	
BROMOMETHANE		0.42	U		0.42	U		0.42	U		0.42	U	

PROJ_NO: 08735	NSAMPLE	MSA-SW45A-090919			MSA-SW45B-090919			MSA-SW45C-090919			MSA-SW45D-090919		
SDG: 240-118610-1	LAB_ID	240-118610-33			240-118610-34			240-118610-35			240-118610-36		
FRACTION: OV	SAMP_DATE	9/9/2019			9/9/2019			9/9/2019			9/9/2019		
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
1,1,1,2-TETRACHLOROETHANE		0.14	U		0.14	U		0.14	U		0.14	U	
1,1,1-TRICHLOROETHANE		0.24	U		0.24	U		0.24	U		0.24	U	
1,1,2,2-TETRACHLOROETHANE		0.13	U		0.13	U		0.13	U		0.13	U	
1,1,2-TRICHLOROTRIFLUOROETHANE		0.41	U		0.41	U		0.41	U		0.41	U	
1,1-DICHLOROETHANE		0.17	U		0.17	U		0.17	U		0.17	U	
1,1-DICHLOROETHENE		0.19	U		0.19	U		0.19	U		0.19	U	
1,1-DICHLOROPROPENE		0.14	U		0.14	U		0.14	U		0.14	U	
1,2,3-TRICHLOROBENZENE		0.54	UJ	C	0.54	UJ	C	0.54	UJ	C	0.54	UJ	C
1,2,3-TRICHLOROPROPANE		0.24	U		0.24	U		0.24	U		0.24	U	
1,2,3-TRIMETHYLBENZENE		0.14	U		0.14	U		0.14	U		0.14	U	
1,2,4-TRICHLOROBENZENE		0.26	UJ	C	0.26	UJ	C	0.26	UJ	C	0.26	UJ	C
1,2,4-TRIMETHYLBENZENE		0.07	U		0.07	U		0.07	U		0.07	U	
1,2-DIBROMO-3-CHLOROPROPANE		0.91	U		0.91	U		0.91	U		0.91	U	
1,2-DIBROMOETHANE		0.12	U		0.12	U		0.12	U		0.12	U	
1,2-DICHLOROBENZENE		0.15	U		0.15	U		0.15	U		0.15	U	
1,2-DICHLOROETHANE		0.21	U		0.21	U		0.21	U		0.21	U	
1,2-DICHLOROPROPANE		0.15	U		0.15	U		0.15	U		0.15	U	
1,3-DICHLOROBENZENE		0.15	U		0.15	U		0.15	U		0.15	U	
1,3-DICHLOROPROPANE		0.21	U		0.21	U		0.21	U		0.21	U	
1,4-DICHLOROBENZENE		0.16	U		0.16	U		0.16	U		0.16	U	
2,2-DICHLOROPROPANE		0.31	U		0.31	U		0.31	U		0.31	U	
2-BUTANONE		1.2	U		1.2	U		1.2	U		1.2	U	
2-CHLOROETHYL VINYL ETHER		0.26	UR	M	0.26	UR	M	0.26	UR	M	0.26	UR	M
2-CHLOROTOLUENE		0.15	U		0.15	U		0.15	U		0.15	U	
2-HEXANONE		0.54	U		0.54	U		0.54	U		0.54	U	
4-CHLOROTOLUENE		0.09	U		0.09	U		0.09	U		0.09	U	
4-ISOPROPYLTOLUENE		0.13	U		0.13	U		0.13	U		0.13	U	
4-METHYL-2-PENTANONE		0.42	U		0.42	U		0.42	U		0.42	U	
ACETONE		5.4	U		5.4	U		5.4	U		5.4	U	
BENZENE		0.13	U		0.13	U		0.13	U		0.13	U	
BROMOBENZENE		0.12	U		0.12	U		0.12	U		0.12	U	
BROMOCHLOROMETHANE		0.14	U		0.14	U		0.14	U		0.14	U	
BROMODICHLOROMETHANE		0.17	U		0.17	U		0.17	U		0.17	U	
BROMOFORM		0.76	U		0.76	U		0.76	U		0.76	U	
BROMOMETHANE		0.42	U		0.42	U		0.42	U		0.42	U	

PROJ_NO: 08735	NSAMPLE	MSA-SW46A-090919			MSA-SW47A-090919			MSA-SW48A-090919			MSA-SW49A-090919		
SDG: 240-118610-1	LAB_ID	240-118610-42			240-118610-43			240-118610-44			240-118610-45		
FRACTION: OV	SAMP_DATE	9/9/2019			9/9/2019			9/9/2019			9/9/2019		
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
1,1,1,2-TETRACHLOROETHANE		0.14	U		0.14	U		0.14	U		0.14	U	
1,1,1-TRICHLOROETHANE		0.24	U		0.24	U		0.24	U		0.24	U	
1,1,2,2-TETRACHLOROETHANE		0.13	U		0.13	U		0.13	U		0.13	U	
1,1,2-TRICHLOROTRIFLUOROETHANE		0.41	UJ	C	0.41	UJ	C	0.41	UJ	C	0.41	UJ	C
1,1-DICHLOROETHANE		0.17	U		0.17	U		0.17	U		0.17	U	
1,1-DICHLOROETHENE		0.19	U		0.19	U		0.19	U		0.19	U	
1,1-DICHLOROPROPENE		0.14	U		0.14	U		0.14	U		0.14	U	
1,2,3-TRICHLOROBENZENE		0.54	U		0.54	U		0.54	U		0.54	U	
1,2,3-TRICHLOROPROPANE		0.24	U		0.24	U		0.24	U		0.24	U	
1,2,3-TRIMETHYLBENZENE		0.14	U		0.14	U		0.14	U		0.14	U	
1,2,4-TRICHLOROBENZENE		0.26	UJ	C	0.26	UJ	C	0.26	UJ	C	0.26	UJ	C
1,2,4-TRIMETHYLBENZENE		0.07	U		0.07	U		0.07	U		0.07	U	
1,2-DIBROMO-3-CHLOROPROPANE		0.91	U		0.91	U		0.91	U		0.91	U	
1,2-DIBROMOETHANE		0.12	U		0.12	U		0.12	U		0.12	U	
1,2-DICHLOROBENZENE		0.15	U		0.15	U		0.15	U		0.15	U	
1,2-DICHLOROETHANE		0.21	U		0.21	U		0.21	U		0.21	U	
1,2-DICHLOROPROPANE		0.15	U		0.15	U		0.15	U		0.15	U	
1,3-DICHLOROBENZENE		0.15	U		0.15	U		0.15	U		0.15	U	
1,3-DICHLOROPROPANE		0.21	U		0.21	U		0.21	U		0.21	U	
1,4-DICHLOROBENZENE		0.16	U		0.16	U		0.16	U		0.16	U	
2,2-DICHLOROPROPANE		0.31	U		0.31	U		0.31	U		0.31	U	
2-BUTANONE		1.2	U		1.2	U		1.2	U		1.2	U	
2-CHLOROETHYL VINYL ETHER		0.26	UR	M	0.26	UR	M	0.26	UR	M	0.26	UR	M
2-CHLOROTOLUENE		0.15	U		0.15	U		0.15	U		0.15	U	
2-HEXANONE		0.54	U		0.54	U		0.54	U		0.54	U	
4-CHLOROTOLUENE		0.09	U		0.09	U		0.09	U		0.09	U	
4-ISOPROPYLTOLUENE		0.13	U		0.13	U		0.13	U		0.13	U	
4-METHYL-2-PENTANONE		0.42	U		0.42	U		0.42	U		0.42	U	
ACETONE		5.4	U		5.4	U		5.4	U		5.4	U	
BENZENE		0.13	U		0.13	U		0.13	U		0.13	U	
BROMOBENZENE		0.12	U		0.12	U		0.12	U		0.12	U	
BROMOCHLOROMETHANE		0.14	U		0.14	U		0.14	U		0.14	U	
BROMODICHLOROMETHANE		0.17	U		0.17	U		0.17	U		0.17	U	
BROMOFORM		0.76	U		0.76	U		0.76	U		0.76	U	
BROMOMETHANE		0.42	U		0.42	U		0.42	U		0.42	U	

PROJ_NO: 08735	NSAMPLE	TB-090919		
SDG: 240-118610-1	LAB_ID	240-118610-41		
FRACTION: OV	SAMP_DATE	9/9/2019		
MEDIA: WATER	QC_TYPE	TB		
	UNITS	UG/L		
	PCT_SOLIDS	0.0		
	DUP_OF			
PARAMETER		RESULT	VQL	QLCD
1,1,1,2-TETRACHLOROETHANE		0.14	U	
1,1,1-TRICHLOROETHANE		0.24	U	
1,1,2,2-TETRACHLOROETHANE		0.13	U	
1,1,2-TRICHLOROTRIFLUOROETHANE		0.41	UJ	C
1,1-DICHLOROETHANE		0.17	U	
1,1-DICHLOROETHENE		0.19	U	
1,1-DICHLOROPROPENE		0.14	U	
1,2,3-TRICHLOROBENZENE		0.54	U	
1,2,3-TRICHLOROPROPANE		0.24	U	
1,2,3-TRIMETHYLBENZENE		0.14	U	
1,2,4-TRICHLOROBENZENE		0.26	UJ	C
1,2,4-TRIMETHYLBENZENE		0.07	U	
1,2-DIBROMO-3-CHLOROPROPANE		0.91	U	
1,2-DIBROMOETHANE		0.12	U	
1,2-DICHLOROBENZENE		0.15	U	
1,2-DICHLOROETHANE		0.21	U	
1,2-DICHLOROPROPANE		0.15	U	
1,3-DICHLOROBENZENE		0.15	U	
1,3-DICHLOROPROPANE		0.21	U	
1,4-DICHLOROBENZENE		0.16	U	
2,2-DICHLOROPROPANE		0.31	U	
2-BUTANONE		1.2	U	
2-CHLOROETHYL VINYL ETHER		0.26	UR	M
2-CHLOROTOLUENE		0.15	U	
2-HEXANONE		0.54	U	
4-CHLOROTOLUENE		0.09	U	
4-ISOPROPYLTOLUENE		0.13	U	
4-METHYL-2-PENTANONE		0.42	U	
ACETONE		5.4	U	
BENZENE		0.13	U	
BROMOBENZENE		0.12	U	
BROMOCHLOROMETHANE		0.14	U	
BROMODICHLOROMETHANE		0.17	U	
BROMOFORM		0.76	U	
BROMOMETHANE		0.42	U	

PROJ_NO: 08735	NSAMPLE	EL-SW01A-090919			EL-SW01B-090919			EL-SW01C-090919			EL-SW01D-090919		
SDG: 240-118610-1	LAB_ID	240-118610-37			240-118610-38			240-118610-39			240-118610-40		
FRACTION: OV	SAMP_DATE	9/9/2019			9/9/2019			9/9/2019			9/9/2019		
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
CARBON DISULFIDE		0.43	J	P	0.28	U		0.28	U		0.28	U	
CARBON TETRACHLORIDE		0.26	U		0.26	U		0.26	U		0.26	U	
CHLOROBENZENE		0.14	U		0.14	U		0.14	U		0.14	U	
CHLORODIBROMOMETHANE		0.39	U		0.39	U		0.39	U		0.39	U	
CHLORODIFLUOROMETHANE		1	UJ		1	UJ		1	UJ		1	UJ	
CHLOROETHANE		0.83	U		0.83	U		0.83	U		0.83	U	
CHLOROFORM		0.13	U		0.13	U		0.13	U		0.13	U	
CHLOROMETHANE		0.2	U		0.2	U		0.2	U		0.2	U	
CIS-1,2-DICHLOROETHENE		0.16	U		0.16	U		0.16	U		0.16	U	
CIS-1,3-DICHLOROPROPENE		0.61	U		0.61	U		0.61	U		0.61	U	
DIBROMOMETHANE		0.09	U		0.09	U		0.09	U		0.09	U	
DICHLORODIFLUOROMETHANE		0.35	U		0.35	U		0.35	U		0.35	U	
DIISOPROPYL ETHER		0.17	U		0.17	U		0.17	U		0.17	U	
ETHYL TERT-BUTYL ETHER		0.15	U		0.15	U		0.15	U		0.15	U	
ETHYLBENZENE		0.11	U		0.11	U		0.11	U		0.11	U	
HEXACHLOROBUTADIENE		0.83	UJ	C	0.83	UJ	C	0.83	UJ	C	0.83	UJ	C
ISOPROPYLBENZENE		0.09	U		0.09	U		0.09	U		0.09	U	
M+P-XYLENES		0.08	U		0.08	U		0.08	U		0.08	U	
METHYL TERT-BUTYL ETHER		0.07	U		0.07	U		0.07	U		0.07	U	
METHYLENE CHLORIDE		2.6	U		2.6	U		2.6	U		2.6	U	
NAPHTHALENE		0.32	U		0.32	U		0.32	U		0.32	U	
N-BUTYLBENZENE		0.14	U		0.14	U		0.14	U		0.14	U	
N-PROPYLBENZENE		0.15	U		0.15	U		0.15	U		0.15	U	
O-XYLENE		0.09	U		0.09	U		0.09	U		0.09	U	
SEC-BUTYLBENZENE		0.13	U		0.13	U		0.13	U		0.13	U	
STYRENE		0.1	U		0.1	U		0.1	U		0.1	U	
TERT-AMYL METHYL ETHER		0.11	U		0.11	U		0.11	U		0.11	U	
TERT-BUTYLBENZENE		0.14	U		0.14	U		0.14	U		0.14	U	
TERTIARY-BUTYL ALCOHOL		1.7	U		1.7	U		1.7	U		1.7	U	
TETRACHLOROETHENE		0.15	U		0.15	U		0.15	U		0.15	U	
TOLUENE		0.14	U		0.14	U		0.14	U		0.14	U	
TOTAL XYLENES		0.15	U		0.15	U		0.15	U		0.15	U	
TRANS-1,2-DICHLOROETHENE		0.19	U		0.19	U		0.19	U		0.19	U	
TRANS-1,3-DICHLOROPROPENE		0.67	U		0.67	U		0.67	U		0.67	U	
TRICHLOROETHENE		0.1	U		0.1	U		0.1	U		0.1	U	

PROJ_NO: 08735	NSAMPLE	MSA-SW37A-090919			MSA-SW37B-090919			MSA-SW37C-090919			MSA-SW37D-090919		
SDG: 240-118610-1	LAB_ID	240-118610-1			240-118610-2			240-118610-3			240-118610-4		
FRACTION: OV	SAMP_DATE	9/9/2019			9/9/2019			9/9/2019			9/9/2019		
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
CARBON DISULFIDE		0.28	U		0.28	U		0.28	U		0.28	U	
CARBON TETRACHLORIDE		0.26	U		0.26	U		0.26	U		0.26	U	
CHLOROBENZENE		0.14	U		0.14	U		0.14	U		0.14	U	
CHLORODIBROMOMETHANE		0.39	U		0.39	U		0.39	U		0.39	U	
CHLORODIFLUOROMETHANE		1	UJ		1	UJ		1	UJ		1	UJ	
CHLOROETHANE		0.83	U		0.83	U		0.83	U		0.83	U	
CHLOROFORM		0.13	U		0.13	U		0.13	U		0.13	U	
CHLOROMETHANE		0.2	U		0.2	U		0.2	U		0.2	U	
CIS-1,2-DICHLOROETHENE		0.16	U		0.16	U		0.16	U		0.16	U	
CIS-1,3-DICHLOROPROPENE		0.61	U		0.61	U		0.61	U		0.61	U	
DIBROMOMETHANE		0.09	U		0.09	U		0.09	U		0.09	U	
DICHLORODIFLUOROMETHANE		0.35	U		0.35	U		0.35	U		0.35	U	
DIISOPROPYL ETHER		0.17	U		0.17	U		0.17	U		0.17	U	
ETHYL TERT-BUTYL ETHER		0.15	U		0.15	U		0.15	U		0.15	U	
ETHYLBENZENE		0.11	U		0.11	U		0.11	U		0.11	U	
HEXACHLOROBUTADIENE		0.83	UJ	C	0.83	UJ	C	0.83	UJ	C	0.83	UJ	C
ISOPROPYLBENZENE		0.09	U		0.09	U		0.09	U		0.09	U	
M+P-XYLENES		0.08	U		0.08	U		0.08	U		0.08	U	
METHYL TERT-BUTYL ETHER		0.07	U		0.07	U		0.07	U		0.07	U	
METHYLENE CHLORIDE		2.6	U		2.6	U		2.6	U		2.6	U	
NAPHTHALENE		0.32	U		0.32	U		0.32	U		0.32	U	
N-BUTYLBENZENE		0.14	U		0.14	U		0.14	U		0.14	U	
N-PROPYLBENZENE		0.15	U		0.15	U		0.15	U		0.15	U	
O-XYLENE		0.09	U		0.09	U		0.09	U		0.09	U	
SEC-BUTYLBENZENE		0.13	U		0.13	U		0.13	U		0.13	U	
STYRENE		0.1	U		0.1	U		0.1	U		0.1	U	
TERT-AMYL METHYL ETHER		0.11	U		0.11	U		0.11	U		0.11	U	
TERT-BUTYLBENZENE		0.14	U		0.14	U		0.14	U		0.14	U	
TERTIARY-BUTYL ALCOHOL		1.7	UJ		1.7	UJ		1.7	UJ		1.7	UJ	
TETRACHLOROETHENE		0.15	U		0.15	U		0.15	U		0.15	U	
TOLUENE		0.14	U		0.14	U		0.14	U		0.14	U	
TOTAL XYLENES		0.15	U		0.15	U		0.15	U		0.15	U	
TRANS-1,2-DICHLOROETHENE		0.19	U		0.19	U		0.19	U		0.19	U	
TRANS-1,3-DICHLOROPROPENE		0.67	U		0.67	U		0.67	U		0.67	U	
TRICHLOROETHENE		0.1	U		0.1	U		0.1	U		0.1	U	

PROJ_NO: 08735	NSAMPLE	MSA-SW38A-090919			MSA-SW38B-090919			MSA-SW38C090919			MSA-SW38D-090919		
SDG: 240-118610-1	LAB_ID	240-118610-5			240-118610-6			240-118610-7			240-118610-8		
FRACTION: OV	SAMP_DATE	9/9/2019			9/9/2019			9/9/2019			9/9/2019		
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
CARBON DISULFIDE		0.28	U		0.28	U		0.28	U		0.28	U	
CARBON TETRACHLORIDE		0.26	U		0.26	U		0.26	U		0.26	U	
CHLOROBENZENE		0.14	U		0.14	U		0.14	U		0.14	U	
CHLORODIBROMOMETHANE		0.39	U		0.39	U		0.39	U		0.39	U	
CHLORODIFLUOROMETHANE		1	UJ		1	UJ		1	UJ		1	UJ	
CHLOROETHANE		0.83	U		0.83	U		0.83	U		0.83	U	
CHLOROFORM		0.13	U		0.13	U		0.13	U		0.13	U	
CHLOROMETHANE		0.2	U		0.2	U		0.2	U		0.2	U	
CIS-1,2-DICHLOROETHENE		0.16	U		0.16	U		0.16	U		0.16	U	
CIS-1,3-DICHLOROPROPENE		0.61	U		0.61	U		0.61	U		0.61	U	
DIBROMOMETHANE		0.09	U		0.09	U		0.09	U		0.09	U	
DICHLORODIFLUOROMETHANE		0.35	U		0.35	U		0.35	U		0.35	U	
DIISOPROPYL ETHER		0.17	U		0.17	U		0.17	U		0.17	U	
ETHYL TERT-BUTYL ETHER		0.15	U		0.15	U		0.15	U		0.15	U	
ETHYLBENZENE		0.11	U		0.11	U		0.11	U		0.11	U	
HEXACHLOROBUTADIENE		0.83	UJ	C	0.83	UJ	C	0.83	UJ	C	0.83	UJ	C
ISOPROPYLBENZENE		0.09	U		0.09	U		0.09	U		0.09	U	
M+P-XYLENES		0.08	U		0.08	U		0.08	U		0.08	U	
METHYL TERT-BUTYL ETHER		0.07	U		0.07	U		0.07	U		0.07	U	
METHYLENE CHLORIDE		2.6	U		2.6	U		2.6	U		2.6	U	
NAPHTHALENE		0.32	U		0.32	U		0.32	U		0.32	U	
N-BUTYLBENZENE		0.14	U		0.14	U		0.14	U		0.14	U	
N-PROPYLBENZENE		0.15	U		0.15	U		0.15	U		0.15	U	
O-XYLENE		0.09	U		0.09	U		0.09	U		0.09	U	
SEC-BUTYLBENZENE		0.13	U		0.13	U		0.13	U		0.13	U	
STYRENE		0.1	U		0.1	U		0.1	U		0.1	U	
TERT-AMYL METHYL ETHER		0.11	U		0.11	U		0.11	U		0.11	U	
TERT-BUTYLBENZENE		0.14	U		0.14	U		0.14	U		0.14	U	
TERTIARY-BUTYL ALCOHOL		1.7	UJ		2.1	J	CP	1.7	UJ		1.7	UJ	
TETRACHLOROETHENE		0.15	U		0.15	U		0.15	U		0.15	U	
TOLUENE		0.14	U		0.14	U		0.14	U		0.14	U	
TOTAL XYLENES		0.15	U		0.15	U		0.15	U		0.15	U	
TRANS-1,2-DICHLOROETHENE		0.19	U		0.19	U		0.19	U		0.19	U	
TRANS-1,3-DICHLOROPROPENE		0.67	U		0.67	U		0.67	U		0.67	U	
TRICHLOROETHENE		0.1	U		0.1	U		0.1	U		0.1	U	

PROJ_NO: 08735	NSAMPLE	MSA-SW39A-090919			MSA-SW39B-090919			MSA-SW39C-090919			MSA-SW39D-090919		
SDG: 240-118610-1	LAB_ID	240-118610-9			240-118610-10			240-118610-11			240-118610-12		
FRACTION: OV	SAMP_DATE	9/9/2019			9/9/2019			9/9/2019			9/9/2019		
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
CARBON DISULFIDE		0.28	U		0.28	U		0.28	U		0.28	U	
CARBON TETRACHLORIDE		0.26	U		0.26	U		0.26	U		0.26	U	
CHLOROBENZENE		0.14	U		0.14	U		0.14	U		0.14	U	
CHLORODIBROMOMETHANE		0.39	U		0.39	U		0.39	U		0.39	U	
CHLORODIFLUOROMETHANE		1	UJ		1	UJ		1	UJ		1	UJ	
CHLOROETHANE		0.83	U		0.83	U		0.83	U		0.83	U	
CHLOROFORM		0.13	U		0.13	U		0.13	U		0.13	U	
CHLOROMETHANE		0.2	U		0.2	U		0.2	U		0.2	U	
CIS-1,2-DICHLOROETHENE		0.16	U		0.16	U		0.16	U		0.16	U	
CIS-1,3-DICHLOROPROPENE		0.61	U		0.61	U		0.61	U		0.61	U	
DIBROMOMETHANE		0.09	U		0.09	U		0.09	U		0.09	U	
DICHLORODIFLUOROMETHANE		0.35	U		0.35	U		0.35	U		0.35	U	
DIISOPROPYL ETHER		0.17	U		0.17	U		0.17	U		0.17	U	
ETHYL TERT-BUTYL ETHER		0.15	U		0.15	U		0.15	U		0.15	U	
ETHYLBENZENE		0.11	U		0.11	U		0.11	U		0.11	U	
HEXACHLOROBUTADIENE		0.83	UJ	C	0.83	UJ	C	0.83	UJ	C	0.83	UJ	C
ISOPROPYLBENZENE		0.09	U		0.09	U		0.09	U		0.09	U	
M+P-XYLENES		0.08	U		0.08	U		0.08	U		0.08	U	
METHYL TERT-BUTYL ETHER		0.07	U		0.07	U		0.07	U		0.07	U	
METHYLENE CHLORIDE		2.6	U		2.6	U		2.6	U		2.6	U	
NAPHTHALENE		0.32	U		0.32	U		0.32	U		0.32	U	
N-BUTYLBENZENE		0.14	U		0.14	U		0.14	U		0.14	U	
N-PROPYLBENZENE		0.15	U		0.15	U		0.15	U		0.15	U	
O-XYLENE		0.09	U		0.09	U		0.09	U		0.09	U	
SEC-BUTYLBENZENE		0.13	U		0.13	U		0.13	U		0.13	U	
STYRENE		0.1	U		0.1	U		0.1	U		0.1	U	
TERT-AMYL METHYL ETHER		0.11	U		0.11	U		0.11	U		0.11	U	
TERT-BUTYLBENZENE		0.14	U		0.14	U		0.14	U		0.14	U	
TERTIARY-BUTYL ALCOHOL		2.7	J	CP	1.7	UJ		1.7	UJ		1.7	UJ	
TETRACHLOROETHENE		0.15	U		0.15	U		0.15	U		0.15	U	
TOLUENE		0.14	U		0.14	U		0.14	U		0.14	U	
TOTAL XYLENES		0.15	U		0.15	U		0.15	U		0.15	U	
TRANS-1,2-DICHLOROETHENE		0.19	U		0.19	U		0.19	U		0.19	U	
TRANS-1,3-DICHLOROPROPENE		0.67	U		0.67	U		0.67	U		0.67	U	
TRICHLOROETHENE		0.1	U		0.1	U		0.1	U		0.1	U	

PROJ_NO: 08735	NSAMPLE	MSA-SW40A-090919			MSA-SW40B-090919			MSA-SW40C-090919			MSA-SW40D-090919		
SDG: 240-118610-1	LAB_ID	240-118610-13			240-118610-14			240-118610-15			240-118610-16		
FRACTION: OV	SAMP_DATE	9/9/2019			9/9/2019			9/9/2019			9/9/2019		
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
CARBON DISULFIDE		0.28	U		0.28	U		0.28	U		0.28	U	
CARBON TETRACHLORIDE		0.26	U		0.26	U		0.26	U		0.26	U	
CHLOROBENZENE		0.14	U		0.14	U		0.14	U		0.14	U	
CHLORODIBROMOMETHANE		0.39	U		0.39	U		0.39	U		0.39	U	
CHLORODIFLUOROMETHANE		1	UJ		1	UJ		1	UJ		1	UJ	
CHLOROETHANE		0.83	U		0.83	U		0.83	U		0.83	U	
CHLOROFORM		0.13	U		0.13	U		0.13	U		0.13	U	
CHLOROMETHANE		0.2	U		0.2	U		0.2	U		0.2	U	
CIS-1,2-DICHLOROETHENE		0.16	U		0.16	U		0.16	U		0.16	U	
CIS-1,3-DICHLOROPROPENE		0.61	U		0.61	U		0.61	U		0.61	U	
DIBROMOMETHANE		0.09	U		0.09	U		0.09	U		0.09	U	
DICHLORODIFLUOROMETHANE		0.35	U		0.35	U		0.35	U		0.35	U	
DIISOPROPYL ETHER		0.17	U		0.17	U		0.17	U		0.17	U	
ETHYL TERT-BUTYL ETHER		0.15	U		0.15	U		0.15	U		0.15	U	
ETHYLBENZENE		0.11	U		0.11	U		0.11	U		0.11	U	
HEXACHLOROBUTADIENE		0.83	UJ	C	0.83	UJ	C	0.83	UJ	C	0.83	UJ	C
ISOPROPYLBENZENE		0.09	U		0.09	U		0.09	U		0.09	U	
M+P-XYLENES		0.08	U		0.08	U		0.08	U		0.08	U	
METHYL TERT-BUTYL ETHER		0.07	U		0.07	U		0.07	U		0.07	U	
METHYLENE CHLORIDE		2.6	U		2.6	U		2.6	U		2.6	U	
NAPHTHALENE		0.32	U		0.32	U		0.32	U		0.32	U	
N-BUTYLBENZENE		0.14	U		0.14	U		0.14	U		0.14	U	
N-PROPYLBENZENE		0.15	U		0.15	U		0.15	U		0.15	U	
O-XYLENE		0.09	U		0.09	U		0.09	U		0.09	U	
SEC-BUTYLBENZENE		0.13	U		0.13	U		0.13	U		0.13	U	
STYRENE		0.1	U		0.1	U		0.1	U		0.1	U	
TERT-AMYL METHYL ETHER		0.11	U		0.11	U		0.11	U		0.11	U	
TERT-BUTYLBENZENE		0.14	U		0.14	U		0.14	U		0.14	U	
TERTIARY-BUTYL ALCOHOL		1.7	UJ		1.7	UJ		1.7	UJ		1.7	UJ	
TETRACHLOROETHENE		0.15	U		0.15	U		0.15	U		0.15	U	
TOLUENE		0.14	U		0.14	U		0.14	U		0.14	U	
TOTAL XYLENES		0.15	U		0.15	U		0.15	U		0.15	U	
TRANS-1,2-DICHLOROETHENE		0.19	U		0.19	U		0.19	U		0.19	U	
TRANS-1,3-DICHLOROPROPENE		0.67	U		0.67	U		0.67	U		0.67	U	
TRICHLOROETHENE		0.1	U		0.1	U		0.1	U		0.1	U	

PROJ_NO: 08735	NSAMPLE	MSA-SW41A-090919			MSA-SW41B-090919			MSA-SW41C-090919			MSA-SW41D-090919		
SDG: 240-118610-1	LAB_ID	240-118610-17			240-118610-18			240-118610-19			240-118610-20		
FRACTION: OV	SAMP_DATE	9/9/2019			9/9/2019			9/9/2019			9/9/2019		
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
CARBON DISULFIDE		0.28	U		0.28	U		0.28	U		0.28	U	
CARBON TETRACHLORIDE		0.26	U		0.26	U		0.26	U		0.26	U	
CHLOROBENZENE		0.14	U		0.14	U		0.14	U		0.14	U	
CHLORODIBROMOMETHANE		0.39	U		0.39	U		0.39	U		0.39	U	
CHLORODIFLUOROMETHANE		1	UJ		1	UJ		1	UJ		1	UJ	
CHLOROETHANE		0.83	U		0.83	U		0.83	U		0.83	U	
CHLOROFORM		0.13	U		0.13	U		0.13	U		0.13	U	
CHLOROMETHANE		0.2	U		0.2	U		0.2	U		0.2	U	
CIS-1,2-DICHLOROETHENE		0.16	U		0.16	U		0.16	U		0.16	U	
CIS-1,3-DICHLOROPROPENE		0.61	U		0.61	U		0.61	U		0.61	U	
DIBROMOMETHANE		0.09	U		0.09	U		0.09	U		0.09	U	
DICHLORODIFLUOROMETHANE		0.35	U		0.35	U		0.35	U		0.35	U	
DIISOPROPYL ETHER		0.17	U		0.17	U		0.17	U		0.17	U	
ETHYL TERT-BUTYL ETHER		0.15	U		0.15	U		0.15	U		0.15	U	
ETHYLBENZENE		0.11	U		0.11	U		0.11	U		0.11	U	
HEXACHLOROBUTADIENE		0.83	UJ	C	0.83	UJ	C	0.83	UJ	C	0.83	UJ	C
ISOPROPYLBENZENE		0.09	U		0.09	U		0.09	U		0.09	U	
M+P-XYLENES		0.08	U		0.08	U		0.08	U		0.08	U	
METHYL TERT-BUTYL ETHER		0.07	U		0.07	U		0.07	U		0.07	U	
METHYLENE CHLORIDE		2.6	U		2.6	U		2.6	U		2.6	U	
NAPHTHALENE		0.32	U		0.32	U		0.32	U		0.32	U	
N-BUTYLBENZENE		0.14	U		0.14	U		0.14	U		0.14	U	
N-PROPYLBENZENE		0.15	U		0.15	U		0.15	U		0.15	U	
O-XYLENE		0.09	U		0.09	U		0.09	U		0.09	U	
SEC-BUTYLBENZENE		0.13	U		0.13	U		0.13	U		0.13	U	
STYRENE		0.1	U		0.1	U		0.1	U		0.1	U	
TERT-AMYL METHYL ETHER		0.11	U		0.11	U		0.11	U		0.11	U	
TERT-BUTYLBENZENE		0.14	U		0.14	U		0.14	U		0.14	U	
TERTIARY-BUTYL ALCOHOL		1.7	UJ		1.7	UJ		1.7	UJ		1.7	UJ	
TETRACHLOROETHENE		0.15	U		0.15	U		0.15	U		0.15	U	
TOLUENE		0.14	U		0.14	U		0.14	U		0.14	U	
TOTAL XYLENES		0.15	U		0.15	U		0.15	U		0.15	U	
TRANS-1,2-DICHLOROETHENE		0.19	U		0.19	U		0.19	U		0.19	U	
TRANS-1,3-DICHLOROPROPENE		0.67	U		0.67	U		0.67	U		0.67	U	
TRICHLOROETHENE		0.1	U		0.1	U		0.1	U		0.1	U	

PROJ_NO: 08735	NSAMPLE	MSA-SW42A-090919			MSA-SW42B-090919			MSA-SW42C-090919			MSA-SW42D-090919		
SDG: 240-118610-1	LAB_ID	240-118610-21			240-118610-22			240-118610-23			240-118610-24		
FRACTION: OV	SAMP_DATE	9/9/2019			9/9/2019			9/9/2019			9/9/2019		
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
CARBON DISULFIDE		0.28	U		0.28	U		0.28	U		0.28	U	
CARBON TETRACHLORIDE		0.26	U		0.26	U		0.26	U		0.26	U	
CHLOROBENZENE		0.14	U		0.14	U		0.14	U		0.14	U	
CHLORODIBROMOMETHANE		0.39	U		0.39	U		0.39	U		0.39	U	
CHLORODIFLUOROMETHANE		1	UJ		1	UJ		1	UJ		1	UJ	
CHLOROETHANE		0.83	U		0.83	U		0.83	U		0.83	U	
CHLOROFORM		0.13	U		0.13	U		0.13	U		0.13	U	
CHLOROMETHANE		0.2	U		0.2	U		0.2	U		0.2	U	
CIS-1,2-DICHLOROETHENE		0.16	U		0.16	U		0.16	U		0.16	U	
CIS-1,3-DICHLOROPROPENE		0.61	U		0.61	U		0.61	U		0.61	U	
DIBROMOMETHANE		0.09	U		0.09	U		0.09	U		0.09	U	
DICHLORODIFLUOROMETHANE		0.35	U		0.35	U		0.35	U		0.35	U	
DIISOPROPYL ETHER		0.17	U		0.17	U		0.17	U		0.17	U	
ETHYL TERT-BUTYL ETHER		0.15	U		0.15	U		0.15	U		0.15	U	
ETHYLBENZENE		0.11	U		0.11	U		0.11	U		0.11	U	
HEXACHLOROBUTADIENE		0.83	UJ	C	0.83	UJ	C	0.83	UJ	C	0.83	UJ	C
ISOPROPYLBENZENE		0.09	U		0.09	U		0.09	U		0.09	U	
M+P-XYLENES		0.08	U		0.08	U		0.08	U		0.08	U	
METHYL TERT-BUTYL ETHER		0.07	U		0.07	U		0.07	U		0.07	U	
METHYLENE CHLORIDE		2.6	U		2.6	U		2.6	U		2.6	U	
NAPHTHALENE		0.32	U		0.32	U		0.32	U		0.32	U	
N-BUTYLBENZENE		0.14	U		0.14	U		0.14	U		0.14	U	
N-PROPYLBENZENE		0.15	U		0.15	U		0.15	U		0.15	U	
O-XYLENE		0.09	U		0.09	U		0.09	U		0.09	U	
SEC-BUTYLBENZENE		0.13	U		0.13	U		0.13	U		0.13	U	
STYRENE		0.1	U		0.1	U		0.1	U		0.1	U	
TERT-AMYL METHYL ETHER		0.11	U		0.11	U		0.11	U		0.11	U	
TERT-BUTYLBENZENE		0.14	U		0.14	U		0.14	U		0.14	U	
TERTIARY-BUTYL ALCOHOL		1.7	U		1.7	U		1.7	U		1.7	U	
TETRACHLOROETHENE		0.15	U		0.15	U		0.15	U		0.15	U	
TOLUENE		0.14	U		0.14	U		0.14	U		0.14	U	
TOTAL XYLENES		0.15	U		0.15	U		0.15	U		0.15	U	
TRANS-1,2-DICHLOROETHENE		0.19	U		0.19	U		0.19	U		0.19	U	
TRANS-1,3-DICHLOROPROPENE		0.67	U		0.67	U		0.67	U		0.67	U	
TRICHLOROETHENE		0.1	U		0.1	U		0.1	U		0.1	U	

PROJ_NO: 08735	NSAMPLE	MSA-SW43A-090919			MSA-SW43B-090919			MSA-SW43C-090919			MSA-SW43D-090919		
SDG: 240-118610-1	LAB_ID	240-118610-25			240-118610-26			240-118610-27			240-118610-28		
FRACTION: OV	SAMP_DATE	9/9/2019			9/9/2019			9/9/2019			9/9/2019		
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
CARBON DISULFIDE		0.28	U		0.28	U		0.28	U		0.28	U	
CARBON TETRACHLORIDE		0.26	U		0.26	U		0.26	U		0.26	U	
CHLOROBENZENE		0.14	U		0.14	U		0.14	U		0.14	U	
CHLORODIBROMOMETHANE		0.39	U		0.39	U		0.39	U		0.39	U	
CHLORODIFLUOROMETHANE		1	UJ		1	UJ		1	UJ		1	UJ	
CHLOROETHANE		0.83	U		0.83	U		0.83	U		0.83	U	
CHLOROFORM		0.13	U		0.13	U		0.13	U		0.13	U	
CHLOROMETHANE		0.2	U		0.2	U		0.2	U		0.2	U	
CIS-1,2-DICHLOROETHENE		0.16	U		0.16	U		0.16	U		0.16	U	
CIS-1,3-DICHLOROPROPENE		0.61	U		0.61	U		0.61	U		0.61	U	
DIBROMOMETHANE		0.09	U		0.09	U		0.09	U		0.09	U	
DICHLORODIFLUOROMETHANE		0.35	U		0.35	U		0.35	U		0.35	U	
DIISOPROPYL ETHER		0.17	U		0.17	U		0.17	U		0.17	U	
ETHYL TERT-BUTYL ETHER		0.15	U		0.15	U		0.15	U		0.15	U	
ETHYLBENZENE		0.11	U		0.11	U		0.11	U		0.11	U	
HEXACHLOROBUTADIENE		0.83	UJ	C	0.83	UJ	C	0.83	UJ	C	0.83	UJ	C
ISOPROPYLBENZENE		0.09	U		0.09	U		0.09	U		0.09	U	
M+P-XYLENES		0.08	U		0.08	U		0.08	U		0.08	U	
METHYL TERT-BUTYL ETHER		0.07	U		0.07	U		0.07	U		0.07	U	
METHYLENE CHLORIDE		2.6	U		2.6	U		2.6	U		2.6	U	
NAPHTHALENE		0.32	U		0.32	U		0.32	U		0.32	U	
N-BUTYLBENZENE		0.14	U		0.14	U		0.14	U		0.14	U	
N-PROPYLBENZENE		0.15	U		0.15	U		0.15	U		0.15	U	
O-XYLENE		0.09	U		0.09	U		0.09	U		0.09	U	
SEC-BUTYLBENZENE		0.13	U		0.13	U		0.13	U		0.13	U	
STYRENE		0.1	U		0.1	U		0.1	U		0.1	U	
TERT-AMYL METHYL ETHER		0.11	U		0.11	U		0.11	U		0.11	U	
TERT-BUTYLBENZENE		0.14	U		0.14	U		0.14	U		0.14	U	
TERTIARY-BUTYL ALCOHOL		2.3	J	P	1.7	U		1.7	U		3.3	J	P
TETRACHLOROETHENE		0.15	U		0.15	U		0.15	U		0.15	U	
TOLUENE		0.14	U		0.14	U		0.14	U		0.14	U	
TOTAL XYLENES		0.15	U		0.15	U		0.15	U		0.15	U	
TRANS-1,2-DICHLOROETHENE		0.19	U		0.19	U		0.19	U		0.19	U	
TRANS-1,3-DICHLOROPROPENE		0.67	U		0.67	U		0.67	U		0.67	U	
TRICHLOROETHENE		0.1	U		0.1	U		0.1	U		0.1	U	

PROJ_NO: 08735	NSAMPLE	MSA-SW44A-090919			MSA-SW44B-090919			MSA-SW44C-090919			MSA-SW44D-090919		
SDG: 240-118610-1	LAB_ID	240-118610-29			240-118610-30			240-118610-31			240-118610-32		
FRACTION: OV	SAMP_DATE	9/9/2019			9/9/2019			9/9/2019			9/9/2019		
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
CARBON DISULFIDE		0.28	U		0.28	U		0.28	U		0.28	U	
CARBON TETRACHLORIDE		0.26	U		0.26	U		0.26	U		0.26	U	
CHLOROBENZENE		0.14	U		0.14	U		0.14	U		0.14	U	
CHLORODIBROMOMETHANE		0.39	U		0.39	U		0.39	U		0.39	U	
CHLORODIFLUOROMETHANE		1	UJ		1	UJ		1	UJ		1	UJ	
CHLOROETHANE		0.83	U		0.83	U		0.83	U		0.83	U	
CHLOROFORM		0.13	U		0.13	U		0.13	U		0.13	U	
CHLOROMETHANE		0.2	U		0.2	U		0.2	U		0.2	U	
CIS-1,2-DICHLOROETHENE		0.16	U		0.16	U		0.16	U		0.16	U	
CIS-1,3-DICHLOROPROPENE		0.61	U		0.61	U		0.61	U		0.61	U	
DIBROMOMETHANE		0.09	U		0.09	U		0.09	U		0.09	U	
DICHLORODIFLUOROMETHANE		0.35	U		0.35	U		0.35	U		0.35	U	
DIISOPROPYL ETHER		0.17	U		0.17	U		0.17	U		0.17	U	
ETHYL TERT-BUTYL ETHER		0.15	U		0.15	U		0.15	U		0.15	U	
ETHYLBENZENE		0.11	U		0.11	U		0.11	U		0.11	U	
HEXACHLOROBUTADIENE		0.83	UJ	C	0.83	UJ	C	0.83	UJ	C	0.83	UJ	C
ISOPROPYLBENZENE		0.09	U		0.09	U		0.09	U		0.09	U	
M+P-XYLENES		0.08	U		0.08	U		0.08	U		0.08	U	
METHYL TERT-BUTYL ETHER		0.07	U		0.07	U		0.07	U		0.07	U	
METHYLENE CHLORIDE		2.6	U		2.6	U		2.6	U		2.6	U	
NAPHTHALENE		0.32	U		0.32	U		0.32	U		0.32	U	
N-BUTYLBENZENE		0.14	U		0.14	U		0.14	U		0.14	U	
N-PROPYLBENZENE		0.15	U		0.15	U		0.15	U		0.15	U	
O-XYLENE		0.09	U		0.09	U		0.09	U		0.09	U	
SEC-BUTYLBENZENE		0.13	U		0.13	U		0.13	U		0.13	U	
STYRENE		0.1	U		0.1	U		0.1	U		0.1	U	
TERT-AMYL METHYL ETHER		0.11	U		0.11	U		0.11	U		0.11	U	
TERT-BUTYLBENZENE		0.14	U		0.14	U		0.14	U		0.14	U	
TERTIARY-BUTYL ALCOHOL		1.7	UJ		1.8	J	P	1.7	U		1.7	J	P
TETRACHLOROETHENE		0.15	U		0.15	U		0.15	U		0.15	U	
TOLUENE		0.14	U		0.14	U		0.14	U		0.14	U	
TOTAL XYLENES		0.15	U		0.15	U		0.15	U		0.15	U	
TRANS-1,2-DICHLOROETHENE		0.19	U		0.19	U		0.19	U		0.19	U	
TRANS-1,3-DICHLOROPROPENE		0.67	U		0.67	U		0.67	U		0.67	U	
TRICHLOROETHENE		0.1	U		0.1	U		0.1	U		0.1	U	

PROJ_NO: 08735	NSAMPLE	MSA-SW45A-090919			MSA-SW45B-090919			MSA-SW45C-090919			MSA-SW45D-090919		
SDG: 240-118610-1	LAB_ID	240-118610-33			240-118610-34			240-118610-35			240-118610-36		
FRACTION: OV	SAMP_DATE	9/9/2019			9/9/2019			9/9/2019			9/9/2019		
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
CARBON DISULFIDE		0.28	U		0.28	U		0.28	U		0.28	U	
CARBON TETRACHLORIDE		0.26	U		0.26	U		0.26	U		0.26	U	
CHLOROBENZENE		0.14	U		0.14	U		0.14	U		0.14	U	
CHLORODIBROMOMETHANE		0.39	U		0.39	U		0.39	U		0.39	U	
CHLORODIFLUOROMETHANE		1	UJ		1	UJ		1	UJ		1	UJ	
CHLOROETHANE		0.83	U		0.83	U		0.83	U		0.83	U	
CHLOROFORM		0.13	U		0.13	U		0.13	U		0.13	U	
CHLOROMETHANE		0.2	U		0.2	U		0.2	U		0.2	U	
CIS-1,2-DICHLOROETHENE		0.16	U		0.16	U		0.16	U		0.16	U	
CIS-1,3-DICHLOROPROPENE		0.61	U		0.61	U		0.61	U		0.61	U	
DIBROMOMETHANE		0.09	U		0.09	U		0.09	U		0.09	U	
DICHLORODIFLUOROMETHANE		0.35	U		0.35	U		0.35	U		0.35	U	
DIISOPROPYL ETHER		0.17	U		0.17	U		0.17	U		0.17	U	
ETHYL TERT-BUTYL ETHER		0.15	U		0.15	U		0.15	U		0.15	U	
ETHYLBENZENE		0.11	U		0.11	U		0.11	U		0.11	U	
HEXACHLOROBUTADIENE		0.83	UJ	C	0.83	UJ	C	0.83	UJ	C	0.83	UJ	C
ISOPROPYLBENZENE		0.09	U		0.09	U		0.09	U		0.09	U	
M+P-XYLENES		0.08	U		0.08	U		0.08	U		0.08	U	
METHYL TERT-BUTYL ETHER		0.07	U		0.07	U		0.07	U		0.07	U	
METHYLENE CHLORIDE		2.6	U		2.6	U		2.6	U		2.6	U	
NAPHTHALENE		0.32	U		0.32	U		0.32	U		0.32	U	
N-BUTYLBENZENE		0.14	U		0.14	U		0.14	U		0.14	U	
N-PROPYLBENZENE		0.15	U		0.15	U		0.15	U		0.15	U	
O-XYLENE		0.09	U		0.09	U		0.09	U		0.09	U	
SEC-BUTYLBENZENE		0.13	U		0.13	U		0.13	U		0.13	U	
STYRENE		0.1	U		0.1	U		0.1	U		0.1	U	
TERT-AMYL METHYL ETHER		0.11	U		0.11	U		0.11	U		0.11	U	
TERT-BUTYLBENZENE		0.14	U		0.14	U		0.14	U		0.14	U	
TERTIARY-BUTYL ALCOHOL		1.7	U		2.3	J	P	1.7	U		1.7	U	
TETRACHLOROETHENE		0.15	U		0.15	U		0.15	U		0.15	U	
TOLUENE		0.14	U		0.14	U		0.14	U		0.14	U	
TOTAL XYLENES		0.15	U		0.15	U		0.15	U		0.15	U	
TRANS-1,2-DICHLOROETHENE		0.19	U		0.19	U		0.19	U		0.19	U	
TRANS-1,3-DICHLOROPROPENE		0.67	U		0.67	U		0.67	U		0.67	U	
TRICHLOROETHENE		0.1	U		0.1	U		0.1	U		0.1	U	

PROJ_NO: 08735	NSAMPLE	MSA-SW46A-090919			MSA-SW47A-090919			MSA-SW48A-090919			MSA-SW49A-090919		
SDG: 240-118610-1	LAB_ID	240-118610-42			240-118610-43			240-118610-44			240-118610-45		
FRACTION: OV	SAMP_DATE	9/9/2019			9/9/2019			9/9/2019			9/9/2019		
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
CARBON DISULFIDE		0.28	U		0.28	U		0.28	U		0.28	U	
CARBON TETRACHLORIDE		0.26	U		0.26	U		0.26	U		0.26	U	
CHLOROBENZENE		0.14	U		0.14	U		0.14	U		0.14	U	
CHLORODIBROMOMETHANE		0.39	U		0.39	U		0.39	U		0.39	U	
CHLORODIFLUOROMETHANE		1	UJ		1	UJ		1	UJ		1	UJ	
CHLOROETHANE		0.83	U		0.83	U		0.83	U		0.83	U	
CHLOROFORM		0.13	U		0.13	U		0.13	U		0.13	U	
CHLOROMETHANE		0.2	U		0.2	U		0.2	U		0.2	U	
CIS-1,2-DICHLOROETHENE		0.16	U		0.16	U		0.16	U		0.16	U	
CIS-1,3-DICHLOROPROPENE		0.61	U		0.61	U		0.61	U		0.61	U	
DIBROMOMETHANE		0.09	U		0.09	U		0.09	U		0.09	U	
DICHLORODIFLUOROMETHANE		0.35	U		0.35	U		0.35	U		0.35	U	
DIISOPROPYL ETHER		0.17	U		0.17	U		0.17	U		0.17	U	
ETHYL TERT-BUTYL ETHER		0.15	U		0.15	U		0.15	U		0.15	U	
ETHYLBENZENE		0.11	U		0.11	U		0.11	U		0.11	U	
HEXACHLOROBUTADIENE		0.83	UJ	C	0.83	UJ	C	0.83	UJ	C	0.83	UJ	C
ISOPROPYLBENZENE		0.09	U		0.09	U		0.09	U		0.09	U	
M+P-XYLENES		0.08	U		0.08	U		0.08	U		0.08	U	
METHYL TERT-BUTYL ETHER		0.07	U		0.07	U		0.07	U		0.07	U	
METHYLENE CHLORIDE		2.6	U		2.6	U		2.6	U		2.6	U	
NAPHTHALENE		0.32	U		0.32	U		0.32	U		0.32	U	
N-BUTYLBENZENE		0.14	U		0.14	U		0.14	U		0.14	U	
N-PROPYLBENZENE		0.15	U		0.15	U		0.15	U		0.15	U	
O-XYLENE		0.09	U		0.09	U		0.09	U		0.09	U	
SEC-BUTYLBENZENE		0.13	U		0.13	U		0.13	U		0.13	U	
STYRENE		0.1	U		0.1	U		0.1	U		0.1	U	
TERT-AMYL METHYL ETHER		0.11	U		0.11	U		0.11	U		0.11	U	
TERT-BUTYLBENZENE		0.14	U		0.14	U		0.14	U		0.14	U	
TERTIARY-BUTYL ALCOHOL		1.7	U		1.7	U		1.7	U		2.2	J	P
TETRACHLOROETHENE		0.15	U		0.15	U		0.15	U		0.15	U	
TOLUENE		0.14	U		0.14	U		0.14	U		0.14	U	
TOTAL XYLENES		0.15	U		0.15	U		0.15	U		0.15	U	
TRANS-1,2-DICHLOROETHENE		0.19	U		0.19	U		0.19	U		0.19	U	
TRANS-1,3-DICHLOROPROPENE		0.67	U		0.67	U		0.67	U		0.67	U	
TRICHLOROETHENE		0.1	U		0.1	U		0.1	U		0.1	U	

PROJ_NO: 08735	NSAMPLE	TB-090919		
SDG: 240-118610-1	LAB_ID	240-118610-41		
FRACTION: OV	SAMP_DATE	9/9/2019		
MEDIA: WATER	QC_TYPE	TB		
	UNITS	UG/L		
	PCT_SOLIDS	0.0		
	DUP_OF			
PARAMETER		RESULT	VQL	QLCD
CARBON DISULFIDE		0.28	U	
CARBON TETRACHLORIDE		0.26	U	
CHLOROBENZENE		0.14	U	
CHLORODIBROMOMETHANE		0.39	U	
CHLORODIFLUOROMETHANE		1	UJ	
CHLOROETHANE		0.83	U	
CHLOROFORM		0.13	U	
CHLOROMETHANE		0.2	U	
CIS-1,2-DICHLOROETHENE		0.16	U	
CIS-1,3-DICHLOROPROPENE		0.61	U	
DIBROMOMETHANE		0.09	U	
DICHLORODIFLUOROMETHANE		0.35	U	
DIISOPROPYL ETHER		0.17	U	
ETHYL TERT-BUTYL ETHER		0.15	U	
ETHYLBENZENE		0.11	U	
HEXACHLOROBUTADIENE		0.83	UJ	C
ISOPROPYLBENZENE		0.09	U	
M+P-XYLENES		0.08	U	
METHYL TERT-BUTYL ETHER		0.07	U	
METHYLENE CHLORIDE		2.6	U	
NAPHTHALENE		0.32	U	
N-BUTYLBENZENE		0.14	U	
N-PROPYLBENZENE		0.15	U	
O-XYLENE		0.09	U	
SEC-BUTYLBENZENE		0.13	U	
STYRENE		0.1	U	
TERT-AMYL METHYL ETHER		0.11	U	
TERT-BUTYLBENZENE		0.14	U	
TERTIARY-BUTYL ALCOHOL		1.7	U	
TETRACHLOROETHENE		0.15	U	
TOLUENE		0.14	U	
TOTAL XYLENES		0.15	U	
TRANS-1,2-DICHLOROETHENE		0.19	U	
TRANS-1,3-DICHLOROPROPENE		0.67	U	
TRICHLOROETHENE		0.1	U	

PROJ_NO: 08735	NSAMPLE	EL-SW01A-090919			EL-SW01B-090919			EL-SW01C-090919			EL-SW01D-090919		
SDG: 240-118610-1	LAB_ID	240-118610-37			240-118610-38			240-118610-39			240-118610-40		
FRACTION: OV	SAMP_DATE	9/9/2019			9/9/2019			9/9/2019			9/9/2019		
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
TRICHLOROFLUOROMETHANE		0.45	U		0.45	U		0.45	U		0.45	U	
VINYL ACETATE		0.19	U		0.19	U		0.19	U		0.19	U	
VINYL CHLORIDE		0.2	U		0.2	U		0.2	U		0.2	U	

PROJ_NO: 08735	NSAMPLE	MSA-SW37A-090919			MSA-SW37B-090919			MSA-SW37C-090919			MSA-SW37D-090919		
SDG: 240-118610-1	LAB_ID	240-118610-1			240-118610-2			240-118610-3			240-118610-4		
FRACTION: OV	SAMP_DATE	9/9/2019			9/9/2019			9/9/2019			9/9/2019		
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
TRICHLOROFLUOROMETHANE		0.45	U		0.45	U		0.45	U		0.45	U	
VINYL ACETATE		0.19	U		0.19	U		0.19	U		0.19	U	
VINYL CHLORIDE		0.2	U		0.2	U		0.2	U		0.2	U	

PROJ_NO: 08735	NSAMPLE	MSA-SW38A-090919			MSA-SW38B-090919			MSA-SW38C090919			MSA-SW38D-090919		
SDG: 240-118610-1	LAB_ID	240-118610-5			240-118610-6			240-118610-7			240-118610-8		
FRACTION: OV	SAMP_DATE	9/9/2019			9/9/2019			9/9/2019			9/9/2019		
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
TRICHLOROFLUOROMETHANE		0.45	U		0.45	U		0.45	U		0.45	U	
VINYL ACETATE		0.19	U		0.19	U		0.19	U		0.19	U	
VINYL CHLORIDE		0.2	U		0.2	U		0.2	U		0.2	U	

PROJ_NO: 08735	NSAMPLE	MSA-SW39A-090919			MSA-SW39B-090919			MSA-SW39C-090919			MSA-SW39D-090919		
SDG: 240-118610-1	LAB_ID	240-118610-9			240-118610-10			240-118610-11			240-118610-12		
FRACTION: OV	SAMP_DATE	9/9/2019			9/9/2019			9/9/2019			9/9/2019		
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
TRICHLOROFLUOROMETHANE		0.45	U		0.45	U		0.45	U		0.45	U	
VINYL ACETATE		0.19	U		0.19	U		0.19	U		0.19	U	
VINYL CHLORIDE		0.2	U		0.2	U		0.2	U		0.2	U	

PROJ_NO: 08735	NSAMPLE	MSA-SW40A-090919			MSA-SW40B-090919			MSA-SW40C-090919			MSA-SW40D-090919		
SDG: 240-118610-1	LAB_ID	240-118610-13			240-118610-14			240-118610-15			240-118610-16		
FRACTION: OV	SAMP_DATE	9/9/2019			9/9/2019			9/9/2019			9/9/2019		
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
TRICHLOROFLUOROMETHANE		0.45	U		0.45	U		0.45	U		0.45	U	
VINYL ACETATE		0.19	U		0.19	U		0.19	U		0.19	U	
VINYL CHLORIDE		0.2	U		0.2	U		0.2	U		0.2	U	

PROJ_NO: 08735	NSAMPLE	MSA-SW41A-090919			MSA-SW41B-090919			MSA-SW41C-090919			MSA-SW41D-090919		
SDG: 240-118610-1	LAB_ID	240-118610-17			240-118610-18			240-118610-19			240-118610-20		
FRACTION: OV	SAMP_DATE	9/9/2019			9/9/2019			9/9/2019			9/9/2019		
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
TRICHLOROFLUOROMETHANE		0.45	U		0.45	U		0.45	U		0.45	U	
VINYL ACETATE		0.19	U		0.19	U		0.19	U		0.19	U	
VINYL CHLORIDE		0.2	U		0.2	U		0.2	U		0.2	U	

PROJ_NO: 08735	NSAMPLE	MSA-SW42A-090919			MSA-SW42B-090919			MSA-SW42C-090919			MSA-SW42D-090919		
SDG: 240-118610-1	LAB_ID	240-118610-21			240-118610-22			240-118610-23			240-118610-24		
FRACTION: OV	SAMP_DATE	9/9/2019			9/9/2019			9/9/2019			9/9/2019		
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
TRICHLOROFLUOROMETHANE		0.45	U		0.45	U		0.45	U		0.45	U	
VINYL ACETATE		0.19	U		0.19	U		0.19	U		0.19	U	
VINYL CHLORIDE		0.2	U		0.2	U		0.2	U		0.2	U	

PROJ_NO: 08735	NSAMPLE	MSA-SW43A-090919			MSA-SW43B-090919			MSA-SW43C-090919			MSA-SW43D-090919		
SDG: 240-118610-1	LAB_ID	240-118610-25			240-118610-26			240-118610-27			240-118610-28		
FRACTION: OV	SAMP_DATE	9/9/2019			9/9/2019			9/9/2019			9/9/2019		
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
TRICHLOROFLUOROMETHANE		0.45	U		0.45	U		0.45	U		0.45	U	
VINYL ACETATE		0.19	U		0.19	U		0.19	U		0.19	U	
VINYL CHLORIDE		0.2	U		0.2	U		0.2	U		0.2	U	

PROJ_NO: 08735	NSAMPLE	MSA-SW44A-090919			MSA-SW44B-090919			MSA-SW44C-090919			MSA-SW44D-090919		
SDG: 240-118610-1	LAB_ID	240-118610-29			240-118610-30			240-118610-31			240-118610-32		
FRACTION: OV	SAMP_DATE	9/9/2019			9/9/2019			9/9/2019			9/9/2019		
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
TRICHLOROFLUOROMETHANE		0.45	U		0.45	U		0.45	U		0.45	U	
VINYL ACETATE		0.19	U		0.19	U		0.19	U		0.19	U	
VINYL CHLORIDE		0.2	U		0.2	U		0.2	U		0.2	U	

PROJ_NO: 08735	NSAMPLE	MSA-SW45A-090919			MSA-SW45B-090919			MSA-SW45C-090919			MSA-SW45D-090919		
SDG: 240-118610-1	LAB_ID	240-118610-33			240-118610-34			240-118610-35			240-118610-36		
FRACTION: OV	SAMP_DATE	9/9/2019			9/9/2019			9/9/2019			9/9/2019		
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
TRICHLOROFLUOROMETHANE		0.45	U		0.45	U		0.45	U		0.45	U	
VINYL ACETATE		0.19	U		0.19	U		0.19	U		0.19	U	
VINYL CHLORIDE		0.2	U		0.2	U		0.2	U		0.2	U	

PROJ_NO: 08735	NSAMPLE	MSA-SW46A-090919			MSA-SW47A-090919			MSA-SW48A-090919			MSA-SW49A-090919		
SDG: 240-118610-1	LAB_ID	240-118610-42			240-118610-43			240-118610-44			240-118610-45		
FRACTION: OV	SAMP_DATE	9/9/2019			9/9/2019			9/9/2019			9/9/2019		
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
TRICHLOROFLUOROMETHANE		0.45	U		0.45	U		0.45	U		0.45	U	
VINYL ACETATE		0.19	U		0.19	U		0.19	U		0.19	U	
VINYL CHLORIDE		0.2	U		0.2	U		0.2	U		0.2	U	

PROJ_NO: 08735	NSAMPLE	TB-090919		
SDG: 240-118610-1	LAB_ID	240-118610-41		
FRACTION: OV	SAMP_DATE	9/9/2019		
MEDIA: WATER	QC_TYPE	TB		
	UNITS	UG/L		
	PCT_SOLIDS	0.0		
	DUP_OF			
PARAMETER		RESULT	VQL	QLCD
TRICHLOROFLUOROMETHANE		0.45	U	
VINYL ACETATE		0.19	U	
VINYL CHLORIDE		0.2	U	

PROJ_NO: 08735	NSAMPLE	MSA-SW37A-090919			MSA-SW37B-090919			MSA-SW37C-090919			MSA-SW37D-090919		
SDG: 240-118610-1	LAB_ID	240-118610-1			240-118610-2			240-118610-3			240-118610-4		
FRACTION: MF	SAMP_DATE	9/9/2019			9/9/2019			9/9/2019			9/9/2019		
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
ANTIMONY		0.57	U		0.61	J	P	0.57	U		0.57	U	
ARSENIC		2.3	J	P	2.5	J	P	2.3	J	P	1.9	J	P
BARIUM		35			35			34			35		
BERYLLIUM		0.59	J	P	0.89	J	P	0.36	J	P	0.31	U	
CADMIUM		0.2	U		0.2	U		0.2	U		0.2	U	
CHROMIUM		0.98	U		0.98	U		0.98	U		0.98	U	
COBALT		0.3	J	P	0.28	J	P	0.32	J	P	0.26	J	P
COPPER		5.2			6.1			6.2			5.9		
LEAD		0.45	U		0.45	U		0.45	U		0.45	U	
MERCURY		0.13	U		0.13	U		0.13	U		0.13	U	
MOLYBDENUM		1.9	J	P	2	J	P	1.4	J	P	1.3	J	P
NICKEL		2.1			2.2			2.1			1.9	J	P
SELENIUM		1.2	J	P	1	J	P	0.89	U		0.89	U	
SILVER		0.053	U		0.053	U		0.053	U		0.053	U	
THALLIUM		0.39	J	P	0.44	J	P	0.2	U		0.2	U	
TUNGSTEN		1.8	U		1.8	U		1.8	U		1.8	U	
VANADIUM		0.82	U		0.82	U		0.82	U		0.82	U	
ZINC		15	U		15	U		15	U		15	U	

PROJ_NO: 08735	NSAMPLE	MSA-SW38A-090919			MSA-SW38B-090919			MSA-SW38C090919			MSA-SW38D-090919		
SDG: 240-118610-1	LAB_ID	240-118610-5			240-118610-6			240-118610-7			240-118610-8		
FRACTION: MF	SAMP_DATE	9/9/2019			9/9/2019			9/9/2019			9/9/2019		
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
ANTIMONY		0.57	U		0.57	U		0.57	U		0.57	U	
ARSENIC		1.7	J	P	2.5	J	P	2	J	P	1.8	J	P
BARIUM		35			35			35			35		
BERYLLIUM		0.31	U		0.31	U		0.31	U		0.31	U	
CADMIUM		0.2	U		0.2	U		0.2	U		0.2	U	
CHROMIUM		0.98	U		0.98	U		0.98	U		0.98	U	
COBALT		0.24	J	P	0.23	J	P	0.23	J	P	0.21	J	P
COPPER		3.9			4.6			4.2			4.2		
LEAD		0.45	U		0.45	U		0.45	U		0.45	U	
MERCURY		0.13	U		0.13	U		0.13	U		0.13	U	
MOLYBDENUM		1.1	J	P	1.2	J	P	1.2	J	P	1.2	J	P
NICKEL		2			2.1			2			2		
SELENIUM		0.89	U		0.89	U		0.89	U		0.89	U	
SILVER		0.053	U		0.053	U		0.053	U		0.053	U	
THALLIUM		0.2	U		0.2	U		0.2	U		0.2	U	
TUNGSTEN		1.8	U		1.8	U		1.8	U		1.8	U	
VANADIUM		0.82	U		0.82	U		0.82	U		0.82	U	
ZINC		15	U		15	U		15	U		15	U	

PROJ_NO: 08735	NSAMPLE	MSA-SW39A-090919			MSA-SW39B-090919			MSA-SW39C-090919			MSA-SW39D-090919		
SDG: 240-118610-1	LAB_ID	240-118610-9			240-118610-10			240-118610-11			240-118610-12		
FRACTION: MF	SAMP_DATE	9/9/2019			9/9/2019			9/9/2019			9/9/2019		
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
ANTIMONY		0.57	U		0.57	U		0.57	U		0.57	U	
ARSENIC		1.9	J	P	1.3	J	P	1.7	J	P	2	J	P
BARIUM		35			36			36			34		
BERYLLIUM		0.31	U		0.31	U		0.31	U		0.31	U	
CADMIUM		0.2	U		0.2	U		0.2	U		0.2	U	
CHROMIUM		0.98	U		0.98	U		0.98	U		0.98	U	
COBALT		0.19	U		0.19	U		0.19	U		0.19	U	
COPPER		3.4			3.7			3.9			4.6		
LEAD		0.45	U		0.45	U		0.45	U		0.45	U	
MERCURY		0.13	U		0.13	U		0.13	U		0.13	U	
MOLYBDENUM		1.1	J	P	1.2	J	P	1.2	J	P	1.1	J	P
NICKEL		2			2			2.3			1.9	J	P
SELENIUM		0.89	U		0.89	U		0.89	U		0.89	U	
SILVER		0.053	U		0.053	U		0.053	U		0.053	U	
THALLIUM		0.2	U		0.2	U		0.2	U		0.2	U	
TUNGSTEN		1.8	U		1.8	U		1.8	U		1.8	U	
VANADIUM		0.82	U		0.82	U		0.82	U		0.82	U	
ZINC		15	U		15	U		15	U		15	U	

PROJ_NO: 08735	NSAMPLE	MSA-SW40A-090919			MSA-SW40B-090919			MSA-SW40C-090919			MSA-SW40D-090919		
SDG: 240-118610-1	LAB_ID	240-118610-13			240-118610-14			240-118610-15			240-118610-16		
FRACTION: MF	SAMP_DATE	9/9/2019			9/9/2019			9/9/2019			9/9/2019		
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
ANTIMONY		0.57	U		0.57	U		0.57	U		0.57	U	
ARSENIC		2.1	J	P	1.9	J	P	2.2	J	P	2.4	J	P
BARIUM		37			36			37			34		
BERYLLIUM		0.31	U		0.31	U		0.31	U		0.31	U	
CADMIUM		0.2	U		0.2	U		0.2	U		0.2	U	
CHROMIUM		0.98	U		0.98	U		0.98	U		0.98	U	
COBALT		0.27	J	P	0.26	J	P	0.32	J	P	0.24	J	P
COPPER		4.3			4.7			4.6			4.2		
LEAD		0.45	U		0.45	U		0.45	U		0.45	U	
MERCURY		0.13	U		0.13	U		0.13	U		0.13	U	
MOLYBDENUM		1.2	J	P	1.2	J	P	1.2	J	P	1.1	J	P
NICKEL		2			2.2			2			2		
SELENIUM		0.89	U		0.89	U		0.89	U		0.89	U	
SILVER		0.053	U		0.053	U		0.053	U		0.053	U	
THALLIUM		0.2	U		0.2	U		0.2	U		0.2	U	
TUNGSTEN		1.8	U		1.8	U		1.8	U		1.8	U	
VANADIUM		0.82	U		0.82	U		0.82	U		0.82	U	
ZINC		15	U		15	U		15	U		15	U	

PROJ_NO: 08735	NSAMPLE	MSA-SW41A-090919			MSA-SW41B-090919			MSA-SW41C-090919			MSA-SW41D-090919		
SDG: 240-118610-1	LAB_ID	240-118610-17			240-118610-18			240-118610-19			240-118610-20		
FRACTION: MF	SAMP_DATE	9/9/2019			9/9/2019			9/9/2019			9/9/2019		
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
ANTIMONY		0.57	U		0.57	U		0.57	U		0.57	U	
ARSENIC		1.5	J	P	1.9	J	P	2	J	P	1.9	J	P
BARIUM		35			35			35			36		
BERYLLIUM		0.31	U		0.31	U		0.31	U		0.31	U	
CADMIUM		0.2	U		0.2	U		0.2	U		0.2	U	
CHROMIUM		0.98	U		0.98	U		3.3			0.98	U	
COBALT		0.2	J	P	0.21	J	P	0.21	J	P	0.21	J	P
COPPER		4.2			4.2			4.6			4.3		
LEAD		0.45	U		0.45	U		0.45	U		0.45	U	
MERCURY		0.13	U		0.13	U		0.13	U		0.13	U	
MOLYBDENUM		1.1	J	P	1.2	J	P	1.2	J	P	1.2	J	P
NICKEL		2			2.1			2.2			2		
SELENIUM		0.89	U		0.89	U		0.89	U		0.89	U	
SILVER		0.053	U		0.053	U		0.053	U		0.053	U	
THALLIUM		0.2	U		0.2	U		0.2	U		0.2	U	
TUNGSTEN		1.8	U		1.8	U		1.8	U		1.8	U	
VANADIUM		0.82	U		0.82	U		0.82	U		0.82	U	
ZINC		15	U		15	U		15	U		15	U	

PROJ_NO: 08735	NSAMPLE	MSA-SW42A-090919			MSA-SW42B-090919			MSA-SW42C-090919			MSA-SW42D-090919		
SDG: 240-118610-1	LAB_ID	240-118610-21			240-118610-22			240-118610-23			240-118610-24		
FRACTION: MF	SAMP_DATE	9/9/2019			9/9/2019			9/9/2019			9/9/2019		
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
ANTIMONY		0.57	U		0.57	U		0.57	U		0.57	U	
ARSENIC		2.4	J	P	2.4	J	P	2	J	P	2.5	J	P
BARIUM		37			36			35			35		
BERYLLIUM		0.6	J	P	0.31	U		0.31	U		0.31	U	
CADMIUM		0.2	U		0.2	U		0.2	U		0.2	U	
CHROMIUM		0.98	U		0.98	U		1.1	J	P	0.98	U	
COBALT		0.27	J	P	0.26	J	P	0.23	J	P	0.22	J	P
COPPER		4.1			5			5.6			5.4		
LEAD		0.45	U		0.45	U		0.45	U		0.45	U	
MERCURY		0.13	U		0.13	U		0.13	U		0.13	U	
MOLYBDENUM		1.2	J	P	1.2	J	P	1.1	J	P	1.1	J	P
NICKEL		2			2.1			2.1			2.2		
SELENIUM		0.89	U		0.89	U		0.89	U		0.89	U	
SILVER		0.053	U		0.053	U		0.053	U		0.053	U	
THALLIUM		0.2	U		0.2	U		0.2	U		0.2	U	
TUNGSTEN		2	U	A	1.8	U	A	1.8	U		1.8	U	
VANADIUM		0.82	U		0.82	U		0.82	U		0.82	U	
ZINC		15	U		15	U		15	U		15	U	

PROJ_NO: 08735	NSAMPLE	MSA-SW43A-090919			MSA-SW43B-090919			MSA-SW43C-090919			MSA-SW43D-090919		
SDG: 240-118610-1	LAB_ID	240-118610-25			240-118610-26			240-118610-27			240-118610-28		
FRACTION: MF	SAMP_DATE	9/9/2019			9/9/2019			9/9/2019			9/9/2019		
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
ANTIMONY		0.57	U		0.57	U		0.57	U		0.57	U	
ARSENIC		2	J	P	2.3	J	P	2.3	J	P	2.4	J	P
BARIUM		35			36			35			35		
BERYLLIUM		0.31	U		0.31	U		0.31	U		0.31	U	
CADMIUM		0.2	U		0.2	U		0.2	U		0.2	U	
CHROMIUM		0.98	U		0.98	U		1.3	J	P	0.98	U	
COBALT		0.19	J	P	0.2	J	P	0.19	U		0.19	J	P
COPPER		4.4			4.5			4.7			4.7		
LEAD		0.45	U		0.45	U		0.45	U		0.45	U	
MERCURY		0.13	U		0.13	U		0.15	J	DP	0.15	J	DP
MOLYBDENUM		1.2	J	P	1.1	J	P	1.2	J	P	1.1	J	P
NICKEL		2.1			2			2.1			2		
SELENIUM		0.89	U		0.89	U		0.89	U		0.89	U	
SILVER		0.053	U		0.053	U		0.053	U		0.053	U	
THALLIUM		0.2	U		0.2	U		0.2	U		0.2	U	
TUNGSTEN		1.8	U		1.8	U		1.8	U		1.8	U	
VANADIUM		0.82	U		0.82	U		0.82	U		0.82	U	
ZINC		15	U		15	U		15	U		15	U	

PROJ_NO: 08735	NSAMPLE	MSA-SW44A-090919			MSA-SW44B-090919			MSA-SW44C-090919			MSA-SW44D-090919		
SDG: 240-118610-1	LAB_ID	240-118610-29			240-118610-30			240-118610-31			240-118610-32		
FRACTION: MF	SAMP_DATE	9/9/2019			9/9/2019			9/9/2019			9/9/2019		
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
ANTIMONY		0.57	U		0.57	U		0.57	U		0.57	U	
ARSENIC		1.9	J	P	2	J	P	2	J	P	1.9	J	P
BARIUM		36			36			37			36		
BERYLLIUM		0.31	U		0.31	U		0.31	U		0.31	U	
CADMIUM		0.2	U		0.2	U		0.2	U		0.2	U	
CHROMIUM		1.3	J	P	1.5	J	P	0.98	U		0.98	U	
COBALT		0.2	J	P	0.19	U		0.19	U		0.19	U	
COPPER		4.9			4.8			4.9			4.9		
LEAD		0.45	U		0.45	U		0.45	U		0.45	U	
MERCURY		0.18	J	DP	0.13	J	DP	0.13	J	DP	0.13	U	
MOLYBDENUM		1.3	J	P	1.2	J	P	1.2	J	P	1.2	J	P
NICKEL		2.8			2.1			2.1			2.1		
SELENIUM		0.89	U		0.89	U		0.89	U		0.89	U	
SILVER		0.053	U		0.053	U		0.053	U		0.053	U	
THALLIUM		0.2	U		0.2	U		0.2	U		0.2	U	
TUNGSTEN		1.8	U		1.8	U		1.8	U		1.8	U	
VANADIUM		0.82	U		0.82	U		0.82	U		0.82	U	
ZINC		15	U		15	U		15	U		15	U	

PROJ_NO: 08735	NSAMPLE	MSA-SW45A-090919			MSA-SW45B-090919			MSA-SW45C-090919			MSA-SW45D-090919		
SDG: 240-118610-1	LAB_ID	240-118610-33			240-118610-34			240-118610-35			240-118610-36		
FRACTION: MF	SAMP_DATE	9/9/2019			9/9/2019			9/9/2019			9/9/2019		
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
ANTIMONY		0.57	U		0.57	U		0.57	U		0.57	U	
ARSENIC		2	J	P	2.1	J	P	1.9	J	P	2.1	J	P
BARIUM		34			34			37			36		
BERYLLIUM		0.31	U		0.31	U		0.31	U		0.31	U	
CADMIUM		0.2	U		0.2	U		0.2	U		0.2	U	
CHROMIUM		0.98	U		0.98	U		0.98	U		0.98	U	
COBALT		0.19	U		0.19	J	P	0.19	U		0.19	U	
COPPER		3.9			4.9			5			5.1		
LEAD		0.45	U		0.45	U		0.45	U		0.45	U	
MERCURY		0.13	U		0.13	U		0.13	U		0.13	U	
MOLYBDENUM		1.1	J	P	1.1	J	P	1.2	J	P	1.1	J	P
NICKEL		1.9	J	P	2.1			2.1			2.1		
SELENIUM		0.89	U		0.89	U		0.89	U		0.89	U	
SILVER		0.053	U		0.053	U		0.053	U		0.053	U	
THALLIUM		0.2	U		0.2	U		0.2	U		0.2	U	
TUNGSTEN		1.8	U		1.8	U		1.8	U		1.8	U	
VANADIUM		0.82	U		0.82	U		0.82	U		0.82	U	
ZINC		15	U		15	U		15	U		15	U	

PROJ_NO: 08735	NSAMPLE	MSA-SW37A-090919			MSA-SW37B-090919			MSA-SW37C-090919			MSA-SW37D-090919		
SDG: 240-118610-1	LAB_ID	240-118610-1			240-118610-2			240-118610-3			240-118610-4		
FRACTION: MISC	SAMP_DATE	9/9/2019			9/9/2019			9/9/2019			9/9/2019		
MEDIA: WATER	QC_TYPE	NM			NM			NM			NM		
	UNITS	MG/L			MG/L			MG/L			MG/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
CALCIUM HARDNESS AS CACO3		77			77			76			78		
DISSOLVED ORGANIC CARBON					2.4								
HARDNESS AS CACO3		440			440			430			440		
MAGNESIUM HARDNESS AS CACO3		360			360			360			370		

PROJ_NO: 08735	NSAMPLE	MSA-SW38A-090919			MSA-SW38B-090919			MSA-SW38C090919			MSA-SW38D-090919		
SDG: 240-118610-1	LAB_ID	240-118610-5			240-118610-6			240-118610-7			240-118610-8		
FRACTION: MISC	SAMP_DATE	9/9/2019			9/9/2019			9/9/2019			9/9/2019		
MEDIA: WATER	QC_TYPE	NM			NM			NM			NM		
	UNITS	MG/L			MG/L			MG/L			MG/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
CALCIUM HARDNESS AS CACO3		76			76			76			75		
DISSOLVED ORGANIC CARBON					2.3								
HARDNESS AS CACO3		440			440			440			430		
MAGNESIUM HARDNESS AS CACO3		360			360			360			360		

PROJ_NO: 08735	NSAMPLE	MSA-SW39A-090919			MSA-SW39B-090919			MSA-SW39C-090919			MSA-SW39D-090919		
SDG: 240-118610-1	LAB_ID	240-118610-9			240-118610-10			240-118610-11			240-118610-12		
FRACTION: MISC	SAMP_DATE	9/9/2019			9/9/2019			9/9/2019			9/9/2019		
MEDIA: WATER	QC_TYPE	NM			NM			NM			NM		
	UNITS	MG/L			MG/L			MG/L			MG/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
CALCIUM HARDNESS AS CACO3		77			81			81			77		
DISSOLVED ORGANIC CARBON					2.2								
HARDNESS AS CACO3		450			470			460			450		
MAGNESIUM HARDNESS AS CACO3		370			390			380			370		

PROJ_NO: 08735	NSAMPLE	MSA-SW40A-090919			MSA-SW40B-090919			MSA-SW40C-090919			MSA-SW40D-090919		
SDG: 240-118610-1	LAB_ID	240-118610-13			240-118610-14			240-118610-15			240-118610-16		
FRACTION: MISC	SAMP_DATE	9/9/2019			9/9/2019			9/9/2019			9/9/2019		
MEDIA: WATER	QC_TYPE	NM			NM			NM			NM		
	UNITS	MG/L			MG/L			MG/L			MG/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
CALCIUM HARDNESS AS CACO3		78			78			77			74		
DISSOLVED ORGANIC CARBON					2.3								
HARDNESS AS CACO3		450			450			440			430		
MAGNESIUM HARDNESS AS CACO3		370			370			370			360		

PROJ_NO: 08735	NSAMPLE	MSA-SW41A-090919			MSA-SW41B-090919			MSA-SW41C-090919			MSA-SW41D-090919		
SDG: 240-118610-1	LAB_ID	240-118610-17			240-118610-18			240-118610-19			240-118610-20		
FRACTION: MISC	SAMP_DATE	9/9/2019			9/9/2019			9/9/2019			9/9/2019		
MEDIA: WATER	QC_TYPE	NM			NM			NM			NM		
	UNITS	MG/L			MG/L			MG/L			MG/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
CALCIUM HARDNESS AS CACO3		76			78			77			77		
DISSOLVED ORGANIC CARBON					2.3								
HARDNESS AS CACO3		440			440			450			450		
MAGNESIUM HARDNESS AS CACO3		360			360			370			370		

PROJ_NO: 08735	NSAMPLE	MSA-SW42A-090919			MSA-SW42B-090919			MSA-SW42C-090919			MSA-SW42D-090919		
SDG: 240-118610-1	LAB_ID	240-118610-21			240-118610-22			240-118610-23			240-118610-24		
FRACTION: MISC	SAMP_DATE	9/9/2019			9/9/2019			9/9/2019			9/9/2019		
MEDIA: WATER	QC_TYPE	NM			NM			NM			NM		
	UNITS	MG/L			MG/L			MG/L			MG/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
CALCIUM HARDNESS AS CACO3		78			78			76			76		
DISSOLVED ORGANIC CARBON					2.5								
HARDNESS AS CACO3		450			440			430			440		
MAGNESIUM HARDNESS AS CACO3		370			370			360			360		

PROJ_NO: 08735	NSAMPLE	MSA-SW43A-090919			MSA-SW43B-090919			MSA-SW43C-090919			MSA-SW43D-090919		
SDG: 240-118610-1	LAB_ID	240-118610-25			240-118610-26			240-118610-27			240-118610-28		
FRACTION: MISC	SAMP_DATE	9/9/2019			9/9/2019			9/9/2019			9/9/2019		
MEDIA: WATER	QC_TYPE	NM			NM			NM			NM		
	UNITS	MG/L			MG/L			MG/L			MG/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
CALCIUM HARDNESS AS CACO3		76			78			78			77		
DISSOLVED ORGANIC CARBON					2.3								
HARDNESS AS CACO3		440			450			450			440		
MAGNESIUM HARDNESS AS CACO3		360			370			370			360		

PROJ_NO: 08735	NSAMPLE	MSA-SW44A-090919			MSA-SW44B-090919			MSA-SW44C-090919			MSA-SW44D-090919		
SDG: 240-118610-1	LAB_ID	240-118610-29			240-118610-30			240-118610-31			240-118610-32		
FRACTION: MISC	SAMP_DATE	9/9/2019			9/9/2019			9/9/2019			9/9/2019		
MEDIA: WATER	QC_TYPE	NM			NM			NM			NM		
	UNITS	MG/L			MG/L			MG/L			MG/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
CALCIUM HARDNESS AS CACO3		79			78			80			80		
DISSOLVED ORGANIC CARBON					2.3								
HARDNESS AS CACO3		460			440			450			460		
MAGNESIUM HARDNESS AS CACO3		380			370			370			380		

PROJ_NO: 08735	NSAMPLE	MSA-SW45A-090919			MSA-SW45B-090919			MSA-SW45C-090919			MSA-SW45D-090919		
SDG: 240-118610-1	LAB_ID	240-118610-33			240-118610-34			240-118610-35			240-118610-36		
FRACTION: MISC	SAMP_DATE	9/9/2019			9/9/2019			9/9/2019			9/9/2019		
MEDIA: WATER	QC_TYPE	NM			NM			NM			NM		
	UNITS	MG/L			MG/L			MG/L			MG/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
CALCIUM HARDNESS AS CACO3		77			76			82			81		
DISSOLVED ORGANIC CARBON					2.4								
HARDNESS AS CACO3		440			440			470			460		
MAGNESIUM HARDNESS AS CACO3		370			370			390			380		

Appendix B

Results as Reported by the Laboratory

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-118610-1

SDG No.:

Client Sample ID: MSA-SW37A-090919 Lab Sample ID: 240-118610-1

Matrix: Water Lab File ID: U1909707.d

Analysis Method: 8260C Date Collected: 09/09/2019 12:43

Sample wt/vol: 5(mL) Date Analyzed: 09/13/2019 18:11

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.: 400639 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
630-20-6	1,1,1,2-Tetrachloroethane	1.0	U	1.0	0.14
71-55-6	1,1,1-Trichloroethane	1.0	U	1.0	0.24
79-34-5	1,1,2,2-Tetrachloroethane	1.0	U	1.0	0.13
76-13-1	1,1,2-Trichloro-1,2,2-trichfluoroethane	1.0	U	1.0	0.41
75-34-3	1,1-Dichloroethane	1.0	U	1.0	0.17
75-35-4	1,1-Dichloroethene	1.0	U	1.0	0.19
563-58-6	1,1-Dichloropropene	1.0	U	1.0	0.14
87-61-6	1,2,3-Trichlorobenzene	1.0	U	1.0	0.54
96-18-4	1,2,3-Trichloropropane	1.0	U	1.0	0.24
526-73-8	1,2,3-Trimethylbenzene	5.0	U	5.0	0.14
120-82-1	1,2,4-Trichlorobenzene	1.0	U	1.0	0.26
95-63-6	1,2,4-Trimethylbenzene	1.0	U	1.0	0.070
96-12-8	1,2-Dibromo-3-Chloropropane	5.0	U	5.0	0.91
95-50-1	1,2-Dichlorobenzene	1.0	U	1.0	0.15
107-06-2	1,2-Dichloroethane	1.0	U	1.0	0.21
78-87-5	1,2-Dichloropropane	1.0	U	1.0	0.15
541-73-1	1,3-Dichlorobenzene	1.0	U	1.0	0.15
142-28-9	1,3-Dichloropropane	1.0	U	1.0	0.21
106-46-7	1,4-Dichlorobenzene	1.0	U	1.0	0.16
594-20-7	2,2-Dichloropropane	1.0	U	1.0	0.31
110-75-8	2-Chloroethyl vinyl ether	10	U	10	0.26
95-49-8	2-Chlorotoluene	1.0	U	1.0	0.15
591-78-6	2-Hexanone	5.0	U	5.0	0.54
108-86-1	Bromobenzene	1.0	U	1.0	0.12
74-97-5	Bromochloromethane	1.0	U	1.0	0.14
106-43-4	4-Chlorotoluene	1.0	U	1.0	0.090
99-87-6	p-Isopropyltoluene	1.0	U	1.0	0.13
67-64-1	Acetone	5.0	U	5.0	5.4
71-43-2	Benzene	1.0	U	1.0	0.13
75-25-2	Bromoform	1.0	U	1.0	0.76
74-83-9	Bromomethane	1.0	U	1.0	0.42
75-15-0	Carbon disulfide	1.0	U	1.0	0.28
56-23-5	Carbon tetrachloride	1.0	U	1.0	0.26
108-90-7	Chlorobenzene	1.0	U	1.0	0.14
75-00-3	Chloroethane	1.0	U	1.0	0.83

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-118610-1

SDG No.:

Client Sample ID: MSA-SW37A-090919 Lab Sample ID: 240-118610-1

Matrix: Water Lab File ID: U1909707.d

Analysis Method: 8260C Date Collected: 09/09/2019 12:43

Sample wt/vol: 5(mL) Date Analyzed: 09/13/2019 18:11

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.: 400639 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
67-66-3	Chloroform	1.0	U	1.0	0.13
74-87-3	Chloromethane	1.0	U	1.0	0.20
156-59-2	cis-1,2-Dichloroethene	1.0	U	1.0	0.16
10061-01-5	cis-1,3-Dichloropropene	1.0	U	1.0	0.61
87-68-3	Hexachlorobutadiene	1.0	U	1.0	0.83
74-95-3	Dibromomethane	1.0	U	1.0	0.090
75-27-4	Bromodichloromethane	1.0	U	1.0	0.17
75-71-8	Dichlorodifluoromethane	1.0	U	1.0	0.35
100-41-4	Ethylbenzene	1.0	U	1.0	0.11
106-93-4	1,2-Dibromoethane	1.0	U	1.0	0.12
108-20-3	Diisopropyl ether	5.0	U	5.0	0.17
91-20-3	Naphthalene	1.0	U	1.0	0.32
179601-23-1	m-Xylene & p-Xylene	2.0	U	2.0	0.080
104-51-8	n-Butylbenzene	1.0	U	1.0	0.14
98-82-8	Isopropylbenzene	1.0	U	1.0	0.090
103-65-1	n-Propylbenzene	1.0	U	1.0	0.15
78-93-3	2-Butanone	5.0	U	5.0	1.2
108-10-1	4-Methyl-2-pentanone	5.0	U	5.0	0.42
135-98-8	sec-Butylbenzene	1.0	U	1.0	0.13
1634-04-4	Methyl tert-butyl ether	1.0	U	1.0	0.070
994-05-8	Tert-amyl-methyl ether (TAME)	5.0	U	5.0	0.11
75-09-2	Methylene Chloride	5.0	U	5.0	2.6
95-47-6	o-Xylene	1.0	U	1.0	0.090
100-42-5	Styrene	1.0	U	1.0	0.10
637-92-3	Ethyl-t-butyl ether (ETBE)	5.0	U	5.0	0.15
98-06-6	tert-Butylbenzene	1.0	U	1.0	0.14
127-18-4	Tetrachloroethene	1.0	U	1.0	0.15
108-88-3	Toluene	1.0	U	1.0	0.14
156-60-5	trans-1,2-Dichloroethene	1.0	U	1.0	0.19
10061-02-6	trans-1,3-Dichloropropene	1.0	U	1.0	0.67
79-01-6	Trichloroethene	1.0	U	1.0	0.10
75-69-4	Trichlorofluoromethane	1.0	U	1.0	0.45
108-05-4	Vinyl acetate	2.0	U	2.0	0.19
75-01-4	Vinyl chloride	0.50	U	0.50	0.20
75-65-0	tert-Butyl alcohol	20	U	20	1.7
1330-20-7	Xylenes, Total	2.0	U	2.0	0.15

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-118610-1

SDG No.:

Client Sample ID: MSA-SW37A-090919 Lab Sample ID: 240-118610-1

Matrix: Water Lab File ID: U1909707.d

Analysis Method: 8260C Date Collected: 09/09/2019 12:43

Sample wt/vol: 5(mL) Date Analyzed: 09/13/2019 18:11

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.: 400639 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
124-48-1	Dibromochloromethane	1.0	U	1.0	0.39

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	112		70-121
460-00-4	4-Bromofluorobenzene (Surr)	90		59-120
2037-26-5	Toluene-d8 (Surr)	97		70-123
1868-53-7	Dibromofluoromethane (Surr)	111		75-128

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-118610-1

SDG No.:

Client Sample ID: MSA-SW37A-090919 Lab Sample ID: 240-118610-1

Matrix: Water Lab File ID: U1909707.d

Analysis Method: 8260C Date Collected: 09/09/2019 12:43

Sample wt/vol: 5(mL) Date Analyzed: 09/13/2019 18:11

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.: 400639 Units: ug/L

Number TICs Found: 0 TIC Result Total: 0

CAS NO.	COMPOUND NAME	RT	RESULT	Q	MATCH QUALITY
	Tentatively Identified Compound		None		

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET
TARGETED TENATIVELY IDENTIFIED COMPOUNDS

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-118610-1

SDG No.:

Client Sample ID: MSA-SW37A-090919 Lab Sample ID: 240-118610-1

Matrix: Water Lab File ID: U1909707.d

Analysis Method: 8260C Date Collected: 09/09/2019 12:43

Sample wt/vol: 5(mL) Date Analyzed: 09/13/2019 18:11

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.: 400639 Units: ug/L

CAS NO.	COMPOUND NAME	RT	RESULT	Q	MATCH QUALITY
75-45-6	Chlorodifluoromethane TIC		1.0	U	

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-118610-1

SDG No.:

Client Sample ID: MSA-SW37B-090919 Lab Sample ID: 240-118610-2

Matrix: Water Lab File ID: U1909708.d

Analysis Method: 8260C Date Collected: 09/09/2019 12:47

Sample wt/vol: 5(mL) Date Analyzed: 09/13/2019 18:34

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.: 400639 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
630-20-6	1,1,1,2-Tetrachloroethane	1.0	U	1.0	0.14
71-55-6	1,1,1-Trichloroethane	1.0	U	1.0	0.24
79-34-5	1,1,2,2-Tetrachloroethane	1.0	U	1.0	0.13
76-13-1	1,1,2-Trichloro-1,2,2-trichfluoroeth ane	1.0	U	1.0	0.41
75-34-3	1,1-Dichloroethane	1.0	U	1.0	0.17
75-35-4	1,1-Dichloroethene	1.0	U	1.0	0.19
563-58-6	1,1-Dichloropropene	1.0	U	1.0	0.14
87-61-6	1,2,3-Trichlorobenzene	1.0	U	1.0	0.54
96-18-4	1,2,3-Trichloropropane	1.0	U	1.0	0.24
526-73-8	1,2,3-Trimethylbenzene	5.0	U	5.0	0.14
120-82-1	1,2,4-Trichlorobenzene	1.0	U	1.0	0.26
95-63-6	1,2,4-Trimethylbenzene	1.0	U	1.0	0.070
96-12-8	1,2-Dibromo-3-Chloropropane	5.0	U	5.0	0.91
95-50-1	1,2-Dichlorobenzene	1.0	U	1.0	0.15
107-06-2	1,2-Dichloroethane	1.0	U	1.0	0.21
78-87-5	1,2-Dichloropropane	1.0	U	1.0	0.15
541-73-1	1,3-Dichlorobenzene	1.0	U	1.0	0.15
142-28-9	1,3-Dichloropropane	1.0	U	1.0	0.21
106-46-7	1,4-Dichlorobenzene	1.0	U	1.0	0.16
594-20-7	2,2-Dichloropropane	1.0	U	1.0	0.31
110-75-8	2-Chloroethyl vinyl ether	10	U	10	0.26
95-49-8	2-Chlorotoluene	1.0	U	1.0	0.15
591-78-6	2-Hexanone	5.0	U	5.0	0.54
108-86-1	Bromobenzene	1.0	U	1.0	0.12
74-97-5	Bromochloromethane	1.0	U	1.0	0.14
106-43-4	4-Chlorotoluene	1.0	U	1.0	0.090
99-87-6	p-Isopropyltoluene	1.0	U	1.0	0.13
67-64-1	Acetone	5.0	U	5.0	5.4
71-43-2	Benzene	1.0	U	1.0	0.13
75-25-2	Bromoform	1.0	U	1.0	0.76
74-83-9	Bromomethane	1.0	U	1.0	0.42
75-15-0	Carbon disulfide	1.0	U	1.0	0.28
56-23-5	Carbon tetrachloride	1.0	U	1.0	0.26
108-90-7	Chlorobenzene	1.0	U	1.0	0.14
75-00-3	Chloroethane	1.0	U	1.0	0.83

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-118610-1

SDG No.:

Client Sample ID: MSA-SW37B-090919 Lab Sample ID: 240-118610-2

Matrix: Water Lab File ID: U1909708.d

Analysis Method: 8260C Date Collected: 09/09/2019 12:47

Sample wt/vol: 5(mL) Date Analyzed: 09/13/2019 18:34

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.: 400639 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
67-66-3	Chloroform	1.0	U	1.0	0.13
74-87-3	Chloromethane	1.0	U	1.0	0.20
156-59-2	cis-1,2-Dichloroethene	1.0	U	1.0	0.16
10061-01-5	cis-1,3-Dichloropropene	1.0	U	1.0	0.61
87-68-3	Hexachlorobutadiene	1.0	U	1.0	0.83
74-95-3	Dibromomethane	1.0	U	1.0	0.090
75-27-4	Bromodichloromethane	1.0	U	1.0	0.17
75-71-8	Dichlorodifluoromethane	1.0	U	1.0	0.35
100-41-4	Ethylbenzene	1.0	U	1.0	0.11
106-93-4	1,2-Dibromoethane	1.0	U	1.0	0.12
108-20-3	Diisopropyl ether	5.0	U	5.0	0.17
91-20-3	Naphthalene	1.0	U	1.0	0.32
179601-23-1	m-Xylene & p-Xylene	2.0	U	2.0	0.080
104-51-8	n-Butylbenzene	1.0	U	1.0	0.14
98-82-8	Isopropylbenzene	1.0	U	1.0	0.090
103-65-1	n-Propylbenzene	1.0	U	1.0	0.15
78-93-3	2-Butanone	5.0	U	5.0	1.2
108-10-1	4-Methyl-2-pentanone	5.0	U	5.0	0.42
135-98-8	sec-Butylbenzene	1.0	U	1.0	0.13
1634-04-4	Methyl tert-butyl ether	1.0	U	1.0	0.070
994-05-8	Tert-amyl-methyl ether (TAME)	5.0	U	5.0	0.11
75-09-2	Methylene Chloride	5.0	U	5.0	2.6
95-47-6	o-Xylene	1.0	U	1.0	0.090
100-42-5	Styrene	1.0	U	1.0	0.10
637-92-3	Ethyl-t-butyl ether (ETBE)	5.0	U	5.0	0.15
98-06-6	tert-Butylbenzene	1.0	U	1.0	0.14
127-18-4	Tetrachloroethene	1.0	U	1.0	0.15
108-88-3	Toluene	1.0	U	1.0	0.14
156-60-5	trans-1,2-Dichloroethene	1.0	U	1.0	0.19
10061-02-6	trans-1,3-Dichloropropene	1.0	U	1.0	0.67
79-01-6	Trichloroethene	1.0	U	1.0	0.10
75-69-4	Trichlorofluoromethane	1.0	U	1.0	0.45
108-05-4	Vinyl acetate	2.0	U	2.0	0.19
75-01-4	Vinyl chloride	0.50	U	0.50	0.20
75-65-0	tert-Butyl alcohol	20	U	20	1.7
1330-20-7	Xylenes, Total	2.0	U	2.0	0.15

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-118610-1

SDG No.:

Client Sample ID: MSA-SW37B-090919 Lab Sample ID: 240-118610-2

Matrix: Water Lab File ID: U1909708.d

Analysis Method: 8260C Date Collected: 09/09/2019 12:47

Sample wt/vol: 5(mL) Date Analyzed: 09/13/2019 18:34

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.: 400639 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
124-48-1	Dibromochloromethane	1.0	U	1.0	0.39

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	114		70-121
460-00-4	4-Bromofluorobenzene (Surr)	94		59-120
2037-26-5	Toluene-d8 (Surr)	102		70-123
1868-53-7	Dibromofluoromethane (Surr)	111		75-128

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-118610-1

SDG No.:

Client Sample ID: MSA-SW37B-090919 Lab Sample ID: 240-118610-2

Matrix: Water Lab File ID: U1909708.d

Analysis Method: 8260C Date Collected: 09/09/2019 12:47

Sample wt/vol: 5(mL) Date Analyzed: 09/13/2019 18:34

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.: 400639 Units: ug/L

Number TICs Found: 0 TIC Result Total: 0

CAS NO.	COMPOUND NAME	RT	RESULT	Q	MATCH QUALITY
	Tentatively Identified Compound		None		

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET
TARGETED TENATIVELY IDENTIFIED COMPOUNDS

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-118610-1

SDG No.:

Client Sample ID: MSA-SW37B-090919 Lab Sample ID: 240-118610-2

Matrix: Water Lab File ID: U1909708.d

Analysis Method: 8260C Date Collected: 09/09/2019 12:47

Sample wt/vol: 5(mL) Date Analyzed: 09/13/2019 18:34

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.: 400639 Units: ug/L

CAS NO.	COMPOUND NAME	RT	RESULT	Q	MATCH QUALITY
75-45-6	Chlorodifluoromethane TIC		1.0	U	

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-118610-1

SDG No.:

Client Sample ID: MSA-SW37C-090919 Lab Sample ID: 240-118610-3

Matrix: Water Lab File ID: U1909709.d

Analysis Method: 8260C Date Collected: 09/09/2019 12:50

Sample wt/vol: 5(mL) Date Analyzed: 09/13/2019 18:56

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.: 400639 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
630-20-6	1,1,1,2-Tetrachloroethane	1.0	U	1.0	0.14
71-55-6	1,1,1-Trichloroethane	1.0	U	1.0	0.24
79-34-5	1,1,2,2-Tetrachloroethane	1.0	U	1.0	0.13
76-13-1	1,1,2-Trichloro-1,2,2-trichfluoroethane	1.0	U	1.0	0.41
75-34-3	1,1-Dichloroethane	1.0	U	1.0	0.17
75-35-4	1,1-Dichloroethene	1.0	U	1.0	0.19
563-58-6	1,1-Dichloropropene	1.0	U	1.0	0.14
87-61-6	1,2,3-Trichlorobenzene	1.0	U	1.0	0.54
96-18-4	1,2,3-Trichloropropane	1.0	U	1.0	0.24
526-73-8	1,2,3-Trimethylbenzene	5.0	U	5.0	0.14
120-82-1	1,2,4-Trichlorobenzene	1.0	U	1.0	0.26
95-63-6	1,2,4-Trimethylbenzene	1.0	U	1.0	0.070
96-12-8	1,2-Dibromo-3-Chloropropane	5.0	U	5.0	0.91
95-50-1	1,2-Dichlorobenzene	1.0	U	1.0	0.15
107-06-2	1,2-Dichloroethane	1.0	U	1.0	0.21
78-87-5	1,2-Dichloropropane	1.0	U	1.0	0.15
541-73-1	1,3-Dichlorobenzene	1.0	U	1.0	0.15
142-28-9	1,3-Dichloropropane	1.0	U	1.0	0.21
106-46-7	1,4-Dichlorobenzene	1.0	U	1.0	0.16
594-20-7	2,2-Dichloropropane	1.0	U	1.0	0.31
110-75-8	2-Chloroethyl vinyl ether	10	U	10	0.26
95-49-8	2-Chlorotoluene	1.0	U	1.0	0.15
591-78-6	2-Hexanone	5.0	U	5.0	0.54
108-86-1	Bromobenzene	1.0	U	1.0	0.12
74-97-5	Bromochloromethane	1.0	U	1.0	0.14
106-43-4	4-Chlorotoluene	1.0	U	1.0	0.090
99-87-6	p-Isopropyltoluene	1.0	U	1.0	0.13
67-64-1	Acetone	5.0	U	5.0	5.4
71-43-2	Benzene	1.0	U	1.0	0.13
75-25-2	Bromoform	1.0	U	1.0	0.76
74-83-9	Bromomethane	1.0	U	1.0	0.42
75-15-0	Carbon disulfide	1.0	U	1.0	0.28
56-23-5	Carbon tetrachloride	1.0	U	1.0	0.26
108-90-7	Chlorobenzene	1.0	U	1.0	0.14
75-00-3	Chloroethane	1.0	U	1.0	0.83

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-118610-1

SDG No.:

Client Sample ID: MSA-SW37C-090919 Lab Sample ID: 240-118610-3

Matrix: Water Lab File ID: U1909709.d

Analysis Method: 8260C Date Collected: 09/09/2019 12:50

Sample wt/vol: 5(mL) Date Analyzed: 09/13/2019 18:56

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.: 400639 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
67-66-3	Chloroform	1.0	U	1.0	0.13
74-87-3	Chloromethane	1.0	U	1.0	0.20
156-59-2	cis-1,2-Dichloroethene	1.0	U	1.0	0.16
10061-01-5	cis-1,3-Dichloropropene	1.0	U	1.0	0.61
87-68-3	Hexachlorobutadiene	1.0	U	1.0	0.83
74-95-3	Dibromomethane	1.0	U	1.0	0.090
75-27-4	Bromodichloromethane	1.0	U	1.0	0.17
75-71-8	Dichlorodifluoromethane	1.0	U	1.0	0.35
100-41-4	Ethylbenzene	1.0	U	1.0	0.11
106-93-4	1,2-Dibromoethane	1.0	U	1.0	0.12
108-20-3	Diisopropyl ether	5.0	U	5.0	0.17
91-20-3	Naphthalene	1.0	U	1.0	0.32
179601-23-1	m-Xylene & p-Xylene	2.0	U	2.0	0.080
104-51-8	n-Butylbenzene	1.0	U	1.0	0.14
98-82-8	Isopropylbenzene	1.0	U	1.0	0.090
103-65-1	n-Propylbenzene	1.0	U	1.0	0.15
78-93-3	2-Butanone	5.0	U	5.0	1.2
108-10-1	4-Methyl-2-pentanone	5.0	U	5.0	0.42
135-98-8	sec-Butylbenzene	1.0	U	1.0	0.13
1634-04-4	Methyl tert-butyl ether	1.0	U	1.0	0.070
994-05-8	Tert-amyl-methyl ether (TAME)	5.0	U	5.0	0.11
75-09-2	Methylene Chloride	5.0	U	5.0	2.6
95-47-6	o-Xylene	1.0	U	1.0	0.090
100-42-5	Styrene	1.0	U	1.0	0.10
637-92-3	Ethyl-t-butyl ether (ETBE)	5.0	U	5.0	0.15
98-06-6	tert-Butylbenzene	1.0	U	1.0	0.14
127-18-4	Tetrachloroethene	1.0	U	1.0	0.15
108-88-3	Toluene	1.0	U	1.0	0.14
156-60-5	trans-1,2-Dichloroethene	1.0	U	1.0	0.19
10061-02-6	trans-1,3-Dichloropropene	1.0	U	1.0	0.67
79-01-6	Trichloroethene	1.0	U	1.0	0.10
75-69-4	Trichlorofluoromethane	1.0	U	1.0	0.45
108-05-4	Vinyl acetate	2.0	U	2.0	0.19
75-01-4	Vinyl chloride	0.50	U	0.50	0.20
75-65-0	tert-Butyl alcohol	20	U	20	1.7
1330-20-7	Xylenes, Total	2.0	U	2.0	0.15

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-118610-1

SDG No.:

Client Sample ID: MSA-SW37C-090919 Lab Sample ID: 240-118610-3

Matrix: Water Lab File ID: U1909709.d

Analysis Method: 8260C Date Collected: 09/09/2019 12:50

Sample wt/vol: 5(mL) Date Analyzed: 09/13/2019 18:56

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.: 400639 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
124-48-1	Dibromochloromethane	1.0	U	1.0	0.39

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	115		70-121
460-00-4	4-Bromofluorobenzene (Surr)	96		59-120
2037-26-5	Toluene-d8 (Surr)	101		70-123
1868-53-7	Dibromofluoromethane (Surr)	114		75-128

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-118610-1

SDG No.:

Client Sample ID: MSA-SW37C-090919 Lab Sample ID: 240-118610-3

Matrix: Water Lab File ID: U1909709.d

Analysis Method: 8260C Date Collected: 09/09/2019 12:50

Sample wt/vol: 5(mL) Date Analyzed: 09/13/2019 18:56

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.: 400639 Units: ug/L

Number TICs Found: 0 TIC Result Total: 0

CAS NO.	COMPOUND NAME	RT	RESULT	Q	MATCH QUALITY
	Tentatively Identified Compound		None		

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET
TARGETED TENATIVELY IDENTIFIED COMPOUNDS

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-118610-1

SDG No.:

Client Sample ID: MSA-SW37C-090919 Lab Sample ID: 240-118610-3

Matrix: Water Lab File ID: U1909709.d

Analysis Method: 8260C Date Collected: 09/09/2019 12:50

Sample wt/vol: 5(mL) Date Analyzed: 09/13/2019 18:56

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.: 400639 Units: ug/L

CAS NO.	COMPOUND NAME	RT	RESULT	Q	MATCH QUALITY
75-45-6	Chlorodifluoromethane TIC		1.0	U	

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-118610-1

SDG No.:

Client Sample ID: MSA-SW37D-090919 Lab Sample ID: 240-118610-4

Matrix: Water Lab File ID: U1909710.d

Analysis Method: 8260C Date Collected: 09/09/2019 12:53

Sample wt/vol: 5(mL) Date Analyzed: 09/13/2019 19:19

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.: 400639 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
630-20-6	1,1,1,2-Tetrachloroethane	1.0	U	1.0	0.14
71-55-6	1,1,1-Trichloroethane	1.0	U	1.0	0.24
79-34-5	1,1,2,2-Tetrachloroethane	1.0	U	1.0	0.13
76-13-1	1,1,2-Trichloro-1,2,2-trichfluoroeth ane	1.0	U	1.0	0.41
75-34-3	1,1-Dichloroethane	1.0	U	1.0	0.17
75-35-4	1,1-Dichloroethene	1.0	U	1.0	0.19
563-58-6	1,1-Dichloropropene	1.0	U	1.0	0.14
87-61-6	1,2,3-Trichlorobenzene	1.0	U	1.0	0.54
96-18-4	1,2,3-Trichloropropane	1.0	U	1.0	0.24
526-73-8	1,2,3-Trimethylbenzene	5.0	U	5.0	0.14
120-82-1	1,2,4-Trichlorobenzene	1.0	U	1.0	0.26
95-63-6	1,2,4-Trimethylbenzene	1.0	U	1.0	0.070
96-12-8	1,2-Dibromo-3-Chloropropane	5.0	U	5.0	0.91
95-50-1	1,2-Dichlorobenzene	1.0	U	1.0	0.15
107-06-2	1,2-Dichloroethane	1.0	U	1.0	0.21
78-87-5	1,2-Dichloropropane	1.0	U	1.0	0.15
541-73-1	1,3-Dichlorobenzene	1.0	U	1.0	0.15
142-28-9	1,3-Dichloropropane	1.0	U	1.0	0.21
106-46-7	1,4-Dichlorobenzene	1.0	U	1.0	0.16
594-20-7	2,2-Dichloropropane	1.0	U	1.0	0.31
110-75-8	2-Chloroethyl vinyl ether	10	U	10	0.26
95-49-8	2-Chlorotoluene	1.0	U	1.0	0.15
591-78-6	2-Hexanone	5.0	U	5.0	0.54
108-86-1	Bromobenzene	1.0	U	1.0	0.12
74-97-5	Bromochloromethane	1.0	U	1.0	0.14
106-43-4	4-Chlorotoluene	1.0	U	1.0	0.090
99-87-6	p-Isopropyltoluene	1.0	U	1.0	0.13
67-64-1	Acetone	5.0	U	5.0	5.4
71-43-2	Benzene	1.0	U	1.0	0.13
75-25-2	Bromoform	1.0	U	1.0	0.76
74-83-9	Bromomethane	1.0	U	1.0	0.42
75-15-0	Carbon disulfide	1.0	U	1.0	0.28
56-23-5	Carbon tetrachloride	1.0	U	1.0	0.26
108-90-7	Chlorobenzene	1.0	U	1.0	0.14
75-00-3	Chloroethane	1.0	U	1.0	0.83

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-118610-1

SDG No.:

Client Sample ID: MSA-SW37D-090919 Lab Sample ID: 240-118610-4

Matrix: Water Lab File ID: U1909710.d

Analysis Method: 8260C Date Collected: 09/09/2019 12:53

Sample wt/vol: 5(mL) Date Analyzed: 09/13/2019 19:19

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.: 400639 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
67-66-3	Chloroform	1.0	U	1.0	0.13
74-87-3	Chloromethane	1.0	U	1.0	0.20
156-59-2	cis-1,2-Dichloroethene	1.0	U	1.0	0.16
10061-01-5	cis-1,3-Dichloropropene	1.0	U	1.0	0.61
87-68-3	Hexachlorobutadiene	1.0	U	1.0	0.83
74-95-3	Dibromomethane	1.0	U	1.0	0.090
75-27-4	Bromodichloromethane	1.0	U	1.0	0.17
75-71-8	Dichlorodifluoromethane	1.0	U	1.0	0.35
100-41-4	Ethylbenzene	1.0	U	1.0	0.11
106-93-4	1,2-Dibromoethane	1.0	U	1.0	0.12
108-20-3	Diisopropyl ether	5.0	U	5.0	0.17
91-20-3	Naphthalene	1.0	U	1.0	0.32
179601-23-1	m-Xylene & p-Xylene	2.0	U	2.0	0.080
104-51-8	n-Butylbenzene	1.0	U	1.0	0.14
98-82-8	Isopropylbenzene	1.0	U	1.0	0.090
103-65-1	n-Propylbenzene	1.0	U	1.0	0.15
78-93-3	2-Butanone	5.0	U	5.0	1.2
108-10-1	4-Methyl-2-pentanone	5.0	U	5.0	0.42
135-98-8	sec-Butylbenzene	1.0	U	1.0	0.13
1634-04-4	Methyl tert-butyl ether	1.0	U	1.0	0.070
994-05-8	Tert-amyl-methyl ether (TAME)	5.0	U	5.0	0.11
75-09-2	Methylene Chloride	5.0	U	5.0	2.6
95-47-6	o-Xylene	1.0	U	1.0	0.090
100-42-5	Styrene	1.0	U	1.0	0.10
637-92-3	Ethyl-t-butyl ether (ETBE)	5.0	U	5.0	0.15
98-06-6	tert-Butylbenzene	1.0	U	1.0	0.14
127-18-4	Tetrachloroethene	1.0	U	1.0	0.15
108-88-3	Toluene	1.0	U	1.0	0.14
156-60-5	trans-1,2-Dichloroethene	1.0	U	1.0	0.19
10061-02-6	trans-1,3-Dichloropropene	1.0	U	1.0	0.67
79-01-6	Trichloroethene	1.0	U	1.0	0.10
75-69-4	Trichlorofluoromethane	1.0	U	1.0	0.45
108-05-4	Vinyl acetate	2.0	U	2.0	0.19
75-01-4	Vinyl chloride	0.50	U	0.50	0.20
75-65-0	tert-Butyl alcohol	20	U	20	1.7
1330-20-7	Xylenes, Total	2.0	U	2.0	0.15

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-118610-1

SDG No.:

Client Sample ID: MSA-SW37D-090919 Lab Sample ID: 240-118610-4

Matrix: Water Lab File ID: U1909710.d

Analysis Method: 8260C Date Collected: 09/09/2019 12:53

Sample wt/vol: 5(mL) Date Analyzed: 09/13/2019 19:19

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.: 400639 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
124-48-1	Dibromochloromethane	1.0	U	1.0	0.39

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	117		70-121
460-00-4	4-Bromofluorobenzene (Surr)	95		59-120
2037-26-5	Toluene-d8 (Surr)	102		70-123
1868-53-7	Dibromofluoromethane (Surr)	115		75-128

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-118610-1

SDG No.:

Client Sample ID: MSA-SW37D-090919 Lab Sample ID: 240-118610-4

Matrix: Water Lab File ID: U1909710.d

Analysis Method: 8260C Date Collected: 09/09/2019 12:53

Sample wt/vol: 5(mL) Date Analyzed: 09/13/2019 19:19

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.: 400639 Units: ug/L

Number TICs Found: 0 TIC Result Total: 0

CAS NO.	COMPOUND NAME	RT	RESULT	Q	MATCH QUALITY
	Tentatively Identified Compound		None		

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET
TARGETED TENATIVELY IDENTIFIED COMPOUNDS

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-118610-1

SDG No.:

Client Sample ID: MSA-SW37D-090919 Lab Sample ID: 240-118610-4

Matrix: Water Lab File ID: U1909710.d

Analysis Method: 8260C Date Collected: 09/09/2019 12:53

Sample wt/vol: 5(mL) Date Analyzed: 09/13/2019 19:19

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.: 400639 Units: ug/L

CAS NO.	COMPOUND NAME	RT	RESULT	Q	MATCH QUALITY
75-45-6	Chlorodifluoromethane TIC		1.0	U	

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-118610-1

SDG No.:

Client Sample ID: MSA-SW38A-090919 Lab Sample ID: 240-118610-5

Matrix: Water Lab File ID: U1909711.d

Analysis Method: 8260C Date Collected: 09/09/2019 11:49

Sample wt/vol: 5(mL) Date Analyzed: 09/13/2019 19:42

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.: 400639 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
630-20-6	1,1,1,2-Tetrachloroethane	1.0	U	1.0	0.14
71-55-6	1,1,1-Trichloroethane	1.0	U	1.0	0.24
79-34-5	1,1,2,2-Tetrachloroethane	1.0	U	1.0	0.13
76-13-1	1,1,2-Trichloro-1,2,2-trichfluoroeth ane	1.0	U	1.0	0.41
75-34-3	1,1-Dichloroethane	1.0	U	1.0	0.17
75-35-4	1,1-Dichloroethene	1.0	U	1.0	0.19
563-58-6	1,1-Dichloropropene	1.0	U	1.0	0.14
87-61-6	1,2,3-Trichlorobenzene	1.0	U	1.0	0.54
96-18-4	1,2,3-Trichloropropane	1.0	U	1.0	0.24
526-73-8	1,2,3-Trimethylbenzene	5.0	U	5.0	0.14
120-82-1	1,2,4-Trichlorobenzene	1.0	U	1.0	0.26
95-63-6	1,2,4-Trimethylbenzene	1.0	U	1.0	0.070
96-12-8	1,2-Dibromo-3-Chloropropane	5.0	U	5.0	0.91
95-50-1	1,2-Dichlorobenzene	1.0	U	1.0	0.15
107-06-2	1,2-Dichloroethane	1.0	U	1.0	0.21
78-87-5	1,2-Dichloropropane	1.0	U	1.0	0.15
541-73-1	1,3-Dichlorobenzene	1.0	U	1.0	0.15
142-28-9	1,3-Dichloropropane	1.0	U	1.0	0.21
106-46-7	1,4-Dichlorobenzene	1.0	U	1.0	0.16
594-20-7	2,2-Dichloropropane	1.0	U	1.0	0.31
110-75-8	2-Chloroethyl vinyl ether	10	U	10	0.26
95-49-8	2-Chlorotoluene	1.0	U	1.0	0.15
591-78-6	2-Hexanone	5.0	U	5.0	0.54
108-86-1	Bromobenzene	1.0	U	1.0	0.12
74-97-5	Bromochloromethane	1.0	U	1.0	0.14
106-43-4	4-Chlorotoluene	1.0	U	1.0	0.090
99-87-6	p-Isopropyltoluene	1.0	U	1.0	0.13
67-64-1	Acetone	5.0	U	5.0	5.4
71-43-2	Benzene	1.0	U	1.0	0.13
75-25-2	Bromoform	1.0	U	1.0	0.76
74-83-9	Bromomethane	1.0	U	1.0	0.42
75-15-0	Carbon disulfide	1.0	U	1.0	0.28
56-23-5	Carbon tetrachloride	1.0	U	1.0	0.26
108-90-7	Chlorobenzene	1.0	U	1.0	0.14
75-00-3	Chloroethane	1.0	U	1.0	0.83

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-118610-1

SDG No.:

Client Sample ID: MSA-SW38A-090919 Lab Sample ID: 240-118610-5

Matrix: Water Lab File ID: U1909711.d

Analysis Method: 8260C Date Collected: 09/09/2019 11:49

Sample wt/vol: 5(mL) Date Analyzed: 09/13/2019 19:42

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.: 400639 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
67-66-3	Chloroform	1.0	U	1.0	0.13
74-87-3	Chloromethane	1.0	U	1.0	0.20
156-59-2	cis-1,2-Dichloroethene	1.0	U	1.0	0.16
10061-01-5	cis-1,3-Dichloropropene	1.0	U	1.0	0.61
87-68-3	Hexachlorobutadiene	1.0	U	1.0	0.83
74-95-3	Dibromomethane	1.0	U	1.0	0.090
75-27-4	Bromodichloromethane	1.0	U	1.0	0.17
75-71-8	Dichlorodifluoromethane	1.0	U	1.0	0.35
100-41-4	Ethylbenzene	1.0	U	1.0	0.11
106-93-4	1,2-Dibromoethane	1.0	U	1.0	0.12
108-20-3	Diisopropyl ether	5.0	U	5.0	0.17
91-20-3	Naphthalene	1.0	U	1.0	0.32
179601-23-1	m-Xylene & p-Xylene	2.0	U	2.0	0.080
104-51-8	n-Butylbenzene	1.0	U	1.0	0.14
98-82-8	Isopropylbenzene	1.0	U	1.0	0.090
103-65-1	n-Propylbenzene	1.0	U	1.0	0.15
78-93-3	2-Butanone	5.0	U	5.0	1.2
108-10-1	4-Methyl-2-pentanone	5.0	U	5.0	0.42
135-98-8	sec-Butylbenzene	1.0	U	1.0	0.13
1634-04-4	Methyl tert-butyl ether	1.0	U	1.0	0.070
994-05-8	Tert-amyl-methyl ether (TAME)	5.0	U	5.0	0.11
75-09-2	Methylene Chloride	5.0	U	5.0	2.6
95-47-6	o-Xylene	1.0	U	1.0	0.090
100-42-5	Styrene	1.0	U	1.0	0.10
637-92-3	Ethyl-t-butyl ether (ETBE)	5.0	U	5.0	0.15
98-06-6	tert-Butylbenzene	1.0	U	1.0	0.14
127-18-4	Tetrachloroethene	1.0	U	1.0	0.15
108-88-3	Toluene	1.0	U	1.0	0.14
156-60-5	trans-1,2-Dichloroethene	1.0	U	1.0	0.19
10061-02-6	trans-1,3-Dichloropropene	1.0	U	1.0	0.67
79-01-6	Trichloroethene	1.0	U	1.0	0.10
75-69-4	Trichlorofluoromethane	1.0	U	1.0	0.45
108-05-4	Vinyl acetate	2.0	U	2.0	0.19
75-01-4	Vinyl chloride	0.50	U	0.50	0.20
75-65-0	tert-Butyl alcohol	20	U	20	1.7
1330-20-7	Xylenes, Total	2.0	U	2.0	0.15

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-118610-1

SDG No.:

Client Sample ID: MSA-SW38A-090919 Lab Sample ID: 240-118610-5

Matrix: Water Lab File ID: U1909711.d

Analysis Method: 8260C Date Collected: 09/09/2019 11:49

Sample wt/vol: 5(mL) Date Analyzed: 09/13/2019 19:42

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.: 400639 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
124-48-1	Dibromochloromethane	1.0	U	1.0	0.39

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	113		70-121
460-00-4	4-Bromofluorobenzene (Surr)	91		59-120
2037-26-5	Toluene-d8 (Surr)	101		70-123
1868-53-7	Dibromofluoromethane (Surr)	110		75-128

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-118610-1

SDG No.:

Client Sample ID: MSA-SW38A-090919 Lab Sample ID: 240-118610-5

Matrix: Water Lab File ID: U1909711.d

Analysis Method: 8260C Date Collected: 09/09/2019 11:49

Sample wt/vol: 5(mL) Date Analyzed: 09/13/2019 19:42

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.: 400639 Units: ug/L

Number TICs Found: 0 TIC Result Total: 0

CAS NO.	COMPOUND NAME	RT	RESULT	Q	MATCH QUALITY
	Tentatively Identified Compound		None		

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET
TARGETED TENATIVELY IDENTIFIED COMPOUNDS

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-118610-1

SDG No.:

Client Sample ID: MSA-SW38A-090919 Lab Sample ID: 240-118610-5

Matrix: Water Lab File ID: U1909711.d

Analysis Method: 8260C Date Collected: 09/09/2019 11:49

Sample wt/vol: 5(mL) Date Analyzed: 09/13/2019 19:42

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.: 400639 Units: ug/L

CAS NO.	COMPOUND NAME	RT	RESULT	Q	MATCH QUALITY
75-45-6	Chlorodifluoromethane TIC		1.0	U	

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-118610-1

SDG No.:

Client Sample ID: MSA-SW38B-090919 Lab Sample ID: 240-118610-6

Matrix: Water Lab File ID: U1909712.d

Analysis Method: 8260C Date Collected: 09/09/2019 11:53

Sample wt/vol: 5(mL) Date Analyzed: 09/13/2019 20:05

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.: 400639 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
630-20-6	1,1,1,2-Tetrachloroethane	1.0	U	1.0	0.14
71-55-6	1,1,1-Trichloroethane	1.0	U	1.0	0.24
79-34-5	1,1,2,2-Tetrachloroethane	1.0	U	1.0	0.13
76-13-1	1,1,2-Trichloro-1,2,2-trichfluoroeth ane	1.0	U	1.0	0.41
75-34-3	1,1-Dichloroethane	1.0	U	1.0	0.17
75-35-4	1,1-Dichloroethene	1.0	U	1.0	0.19
563-58-6	1,1-Dichloropropene	1.0	U	1.0	0.14
87-61-6	1,2,3-Trichlorobenzene	1.0	U	1.0	0.54
96-18-4	1,2,3-Trichloropropane	1.0	U	1.0	0.24
526-73-8	1,2,3-Trimethylbenzene	5.0	U	5.0	0.14
120-82-1	1,2,4-Trichlorobenzene	1.0	U	1.0	0.26
95-63-6	1,2,4-Trimethylbenzene	1.0	U	1.0	0.070
96-12-8	1,2-Dibromo-3-Chloropropane	5.0	U	5.0	0.91
95-50-1	1,2-Dichlorobenzene	1.0	U	1.0	0.15
107-06-2	1,2-Dichloroethane	1.0	U	1.0	0.21
78-87-5	1,2-Dichloropropane	1.0	U	1.0	0.15
541-73-1	1,3-Dichlorobenzene	1.0	U	1.0	0.15
142-28-9	1,3-Dichloropropane	1.0	U	1.0	0.21
106-46-7	1,4-Dichlorobenzene	1.0	U	1.0	0.16
594-20-7	2,2-Dichloropropane	1.0	U	1.0	0.31
110-75-8	2-Chloroethyl vinyl ether	10	U	10	0.26
95-49-8	2-Chlorotoluene	1.0	U	1.0	0.15
591-78-6	2-Hexanone	5.0	U	5.0	0.54
108-86-1	Bromobenzene	1.0	U	1.0	0.12
74-97-5	Bromochloromethane	1.0	U	1.0	0.14
106-43-4	4-Chlorotoluene	1.0	U	1.0	0.090
99-87-6	p-Isopropyltoluene	1.0	U	1.0	0.13
67-64-1	Acetone	5.0	U	5.0	5.4
71-43-2	Benzene	1.0	U	1.0	0.13
75-25-2	Bromoform	1.0	U	1.0	0.76
74-83-9	Bromomethane	1.0	U	1.0	0.42
75-15-0	Carbon disulfide	1.0	U	1.0	0.28
56-23-5	Carbon tetrachloride	1.0	U	1.0	0.26
108-90-7	Chlorobenzene	1.0	U	1.0	0.14
75-00-3	Chloroethane	1.0	U	1.0	0.83

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-118610-1

SDG No.:

Client Sample ID: MSA-SW38B-090919 Lab Sample ID: 240-118610-6

Matrix: Water Lab File ID: U1909712.d

Analysis Method: 8260C Date Collected: 09/09/2019 11:53

Sample wt/vol: 5(mL) Date Analyzed: 09/13/2019 20:05

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.: 400639 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
67-66-3	Chloroform	1.0	U	1.0	0.13
74-87-3	Chloromethane	1.0	U	1.0	0.20
156-59-2	cis-1,2-Dichloroethene	1.0	U	1.0	0.16
10061-01-5	cis-1,3-Dichloropropene	1.0	U	1.0	0.61
87-68-3	Hexachlorobutadiene	1.0	U	1.0	0.83
74-95-3	Dibromomethane	1.0	U	1.0	0.090
75-27-4	Bromodichloromethane	1.0	U	1.0	0.17
75-71-8	Dichlorodifluoromethane	1.0	U	1.0	0.35
100-41-4	Ethylbenzene	1.0	U	1.0	0.11
106-93-4	1,2-Dibromoethane	1.0	U	1.0	0.12
108-20-3	Diisopropyl ether	5.0	U	5.0	0.17
91-20-3	Naphthalene	1.0	U	1.0	0.32
179601-23-1	m-Xylene & p-Xylene	2.0	U	2.0	0.080
104-51-8	n-Butylbenzene	1.0	U	1.0	0.14
98-82-8	Isopropylbenzene	1.0	U	1.0	0.090
103-65-1	n-Propylbenzene	1.0	U	1.0	0.15
78-93-3	2-Butanone	5.0	U	5.0	1.2
108-10-1	4-Methyl-2-pentanone	5.0	U	5.0	0.42
135-98-8	sec-Butylbenzene	1.0	U	1.0	0.13
1634-04-4	Methyl tert-butyl ether	1.0	U	1.0	0.070
994-05-8	Tert-amyl-methyl ether (TAME)	5.0	U	5.0	0.11
75-09-2	Methylene Chloride	5.0	U	5.0	2.6
95-47-6	o-Xylene	1.0	U	1.0	0.090
100-42-5	Styrene	1.0	U	1.0	0.10
637-92-3	Ethyl-t-butyl ether (ETBE)	5.0	U	5.0	0.15
98-06-6	tert-Butylbenzene	1.0	U	1.0	0.14
127-18-4	Tetrachloroethene	1.0	U	1.0	0.15
108-88-3	Toluene	1.0	U	1.0	0.14
156-60-5	trans-1,2-Dichloroethene	1.0	U	1.0	0.19
10061-02-6	trans-1,3-Dichloropropene	1.0	U	1.0	0.67
79-01-6	Trichloroethene	1.0	U	1.0	0.10
75-69-4	Trichlorofluoromethane	1.0	U	1.0	0.45
108-05-4	Vinyl acetate	2.0	U	2.0	0.19
75-01-4	Vinyl chloride	0.50	U	0.50	0.20
75-65-0	tert-Butyl alcohol	2.1	J	20	1.7
1330-20-7	Xylenes, Total	2.0	U	2.0	0.15

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-118610-1

SDG No.:

Client Sample ID: MSA-SW38B-090919 Lab Sample ID: 240-118610-6

Matrix: Water Lab File ID: U1909712.d

Analysis Method: 8260C Date Collected: 09/09/2019 11:53

Sample wt/vol: 5(mL) Date Analyzed: 09/13/2019 20:05

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.: 400639 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
124-48-1	Dibromochloromethane	1.0	U	1.0	0.39

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	115		70-121
460-00-4	4-Bromofluorobenzene (Surr)	93		59-120
2037-26-5	Toluene-d8 (Surr)	102		70-123
1868-53-7	Dibromofluoromethane (Surr)	112		75-128

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-118610-1

SDG No.:

Client Sample ID: MSA-SW38B-090919 Lab Sample ID: 240-118610-6

Matrix: Water Lab File ID: U1909712.d

Analysis Method: 8260C Date Collected: 09/09/2019 11:53

Sample wt/vol: 5(mL) Date Analyzed: 09/13/2019 20:05

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.: 400639 Units: ug/L

Number TICs Found: 0 TIC Result Total: 0

CAS NO.	COMPOUND NAME	RT	RESULT	Q	MATCH QUALITY
	Tentatively Identified Compound		None		

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET
TARGETED TENATIVELY IDENTIFIED COMPOUNDS

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-118610-1

SDG No.:

Client Sample ID: MSA-SW38B-090919 Lab Sample ID: 240-118610-6

Matrix: Water Lab File ID: U1909712.d

Analysis Method: 8260C Date Collected: 09/09/2019 11:53

Sample wt/vol: 5(mL) Date Analyzed: 09/13/2019 20:05

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.: 400639 Units: ug/L

CAS NO.	COMPOUND NAME	RT	RESULT	Q	MATCH QUALITY
75-45-6	Chlorodifluoromethane TIC		1.0	U	

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-118610-1

SDG No.:

Client Sample ID: MSA-SW38C090919 Lab Sample ID: 240-118610-7

Matrix: Water Lab File ID: U1909713.d

Analysis Method: 8260C Date Collected: 09/09/2019 11:58

Sample wt/vol: 5(mL) Date Analyzed: 09/13/2019 20:27

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.: 400639 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
630-20-6	1,1,1,2-Tetrachloroethane	1.0	U	1.0	0.14
71-55-6	1,1,1-Trichloroethane	1.0	U	1.0	0.24
79-34-5	1,1,2,2-Tetrachloroethane	1.0	U	1.0	0.13
76-13-1	1,1,2-Trichloro-1,2,2-trichfluoroeth ane	1.0	U	1.0	0.41
75-34-3	1,1-Dichloroethane	1.0	U	1.0	0.17
75-35-4	1,1-Dichloroethene	1.0	U	1.0	0.19
563-58-6	1,1-Dichloropropene	1.0	U	1.0	0.14
87-61-6	1,2,3-Trichlorobenzene	1.0	U	1.0	0.54
96-18-4	1,2,3-Trichloropropane	1.0	U	1.0	0.24
526-73-8	1,2,3-Trimethylbenzene	5.0	U	5.0	0.14
120-82-1	1,2,4-Trichlorobenzene	1.0	U	1.0	0.26
95-63-6	1,2,4-Trimethylbenzene	1.0	U	1.0	0.070
96-12-8	1,2-Dibromo-3-Chloropropane	5.0	U	5.0	0.91
95-50-1	1,2-Dichlorobenzene	1.0	U	1.0	0.15
107-06-2	1,2-Dichloroethane	1.0	U	1.0	0.21
78-87-5	1,2-Dichloropropane	1.0	U	1.0	0.15
541-73-1	1,3-Dichlorobenzene	1.0	U	1.0	0.15
142-28-9	1,3-Dichloropropane	1.0	U	1.0	0.21
106-46-7	1,4-Dichlorobenzene	1.0	U	1.0	0.16
594-20-7	2,2-Dichloropropane	1.0	U	1.0	0.31
110-75-8	2-Chloroethyl vinyl ether	10	U	10	0.26
95-49-8	2-Chlorotoluene	1.0	U	1.0	0.15
591-78-6	2-Hexanone	5.0	U	5.0	0.54
108-86-1	Bromobenzene	1.0	U	1.0	0.12
74-97-5	Bromochloromethane	1.0	U	1.0	0.14
106-43-4	4-Chlorotoluene	1.0	U	1.0	0.090
99-87-6	p-Isopropyltoluene	1.0	U	1.0	0.13
67-64-1	Acetone	5.0	U	5.0	5.4
71-43-2	Benzene	1.0	U	1.0	0.13
75-25-2	Bromoform	1.0	U	1.0	0.76
74-83-9	Bromomethane	1.0	U	1.0	0.42
75-15-0	Carbon disulfide	1.0	U	1.0	0.28
56-23-5	Carbon tetrachloride	1.0	U	1.0	0.26
108-90-7	Chlorobenzene	1.0	U	1.0	0.14
75-00-3	Chloroethane	1.0	U	1.0	0.83

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-118610-1

SDG No.:

Client Sample ID: MSA-SW38C090919 Lab Sample ID: 240-118610-7

Matrix: Water Lab File ID: U1909713.d

Analysis Method: 8260C Date Collected: 09/09/2019 11:58

Sample wt/vol: 5(mL) Date Analyzed: 09/13/2019 20:27

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.: 400639 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
67-66-3	Chloroform	1.0	U	1.0	0.13
74-87-3	Chloromethane	1.0	U	1.0	0.20
156-59-2	cis-1,2-Dichloroethene	1.0	U	1.0	0.16
10061-01-5	cis-1,3-Dichloropropene	1.0	U	1.0	0.61
87-68-3	Hexachlorobutadiene	1.0	U	1.0	0.83
74-95-3	Dibromomethane	1.0	U	1.0	0.090
75-27-4	Bromodichloromethane	1.0	U	1.0	0.17
75-71-8	Dichlorodifluoromethane	1.0	U	1.0	0.35
100-41-4	Ethylbenzene	1.0	U	1.0	0.11
106-93-4	1,2-Dibromoethane	1.0	U	1.0	0.12
108-20-3	Diisopropyl ether	5.0	U	5.0	0.17
91-20-3	Naphthalene	1.0	U	1.0	0.32
179601-23-1	m-Xylene & p-Xylene	2.0	U	2.0	0.080
104-51-8	n-Butylbenzene	1.0	U	1.0	0.14
98-82-8	Isopropylbenzene	1.0	U	1.0	0.090
103-65-1	n-Propylbenzene	1.0	U	1.0	0.15
78-93-3	2-Butanone	5.0	U	5.0	1.2
108-10-1	4-Methyl-2-pentanone	5.0	U	5.0	0.42
135-98-8	sec-Butylbenzene	1.0	U	1.0	0.13
1634-04-4	Methyl tert-butyl ether	1.0	U	1.0	0.070
994-05-8	Tert-amyl-methyl ether (TAME)	5.0	U	5.0	0.11
75-09-2	Methylene Chloride	5.0	U	5.0	2.6
95-47-6	o-Xylene	1.0	U	1.0	0.090
100-42-5	Styrene	1.0	U	1.0	0.10
637-92-3	Ethyl-t-butyl ether (ETBE)	5.0	U	5.0	0.15
98-06-6	tert-Butylbenzene	1.0	U	1.0	0.14
127-18-4	Tetrachloroethene	1.0	U	1.0	0.15
108-88-3	Toluene	1.0	U	1.0	0.14
156-60-5	trans-1,2-Dichloroethene	1.0	U	1.0	0.19
10061-02-6	trans-1,3-Dichloropropene	1.0	U	1.0	0.67
79-01-6	Trichloroethene	1.0	U	1.0	0.10
75-69-4	Trichlorofluoromethane	1.0	U	1.0	0.45
108-05-4	Vinyl acetate	2.0	U	2.0	0.19
75-01-4	Vinyl chloride	0.50	U	0.50	0.20
75-65-0	tert-Butyl alcohol	20	U	20	1.7
1330-20-7	Xylenes, Total	2.0	U	2.0	0.15

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-118610-1

SDG No.:

Client Sample ID: MSA-SW38C090919 Lab Sample ID: 240-118610-7

Matrix: Water Lab File ID: U1909713.d

Analysis Method: 8260C Date Collected: 09/09/2019 11:58

Sample wt/vol: 5(mL) Date Analyzed: 09/13/2019 20:27

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.: 400639 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
124-48-1	Dibromochloromethane	1.0	U	1.0	0.39

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	112		70-121
460-00-4	4-Bromofluorobenzene (Surr)	94		59-120
2037-26-5	Toluene-d8 (Surr)	103		70-123
1868-53-7	Dibromofluoromethane (Surr)	114		75-128

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-118610-1

SDG No.:

Client Sample ID: MSA-SW38C090919 Lab Sample ID: 240-118610-7

Matrix: Water Lab File ID: U1909713.d

Analysis Method: 8260C Date Collected: 09/09/2019 11:58

Sample wt/vol: 5(mL) Date Analyzed: 09/13/2019 20:27

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.: 400639 Units: ug/L

Number TICs Found: 0 TIC Result Total: 0

CAS NO.	COMPOUND NAME	RT	RESULT	Q	MATCH QUALITY
	Tentatively Identified Compound		None		

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET
TARGETED TENATIVELY IDENTIFIED COMPOUNDS

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-118610-1

SDG No.:

Client Sample ID: MSA-SW38C090919 Lab Sample ID: 240-118610-7

Matrix: Water Lab File ID: U1909713.d

Analysis Method: 8260C Date Collected: 09/09/2019 11:58

Sample wt/vol: 5(mL) Date Analyzed: 09/13/2019 20:27

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.: 400639 Units: ug/L

CAS NO.	COMPOUND NAME	RT	RESULT	Q	MATCH QUALITY
75-45-6	Chlorodifluoromethane TIC		1.0	U	

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-118610-1

SDG No.:

Client Sample ID: MSA-SW38D-090919 Lab Sample ID: 240-118610-8

Matrix: Water Lab File ID: U1909714.d

Analysis Method: 8260C Date Collected: 09/09/2019 12:01

Sample wt/vol: 5(mL) Date Analyzed: 09/13/2019 20:50

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.: 400639 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
630-20-6	1,1,1,2-Tetrachloroethane	1.0	U	1.0	0.14
71-55-6	1,1,1-Trichloroethane	1.0	U	1.0	0.24
79-34-5	1,1,2,2-Tetrachloroethane	1.0	U	1.0	0.13
76-13-1	1,1,2-Trichloro-1,2,2-trichfluoroeth ane	1.0	U	1.0	0.41
75-34-3	1,1-Dichloroethane	1.0	U	1.0	0.17
75-35-4	1,1-Dichloroethene	1.0	U	1.0	0.19
563-58-6	1,1-Dichloropropene	1.0	U	1.0	0.14
87-61-6	1,2,3-Trichlorobenzene	1.0	U	1.0	0.54
96-18-4	1,2,3-Trichloropropane	1.0	U	1.0	0.24
526-73-8	1,2,3-Trimethylbenzene	5.0	U	5.0	0.14
120-82-1	1,2,4-Trichlorobenzene	1.0	U	1.0	0.26
95-63-6	1,2,4-Trimethylbenzene	1.0	U	1.0	0.070
96-12-8	1,2-Dibromo-3-Chloropropane	5.0	U	5.0	0.91
95-50-1	1,2-Dichlorobenzene	1.0	U	1.0	0.15
107-06-2	1,2-Dichloroethane	1.0	U	1.0	0.21
78-87-5	1,2-Dichloropropane	1.0	U	1.0	0.15
541-73-1	1,3-Dichlorobenzene	1.0	U	1.0	0.15
142-28-9	1,3-Dichloropropane	1.0	U	1.0	0.21
106-46-7	1,4-Dichlorobenzene	1.0	U	1.0	0.16
594-20-7	2,2-Dichloropropane	1.0	U	1.0	0.31
110-75-8	2-Chloroethyl vinyl ether	10	U	10	0.26
95-49-8	2-Chlorotoluene	1.0	U	1.0	0.15
591-78-6	2-Hexanone	5.0	U	5.0	0.54
108-86-1	Bromobenzene	1.0	U	1.0	0.12
74-97-5	Bromochloromethane	1.0	U	1.0	0.14
106-43-4	4-Chlorotoluene	1.0	U	1.0	0.090
99-87-6	p-Isopropyltoluene	1.0	U	1.0	0.13
67-64-1	Acetone	5.0	U	5.0	5.4
71-43-2	Benzene	1.0	U	1.0	0.13
75-25-2	Bromoform	1.0	U	1.0	0.76
74-83-9	Bromomethane	1.0	U	1.0	0.42
75-15-0	Carbon disulfide	1.0	U	1.0	0.28
56-23-5	Carbon tetrachloride	1.0	U	1.0	0.26
108-90-7	Chlorobenzene	1.0	U	1.0	0.14
75-00-3	Chloroethane	1.0	U	1.0	0.83

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-118610-1

SDG No.:

Client Sample ID: MSA-SW38D-090919 Lab Sample ID: 240-118610-8

Matrix: Water Lab File ID: U1909714.d

Analysis Method: 8260C Date Collected: 09/09/2019 12:01

Sample wt/vol: 5(mL) Date Analyzed: 09/13/2019 20:50

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.: 400639 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
67-66-3	Chloroform	1.0	U	1.0	0.13
74-87-3	Chloromethane	1.0	U	1.0	0.20
156-59-2	cis-1,2-Dichloroethene	1.0	U	1.0	0.16
10061-01-5	cis-1,3-Dichloropropene	1.0	U	1.0	0.61
87-68-3	Hexachlorobutadiene	1.0	U	1.0	0.83
74-95-3	Dibromomethane	1.0	U	1.0	0.090
75-27-4	Bromodichloromethane	1.0	U	1.0	0.17
75-71-8	Dichlorodifluoromethane	1.0	U	1.0	0.35
100-41-4	Ethylbenzene	1.0	U	1.0	0.11
106-93-4	1,2-Dibromoethane	1.0	U	1.0	0.12
108-20-3	Diisopropyl ether	5.0	U	5.0	0.17
91-20-3	Naphthalene	1.0	U	1.0	0.32
179601-23-1	m-Xylene & p-Xylene	2.0	U	2.0	0.080
104-51-8	n-Butylbenzene	1.0	U	1.0	0.14
98-82-8	Isopropylbenzene	1.0	U	1.0	0.090
103-65-1	n-Propylbenzene	1.0	U	1.0	0.15
78-93-3	2-Butanone	5.0	U	5.0	1.2
108-10-1	4-Methyl-2-pentanone	5.0	U	5.0	0.42
135-98-8	sec-Butylbenzene	1.0	U	1.0	0.13
1634-04-4	Methyl tert-butyl ether	1.0	U	1.0	0.070
994-05-8	Tert-amyl-methyl ether (TAME)	5.0	U	5.0	0.11
75-09-2	Methylene Chloride	5.0	U	5.0	2.6
95-47-6	o-Xylene	1.0	U	1.0	0.090
100-42-5	Styrene	1.0	U	1.0	0.10
637-92-3	Ethyl-t-butyl ether (ETBE)	5.0	U	5.0	0.15
98-06-6	tert-Butylbenzene	1.0	U	1.0	0.14
127-18-4	Tetrachloroethene	1.0	U	1.0	0.15
108-88-3	Toluene	1.0	U	1.0	0.14
156-60-5	trans-1,2-Dichloroethene	1.0	U	1.0	0.19
10061-02-6	trans-1,3-Dichloropropene	1.0	U	1.0	0.67
79-01-6	Trichloroethene	1.0	U	1.0	0.10
75-69-4	Trichlorofluoromethane	1.0	U	1.0	0.45
108-05-4	Vinyl acetate	2.0	U	2.0	0.19
75-01-4	Vinyl chloride	0.50	U	0.50	0.20
75-65-0	tert-Butyl alcohol	20	U	20	1.7
1330-20-7	Xylenes, Total	2.0	U	2.0	0.15

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-118610-1

SDG No.:

Client Sample ID: MSA-SW38D-090919 Lab Sample ID: 240-118610-8

Matrix: Water Lab File ID: U1909714.d

Analysis Method: 8260C Date Collected: 09/09/2019 12:01

Sample wt/vol: 5(mL) Date Analyzed: 09/13/2019 20:50

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.: 400639 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
124-48-1	Dibromochloromethane	1.0	U	1.0	0.39

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	110		70-121
460-00-4	4-Bromofluorobenzene (Surr)	89		59-120
2037-26-5	Toluene-d8 (Surr)	99		70-123
1868-53-7	Dibromofluoromethane (Surr)	110		75-128

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-118610-1

SDG No.:

Client Sample ID: MSA-SW38D-090919 Lab Sample ID: 240-118610-8

Matrix: Water Lab File ID: U1909714.d

Analysis Method: 8260C Date Collected: 09/09/2019 12:01

Sample wt/vol: 5(mL) Date Analyzed: 09/13/2019 20:50

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.: 400639 Units: ug/L

Number TICs Found: 0 TIC Result Total: 0

CAS NO.	COMPOUND NAME	RT	RESULT	Q	MATCH QUALITY
	Tentatively Identified Compound		None		

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET
TARGETED TENATIVELY IDENTIFIED COMPOUNDS

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-118610-1

SDG No.:

Client Sample ID: MSA-SW38D-090919 Lab Sample ID: 240-118610-8

Matrix: Water Lab File ID: U1909714.d

Analysis Method: 8260C Date Collected: 09/09/2019 12:01

Sample wt/vol: 5(mL) Date Analyzed: 09/13/2019 20:50

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.: 400639 Units: ug/L

CAS NO.	COMPOUND NAME	RT	RESULT	Q	MATCH QUALITY
75-45-6	Chlorodifluoromethane TIC		1.0	U	

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-118610-1

SDG No.:

Client Sample ID: MSA-SW39A-090919 Lab Sample ID: 240-118610-9

Matrix: Water Lab File ID: U1909715.d

Analysis Method: 8260C Date Collected: 09/09/2019 10:15

Sample wt/vol: 5(mL) Date Analyzed: 09/13/2019 21:13

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.: 400639 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
630-20-6	1,1,1,2-Tetrachloroethane	1.0	U	1.0	0.14
71-55-6	1,1,1-Trichloroethane	1.0	U	1.0	0.24
79-34-5	1,1,2,2-Tetrachloroethane	1.0	U	1.0	0.13
76-13-1	1,1,2-Trichloro-1,2,2-trichfluoroeth ane	1.0	U	1.0	0.41
75-34-3	1,1-Dichloroethane	1.0	U	1.0	0.17
75-35-4	1,1-Dichloroethene	1.0	U	1.0	0.19
563-58-6	1,1-Dichloropropene	1.0	U	1.0	0.14
87-61-6	1,2,3-Trichlorobenzene	1.0	U	1.0	0.54
96-18-4	1,2,3-Trichloropropane	1.0	U	1.0	0.24
526-73-8	1,2,3-Trimethylbenzene	5.0	U	5.0	0.14
120-82-1	1,2,4-Trichlorobenzene	1.0	U	1.0	0.26
95-63-6	1,2,4-Trimethylbenzene	1.0	U	1.0	0.070
96-12-8	1,2-Dibromo-3-Chloropropane	5.0	U	5.0	0.91
95-50-1	1,2-Dichlorobenzene	1.0	U	1.0	0.15
107-06-2	1,2-Dichloroethane	1.0	U	1.0	0.21
78-87-5	1,2-Dichloropropane	1.0	U	1.0	0.15
541-73-1	1,3-Dichlorobenzene	1.0	U	1.0	0.15
142-28-9	1,3-Dichloropropane	1.0	U	1.0	0.21
106-46-7	1,4-Dichlorobenzene	1.0	U	1.0	0.16
594-20-7	2,2-Dichloropropane	1.0	U	1.0	0.31
110-75-8	2-Chloroethyl vinyl ether	10	U	10	0.26
95-49-8	2-Chlorotoluene	1.0	U	1.0	0.15
591-78-6	2-Hexanone	5.0	U	5.0	0.54
108-86-1	Bromobenzene	1.0	U	1.0	0.12
74-97-5	Bromochloromethane	1.0	U	1.0	0.14
106-43-4	4-Chlorotoluene	1.0	U	1.0	0.090
99-87-6	p-Isopropyltoluene	1.0	U	1.0	0.13
67-64-1	Acetone	5.0	U	5.0	5.4
71-43-2	Benzene	1.0	U	1.0	0.13
75-25-2	Bromoform	1.0	U	1.0	0.76
74-83-9	Bromomethane	1.0	U	1.0	0.42
75-15-0	Carbon disulfide	1.0	U	1.0	0.28
56-23-5	Carbon tetrachloride	1.0	U	1.0	0.26
108-90-7	Chlorobenzene	1.0	U	1.0	0.14
75-00-3	Chloroethane	1.0	U	1.0	0.83

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-118610-1

SDG No.:

Client Sample ID: MSA-SW39A-090919 Lab Sample ID: 240-118610-9

Matrix: Water Lab File ID: U1909715.d

Analysis Method: 8260C Date Collected: 09/09/2019 10:15

Sample wt/vol: 5(mL) Date Analyzed: 09/13/2019 21:13

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.: 400639 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
67-66-3	Chloroform	1.0	U	1.0	0.13
74-87-3	Chloromethane	1.0	U	1.0	0.20
156-59-2	cis-1,2-Dichloroethene	1.0	U	1.0	0.16
10061-01-5	cis-1,3-Dichloropropene	1.0	U	1.0	0.61
87-68-3	Hexachlorobutadiene	1.0	U	1.0	0.83
74-95-3	Dibromomethane	1.0	U	1.0	0.090
75-27-4	Bromodichloromethane	1.0	U	1.0	0.17
75-71-8	Dichlorodifluoromethane	1.0	U	1.0	0.35
100-41-4	Ethylbenzene	1.0	U	1.0	0.11
106-93-4	1,2-Dibromoethane	1.0	U	1.0	0.12
108-20-3	Diisopropyl ether	5.0	U	5.0	0.17
91-20-3	Naphthalene	1.0	U	1.0	0.32
179601-23-1	m-Xylene & p-Xylene	2.0	U	2.0	0.080
104-51-8	n-Butylbenzene	1.0	U	1.0	0.14
98-82-8	Isopropylbenzene	1.0	U	1.0	0.090
103-65-1	n-Propylbenzene	1.0	U	1.0	0.15
78-93-3	2-Butanone	5.0	U	5.0	1.2
108-10-1	4-Methyl-2-pentanone	5.0	U	5.0	0.42
135-98-8	sec-Butylbenzene	1.0	U	1.0	0.13
1634-04-4	Methyl tert-butyl ether	1.0	U	1.0	0.070
994-05-8	Tert-amyl-methyl ether (TAME)	5.0	U	5.0	0.11
75-09-2	Methylene Chloride	5.0	U	5.0	2.6
95-47-6	o-Xylene	1.0	U	1.0	0.090
100-42-5	Styrene	1.0	U	1.0	0.10
637-92-3	Ethyl-t-butyl ether (ETBE)	5.0	U	5.0	0.15
98-06-6	tert-Butylbenzene	1.0	U	1.0	0.14
127-18-4	Tetrachloroethene	1.0	U	1.0	0.15
108-88-3	Toluene	1.0	U	1.0	0.14
156-60-5	trans-1,2-Dichloroethene	1.0	U	1.0	0.19
10061-02-6	trans-1,3-Dichloropropene	1.0	U	1.0	0.67
79-01-6	Trichloroethene	1.0	U	1.0	0.10
75-69-4	Trichlorofluoromethane	1.0	U	1.0	0.45
108-05-4	Vinyl acetate	2.0	U	2.0	0.19
75-01-4	Vinyl chloride	0.50	U	0.50	0.20
75-65-0	tert-Butyl alcohol	2.7	J	20	1.7
1330-20-7	Xylenes, Total	2.0	U	2.0	0.15

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-118610-1

SDG No.:

Client Sample ID: MSA-SW39A-090919 Lab Sample ID: 240-118610-9

Matrix: Water Lab File ID: U1909715.d

Analysis Method: 8260C Date Collected: 09/09/2019 10:15

Sample wt/vol: 5(mL) Date Analyzed: 09/13/2019 21:13

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.: 400639 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
124-48-1	Dibromochloromethane	1.0	U	1.0	0.39

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	119		70-121
460-00-4	4-Bromofluorobenzene (Surr)	96		59-120
2037-26-5	Toluene-d8 (Surr)	105		70-123
1868-53-7	Dibromofluoromethane (Surr)	118		75-128

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-118610-1

SDG No.:

Client Sample ID: MSA-SW39A-090919 Lab Sample ID: 240-118610-9

Matrix: Water Lab File ID: U1909715.d

Analysis Method: 8260C Date Collected: 09/09/2019 10:15

Sample wt/vol: 5(mL) Date Analyzed: 09/13/2019 21:13

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.: 400639 Units: ug/L

Number TICs Found: 0 TIC Result Total: 0

CAS NO.	COMPOUND NAME	RT	RESULT	Q	MATCH QUALITY
	Tentatively Identified Compound		None		

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET
TARGETED TENATIVELY IDENTIFIED COMPOUNDS

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-118610-1

SDG No.:

Client Sample ID: MSA-SW39A-090919 Lab Sample ID: 240-118610-9

Matrix: Water Lab File ID: U1909715.d

Analysis Method: 8260C Date Collected: 09/09/2019 10:15

Sample wt/vol: 5(mL) Date Analyzed: 09/13/2019 21:13

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.: 400639 Units: ug/L

CAS NO.	COMPOUND NAME	RT	RESULT	Q	MATCH QUALITY
75-45-6	Chlorodifluoromethane TIC		1.0	U	

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-118610-1

SDG No.:

Client Sample ID: MSA-SW39B-090919 Lab Sample ID: 240-118610-10

Matrix: Water Lab File ID: U1909716.d

Analysis Method: 8260C Date Collected: 09/09/2019 10:22

Sample wt/vol: 5(mL) Date Analyzed: 09/13/2019 21:35

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.: 400639 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
630-20-6	1,1,1,2-Tetrachloroethane	1.0	U	1.0	0.14
71-55-6	1,1,1-Trichloroethane	1.0	U	1.0	0.24
79-34-5	1,1,2,2-Tetrachloroethane	1.0	U	1.0	0.13
76-13-1	1,1,2-Trichloro-1,2,2-trichfluoroeth ane	1.0	U	1.0	0.41
75-34-3	1,1-Dichloroethane	1.0	U	1.0	0.17
75-35-4	1,1-Dichloroethene	1.0	U	1.0	0.19
563-58-6	1,1-Dichloropropene	1.0	U	1.0	0.14
87-61-6	1,2,3-Trichlorobenzene	1.0	U	1.0	0.54
96-18-4	1,2,3-Trichloropropane	1.0	U	1.0	0.24
526-73-8	1,2,3-Trimethylbenzene	5.0	U	5.0	0.14
120-82-1	1,2,4-Trichlorobenzene	1.0	U	1.0	0.26
95-63-6	1,2,4-Trimethylbenzene	1.0	U	1.0	0.070
96-12-8	1,2-Dibromo-3-Chloropropane	5.0	U	5.0	0.91
95-50-1	1,2-Dichlorobenzene	1.0	U	1.0	0.15
107-06-2	1,2-Dichloroethane	1.0	U	1.0	0.21
78-87-5	1,2-Dichloropropane	1.0	U	1.0	0.15
541-73-1	1,3-Dichlorobenzene	1.0	U	1.0	0.15
142-28-9	1,3-Dichloropropane	1.0	U	1.0	0.21
106-46-7	1,4-Dichlorobenzene	1.0	U	1.0	0.16
594-20-7	2,2-Dichloropropane	1.0	U	1.0	0.31
110-75-8	2-Chloroethyl vinyl ether	10	U	10	0.26
95-49-8	2-Chlorotoluene	1.0	U	1.0	0.15
591-78-6	2-Hexanone	5.0	U	5.0	0.54
108-86-1	Bromobenzene	1.0	U	1.0	0.12
74-97-5	Bromochloromethane	1.0	U	1.0	0.14
106-43-4	4-Chlorotoluene	1.0	U	1.0	0.090
99-87-6	p-Isopropyltoluene	1.0	U	1.0	0.13
67-64-1	Acetone	5.0	U	5.0	5.4
71-43-2	Benzene	1.0	U	1.0	0.13
75-25-2	Bromoform	1.0	U	1.0	0.76
74-83-9	Bromomethane	1.0	U	1.0	0.42
75-15-0	Carbon disulfide	1.0	U	1.0	0.28
56-23-5	Carbon tetrachloride	1.0	U	1.0	0.26
108-90-7	Chlorobenzene	1.0	U	1.0	0.14
75-00-3	Chloroethane	1.0	U	1.0	0.83

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-118610-1

SDG No.:

Client Sample ID: MSA-SW39B-090919 Lab Sample ID: 240-118610-10

Matrix: Water Lab File ID: U1909716.d

Analysis Method: 8260C Date Collected: 09/09/2019 10:22

Sample wt/vol: 5(mL) Date Analyzed: 09/13/2019 21:35

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.: 400639 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
67-66-3	Chloroform	1.0	U	1.0	0.13
74-87-3	Chloromethane	1.0	U	1.0	0.20
156-59-2	cis-1,2-Dichloroethene	1.0	U	1.0	0.16
10061-01-5	cis-1,3-Dichloropropene	1.0	U	1.0	0.61
87-68-3	Hexachlorobutadiene	1.0	U	1.0	0.83
74-95-3	Dibromomethane	1.0	U	1.0	0.090
75-27-4	Bromodichloromethane	1.0	U	1.0	0.17
75-71-8	Dichlorodifluoromethane	1.0	U	1.0	0.35
100-41-4	Ethylbenzene	1.0	U	1.0	0.11
106-93-4	1,2-Dibromoethane	1.0	U	1.0	0.12
108-20-3	Diisopropyl ether	5.0	U	5.0	0.17
91-20-3	Naphthalene	1.0	U	1.0	0.32
179601-23-1	m-Xylene & p-Xylene	2.0	U	2.0	0.080
104-51-8	n-Butylbenzene	1.0	U	1.0	0.14
98-82-8	Isopropylbenzene	1.0	U	1.0	0.090
103-65-1	n-Propylbenzene	1.0	U	1.0	0.15
78-93-3	2-Butanone	5.0	U	5.0	1.2
108-10-1	4-Methyl-2-pentanone	5.0	U	5.0	0.42
135-98-8	sec-Butylbenzene	1.0	U	1.0	0.13
1634-04-4	Methyl tert-butyl ether	1.0	U	1.0	0.070
994-05-8	Tert-amyl-methyl ether (TAME)	5.0	U	5.0	0.11
75-09-2	Methylene Chloride	5.0	U	5.0	2.6
95-47-6	o-Xylene	1.0	U	1.0	0.090
100-42-5	Styrene	1.0	U	1.0	0.10
637-92-3	Ethyl-t-butyl ether (ETBE)	5.0	U	5.0	0.15
98-06-6	tert-Butylbenzene	1.0	U	1.0	0.14
127-18-4	Tetrachloroethene	1.0	U	1.0	0.15
108-88-3	Toluene	1.0	U	1.0	0.14
156-60-5	trans-1,2-Dichloroethene	1.0	U	1.0	0.19
10061-02-6	trans-1,3-Dichloropropene	1.0	U	1.0	0.67
79-01-6	Trichloroethene	1.0	U	1.0	0.10
75-69-4	Trichlorofluoromethane	1.0	U	1.0	0.45
108-05-4	Vinyl acetate	2.0	U	2.0	0.19
75-01-4	Vinyl chloride	0.50	U	0.50	0.20
75-65-0	tert-Butyl alcohol	20	U	20	1.7
1330-20-7	Xylenes, Total	2.0	U	2.0	0.15

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-118610-1

SDG No.:

Client Sample ID: MSA-SW39B-090919 Lab Sample ID: 240-118610-10

Matrix: Water Lab File ID: U1909716.d

Analysis Method: 8260C Date Collected: 09/09/2019 10:22

Sample wt/vol: 5(mL) Date Analyzed: 09/13/2019 21:35

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.: 400639 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
124-48-1	Dibromochloromethane	1.0	U	1.0	0.39

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	121		70-121
460-00-4	4-Bromofluorobenzene (Surr)	92		59-120
2037-26-5	Toluene-d8 (Surr)	102		70-123
1868-53-7	Dibromofluoromethane (Surr)	118		75-128

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-118610-1

SDG No.:

Client Sample ID: MSA-SW39B-090919 Lab Sample ID: 240-118610-10

Matrix: Water Lab File ID: U1909716.d

Analysis Method: 8260C Date Collected: 09/09/2019 10:22

Sample wt/vol: 5(mL) Date Analyzed: 09/13/2019 21:35

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.: 400639 Units: ug/L

Number TICs Found: 0 TIC Result Total: 0

CAS NO.	COMPOUND NAME	RT	RESULT	Q	MATCH QUALITY
	Tentatively Identified Compound		None		

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET
TARGETED TENATIVELY IDENTIFIED COMPOUNDS

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-118610-1

SDG No.:

Client Sample ID: MSA-SW39B-090919 Lab Sample ID: 240-118610-10

Matrix: Water Lab File ID: U1909716.d

Analysis Method: 8260C Date Collected: 09/09/2019 10:22

Sample wt/vol: 5(mL) Date Analyzed: 09/13/2019 21:35

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.: 400639 Units: ug/L

CAS NO.	COMPOUND NAME	RT	RESULT	Q	MATCH QUALITY
75-45-6	Chlorodifluoromethane TIC		1.0	U	

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-118610-1

SDG No.:

Client Sample ID: MSA-SW39C-090919 Lab Sample ID: 240-118610-11

Matrix: Water Lab File ID: U1909717.d

Analysis Method: 8260C Date Collected: 09/09/2019 10:28

Sample wt/vol: 5(mL) Date Analyzed: 09/13/2019 21:58

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.: 400639 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
630-20-6	1,1,1,2-Tetrachloroethane	1.0	U	1.0	0.14
71-55-6	1,1,1-Trichloroethane	1.0	U	1.0	0.24
79-34-5	1,1,2,2-Tetrachloroethane	1.0	U	1.0	0.13
76-13-1	1,1,2-Trichloro-1,2,2-trichfluoroethane	1.0	U	1.0	0.41
75-34-3	1,1-Dichloroethane	1.0	U	1.0	0.17
75-35-4	1,1-Dichloroethene	1.0	U	1.0	0.19
563-58-6	1,1-Dichloropropene	1.0	U	1.0	0.14
87-61-6	1,2,3-Trichlorobenzene	1.0	U	1.0	0.54
96-18-4	1,2,3-Trichloropropane	1.0	U	1.0	0.24
526-73-8	1,2,3-Trimethylbenzene	5.0	U	5.0	0.14
120-82-1	1,2,4-Trichlorobenzene	1.0	U	1.0	0.26
95-63-6	1,2,4-Trimethylbenzene	1.0	U	1.0	0.070
96-12-8	1,2-Dibromo-3-Chloropropane	5.0	U	5.0	0.91
95-50-1	1,2-Dichlorobenzene	1.0	U	1.0	0.15
107-06-2	1,2-Dichloroethane	1.0	U	1.0	0.21
78-87-5	1,2-Dichloropropane	1.0	U	1.0	0.15
541-73-1	1,3-Dichlorobenzene	1.0	U	1.0	0.15
142-28-9	1,3-Dichloropropane	1.0	U	1.0	0.21
106-46-7	1,4-Dichlorobenzene	1.0	U	1.0	0.16
594-20-7	2,2-Dichloropropane	1.0	U	1.0	0.31
110-75-8	2-Chloroethyl vinyl ether	10	U	10	0.26
95-49-8	2-Chlorotoluene	1.0	U	1.0	0.15
591-78-6	2-Hexanone	5.0	U	5.0	0.54
108-86-1	Bromobenzene	1.0	U	1.0	0.12
74-97-5	Bromochloromethane	1.0	U	1.0	0.14
106-43-4	4-Chlorotoluene	1.0	U	1.0	0.090
99-87-6	p-Isopropyltoluene	1.0	U	1.0	0.13
67-64-1	Acetone	5.0	U	5.0	5.4
71-43-2	Benzene	1.0	U	1.0	0.13
75-25-2	Bromoform	1.0	U	1.0	0.76
74-83-9	Bromomethane	1.0	U	1.0	0.42
75-15-0	Carbon disulfide	1.0	U	1.0	0.28
56-23-5	Carbon tetrachloride	1.0	U	1.0	0.26
108-90-7	Chlorobenzene	1.0	U	1.0	0.14
75-00-3	Chloroethane	1.0	U	1.0	0.83

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-118610-1

SDG No.:

Client Sample ID: MSA-SW39C-090919 Lab Sample ID: 240-118610-11

Matrix: Water Lab File ID: U1909717.d

Analysis Method: 8260C Date Collected: 09/09/2019 10:28

Sample wt/vol: 5(mL) Date Analyzed: 09/13/2019 21:58

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.: 400639 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
67-66-3	Chloroform	1.0	U	1.0	0.13
74-87-3	Chloromethane	1.0	U	1.0	0.20
156-59-2	cis-1,2-Dichloroethene	1.0	U	1.0	0.16
10061-01-5	cis-1,3-Dichloropropene	1.0	U	1.0	0.61
87-68-3	Hexachlorobutadiene	1.0	U	1.0	0.83
74-95-3	Dibromomethane	1.0	U	1.0	0.090
75-27-4	Bromodichloromethane	1.0	U	1.0	0.17
75-71-8	Dichlorodifluoromethane	1.0	U	1.0	0.35
100-41-4	Ethylbenzene	1.0	U	1.0	0.11
106-93-4	1,2-Dibromoethane	1.0	U	1.0	0.12
108-20-3	Diisopropyl ether	5.0	U	5.0	0.17
91-20-3	Naphthalene	1.0	U	1.0	0.32
179601-23-1	m-Xylene & p-Xylene	2.0	U	2.0	0.080
104-51-8	n-Butylbenzene	1.0	U	1.0	0.14
98-82-8	Isopropylbenzene	1.0	U	1.0	0.090
103-65-1	n-Propylbenzene	1.0	U	1.0	0.15
78-93-3	2-Butanone	5.0	U	5.0	1.2
108-10-1	4-Methyl-2-pentanone	5.0	U	5.0	0.42
135-98-8	sec-Butylbenzene	1.0	U	1.0	0.13
1634-04-4	Methyl tert-butyl ether	1.0	U	1.0	0.070
994-05-8	Tert-amyl-methyl ether (TAME)	5.0	U	5.0	0.11
75-09-2	Methylene Chloride	5.0	U	5.0	2.6
95-47-6	o-Xylene	1.0	U	1.0	0.090
100-42-5	Styrene	1.0	U	1.0	0.10
637-92-3	Ethyl-t-butyl ether (ETBE)	5.0	U	5.0	0.15
98-06-6	tert-Butylbenzene	1.0	U	1.0	0.14
127-18-4	Tetrachloroethene	1.0	U	1.0	0.15
108-88-3	Toluene	1.0	U	1.0	0.14
156-60-5	trans-1,2-Dichloroethene	1.0	U	1.0	0.19
10061-02-6	trans-1,3-Dichloropropene	1.0	U	1.0	0.67
79-01-6	Trichloroethene	1.0	U	1.0	0.10
75-69-4	Trichlorofluoromethane	1.0	U	1.0	0.45
108-05-4	Vinyl acetate	2.0	U	2.0	0.19
75-01-4	Vinyl chloride	0.50	U	0.50	0.20
75-65-0	tert-Butyl alcohol	20	U	20	1.7
1330-20-7	Xylenes, Total	2.0	U	2.0	0.15

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-118610-1

SDG No.:

Client Sample ID: MSA-SW39C-090919 Lab Sample ID: 240-118610-11

Matrix: Water Lab File ID: U1909717.d

Analysis Method: 8260C Date Collected: 09/09/2019 10:28

Sample wt/vol: 5(mL) Date Analyzed: 09/13/2019 21:58

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.: 400639 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
124-48-1	Dibromochloromethane	1.0	U	1.0	0.39

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	115		70-121
460-00-4	4-Bromofluorobenzene (Surr)	94		59-120
2037-26-5	Toluene-d8 (Surr)	101		70-123
1868-53-7	Dibromofluoromethane (Surr)	111		75-128

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-118610-1

SDG No.:

Client Sample ID: MSA-SW39C-090919 Lab Sample ID: 240-118610-11

Matrix: Water Lab File ID: U1909717.d

Analysis Method: 8260C Date Collected: 09/09/2019 10:28

Sample wt/vol: 5(mL) Date Analyzed: 09/13/2019 21:58

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.: 400639 Units: ug/L

Number TICs Found: 0 TIC Result Total: 0

CAS NO.	COMPOUND NAME	RT	RESULT	Q	MATCH QUALITY
	Tentatively Identified Compound		None		

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET
TARGETED TENATIVELY IDENTIFIED COMPOUNDS

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-118610-1

SDG No.:

Client Sample ID: MSA-SW39C-090919 Lab Sample ID: 240-118610-11

Matrix: Water Lab File ID: U1909717.d

Analysis Method: 8260C Date Collected: 09/09/2019 10:28

Sample wt/vol: 5(mL) Date Analyzed: 09/13/2019 21:58

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.: 400639 Units: ug/L

CAS NO.	COMPOUND NAME	RT	RESULT	Q	MATCH QUALITY
75-45-6	Chlorodifluoromethane TIC		1.0	U	

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-118610-1

SDG No.:

Client Sample ID: MSA-SW39D-090919 Lab Sample ID: 240-118610-12

Matrix: Water Lab File ID: U1909718.d

Analysis Method: 8260C Date Collected: 09/09/2019 10:31

Sample wt/vol: 5(mL) Date Analyzed: 09/13/2019 22:21

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.: 400639 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
630-20-6	1,1,1,2-Tetrachloroethane	1.0	U	1.0	0.14
71-55-6	1,1,1-Trichloroethane	1.0	U	1.0	0.24
79-34-5	1,1,2,2-Tetrachloroethane	1.0	U	1.0	0.13
76-13-1	1,1,2-Trichloro-1,2,2-trichfluoroeth ane	1.0	U	1.0	0.41
75-34-3	1,1-Dichloroethane	1.0	U	1.0	0.17
75-35-4	1,1-Dichloroethene	1.0	U	1.0	0.19
563-58-6	1,1-Dichloropropene	1.0	U	1.0	0.14
87-61-6	1,2,3-Trichlorobenzene	1.0	U	1.0	0.54
96-18-4	1,2,3-Trichloropropane	1.0	U	1.0	0.24
526-73-8	1,2,3-Trimethylbenzene	5.0	U	5.0	0.14
120-82-1	1,2,4-Trichlorobenzene	1.0	U	1.0	0.26
95-63-6	1,2,4-Trimethylbenzene	1.0	U	1.0	0.070
96-12-8	1,2-Dibromo-3-Chloropropane	5.0	U	5.0	0.91
95-50-1	1,2-Dichlorobenzene	1.0	U	1.0	0.15
107-06-2	1,2-Dichloroethane	1.0	U	1.0	0.21
78-87-5	1,2-Dichloropropane	1.0	U	1.0	0.15
541-73-1	1,3-Dichlorobenzene	1.0	U	1.0	0.15
142-28-9	1,3-Dichloropropane	1.0	U	1.0	0.21
106-46-7	1,4-Dichlorobenzene	1.0	U	1.0	0.16
594-20-7	2,2-Dichloropropane	1.0	U	1.0	0.31
110-75-8	2-Chloroethyl vinyl ether	10	U	10	0.26
95-49-8	2-Chlorotoluene	1.0	U	1.0	0.15
591-78-6	2-Hexanone	5.0	U	5.0	0.54
108-86-1	Bromobenzene	1.0	U	1.0	0.12
74-97-5	Bromochloromethane	1.0	U	1.0	0.14
106-43-4	4-Chlorotoluene	1.0	U	1.0	0.090
99-87-6	p-Isopropyltoluene	1.0	U	1.0	0.13
67-64-1	Acetone	5.0	U	5.0	5.4
71-43-2	Benzene	1.0	U	1.0	0.13
75-25-2	Bromoform	1.0	U	1.0	0.76
74-83-9	Bromomethane	1.0	U	1.0	0.42
75-15-0	Carbon disulfide	1.0	U	1.0	0.28
56-23-5	Carbon tetrachloride	1.0	U	1.0	0.26
108-90-7	Chlorobenzene	1.0	U	1.0	0.14
75-00-3	Chloroethane	1.0	U	1.0	0.83

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-118610-1

SDG No.:

Client Sample ID: MSA-SW39D-090919 Lab Sample ID: 240-118610-12

Matrix: Water Lab File ID: U1909718.d

Analysis Method: 8260C Date Collected: 09/09/2019 10:31

Sample wt/vol: 5(mL) Date Analyzed: 09/13/2019 22:21

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.: 400639 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
67-66-3	Chloroform	1.0	U	1.0	0.13
74-87-3	Chloromethane	1.0	U	1.0	0.20
156-59-2	cis-1,2-Dichloroethene	1.0	U	1.0	0.16
10061-01-5	cis-1,3-Dichloropropene	1.0	U	1.0	0.61
87-68-3	Hexachlorobutadiene	1.0	U	1.0	0.83
74-95-3	Dibromomethane	1.0	U	1.0	0.090
75-27-4	Bromodichloromethane	1.0	U	1.0	0.17
75-71-8	Dichlorodifluoromethane	1.0	U	1.0	0.35
100-41-4	Ethylbenzene	1.0	U	1.0	0.11
106-93-4	1,2-Dibromoethane	1.0	U	1.0	0.12
108-20-3	Diisopropyl ether	5.0	U	5.0	0.17
91-20-3	Naphthalene	1.0	U	1.0	0.32
179601-23-1	m-Xylene & p-Xylene	2.0	U	2.0	0.080
104-51-8	n-Butylbenzene	1.0	U	1.0	0.14
98-82-8	Isopropylbenzene	1.0	U	1.0	0.090
103-65-1	n-Propylbenzene	1.0	U	1.0	0.15
78-93-3	2-Butanone	5.0	U	5.0	1.2
108-10-1	4-Methyl-2-pentanone	5.0	U	5.0	0.42
135-98-8	sec-Butylbenzene	1.0	U	1.0	0.13
1634-04-4	Methyl tert-butyl ether	1.0	U	1.0	0.070
994-05-8	Tert-amyl-methyl ether (TAME)	5.0	U	5.0	0.11
75-09-2	Methylene Chloride	5.0	U	5.0	2.6
95-47-6	o-Xylene	1.0	U	1.0	0.090
100-42-5	Styrene	1.0	U	1.0	0.10
637-92-3	Ethyl-t-butyl ether (ETBE)	5.0	U	5.0	0.15
98-06-6	tert-Butylbenzene	1.0	U	1.0	0.14
127-18-4	Tetrachloroethene	1.0	U	1.0	0.15
108-88-3	Toluene	1.0	U	1.0	0.14
156-60-5	trans-1,2-Dichloroethene	1.0	U	1.0	0.19
10061-02-6	trans-1,3-Dichloropropene	1.0	U	1.0	0.67
79-01-6	Trichloroethene	1.0	U	1.0	0.10
75-69-4	Trichlorofluoromethane	1.0	U	1.0	0.45
108-05-4	Vinyl acetate	2.0	U	2.0	0.19
75-01-4	Vinyl chloride	0.50	U	0.50	0.20
75-65-0	tert-Butyl alcohol	20	U	20	1.7
1330-20-7	Xylenes, Total	2.0	U	2.0	0.15

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-118610-1

SDG No.:

Client Sample ID: MSA-SW39D-090919 Lab Sample ID: 240-118610-12

Matrix: Water Lab File ID: U1909718.d

Analysis Method: 8260C Date Collected: 09/09/2019 10:31

Sample wt/vol: 5(mL) Date Analyzed: 09/13/2019 22:21

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.: 400639 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
124-48-1	Dibromochloromethane	1.0	U	1.0	0.39

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	113		70-121
460-00-4	4-Bromofluorobenzene (Surr)	90		59-120
2037-26-5	Toluene-d8 (Surr)	99		70-123
1868-53-7	Dibromofluoromethane (Surr)	110		75-128

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-118610-1

SDG No.:

Client Sample ID: MSA-SW39D-090919 Lab Sample ID: 240-118610-12

Matrix: Water Lab File ID: U1909718.d

Analysis Method: 8260C Date Collected: 09/09/2019 10:31

Sample wt/vol: 5(mL) Date Analyzed: 09/13/2019 22:21

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.: 400639 Units: ug/L

Number TICs Found: 0 TIC Result Total: 0

CAS NO.	COMPOUND NAME	RT	RESULT	Q	MATCH QUALITY
	Tentatively Identified Compound		None		

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET
TARGETED TENATIVELY IDENTIFIED COMPOUNDS

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-118610-1

SDG No.:

Client Sample ID: MSA-SW39D-090919 Lab Sample ID: 240-118610-12

Matrix: Water Lab File ID: U1909718.d

Analysis Method: 8260C Date Collected: 09/09/2019 10:31

Sample wt/vol: 5(mL) Date Analyzed: 09/13/2019 22:21

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.: 400639 Units: ug/L

CAS NO.	COMPOUND NAME	RT	RESULT	Q	MATCH QUALITY
75-45-6	Chlorodifluoromethane TIC		1.0	U	

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-118610-1

SDG No.:

Client Sample ID: MSA-SW40A-090919 Lab Sample ID: 240-118610-13

Matrix: Water Lab File ID: U1909719.d

Analysis Method: 8260C Date Collected: 09/09/2019 12:09

Sample wt/vol: 5(mL) Date Analyzed: 09/13/2019 22:43

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.: 400639 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
630-20-6	1,1,1,2-Tetrachloroethane	1.0	U	1.0	0.14
71-55-6	1,1,1-Trichloroethane	1.0	U	1.0	0.24
79-34-5	1,1,2,2-Tetrachloroethane	1.0	U	1.0	0.13
76-13-1	1,1,2-Trichloro-1,2,2-trichfluoroethane	1.0	U	1.0	0.41
75-34-3	1,1-Dichloroethane	1.0	U	1.0	0.17
75-35-4	1,1-Dichloroethene	1.0	U	1.0	0.19
563-58-6	1,1-Dichloropropene	1.0	U	1.0	0.14
87-61-6	1,2,3-Trichlorobenzene	1.0	U	1.0	0.54
96-18-4	1,2,3-Trichloropropane	1.0	U	1.0	0.24
526-73-8	1,2,3-Trimethylbenzene	5.0	U	5.0	0.14
120-82-1	1,2,4-Trichlorobenzene	1.0	U	1.0	0.26
95-63-6	1,2,4-Trimethylbenzene	1.0	U	1.0	0.070
96-12-8	1,2-Dibromo-3-Chloropropane	5.0	U	5.0	0.91
95-50-1	1,2-Dichlorobenzene	1.0	U	1.0	0.15
107-06-2	1,2-Dichloroethane	1.0	U	1.0	0.21
78-87-5	1,2-Dichloropropane	1.0	U	1.0	0.15
541-73-1	1,3-Dichlorobenzene	1.0	U	1.0	0.15
142-28-9	1,3-Dichloropropane	1.0	U	1.0	0.21
106-46-7	1,4-Dichlorobenzene	1.0	U	1.0	0.16
594-20-7	2,2-Dichloropropane	1.0	U	1.0	0.31
110-75-8	2-Chloroethyl vinyl ether	10	U	10	0.26
95-49-8	2-Chlorotoluene	1.0	U	1.0	0.15
591-78-6	2-Hexanone	5.0	U	5.0	0.54
108-86-1	Bromobenzene	1.0	U	1.0	0.12
74-97-5	Bromochloromethane	1.0	U	1.0	0.14
106-43-4	4-Chlorotoluene	1.0	U	1.0	0.090
99-87-6	p-Isopropyltoluene	1.0	U	1.0	0.13
67-64-1	Acetone	5.0	U	5.0	5.4
71-43-2	Benzene	1.0	U	1.0	0.13
75-25-2	Bromoform	1.0	U	1.0	0.76
74-83-9	Bromomethane	1.0	U	1.0	0.42
75-15-0	Carbon disulfide	1.0	U	1.0	0.28
56-23-5	Carbon tetrachloride	1.0	U	1.0	0.26
108-90-7	Chlorobenzene	1.0	U	1.0	0.14
75-00-3	Chloroethane	1.0	U	1.0	0.83

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-118610-1

SDG No.:

Client Sample ID: MSA-SW40A-090919 Lab Sample ID: 240-118610-13

Matrix: Water Lab File ID: U1909719.d

Analysis Method: 8260C Date Collected: 09/09/2019 12:09

Sample wt/vol: 5(mL) Date Analyzed: 09/13/2019 22:43

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.: 400639 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
67-66-3	Chloroform	1.0	U	1.0	0.13
74-87-3	Chloromethane	1.0	U	1.0	0.20
156-59-2	cis-1,2-Dichloroethene	1.0	U	1.0	0.16
10061-01-5	cis-1,3-Dichloropropene	1.0	U	1.0	0.61
87-68-3	Hexachlorobutadiene	1.0	U	1.0	0.83
74-95-3	Dibromomethane	1.0	U	1.0	0.090
75-27-4	Bromodichloromethane	1.0	U	1.0	0.17
75-71-8	Dichlorodifluoromethane	1.0	U	1.0	0.35
100-41-4	Ethylbenzene	1.0	U	1.0	0.11
106-93-4	1,2-Dibromoethane	1.0	U	1.0	0.12
108-20-3	Diisopropyl ether	5.0	U	5.0	0.17
91-20-3	Naphthalene	1.0	U	1.0	0.32
179601-23-1	m-Xylene & p-Xylene	2.0	U	2.0	0.080
104-51-8	n-Butylbenzene	1.0	U	1.0	0.14
98-82-8	Isopropylbenzene	1.0	U	1.0	0.090
103-65-1	n-Propylbenzene	1.0	U	1.0	0.15
78-93-3	2-Butanone	5.0	U	5.0	1.2
108-10-1	4-Methyl-2-pentanone	5.0	U	5.0	0.42
135-98-8	sec-Butylbenzene	1.0	U	1.0	0.13
1634-04-4	Methyl tert-butyl ether	1.0	U	1.0	0.070
994-05-8	Tert-amyl-methyl ether (TAME)	5.0	U	5.0	0.11
75-09-2	Methylene Chloride	5.0	U	5.0	2.6
95-47-6	o-Xylene	1.0	U	1.0	0.090
100-42-5	Styrene	1.0	U	1.0	0.10
637-92-3	Ethyl-t-butyl ether (ETBE)	5.0	U	5.0	0.15
98-06-6	tert-Butylbenzene	1.0	U	1.0	0.14
127-18-4	Tetrachloroethene	1.0	U	1.0	0.15
108-88-3	Toluene	1.0	U	1.0	0.14
156-60-5	trans-1,2-Dichloroethene	1.0	U	1.0	0.19
10061-02-6	trans-1,3-Dichloropropene	1.0	U	1.0	0.67
79-01-6	Trichloroethene	1.0	U	1.0	0.10
75-69-4	Trichlorofluoromethane	1.0	U	1.0	0.45
108-05-4	Vinyl acetate	2.0	U	2.0	0.19
75-01-4	Vinyl chloride	0.50	U	0.50	0.20
75-65-0	tert-Butyl alcohol	20	U	20	1.7
1330-20-7	Xylenes, Total	2.0	U	2.0	0.15

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-118610-1

SDG No.:

Client Sample ID: MSA-SW40A-090919 Lab Sample ID: 240-118610-13

Matrix: Water Lab File ID: U1909719.d

Analysis Method: 8260C Date Collected: 09/09/2019 12:09

Sample wt/vol: 5(mL) Date Analyzed: 09/13/2019 22:43

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.: 400639 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
124-48-1	Dibromochloromethane	1.0	U	1.0	0.39

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	119		70-121
460-00-4	4-Bromofluorobenzene (Surr)	94		59-120
2037-26-5	Toluene-d8 (Surr)	104		70-123
1868-53-7	Dibromofluoromethane (Surr)	117		75-128

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-118610-1

SDG No.:

Client Sample ID: MSA-SW40A-090919 Lab Sample ID: 240-118610-13

Matrix: Water Lab File ID: U1909719.d

Analysis Method: 8260C Date Collected: 09/09/2019 12:09

Sample wt/vol: 5(mL) Date Analyzed: 09/13/2019 22:43

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.: 400639 Units: ug/L

Number TICs Found: 0 TIC Result Total: 0

CAS NO.	COMPOUND NAME	RT	RESULT	Q	MATCH QUALITY
	Tentatively Identified Compound		None		

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET
TARGETED TENATIVELY IDENTIFIED COMPOUNDS

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-118610-1

SDG No.:

Client Sample ID: MSA-SW40A-090919 Lab Sample ID: 240-118610-13

Matrix: Water Lab File ID: U1909719.d

Analysis Method: 8260C Date Collected: 09/09/2019 12:09

Sample wt/vol: 5(mL) Date Analyzed: 09/13/2019 22:43

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.: 400639 Units: ug/L

CAS NO.	COMPOUND NAME	RT	RESULT	Q	MATCH QUALITY
75-45-6	Chlorodifluoromethane TIC		1.0	U	

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-118610-1

SDG No.:

Client Sample ID: MSA-SW40B-090919 Lab Sample ID: 240-118610-14

Matrix: Water Lab File ID: U1909720.d

Analysis Method: 8260C Date Collected: 09/09/2019 12:12

Sample wt/vol: 5(mL) Date Analyzed: 09/13/2019 23:06

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.: 400639 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
630-20-6	1,1,1,2-Tetrachloroethane	1.0	U	1.0	0.14
71-55-6	1,1,1-Trichloroethane	1.0	U	1.0	0.24
79-34-5	1,1,2,2-Tetrachloroethane	1.0	U	1.0	0.13
76-13-1	1,1,2-Trichloro-1,2,2-trichfluoroethane	1.0	U	1.0	0.41
75-34-3	1,1-Dichloroethane	1.0	U	1.0	0.17
75-35-4	1,1-Dichloroethene	1.0	U	1.0	0.19
563-58-6	1,1-Dichloropropene	1.0	U	1.0	0.14
87-61-6	1,2,3-Trichlorobenzene	1.0	U	1.0	0.54
96-18-4	1,2,3-Trichloropropane	1.0	U	1.0	0.24
526-73-8	1,2,3-Trimethylbenzene	5.0	U	5.0	0.14
120-82-1	1,2,4-Trichlorobenzene	1.0	U	1.0	0.26
95-63-6	1,2,4-Trimethylbenzene	1.0	U	1.0	0.070
96-12-8	1,2-Dibromo-3-Chloropropane	5.0	U	5.0	0.91
95-50-1	1,2-Dichlorobenzene	1.0	U	1.0	0.15
107-06-2	1,2-Dichloroethane	1.0	U	1.0	0.21
78-87-5	1,2-Dichloropropane	1.0	U	1.0	0.15
541-73-1	1,3-Dichlorobenzene	1.0	U	1.0	0.15
142-28-9	1,3-Dichloropropane	1.0	U	1.0	0.21
106-46-7	1,4-Dichlorobenzene	1.0	U	1.0	0.16
594-20-7	2,2-Dichloropropane	1.0	U	1.0	0.31
110-75-8	2-Chloroethyl vinyl ether	10	U	10	0.26
95-49-8	2-Chlorotoluene	1.0	U	1.0	0.15
591-78-6	2-Hexanone	5.0	U	5.0	0.54
108-86-1	Bromobenzene	1.0	U	1.0	0.12
74-97-5	Bromochloromethane	1.0	U	1.0	0.14
106-43-4	4-Chlorotoluene	1.0	U	1.0	0.090
99-87-6	p-Isopropyltoluene	1.0	U	1.0	0.13
67-64-1	Acetone	5.0	U	5.0	5.4
71-43-2	Benzene	1.0	U	1.0	0.13
75-25-2	Bromoform	1.0	U	1.0	0.76
74-83-9	Bromomethane	1.0	U	1.0	0.42
75-15-0	Carbon disulfide	1.0	U	1.0	0.28
56-23-5	Carbon tetrachloride	1.0	U	1.0	0.26
108-90-7	Chlorobenzene	1.0	U	1.0	0.14
75-00-3	Chloroethane	1.0	U	1.0	0.83

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-118610-1

SDG No.:

Client Sample ID: MSA-SW40B-090919 Lab Sample ID: 240-118610-14

Matrix: Water Lab File ID: U1909720.d

Analysis Method: 8260C Date Collected: 09/09/2019 12:12

Sample wt/vol: 5(mL) Date Analyzed: 09/13/2019 23:06

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.: 400639 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
67-66-3	Chloroform	1.0	U	1.0	0.13
74-87-3	Chloromethane	1.0	U	1.0	0.20
156-59-2	cis-1,2-Dichloroethene	1.0	U	1.0	0.16
10061-01-5	cis-1,3-Dichloropropene	1.0	U	1.0	0.61
87-68-3	Hexachlorobutadiene	1.0	U	1.0	0.83
74-95-3	Dibromomethane	1.0	U	1.0	0.090
75-27-4	Bromodichloromethane	1.0	U	1.0	0.17
75-71-8	Dichlorodifluoromethane	1.0	U	1.0	0.35
100-41-4	Ethylbenzene	1.0	U	1.0	0.11
106-93-4	1,2-Dibromoethane	1.0	U	1.0	0.12
108-20-3	Diisopropyl ether	5.0	U	5.0	0.17
91-20-3	Naphthalene	1.0	U	1.0	0.32
179601-23-1	m-Xylene & p-Xylene	2.0	U	2.0	0.080
104-51-8	n-Butylbenzene	1.0	U	1.0	0.14
98-82-8	Isopropylbenzene	1.0	U	1.0	0.090
103-65-1	n-Propylbenzene	1.0	U	1.0	0.15
78-93-3	2-Butanone	5.0	U	5.0	1.2
108-10-1	4-Methyl-2-pentanone	5.0	U	5.0	0.42
135-98-8	sec-Butylbenzene	1.0	U	1.0	0.13
1634-04-4	Methyl tert-butyl ether	1.0	U	1.0	0.070
994-05-8	Tert-amyl-methyl ether (TAME)	5.0	U	5.0	0.11
75-09-2	Methylene Chloride	5.0	U	5.0	2.6
95-47-6	o-Xylene	1.0	U	1.0	0.090
100-42-5	Styrene	1.0	U	1.0	0.10
637-92-3	Ethyl-t-butyl ether (ETBE)	5.0	U	5.0	0.15
98-06-6	tert-Butylbenzene	1.0	U	1.0	0.14
127-18-4	Tetrachloroethene	1.0	U	1.0	0.15
108-88-3	Toluene	1.0	U	1.0	0.14
156-60-5	trans-1,2-Dichloroethene	1.0	U	1.0	0.19
10061-02-6	trans-1,3-Dichloropropene	1.0	U	1.0	0.67
79-01-6	Trichloroethene	1.0	U	1.0	0.10
75-69-4	Trichlorofluoromethane	1.0	U	1.0	0.45
108-05-4	Vinyl acetate	2.0	U	2.0	0.19
75-01-4	Vinyl chloride	0.50	U	0.50	0.20
75-65-0	tert-Butyl alcohol	20	U	20	1.7
1330-20-7	Xylenes, Total	2.0	U	2.0	0.15

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-118610-1

SDG No.:

Client Sample ID: MSA-SW40B-090919 Lab Sample ID: 240-118610-14

Matrix: Water Lab File ID: U1909720.d

Analysis Method: 8260C Date Collected: 09/09/2019 12:12

Sample wt/vol: 5(mL) Date Analyzed: 09/13/2019 23:06

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.: 400639 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
124-48-1	Dibromochloromethane	1.0	U	1.0	0.39

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	117		70-121
460-00-4	4-Bromofluorobenzene (Surr)	94		59-120
2037-26-5	Toluene-d8 (Surr)	100		70-123
1868-53-7	Dibromofluoromethane (Surr)	116		75-128

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-118610-1

SDG No.:

Client Sample ID: MSA-SW40B-090919 Lab Sample ID: 240-118610-14

Matrix: Water Lab File ID: U1909720.d

Analysis Method: 8260C Date Collected: 09/09/2019 12:12

Sample wt/vol: 5(mL) Date Analyzed: 09/13/2019 23:06

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.: 400639 Units: ug/L

Number TICs Found: 0 TIC Result Total: 0

CAS NO.	COMPOUND NAME	RT	RESULT	Q	MATCH QUALITY
	Tentatively Identified Compound		None		

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET
TARGETED TENATIVELY IDENTIFIED COMPOUNDS

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-118610-1

SDG No.:

Client Sample ID: MSA-SW40B-090919 Lab Sample ID: 240-118610-14

Matrix: Water Lab File ID: U1909720.d

Analysis Method: 8260C Date Collected: 09/09/2019 12:12

Sample wt/vol: 5(mL) Date Analyzed: 09/13/2019 23:06

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.: 400639 Units: ug/L

CAS NO.	COMPOUND NAME	RT	RESULT	Q	MATCH QUALITY
75-45-6	Chlorodifluoromethane TIC		1.0	U	

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-118610-1

SDG No.:

Client Sample ID: MSA-SW40C-090919 Lab Sample ID: 240-118610-15

Matrix: Water Lab File ID: U1909721.d

Analysis Method: 8260C Date Collected: 09/09/2019 12:18

Sample wt/vol: 5(mL) Date Analyzed: 09/13/2019 23:28

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.: 400639 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
630-20-6	1,1,1,2-Tetrachloroethane	1.0	U	1.0	0.14
71-55-6	1,1,1-Trichloroethane	1.0	U	1.0	0.24
79-34-5	1,1,2,2-Tetrachloroethane	1.0	U	1.0	0.13
76-13-1	1,1,2-Trichloro-1,2,2-trichfluoroethane	1.0	U	1.0	0.41
75-34-3	1,1-Dichloroethane	1.0	U	1.0	0.17
75-35-4	1,1-Dichloroethene	1.0	U	1.0	0.19
563-58-6	1,1-Dichloropropene	1.0	U	1.0	0.14
87-61-6	1,2,3-Trichlorobenzene	1.0	U	1.0	0.54
96-18-4	1,2,3-Trichloropropane	1.0	U	1.0	0.24
526-73-8	1,2,3-Trimethylbenzene	5.0	U	5.0	0.14
120-82-1	1,2,4-Trichlorobenzene	1.0	U	1.0	0.26
95-63-6	1,2,4-Trimethylbenzene	1.0	U	1.0	0.070
96-12-8	1,2-Dibromo-3-Chloropropane	5.0	U	5.0	0.91
95-50-1	1,2-Dichlorobenzene	1.0	U	1.0	0.15
107-06-2	1,2-Dichloroethane	1.0	U	1.0	0.21
78-87-5	1,2-Dichloropropane	1.0	U	1.0	0.15
541-73-1	1,3-Dichlorobenzene	1.0	U	1.0	0.15
142-28-9	1,3-Dichloropropane	1.0	U	1.0	0.21
106-46-7	1,4-Dichlorobenzene	1.0	U	1.0	0.16
594-20-7	2,2-Dichloropropane	1.0	U	1.0	0.31
110-75-8	2-Chloroethyl vinyl ether	10	U	10	0.26
95-49-8	2-Chlorotoluene	1.0	U	1.0	0.15
591-78-6	2-Hexanone	5.0	U	5.0	0.54
108-86-1	Bromobenzene	1.0	U	1.0	0.12
74-97-5	Bromochloromethane	1.0	U	1.0	0.14
106-43-4	4-Chlorotoluene	1.0	U	1.0	0.090
99-87-6	p-Isopropyltoluene	1.0	U	1.0	0.13
67-64-1	Acetone	5.0	U	5.0	5.4
71-43-2	Benzene	1.0	U	1.0	0.13
75-25-2	Bromoform	1.0	U	1.0	0.76
74-83-9	Bromomethane	1.0	U	1.0	0.42
75-15-0	Carbon disulfide	1.0	U	1.0	0.28
56-23-5	Carbon tetrachloride	1.0	U	1.0	0.26
108-90-7	Chlorobenzene	1.0	U	1.0	0.14
75-00-3	Chloroethane	1.0	U	1.0	0.83

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-118610-1

SDG No.:

Client Sample ID: MSA-SW40C-090919 Lab Sample ID: 240-118610-15

Matrix: Water Lab File ID: U1909721.d

Analysis Method: 8260C Date Collected: 09/09/2019 12:18

Sample wt/vol: 5(mL) Date Analyzed: 09/13/2019 23:28

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.: 400639 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
67-66-3	Chloroform	1.0	U	1.0	0.13
74-87-3	Chloromethane	1.0	U	1.0	0.20
156-59-2	cis-1,2-Dichloroethene	1.0	U	1.0	0.16
10061-01-5	cis-1,3-Dichloropropene	1.0	U	1.0	0.61
87-68-3	Hexachlorobutadiene	1.0	U	1.0	0.83
74-95-3	Dibromomethane	1.0	U	1.0	0.090
75-27-4	Bromodichloromethane	1.0	U	1.0	0.17
75-71-8	Dichlorodifluoromethane	1.0	U	1.0	0.35
100-41-4	Ethylbenzene	1.0	U	1.0	0.11
106-93-4	1,2-Dibromoethane	1.0	U	1.0	0.12
108-20-3	Diisopropyl ether	5.0	U	5.0	0.17
91-20-3	Naphthalene	1.0	U	1.0	0.32
179601-23-1	m-Xylene & p-Xylene	2.0	U	2.0	0.080
104-51-8	n-Butylbenzene	1.0	U	1.0	0.14
98-82-8	Isopropylbenzene	1.0	U	1.0	0.090
103-65-1	n-Propylbenzene	1.0	U	1.0	0.15
78-93-3	2-Butanone	5.0	U	5.0	1.2
108-10-1	4-Methyl-2-pentanone	5.0	U	5.0	0.42
135-98-8	sec-Butylbenzene	1.0	U	1.0	0.13
1634-04-4	Methyl tert-butyl ether	1.0	U	1.0	0.070
994-05-8	Tert-amyl-methyl ether (TAME)	5.0	U	5.0	0.11
75-09-2	Methylene Chloride	5.0	U	5.0	2.6
95-47-6	o-Xylene	1.0	U	1.0	0.090
100-42-5	Styrene	1.0	U	1.0	0.10
637-92-3	Ethyl-t-butyl ether (ETBE)	5.0	U	5.0	0.15
98-06-6	tert-Butylbenzene	1.0	U	1.0	0.14
127-18-4	Tetrachloroethene	1.0	U	1.0	0.15
108-88-3	Toluene	1.0	U	1.0	0.14
156-60-5	trans-1,2-Dichloroethene	1.0	U	1.0	0.19
10061-02-6	trans-1,3-Dichloropropene	1.0	U	1.0	0.67
79-01-6	Trichloroethene	1.0	U	1.0	0.10
75-69-4	Trichlorofluoromethane	1.0	U	1.0	0.45
108-05-4	Vinyl acetate	2.0	U	2.0	0.19
75-01-4	Vinyl chloride	0.50	U	0.50	0.20
75-65-0	tert-Butyl alcohol	20	U	20	1.7
1330-20-7	Xylenes, Total	2.0	U	2.0	0.15

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-118610-1

SDG No.:

Client Sample ID: MSA-SW40C-090919 Lab Sample ID: 240-118610-15

Matrix: Water Lab File ID: U1909721.d

Analysis Method: 8260C Date Collected: 09/09/2019 12:18

Sample wt/vol: 5(mL) Date Analyzed: 09/13/2019 23:28

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.: 400639 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
124-48-1	Dibromochloromethane	1.0	U	1.0	0.39

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	118		70-121
460-00-4	4-Bromofluorobenzene (Surr)	92		59-120
2037-26-5	Toluene-d8 (Surr)	102		70-123
1868-53-7	Dibromofluoromethane (Surr)	118		75-128

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-118610-1

SDG No.:

Client Sample ID: MSA-SW40C-090919 Lab Sample ID: 240-118610-15

Matrix: Water Lab File ID: U1909721.d

Analysis Method: 8260C Date Collected: 09/09/2019 12:18

Sample wt/vol: 5(mL) Date Analyzed: 09/13/2019 23:28

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.: 400639 Units: ug/L

Number TICs Found: 0 TIC Result Total: 0

CAS NO.	COMPOUND NAME	RT	RESULT	Q	MATCH QUALITY
	Tentatively Identified Compound		None		

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET
TARGETED TENATIVELY IDENTIFIED COMPOUNDS

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-118610-1

SDG No.:

Client Sample ID: MSA-SW40C-090919 Lab Sample ID: 240-118610-15

Matrix: Water Lab File ID: U1909721.d

Analysis Method: 8260C Date Collected: 09/09/2019 12:18

Sample wt/vol: 5(mL) Date Analyzed: 09/13/2019 23:28

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.: 400639 Units: ug/L

CAS NO.	COMPOUND NAME	RT	RESULT	Q	MATCH QUALITY
75-45-6	Chlorodifluoromethane TIC		1.0	U	

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-118610-1

SDG No.:

Client Sample ID: MSA-SW40D-090919 Lab Sample ID: 240-118610-16

Matrix: Water Lab File ID: U1909722.d

Analysis Method: 8260C Date Collected: 09/09/2019 12:23

Sample wt/vol: 5(mL) Date Analyzed: 09/13/2019 23:51

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.: 400639 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
630-20-6	1,1,1,2-Tetrachloroethane	1.0	U	1.0	0.14
71-55-6	1,1,1-Trichloroethane	1.0	U	1.0	0.24
79-34-5	1,1,2,2-Tetrachloroethane	1.0	U	1.0	0.13
76-13-1	1,1,2-Trichloro-1,2,2-trichfluoroethane	1.0	U	1.0	0.41
75-34-3	1,1-Dichloroethane	1.0	U	1.0	0.17
75-35-4	1,1-Dichloroethene	1.0	U	1.0	0.19
563-58-6	1,1-Dichloropropene	1.0	U	1.0	0.14
87-61-6	1,2,3-Trichlorobenzene	1.0	U	1.0	0.54
96-18-4	1,2,3-Trichloropropane	1.0	U	1.0	0.24
526-73-8	1,2,3-Trimethylbenzene	5.0	U	5.0	0.14
120-82-1	1,2,4-Trichlorobenzene	1.0	U	1.0	0.26
95-63-6	1,2,4-Trimethylbenzene	1.0	U	1.0	0.070
96-12-8	1,2-Dibromo-3-Chloropropane	5.0	U	5.0	0.91
95-50-1	1,2-Dichlorobenzene	1.0	U	1.0	0.15
107-06-2	1,2-Dichloroethane	1.0	U	1.0	0.21
78-87-5	1,2-Dichloropropane	1.0	U	1.0	0.15
541-73-1	1,3-Dichlorobenzene	1.0	U	1.0	0.15
142-28-9	1,3-Dichloropropane	1.0	U	1.0	0.21
106-46-7	1,4-Dichlorobenzene	1.0	U	1.0	0.16
594-20-7	2,2-Dichloropropane	1.0	U	1.0	0.31
110-75-8	2-Chloroethyl vinyl ether	10	U	10	0.26
95-49-8	2-Chlorotoluene	1.0	U	1.0	0.15
591-78-6	2-Hexanone	5.0	U	5.0	0.54
108-86-1	Bromobenzene	1.0	U	1.0	0.12
74-97-5	Bromochloromethane	1.0	U	1.0	0.14
106-43-4	4-Chlorotoluene	1.0	U	1.0	0.090
99-87-6	p-Isopropyltoluene	1.0	U	1.0	0.13
67-64-1	Acetone	5.0	U	5.0	5.4
71-43-2	Benzene	1.0	U	1.0	0.13
75-25-2	Bromoform	1.0	U	1.0	0.76
74-83-9	Bromomethane	1.0	U	1.0	0.42
75-15-0	Carbon disulfide	1.0	U	1.0	0.28
56-23-5	Carbon tetrachloride	1.0	U	1.0	0.26
108-90-7	Chlorobenzene	1.0	U	1.0	0.14
75-00-3	Chloroethane	1.0	U	1.0	0.83

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-118610-1

SDG No.:

Client Sample ID: MSA-SW40D-090919 Lab Sample ID: 240-118610-16

Matrix: Water Lab File ID: U1909722.d

Analysis Method: 8260C Date Collected: 09/09/2019 12:23

Sample wt/vol: 5(mL) Date Analyzed: 09/13/2019 23:51

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.: 400639 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
67-66-3	Chloroform	1.0	U	1.0	0.13
74-87-3	Chloromethane	1.0	U	1.0	0.20
156-59-2	cis-1,2-Dichloroethene	1.0	U	1.0	0.16
10061-01-5	cis-1,3-Dichloropropene	1.0	U	1.0	0.61
87-68-3	Hexachlorobutadiene	1.0	U	1.0	0.83
74-95-3	Dibromomethane	1.0	U	1.0	0.090
75-27-4	Bromodichloromethane	1.0	U	1.0	0.17
75-71-8	Dichlorodifluoromethane	1.0	U	1.0	0.35
100-41-4	Ethylbenzene	1.0	U	1.0	0.11
106-93-4	1,2-Dibromoethane	1.0	U	1.0	0.12
108-20-3	Diisopropyl ether	5.0	U	5.0	0.17
91-20-3	Naphthalene	1.0	U	1.0	0.32
179601-23-1	m-Xylene & p-Xylene	2.0	U	2.0	0.080
104-51-8	n-Butylbenzene	1.0	U	1.0	0.14
98-82-8	Isopropylbenzene	1.0	U	1.0	0.090
103-65-1	n-Propylbenzene	1.0	U	1.0	0.15
78-93-3	2-Butanone	5.0	U	5.0	1.2
108-10-1	4-Methyl-2-pentanone	5.0	U	5.0	0.42
135-98-8	sec-Butylbenzene	1.0	U	1.0	0.13
1634-04-4	Methyl tert-butyl ether	1.0	U	1.0	0.070
994-05-8	Tert-amyl-methyl ether (TAME)	5.0	U	5.0	0.11
75-09-2	Methylene Chloride	5.0	U	5.0	2.6
95-47-6	o-Xylene	1.0	U	1.0	0.090
100-42-5	Styrene	1.0	U	1.0	0.10
637-92-3	Ethyl-t-butyl ether (ETBE)	5.0	U	5.0	0.15
98-06-6	tert-Butylbenzene	1.0	U	1.0	0.14
127-18-4	Tetrachloroethene	1.0	U	1.0	0.15
108-88-3	Toluene	1.0	U	1.0	0.14
156-60-5	trans-1,2-Dichloroethene	1.0	U	1.0	0.19
10061-02-6	trans-1,3-Dichloropropene	1.0	U	1.0	0.67
79-01-6	Trichloroethene	1.0	U	1.0	0.10
75-69-4	Trichlorofluoromethane	1.0	U	1.0	0.45
108-05-4	Vinyl acetate	2.0	U	2.0	0.19
75-01-4	Vinyl chloride	0.50	U	0.50	0.20
75-65-0	tert-Butyl alcohol	20	U	20	1.7
1330-20-7	Xylenes, Total	2.0	U	2.0	0.15

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-118610-1

SDG No.:

Client Sample ID: MSA-SW40D-090919 Lab Sample ID: 240-118610-16

Matrix: Water Lab File ID: U1909722.d

Analysis Method: 8260C Date Collected: 09/09/2019 12:23

Sample wt/vol: 5(mL) Date Analyzed: 09/13/2019 23:51

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.: 400639 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
124-48-1	Dibromochloromethane	1.0	U	1.0	0.39

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	117		70-121
460-00-4	4-Bromofluorobenzene (Surr)	92		59-120
2037-26-5	Toluene-d8 (Surr)	101		70-123
1868-53-7	Dibromofluoromethane (Surr)	113		75-128

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-118610-1

SDG No.:

Client Sample ID: MSA-SW40D-090919 Lab Sample ID: 240-118610-16

Matrix: Water Lab File ID: U1909722.d

Analysis Method: 8260C Date Collected: 09/09/2019 12:23

Sample wt/vol: 5(mL) Date Analyzed: 09/13/2019 23:51

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.: 400639 Units: ug/L

Number TICs Found: 0 TIC Result Total: 0

CAS NO.	COMPOUND NAME	RT	RESULT	Q	MATCH QUALITY
	Tentatively Identified Compound		None		

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET
TARGETED TENATIVELY IDENTIFIED COMPOUNDS

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-118610-1

SDG No.:

Client Sample ID: MSA-SW40D-090919 Lab Sample ID: 240-118610-16

Matrix: Water Lab File ID: U1909722.d

Analysis Method: 8260C Date Collected: 09/09/2019 12:23

Sample wt/vol: 5(mL) Date Analyzed: 09/13/2019 23:51

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.: 400639 Units: ug/L

CAS NO.	COMPOUND NAME	RT	RESULT	Q	MATCH QUALITY
75-45-6	Chlorodifluoromethane TIC		1.0	U	

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-118610-1

SDG No.:

Client Sample ID: MSA-SW41A-090919 Lab Sample ID: 240-118610-17

Matrix: Water Lab File ID: U1909723.d

Analysis Method: 8260C Date Collected: 09/09/2019 11:29

Sample wt/vol: 5(mL) Date Analyzed: 09/14/2019 00:14

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.: 400639 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
630-20-6	1,1,1,2-Tetrachloroethane	1.0	U	1.0	0.14
71-55-6	1,1,1-Trichloroethane	1.0	U	1.0	0.24
79-34-5	1,1,2,2-Tetrachloroethane	1.0	U	1.0	0.13
76-13-1	1,1,2-Trichloro-1,2,2-trichfluoroeth ane	1.0	U	1.0	0.41
75-34-3	1,1-Dichloroethane	1.0	U	1.0	0.17
75-35-4	1,1-Dichloroethene	1.0	U	1.0	0.19
563-58-6	1,1-Dichloropropene	1.0	U	1.0	0.14
87-61-6	1,2,3-Trichlorobenzene	1.0	U	1.0	0.54
96-18-4	1,2,3-Trichloropropane	1.0	U	1.0	0.24
526-73-8	1,2,3-Trimethylbenzene	5.0	U	5.0	0.14
120-82-1	1,2,4-Trichlorobenzene	1.0	U	1.0	0.26
95-63-6	1,2,4-Trimethylbenzene	1.0	U	1.0	0.070
96-12-8	1,2-Dibromo-3-Chloropropane	5.0	U	5.0	0.91
95-50-1	1,2-Dichlorobenzene	1.0	U	1.0	0.15
107-06-2	1,2-Dichloroethane	1.0	U	1.0	0.21
78-87-5	1,2-Dichloropropane	1.0	U	1.0	0.15
541-73-1	1,3-Dichlorobenzene	1.0	U	1.0	0.15
142-28-9	1,3-Dichloropropane	1.0	U	1.0	0.21
106-46-7	1,4-Dichlorobenzene	1.0	U	1.0	0.16
594-20-7	2,2-Dichloropropane	1.0	U	1.0	0.31
110-75-8	2-Chloroethyl vinyl ether	10	U	10	0.26
95-49-8	2-Chlorotoluene	1.0	U	1.0	0.15
591-78-6	2-Hexanone	5.0	U	5.0	0.54
108-86-1	Bromobenzene	1.0	U	1.0	0.12
74-97-5	Bromochloromethane	1.0	U	1.0	0.14
106-43-4	4-Chlorotoluene	1.0	U	1.0	0.090
99-87-6	p-Isopropyltoluene	1.0	U	1.0	0.13
67-64-1	Acetone	5.0	U	5.0	5.4
71-43-2	Benzene	1.0	U	1.0	0.13
75-25-2	Bromoform	1.0	U	1.0	0.76
74-83-9	Bromomethane	1.0	U	1.0	0.42
75-15-0	Carbon disulfide	1.0	U	1.0	0.28
56-23-5	Carbon tetrachloride	1.0	U	1.0	0.26
108-90-7	Chlorobenzene	1.0	U	1.0	0.14
75-00-3	Chloroethane	1.0	U	1.0	0.83

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-118610-1

SDG No.:

Client Sample ID: MSA-SW41A-090919 Lab Sample ID: 240-118610-17

Matrix: Water Lab File ID: U1909723.d

Analysis Method: 8260C Date Collected: 09/09/2019 11:29

Sample wt/vol: 5(mL) Date Analyzed: 09/14/2019 00:14

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.: 400639 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
67-66-3	Chloroform	1.0	U	1.0	0.13
74-87-3	Chloromethane	1.0	U	1.0	0.20
156-59-2	cis-1,2-Dichloroethene	1.0	U	1.0	0.16
10061-01-5	cis-1,3-Dichloropropene	1.0	U	1.0	0.61
87-68-3	Hexachlorobutadiene	1.0	U	1.0	0.83
74-95-3	Dibromomethane	1.0	U	1.0	0.090
75-27-4	Bromodichloromethane	1.0	U	1.0	0.17
75-71-8	Dichlorodifluoromethane	1.0	U	1.0	0.35
100-41-4	Ethylbenzene	1.0	U	1.0	0.11
106-93-4	1,2-Dibromoethane	1.0	U	1.0	0.12
108-20-3	Diisopropyl ether	5.0	U	5.0	0.17
91-20-3	Naphthalene	1.0	U	1.0	0.32
179601-23-1	m-Xylene & p-Xylene	2.0	U	2.0	0.080
104-51-8	n-Butylbenzene	1.0	U	1.0	0.14
98-82-8	Isopropylbenzene	1.0	U	1.0	0.090
103-65-1	n-Propylbenzene	1.0	U	1.0	0.15
78-93-3	2-Butanone	5.0	U	5.0	1.2
108-10-1	4-Methyl-2-pentanone	5.0	U	5.0	0.42
135-98-8	sec-Butylbenzene	1.0	U	1.0	0.13
1634-04-4	Methyl tert-butyl ether	1.0	U	1.0	0.070
994-05-8	Tert-amyl-methyl ether (TAME)	5.0	U	5.0	0.11
75-09-2	Methylene Chloride	5.0	U	5.0	2.6
95-47-6	o-Xylene	1.0	U	1.0	0.090
100-42-5	Styrene	1.0	U	1.0	0.10
637-92-3	Ethyl-t-butyl ether (ETBE)	5.0	U	5.0	0.15
98-06-6	tert-Butylbenzene	1.0	U	1.0	0.14
127-18-4	Tetrachloroethene	1.0	U	1.0	0.15
108-88-3	Toluene	1.0	U	1.0	0.14
156-60-5	trans-1,2-Dichloroethene	1.0	U	1.0	0.19
10061-02-6	trans-1,3-Dichloropropene	1.0	U	1.0	0.67
79-01-6	Trichloroethene	1.0	U	1.0	0.10
75-69-4	Trichlorofluoromethane	1.0	U	1.0	0.45
108-05-4	Vinyl acetate	2.0	U	2.0	0.19
75-01-4	Vinyl chloride	0.50	U	0.50	0.20
75-65-0	tert-Butyl alcohol	20	U	20	1.7
1330-20-7	Xylenes, Total	2.0	U	2.0	0.15

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-118610-1

SDG No.:

Client Sample ID: MSA-SW41A-090919 Lab Sample ID: 240-118610-17

Matrix: Water Lab File ID: U1909723.d

Analysis Method: 8260C Date Collected: 09/09/2019 11:29

Sample wt/vol: 5(mL) Date Analyzed: 09/14/2019 00:14

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.: 400639 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
124-48-1	Dibromochloromethane	1.0	U	1.0	0.39

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	117		70-121
460-00-4	4-Bromofluorobenzene (Surr)	92		59-120
2037-26-5	Toluene-d8 (Surr)	102		70-123
1868-53-7	Dibromofluoromethane (Surr)	112		75-128

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-118610-1

SDG No.:

Client Sample ID: MSA-SW41A-090919 Lab Sample ID: 240-118610-17

Matrix: Water Lab File ID: U1909723.d

Analysis Method: 8260C Date Collected: 09/09/2019 11:29

Sample wt/vol: 5(mL) Date Analyzed: 09/14/2019 00:14

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.: 400639 Units: ug/L

Number TICs Found: 0 TIC Result Total: 0

CAS NO.	COMPOUND NAME	RT	RESULT	Q	MATCH QUALITY
	Tentatively Identified Compound		None		

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET
TARGETED TENATIVELY IDENTIFIED COMPOUNDS

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-118610-1

SDG No.:

Client Sample ID: MSA-SW41A-090919 Lab Sample ID: 240-118610-17

Matrix: Water Lab File ID: U1909723.d

Analysis Method: 8260C Date Collected: 09/09/2019 11:29

Sample wt/vol: 5(mL) Date Analyzed: 09/14/2019 00:14

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.: 400639 Units: ug/L

CAS NO.	COMPOUND NAME	RT	RESULT	Q	MATCH QUALITY
75-45-6	Chlorodifluoromethane TIC		1.0	U	

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-118610-1

SDG No.:

Client Sample ID: MSA-SW41B-090919 Lab Sample ID: 240-118610-18

Matrix: Water Lab File ID: U1909724.d

Analysis Method: 8260C Date Collected: 09/09/2019 11:32

Sample wt/vol: 5(mL) Date Analyzed: 09/14/2019 00:36

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.: 400639 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
630-20-6	1,1,1,2-Tetrachloroethane	1.0	U	1.0	0.14
71-55-6	1,1,1-Trichloroethane	1.0	U	1.0	0.24
79-34-5	1,1,2,2-Tetrachloroethane	1.0	U	1.0	0.13
76-13-1	1,1,2-Trichloro-1,2,2-trichfluoroeth ane	1.0	U	1.0	0.41
75-34-3	1,1-Dichloroethane	1.0	U	1.0	0.17
75-35-4	1,1-Dichloroethene	1.0	U	1.0	0.19
563-58-6	1,1-Dichloropropene	1.0	U	1.0	0.14
87-61-6	1,2,3-Trichlorobenzene	1.0	U	1.0	0.54
96-18-4	1,2,3-Trichloropropane	1.0	U	1.0	0.24
526-73-8	1,2,3-Trimethylbenzene	5.0	U	5.0	0.14
120-82-1	1,2,4-Trichlorobenzene	1.0	U	1.0	0.26
95-63-6	1,2,4-Trimethylbenzene	1.0	U	1.0	0.070
96-12-8	1,2-Dibromo-3-Chloropropane	5.0	U	5.0	0.91
95-50-1	1,2-Dichlorobenzene	1.0	U	1.0	0.15
107-06-2	1,2-Dichloroethane	1.0	U	1.0	0.21
78-87-5	1,2-Dichloropropane	1.0	U	1.0	0.15
541-73-1	1,3-Dichlorobenzene	1.0	U	1.0	0.15
142-28-9	1,3-Dichloropropane	1.0	U	1.0	0.21
106-46-7	1,4-Dichlorobenzene	1.0	U	1.0	0.16
594-20-7	2,2-Dichloropropane	1.0	U	1.0	0.31
110-75-8	2-Chloroethyl vinyl ether	10	U	10	0.26
95-49-8	2-Chlorotoluene	1.0	U	1.0	0.15
591-78-6	2-Hexanone	5.0	U	5.0	0.54
108-86-1	Bromobenzene	1.0	U	1.0	0.12
74-97-5	Bromochloromethane	1.0	U	1.0	0.14
106-43-4	4-Chlorotoluene	1.0	U	1.0	0.090
99-87-6	p-Isopropyltoluene	1.0	U	1.0	0.13
67-64-1	Acetone	5.0	U	5.0	5.4
71-43-2	Benzene	1.0	U	1.0	0.13
75-25-2	Bromoform	1.0	U	1.0	0.76
74-83-9	Bromomethane	1.0	U	1.0	0.42
75-15-0	Carbon disulfide	1.0	U	1.0	0.28
56-23-5	Carbon tetrachloride	1.0	U	1.0	0.26
108-90-7	Chlorobenzene	1.0	U	1.0	0.14
75-00-3	Chloroethane	1.0	U	1.0	0.83

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-118610-1

SDG No.:

Client Sample ID: MSA-SW41B-090919 Lab Sample ID: 240-118610-18

Matrix: Water Lab File ID: U1909724.d

Analysis Method: 8260C Date Collected: 09/09/2019 11:32

Sample wt/vol: 5(mL) Date Analyzed: 09/14/2019 00:36

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.: 400639 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
67-66-3	Chloroform	1.0	U	1.0	0.13
74-87-3	Chloromethane	1.0	U	1.0	0.20
156-59-2	cis-1,2-Dichloroethene	1.0	U	1.0	0.16
10061-01-5	cis-1,3-Dichloropropene	1.0	U	1.0	0.61
87-68-3	Hexachlorobutadiene	1.0	U	1.0	0.83
74-95-3	Dibromomethane	1.0	U	1.0	0.090
75-27-4	Bromodichloromethane	1.0	U	1.0	0.17
75-71-8	Dichlorodifluoromethane	1.0	U	1.0	0.35
100-41-4	Ethylbenzene	1.0	U	1.0	0.11
106-93-4	1,2-Dibromoethane	1.0	U	1.0	0.12
108-20-3	Diisopropyl ether	5.0	U	5.0	0.17
91-20-3	Naphthalene	1.0	U	1.0	0.32
179601-23-1	m-Xylene & p-Xylene	2.0	U	2.0	0.080
104-51-8	n-Butylbenzene	1.0	U	1.0	0.14
98-82-8	Isopropylbenzene	1.0	U	1.0	0.090
103-65-1	n-Propylbenzene	1.0	U	1.0	0.15
78-93-3	2-Butanone	5.0	U	5.0	1.2
108-10-1	4-Methyl-2-pentanone	5.0	U	5.0	0.42
135-98-8	sec-Butylbenzene	1.0	U	1.0	0.13
1634-04-4	Methyl tert-butyl ether	1.0	U	1.0	0.070
994-05-8	Tert-amyl-methyl ether (TAME)	5.0	U	5.0	0.11
75-09-2	Methylene Chloride	5.0	U	5.0	2.6
95-47-6	o-Xylene	1.0	U	1.0	0.090
100-42-5	Styrene	1.0	U	1.0	0.10
637-92-3	Ethyl-t-butyl ether (ETBE)	5.0	U	5.0	0.15
98-06-6	tert-Butylbenzene	1.0	U	1.0	0.14
127-18-4	Tetrachloroethene	1.0	U	1.0	0.15
108-88-3	Toluene	1.0	U	1.0	0.14
156-60-5	trans-1,2-Dichloroethene	1.0	U	1.0	0.19
10061-02-6	trans-1,3-Dichloropropene	1.0	U	1.0	0.67
79-01-6	Trichloroethene	1.0	U	1.0	0.10
75-69-4	Trichlorofluoromethane	1.0	U	1.0	0.45
108-05-4	Vinyl acetate	2.0	U	2.0	0.19
75-01-4	Vinyl chloride	0.50	U	0.50	0.20
75-65-0	tert-Butyl alcohol	20	U	20	1.7
1330-20-7	Xylenes, Total	2.0	U	2.0	0.15

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-118610-1

SDG No.:

Client Sample ID: MSA-SW41B-090919 Lab Sample ID: 240-118610-18

Matrix: Water Lab File ID: U1909724.d

Analysis Method: 8260C Date Collected: 09/09/2019 11:32

Sample wt/vol: 5(mL) Date Analyzed: 09/14/2019 00:36

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.: 400639 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
124-48-1	Dibromochloromethane	1.0	U	1.0	0.39

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	114		70-121
460-00-4	4-Bromofluorobenzene (Surr)	92		59-120
2037-26-5	Toluene-d8 (Surr)	100		70-123
1868-53-7	Dibromofluoromethane (Surr)	111		75-128

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-118610-1

SDG No.:

Client Sample ID: MSA-SW41B-090919 Lab Sample ID: 240-118610-18

Matrix: Water Lab File ID: U1909724.d

Analysis Method: 8260C Date Collected: 09/09/2019 11:32

Sample wt/vol: 5(mL) Date Analyzed: 09/14/2019 00:36

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.: 400639 Units: ug/L

Number TICs Found: 0 TIC Result Total: 0

CAS NO.	COMPOUND NAME	RT	RESULT	Q	MATCH QUALITY
	Tentatively Identified Compound		None		

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET
TARGETED TENATIVELY IDENTIFIED COMPOUNDS

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-118610-1

SDG No.:

Client Sample ID: MSA-SW41B-090919 Lab Sample ID: 240-118610-18

Matrix: Water Lab File ID: U1909724.d

Analysis Method: 8260C Date Collected: 09/09/2019 11:32

Sample wt/vol: 5(mL) Date Analyzed: 09/14/2019 00:36

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.: 400639 Units: ug/L

CAS NO.	COMPOUND NAME	RT	RESULT	Q	MATCH QUALITY
75-45-6	Chlorodifluoromethane TIC		1.0	U	

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-118610-1

SDG No.:

Client Sample ID: MSA-SW41C-090919 Lab Sample ID: 240-118610-19

Matrix: Water Lab File ID: U1909725.d

Analysis Method: 8260C Date Collected: 09/09/2019 11:36

Sample wt/vol: 5(mL) Date Analyzed: 09/14/2019 00:59

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.: 400639 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
630-20-6	1,1,1,2-Tetrachloroethane	1.0	U	1.0	0.14
71-55-6	1,1,1-Trichloroethane	1.0	U	1.0	0.24
79-34-5	1,1,2,2-Tetrachloroethane	1.0	U	1.0	0.13
76-13-1	1,1,2-Trichloro-1,2,2-trichfluoroeth ane	1.0	U	1.0	0.41
75-34-3	1,1-Dichloroethane	1.0	U	1.0	0.17
75-35-4	1,1-Dichloroethene	1.0	U	1.0	0.19
563-58-6	1,1-Dichloropropene	1.0	U	1.0	0.14
87-61-6	1,2,3-Trichlorobenzene	1.0	U	1.0	0.54
96-18-4	1,2,3-Trichloropropane	1.0	U	1.0	0.24
526-73-8	1,2,3-Trimethylbenzene	5.0	U	5.0	0.14
120-82-1	1,2,4-Trichlorobenzene	1.0	U	1.0	0.26
95-63-6	1,2,4-Trimethylbenzene	1.0	U	1.0	0.070
96-12-8	1,2-Dibromo-3-Chloropropane	5.0	U	5.0	0.91
95-50-1	1,2-Dichlorobenzene	1.0	U	1.0	0.15
107-06-2	1,2-Dichloroethane	1.0	U	1.0	0.21
78-87-5	1,2-Dichloropropane	1.0	U	1.0	0.15
541-73-1	1,3-Dichlorobenzene	1.0	U	1.0	0.15
142-28-9	1,3-Dichloropropane	1.0	U	1.0	0.21
106-46-7	1,4-Dichlorobenzene	1.0	U	1.0	0.16
594-20-7	2,2-Dichloropropane	1.0	U	1.0	0.31
110-75-8	2-Chloroethyl vinyl ether	10	U	10	0.26
95-49-8	2-Chlorotoluene	1.0	U	1.0	0.15
591-78-6	2-Hexanone	5.0	U	5.0	0.54
108-86-1	Bromobenzene	1.0	U	1.0	0.12
74-97-5	Bromochloromethane	1.0	U	1.0	0.14
106-43-4	4-Chlorotoluene	1.0	U	1.0	0.090
99-87-6	p-Isopropyltoluene	1.0	U	1.0	0.13
67-64-1	Acetone	5.0	U	5.0	5.4
71-43-2	Benzene	1.0	U	1.0	0.13
75-25-2	Bromoform	1.0	U	1.0	0.76
74-83-9	Bromomethane	1.0	U	1.0	0.42
75-15-0	Carbon disulfide	1.0	U	1.0	0.28
56-23-5	Carbon tetrachloride	1.0	U	1.0	0.26
108-90-7	Chlorobenzene	1.0	U	1.0	0.14
75-00-3	Chloroethane	1.0	U	1.0	0.83

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-118610-1

SDG No.:

Client Sample ID: MSA-SW41C-090919 Lab Sample ID: 240-118610-19

Matrix: Water Lab File ID: U1909725.d

Analysis Method: 8260C Date Collected: 09/09/2019 11:36

Sample wt/vol: 5(mL) Date Analyzed: 09/14/2019 00:59

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.: 400639 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
67-66-3	Chloroform	1.0	U	1.0	0.13
74-87-3	Chloromethane	1.0	U	1.0	0.20
156-59-2	cis-1,2-Dichloroethene	1.0	U	1.0	0.16
10061-01-5	cis-1,3-Dichloropropene	1.0	U	1.0	0.61
87-68-3	Hexachlorobutadiene	1.0	U	1.0	0.83
74-95-3	Dibromomethane	1.0	U	1.0	0.090
75-27-4	Bromodichloromethane	1.0	U	1.0	0.17
75-71-8	Dichlorodifluoromethane	1.0	U	1.0	0.35
100-41-4	Ethylbenzene	1.0	U	1.0	0.11
106-93-4	1,2-Dibromoethane	1.0	U	1.0	0.12
108-20-3	Diisopropyl ether	5.0	U	5.0	0.17
91-20-3	Naphthalene	1.0	U	1.0	0.32
179601-23-1	m-Xylene & p-Xylene	2.0	U	2.0	0.080
104-51-8	n-Butylbenzene	1.0	U	1.0	0.14
98-82-8	Isopropylbenzene	1.0	U	1.0	0.090
103-65-1	n-Propylbenzene	1.0	U	1.0	0.15
78-93-3	2-Butanone	5.0	U	5.0	1.2
108-10-1	4-Methyl-2-pentanone	5.0	U	5.0	0.42
135-98-8	sec-Butylbenzene	1.0	U	1.0	0.13
1634-04-4	Methyl tert-butyl ether	1.0	U	1.0	0.070
994-05-8	Tert-amyl-methyl ether (TAME)	5.0	U	5.0	0.11
75-09-2	Methylene Chloride	5.0	U	5.0	2.6
95-47-6	o-Xylene	1.0	U	1.0	0.090
100-42-5	Styrene	1.0	U	1.0	0.10
637-92-3	Ethyl-t-butyl ether (ETBE)	5.0	U	5.0	0.15
98-06-6	tert-Butylbenzene	1.0	U	1.0	0.14
127-18-4	Tetrachloroethene	1.0	U	1.0	0.15
108-88-3	Toluene	1.0	U	1.0	0.14
156-60-5	trans-1,2-Dichloroethene	1.0	U	1.0	0.19
10061-02-6	trans-1,3-Dichloropropene	1.0	U	1.0	0.67
79-01-6	Trichloroethene	1.0	U	1.0	0.10
75-69-4	Trichlorofluoromethane	1.0	U	1.0	0.45
108-05-4	Vinyl acetate	2.0	U	2.0	0.19
75-01-4	Vinyl chloride	0.50	U	0.50	0.20
75-65-0	tert-Butyl alcohol	20	U	20	1.7
1330-20-7	Xylenes, Total	2.0	U	2.0	0.15

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-118610-1

SDG No.:

Client Sample ID: MSA-SW41C-090919 Lab Sample ID: 240-118610-19

Matrix: Water Lab File ID: U1909725.d

Analysis Method: 8260C Date Collected: 09/09/2019 11:36

Sample wt/vol: 5(mL) Date Analyzed: 09/14/2019 00:59

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.: 400639 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
124-48-1	Dibromochloromethane	1.0	U	1.0	0.39

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	116		70-121
460-00-4	4-Bromofluorobenzene (Surr)	95		59-120
2037-26-5	Toluene-d8 (Surr)	103		70-123
1868-53-7	Dibromofluoromethane (Surr)	114		75-128

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-118610-1

SDG No.:

Client Sample ID: MSA-SW41C-090919 Lab Sample ID: 240-118610-19

Matrix: Water Lab File ID: U1909725.d

Analysis Method: 8260C Date Collected: 09/09/2019 11:36

Sample wt/vol: 5(mL) Date Analyzed: 09/14/2019 00:59

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.: 400639 Units: ug/L

Number TICs Found: 0 TIC Result Total: 0

CAS NO.	COMPOUND NAME	RT	RESULT	Q	MATCH QUALITY
	Tentatively Identified Compound		None		

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET
TARGETED TENATIVELY IDENTIFIED COMPOUNDS

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-118610-1

SDG No.:

Client Sample ID: MSA-SW41C-090919 Lab Sample ID: 240-118610-19

Matrix: Water Lab File ID: U1909725.d

Analysis Method: 8260C Date Collected: 09/09/2019 11:36

Sample wt/vol: 5(mL) Date Analyzed: 09/14/2019 00:59

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.: 400639 Units: ug/L

CAS NO.	COMPOUND NAME	RT	RESULT	Q	MATCH QUALITY
75-45-6	Chlorodifluoromethane TIC		1.0	U	

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-118610-1

SDG No.:

Client Sample ID: MSA-SW41D-090919 Lab Sample ID: 240-118610-20

Matrix: Water Lab File ID: U1909726.d

Analysis Method: 8260C Date Collected: 09/09/2019 11:41

Sample wt/vol: 5(mL) Date Analyzed: 09/14/2019 01:22

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.: 400639 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
630-20-6	1,1,1,2-Tetrachloroethane	1.0	U	1.0	0.14
71-55-6	1,1,1-Trichloroethane	1.0	U	1.0	0.24
79-34-5	1,1,2,2-Tetrachloroethane	1.0	U	1.0	0.13
76-13-1	1,1,2-Trichloro-1,2,2-trichfluoroeth ane	1.0	U	1.0	0.41
75-34-3	1,1-Dichloroethane	1.0	U	1.0	0.17
75-35-4	1,1-Dichloroethene	1.0	U	1.0	0.19
563-58-6	1,1-Dichloropropene	1.0	U	1.0	0.14
87-61-6	1,2,3-Trichlorobenzene	1.0	U	1.0	0.54
96-18-4	1,2,3-Trichloropropane	1.0	U	1.0	0.24
526-73-8	1,2,3-Trimethylbenzene	5.0	U	5.0	0.14
120-82-1	1,2,4-Trichlorobenzene	1.0	U	1.0	0.26
95-63-6	1,2,4-Trimethylbenzene	1.0	U	1.0	0.070
96-12-8	1,2-Dibromo-3-Chloropropane	5.0	U	5.0	0.91
95-50-1	1,2-Dichlorobenzene	1.0	U	1.0	0.15
107-06-2	1,2-Dichloroethane	1.0	U	1.0	0.21
78-87-5	1,2-Dichloropropane	1.0	U	1.0	0.15
541-73-1	1,3-Dichlorobenzene	1.0	U	1.0	0.15
142-28-9	1,3-Dichloropropane	1.0	U	1.0	0.21
106-46-7	1,4-Dichlorobenzene	1.0	U	1.0	0.16
594-20-7	2,2-Dichloropropane	1.0	U	1.0	0.31
110-75-8	2-Chloroethyl vinyl ether	10	U	10	0.26
95-49-8	2-Chlorotoluene	1.0	U	1.0	0.15
591-78-6	2-Hexanone	5.0	U	5.0	0.54
108-86-1	Bromobenzene	1.0	U	1.0	0.12
74-97-5	Bromochloromethane	1.0	U	1.0	0.14
106-43-4	4-Chlorotoluene	1.0	U	1.0	0.090
99-87-6	p-Isopropyltoluene	1.0	U	1.0	0.13
67-64-1	Acetone	5.0	U	5.0	5.4
71-43-2	Benzene	1.0	U	1.0	0.13
75-25-2	Bromoform	1.0	U	1.0	0.76
74-83-9	Bromomethane	1.0	U	1.0	0.42
75-15-0	Carbon disulfide	1.0	U	1.0	0.28
56-23-5	Carbon tetrachloride	1.0	U	1.0	0.26
108-90-7	Chlorobenzene	1.0	U	1.0	0.14
75-00-3	Chloroethane	1.0	U	1.0	0.83

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-118610-1

SDG No.:

Client Sample ID: MSA-SW41D-090919 Lab Sample ID: 240-118610-20

Matrix: Water Lab File ID: U1909726.d

Analysis Method: 8260C Date Collected: 09/09/2019 11:41

Sample wt/vol: 5(mL) Date Analyzed: 09/14/2019 01:22

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.: 400639 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
67-66-3	Chloroform	1.0	U	1.0	0.13
74-87-3	Chloromethane	1.0	U	1.0	0.20
156-59-2	cis-1,2-Dichloroethene	1.0	U	1.0	0.16
10061-01-5	cis-1,3-Dichloropropene	1.0	U	1.0	0.61
87-68-3	Hexachlorobutadiene	1.0	U	1.0	0.83
74-95-3	Dibromomethane	1.0	U	1.0	0.090
75-27-4	Bromodichloromethane	1.0	U	1.0	0.17
75-71-8	Dichlorodifluoromethane	1.0	U	1.0	0.35
100-41-4	Ethylbenzene	1.0	U	1.0	0.11
106-93-4	1,2-Dibromoethane	1.0	U	1.0	0.12
108-20-3	Diisopropyl ether	5.0	U	5.0	0.17
91-20-3	Naphthalene	1.0	U	1.0	0.32
179601-23-1	m-Xylene & p-Xylene	2.0	U	2.0	0.080
104-51-8	n-Butylbenzene	1.0	U	1.0	0.14
98-82-8	Isopropylbenzene	1.0	U	1.0	0.090
103-65-1	n-Propylbenzene	1.0	U	1.0	0.15
78-93-3	2-Butanone	5.0	U	5.0	1.2
108-10-1	4-Methyl-2-pentanone	5.0	U	5.0	0.42
135-98-8	sec-Butylbenzene	1.0	U	1.0	0.13
1634-04-4	Methyl tert-butyl ether	1.0	U	1.0	0.070
994-05-8	Tert-amyl-methyl ether (TAME)	5.0	U	5.0	0.11
75-09-2	Methylene Chloride	5.0	U	5.0	2.6
95-47-6	o-Xylene	1.0	U	1.0	0.090
100-42-5	Styrene	1.0	U	1.0	0.10
637-92-3	Ethyl-t-butyl ether (ETBE)	5.0	U	5.0	0.15
98-06-6	tert-Butylbenzene	1.0	U	1.0	0.14
127-18-4	Tetrachloroethene	1.0	U	1.0	0.15
108-88-3	Toluene	1.0	U	1.0	0.14
156-60-5	trans-1,2-Dichloroethene	1.0	U	1.0	0.19
10061-02-6	trans-1,3-Dichloropropene	1.0	U	1.0	0.67
79-01-6	Trichloroethene	1.0	U	1.0	0.10
75-69-4	Trichlorofluoromethane	1.0	U	1.0	0.45
108-05-4	Vinyl acetate	2.0	U	2.0	0.19
75-01-4	Vinyl chloride	0.50	U	0.50	0.20
75-65-0	tert-Butyl alcohol	20	U	20	1.7
1330-20-7	Xylenes, Total	2.0	U	2.0	0.15

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-118610-1

SDG No.:

Client Sample ID: MSA-SW41D-090919 Lab Sample ID: 240-118610-20

Matrix: Water Lab File ID: U1909726.d

Analysis Method: 8260C Date Collected: 09/09/2019 11:41

Sample wt/vol: 5(mL) Date Analyzed: 09/14/2019 01:22

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.: 400639 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
124-48-1	Dibromochloromethane	1.0	U	1.0	0.39

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	117		70-121
460-00-4	4-Bromofluorobenzene (Surr)	93		59-120
2037-26-5	Toluene-d8 (Surr)	99		70-123
1868-53-7	Dibromofluoromethane (Surr)	117		75-128

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-118610-1

SDG No.:

Client Sample ID: MSA-SW41D-090919 Lab Sample ID: 240-118610-20

Matrix: Water Lab File ID: U1909726.d

Analysis Method: 8260C Date Collected: 09/09/2019 11:41

Sample wt/vol: 5(mL) Date Analyzed: 09/14/2019 01:22

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.: 400639 Units: ug/L

Number TICs Found: 0 TIC Result Total: 0

CAS NO.	COMPOUND NAME	RT	RESULT	Q	MATCH QUALITY
	Tentatively Identified Compound		None		

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET
TARGETED TENATIVELY IDENTIFIED COMPOUNDS

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-118610-1

SDG No.:

Client Sample ID: MSA-SW41D-090919 Lab Sample ID: 240-118610-20

Matrix: Water Lab File ID: U1909726.d

Analysis Method: 8260C Date Collected: 09/09/2019 11:41

Sample wt/vol: 5(mL) Date Analyzed: 09/14/2019 01:22

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.: 400639 Units: ug/L

CAS NO.	COMPOUND NAME	RT	RESULT	Q	MATCH QUALITY
75-45-6	Chlorodifluoromethane TIC		1.0	U	

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-118610-1

SDG No.:

Client Sample ID: MSA-SW42A-090919 Lab Sample ID: 240-118610-21

Matrix: Water Lab File ID: U1909733.d

Analysis Method: 8260C Date Collected: 09/09/2019 12:30

Sample wt/vol: 5(mL) Date Analyzed: 09/14/2019 14:16

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.: 400715 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
630-20-6	1,1,1,2-Tetrachloroethane	1.0	U	1.0	0.14
71-55-6	1,1,1-Trichloroethane	1.0	U	1.0	0.24
79-34-5	1,1,2,2-Tetrachloroethane	1.0	U	1.0	0.13
76-13-1	1,1,2-Trichloro-1,2,2-trichfluoroeth ane	1.0	U	1.0	0.41
75-34-3	1,1-Dichloroethane	1.0	U	1.0	0.17
75-35-4	1,1-Dichloroethene	1.0	U	1.0	0.19
563-58-6	1,1-Dichloropropene	1.0	U	1.0	0.14
87-61-6	1,2,3-Trichlorobenzene	1.0	U	1.0	0.54
96-18-4	1,2,3-Trichloropropane	1.0	U	1.0	0.24
526-73-8	1,2,3-Trimethylbenzene	5.0	U	5.0	0.14
120-82-1	1,2,4-Trichlorobenzene	1.0	U	1.0	0.26
95-63-6	1,2,4-Trimethylbenzene	1.0	U	1.0	0.070
96-12-8	1,2-Dibromo-3-Chloropropane	5.0	U	5.0	0.91
95-50-1	1,2-Dichlorobenzene	1.0	U	1.0	0.15
107-06-2	1,2-Dichloroethane	1.0	U	1.0	0.21
78-87-5	1,2-Dichloropropane	1.0	U	1.0	0.15
541-73-1	1,3-Dichlorobenzene	1.0	U	1.0	0.15
142-28-9	1,3-Dichloropropane	1.0	U	1.0	0.21
106-46-7	1,4-Dichlorobenzene	1.0	U	1.0	0.16
594-20-7	2,2-Dichloropropane	1.0	U	1.0	0.31
110-75-8	2-Chloroethyl vinyl ether	10	U	10	0.26
95-49-8	2-Chlorotoluene	1.0	U	1.0	0.15
591-78-6	2-Hexanone	5.0	U	5.0	0.54
108-86-1	Bromobenzene	1.0	U	1.0	0.12
74-97-5	Bromochloromethane	1.0	U	1.0	0.14
106-43-4	4-Chlorotoluene	1.0	U	1.0	0.090
99-87-6	p-Isopropyltoluene	1.0	U	1.0	0.13
67-64-1	Acetone	5.0	U	5.0	5.4
71-43-2	Benzene	1.0	U	1.0	0.13
75-25-2	Bromoform	1.0	U	1.0	0.76
74-83-9	Bromomethane	1.0	U	1.0	0.42
75-15-0	Carbon disulfide	1.0	U	1.0	0.28
56-23-5	Carbon tetrachloride	1.0	U	1.0	0.26
108-90-7	Chlorobenzene	1.0	U	1.0	0.14
75-00-3	Chloroethane	1.0	U	1.0	0.83

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-118610-1

SDG No.:

Client Sample ID: MSA-SW42A-090919 Lab Sample ID: 240-118610-21

Matrix: Water Lab File ID: U1909733.d

Analysis Method: 8260C Date Collected: 09/09/2019 12:30

Sample wt/vol: 5(mL) Date Analyzed: 09/14/2019 14:16

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.: 400715 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
67-66-3	Chloroform	1.0	U	1.0	0.13
74-87-3	Chloromethane	1.0	U	1.0	0.20
156-59-2	cis-1,2-Dichloroethene	1.0	U	1.0	0.16
10061-01-5	cis-1,3-Dichloropropene	1.0	U	1.0	0.61
87-68-3	Hexachlorobutadiene	1.0	U	1.0	0.83
74-95-3	Dibromomethane	1.0	U	1.0	0.090
75-27-4	Bromodichloromethane	1.0	U	1.0	0.17
75-71-8	Dichlorodifluoromethane	1.0	U	1.0	0.35
100-41-4	Ethylbenzene	1.0	U	1.0	0.11
106-93-4	1,2-Dibromoethane	1.0	U	1.0	0.12
108-20-3	Diisopropyl ether	5.0	U	5.0	0.17
91-20-3	Naphthalene	1.0	U	1.0	0.32
179601-23-1	m-Xylene & p-Xylene	2.0	U	2.0	0.080
104-51-8	n-Butylbenzene	1.0	U	1.0	0.14
98-82-8	Isopropylbenzene	1.0	U	1.0	0.090
103-65-1	n-Propylbenzene	1.0	U	1.0	0.15
78-93-3	2-Butanone	5.0	U	5.0	1.2
108-10-1	4-Methyl-2-pentanone	5.0	U	5.0	0.42
135-98-8	sec-Butylbenzene	1.0	U	1.0	0.13
1634-04-4	Methyl tert-butyl ether	1.0	U	1.0	0.070
994-05-8	Tert-amyl-methyl ether (TAME)	5.0	U	5.0	0.11
75-09-2	Methylene Chloride	5.0	U	5.0	2.6
95-47-6	o-Xylene	1.0	U	1.0	0.090
100-42-5	Styrene	1.0	U	1.0	0.10
637-92-3	Ethyl-t-butyl ether (ETBE)	5.0	U	5.0	0.15
98-06-6	tert-Butylbenzene	1.0	U	1.0	0.14
127-18-4	Tetrachloroethene	1.0	U	1.0	0.15
108-88-3	Toluene	1.0	U	1.0	0.14
156-60-5	trans-1,2-Dichloroethene	1.0	U	1.0	0.19
10061-02-6	trans-1,3-Dichloropropene	1.0	U	1.0	0.67
79-01-6	Trichloroethene	1.0	U	1.0	0.10
75-69-4	Trichlorofluoromethane	1.0	U	1.0	0.45
108-05-4	Vinyl acetate	2.0	U	2.0	0.19
75-01-4	Vinyl chloride	0.50	U	0.50	0.20
75-65-0	tert-Butyl alcohol	20	U	20	1.7
1330-20-7	Xylenes, Total	2.0	U	2.0	0.15

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-118610-1

SDG No.:

Client Sample ID: MSA-SW42A-090919 Lab Sample ID: 240-118610-21

Matrix: Water Lab File ID: U1909733.d

Analysis Method: 8260C Date Collected: 09/09/2019 12:30

Sample wt/vol: 5(mL) Date Analyzed: 09/14/2019 14:16

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.: 400715 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
124-48-1	Dibromochloromethane	1.0	U	1.0	0.39

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	116		70-121
460-00-4	4-Bromofluorobenzene (Surr)	91		59-120
2037-26-5	Toluene-d8 (Surr)	102		70-123
1868-53-7	Dibromofluoromethane (Surr)	114		75-128

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-118610-1

SDG No.:

Client Sample ID: MSA-SW42A-090919 Lab Sample ID: 240-118610-21

Matrix: Water Lab File ID: U1909733.d

Analysis Method: 8260C Date Collected: 09/09/2019 12:30

Sample wt/vol: 5(mL) Date Analyzed: 09/14/2019 14:16

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.: 400715 Units: ug/L

Number TICs Found: 0 TIC Result Total: 0

CAS NO.	COMPOUND NAME	RT	RESULT	Q	MATCH QUALITY
	Tentatively Identified Compound		None		

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET
TARGETED TENATIVELY IDENTIFIED COMPOUNDS

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-118610-1

SDG No.:

Client Sample ID: MSA-SW42A-090919 Lab Sample ID: 240-118610-21

Matrix: Water Lab File ID: U1909733.d

Analysis Method: 8260C Date Collected: 09/09/2019 12:30

Sample wt/vol: 5(mL) Date Analyzed: 09/14/2019 14:16

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.: 400715 Units: ug/L

CAS NO.	COMPOUND NAME	RT	RESULT	Q	MATCH QUALITY
75-45-6	Chlorodifluoromethane TIC		1.0	U	

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-118610-1

SDG No.:

Client Sample ID: MSA-SW42B-090919 Lab Sample ID: 240-118610-22

Matrix: Water Lab File ID: U1909734.d

Analysis Method: 8260C Date Collected: 09/09/2019 12:32

Sample wt/vol: 5(mL) Date Analyzed: 09/14/2019 14:41

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.: 400715 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
630-20-6	1,1,1,2-Tetrachloroethane	1.0	U	1.0	0.14
71-55-6	1,1,1-Trichloroethane	1.0	U	1.0	0.24
79-34-5	1,1,2,2-Tetrachloroethane	1.0	U	1.0	0.13
76-13-1	1,1,2-Trichloro-1,2,2-trichfluoroeth ane	1.0	U	1.0	0.41
75-34-3	1,1-Dichloroethane	1.0	U	1.0	0.17
75-35-4	1,1-Dichloroethene	1.0	U	1.0	0.19
563-58-6	1,1-Dichloropropene	1.0	U	1.0	0.14
87-61-6	1,2,3-Trichlorobenzene	1.0	U	1.0	0.54
96-18-4	1,2,3-Trichloropropane	1.0	U	1.0	0.24
526-73-8	1,2,3-Trimethylbenzene	5.0	U	5.0	0.14
120-82-1	1,2,4-Trichlorobenzene	1.0	U	1.0	0.26
95-63-6	1,2,4-Trimethylbenzene	1.0	U	1.0	0.070
96-12-8	1,2-Dibromo-3-Chloropropane	5.0	U	5.0	0.91
95-50-1	1,2-Dichlorobenzene	1.0	U	1.0	0.15
107-06-2	1,2-Dichloroethane	1.0	U	1.0	0.21
78-87-5	1,2-Dichloropropane	1.0	U	1.0	0.15
541-73-1	1,3-Dichlorobenzene	1.0	U	1.0	0.15
142-28-9	1,3-Dichloropropane	1.0	U	1.0	0.21
106-46-7	1,4-Dichlorobenzene	1.0	U	1.0	0.16
594-20-7	2,2-Dichloropropane	1.0	U	1.0	0.31
110-75-8	2-Chloroethyl vinyl ether	10	U	10	0.26
95-49-8	2-Chlorotoluene	1.0	U	1.0	0.15
591-78-6	2-Hexanone	5.0	U	5.0	0.54
108-86-1	Bromobenzene	1.0	U	1.0	0.12
74-97-5	Bromochloromethane	1.0	U	1.0	0.14
106-43-4	4-Chlorotoluene	1.0	U	1.0	0.090
99-87-6	p-Isopropyltoluene	1.0	U	1.0	0.13
67-64-1	Acetone	5.0	U	5.0	5.4
71-43-2	Benzene	1.0	U	1.0	0.13
75-25-2	Bromoform	1.0	U	1.0	0.76
74-83-9	Bromomethane	1.0	U	1.0	0.42
75-15-0	Carbon disulfide	1.0	U	1.0	0.28
56-23-5	Carbon tetrachloride	1.0	U	1.0	0.26
108-90-7	Chlorobenzene	1.0	U	1.0	0.14
75-00-3	Chloroethane	1.0	U	1.0	0.83

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-118610-1

SDG No.:

Client Sample ID: MSA-SW42B-090919 Lab Sample ID: 240-118610-22

Matrix: Water Lab File ID: U1909734.d

Analysis Method: 8260C Date Collected: 09/09/2019 12:32

Sample wt/vol: 5(mL) Date Analyzed: 09/14/2019 14:41

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.: 400715 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
67-66-3	Chloroform	1.0	U	1.0	0.13
74-87-3	Chloromethane	1.0	U	1.0	0.20
156-59-2	cis-1,2-Dichloroethene	1.0	U	1.0	0.16
10061-01-5	cis-1,3-Dichloropropene	1.0	U	1.0	0.61
87-68-3	Hexachlorobutadiene	1.0	U	1.0	0.83
74-95-3	Dibromomethane	1.0	U	1.0	0.090
75-27-4	Bromodichloromethane	1.0	U	1.0	0.17
75-71-8	Dichlorodifluoromethane	1.0	U	1.0	0.35
100-41-4	Ethylbenzene	1.0	U	1.0	0.11
106-93-4	1,2-Dibromoethane	1.0	U	1.0	0.12
108-20-3	Diisopropyl ether	5.0	U	5.0	0.17
91-20-3	Naphthalene	1.0	U	1.0	0.32
179601-23-1	m-Xylene & p-Xylene	2.0	U	2.0	0.080
104-51-8	n-Butylbenzene	1.0	U	1.0	0.14
98-82-8	Isopropylbenzene	1.0	U	1.0	0.090
103-65-1	n-Propylbenzene	1.0	U	1.0	0.15
78-93-3	2-Butanone	5.0	U	5.0	1.2
108-10-1	4-Methyl-2-pentanone	5.0	U	5.0	0.42
135-98-8	sec-Butylbenzene	1.0	U	1.0	0.13
1634-04-4	Methyl tert-butyl ether	1.0	U	1.0	0.070
994-05-8	Tert-amyl-methyl ether (TAME)	5.0	U	5.0	0.11
75-09-2	Methylene Chloride	5.0	U	5.0	2.6
95-47-6	o-Xylene	1.0	U	1.0	0.090
100-42-5	Styrene	1.0	U	1.0	0.10
637-92-3	Ethyl-t-butyl ether (ETBE)	5.0	U	5.0	0.15
98-06-6	tert-Butylbenzene	1.0	U	1.0	0.14
127-18-4	Tetrachloroethene	1.0	U	1.0	0.15
108-88-3	Toluene	1.0	U	1.0	0.14
156-60-5	trans-1,2-Dichloroethene	1.0	U	1.0	0.19
10061-02-6	trans-1,3-Dichloropropene	1.0	U	1.0	0.67
79-01-6	Trichloroethene	1.0	U	1.0	0.10
75-69-4	Trichlorofluoromethane	1.0	U	1.0	0.45
108-05-4	Vinyl acetate	2.0	U	2.0	0.19
75-01-4	Vinyl chloride	0.50	U	0.50	0.20
75-65-0	tert-Butyl alcohol	20	U	20	1.7
1330-20-7	Xylenes, Total	2.0	U	2.0	0.15

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-118610-1

SDG No.:

Client Sample ID: MSA-SW42B-090919 Lab Sample ID: 240-118610-22

Matrix: Water Lab File ID: U1909734.d

Analysis Method: 8260C Date Collected: 09/09/2019 12:32

Sample wt/vol: 5(mL) Date Analyzed: 09/14/2019 14:41

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.: 400715 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
124-48-1	Dibromochloromethane	1.0	U	1.0	0.39

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	115		70-121
460-00-4	4-Bromofluorobenzene (Surr)	93		59-120
2037-26-5	Toluene-d8 (Surr)	102		70-123
1868-53-7	Dibromofluoromethane (Surr)	110		75-128

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-118610-1

SDG No.:

Client Sample ID: MSA-SW42B-090919 Lab Sample ID: 240-118610-22

Matrix: Water Lab File ID: U1909734.d

Analysis Method: 8260C Date Collected: 09/09/2019 12:32

Sample wt/vol: 5(mL) Date Analyzed: 09/14/2019 14:41

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.: 400715 Units: ug/L

Number TICs Found: 0 TIC Result Total: 0

CAS NO.	COMPOUND NAME	RT	RESULT	Q	MATCH QUALITY
	Tentatively Identified Compound		None		

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET
TARGETED TENATIVELY IDENTIFIED COMPOUNDS

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-118610-1

SDG No.:

Client Sample ID: MSA-SW42B-090919 Lab Sample ID: 240-118610-22

Matrix: Water Lab File ID: U1909734.d

Analysis Method: 8260C Date Collected: 09/09/2019 12:32

Sample wt/vol: 5(mL) Date Analyzed: 09/14/2019 14:41

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.: 400715 Units: ug/L

CAS NO.	COMPOUND NAME	RT	RESULT	Q	MATCH QUALITY
75-45-6	Chlorodifluoromethane TIC		1.0	U	

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-118610-1

SDG No.:

Client Sample ID: MSA-SW42C-090919 Lab Sample ID: 240-118610-23

Matrix: Water Lab File ID: U1909735.d

Analysis Method: 8260C Date Collected: 09/09/2019 12:36

Sample wt/vol: 5(mL) Date Analyzed: 09/14/2019 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.: 400715 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
630-20-6	1,1,1,2-Tetrachloroethane	1.0	U	1.0	0.14
71-55-6	1,1,1-Trichloroethane	1.0	U	1.0	0.24
79-34-5	1,1,2,2-Tetrachloroethane	1.0	U	1.0	0.13
76-13-1	1,1,2-Trichloro-1,2,2-trichfluoroethane	1.0	U	1.0	0.41
75-34-3	1,1-Dichloroethane	1.0	U	1.0	0.17
75-35-4	1,1-Dichloroethene	1.0	U	1.0	0.19
563-58-6	1,1-Dichloropropene	1.0	U	1.0	0.14
87-61-6	1,2,3-Trichlorobenzene	1.0	U	1.0	0.54
96-18-4	1,2,3-Trichloropropane	1.0	U	1.0	0.24
526-73-8	1,2,3-Trimethylbenzene	5.0	U	5.0	0.14
120-82-1	1,2,4-Trichlorobenzene	1.0	U	1.0	0.26
95-63-6	1,2,4-Trimethylbenzene	1.0	U	1.0	0.070
96-12-8	1,2-Dibromo-3-Chloropropane	5.0	U	5.0	0.91
95-50-1	1,2-Dichlorobenzene	1.0	U	1.0	0.15
107-06-2	1,2-Dichloroethane	1.0	U	1.0	0.21
78-87-5	1,2-Dichloropropane	1.0	U	1.0	0.15
541-73-1	1,3-Dichlorobenzene	1.0	U	1.0	0.15
142-28-9	1,3-Dichloropropane	1.0	U	1.0	0.21
106-46-7	1,4-Dichlorobenzene	1.0	U	1.0	0.16
594-20-7	2,2-Dichloropropane	1.0	U	1.0	0.31
110-75-8	2-Chloroethyl vinyl ether	10	U	10	0.26
95-49-8	2-Chlorotoluene	1.0	U	1.0	0.15
591-78-6	2-Hexanone	5.0	U	5.0	0.54
108-86-1	Bromobenzene	1.0	U	1.0	0.12
74-97-5	Bromochloromethane	1.0	U	1.0	0.14
106-43-4	4-Chlorotoluene	1.0	U	1.0	0.090
99-87-6	p-Isopropyltoluene	1.0	U	1.0	0.13
67-64-1	Acetone	5.0	U	5.0	5.4
71-43-2	Benzene	1.0	U	1.0	0.13
75-25-2	Bromoform	1.0	U	1.0	0.76
74-83-9	Bromomethane	1.0	U	1.0	0.42
75-15-0	Carbon disulfide	1.0	U	1.0	0.28
56-23-5	Carbon tetrachloride	1.0	U	1.0	0.26
108-90-7	Chlorobenzene	1.0	U	1.0	0.14
75-00-3	Chloroethane	1.0	U	1.0	0.83

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-118610-1

SDG No.:

Client Sample ID: MSA-SW42C-090919 Lab Sample ID: 240-118610-23

Matrix: Water Lab File ID: U1909735.d

Analysis Method: 8260C Date Collected: 09/09/2019 12:36

Sample wt/vol: 5(mL) Date Analyzed: 09/14/2019 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.: 400715 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
67-66-3	Chloroform	1.0	U	1.0	0.13
74-87-3	Chloromethane	1.0	U	1.0	0.20
156-59-2	cis-1,2-Dichloroethene	1.0	U	1.0	0.16
10061-01-5	cis-1,3-Dichloropropene	1.0	U	1.0	0.61
87-68-3	Hexachlorobutadiene	1.0	U	1.0	0.83
74-95-3	Dibromomethane	1.0	U	1.0	0.090
75-27-4	Bromodichloromethane	1.0	U	1.0	0.17
75-71-8	Dichlorodifluoromethane	1.0	U	1.0	0.35
100-41-4	Ethylbenzene	1.0	U	1.0	0.11
106-93-4	1,2-Dibromoethane	1.0	U	1.0	0.12
108-20-3	Diisopropyl ether	5.0	U	5.0	0.17
91-20-3	Naphthalene	1.0	U	1.0	0.32
179601-23-1	m-Xylene & p-Xylene	2.0	U	2.0	0.080
104-51-8	n-Butylbenzene	1.0	U	1.0	0.14
98-82-8	Isopropylbenzene	1.0	U	1.0	0.090
103-65-1	n-Propylbenzene	1.0	U	1.0	0.15
78-93-3	2-Butanone	5.0	U	5.0	1.2
108-10-1	4-Methyl-2-pentanone	5.0	U	5.0	0.42
135-98-8	sec-Butylbenzene	1.0	U	1.0	0.13
1634-04-4	Methyl tert-butyl ether	1.0	U	1.0	0.070
994-05-8	Tert-amyl-methyl ether (TAME)	5.0	U	5.0	0.11
75-09-2	Methylene Chloride	5.0	U	5.0	2.6
95-47-6	o-Xylene	1.0	U	1.0	0.090
100-42-5	Styrene	1.0	U	1.0	0.10
637-92-3	Ethyl-t-butyl ether (ETBE)	5.0	U	5.0	0.15
98-06-6	tert-Butylbenzene	1.0	U	1.0	0.14
127-18-4	Tetrachloroethene	1.0	U	1.0	0.15
108-88-3	Toluene	1.0	U	1.0	0.14
156-60-5	trans-1,2-Dichloroethene	1.0	U	1.0	0.19
10061-02-6	trans-1,3-Dichloropropene	1.0	U	1.0	0.67
79-01-6	Trichloroethene	1.0	U	1.0	0.10
75-69-4	Trichlorofluoromethane	1.0	U	1.0	0.45
108-05-4	Vinyl acetate	2.0	U	2.0	0.19
75-01-4	Vinyl chloride	0.50	U	0.50	0.20
75-65-0	tert-Butyl alcohol	20	U	20	1.7
1330-20-7	Xylenes, Total	2.0	U	2.0	0.15

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-118610-1

SDG No.:

Client Sample ID: MSA-SW42C-090919 Lab Sample ID: 240-118610-23

Matrix: Water Lab File ID: U1909735.d

Analysis Method: 8260C Date Collected: 09/09/2019 12:36

Sample wt/vol: 5(mL) Date Analyzed: 09/14/2019 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.: 400715 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
124-48-1	Dibromochloromethane	1.0	U	1.0	0.39

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	111		70-121
460-00-4	4-Bromofluorobenzene (Surr)	90		59-120
2037-26-5	Toluene-d8 (Surr)	100		70-123
1868-53-7	Dibromofluoromethane (Surr)	108		75-128

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-118610-1

SDG No.:

Client Sample ID: MSA-SW42C-090919 Lab Sample ID: 240-118610-23

Matrix: Water Lab File ID: U1909735.d

Analysis Method: 8260C Date Collected: 09/09/2019 12:36

Sample wt/vol: 5(mL) Date Analyzed: 09/14/2019 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.: 400715 Units: ug/L

Number TICs Found: 0 TIC Result Total: 0

CAS NO.	COMPOUND NAME	RT	RESULT	Q	MATCH QUALITY
	Tentatively Identified Compound		None		

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET
TARGETED TENATIVELY IDENTIFIED COMPOUNDS

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-118610-1

SDG No.:

Client Sample ID: MSA-SW42C-090919 Lab Sample ID: 240-118610-23

Matrix: Water Lab File ID: U1909735.d

Analysis Method: 8260C Date Collected: 09/09/2019 12:36

Sample wt/vol: 5(mL) Date Analyzed: 09/14/2019 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.: 400715 Units: ug/L

CAS NO.	COMPOUND NAME	RT	RESULT	Q	MATCH QUALITY
75-45-6	Chlorodifluoromethane TIC		1.0	U	

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-118610-1

SDG No.:

Client Sample ID: MSA-SW42D-090919 Lab Sample ID: 240-118610-24

Matrix: Water Lab File ID: U1909736.d

Analysis Method: 8260C Date Collected: 09/09/2019 12:39

Sample wt/vol: 5(mL) Date Analyzed: 09/14/2019 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.: 400715 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
630-20-6	1,1,1,2-Tetrachloroethane	1.0	U	1.0	0.14
71-55-6	1,1,1-Trichloroethane	1.0	U	1.0	0.24
79-34-5	1,1,2,2-Tetrachloroethane	1.0	U	1.0	0.13
76-13-1	1,1,2-Trichloro-1,2,2-trichfluoroeth ane	1.0	U	1.0	0.41
75-34-3	1,1-Dichloroethane	1.0	U	1.0	0.17
75-35-4	1,1-Dichloroethene	1.0	U	1.0	0.19
563-58-6	1,1-Dichloropropene	1.0	U	1.0	0.14
87-61-6	1,2,3-Trichlorobenzene	1.0	U	1.0	0.54
96-18-4	1,2,3-Trichloropropane	1.0	U	1.0	0.24
526-73-8	1,2,3-Trimethylbenzene	5.0	U	5.0	0.14
120-82-1	1,2,4-Trichlorobenzene	1.0	U	1.0	0.26
95-63-6	1,2,4-Trimethylbenzene	1.0	U	1.0	0.070
96-12-8	1,2-Dibromo-3-Chloropropane	5.0	U	5.0	0.91
95-50-1	1,2-Dichlorobenzene	1.0	U	1.0	0.15
107-06-2	1,2-Dichloroethane	1.0	U	1.0	0.21
78-87-5	1,2-Dichloropropane	1.0	U	1.0	0.15
541-73-1	1,3-Dichlorobenzene	1.0	U	1.0	0.15
142-28-9	1,3-Dichloropropane	1.0	U	1.0	0.21
106-46-7	1,4-Dichlorobenzene	1.0	U	1.0	0.16
594-20-7	2,2-Dichloropropane	1.0	U	1.0	0.31
110-75-8	2-Chloroethyl vinyl ether	10	U	10	0.26
95-49-8	2-Chlorotoluene	1.0	U	1.0	0.15
591-78-6	2-Hexanone	5.0	U	5.0	0.54
108-86-1	Bromobenzene	1.0	U	1.0	0.12
74-97-5	Bromochloromethane	1.0	U	1.0	0.14
106-43-4	4-Chlorotoluene	1.0	U	1.0	0.090
99-87-6	p-Isopropyltoluene	1.0	U	1.0	0.13
67-64-1	Acetone	5.0	U	5.0	5.4
71-43-2	Benzene	1.0	U	1.0	0.13
75-25-2	Bromoform	1.0	U	1.0	0.76
74-83-9	Bromomethane	1.0	U	1.0	0.42
75-15-0	Carbon disulfide	1.0	U	1.0	0.28
56-23-5	Carbon tetrachloride	1.0	U	1.0	0.26
108-90-7	Chlorobenzene	1.0	U	1.0	0.14
75-00-3	Chloroethane	1.0	U	1.0	0.83

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-118610-1

SDG No.:

Client Sample ID: MSA-SW42D-090919 Lab Sample ID: 240-118610-24

Matrix: Water Lab File ID: U1909736.d

Analysis Method: 8260C Date Collected: 09/09/2019 12:39

Sample wt/vol: 5(mL) Date Analyzed: 09/14/2019 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.: 400715 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
67-66-3	Chloroform	1.0	U	1.0	0.13
74-87-3	Chloromethane	1.0	U	1.0	0.20
156-59-2	cis-1,2-Dichloroethene	1.0	U	1.0	0.16
10061-01-5	cis-1,3-Dichloropropene	1.0	U	1.0	0.61
87-68-3	Hexachlorobutadiene	1.0	U	1.0	0.83
74-95-3	Dibromomethane	1.0	U	1.0	0.090
75-27-4	Bromodichloromethane	1.0	U	1.0	0.17
75-71-8	Dichlorodifluoromethane	1.0	U	1.0	0.35
100-41-4	Ethylbenzene	1.0	U	1.0	0.11
106-93-4	1,2-Dibromoethane	1.0	U	1.0	0.12
108-20-3	Diisopropyl ether	5.0	U	5.0	0.17
91-20-3	Naphthalene	1.0	U	1.0	0.32
179601-23-1	m-Xylene & p-Xylene	2.0	U	2.0	0.080
104-51-8	n-Butylbenzene	1.0	U	1.0	0.14
98-82-8	Isopropylbenzene	1.0	U	1.0	0.090
103-65-1	n-Propylbenzene	1.0	U	1.0	0.15
78-93-3	2-Butanone	5.0	U	5.0	1.2
108-10-1	4-Methyl-2-pentanone	5.0	U	5.0	0.42
135-98-8	sec-Butylbenzene	1.0	U	1.0	0.13
1634-04-4	Methyl tert-butyl ether	1.0	U	1.0	0.070
994-05-8	Tert-amyl-methyl ether (TAME)	5.0	U	5.0	0.11
75-09-2	Methylene Chloride	5.0	U	5.0	2.6
95-47-6	o-Xylene	1.0	U	1.0	0.090
100-42-5	Styrene	1.0	U	1.0	0.10
637-92-3	Ethyl-t-butyl ether (ETBE)	5.0	U	5.0	0.15
98-06-6	tert-Butylbenzene	1.0	U	1.0	0.14
127-18-4	Tetrachloroethene	1.0	U	1.0	0.15
108-88-3	Toluene	1.0	U	1.0	0.14
156-60-5	trans-1,2-Dichloroethene	1.0	U	1.0	0.19
10061-02-6	trans-1,3-Dichloropropene	1.0	U	1.0	0.67
79-01-6	Trichloroethene	1.0	U	1.0	0.10
75-69-4	Trichlorofluoromethane	1.0	U	1.0	0.45
108-05-4	Vinyl acetate	2.0	U	2.0	0.19
75-01-4	Vinyl chloride	0.50	U	0.50	0.20
75-65-0	tert-Butyl alcohol	20	U	20	1.7
1330-20-7	Xylenes, Total	2.0	U	2.0	0.15

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-118610-1

SDG No.:

Client Sample ID: MSA-SW42D-090919 Lab Sample ID: 240-118610-24

Matrix: Water Lab File ID: U1909736.d

Analysis Method: 8260C Date Collected: 09/09/2019 12:39

Sample wt/vol: 5(mL) Date Analyzed: 09/14/2019 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.: 400715 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
124-48-1	Dibromochloromethane	1.0	U	1.0	0.39

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	115		70-121
460-00-4	4-Bromofluorobenzene (Surr)	92		59-120
2037-26-5	Toluene-d8 (Surr)	101		70-123
1868-53-7	Dibromofluoromethane (Surr)	112		75-128

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-118610-1

SDG No.:

Client Sample ID: MSA-SW42D-090919 Lab Sample ID: 240-118610-24

Matrix: Water Lab File ID: U1909736.d

Analysis Method: 8260C Date Collected: 09/09/2019 12:39

Sample wt/vol: 5(mL) Date Analyzed: 09/14/2019 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.: 400715 Units: ug/L

Number TICs Found: 0 TIC Result Total: 0

CAS NO.	COMPOUND NAME	RT	RESULT	Q	MATCH QUALITY
	Tentatively Identified Compound		None		

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET
TARGETED TENATIVELY IDENTIFIED COMPOUNDS

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-118610-1

SDG No.:

Client Sample ID: MSA-SW42D-090919 Lab Sample ID: 240-118610-24

Matrix: Water Lab File ID: U1909736.d

Analysis Method: 8260C Date Collected: 09/09/2019 12:39

Sample wt/vol: 5(mL) Date Analyzed: 09/14/2019 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.: 400715 Units: ug/L

CAS NO.	COMPOUND NAME	RT	RESULT	Q	MATCH QUALITY
75-45-6	Chlorodifluoromethane TIC		1.0	U	

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-118610-1

SDG No.:

Client Sample ID: MSA-SW43A-090919 Lab Sample ID: 240-118610-25

Matrix: Water Lab File ID: U1909737.d

Analysis Method: 8260C Date Collected: 09/09/2019 11:10

Sample wt/vol: 5(mL) Date Analyzed: 09/14/2019 16:09

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.: 400715 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
630-20-6	1,1,1,2-Tetrachloroethane	1.0	U	1.0	0.14
71-55-6	1,1,1-Trichloroethane	1.0	U	1.0	0.24
79-34-5	1,1,2,2-Tetrachloroethane	1.0	U	1.0	0.13
76-13-1	1,1,2-Trichloro-1,2,2-trichfluoroeth ane	1.0	U	1.0	0.41
75-34-3	1,1-Dichloroethane	1.0	U	1.0	0.17
75-35-4	1,1-Dichloroethene	1.0	U	1.0	0.19
563-58-6	1,1-Dichloropropene	1.0	U	1.0	0.14
87-61-6	1,2,3-Trichlorobenzene	1.0	U	1.0	0.54
96-18-4	1,2,3-Trichloropropane	1.0	U	1.0	0.24
526-73-8	1,2,3-Trimethylbenzene	5.0	U	5.0	0.14
120-82-1	1,2,4-Trichlorobenzene	1.0	U	1.0	0.26
95-63-6	1,2,4-Trimethylbenzene	1.0	U	1.0	0.070
96-12-8	1,2-Dibromo-3-Chloropropane	5.0	U	5.0	0.91
95-50-1	1,2-Dichlorobenzene	1.0	U	1.0	0.15
107-06-2	1,2-Dichloroethane	1.0	U	1.0	0.21
78-87-5	1,2-Dichloropropane	1.0	U	1.0	0.15
541-73-1	1,3-Dichlorobenzene	1.0	U	1.0	0.15
142-28-9	1,3-Dichloropropane	1.0	U	1.0	0.21
106-46-7	1,4-Dichlorobenzene	1.0	U	1.0	0.16
594-20-7	2,2-Dichloropropane	1.0	U	1.0	0.31
110-75-8	2-Chloroethyl vinyl ether	10	U	10	0.26
95-49-8	2-Chlorotoluene	1.0	U	1.0	0.15
591-78-6	2-Hexanone	5.0	U	5.0	0.54
108-86-1	Bromobenzene	1.0	U	1.0	0.12
74-97-5	Bromochloromethane	1.0	U	1.0	0.14
106-43-4	4-Chlorotoluene	1.0	U	1.0	0.090
99-87-6	p-Isopropyltoluene	1.0	U	1.0	0.13
67-64-1	Acetone	5.0	U	5.0	5.4
71-43-2	Benzene	1.0	U	1.0	0.13
75-25-2	Bromoform	1.0	U	1.0	0.76
74-83-9	Bromomethane	1.0	U	1.0	0.42
75-15-0	Carbon disulfide	1.0	U	1.0	0.28
56-23-5	Carbon tetrachloride	1.0	U	1.0	0.26
108-90-7	Chlorobenzene	1.0	U	1.0	0.14
75-00-3	Chloroethane	1.0	U	1.0	0.83

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-118610-1

SDG No.:

Client Sample ID: MSA-SW43A-090919 Lab Sample ID: 240-118610-25

Matrix: Water Lab File ID: U1909737.d

Analysis Method: 8260C Date Collected: 09/09/2019 11:10

Sample wt/vol: 5(mL) Date Analyzed: 09/14/2019 16:09

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.: 400715 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
67-66-3	Chloroform	1.0	U	1.0	0.13
74-87-3	Chloromethane	1.0	U	1.0	0.20
156-59-2	cis-1,2-Dichloroethene	1.0	U	1.0	0.16
10061-01-5	cis-1,3-Dichloropropene	1.0	U	1.0	0.61
87-68-3	Hexachlorobutadiene	1.0	U	1.0	0.83
74-95-3	Dibromomethane	1.0	U	1.0	0.090
75-27-4	Bromodichloromethane	1.0	U	1.0	0.17
75-71-8	Dichlorodifluoromethane	1.0	U	1.0	0.35
100-41-4	Ethylbenzene	1.0	U	1.0	0.11
106-93-4	1,2-Dibromoethane	1.0	U	1.0	0.12
108-20-3	Diisopropyl ether	5.0	U	5.0	0.17
91-20-3	Naphthalene	1.0	U	1.0	0.32
179601-23-1	m-Xylene & p-Xylene	2.0	U	2.0	0.080
104-51-8	n-Butylbenzene	1.0	U	1.0	0.14
98-82-8	Isopropylbenzene	1.0	U	1.0	0.090
103-65-1	n-Propylbenzene	1.0	U	1.0	0.15
78-93-3	2-Butanone	5.0	U	5.0	1.2
108-10-1	4-Methyl-2-pentanone	5.0	U	5.0	0.42
135-98-8	sec-Butylbenzene	1.0	U	1.0	0.13
1634-04-4	Methyl tert-butyl ether	1.0	U	1.0	0.070
994-05-8	Tert-amyl-methyl ether (TAME)	5.0	U	5.0	0.11
75-09-2	Methylene Chloride	5.0	U	5.0	2.6
95-47-6	o-Xylene	1.0	U	1.0	0.090
100-42-5	Styrene	1.0	U	1.0	0.10
637-92-3	Ethyl-t-butyl ether (ETBE)	5.0	U	5.0	0.15
98-06-6	tert-Butylbenzene	1.0	U	1.0	0.14
127-18-4	Tetrachloroethene	1.0	U	1.0	0.15
108-88-3	Toluene	1.0	U	1.0	0.14
156-60-5	trans-1,2-Dichloroethene	1.0	U	1.0	0.19
10061-02-6	trans-1,3-Dichloropropene	1.0	U	1.0	0.67
79-01-6	Trichloroethene	1.0	U	1.0	0.10
75-69-4	Trichlorofluoromethane	1.0	U	1.0	0.45
108-05-4	Vinyl acetate	2.0	U	2.0	0.19
75-01-4	Vinyl chloride	0.50	U	0.50	0.20
75-65-0	tert-Butyl alcohol	2.3	J	20	1.7
1330-20-7	Xylenes, Total	2.0	U	2.0	0.15

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-118610-1

SDG No.:

Client Sample ID: MSA-SW43A-090919 Lab Sample ID: 240-118610-25

Matrix: Water Lab File ID: U1909737.d

Analysis Method: 8260C Date Collected: 09/09/2019 11:10

Sample wt/vol: 5(mL) Date Analyzed: 09/14/2019 16:09

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.: 400715 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
124-48-1	Dibromochloromethane	1.0	U	1.0	0.39

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	111		70-121
460-00-4	4-Bromofluorobenzene (Surr)	88		59-120
2037-26-5	Toluene-d8 (Surr)	98		70-123
1868-53-7	Dibromofluoromethane (Surr)	106		75-128

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-118610-1

SDG No.:

Client Sample ID: MSA-SW43A-090919 Lab Sample ID: 240-118610-25

Matrix: Water Lab File ID: U1909737.d

Analysis Method: 8260C Date Collected: 09/09/2019 11:10

Sample wt/vol: 5(mL) Date Analyzed: 09/14/2019 16:09

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.: 400715 Units: ug/L

Number TICs Found: 0 TIC Result Total: 0

CAS NO.	COMPOUND NAME	RT	RESULT	Q	MATCH QUALITY
	Tentatively Identified Compound		None		

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET
TARGETED TENATIVELY IDENTIFIED COMPOUNDS

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-118610-1

SDG No.:

Client Sample ID: MSA-SW43A-090919 Lab Sample ID: 240-118610-25

Matrix: Water Lab File ID: U1909737.d

Analysis Method: 8260C Date Collected: 09/09/2019 11:10

Sample wt/vol: 5(mL) Date Analyzed: 09/14/2019 16:09

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.: 400715 Units: ug/L

CAS NO.	COMPOUND NAME	RT	RESULT	Q	MATCH QUALITY
75-45-6	Chlorodifluoromethane TIC		1.0	U	

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-118610-1

SDG No.:

Client Sample ID: MSA-SW43B-090919 Lab Sample ID: 240-118610-26

Matrix: Water Lab File ID: U1909738.d

Analysis Method: 8260C Date Collected: 09/09/2019 11:15

Sample wt/vol: 5(mL) Date Analyzed: 09/14/2019 16:39

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.: 400715 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
630-20-6	1,1,1,2-Tetrachloroethane	1.0	U	1.0	0.14
71-55-6	1,1,1-Trichloroethane	1.0	U	1.0	0.24
79-34-5	1,1,2,2-Tetrachloroethane	1.0	U	1.0	0.13
76-13-1	1,1,2-Trichloro-1,2,2-trichfluoroethane	1.0	U	1.0	0.41
75-34-3	1,1-Dichloroethane	1.0	U	1.0	0.17
75-35-4	1,1-Dichloroethene	1.0	U	1.0	0.19
563-58-6	1,1-Dichloropropene	1.0	U	1.0	0.14
87-61-6	1,2,3-Trichlorobenzene	1.0	U	1.0	0.54
96-18-4	1,2,3-Trichloropropane	1.0	U	1.0	0.24
526-73-8	1,2,3-Trimethylbenzene	5.0	U	5.0	0.14
120-82-1	1,2,4-Trichlorobenzene	1.0	U	1.0	0.26
95-63-6	1,2,4-Trimethylbenzene	1.0	U	1.0	0.070
96-12-8	1,2-Dibromo-3-Chloropropane	5.0	U	5.0	0.91
95-50-1	1,2-Dichlorobenzene	1.0	U	1.0	0.15
107-06-2	1,2-Dichloroethane	1.0	U	1.0	0.21
78-87-5	1,2-Dichloropropane	1.0	U	1.0	0.15
541-73-1	1,3-Dichlorobenzene	1.0	U	1.0	0.15
142-28-9	1,3-Dichloropropane	1.0	U	1.0	0.21
106-46-7	1,4-Dichlorobenzene	1.0	U	1.0	0.16
594-20-7	2,2-Dichloropropane	1.0	U	1.0	0.31
110-75-8	2-Chloroethyl vinyl ether	10	U	10	0.26
95-49-8	2-Chlorotoluene	1.0	U	1.0	0.15
591-78-6	2-Hexanone	5.0	U	5.0	0.54
108-86-1	Bromobenzene	1.0	U	1.0	0.12
74-97-5	Bromochloromethane	1.0	U	1.0	0.14
106-43-4	4-Chlorotoluene	1.0	U	1.0	0.090
99-87-6	p-Isopropyltoluene	1.0	U	1.0	0.13
67-64-1	Acetone	5.0	U	5.0	5.4
71-43-2	Benzene	1.0	U	1.0	0.13
75-25-2	Bromoform	1.0	U	1.0	0.76
74-83-9	Bromomethane	1.0	U	1.0	0.42
75-15-0	Carbon disulfide	1.0	U	1.0	0.28
56-23-5	Carbon tetrachloride	1.0	U	1.0	0.26
108-90-7	Chlorobenzene	1.0	U	1.0	0.14
75-00-3	Chloroethane	1.0	U	1.0	0.83

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-118610-1

SDG No.:

Client Sample ID: MSA-SW43B-090919 Lab Sample ID: 240-118610-26

Matrix: Water Lab File ID: U1909738.d

Analysis Method: 8260C Date Collected: 09/09/2019 11:15

Sample wt/vol: 5(mL) Date Analyzed: 09/14/2019 16:39

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.: 400715 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
67-66-3	Chloroform	1.0	U	1.0	0.13
74-87-3	Chloromethane	1.0	U	1.0	0.20
156-59-2	cis-1,2-Dichloroethene	1.0	U	1.0	0.16
10061-01-5	cis-1,3-Dichloropropene	1.0	U	1.0	0.61
87-68-3	Hexachlorobutadiene	1.0	U	1.0	0.83
74-95-3	Dibromomethane	1.0	U	1.0	0.090
75-27-4	Bromodichloromethane	1.0	U	1.0	0.17
75-71-8	Dichlorodifluoromethane	1.0	U	1.0	0.35
100-41-4	Ethylbenzene	1.0	U	1.0	0.11
106-93-4	1,2-Dibromoethane	1.0	U	1.0	0.12
108-20-3	Diisopropyl ether	5.0	U	5.0	0.17
91-20-3	Naphthalene	1.0	U	1.0	0.32
179601-23-1	m-Xylene & p-Xylene	2.0	U	2.0	0.080
104-51-8	n-Butylbenzene	1.0	U	1.0	0.14
98-82-8	Isopropylbenzene	1.0	U	1.0	0.090
103-65-1	n-Propylbenzene	1.0	U	1.0	0.15
78-93-3	2-Butanone	5.0	U	5.0	1.2
108-10-1	4-Methyl-2-pentanone	5.0	U	5.0	0.42
135-98-8	sec-Butylbenzene	1.0	U	1.0	0.13
1634-04-4	Methyl tert-butyl ether	1.0	U	1.0	0.070
994-05-8	Tert-amyl-methyl ether (TAME)	5.0	U	5.0	0.11
75-09-2	Methylene Chloride	5.0	U	5.0	2.6
95-47-6	o-Xylene	1.0	U	1.0	0.090
100-42-5	Styrene	1.0	U	1.0	0.10
637-92-3	Ethyl-t-butyl ether (ETBE)	5.0	U	5.0	0.15
98-06-6	tert-Butylbenzene	1.0	U	1.0	0.14
127-18-4	Tetrachloroethene	1.0	U	1.0	0.15
108-88-3	Toluene	1.0	U	1.0	0.14
156-60-5	trans-1,2-Dichloroethene	1.0	U	1.0	0.19
10061-02-6	trans-1,3-Dichloropropene	1.0	U	1.0	0.67
79-01-6	Trichloroethene	1.0	U	1.0	0.10
75-69-4	Trichlorofluoromethane	1.0	U	1.0	0.45
108-05-4	Vinyl acetate	2.0	U	2.0	0.19
75-01-4	Vinyl chloride	0.50	U	0.50	0.20
75-65-0	tert-Butyl alcohol	20	U	20	1.7
1330-20-7	Xylenes, Total	2.0	U	2.0	0.15

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-118610-1

SDG No.:

Client Sample ID: MSA-SW43B-090919 Lab Sample ID: 240-118610-26

Matrix: Water Lab File ID: U1909738.d

Analysis Method: 8260C Date Collected: 09/09/2019 11:15

Sample wt/vol: 5(mL) Date Analyzed: 09/14/2019 16:39

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.: 400715 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
124-48-1	Dibromochloromethane	1.0	U	1.0	0.39

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	116		70-121
460-00-4	4-Bromofluorobenzene (Surr)	94		59-120
2037-26-5	Toluene-d8 (Surr)	100		70-123
1868-53-7	Dibromofluoromethane (Surr)	112		75-128

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-118610-1

SDG No.:

Client Sample ID: MSA-SW43B-090919 Lab Sample ID: 240-118610-26

Matrix: Water Lab File ID: U1909738.d

Analysis Method: 8260C Date Collected: 09/09/2019 11:15

Sample wt/vol: 5(mL) Date Analyzed: 09/14/2019 16:39

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.: 400715 Units: ug/L

Number TICs Found: 0 TIC Result Total: 0

CAS NO.	COMPOUND NAME	RT	RESULT	Q	MATCH QUALITY
	Tentatively Identified Compound		None		

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET
TARGETED TENATIVELY IDENTIFIED COMPOUNDS

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-118610-1

SDG No.:

Client Sample ID: MSA-SW43B-090919 Lab Sample ID: 240-118610-26

Matrix: Water Lab File ID: U1909738.d

Analysis Method: 8260C Date Collected: 09/09/2019 11:15

Sample wt/vol: 5(mL) Date Analyzed: 09/14/2019 16:39

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.: 400715 Units: ug/L

CAS NO.	COMPOUND NAME	RT	RESULT	Q	MATCH QUALITY
75-45-6	Chlorodifluoromethane TIC		1.0	U	

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-118610-1

SDG No.:

Client Sample ID: MSA-SW43C-090919 Lab Sample ID: 240-118610-27

Matrix: Water Lab File ID: U1909739.d

Analysis Method: 8260C Date Collected: 09/09/2019 11:18

Sample wt/vol: 5(mL) Date Analyzed: 09/14/2019 17:13

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.: 400715 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
630-20-6	1,1,1,2-Tetrachloroethane	1.0	U	1.0	0.14
71-55-6	1,1,1-Trichloroethane	1.0	U	1.0	0.24
79-34-5	1,1,2,2-Tetrachloroethane	1.0	U	1.0	0.13
76-13-1	1,1,2-Trichloro-1,2,2-trichfluoroethane	1.0	U	1.0	0.41
75-34-3	1,1-Dichloroethane	1.0	U	1.0	0.17
75-35-4	1,1-Dichloroethene	1.0	U	1.0	0.19
563-58-6	1,1-Dichloropropene	1.0	U	1.0	0.14
87-61-6	1,2,3-Trichlorobenzene	1.0	U	1.0	0.54
96-18-4	1,2,3-Trichloropropane	1.0	U	1.0	0.24
526-73-8	1,2,3-Trimethylbenzene	5.0	U	5.0	0.14
120-82-1	1,2,4-Trichlorobenzene	1.0	U	1.0	0.26
95-63-6	1,2,4-Trimethylbenzene	1.0	U	1.0	0.070
96-12-8	1,2-Dibromo-3-Chloropropane	5.0	U	5.0	0.91
95-50-1	1,2-Dichlorobenzene	1.0	U	1.0	0.15
107-06-2	1,2-Dichloroethane	1.0	U	1.0	0.21
78-87-5	1,2-Dichloropropane	1.0	U	1.0	0.15
541-73-1	1,3-Dichlorobenzene	1.0	U	1.0	0.15
142-28-9	1,3-Dichloropropane	1.0	U	1.0	0.21
106-46-7	1,4-Dichlorobenzene	1.0	U	1.0	0.16
594-20-7	2,2-Dichloropropane	1.0	U	1.0	0.31
110-75-8	2-Chloroethyl vinyl ether	10	U	10	0.26
95-49-8	2-Chlorotoluene	1.0	U	1.0	0.15
591-78-6	2-Hexanone	5.0	U	5.0	0.54
108-86-1	Bromobenzene	1.0	U	1.0	0.12
74-97-5	Bromochloromethane	1.0	U	1.0	0.14
106-43-4	4-Chlorotoluene	1.0	U	1.0	0.090
99-87-6	p-Isopropyltoluene	1.0	U	1.0	0.13
67-64-1	Acetone	5.0	U	5.0	5.4
71-43-2	Benzene	1.0	U	1.0	0.13
75-25-2	Bromoform	1.0	U	1.0	0.76
74-83-9	Bromomethane	1.0	U	1.0	0.42
75-15-0	Carbon disulfide	1.0	U	1.0	0.28
56-23-5	Carbon tetrachloride	1.0	U	1.0	0.26
108-90-7	Chlorobenzene	1.0	U	1.0	0.14
75-00-3	Chloroethane	1.0	U	1.0	0.83

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-118610-1

SDG No.:

Client Sample ID: MSA-SW43C-090919 Lab Sample ID: 240-118610-27

Matrix: Water Lab File ID: U1909739.d

Analysis Method: 8260C Date Collected: 09/09/2019 11:18

Sample wt/vol: 5(mL) Date Analyzed: 09/14/2019 17:13

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.: 400715 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
67-66-3	Chloroform	1.0	U	1.0	0.13
74-87-3	Chloromethane	1.0	U	1.0	0.20
156-59-2	cis-1,2-Dichloroethene	1.0	U	1.0	0.16
10061-01-5	cis-1,3-Dichloropropene	1.0	U	1.0	0.61
87-68-3	Hexachlorobutadiene	1.0	U	1.0	0.83
74-95-3	Dibromomethane	1.0	U	1.0	0.090
75-27-4	Bromodichloromethane	1.0	U	1.0	0.17
75-71-8	Dichlorodifluoromethane	1.0	U	1.0	0.35
100-41-4	Ethylbenzene	1.0	U	1.0	0.11
106-93-4	1,2-Dibromoethane	1.0	U	1.0	0.12
108-20-3	Diisopropyl ether	5.0	U	5.0	0.17
91-20-3	Naphthalene	1.0	U	1.0	0.32
179601-23-1	m-Xylene & p-Xylene	2.0	U	2.0	0.080
104-51-8	n-Butylbenzene	1.0	U	1.0	0.14
98-82-8	Isopropylbenzene	1.0	U	1.0	0.090
103-65-1	n-Propylbenzene	1.0	U	1.0	0.15
78-93-3	2-Butanone	5.0	U	5.0	1.2
108-10-1	4-Methyl-2-pentanone	5.0	U	5.0	0.42
135-98-8	sec-Butylbenzene	1.0	U	1.0	0.13
1634-04-4	Methyl tert-butyl ether	1.0	U	1.0	0.070
994-05-8	Tert-amyl-methyl ether (TAME)	5.0	U	5.0	0.11
75-09-2	Methylene Chloride	5.0	U	5.0	2.6
95-47-6	o-Xylene	1.0	U	1.0	0.090
100-42-5	Styrene	1.0	U	1.0	0.10
637-92-3	Ethyl-t-butyl ether (ETBE)	5.0	U	5.0	0.15
98-06-6	tert-Butylbenzene	1.0	U	1.0	0.14
127-18-4	Tetrachloroethene	1.0	U	1.0	0.15
108-88-3	Toluene	1.0	U	1.0	0.14
156-60-5	trans-1,2-Dichloroethene	1.0	U	1.0	0.19
10061-02-6	trans-1,3-Dichloropropene	1.0	U	1.0	0.67
79-01-6	Trichloroethene	1.0	U	1.0	0.10
75-69-4	Trichlorofluoromethane	1.0	U	1.0	0.45
108-05-4	Vinyl acetate	2.0	U	2.0	0.19
75-01-4	Vinyl chloride	0.50	U	0.50	0.20
75-65-0	tert-Butyl alcohol	20	U	20	1.7
1330-20-7	Xylenes, Total	2.0	U	2.0	0.15

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-118610-1

SDG No.:

Client Sample ID: MSA-SW43C-090919 Lab Sample ID: 240-118610-27

Matrix: Water Lab File ID: U1909739.d

Analysis Method: 8260C Date Collected: 09/09/2019 11:18

Sample wt/vol: 5(mL) Date Analyzed: 09/14/2019 17:13

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.: 400715 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
124-48-1	Dibromochloromethane	1.0	U	1.0	0.39

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	115		70-121
460-00-4	4-Bromofluorobenzene (Surr)	98		59-120
2037-26-5	Toluene-d8 (Surr)	101		70-123
1868-53-7	Dibromofluoromethane (Surr)	110		75-128

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-118610-1

SDG No.:

Client Sample ID: MSA-SW43C-090919 Lab Sample ID: 240-118610-27

Matrix: Water Lab File ID: U1909739.d

Analysis Method: 8260C Date Collected: 09/09/2019 11:18

Sample wt/vol: 5(mL) Date Analyzed: 09/14/2019 17:13

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.: 400715 Units: ug/L

Number TICs Found: 0 TIC Result Total: 0

CAS NO.	COMPOUND NAME	RT	RESULT	Q	MATCH QUALITY
	Tentatively Identified Compound		None		

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET
TARGETED TENATIVELY IDENTIFIED COMPOUNDS

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-118610-1

SDG No.:

Client Sample ID: MSA-SW43C-090919 Lab Sample ID: 240-118610-27

Matrix: Water Lab File ID: U1909739.d

Analysis Method: 8260C Date Collected: 09/09/2019 11:18

Sample wt/vol: 5(mL) Date Analyzed: 09/14/2019 17:13

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.: 400715 Units: ug/L

CAS NO.	COMPOUND NAME	RT	RESULT	Q	MATCH QUALITY
75-45-6	Chlorodifluoromethane TIC		1.0	U	

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-118610-1

SDG No.:

Client Sample ID: MSA-SW43D-090919 Lab Sample ID: 240-118610-28

Matrix: Water Lab File ID: U1909740.d

Analysis Method: 8260C Date Collected: 09/09/2019 11:21

Sample wt/vol: 5(mL) Date Analyzed: 09/14/2019 17:43

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.: 400715 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
630-20-6	1,1,1,2-Tetrachloroethane	1.0	U	1.0	0.14
71-55-6	1,1,1-Trichloroethane	1.0	U	1.0	0.24
79-34-5	1,1,2,2-Tetrachloroethane	1.0	U	1.0	0.13
76-13-1	1,1,2-Trichloro-1,2,2-trichfluoroeth ane	1.0	U	1.0	0.41
75-34-3	1,1-Dichloroethane	1.0	U	1.0	0.17
75-35-4	1,1-Dichloroethene	1.0	U	1.0	0.19
563-58-6	1,1-Dichloropropene	1.0	U	1.0	0.14
87-61-6	1,2,3-Trichlorobenzene	1.0	U	1.0	0.54
96-18-4	1,2,3-Trichloropropane	1.0	U	1.0	0.24
526-73-8	1,2,3-Trimethylbenzene	5.0	U	5.0	0.14
120-82-1	1,2,4-Trichlorobenzene	1.0	U	1.0	0.26
95-63-6	1,2,4-Trimethylbenzene	1.0	U	1.0	0.070
96-12-8	1,2-Dibromo-3-Chloropropane	5.0	U	5.0	0.91
95-50-1	1,2-Dichlorobenzene	1.0	U	1.0	0.15
107-06-2	1,2-Dichloroethane	1.0	U	1.0	0.21
78-87-5	1,2-Dichloropropane	1.0	U	1.0	0.15
541-73-1	1,3-Dichlorobenzene	1.0	U	1.0	0.15
142-28-9	1,3-Dichloropropane	1.0	U	1.0	0.21
106-46-7	1,4-Dichlorobenzene	1.0	U	1.0	0.16
594-20-7	2,2-Dichloropropane	1.0	U	1.0	0.31
110-75-8	2-Chloroethyl vinyl ether	10	U	10	0.26
95-49-8	2-Chlorotoluene	1.0	U	1.0	0.15
591-78-6	2-Hexanone	5.0	U	5.0	0.54
108-86-1	Bromobenzene	1.0	U	1.0	0.12
74-97-5	Bromochloromethane	1.0	U	1.0	0.14
106-43-4	4-Chlorotoluene	1.0	U	1.0	0.090
99-87-6	p-Isopropyltoluene	1.0	U	1.0	0.13
67-64-1	Acetone	5.0	U	5.0	5.4
71-43-2	Benzene	1.0	U	1.0	0.13
75-25-2	Bromoform	1.0	U	1.0	0.76
74-83-9	Bromomethane	1.0	U	1.0	0.42
75-15-0	Carbon disulfide	1.0	U	1.0	0.28
56-23-5	Carbon tetrachloride	1.0	U	1.0	0.26
108-90-7	Chlorobenzene	1.0	U	1.0	0.14
75-00-3	Chloroethane	1.0	U	1.0	0.83

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-118610-1

SDG No.:

Client Sample ID: MSA-SW43D-090919 Lab Sample ID: 240-118610-28

Matrix: Water Lab File ID: U1909740.d

Analysis Method: 8260C Date Collected: 09/09/2019 11:21

Sample wt/vol: 5(mL) Date Analyzed: 09/14/2019 17:43

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.: 400715 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
67-66-3	Chloroform	1.0	U	1.0	0.13
74-87-3	Chloromethane	1.0	U	1.0	0.20
156-59-2	cis-1,2-Dichloroethene	1.0	U	1.0	0.16
10061-01-5	cis-1,3-Dichloropropene	1.0	U	1.0	0.61
87-68-3	Hexachlorobutadiene	1.0	U	1.0	0.83
74-95-3	Dibromomethane	1.0	U	1.0	0.090
75-27-4	Bromodichloromethane	1.0	U	1.0	0.17
75-71-8	Dichlorodifluoromethane	1.0	U	1.0	0.35
100-41-4	Ethylbenzene	1.0	U	1.0	0.11
106-93-4	1,2-Dibromoethane	1.0	U	1.0	0.12
108-20-3	Diisopropyl ether	5.0	U	5.0	0.17
91-20-3	Naphthalene	1.0	U	1.0	0.32
179601-23-1	m-Xylene & p-Xylene	2.0	U	2.0	0.080
104-51-8	n-Butylbenzene	1.0	U	1.0	0.14
98-82-8	Isopropylbenzene	1.0	U	1.0	0.090
103-65-1	n-Propylbenzene	1.0	U	1.0	0.15
78-93-3	2-Butanone	5.0	U	5.0	1.2
108-10-1	4-Methyl-2-pentanone	5.0	U	5.0	0.42
135-98-8	sec-Butylbenzene	1.0	U	1.0	0.13
1634-04-4	Methyl tert-butyl ether	1.0	U	1.0	0.070
994-05-8	Tert-amyl-methyl ether (TAME)	5.0	U	5.0	0.11
75-09-2	Methylene Chloride	5.0	U	5.0	2.6
95-47-6	o-Xylene	1.0	U	1.0	0.090
100-42-5	Styrene	1.0	U	1.0	0.10
637-92-3	Ethyl-t-butyl ether (ETBE)	5.0	U	5.0	0.15
98-06-6	tert-Butylbenzene	1.0	U	1.0	0.14
127-18-4	Tetrachloroethene	1.0	U	1.0	0.15
108-88-3	Toluene	1.0	U	1.0	0.14
156-60-5	trans-1,2-Dichloroethene	1.0	U	1.0	0.19
10061-02-6	trans-1,3-Dichloropropene	1.0	U	1.0	0.67
79-01-6	Trichloroethene	1.0	U	1.0	0.10
75-69-4	Trichlorofluoromethane	1.0	U	1.0	0.45
108-05-4	Vinyl acetate	2.0	U	2.0	0.19
75-01-4	Vinyl chloride	0.50	U	0.50	0.20
75-65-0	tert-Butyl alcohol	3.3	J	20	1.7
1330-20-7	Xylenes, Total	2.0	U	2.0	0.15

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-118610-1

SDG No.:

Client Sample ID: MSA-SW43D-090919 Lab Sample ID: 240-118610-28

Matrix: Water Lab File ID: U1909740.d

Analysis Method: 8260C Date Collected: 09/09/2019 11:21

Sample wt/vol: 5(mL) Date Analyzed: 09/14/2019 17:43

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.: 400715 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
124-48-1	Dibromochloromethane	1.0	U	1.0	0.39

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	115		70-121
460-00-4	4-Bromofluorobenzene (Surr)	94		59-120
2037-26-5	Toluene-d8 (Surr)	101		70-123
1868-53-7	Dibromofluoromethane (Surr)	111		75-128

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-118610-1

SDG No.:

Client Sample ID: MSA-SW43D-090919 Lab Sample ID: 240-118610-28

Matrix: Water Lab File ID: U1909740.d

Analysis Method: 8260C Date Collected: 09/09/2019 11:21

Sample wt/vol: 5(mL) Date Analyzed: 09/14/2019 17:43

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.: 400715 Units: ug/L

Number TICs Found: 0 TIC Result Total: 0

CAS NO.	COMPOUND NAME	RT	RESULT	Q	MATCH QUALITY
	Tentatively Identified Compound		None		

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET
TARGETED TENATIVELY IDENTIFIED COMPOUNDS

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-118610-1

SDG No.:

Client Sample ID: MSA-SW43D-090919 Lab Sample ID: 240-118610-28

Matrix: Water Lab File ID: U1909740.d

Analysis Method: 8260C Date Collected: 09/09/2019 11:21

Sample wt/vol: 5(mL) Date Analyzed: 09/14/2019 17:43

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.: 400715 Units: ug/L

CAS NO.	COMPOUND NAME	RT	RESULT	Q	MATCH QUALITY
75-45-6	Chlorodifluoromethane TIC		1.0	U	

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-118610-1

SDG No.:

Client Sample ID: MSA-SW44A-090919 Lab Sample ID: 240-118610-29

Matrix: Water Lab File ID: U1909741.d

Analysis Method: 8260C Date Collected: 09/09/2019 10:54

Sample wt/vol: 5(mL) Date Analyzed: 09/14/2019 18:11

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.: 400715 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
630-20-6	1,1,1,2-Tetrachloroethane	1.0	U	1.0	0.14
71-55-6	1,1,1-Trichloroethane	1.0	U	1.0	0.24
79-34-5	1,1,2,2-Tetrachloroethane	1.0	U	1.0	0.13
76-13-1	1,1,2-Trichloro-1,2,2-trichfluoroeth ane	1.0	U	1.0	0.41
75-34-3	1,1-Dichloroethane	1.0	U	1.0	0.17
75-35-4	1,1-Dichloroethene	1.0	U	1.0	0.19
563-58-6	1,1-Dichloropropene	1.0	U	1.0	0.14
87-61-6	1,2,3-Trichlorobenzene	1.0	U	1.0	0.54
96-18-4	1,2,3-Trichloropropane	1.0	U	1.0	0.24
526-73-8	1,2,3-Trimethylbenzene	5.0	U	5.0	0.14
120-82-1	1,2,4-Trichlorobenzene	1.0	U	1.0	0.26
95-63-6	1,2,4-Trimethylbenzene	1.0	U	1.0	0.070
96-12-8	1,2-Dibromo-3-Chloropropane	5.0	U	5.0	0.91
95-50-1	1,2-Dichlorobenzene	1.0	U	1.0	0.15
107-06-2	1,2-Dichloroethane	1.0	U	1.0	0.21
78-87-5	1,2-Dichloropropane	1.0	U	1.0	0.15
541-73-1	1,3-Dichlorobenzene	1.0	U	1.0	0.15
142-28-9	1,3-Dichloropropane	1.0	U	1.0	0.21
106-46-7	1,4-Dichlorobenzene	1.0	U	1.0	0.16
594-20-7	2,2-Dichloropropane	1.0	U	1.0	0.31
110-75-8	2-Chloroethyl vinyl ether	10	U	10	0.26
95-49-8	2-Chlorotoluene	1.0	U	1.0	0.15
591-78-6	2-Hexanone	5.0	U	5.0	0.54
108-86-1	Bromobenzene	1.0	U	1.0	0.12
74-97-5	Bromochloromethane	1.0	U	1.0	0.14
106-43-4	4-Chlorotoluene	1.0	U	1.0	0.090
99-87-6	p-Isopropyltoluene	1.0	U	1.0	0.13
67-64-1	Acetone	5.0	U	5.0	5.4
71-43-2	Benzene	1.0	U	1.0	0.13
75-25-2	Bromoform	1.0	U	1.0	0.76
74-83-9	Bromomethane	1.0	U	1.0	0.42
75-15-0	Carbon disulfide	1.0	U	1.0	0.28
56-23-5	Carbon tetrachloride	1.0	U	1.0	0.26
108-90-7	Chlorobenzene	1.0	U	1.0	0.14
75-00-3	Chloroethane	1.0	U	1.0	0.83

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-118610-1

SDG No.:

Client Sample ID: MSA-SW44A-090919 Lab Sample ID: 240-118610-29

Matrix: Water Lab File ID: U1909741.d

Analysis Method: 8260C Date Collected: 09/09/2019 10:54

Sample wt/vol: 5(mL) Date Analyzed: 09/14/2019 18:11

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.: 400715 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
67-66-3	Chloroform	1.0	U	1.0	0.13
74-87-3	Chloromethane	1.0	U	1.0	0.20
156-59-2	cis-1,2-Dichloroethene	1.0	U	1.0	0.16
10061-01-5	cis-1,3-Dichloropropene	1.0	U	1.0	0.61
87-68-3	Hexachlorobutadiene	1.0	U	1.0	0.83
74-95-3	Dibromomethane	1.0	U	1.0	0.090
75-27-4	Bromodichloromethane	1.0	U	1.0	0.17
75-71-8	Dichlorodifluoromethane	1.0	U	1.0	0.35
100-41-4	Ethylbenzene	1.0	U	1.0	0.11
106-93-4	1,2-Dibromoethane	1.0	U	1.0	0.12
108-20-3	Diisopropyl ether	5.0	U	5.0	0.17
91-20-3	Naphthalene	1.0	U	1.0	0.32
179601-23-1	m-Xylene & p-Xylene	2.0	U	2.0	0.080
104-51-8	n-Butylbenzene	1.0	U	1.0	0.14
98-82-8	Isopropylbenzene	1.0	U	1.0	0.090
103-65-1	n-Propylbenzene	1.0	U	1.0	0.15
78-93-3	2-Butanone	5.0	U	5.0	1.2
108-10-1	4-Methyl-2-pentanone	5.0	U	5.0	0.42
135-98-8	sec-Butylbenzene	1.0	U	1.0	0.13
1634-04-4	Methyl tert-butyl ether	1.0	U	1.0	0.070
994-05-8	Tert-amyl-methyl ether (TAME)	5.0	U	5.0	0.11
75-09-2	Methylene Chloride	5.0	U	5.0	2.6
95-47-6	o-Xylene	1.0	U	1.0	0.090
100-42-5	Styrene	1.0	U	1.0	0.10
637-92-3	Ethyl-t-butyl ether (ETBE)	5.0	U	5.0	0.15
98-06-6	tert-Butylbenzene	1.0	U	1.0	0.14
127-18-4	Tetrachloroethene	1.0	U	1.0	0.15
108-88-3	Toluene	1.0	U	1.0	0.14
156-60-5	trans-1,2-Dichloroethene	1.0	U	1.0	0.19
10061-02-6	trans-1,3-Dichloropropene	1.0	U	1.0	0.67
79-01-6	Trichloroethene	1.0	U	1.0	0.10
75-69-4	Trichlorofluoromethane	1.0	U	1.0	0.45
108-05-4	Vinyl acetate	2.0	U	2.0	0.19
75-01-4	Vinyl chloride	0.50	U	0.50	0.20
75-65-0	tert-Butyl alcohol	20	U	20	1.7
1330-20-7	Xylenes, Total	2.0	U	2.0	0.15

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-118610-1

SDG No.:

Client Sample ID: MSA-SW44A-090919 Lab Sample ID: 240-118610-29

Matrix: Water Lab File ID: U1909741.d

Analysis Method: 8260C Date Collected: 09/09/2019 10:54

Sample wt/vol: 5(mL) Date Analyzed: 09/14/2019 18:11

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.: 400715 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
124-48-1	Dibromochloromethane	1.0	U	1.0	0.39

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	114		70-121
460-00-4	4-Bromofluorobenzene (Surr)	93		59-120
2037-26-5	Toluene-d8 (Surr)	101		70-123
1868-53-7	Dibromofluoromethane (Surr)	111		75-128

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-118610-1

SDG No.:

Client Sample ID: MSA-SW44A-090919 Lab Sample ID: 240-118610-29

Matrix: Water Lab File ID: U1909741.d

Analysis Method: 8260C Date Collected: 09/09/2019 10:54

Sample wt/vol: 5(mL) Date Analyzed: 09/14/2019 18:11

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.: 400715 Units: ug/L

Number TICs Found: 0 TIC Result Total: 0

CAS NO.	COMPOUND NAME	RT	RESULT	Q	MATCH QUALITY
	Tentatively Identified Compound		None		

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET
TARGETED TENATIVELY IDENTIFIED COMPOUNDS

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-118610-1

SDG No.:

Client Sample ID: MSA-SW44A-090919 Lab Sample ID: 240-118610-29

Matrix: Water Lab File ID: U1909741.d

Analysis Method: 8260C Date Collected: 09/09/2019 10:54

Sample wt/vol: 5(mL) Date Analyzed: 09/14/2019 18:11

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.: 400715 Units: ug/L

CAS NO.	COMPOUND NAME	RT	RESULT	Q	MATCH QUALITY
75-45-6	Chlorodifluoromethane TIC		1.0	U	

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-118610-1

SDG No.:

Client Sample ID: MSA-SW44B-090919 Lab Sample ID: 240-118610-30

Matrix: Water Lab File ID: U1909742.d

Analysis Method: 8260C Date Collected: 09/09/2019 10:58

Sample wt/vol: 5(mL) Date Analyzed: 09/14/2019 18:41

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.: 400715 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
630-20-6	1,1,1,2-Tetrachloroethane	1.0	U	1.0	0.14
71-55-6	1,1,1-Trichloroethane	1.0	U	1.0	0.24
79-34-5	1,1,2,2-Tetrachloroethane	1.0	U	1.0	0.13
76-13-1	1,1,2-Trichloro-1,2,2-trichfluoroeth ane	1.0	U	1.0	0.41
75-34-3	1,1-Dichloroethane	1.0	U	1.0	0.17
75-35-4	1,1-Dichloroethene	1.0	U	1.0	0.19
563-58-6	1,1-Dichloropropene	1.0	U	1.0	0.14
87-61-6	1,2,3-Trichlorobenzene	1.0	U	1.0	0.54
96-18-4	1,2,3-Trichloropropane	1.0	U	1.0	0.24
526-73-8	1,2,3-Trimethylbenzene	5.0	U	5.0	0.14
120-82-1	1,2,4-Trichlorobenzene	1.0	U	1.0	0.26
95-63-6	1,2,4-Trimethylbenzene	1.0	U	1.0	0.070
96-12-8	1,2-Dibromo-3-Chloropropane	5.0	U	5.0	0.91
95-50-1	1,2-Dichlorobenzene	1.0	U	1.0	0.15
107-06-2	1,2-Dichloroethane	1.0	U	1.0	0.21
78-87-5	1,2-Dichloropropane	1.0	U	1.0	0.15
541-73-1	1,3-Dichlorobenzene	1.0	U	1.0	0.15
142-28-9	1,3-Dichloropropane	1.0	U	1.0	0.21
106-46-7	1,4-Dichlorobenzene	1.0	U	1.0	0.16
594-20-7	2,2-Dichloropropane	1.0	U	1.0	0.31
110-75-8	2-Chloroethyl vinyl ether	10	U	10	0.26
95-49-8	2-Chlorotoluene	1.0	U	1.0	0.15
591-78-6	2-Hexanone	5.0	U	5.0	0.54
108-86-1	Bromobenzene	1.0	U	1.0	0.12
74-97-5	Bromochloromethane	1.0	U	1.0	0.14
106-43-4	4-Chlorotoluene	1.0	U	1.0	0.090
99-87-6	p-Isopropyltoluene	1.0	U	1.0	0.13
67-64-1	Acetone	5.0	U	5.0	5.4
71-43-2	Benzene	1.0	U	1.0	0.13
75-25-2	Bromoform	1.0	U	1.0	0.76
74-83-9	Bromomethane	1.0	U	1.0	0.42
75-15-0	Carbon disulfide	1.0	U	1.0	0.28
56-23-5	Carbon tetrachloride	1.0	U	1.0	0.26
108-90-7	Chlorobenzene	1.0	U	1.0	0.14
75-00-3	Chloroethane	1.0	U	1.0	0.83

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-118610-1

SDG No.:

Client Sample ID: MSA-SW44B-090919 Lab Sample ID: 240-118610-30

Matrix: Water Lab File ID: U1909742.d

Analysis Method: 8260C Date Collected: 09/09/2019 10:58

Sample wt/vol: 5(mL) Date Analyzed: 09/14/2019 18:41

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.: 400715 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
67-66-3	Chloroform	1.0	U	1.0	0.13
74-87-3	Chloromethane	1.0	U	1.0	0.20
156-59-2	cis-1,2-Dichloroethene	1.0	U	1.0	0.16
10061-01-5	cis-1,3-Dichloropropene	1.0	U	1.0	0.61
87-68-3	Hexachlorobutadiene	1.0	U	1.0	0.83
74-95-3	Dibromomethane	1.0	U	1.0	0.090
75-27-4	Bromodichloromethane	1.0	U	1.0	0.17
75-71-8	Dichlorodifluoromethane	1.0	U	1.0	0.35
100-41-4	Ethylbenzene	1.0	U	1.0	0.11
106-93-4	1,2-Dibromoethane	1.0	U	1.0	0.12
108-20-3	Diisopropyl ether	5.0	U	5.0	0.17
91-20-3	Naphthalene	1.0	U	1.0	0.32
179601-23-1	m-Xylene & p-Xylene	2.0	U	2.0	0.080
104-51-8	n-Butylbenzene	1.0	U	1.0	0.14
98-82-8	Isopropylbenzene	1.0	U	1.0	0.090
103-65-1	n-Propylbenzene	1.0	U	1.0	0.15
78-93-3	2-Butanone	5.0	U	5.0	1.2
108-10-1	4-Methyl-2-pentanone	5.0	U	5.0	0.42
135-98-8	sec-Butylbenzene	1.0	U	1.0	0.13
1634-04-4	Methyl tert-butyl ether	1.0	U	1.0	0.070
994-05-8	Tert-amyl-methyl ether (TAME)	5.0	U	5.0	0.11
75-09-2	Methylene Chloride	5.0	U	5.0	2.6
95-47-6	o-Xylene	1.0	U	1.0	0.090
100-42-5	Styrene	1.0	U	1.0	0.10
637-92-3	Ethyl-t-butyl ether (ETBE)	5.0	U	5.0	0.15
98-06-6	tert-Butylbenzene	1.0	U	1.0	0.14
127-18-4	Tetrachloroethene	1.0	U	1.0	0.15
108-88-3	Toluene	1.0	U	1.0	0.14
156-60-5	trans-1,2-Dichloroethene	1.0	U	1.0	0.19
10061-02-6	trans-1,3-Dichloropropene	1.0	U	1.0	0.67
79-01-6	Trichloroethene	1.0	U	1.0	0.10
75-69-4	Trichlorofluoromethane	1.0	U	1.0	0.45
108-05-4	Vinyl acetate	2.0	U	2.0	0.19
75-01-4	Vinyl chloride	0.50	U	0.50	0.20
75-65-0	tert-Butyl alcohol	1.8	J	20	1.7
1330-20-7	Xylenes, Total	2.0	U	2.0	0.15

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-118610-1

SDG No.:

Client Sample ID: MSA-SW44B-090919 Lab Sample ID: 240-118610-30

Matrix: Water Lab File ID: U1909742.d

Analysis Method: 8260C Date Collected: 09/09/2019 10:58

Sample wt/vol: 5(mL) Date Analyzed: 09/14/2019 18:41

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.: 400715 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
124-48-1	Dibromochloromethane	1.0	U	1.0	0.39

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	110		70-121
460-00-4	4-Bromofluorobenzene (Surr)	90		59-120
2037-26-5	Toluene-d8 (Surr)	98		70-123
1868-53-7	Dibromofluoromethane (Surr)	109		75-128

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-118610-1

SDG No.:

Client Sample ID: MSA-SW44B-090919 Lab Sample ID: 240-118610-30

Matrix: Water Lab File ID: U1909742.d

Analysis Method: 8260C Date Collected: 09/09/2019 10:58

Sample wt/vol: 5(mL) Date Analyzed: 09/14/2019 18:41

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.: 400715 Units: ug/L

Number TICs Found: 0 TIC Result Total: 0

CAS NO.	COMPOUND NAME	RT	RESULT	Q	MATCH QUALITY
	Tentatively Identified Compound		None		

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET
TARGETED TENATIVELY IDENTIFIED COMPOUNDS

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-118610-1

SDG No.:

Client Sample ID: MSA-SW44B-090919 Lab Sample ID: 240-118610-30

Matrix: Water Lab File ID: U1909742.d

Analysis Method: 8260C Date Collected: 09/09/2019 10:58

Sample wt/vol: 5(mL) Date Analyzed: 09/14/2019 18:41

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.: 400715 Units: ug/L

CAS NO.	COMPOUND NAME	RT	RESULT	Q	MATCH QUALITY
75-45-6	Chlorodifluoromethane TIC		1.0	U	

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-118610-1

SDG No.:

Client Sample ID: MSA-SW44C-090919 Lab Sample ID: 240-118610-31

Matrix: Water Lab File ID: U1909743.d

Analysis Method: 8260C Date Collected: 09/09/2019 11:01

Sample wt/vol: 5(mL) Date Analyzed: 09/14/2019 19:13

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.: 400715 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
630-20-6	1,1,1,2-Tetrachloroethane	1.0	U	1.0	0.14
71-55-6	1,1,1-Trichloroethane	1.0	U	1.0	0.24
79-34-5	1,1,2,2-Tetrachloroethane	1.0	U	1.0	0.13
76-13-1	1,1,2-Trichloro-1,2,2-trichfluoroeth ane	1.0	U	1.0	0.41
75-34-3	1,1-Dichloroethane	1.0	U	1.0	0.17
75-35-4	1,1-Dichloroethene	1.0	U	1.0	0.19
563-58-6	1,1-Dichloropropene	1.0	U	1.0	0.14
87-61-6	1,2,3-Trichlorobenzene	1.0	U	1.0	0.54
96-18-4	1,2,3-Trichloropropane	1.0	U	1.0	0.24
526-73-8	1,2,3-Trimethylbenzene	5.0	U	5.0	0.14
120-82-1	1,2,4-Trichlorobenzene	1.0	U	1.0	0.26
95-63-6	1,2,4-Trimethylbenzene	1.0	U	1.0	0.070
96-12-8	1,2-Dibromo-3-Chloropropane	5.0	U	5.0	0.91
95-50-1	1,2-Dichlorobenzene	1.0	U	1.0	0.15
107-06-2	1,2-Dichloroethane	1.0	U	1.0	0.21
78-87-5	1,2-Dichloropropane	1.0	U	1.0	0.15
541-73-1	1,3-Dichlorobenzene	1.0	U	1.0	0.15
142-28-9	1,3-Dichloropropane	1.0	U	1.0	0.21
106-46-7	1,4-Dichlorobenzene	1.0	U	1.0	0.16
594-20-7	2,2-Dichloropropane	1.0	U	1.0	0.31
110-75-8	2-Chloroethyl vinyl ether	10	U	10	0.26
95-49-8	2-Chlorotoluene	1.0	U	1.0	0.15
591-78-6	2-Hexanone	5.0	U	5.0	0.54
108-86-1	Bromobenzene	1.0	U	1.0	0.12
74-97-5	Bromochloromethane	1.0	U	1.0	0.14
106-43-4	4-Chlorotoluene	1.0	U	1.0	0.090
99-87-6	p-Isopropyltoluene	1.0	U	1.0	0.13
67-64-1	Acetone	5.0	U	5.0	5.4
71-43-2	Benzene	1.0	U	1.0	0.13
75-25-2	Bromoform	1.0	U	1.0	0.76
74-83-9	Bromomethane	1.0	U	1.0	0.42
75-15-0	Carbon disulfide	1.0	U	1.0	0.28
56-23-5	Carbon tetrachloride	1.0	U	1.0	0.26
108-90-7	Chlorobenzene	1.0	U	1.0	0.14
75-00-3	Chloroethane	1.0	U	1.0	0.83

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-118610-1

SDG No.:

Client Sample ID: MSA-SW44C-090919 Lab Sample ID: 240-118610-31

Matrix: Water Lab File ID: U1909743.d

Analysis Method: 8260C Date Collected: 09/09/2019 11:01

Sample wt/vol: 5(mL) Date Analyzed: 09/14/2019 19:13

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.: 400715 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
67-66-3	Chloroform	1.0	U	1.0	0.13
74-87-3	Chloromethane	1.0	U	1.0	0.20
156-59-2	cis-1,2-Dichloroethene	1.0	U	1.0	0.16
10061-01-5	cis-1,3-Dichloropropene	1.0	U	1.0	0.61
87-68-3	Hexachlorobutadiene	1.0	U	1.0	0.83
74-95-3	Dibromomethane	1.0	U	1.0	0.090
75-27-4	Bromodichloromethane	1.0	U	1.0	0.17
75-71-8	Dichlorodifluoromethane	1.0	U	1.0	0.35
100-41-4	Ethylbenzene	1.0	U	1.0	0.11
106-93-4	1,2-Dibromoethane	1.0	U	1.0	0.12
108-20-3	Diisopropyl ether	5.0	U	5.0	0.17
91-20-3	Naphthalene	1.0	U	1.0	0.32
179601-23-1	m-Xylene & p-Xylene	2.0	U	2.0	0.080
104-51-8	n-Butylbenzene	1.0	U	1.0	0.14
98-82-8	Isopropylbenzene	1.0	U	1.0	0.090
103-65-1	n-Propylbenzene	1.0	U	1.0	0.15
78-93-3	2-Butanone	5.0	U	5.0	1.2
108-10-1	4-Methyl-2-pentanone	5.0	U	5.0	0.42
135-98-8	sec-Butylbenzene	1.0	U	1.0	0.13
1634-04-4	Methyl tert-butyl ether	1.0	U	1.0	0.070
994-05-8	Tert-amyl-methyl ether (TAME)	5.0	U	5.0	0.11
75-09-2	Methylene Chloride	5.0	U	5.0	2.6
95-47-6	o-Xylene	1.0	U	1.0	0.090
100-42-5	Styrene	1.0	U	1.0	0.10
637-92-3	Ethyl-t-butyl ether (ETBE)	5.0	U	5.0	0.15
98-06-6	tert-Butylbenzene	1.0	U	1.0	0.14
127-18-4	Tetrachloroethene	1.0	U	1.0	0.15
108-88-3	Toluene	1.0	U	1.0	0.14
156-60-5	trans-1,2-Dichloroethene	1.0	U	1.0	0.19
10061-02-6	trans-1,3-Dichloropropene	1.0	U	1.0	0.67
79-01-6	Trichloroethene	1.0	U	1.0	0.10
75-69-4	Trichlorofluoromethane	1.0	U	1.0	0.45
108-05-4	Vinyl acetate	2.0	U	2.0	0.19
75-01-4	Vinyl chloride	0.50	U	0.50	0.20
75-65-0	tert-Butyl alcohol	20	U	20	1.7
1330-20-7	Xylenes, Total	2.0	U	2.0	0.15

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-118610-1

SDG No.:

Client Sample ID: MSA-SW44C-090919 Lab Sample ID: 240-118610-31

Matrix: Water Lab File ID: U1909743.d

Analysis Method: 8260C Date Collected: 09/09/2019 11:01

Sample wt/vol: 5(mL) Date Analyzed: 09/14/2019 19:13

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.: 400715 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
124-48-1	Dibromochloromethane	1.0	U	1.0	0.39

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	117		70-121
460-00-4	4-Bromofluorobenzene (Surr)	98		59-120
2037-26-5	Toluene-d8 (Surr)	104		70-123
1868-53-7	Dibromofluoromethane (Surr)	112		75-128

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-118610-1

SDG No.:

Client Sample ID: MSA-SW44C-090919 Lab Sample ID: 240-118610-31

Matrix: Water Lab File ID: U1909743.d

Analysis Method: 8260C Date Collected: 09/09/2019 11:01

Sample wt/vol: 5(mL) Date Analyzed: 09/14/2019 19:13

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.: 400715 Units: ug/L

Number TICs Found: 0 TIC Result Total: 0

CAS NO.	COMPOUND NAME	RT	RESULT	Q	MATCH QUALITY
	Tentatively Identified Compound		None		

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET
TARGETED TENATIVELY IDENTIFIED COMPOUNDS

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-118610-1

SDG No.:

Client Sample ID: MSA-SW44C-090919 Lab Sample ID: 240-118610-31

Matrix: Water Lab File ID: U1909743.d

Analysis Method: 8260C Date Collected: 09/09/2019 11:01

Sample wt/vol: 5(mL) Date Analyzed: 09/14/2019 19:13

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.: 400715 Units: ug/L

CAS NO.	COMPOUND NAME	RT	RESULT	Q	MATCH QUALITY
75-45-6	Chlorodifluoromethane TIC		1.0	U	

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-118610-1

SDG No.:

Client Sample ID: MSA-SW44D-090919 Lab Sample ID: 240-118610-32

Matrix: Water Lab File ID: U1909744.d

Analysis Method: 8260C Date Collected: 09/09/2019 11:05

Sample wt/vol: 5(mL) Date Analyzed: 09/14/2019 19:40

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.: 400715 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
630-20-6	1,1,1,2-Tetrachloroethane	1.0	U	1.0	0.14
71-55-6	1,1,1-Trichloroethane	1.0	U	1.0	0.24
79-34-5	1,1,2,2-Tetrachloroethane	1.0	U	1.0	0.13
76-13-1	1,1,2-Trichloro-1,2,2-trichfluoroeth ane	1.0	U	1.0	0.41
75-34-3	1,1-Dichloroethane	1.0	U	1.0	0.17
75-35-4	1,1-Dichloroethene	1.0	U	1.0	0.19
563-58-6	1,1-Dichloropropene	1.0	U	1.0	0.14
87-61-6	1,2,3-Trichlorobenzene	1.0	U	1.0	0.54
96-18-4	1,2,3-Trichloropropane	1.0	U	1.0	0.24
526-73-8	1,2,3-Trimethylbenzene	5.0	U	5.0	0.14
120-82-1	1,2,4-Trichlorobenzene	1.0	U	1.0	0.26
95-63-6	1,2,4-Trimethylbenzene	1.0	U	1.0	0.070
96-12-8	1,2-Dibromo-3-Chloropropane	5.0	U	5.0	0.91
95-50-1	1,2-Dichlorobenzene	1.0	U	1.0	0.15
107-06-2	1,2-Dichloroethane	1.0	U	1.0	0.21
78-87-5	1,2-Dichloropropane	1.0	U	1.0	0.15
541-73-1	1,3-Dichlorobenzene	1.0	U	1.0	0.15
142-28-9	1,3-Dichloropropane	1.0	U	1.0	0.21
106-46-7	1,4-Dichlorobenzene	1.0	U	1.0	0.16
594-20-7	2,2-Dichloropropane	1.0	U	1.0	0.31
110-75-8	2-Chloroethyl vinyl ether	10	U	10	0.26
95-49-8	2-Chlorotoluene	1.0	U	1.0	0.15
591-78-6	2-Hexanone	5.0	U	5.0	0.54
108-86-1	Bromobenzene	1.0	U	1.0	0.12
74-97-5	Bromochloromethane	1.0	U	1.0	0.14
106-43-4	4-Chlorotoluene	1.0	U	1.0	0.090
99-87-6	p-Isopropyltoluene	1.0	U	1.0	0.13
67-64-1	Acetone	5.0	U	5.0	5.4
71-43-2	Benzene	1.0	U	1.0	0.13
75-25-2	Bromoform	1.0	U	1.0	0.76
74-83-9	Bromomethane	1.0	U	1.0	0.42
75-15-0	Carbon disulfide	1.0	U	1.0	0.28
56-23-5	Carbon tetrachloride	1.0	U	1.0	0.26
108-90-7	Chlorobenzene	1.0	U	1.0	0.14
75-00-3	Chloroethane	1.0	U	1.0	0.83

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-118610-1

SDG No.:

Client Sample ID: MSA-SW44D-090919 Lab Sample ID: 240-118610-32

Matrix: Water Lab File ID: U1909744.d

Analysis Method: 8260C Date Collected: 09/09/2019 11:05

Sample wt/vol: 5(mL) Date Analyzed: 09/14/2019 19:40

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.: 400715 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
67-66-3	Chloroform	1.0	U	1.0	0.13
74-87-3	Chloromethane	1.0	U	1.0	0.20
156-59-2	cis-1,2-Dichloroethene	1.0	U	1.0	0.16
10061-01-5	cis-1,3-Dichloropropene	1.0	U	1.0	0.61
87-68-3	Hexachlorobutadiene	1.0	U	1.0	0.83
74-95-3	Dibromomethane	1.0	U	1.0	0.090
75-27-4	Bromodichloromethane	1.0	U	1.0	0.17
75-71-8	Dichlorodifluoromethane	1.0	U	1.0	0.35
100-41-4	Ethylbenzene	1.0	U	1.0	0.11
106-93-4	1,2-Dibromoethane	1.0	U	1.0	0.12
108-20-3	Diisopropyl ether	5.0	U	5.0	0.17
91-20-3	Naphthalene	1.0	U	1.0	0.32
179601-23-1	m-Xylene & p-Xylene	2.0	U	2.0	0.080
104-51-8	n-Butylbenzene	1.0	U	1.0	0.14
98-82-8	Isopropylbenzene	1.0	U	1.0	0.090
103-65-1	n-Propylbenzene	1.0	U	1.0	0.15
78-93-3	2-Butanone	5.0	U	5.0	1.2
108-10-1	4-Methyl-2-pentanone	5.0	U	5.0	0.42
135-98-8	sec-Butylbenzene	1.0	U	1.0	0.13
1634-04-4	Methyl tert-butyl ether	1.0	U	1.0	0.070
994-05-8	Tert-amyl-methyl ether (TAME)	5.0	U	5.0	0.11
75-09-2	Methylene Chloride	5.0	U	5.0	2.6
95-47-6	o-Xylene	1.0	U	1.0	0.090
100-42-5	Styrene	1.0	U	1.0	0.10
637-92-3	Ethyl-t-butyl ether (ETBE)	5.0	U	5.0	0.15
98-06-6	tert-Butylbenzene	1.0	U	1.0	0.14
127-18-4	Tetrachloroethene	1.0	U	1.0	0.15
108-88-3	Toluene	1.0	U	1.0	0.14
156-60-5	trans-1,2-Dichloroethene	1.0	U	1.0	0.19
10061-02-6	trans-1,3-Dichloropropene	1.0	U	1.0	0.67
79-01-6	Trichloroethene	1.0	U	1.0	0.10
75-69-4	Trichlorofluoromethane	1.0	U	1.0	0.45
108-05-4	Vinyl acetate	2.0	U	2.0	0.19
75-01-4	Vinyl chloride	0.50	U	0.50	0.20
75-65-0	tert-Butyl alcohol	1.7	J	20	1.7
1330-20-7	Xylenes, Total	2.0	U	2.0	0.15

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-118610-1

SDG No.:

Client Sample ID: MSA-SW44D-090919 Lab Sample ID: 240-118610-32

Matrix: Water Lab File ID: U1909744.d

Analysis Method: 8260C Date Collected: 09/09/2019 11:05

Sample wt/vol: 5(mL) Date Analyzed: 09/14/2019 19:40

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.: 400715 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
124-48-1	Dibromochloromethane	1.0	U	1.0	0.39

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	113		70-121
460-00-4	4-Bromofluorobenzene (Surr)	93		59-120
2037-26-5	Toluene-d8 (Surr)	99		70-123
1868-53-7	Dibromofluoromethane (Surr)	108		75-128

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-118610-1

SDG No.:

Client Sample ID: MSA-SW44D-090919 Lab Sample ID: 240-118610-32

Matrix: Water Lab File ID: U1909744.d

Analysis Method: 8260C Date Collected: 09/09/2019 11:05

Sample wt/vol: 5(mL) Date Analyzed: 09/14/2019 19:40

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.: 400715 Units: ug/L

Number TICs Found: 0 TIC Result Total: 0

CAS NO.	COMPOUND NAME	RT	RESULT	Q	MATCH QUALITY
	Tentatively Identified Compound		None		

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET
TARGETED TENATIVELY IDENTIFIED COMPOUNDS

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-118610-1

SDG No.:

Client Sample ID: MSA-SW44D-090919 Lab Sample ID: 240-118610-32

Matrix: Water Lab File ID: U1909744.d

Analysis Method: 8260C Date Collected: 09/09/2019 11:05

Sample wt/vol: 5(mL) Date Analyzed: 09/14/2019 19:40

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.: 400715 Units: ug/L

CAS NO.	COMPOUND NAME	RT	RESULT	Q	MATCH QUALITY
75-45-6	Chlorodifluoromethane TIC		1.0	U	

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-118610-1

SDG No.:

Client Sample ID: MSA-SW45A-090919 Lab Sample ID: 240-118610-33

Matrix: Water Lab File ID: U1909745.d

Analysis Method: 8260C Date Collected: 09/09/2019 10:36

Sample wt/vol: 5(mL) Date Analyzed: 09/14/2019 20:08

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.: 400715 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
630-20-6	1,1,1,2-Tetrachloroethane	1.0	U	1.0	0.14
71-55-6	1,1,1-Trichloroethane	1.0	U	1.0	0.24
79-34-5	1,1,2,2-Tetrachloroethane	1.0	U	1.0	0.13
76-13-1	1,1,2-Trichloro-1,2,2-trichfluoroeth ane	1.0	U	1.0	0.41
75-34-3	1,1-Dichloroethane	1.0	U	1.0	0.17
75-35-4	1,1-Dichloroethene	1.0	U	1.0	0.19
563-58-6	1,1-Dichloropropene	1.0	U	1.0	0.14
87-61-6	1,2,3-Trichlorobenzene	1.0	U	1.0	0.54
96-18-4	1,2,3-Trichloropropane	1.0	U	1.0	0.24
526-73-8	1,2,3-Trimethylbenzene	5.0	U	5.0	0.14
120-82-1	1,2,4-Trichlorobenzene	1.0	U	1.0	0.26
95-63-6	1,2,4-Trimethylbenzene	1.0	U	1.0	0.070
96-12-8	1,2-Dibromo-3-Chloropropane	5.0	U	5.0	0.91
95-50-1	1,2-Dichlorobenzene	1.0	U	1.0	0.15
107-06-2	1,2-Dichloroethane	1.0	U	1.0	0.21
78-87-5	1,2-Dichloropropane	1.0	U	1.0	0.15
541-73-1	1,3-Dichlorobenzene	1.0	U	1.0	0.15
142-28-9	1,3-Dichloropropane	1.0	U	1.0	0.21
106-46-7	1,4-Dichlorobenzene	1.0	U	1.0	0.16
594-20-7	2,2-Dichloropropane	1.0	U	1.0	0.31
110-75-8	2-Chloroethyl vinyl ether	10	U	10	0.26
95-49-8	2-Chlorotoluene	1.0	U	1.0	0.15
591-78-6	2-Hexanone	5.0	U	5.0	0.54
108-86-1	Bromobenzene	1.0	U	1.0	0.12
74-97-5	Bromochloromethane	1.0	U	1.0	0.14
106-43-4	4-Chlorotoluene	1.0	U	1.0	0.090
99-87-6	p-Isopropyltoluene	1.0	U	1.0	0.13
67-64-1	Acetone	5.0	U	5.0	5.4
71-43-2	Benzene	1.0	U	1.0	0.13
75-25-2	Bromoform	1.0	U	1.0	0.76
74-83-9	Bromomethane	1.0	U	1.0	0.42
75-15-0	Carbon disulfide	1.0	U	1.0	0.28
56-23-5	Carbon tetrachloride	1.0	U	1.0	0.26
108-90-7	Chlorobenzene	1.0	U	1.0	0.14
75-00-3	Chloroethane	1.0	U	1.0	0.83

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-118610-1

SDG No.:

Client Sample ID: MSA-SW45A-090919 Lab Sample ID: 240-118610-33

Matrix: Water Lab File ID: U1909745.d

Analysis Method: 8260C Date Collected: 09/09/2019 10:36

Sample wt/vol: 5(mL) Date Analyzed: 09/14/2019 20:08

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.: 400715 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
67-66-3	Chloroform	1.0	U	1.0	0.13
74-87-3	Chloromethane	1.0	U	1.0	0.20
156-59-2	cis-1,2-Dichloroethene	1.0	U	1.0	0.16
10061-01-5	cis-1,3-Dichloropropene	1.0	U	1.0	0.61
87-68-3	Hexachlorobutadiene	1.0	U	1.0	0.83
74-95-3	Dibromomethane	1.0	U	1.0	0.090
75-27-4	Bromodichloromethane	1.0	U	1.0	0.17
75-71-8	Dichlorodifluoromethane	1.0	U	1.0	0.35
100-41-4	Ethylbenzene	1.0	U	1.0	0.11
106-93-4	1,2-Dibromoethane	1.0	U	1.0	0.12
108-20-3	Diisopropyl ether	5.0	U	5.0	0.17
91-20-3	Naphthalene	1.0	U	1.0	0.32
179601-23-1	m-Xylene & p-Xylene	2.0	U	2.0	0.080
104-51-8	n-Butylbenzene	1.0	U	1.0	0.14
98-82-8	Isopropylbenzene	1.0	U	1.0	0.090
103-65-1	n-Propylbenzene	1.0	U	1.0	0.15
78-93-3	2-Butanone	5.0	U	5.0	1.2
108-10-1	4-Methyl-2-pentanone	5.0	U	5.0	0.42
135-98-8	sec-Butylbenzene	1.0	U	1.0	0.13
1634-04-4	Methyl tert-butyl ether	1.0	U	1.0	0.070
994-05-8	Tert-amyl-methyl ether (TAME)	5.0	U	5.0	0.11
75-09-2	Methylene Chloride	5.0	U	5.0	2.6
95-47-6	o-Xylene	1.0	U	1.0	0.090
100-42-5	Styrene	1.0	U	1.0	0.10
637-92-3	Ethyl-t-butyl ether (ETBE)	5.0	U	5.0	0.15
98-06-6	tert-Butylbenzene	1.0	U	1.0	0.14
127-18-4	Tetrachloroethene	1.0	U	1.0	0.15
108-88-3	Toluene	1.0	U	1.0	0.14
156-60-5	trans-1,2-Dichloroethene	1.0	U	1.0	0.19
10061-02-6	trans-1,3-Dichloropropene	1.0	U	1.0	0.67
79-01-6	Trichloroethene	1.0	U	1.0	0.10
75-69-4	Trichlorofluoromethane	1.0	U	1.0	0.45
108-05-4	Vinyl acetate	2.0	U	2.0	0.19
75-01-4	Vinyl chloride	0.50	U	0.50	0.20
75-65-0	tert-Butyl alcohol	20	U	20	1.7
1330-20-7	Xylenes, Total	2.0	U	2.0	0.15

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-118610-1

SDG No.:

Client Sample ID: MSA-SW45A-090919 Lab Sample ID: 240-118610-33

Matrix: Water Lab File ID: U1909745.d

Analysis Method: 8260C Date Collected: 09/09/2019 10:36

Sample wt/vol: 5(mL) Date Analyzed: 09/14/2019 20:08

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.: 400715 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
124-48-1	Dibromochloromethane	1.0	U	1.0	0.39

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	112		70-121
460-00-4	4-Bromofluorobenzene (Surr)	92		59-120
2037-26-5	Toluene-d8 (Surr)	100		70-123
1868-53-7	Dibromofluoromethane (Surr)	109		75-128

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-118610-1

SDG No.:

Client Sample ID: MSA-SW45A-090919 Lab Sample ID: 240-118610-33

Matrix: Water Lab File ID: U1909745.d

Analysis Method: 8260C Date Collected: 09/09/2019 10:36

Sample wt/vol: 5(mL) Date Analyzed: 09/14/2019 20:08

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.: 400715 Units: ug/L

Number TICs Found: 0 TIC Result Total: 0

CAS NO.	COMPOUND NAME	RT	RESULT	Q	MATCH QUALITY
	Tentatively Identified Compound		None		

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET
TARGETED TENATIVELY IDENTIFIED COMPOUNDS

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-118610-1

SDG No.:

Client Sample ID: MSA-SW45A-090919 Lab Sample ID: 240-118610-33

Matrix: Water Lab File ID: U1909745.d

Analysis Method: 8260C Date Collected: 09/09/2019 10:36

Sample wt/vol: 5(mL) Date Analyzed: 09/14/2019 20:08

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.: 400715 Units: ug/L

CAS NO.	COMPOUND NAME	RT	RESULT	Q	MATCH QUALITY
75-45-6	Chlorodifluoromethane TIC		1.0	U	

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-118610-1

SDG No.:

Client Sample ID: MSA-SW45B-090919 Lab Sample ID: 240-118610-34

Matrix: Water Lab File ID: U1909746.d

Analysis Method: 8260C Date Collected: 09/09/2019 10:40

Sample wt/vol: 5(mL) Date Analyzed: 09/14/2019 20:37

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.: 400715 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
630-20-6	1,1,1,2-Tetrachloroethane	1.0	U	1.0	0.14
71-55-6	1,1,1-Trichloroethane	1.0	U	1.0	0.24
79-34-5	1,1,2,2-Tetrachloroethane	1.0	U	1.0	0.13
76-13-1	1,1,2-Trichloro-1,2,2-trichfluoroeth ane	1.0	U	1.0	0.41
75-34-3	1,1-Dichloroethane	1.0	U	1.0	0.17
75-35-4	1,1-Dichloroethene	1.0	U	1.0	0.19
563-58-6	1,1-Dichloropropene	1.0	U	1.0	0.14
87-61-6	1,2,3-Trichlorobenzene	1.0	U	1.0	0.54
96-18-4	1,2,3-Trichloropropane	1.0	U	1.0	0.24
526-73-8	1,2,3-Trimethylbenzene	5.0	U	5.0	0.14
120-82-1	1,2,4-Trichlorobenzene	1.0	U	1.0	0.26
95-63-6	1,2,4-Trimethylbenzene	1.0	U	1.0	0.070
96-12-8	1,2-Dibromo-3-Chloropropane	5.0	U	5.0	0.91
95-50-1	1,2-Dichlorobenzene	1.0	U	1.0	0.15
107-06-2	1,2-Dichloroethane	1.0	U	1.0	0.21
78-87-5	1,2-Dichloropropane	1.0	U	1.0	0.15
541-73-1	1,3-Dichlorobenzene	1.0	U	1.0	0.15
142-28-9	1,3-Dichloropropane	1.0	U	1.0	0.21
106-46-7	1,4-Dichlorobenzene	1.0	U	1.0	0.16
594-20-7	2,2-Dichloropropane	1.0	U	1.0	0.31
110-75-8	2-Chloroethyl vinyl ether	10	U	10	0.26
95-49-8	2-Chlorotoluene	1.0	U	1.0	0.15
591-78-6	2-Hexanone	5.0	U	5.0	0.54
108-86-1	Bromobenzene	1.0	U	1.0	0.12
74-97-5	Bromochloromethane	1.0	U	1.0	0.14
106-43-4	4-Chlorotoluene	1.0	U	1.0	0.090
99-87-6	p-Isopropyltoluene	1.0	U	1.0	0.13
67-64-1	Acetone	5.0	U	5.0	5.4
71-43-2	Benzene	1.0	U	1.0	0.13
75-25-2	Bromoform	1.0	U	1.0	0.76
74-83-9	Bromomethane	1.0	U	1.0	0.42
75-15-0	Carbon disulfide	1.0	U	1.0	0.28
56-23-5	Carbon tetrachloride	1.0	U	1.0	0.26
108-90-7	Chlorobenzene	1.0	U	1.0	0.14
75-00-3	Chloroethane	1.0	U	1.0	0.83

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-118610-1

SDG No.:

Client Sample ID: MSA-SW45B-090919 Lab Sample ID: 240-118610-34

Matrix: Water Lab File ID: U1909746.d

Analysis Method: 8260C Date Collected: 09/09/2019 10:40

Sample wt/vol: 5(mL) Date Analyzed: 09/14/2019 20:37

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.: 400715 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
67-66-3	Chloroform	1.0	U	1.0	0.13
74-87-3	Chloromethane	1.0	U	1.0	0.20
156-59-2	cis-1,2-Dichloroethene	1.0	U	1.0	0.16
10061-01-5	cis-1,3-Dichloropropene	1.0	U	1.0	0.61
87-68-3	Hexachlorobutadiene	1.0	U	1.0	0.83
74-95-3	Dibromomethane	1.0	U	1.0	0.090
75-27-4	Bromodichloromethane	1.0	U	1.0	0.17
75-71-8	Dichlorodifluoromethane	1.0	U	1.0	0.35
100-41-4	Ethylbenzene	1.0	U	1.0	0.11
106-93-4	1,2-Dibromoethane	1.0	U	1.0	0.12
108-20-3	Diisopropyl ether	5.0	U	5.0	0.17
91-20-3	Naphthalene	1.0	U	1.0	0.32
179601-23-1	m-Xylene & p-Xylene	2.0	U	2.0	0.080
104-51-8	n-Butylbenzene	1.0	U	1.0	0.14
98-82-8	Isopropylbenzene	1.0	U	1.0	0.090
103-65-1	n-Propylbenzene	1.0	U	1.0	0.15
78-93-3	2-Butanone	5.0	U	5.0	1.2
108-10-1	4-Methyl-2-pentanone	5.0	U	5.0	0.42
135-98-8	sec-Butylbenzene	1.0	U	1.0	0.13
1634-04-4	Methyl tert-butyl ether	1.0	U	1.0	0.070
994-05-8	Tert-amyl-methyl ether (TAME)	5.0	U	5.0	0.11
75-09-2	Methylene Chloride	5.0	U	5.0	2.6
95-47-6	o-Xylene	1.0	U	1.0	0.090
100-42-5	Styrene	1.0	U	1.0	0.10
637-92-3	Ethyl-t-butyl ether (ETBE)	5.0	U	5.0	0.15
98-06-6	tert-Butylbenzene	1.0	U	1.0	0.14
127-18-4	Tetrachloroethene	1.0	U	1.0	0.15
108-88-3	Toluene	1.0	U	1.0	0.14
156-60-5	trans-1,2-Dichloroethene	1.0	U	1.0	0.19
10061-02-6	trans-1,3-Dichloropropene	1.0	U	1.0	0.67
79-01-6	Trichloroethene	1.0	U	1.0	0.10
75-69-4	Trichlorofluoromethane	1.0	U	1.0	0.45
108-05-4	Vinyl acetate	2.0	U	2.0	0.19
75-01-4	Vinyl chloride	0.50	U	0.50	0.20
75-65-0	tert-Butyl alcohol	2.3	J	20	1.7
1330-20-7	Xylenes, Total	2.0	U	2.0	0.15

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-118610-1

SDG No.:

Client Sample ID: MSA-SW45B-090919 Lab Sample ID: 240-118610-34

Matrix: Water Lab File ID: U1909746.d

Analysis Method: 8260C Date Collected: 09/09/2019 10:40

Sample wt/vol: 5(mL) Date Analyzed: 09/14/2019 20:37

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.: 400715 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
124-48-1	Dibromochloromethane	1.0	U	1.0	0.39

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	112		70-121
460-00-4	4-Bromofluorobenzene (Surr)	94		59-120
2037-26-5	Toluene-d8 (Surr)	100		70-123
1868-53-7	Dibromofluoromethane (Surr)	108		75-128

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-118610-1

SDG No.:

Client Sample ID: MSA-SW45B-090919 Lab Sample ID: 240-118610-34

Matrix: Water Lab File ID: U1909746.d

Analysis Method: 8260C Date Collected: 09/09/2019 10:40

Sample wt/vol: 5(mL) Date Analyzed: 09/14/2019 20:37

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.: 400715 Units: ug/L

Number TICs Found: 0 TIC Result Total: 0

CAS NO.	COMPOUND NAME	RT	RESULT	Q	MATCH QUALITY
	Tentatively Identified Compound		None		

FORM I-TIC 8260C

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET
TARGETED TENATIVELY IDENTIFIED COMPOUNDS

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-118610-1

SDG No.:

Client Sample ID: MSA-SW45B-090919 Lab Sample ID: 240-118610-34

Matrix: Water Lab File ID: U1909746.d

Analysis Method: 8260C Date Collected: 09/09/2019 10:40

Sample wt/vol: 5(mL) Date Analyzed: 09/14/2019 20:37

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.: 400715 Units: ug/L

CAS NO.	COMPOUND NAME	RT	RESULT	Q	MATCH QUALITY
75-45-6	Chlorodifluoromethane TIC		1.0	U	

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-118610-1

SDG No.:

Client Sample ID: MSA-SW45C-090919 Lab Sample ID: 240-118610-35

Matrix: Water Lab File ID: U1909747.d

Analysis Method: 8260C Date Collected: 09/09/2019 10:45

Sample wt/vol: 5(mL) Date Analyzed: 09/14/2019 21:03

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.: 400715 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
630-20-6	1,1,1,2-Tetrachloroethane	1.0	U	1.0	0.14
71-55-6	1,1,1-Trichloroethane	1.0	U	1.0	0.24
79-34-5	1,1,2,2-Tetrachloroethane	1.0	U	1.0	0.13
76-13-1	1,1,2-Trichloro-1,2,2-trichfluoroethane	1.0	U	1.0	0.41
75-34-3	1,1-Dichloroethane	1.0	U	1.0	0.17
75-35-4	1,1-Dichloroethene	1.0	U	1.0	0.19
563-58-6	1,1-Dichloropropene	1.0	U	1.0	0.14
87-61-6	1,2,3-Trichlorobenzene	1.0	U	1.0	0.54
96-18-4	1,2,3-Trichloropropane	1.0	U	1.0	0.24
526-73-8	1,2,3-Trimethylbenzene	5.0	U	5.0	0.14
120-82-1	1,2,4-Trichlorobenzene	1.0	U	1.0	0.26
95-63-6	1,2,4-Trimethylbenzene	1.0	U	1.0	0.070
96-12-8	1,2-Dibromo-3-Chloropropane	5.0	U	5.0	0.91
95-50-1	1,2-Dichlorobenzene	1.0	U	1.0	0.15
107-06-2	1,2-Dichloroethane	1.0	U	1.0	0.21
78-87-5	1,2-Dichloropropane	1.0	U	1.0	0.15
541-73-1	1,3-Dichlorobenzene	1.0	U	1.0	0.15
142-28-9	1,3-Dichloropropane	1.0	U	1.0	0.21
106-46-7	1,4-Dichlorobenzene	1.0	U	1.0	0.16
594-20-7	2,2-Dichloropropane	1.0	U	1.0	0.31
110-75-8	2-Chloroethyl vinyl ether	10	U	10	0.26
95-49-8	2-Chlorotoluene	1.0	U	1.0	0.15
591-78-6	2-Hexanone	5.0	U	5.0	0.54
108-86-1	Bromobenzene	1.0	U	1.0	0.12
74-97-5	Bromochloromethane	1.0	U	1.0	0.14
106-43-4	4-Chlorotoluene	1.0	U	1.0	0.090
99-87-6	p-Isopropyltoluene	1.0	U	1.0	0.13
67-64-1	Acetone	5.0	U	5.0	5.4
71-43-2	Benzene	1.0	U	1.0	0.13
75-25-2	Bromoform	1.0	U	1.0	0.76
74-83-9	Bromomethane	1.0	U	1.0	0.42
75-15-0	Carbon disulfide	1.0	U	1.0	0.28
56-23-5	Carbon tetrachloride	1.0	U	1.0	0.26
108-90-7	Chlorobenzene	1.0	U	1.0	0.14
75-00-3	Chloroethane	1.0	U	1.0	0.83

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-118610-1

SDG No.:

Client Sample ID: MSA-SW45C-090919 Lab Sample ID: 240-118610-35

Matrix: Water Lab File ID: U1909747.d

Analysis Method: 8260C Date Collected: 09/09/2019 10:45

Sample wt/vol: 5(mL) Date Analyzed: 09/14/2019 21:03

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.: 400715 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
67-66-3	Chloroform	1.0	U	1.0	0.13
74-87-3	Chloromethane	1.0	U	1.0	0.20
156-59-2	cis-1,2-Dichloroethene	1.0	U	1.0	0.16
10061-01-5	cis-1,3-Dichloropropene	1.0	U	1.0	0.61
87-68-3	Hexachlorobutadiene	1.0	U	1.0	0.83
74-95-3	Dibromomethane	1.0	U	1.0	0.090
75-27-4	Bromodichloromethane	1.0	U	1.0	0.17
75-71-8	Dichlorodifluoromethane	1.0	U	1.0	0.35
100-41-4	Ethylbenzene	1.0	U	1.0	0.11
106-93-4	1,2-Dibromoethane	1.0	U	1.0	0.12
108-20-3	Diisopropyl ether	5.0	U	5.0	0.17
91-20-3	Naphthalene	1.0	U	1.0	0.32
179601-23-1	m-Xylene & p-Xylene	2.0	U	2.0	0.080
104-51-8	n-Butylbenzene	1.0	U	1.0	0.14
98-82-8	Isopropylbenzene	1.0	U	1.0	0.090
103-65-1	n-Propylbenzene	1.0	U	1.0	0.15
78-93-3	2-Butanone	5.0	U	5.0	1.2
108-10-1	4-Methyl-2-pentanone	5.0	U	5.0	0.42
135-98-8	sec-Butylbenzene	1.0	U	1.0	0.13
1634-04-4	Methyl tert-butyl ether	1.0	U	1.0	0.070
994-05-8	Tert-amyl-methyl ether (TAME)	5.0	U	5.0	0.11
75-09-2	Methylene Chloride	5.0	U	5.0	2.6
95-47-6	o-Xylene	1.0	U	1.0	0.090
100-42-5	Styrene	1.0	U	1.0	0.10
637-92-3	Ethyl-t-butyl ether (ETBE)	5.0	U	5.0	0.15
98-06-6	tert-Butylbenzene	1.0	U	1.0	0.14
127-18-4	Tetrachloroethene	1.0	U	1.0	0.15
108-88-3	Toluene	1.0	U	1.0	0.14
156-60-5	trans-1,2-Dichloroethene	1.0	U	1.0	0.19
10061-02-6	trans-1,3-Dichloropropene	1.0	U	1.0	0.67
79-01-6	Trichloroethene	1.0	U	1.0	0.10
75-69-4	Trichlorofluoromethane	1.0	U	1.0	0.45
108-05-4	Vinyl acetate	2.0	U	2.0	0.19
75-01-4	Vinyl chloride	0.50	U	0.50	0.20
75-65-0	tert-Butyl alcohol	20	U	20	1.7
1330-20-7	Xylenes, Total	2.0	U	2.0	0.15

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-118610-1

SDG No.:

Client Sample ID: MSA-SW45C-090919 Lab Sample ID: 240-118610-35

Matrix: Water Lab File ID: U1909747.d

Analysis Method: 8260C Date Collected: 09/09/2019 10:45

Sample wt/vol: 5(mL) Date Analyzed: 09/14/2019 21:03

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.: 400715 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
124-48-1	Dibromochloromethane	1.0	U	1.0	0.39

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	115		70-121
460-00-4	4-Bromofluorobenzene (Surr)	93		59-120
2037-26-5	Toluene-d8 (Surr)	101		70-123
1868-53-7	Dibromofluoromethane (Surr)	113		75-128

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-118610-1

SDG No.:

Client Sample ID: MSA-SW45C-090919 Lab Sample ID: 240-118610-35

Matrix: Water Lab File ID: U1909747.d

Analysis Method: 8260C Date Collected: 09/09/2019 10:45

Sample wt/vol: 5(mL) Date Analyzed: 09/14/2019 21:03

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.: 400715 Units: ug/L

Number TICs Found: 0 TIC Result Total: 0

CAS NO.	COMPOUND NAME	RT	RESULT	Q	MATCH QUALITY
	Tentatively Identified Compound		None		

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET
TARGETED TENATIVELY IDENTIFIED COMPOUNDS

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-118610-1

SDG No.:

Client Sample ID: MSA-SW45C-090919 Lab Sample ID: 240-118610-35

Matrix: Water Lab File ID: U1909747.d

Analysis Method: 8260C Date Collected: 09/09/2019 10:45

Sample wt/vol: 5(mL) Date Analyzed: 09/14/2019 21:03

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.: 400715 Units: ug/L

CAS NO.	COMPOUND NAME	RT	RESULT	Q	MATCH QUALITY
75-45-6	Chlorodifluoromethane TIC		1.0	U	

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-118610-1

SDG No.:

Client Sample ID: MSA-SW45D-090919 Lab Sample ID: 240-118610-36

Matrix: Water Lab File ID: U1909748.d

Analysis Method: 8260C Date Collected: 09/09/2019 10:49

Sample wt/vol: 5(mL) Date Analyzed: 09/14/2019 21:31

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.: 400715 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
630-20-6	1,1,1,2-Tetrachloroethane	1.0	U	1.0	0.14
71-55-6	1,1,1-Trichloroethane	1.0	U	1.0	0.24
79-34-5	1,1,2,2-Tetrachloroethane	1.0	U	1.0	0.13
76-13-1	1,1,2-Trichloro-1,2,2-trichfluoroeth ane	1.0	U	1.0	0.41
75-34-3	1,1-Dichloroethane	1.0	U	1.0	0.17
75-35-4	1,1-Dichloroethene	1.0	U	1.0	0.19
563-58-6	1,1-Dichloropropene	1.0	U	1.0	0.14
87-61-6	1,2,3-Trichlorobenzene	1.0	U	1.0	0.54
96-18-4	1,2,3-Trichloropropane	1.0	U	1.0	0.24
526-73-8	1,2,3-Trimethylbenzene	5.0	U	5.0	0.14
120-82-1	1,2,4-Trichlorobenzene	1.0	U	1.0	0.26
95-63-6	1,2,4-Trimethylbenzene	1.0	U	1.0	0.070
96-12-8	1,2-Dibromo-3-Chloropropane	5.0	U	5.0	0.91
95-50-1	1,2-Dichlorobenzene	1.0	U	1.0	0.15
107-06-2	1,2-Dichloroethane	1.0	U	1.0	0.21
78-87-5	1,2-Dichloropropane	1.0	U	1.0	0.15
541-73-1	1,3-Dichlorobenzene	1.0	U	1.0	0.15
142-28-9	1,3-Dichloropropane	1.0	U	1.0	0.21
106-46-7	1,4-Dichlorobenzene	1.0	U	1.0	0.16
594-20-7	2,2-Dichloropropane	1.0	U	1.0	0.31
110-75-8	2-Chloroethyl vinyl ether	10	U	10	0.26
95-49-8	2-Chlorotoluene	1.0	U	1.0	0.15
591-78-6	2-Hexanone	5.0	U	5.0	0.54
108-86-1	Bromobenzene	1.0	U	1.0	0.12
74-97-5	Bromochloromethane	1.0	U	1.0	0.14
106-43-4	4-Chlorotoluene	1.0	U	1.0	0.090
99-87-6	p-Isopropyltoluene	1.0	U	1.0	0.13
67-64-1	Acetone	5.0	U	5.0	5.4
71-43-2	Benzene	1.0	U	1.0	0.13
75-25-2	Bromoform	1.0	U	1.0	0.76
74-83-9	Bromomethane	1.0	U	1.0	0.42
75-15-0	Carbon disulfide	1.0	U	1.0	0.28
56-23-5	Carbon tetrachloride	1.0	U	1.0	0.26
108-90-7	Chlorobenzene	1.0	U	1.0	0.14
75-00-3	Chloroethane	1.0	U	1.0	0.83

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-118610-1

SDG No.:

Client Sample ID: MSA-SW45D-090919 Lab Sample ID: 240-118610-36

Matrix: Water Lab File ID: U1909748.d

Analysis Method: 8260C Date Collected: 09/09/2019 10:49

Sample wt/vol: 5(mL) Date Analyzed: 09/14/2019 21:31

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.: 400715 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
67-66-3	Chloroform	1.0	U	1.0	0.13
74-87-3	Chloromethane	1.0	U	1.0	0.20
156-59-2	cis-1,2-Dichloroethene	1.0	U	1.0	0.16
10061-01-5	cis-1,3-Dichloropropene	1.0	U	1.0	0.61
87-68-3	Hexachlorobutadiene	1.0	U	1.0	0.83
74-95-3	Dibromomethane	1.0	U	1.0	0.090
75-27-4	Bromodichloromethane	1.0	U	1.0	0.17
75-71-8	Dichlorodifluoromethane	1.0	U	1.0	0.35
100-41-4	Ethylbenzene	1.0	U	1.0	0.11
106-93-4	1,2-Dibromoethane	1.0	U	1.0	0.12
108-20-3	Diisopropyl ether	5.0	U	5.0	0.17
91-20-3	Naphthalene	1.0	U	1.0	0.32
179601-23-1	m-Xylene & p-Xylene	2.0	U	2.0	0.080
104-51-8	n-Butylbenzene	1.0	U	1.0	0.14
98-82-8	Isopropylbenzene	1.0	U	1.0	0.090
103-65-1	n-Propylbenzene	1.0	U	1.0	0.15
78-93-3	2-Butanone	5.0	U	5.0	1.2
108-10-1	4-Methyl-2-pentanone	5.0	U	5.0	0.42
135-98-8	sec-Butylbenzene	1.0	U	1.0	0.13
1634-04-4	Methyl tert-butyl ether	1.0	U	1.0	0.070
994-05-8	Tert-amyl-methyl ether (TAME)	5.0	U	5.0	0.11
75-09-2	Methylene Chloride	5.0	U	5.0	2.6
95-47-6	o-Xylene	1.0	U	1.0	0.090
100-42-5	Styrene	1.0	U	1.0	0.10
637-92-3	Ethyl-t-butyl ether (ETBE)	5.0	U	5.0	0.15
98-06-6	tert-Butylbenzene	1.0	U	1.0	0.14
127-18-4	Tetrachloroethene	1.0	U	1.0	0.15
108-88-3	Toluene	1.0	U	1.0	0.14
156-60-5	trans-1,2-Dichloroethene	1.0	U	1.0	0.19
10061-02-6	trans-1,3-Dichloropropene	1.0	U	1.0	0.67
79-01-6	Trichloroethene	1.0	U	1.0	0.10
75-69-4	Trichlorofluoromethane	1.0	U	1.0	0.45
108-05-4	Vinyl acetate	2.0	U	2.0	0.19
75-01-4	Vinyl chloride	0.50	U	0.50	0.20
75-65-0	tert-Butyl alcohol	20	U	20	1.7
1330-20-7	Xylenes, Total	2.0	U	2.0	0.15

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-118610-1

SDG No.:

Client Sample ID: MSA-SW45D-090919 Lab Sample ID: 240-118610-36

Matrix: Water Lab File ID: U1909748.d

Analysis Method: 8260C Date Collected: 09/09/2019 10:49

Sample wt/vol: 5(mL) Date Analyzed: 09/14/2019 21:31

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.: 400715 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
124-48-1	Dibromochloromethane	1.0	U	1.0	0.39

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	115		70-121
460-00-4	4-Bromofluorobenzene (Surr)	93		59-120
2037-26-5	Toluene-d8 (Surr)	101		70-123
1868-53-7	Dibromofluoromethane (Surr)	111		75-128

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-118610-1

SDG No.:

Client Sample ID: MSA-SW45D-090919 Lab Sample ID: 240-118610-36

Matrix: Water Lab File ID: U1909748.d

Analysis Method: 8260C Date Collected: 09/09/2019 10:49

Sample wt/vol: 5(mL) Date Analyzed: 09/14/2019 21:31

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.: 400715 Units: ug/L

Number TICs Found: 0 TIC Result Total: 0

CAS NO.	COMPOUND NAME	RT	RESULT	Q	MATCH QUALITY
	Tentatively Identified Compound		None		

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET
TARGETED TENATIVELY IDENTIFIED COMPOUNDS

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-118610-1

SDG No.:

Client Sample ID: MSA-SW45D-090919 Lab Sample ID: 240-118610-36

Matrix: Water Lab File ID: U1909748.d

Analysis Method: 8260C Date Collected: 09/09/2019 10:49

Sample wt/vol: 5(mL) Date Analyzed: 09/14/2019 21:31

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.: 400715 Units: ug/L

CAS NO.	COMPOUND NAME	RT	RESULT	Q	MATCH QUALITY
75-45-6	Chlorodifluoromethane TIC		1.0	U	

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-118610-1

SDG No.:

Client Sample ID: EL-SW01A-090919 Lab Sample ID: 240-118610-37

Matrix: Water Lab File ID: U1909749.d

Analysis Method: 8260C Date Collected: 09/09/2019 09:51

Sample wt/vol: 5(mL) Date Analyzed: 09/14/2019 21:59

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.: 400715 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
630-20-6	1,1,1,2-Tetrachloroethane	1.0	U	1.0	0.14
71-55-6	1,1,1-Trichloroethane	1.0	U	1.0	0.24
79-34-5	1,1,2,2-Tetrachloroethane	1.0	U	1.0	0.13
76-13-1	1,1,2-Trichloro-1,2,2-trichfluoroeth ane	1.0	U	1.0	0.41
75-34-3	1,1-Dichloroethane	1.0	U	1.0	0.17
75-35-4	1,1-Dichloroethene	1.0	U	1.0	0.19
563-58-6	1,1-Dichloropropene	1.0	U	1.0	0.14
87-61-6	1,2,3-Trichlorobenzene	1.0	U	1.0	0.54
96-18-4	1,2,3-Trichloropropane	1.0	U	1.0	0.24
526-73-8	1,2,3-Trimethylbenzene	5.0	U	5.0	0.14
120-82-1	1,2,4-Trichlorobenzene	1.0	U	1.0	0.26
95-63-6	1,2,4-Trimethylbenzene	1.0	U	1.0	0.070
96-12-8	1,2-Dibromo-3-Chloropropane	5.0	U	5.0	0.91
95-50-1	1,2-Dichlorobenzene	1.0	U	1.0	0.15
107-06-2	1,2-Dichloroethane	1.0	U	1.0	0.21
78-87-5	1,2-Dichloropropane	1.0	U	1.0	0.15
541-73-1	1,3-Dichlorobenzene	1.0	U	1.0	0.15
142-28-9	1,3-Dichloropropane	1.0	U	1.0	0.21
106-46-7	1,4-Dichlorobenzene	1.0	U	1.0	0.16
594-20-7	2,2-Dichloropropane	1.0	U	1.0	0.31
110-75-8	2-Chloroethyl vinyl ether	10	U	10	0.26
95-49-8	2-Chlorotoluene	1.0	U	1.0	0.15
591-78-6	2-Hexanone	5.0	U	5.0	0.54
108-86-1	Bromobenzene	1.0	U	1.0	0.12
74-97-5	Bromochloromethane	1.0	U	1.0	0.14
106-43-4	4-Chlorotoluene	1.0	U	1.0	0.090
99-87-6	p-Isopropyltoluene	1.0	U	1.0	0.13
67-64-1	Acetone	5.0	U	5.0	5.4
71-43-2	Benzene	1.0	U	1.0	0.13
75-25-2	Bromoform	1.0	U	1.0	0.76
74-83-9	Bromomethane	1.0	U	1.0	0.42
75-15-0	Carbon disulfide	0.43	J	1.0	0.28
56-23-5	Carbon tetrachloride	1.0	U	1.0	0.26
108-90-7	Chlorobenzene	1.0	U	1.0	0.14
75-00-3	Chloroethane	1.0	U	1.0	0.83

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-118610-1

SDG No.:

Client Sample ID: EL-SW01A-090919 Lab Sample ID: 240-118610-37

Matrix: Water Lab File ID: U1909749.d

Analysis Method: 8260C Date Collected: 09/09/2019 09:51

Sample wt/vol: 5(mL) Date Analyzed: 09/14/2019 21:59

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.: 400715 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
67-66-3	Chloroform	1.0	U	1.0	0.13
74-87-3	Chloromethane	1.0	U	1.0	0.20
156-59-2	cis-1,2-Dichloroethene	1.0	U	1.0	0.16
10061-01-5	cis-1,3-Dichloropropene	1.0	U	1.0	0.61
87-68-3	Hexachlorobutadiene	1.0	U	1.0	0.83
74-95-3	Dibromomethane	1.0	U	1.0	0.090
75-27-4	Bromodichloromethane	1.0	U	1.0	0.17
75-71-8	Dichlorodifluoromethane	1.0	U	1.0	0.35
100-41-4	Ethylbenzene	1.0	U	1.0	0.11
106-93-4	1,2-Dibromoethane	1.0	U	1.0	0.12
108-20-3	Diisopropyl ether	5.0	U	5.0	0.17
91-20-3	Naphthalene	1.0	U	1.0	0.32
179601-23-1	m-Xylene & p-Xylene	2.0	U	2.0	0.080
104-51-8	n-Butylbenzene	1.0	U	1.0	0.14
98-82-8	Isopropylbenzene	1.0	U	1.0	0.090
103-65-1	n-Propylbenzene	1.0	U	1.0	0.15
78-93-3	2-Butanone	5.0	U	5.0	1.2
108-10-1	4-Methyl-2-pentanone	5.0	U	5.0	0.42
135-98-8	sec-Butylbenzene	1.0	U	1.0	0.13
1634-04-4	Methyl tert-butyl ether	1.0	U	1.0	0.070
994-05-8	Tert-amyl-methyl ether (TAME)	5.0	U	5.0	0.11
75-09-2	Methylene Chloride	5.0	U	5.0	2.6
95-47-6	o-Xylene	1.0	U	1.0	0.090
100-42-5	Styrene	1.0	U	1.0	0.10
637-92-3	Ethyl-t-butyl ether (ETBE)	5.0	U	5.0	0.15
98-06-6	tert-Butylbenzene	1.0	U	1.0	0.14
127-18-4	Tetrachloroethene	1.0	U	1.0	0.15
108-88-3	Toluene	1.0	U	1.0	0.14
156-60-5	trans-1,2-Dichloroethene	1.0	U	1.0	0.19
10061-02-6	trans-1,3-Dichloropropene	1.0	U	1.0	0.67
79-01-6	Trichloroethene	1.0	U	1.0	0.10
75-69-4	Trichlorofluoromethane	1.0	U	1.0	0.45
108-05-4	Vinyl acetate	2.0	U	2.0	0.19
75-01-4	Vinyl chloride	0.50	U	0.50	0.20
75-65-0	tert-Butyl alcohol	20	U	20	1.7
1330-20-7	Xylenes, Total	2.0	U	2.0	0.15

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-118610-1

SDG No.:

Client Sample ID: EL-SW01A-090919 Lab Sample ID: 240-118610-37

Matrix: Water Lab File ID: U1909749.d

Analysis Method: 8260C Date Collected: 09/09/2019 09:51

Sample wt/vol: 5(mL) Date Analyzed: 09/14/2019 21:59

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.: 400715 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
124-48-1	Dibromochloromethane	1.0	U	1.0	0.39

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	114		70-121
460-00-4	4-Bromofluorobenzene (Surr)	93		59-120
2037-26-5	Toluene-d8 (Surr)	101		70-123
1868-53-7	Dibromofluoromethane (Surr)	110		75-128

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-118610-1

SDG No.:

Client Sample ID: EL-SW01A-090919 Lab Sample ID: 240-118610-37

Matrix: Water Lab File ID: U1909749.d

Analysis Method: 8260C Date Collected: 09/09/2019 09:51

Sample wt/vol: 5(mL) Date Analyzed: 09/14/2019 21:59

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.: 400715 Units: ug/L

Number TICs Found: 0 TIC Result Total: 0

CAS NO.	COMPOUND NAME	RT	RESULT	Q	MATCH QUALITY
	Tentatively Identified Compound		None		

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET
TARGETED TENATIVELY IDENTIFIED COMPOUNDS

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-118610-1

SDG No.:

Client Sample ID: EL-SW01A-090919 Lab Sample ID: 240-118610-37

Matrix: Water Lab File ID: U1909749.d

Analysis Method: 8260C Date Collected: 09/09/2019 09:51

Sample wt/vol: 5(mL) Date Analyzed: 09/14/2019 21:59

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.: 400715 Units: ug/L

CAS NO.	COMPOUND NAME	RT	RESULT	Q	MATCH QUALITY
75-45-6	Chlorodifluoromethane TIC		1.0	U	

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-118610-1

SDG No.:

Client Sample ID: EL-SW01B-090919 Lab Sample ID: 240-118610-38

Matrix: Water Lab File ID: U1909750.d

Analysis Method: 8260C Date Collected: 09/09/2019 10:00

Sample wt/vol: 5(mL) Date Analyzed: 09/14/2019 22:31

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.: 400715 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
630-20-6	1,1,1,2-Tetrachloroethane	1.0	U	1.0	0.14
71-55-6	1,1,1-Trichloroethane	1.0	U	1.0	0.24
79-34-5	1,1,2,2-Tetrachloroethane	1.0	U	1.0	0.13
76-13-1	1,1,2-Trichloro-1,2,2-trichfluoroeth ane	1.0	U	1.0	0.41
75-34-3	1,1-Dichloroethane	1.0	U	1.0	0.17
75-35-4	1,1-Dichloroethene	1.0	U	1.0	0.19
563-58-6	1,1-Dichloropropene	1.0	U	1.0	0.14
87-61-6	1,2,3-Trichlorobenzene	1.0	U	1.0	0.54
96-18-4	1,2,3-Trichloropropane	1.0	U	1.0	0.24
526-73-8	1,2,3-Trimethylbenzene	5.0	U	5.0	0.14
120-82-1	1,2,4-Trichlorobenzene	1.0	U	1.0	0.26
95-63-6	1,2,4-Trimethylbenzene	1.0	U	1.0	0.070
96-12-8	1,2-Dibromo-3-Chloropropane	5.0	U	5.0	0.91
95-50-1	1,2-Dichlorobenzene	1.0	U	1.0	0.15
107-06-2	1,2-Dichloroethane	1.0	U	1.0	0.21
78-87-5	1,2-Dichloropropane	1.0	U	1.0	0.15
541-73-1	1,3-Dichlorobenzene	1.0	U	1.0	0.15
142-28-9	1,3-Dichloropropane	1.0	U	1.0	0.21
106-46-7	1,4-Dichlorobenzene	1.0	U	1.0	0.16
594-20-7	2,2-Dichloropropane	1.0	U	1.0	0.31
110-75-8	2-Chloroethyl vinyl ether	10	U	10	0.26
95-49-8	2-Chlorotoluene	1.0	U	1.0	0.15
591-78-6	2-Hexanone	5.0	U	5.0	0.54
108-86-1	Bromobenzene	1.0	U	1.0	0.12
74-97-5	Bromochloromethane	1.0	U	1.0	0.14
106-43-4	4-Chlorotoluene	1.0	U	1.0	0.090
99-87-6	p-Isopropyltoluene	1.0	U	1.0	0.13
67-64-1	Acetone	5.0	U	5.0	5.4
71-43-2	Benzene	1.0	U	1.0	0.13
75-25-2	Bromoform	1.0	U	1.0	0.76
74-83-9	Bromomethane	1.0	U	1.0	0.42
75-15-0	Carbon disulfide	1.0	U	1.0	0.28
56-23-5	Carbon tetrachloride	1.0	U	1.0	0.26
108-90-7	Chlorobenzene	1.0	U	1.0	0.14
75-00-3	Chloroethane	1.0	U	1.0	0.83

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Canton | Job No.: 240-118610-1

SDG No.:

Client Sample ID: EL-SW01B-090919 | Lab Sample ID: 240-118610-38

Matrix: Water | Lab File ID: U1909750.d

Analysis Method: 8260C | Date Collected: 09/09/2019 10:00

Sample wt/vol: 5(mL) | Date Analyzed: 09/14/2019 22:31

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.: 400715 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
67-66-3	Chloroform	1.0	U	1.0	0.13
74-87-3	Chloromethane	1.0	U	1.0	0.20
156-59-2	cis-1,2-Dichloroethene	1.0	U	1.0	0.16
10061-01-5	cis-1,3-Dichloropropene	1.0	U	1.0	0.61
87-68-3	Hexachlorobutadiene	1.0	U	1.0	0.83
74-95-3	Dibromomethane	1.0	U	1.0	0.090
75-27-4	Bromodichloromethane	1.0	U	1.0	0.17
75-71-8	Dichlorodifluoromethane	1.0	U	1.0	0.35
100-41-4	Ethylbenzene	1.0	U	1.0	0.11
106-93-4	1,2-Dibromoethane	1.0	U	1.0	0.12
108-20-3	Diisopropyl ether	5.0	U	5.0	0.17
91-20-3	Naphthalene	1.0	U	1.0	0.32
179601-23-1	m-Xylene & p-Xylene	2.0	U	2.0	0.080
104-51-8	n-Butylbenzene	1.0	U	1.0	0.14
98-82-8	Isopropylbenzene	1.0	U	1.0	0.090
103-65-1	n-Propylbenzene	1.0	U	1.0	0.15
78-93-3	2-Butanone	5.0	U	5.0	1.2
108-10-1	4-Methyl-2-pentanone	5.0	U	5.0	0.42
135-98-8	sec-Butylbenzene	1.0	U	1.0	0.13
1634-04-4	Methyl tert-butyl ether	1.0	U	1.0	0.070
994-05-8	Tert-amyl-methyl ether (TAME)	5.0	U	5.0	0.11
75-09-2	Methylene Chloride	5.0	U	5.0	2.6
95-47-6	o-Xylene	1.0	U	1.0	0.090
100-42-5	Styrene	1.0	U	1.0	0.10
637-92-3	Ethyl-t-butyl ether (ETBE)	5.0	U	5.0	0.15
98-06-6	tert-Butylbenzene	1.0	U	1.0	0.14
127-18-4	Tetrachloroethene	1.0	U	1.0	0.15
108-88-3	Toluene	1.0	U	1.0	0.14
156-60-5	trans-1,2-Dichloroethene	1.0	U	1.0	0.19
10061-02-6	trans-1,3-Dichloropropene	1.0	U	1.0	0.67
79-01-6	Trichloroethene	1.0	U	1.0	0.10
75-69-4	Trichlorofluoromethane	1.0	U	1.0	0.45
108-05-4	Vinyl acetate	2.0	U	2.0	0.19
75-01-4	Vinyl chloride	0.50	U	0.50	0.20
75-65-0	tert-Butyl alcohol	20	U	20	1.7
1330-20-7	Xylenes, Total	2.0	U	2.0	0.15

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-118610-1

SDG No.:

Client Sample ID: EL-SW01B-090919 Lab Sample ID: 240-118610-38

Matrix: Water Lab File ID: U1909750.d

Analysis Method: 8260C Date Collected: 09/09/2019 10:00

Sample wt/vol: 5(mL) Date Analyzed: 09/14/2019 22:31

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.: 400715 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
124-48-1	Dibromochloromethane	1.0	U	1.0	0.39

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	114		70-121
460-00-4	4-Bromofluorobenzene (Surr)	92		59-120
2037-26-5	Toluene-d8 (Surr)	102		70-123
1868-53-7	Dibromofluoromethane (Surr)	111		75-128

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-118610-1

SDG No.:

Client Sample ID: EL-SW01B-090919 Lab Sample ID: 240-118610-38

Matrix: Water Lab File ID: U1909750.d

Analysis Method: 8260C Date Collected: 09/09/2019 10:00

Sample wt/vol: 5(mL) Date Analyzed: 09/14/2019 22:31

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.: 400715 Units: ug/L

Number TICs Found: 0 TIC Result Total: 0

CAS NO.	COMPOUND NAME	RT	RESULT	Q	MATCH QUALITY
	Tentatively Identified Compound		None		

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET
TARGETED TENATIVELY IDENTIFIED COMPOUNDS

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-118610-1

SDG No.:

Client Sample ID: EL-SW01B-090919 Lab Sample ID: 240-118610-38

Matrix: Water Lab File ID: U1909750.d

Analysis Method: 8260C Date Collected: 09/09/2019 10:00

Sample wt/vol: 5(mL) Date Analyzed: 09/14/2019 22:31

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.: 400715 Units: ug/L

CAS NO.	COMPOUND NAME	RT	RESULT	Q	MATCH QUALITY
75-45-6	Chlorodifluoromethane TIC		1.0	U	

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-118610-1

SDG No.:

Client Sample ID: EL-SW01C-090919 Lab Sample ID: 240-118610-39

Matrix: Water Lab File ID: U1909751.d

Analysis Method: 8260C Date Collected: 09/09/2019 10:04

Sample wt/vol: 5(mL) Date Analyzed: 09/14/2019 23:00

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.: 400715 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
630-20-6	1,1,1,2-Tetrachloroethane	1.0	U	1.0	0.14
71-55-6	1,1,1-Trichloroethane	1.0	U	1.0	0.24
79-34-5	1,1,2,2-Tetrachloroethane	1.0	U	1.0	0.13
76-13-1	1,1,2-Trichloro-1,2,2-trichfluoroeth ane	1.0	U	1.0	0.41
75-34-3	1,1-Dichloroethane	1.0	U	1.0	0.17
75-35-4	1,1-Dichloroethene	1.0	U	1.0	0.19
563-58-6	1,1-Dichloropropene	1.0	U	1.0	0.14
87-61-6	1,2,3-Trichlorobenzene	1.0	U	1.0	0.54
96-18-4	1,2,3-Trichloropropane	1.0	U	1.0	0.24
526-73-8	1,2,3-Trimethylbenzene	5.0	U	5.0	0.14
120-82-1	1,2,4-Trichlorobenzene	1.0	U	1.0	0.26
95-63-6	1,2,4-Trimethylbenzene	1.0	U	1.0	0.070
96-12-8	1,2-Dibromo-3-Chloropropane	5.0	U	5.0	0.91
95-50-1	1,2-Dichlorobenzene	1.0	U	1.0	0.15
107-06-2	1,2-Dichloroethane	1.0	U	1.0	0.21
78-87-5	1,2-Dichloropropane	1.0	U	1.0	0.15
541-73-1	1,3-Dichlorobenzene	1.0	U	1.0	0.15
142-28-9	1,3-Dichloropropane	1.0	U	1.0	0.21
106-46-7	1,4-Dichlorobenzene	1.0	U	1.0	0.16
594-20-7	2,2-Dichloropropane	1.0	U	1.0	0.31
110-75-8	2-Chloroethyl vinyl ether	10	U	10	0.26
95-49-8	2-Chlorotoluene	1.0	U	1.0	0.15
591-78-6	2-Hexanone	5.0	U	5.0	0.54
108-86-1	Bromobenzene	1.0	U	1.0	0.12
74-97-5	Bromochloromethane	1.0	U	1.0	0.14
106-43-4	4-Chlorotoluene	1.0	U	1.0	0.090
99-87-6	p-Isopropyltoluene	1.0	U	1.0	0.13
67-64-1	Acetone	5.0	U	5.0	5.4
71-43-2	Benzene	1.0	U	1.0	0.13
75-25-2	Bromoform	1.0	U	1.0	0.76
74-83-9	Bromomethane	1.0	U	1.0	0.42
75-15-0	Carbon disulfide	1.0	U	1.0	0.28
56-23-5	Carbon tetrachloride	1.0	U	1.0	0.26
108-90-7	Chlorobenzene	1.0	U	1.0	0.14
75-00-3	Chloroethane	1.0	U	1.0	0.83

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-118610-1

SDG No.:

Client Sample ID: EL-SW01C-090919 Lab Sample ID: 240-118610-39

Matrix: Water Lab File ID: U1909751.d

Analysis Method: 8260C Date Collected: 09/09/2019 10:04

Sample wt/vol: 5(mL) Date Analyzed: 09/14/2019 23:00

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.: 400715 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
67-66-3	Chloroform	1.0	U	1.0	0.13
74-87-3	Chloromethane	1.0	U	1.0	0.20
156-59-2	cis-1,2-Dichloroethene	1.0	U	1.0	0.16
10061-01-5	cis-1,3-Dichloropropene	1.0	U	1.0	0.61
87-68-3	Hexachlorobutadiene	1.0	U	1.0	0.83
74-95-3	Dibromomethane	1.0	U	1.0	0.090
75-27-4	Bromodichloromethane	1.0	U	1.0	0.17
75-71-8	Dichlorodifluoromethane	1.0	U	1.0	0.35
100-41-4	Ethylbenzene	1.0	U	1.0	0.11
106-93-4	1,2-Dibromoethane	1.0	U	1.0	0.12
108-20-3	Diisopropyl ether	5.0	U	5.0	0.17
91-20-3	Naphthalene	1.0	U	1.0	0.32
179601-23-1	m-Xylene & p-Xylene	2.0	U	2.0	0.080
104-51-8	n-Butylbenzene	1.0	U	1.0	0.14
98-82-8	Isopropylbenzene	1.0	U	1.0	0.090
103-65-1	n-Propylbenzene	1.0	U	1.0	0.15
78-93-3	2-Butanone	5.0	U	5.0	1.2
108-10-1	4-Methyl-2-pentanone	5.0	U	5.0	0.42
135-98-8	sec-Butylbenzene	1.0	U	1.0	0.13
1634-04-4	Methyl tert-butyl ether	1.0	U	1.0	0.070
994-05-8	Tert-amyl-methyl ether (TAME)	5.0	U	5.0	0.11
75-09-2	Methylene Chloride	5.0	U	5.0	2.6
95-47-6	o-Xylene	1.0	U	1.0	0.090
100-42-5	Styrene	1.0	U	1.0	0.10
637-92-3	Ethyl-t-butyl ether (ETBE)	5.0	U	5.0	0.15
98-06-6	tert-Butylbenzene	1.0	U	1.0	0.14
127-18-4	Tetrachloroethene	1.0	U	1.0	0.15
108-88-3	Toluene	1.0	U	1.0	0.14
156-60-5	trans-1,2-Dichloroethene	1.0	U	1.0	0.19
10061-02-6	trans-1,3-Dichloropropene	1.0	U	1.0	0.67
79-01-6	Trichloroethene	1.0	U	1.0	0.10
75-69-4	Trichlorofluoromethane	1.0	U	1.0	0.45
108-05-4	Vinyl acetate	2.0	U	2.0	0.19
75-01-4	Vinyl chloride	0.50	U	0.50	0.20
75-65-0	tert-Butyl alcohol	20	U	20	1.7
1330-20-7	Xylenes, Total	2.0	U	2.0	0.15

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-118610-1

SDG No.:

Client Sample ID: EL-SW01C-090919 Lab Sample ID: 240-118610-39

Matrix: Water Lab File ID: U1909751.d

Analysis Method: 8260C Date Collected: 09/09/2019 10:04

Sample wt/vol: 5(mL) Date Analyzed: 09/14/2019 23:00

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.: 400715 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
124-48-1	Dibromochloromethane	1.0	U	1.0	0.39

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	116		70-121
460-00-4	4-Bromofluorobenzene (Surr)	93		59-120
2037-26-5	Toluene-d8 (Surr)	102		70-123
1868-53-7	Dibromofluoromethane (Surr)	113		75-128

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-118610-1

SDG No.:

Client Sample ID: EL-SW01C-090919 Lab Sample ID: 240-118610-39

Matrix: Water Lab File ID: U1909751.d

Analysis Method: 8260C Date Collected: 09/09/2019 10:04

Sample wt/vol: 5(mL) Date Analyzed: 09/14/2019 23:00

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.: 400715 Units: ug/L

Number TICs Found: 0 TIC Result Total: 0

CAS NO.	COMPOUND NAME	RT	RESULT	Q	MATCH QUALITY
	Tentatively Identified Compound		None		

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET
TARGETED TENATIVELY IDENTIFIED COMPOUNDS

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-118610-1

SDG No.:

Client Sample ID: EL-SW01C-090919 Lab Sample ID: 240-118610-39

Matrix: Water Lab File ID: U1909751.d

Analysis Method: 8260C Date Collected: 09/09/2019 10:04

Sample wt/vol: 5(mL) Date Analyzed: 09/14/2019 23:00

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.: 400715 Units: ug/L

CAS NO.	COMPOUND NAME	RT	RESULT	Q	MATCH QUALITY
75-45-6	Chlorodifluoromethane TIC		1.0	U	

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-118610-1

SDG No.:

Client Sample ID: EL-SW01D-090919 Lab Sample ID: 240-118610-40

Matrix: Water Lab File ID: U1909752.d

Analysis Method: 8260C Date Collected: 09/09/2019 11:07

Sample wt/vol: 5(mL) Date Analyzed: 09/14/2019 23:31

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.: 400715 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
630-20-6	1,1,1,2-Tetrachloroethane	1.0	U	1.0	0.14
71-55-6	1,1,1-Trichloroethane	1.0	U	1.0	0.24
79-34-5	1,1,2,2-Tetrachloroethane	1.0	U	1.0	0.13
76-13-1	1,1,2-Trichloro-1,2,2-trichfluoroeth ane	1.0	U	1.0	0.41
75-34-3	1,1-Dichloroethane	1.0	U	1.0	0.17
75-35-4	1,1-Dichloroethene	1.0	U	1.0	0.19
563-58-6	1,1-Dichloropropene	1.0	U	1.0	0.14
87-61-6	1,2,3-Trichlorobenzene	1.0	U	1.0	0.54
96-18-4	1,2,3-Trichloropropane	1.0	U	1.0	0.24
526-73-8	1,2,3-Trimethylbenzene	5.0	U	5.0	0.14
120-82-1	1,2,4-Trichlorobenzene	1.0	U	1.0	0.26
95-63-6	1,2,4-Trimethylbenzene	1.0	U	1.0	0.070
96-12-8	1,2-Dibromo-3-Chloropropane	5.0	U	5.0	0.91
95-50-1	1,2-Dichlorobenzene	1.0	U	1.0	0.15
107-06-2	1,2-Dichloroethane	1.0	U	1.0	0.21
78-87-5	1,2-Dichloropropane	1.0	U	1.0	0.15
541-73-1	1,3-Dichlorobenzene	1.0	U	1.0	0.15
142-28-9	1,3-Dichloropropane	1.0	U	1.0	0.21
106-46-7	1,4-Dichlorobenzene	1.0	U	1.0	0.16
594-20-7	2,2-Dichloropropane	1.0	U	1.0	0.31
110-75-8	2-Chloroethyl vinyl ether	10	U	10	0.26
95-49-8	2-Chlorotoluene	1.0	U	1.0	0.15
591-78-6	2-Hexanone	5.0	U	5.0	0.54
108-86-1	Bromobenzene	1.0	U	1.0	0.12
74-97-5	Bromochloromethane	1.0	U	1.0	0.14
106-43-4	4-Chlorotoluene	1.0	U	1.0	0.090
99-87-6	p-Isopropyltoluene	1.0	U	1.0	0.13
67-64-1	Acetone	5.0	U	5.0	5.4
71-43-2	Benzene	1.0	U	1.0	0.13
75-25-2	Bromoform	1.0	U	1.0	0.76
74-83-9	Bromomethane	1.0	U	1.0	0.42
75-15-0	Carbon disulfide	1.0	U	1.0	0.28
56-23-5	Carbon tetrachloride	1.0	U	1.0	0.26
108-90-7	Chlorobenzene	1.0	U	1.0	0.14
75-00-3	Chloroethane	1.0	U	1.0	0.83

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-118610-1

SDG No.:

Client Sample ID: EL-SW01D-090919 Lab Sample ID: 240-118610-40

Matrix: Water Lab File ID: U1909752.d

Analysis Method: 8260C Date Collected: 09/09/2019 11:07

Sample wt/vol: 5(mL) Date Analyzed: 09/14/2019 23:31

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.: 400715 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
67-66-3	Chloroform	1.0	U	1.0	0.13
74-87-3	Chloromethane	1.0	U	1.0	0.20
156-59-2	cis-1,2-Dichloroethene	1.0	U	1.0	0.16
10061-01-5	cis-1,3-Dichloropropene	1.0	U	1.0	0.61
87-68-3	Hexachlorobutadiene	1.0	U	1.0	0.83
74-95-3	Dibromomethane	1.0	U	1.0	0.090
75-27-4	Bromodichloromethane	1.0	U	1.0	0.17
75-71-8	Dichlorodifluoromethane	1.0	U	1.0	0.35
100-41-4	Ethylbenzene	1.0	U	1.0	0.11
106-93-4	1,2-Dibromoethane	1.0	U	1.0	0.12
108-20-3	Diisopropyl ether	5.0	U	5.0	0.17
91-20-3	Naphthalene	1.0	U	1.0	0.32
179601-23-1	m-Xylene & p-Xylene	2.0	U	2.0	0.080
104-51-8	n-Butylbenzene	1.0	U	1.0	0.14
98-82-8	Isopropylbenzene	1.0	U	1.0	0.090
103-65-1	n-Propylbenzene	1.0	U	1.0	0.15
78-93-3	2-Butanone	5.0	U	5.0	1.2
108-10-1	4-Methyl-2-pentanone	5.0	U	5.0	0.42
135-98-8	sec-Butylbenzene	1.0	U	1.0	0.13
1634-04-4	Methyl tert-butyl ether	1.0	U	1.0	0.070
994-05-8	Tert-amyl-methyl ether (TAME)	5.0	U	5.0	0.11
75-09-2	Methylene Chloride	5.0	U	5.0	2.6
95-47-6	o-Xylene	1.0	U	1.0	0.090
100-42-5	Styrene	1.0	U	1.0	0.10
637-92-3	Ethyl-t-butyl ether (ETBE)	5.0	U	5.0	0.15
98-06-6	tert-Butylbenzene	1.0	U	1.0	0.14
127-18-4	Tetrachloroethene	1.0	U	1.0	0.15
108-88-3	Toluene	1.0	U	1.0	0.14
156-60-5	trans-1,2-Dichloroethene	1.0	U	1.0	0.19
10061-02-6	trans-1,3-Dichloropropene	1.0	U	1.0	0.67
79-01-6	Trichloroethene	1.0	U	1.0	0.10
75-69-4	Trichlorofluoromethane	1.0	U	1.0	0.45
108-05-4	Vinyl acetate	2.0	U	2.0	0.19
75-01-4	Vinyl chloride	0.50	U	0.50	0.20
75-65-0	tert-Butyl alcohol	20	U	20	1.7
1330-20-7	Xylenes, Total	2.0	U	2.0	0.15

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-118610-1

SDG No.:

Client Sample ID: EL-SW01D-090919 Lab Sample ID: 240-118610-40

Matrix: Water Lab File ID: U1909752.d

Analysis Method: 8260C Date Collected: 09/09/2019 11:07

Sample wt/vol: 5(mL) Date Analyzed: 09/14/2019 23:31

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.: 400715 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
124-48-1	Dibromochloromethane	1.0	U	1.0	0.39

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	111		70-121
460-00-4	4-Bromofluorobenzene (Surr)	91		59-120
2037-26-5	Toluene-d8 (Surr)	100		70-123
1868-53-7	Dibromofluoromethane (Surr)	108		75-128

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-118610-1

SDG No.:

Client Sample ID: EL-SW01D-090919 Lab Sample ID: 240-118610-40

Matrix: Water Lab File ID: U1909752.d

Analysis Method: 8260C Date Collected: 09/09/2019 11:07

Sample wt/vol: 5(mL) Date Analyzed: 09/14/2019 23:31

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.: 400715 Units: ug/L

Number TICs Found: 0 TIC Result Total: 0

CAS NO.	COMPOUND NAME	RT	RESULT	Q	MATCH QUALITY
	Tentatively Identified Compound		None		

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET
TARGETED TENATIVELY IDENTIFIED COMPOUNDS

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-118610-1

SDG No.:

Client Sample ID: EL-SW01D-090919 Lab Sample ID: 240-118610-40

Matrix: Water Lab File ID: U1909752.d

Analysis Method: 8260C Date Collected: 09/09/2019 11:07

Sample wt/vol: 5(mL) Date Analyzed: 09/14/2019 23:31

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.: 400715 Units: ug/L

CAS NO.	COMPOUND NAME	RT	RESULT	Q	MATCH QUALITY
75-45-6	Chlorodifluoromethane TIC		1.0	U	

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-118610-1

SDG No.:

Client Sample ID: TB-090919 Lab Sample ID: 240-118610-41

Matrix: Water Lab File ID: U1909790.d

Analysis Method: 8260C Date Collected: 09/09/2019 00:00

Sample wt/vol: 5(mL) Date Analyzed: 09/17/2019 20:26

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.: 401172 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
630-20-6	1,1,1,2-Tetrachloroethane	1.0	U	1.0	0.14
71-55-6	1,1,1-Trichloroethane	1.0	U	1.0	0.24
79-34-5	1,1,2,2-Tetrachloroethane	1.0	U	1.0	0.13
76-13-1	1,1,2-Trichloro-1,2,2-trichfluoroeth ane	1.0	U	1.0	0.41
75-34-3	1,1-Dichloroethane	1.0	U	1.0	0.17
75-35-4	1,1-Dichloroethene	1.0	U	1.0	0.19
563-58-6	1,1-Dichloropropene	1.0	U	1.0	0.14
87-61-6	1,2,3-Trichlorobenzene	1.0	U	1.0	0.54
96-18-4	1,2,3-Trichloropropane	1.0	U	1.0	0.24
526-73-8	1,2,3-Trimethylbenzene	5.0	U	5.0	0.14
120-82-1	1,2,4-Trichlorobenzene	1.0	U	1.0	0.26
95-63-6	1,2,4-Trimethylbenzene	1.0	U	1.0	0.070
96-12-8	1,2-Dibromo-3-Chloropropane	5.0	U	5.0	0.91
95-50-1	1,2-Dichlorobenzene	1.0	U	1.0	0.15
107-06-2	1,2-Dichloroethane	1.0	U	1.0	0.21
78-87-5	1,2-Dichloropropane	1.0	U	1.0	0.15
541-73-1	1,3-Dichlorobenzene	1.0	U	1.0	0.15
142-28-9	1,3-Dichloropropane	1.0	U	1.0	0.21
106-46-7	1,4-Dichlorobenzene	1.0	U	1.0	0.16
594-20-7	2,2-Dichloropropane	1.0	U	1.0	0.31
110-75-8	2-Chloroethyl vinyl ether	10	U	10	0.26
95-49-8	2-Chlorotoluene	1.0	U	1.0	0.15
591-78-6	2-Hexanone	5.0	U	5.0	0.54
108-86-1	Bromobenzene	1.0	U	1.0	0.12
74-97-5	Bromochloromethane	1.0	U	1.0	0.14
106-43-4	4-Chlorotoluene	1.0	U	1.0	0.090
99-87-6	p-Isopropyltoluene	1.0	U	1.0	0.13
67-64-1	Acetone	5.0	U	5.0	5.4
71-43-2	Benzene	1.0	U	1.0	0.13
75-25-2	Bromoform	1.0	U	1.0	0.76
74-83-9	Bromomethane	1.0	U	1.0	0.42
75-15-0	Carbon disulfide	1.0	U	1.0	0.28
56-23-5	Carbon tetrachloride	1.0	U	1.0	0.26
108-90-7	Chlorobenzene	1.0	U	1.0	0.14
75-00-3	Chloroethane	1.0	U	1.0	0.83

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-118610-1

SDG No.:

Client Sample ID: TB-090919 Lab Sample ID: 240-118610-41

Matrix: Water Lab File ID: U1909790.d

Analysis Method: 8260C Date Collected: 09/09/2019 00:00

Sample wt/vol: 5(mL) Date Analyzed: 09/17/2019 20:26

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.: 401172 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
67-66-3	Chloroform	1.0	U	1.0	0.13
74-87-3	Chloromethane	1.0	U	1.0	0.20
156-59-2	cis-1,2-Dichloroethene	1.0	U	1.0	0.16
10061-01-5	cis-1,3-Dichloropropene	1.0	U	1.0	0.61
87-68-3	Hexachlorobutadiene	1.0	U	1.0	0.83
74-95-3	Dibromomethane	1.0	U	1.0	0.090
75-27-4	Bromodichloromethane	1.0	U	1.0	0.17
75-71-8	Dichlorodifluoromethane	1.0	U	1.0	0.35
100-41-4	Ethylbenzene	1.0	U	1.0	0.11
106-93-4	1,2-Dibromoethane	1.0	U	1.0	0.12
108-20-3	Diisopropyl ether	5.0	U	5.0	0.17
91-20-3	Naphthalene	1.0	U	1.0	0.32
179601-23-1	m-Xylene & p-Xylene	2.0	U	2.0	0.080
104-51-8	n-Butylbenzene	1.0	U	1.0	0.14
98-82-8	Isopropylbenzene	1.0	U	1.0	0.090
103-65-1	n-Propylbenzene	1.0	U	1.0	0.15
78-93-3	2-Butanone	5.0	U	5.0	1.2
108-10-1	4-Methyl-2-pentanone	5.0	U	5.0	0.42
135-98-8	sec-Butylbenzene	1.0	U	1.0	0.13
1634-04-4	Methyl tert-butyl ether	1.0	U	1.0	0.070
994-05-8	Tert-amyl-methyl ether (TAME)	5.0	U	5.0	0.11
75-09-2	Methylene Chloride	5.0	U	5.0	2.6
95-47-6	o-Xylene	1.0	U	1.0	0.090
100-42-5	Styrene	1.0	U	1.0	0.10
637-92-3	Ethyl-t-butyl ether (ETBE)	5.0	U	5.0	0.15
98-06-6	tert-Butylbenzene	1.0	U	1.0	0.14
127-18-4	Tetrachloroethene	1.0	U	1.0	0.15
108-88-3	Toluene	1.0	U	1.0	0.14
156-60-5	trans-1,2-Dichloroethene	1.0	U	1.0	0.19
10061-02-6	trans-1,3-Dichloropropene	1.0	U	1.0	0.67
79-01-6	Trichloroethene	1.0	U	1.0	0.10
75-69-4	Trichlorofluoromethane	1.0	U	1.0	0.45
108-05-4	Vinyl acetate	2.0	U	2.0	0.19
75-01-4	Vinyl chloride	0.50	U	0.50	0.20
75-65-0	tert-Butyl alcohol	20	U	20	1.7
1330-20-7	Xylenes, Total	2.0	U	2.0	0.15

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-118610-1

SDG No.:

Client Sample ID: TB-090919 Lab Sample ID: 240-118610-41

Matrix: Water Lab File ID: U1909790.d

Analysis Method: 8260C Date Collected: 09/09/2019 00:00

Sample wt/vol: 5(mL) Date Analyzed: 09/17/2019 20:26

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.: 401172 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
124-48-1	Dibromochloromethane	1.0	U	1.0	0.39

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	115		70-121
460-00-4	4-Bromofluorobenzene (Surr)	93		59-120
2037-26-5	Toluene-d8 (Surr)	103		70-123
1868-53-7	Dibromofluoromethane (Surr)	111		75-128

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-118610-1

SDG No.:

Client Sample ID: TB-090919 Lab Sample ID: 240-118610-41

Matrix: Water Lab File ID: U1909790.d

Analysis Method: 8260C Date Collected: 09/09/2019 00:00

Sample wt/vol: 5(mL) Date Analyzed: 09/17/2019 20:26

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.: 401172 Units: ug/L

Number TICs Found: 0 TIC Result Total: 0

CAS NO.	COMPOUND NAME	RT	RESULT	Q	MATCH QUALITY
	Tentatively Identified Compound		None		

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET
TARGETED TENATIVELY IDENTIFIED COMPOUNDS

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-118610-1

SDG No.:

Client Sample ID: TB-090919 Lab Sample ID: 240-118610-41

Matrix: Water Lab File ID: U1909790.d

Analysis Method: 8260C Date Collected: 09/09/2019 00:00

Sample wt/vol: 5(mL) Date Analyzed: 09/17/2019 20:26

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.: 401172 Units: ug/L

CAS NO.	COMPOUND NAME	RT	RESULT	Q	MATCH QUALITY
75-45-6	Chlorodifluoromethane TIC		1.0	U	

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-118610-1

SDG No.:

Client Sample ID: MSA-SW46A-090919 Lab Sample ID: 240-118610-42

Matrix: Water Lab File ID: U1909791.d

Analysis Method: 8260C Date Collected: 09/09/2019 12:27

Sample wt/vol: 5(mL) Date Analyzed: 09/17/2019 20:48

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.: 401172 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
630-20-6	1,1,1,2-Tetrachloroethane	1.0	U	1.0	0.14
71-55-6	1,1,1-Trichloroethane	1.0	U	1.0	0.24
79-34-5	1,1,2,2-Tetrachloroethane	1.0	U	1.0	0.13
76-13-1	1,1,2-Trichloro-1,2,2-trichfluoroethane	1.0	U	1.0	0.41
75-34-3	1,1-Dichloroethane	1.0	U	1.0	0.17
75-35-4	1,1-Dichloroethene	1.0	U	1.0	0.19
563-58-6	1,1-Dichloropropene	1.0	U	1.0	0.14
87-61-6	1,2,3-Trichlorobenzene	1.0	U	1.0	0.54
96-18-4	1,2,3-Trichloropropane	1.0	U	1.0	0.24
526-73-8	1,2,3-Trimethylbenzene	5.0	U	5.0	0.14
120-82-1	1,2,4-Trichlorobenzene	1.0	U	1.0	0.26
95-63-6	1,2,4-Trimethylbenzene	1.0	U	1.0	0.070
96-12-8	1,2-Dibromo-3-Chloropropane	5.0	U	5.0	0.91
95-50-1	1,2-Dichlorobenzene	1.0	U	1.0	0.15
107-06-2	1,2-Dichloroethane	1.0	U	1.0	0.21
78-87-5	1,2-Dichloropropane	1.0	U	1.0	0.15
541-73-1	1,3-Dichlorobenzene	1.0	U	1.0	0.15
142-28-9	1,3-Dichloropropane	1.0	U	1.0	0.21
106-46-7	1,4-Dichlorobenzene	1.0	U	1.0	0.16
594-20-7	2,2-Dichloropropane	1.0	U	1.0	0.31
110-75-8	2-Chloroethyl vinyl ether	10	U	10	0.26
95-49-8	2-Chlorotoluene	1.0	U	1.0	0.15
591-78-6	2-Hexanone	5.0	U	5.0	0.54
108-86-1	Bromobenzene	1.0	U	1.0	0.12
74-97-5	Bromochloromethane	1.0	U	1.0	0.14
106-43-4	4-Chlorotoluene	1.0	U	1.0	0.090
99-87-6	p-Isopropyltoluene	1.0	U	1.0	0.13
67-64-1	Acetone	5.0	U	5.0	5.4
71-43-2	Benzene	1.0	U	1.0	0.13
75-25-2	Bromoform	1.0	U	1.0	0.76
74-83-9	Bromomethane	1.0	U	1.0	0.42
75-15-0	Carbon disulfide	1.0	U	1.0	0.28
56-23-5	Carbon tetrachloride	1.0	U	1.0	0.26
108-90-7	Chlorobenzene	1.0	U	1.0	0.14
75-00-3	Chloroethane	1.0	U	1.0	0.83

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-118610-1

SDG No.:

Client Sample ID: MSA-SW46A-090919 Lab Sample ID: 240-118610-42

Matrix: Water Lab File ID: U1909791.d

Analysis Method: 8260C Date Collected: 09/09/2019 12:27

Sample wt/vol: 5(mL) Date Analyzed: 09/17/2019 20:48

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.: 401172 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
67-66-3	Chloroform	1.0	U	1.0	0.13
74-87-3	Chloromethane	1.0	U	1.0	0.20
156-59-2	cis-1,2-Dichloroethene	1.0	U	1.0	0.16
10061-01-5	cis-1,3-Dichloropropene	1.0	U	1.0	0.61
87-68-3	Hexachlorobutadiene	1.0	U	1.0	0.83
74-95-3	Dibromomethane	1.0	U	1.0	0.090
75-27-4	Bromodichloromethane	1.0	U	1.0	0.17
75-71-8	Dichlorodifluoromethane	1.0	U	1.0	0.35
100-41-4	Ethylbenzene	1.0	U	1.0	0.11
106-93-4	1,2-Dibromoethane	1.0	U	1.0	0.12
108-20-3	Diisopropyl ether	5.0	U	5.0	0.17
91-20-3	Naphthalene	1.0	U	1.0	0.32
179601-23-1	m-Xylene & p-Xylene	2.0	U	2.0	0.080
104-51-8	n-Butylbenzene	1.0	U	1.0	0.14
98-82-8	Isopropylbenzene	1.0	U	1.0	0.090
103-65-1	n-Propylbenzene	1.0	U	1.0	0.15
78-93-3	2-Butanone	5.0	U	5.0	1.2
108-10-1	4-Methyl-2-pentanone	5.0	U	5.0	0.42
135-98-8	sec-Butylbenzene	1.0	U	1.0	0.13
1634-04-4	Methyl tert-butyl ether	1.0	U	1.0	0.070
994-05-8	Tert-amyl-methyl ether (TAME)	5.0	U	5.0	0.11
75-09-2	Methylene Chloride	5.0	U	5.0	2.6
95-47-6	o-Xylene	1.0	U	1.0	0.090
100-42-5	Styrene	1.0	U	1.0	0.10
637-92-3	Ethyl-t-butyl ether (ETBE)	5.0	U	5.0	0.15
98-06-6	tert-Butylbenzene	1.0	U	1.0	0.14
127-18-4	Tetrachloroethene	1.0	U	1.0	0.15
108-88-3	Toluene	1.0	U	1.0	0.14
156-60-5	trans-1,2-Dichloroethene	1.0	U	1.0	0.19
10061-02-6	trans-1,3-Dichloropropene	1.0	U	1.0	0.67
79-01-6	Trichloroethene	1.0	U	1.0	0.10
75-69-4	Trichlorofluoromethane	1.0	U	1.0	0.45
108-05-4	Vinyl acetate	2.0	U	2.0	0.19
75-01-4	Vinyl chloride	0.50	U	0.50	0.20
75-65-0	tert-Butyl alcohol	20	U	20	1.7
1330-20-7	Xylenes, Total	2.0	U	2.0	0.15

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-118610-1

SDG No.:

Client Sample ID: MSA-SW46A-090919 Lab Sample ID: 240-118610-42

Matrix: Water Lab File ID: U1909791.d

Analysis Method: 8260C Date Collected: 09/09/2019 12:27

Sample wt/vol: 5(mL) Date Analyzed: 09/17/2019 20:48

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.: 401172 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
124-48-1	Dibromochloromethane	1.0	U	1.0	0.39

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	113		70-121
460-00-4	4-Bromofluorobenzene (Surr)	93		59-120
2037-26-5	Toluene-d8 (Surr)	101		70-123
1868-53-7	Dibromofluoromethane (Surr)	110		75-128

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-118610-1

SDG No.:

Client Sample ID: MSA-SW46A-090919 Lab Sample ID: 240-118610-42

Matrix: Water Lab File ID: U1909791.d

Analysis Method: 8260C Date Collected: 09/09/2019 12:27

Sample wt/vol: 5(mL) Date Analyzed: 09/17/2019 20:48

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.: 401172 Units: ug/L

Number TICs Found: 0 TIC Result Total: 0

CAS NO.	COMPOUND NAME	RT	RESULT	Q	MATCH QUALITY
	Tentatively Identified Compound		None		

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET
TARGETED TENATIVELY IDENTIFIED COMPOUNDS

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-118610-1

SDG No.:

Client Sample ID: MSA-SW46A-090919 Lab Sample ID: 240-118610-42

Matrix: Water Lab File ID: U1909791.d

Analysis Method: 8260C Date Collected: 09/09/2019 12:27

Sample wt/vol: 5(mL) Date Analyzed: 09/17/2019 20:48

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.: 401172 Units: ug/L

CAS NO.	COMPOUND NAME	RT	RESULT	Q	MATCH QUALITY
75-45-6	Chlorodifluoromethane TIC		1.0	U	

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-118610-1

SDG No.:

Client Sample ID: MSA-SW47A-090919 Lab Sample ID: 240-118610-43

Matrix: Water Lab File ID: U1909792.d

Analysis Method: 8260C Date Collected: 09/09/2019 12:05

Sample wt/vol: 5(mL) Date Analyzed: 09/17/2019 21:11

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.: 401172 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
630-20-6	1,1,1,2-Tetrachloroethane	1.0	U	1.0	0.14
71-55-6	1,1,1-Trichloroethane	1.0	U	1.0	0.24
79-34-5	1,1,2,2-Tetrachloroethane	1.0	U	1.0	0.13
76-13-1	1,1,2-Trichloro-1,2,2-trichfluoroeth ane	1.0	U	1.0	0.41
75-34-3	1,1-Dichloroethane	1.0	U	1.0	0.17
75-35-4	1,1-Dichloroethene	1.0	U	1.0	0.19
563-58-6	1,1-Dichloropropene	1.0	U	1.0	0.14
87-61-6	1,2,3-Trichlorobenzene	1.0	U	1.0	0.54
96-18-4	1,2,3-Trichloropropane	1.0	U	1.0	0.24
526-73-8	1,2,3-Trimethylbenzene	5.0	U	5.0	0.14
120-82-1	1,2,4-Trichlorobenzene	1.0	U	1.0	0.26
95-63-6	1,2,4-Trimethylbenzene	1.0	U	1.0	0.070
96-12-8	1,2-Dibromo-3-Chloropropane	5.0	U	5.0	0.91
95-50-1	1,2-Dichlorobenzene	1.0	U	1.0	0.15
107-06-2	1,2-Dichloroethane	1.0	U	1.0	0.21
78-87-5	1,2-Dichloropropane	1.0	U	1.0	0.15
541-73-1	1,3-Dichlorobenzene	1.0	U	1.0	0.15
142-28-9	1,3-Dichloropropane	1.0	U	1.0	0.21
106-46-7	1,4-Dichlorobenzene	1.0	U	1.0	0.16
594-20-7	2,2-Dichloropropane	1.0	U	1.0	0.31
110-75-8	2-Chloroethyl vinyl ether	10	U	10	0.26
95-49-8	2-Chlorotoluene	1.0	U	1.0	0.15
591-78-6	2-Hexanone	5.0	U	5.0	0.54
108-86-1	Bromobenzene	1.0	U	1.0	0.12
74-97-5	Bromochloromethane	1.0	U	1.0	0.14
106-43-4	4-Chlorotoluene	1.0	U	1.0	0.090
99-87-6	p-Isopropyltoluene	1.0	U	1.0	0.13
67-64-1	Acetone	5.0	U	5.0	5.4
71-43-2	Benzene	1.0	U	1.0	0.13
75-25-2	Bromoform	1.0	U	1.0	0.76
74-83-9	Bromomethane	1.0	U	1.0	0.42
75-15-0	Carbon disulfide	1.0	U	1.0	0.28
56-23-5	Carbon tetrachloride	1.0	U	1.0	0.26
108-90-7	Chlorobenzene	1.0	U	1.0	0.14
75-00-3	Chloroethane	1.0	U	1.0	0.83

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-118610-1

SDG No.:

Client Sample ID: MSA-SW47A-090919 Lab Sample ID: 240-118610-43

Matrix: Water Lab File ID: U1909792.d

Analysis Method: 8260C Date Collected: 09/09/2019 12:05

Sample wt/vol: 5(mL) Date Analyzed: 09/17/2019 21:11

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.: 401172 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
67-66-3	Chloroform	1.0	U	1.0	0.13
74-87-3	Chloromethane	1.0	U	1.0	0.20
156-59-2	cis-1,2-Dichloroethene	1.0	U	1.0	0.16
10061-01-5	cis-1,3-Dichloropropene	1.0	U	1.0	0.61
87-68-3	Hexachlorobutadiene	1.0	U	1.0	0.83
74-95-3	Dibromomethane	1.0	U	1.0	0.090
75-27-4	Bromodichloromethane	1.0	U	1.0	0.17
75-71-8	Dichlorodifluoromethane	1.0	U	1.0	0.35
100-41-4	Ethylbenzene	1.0	U	1.0	0.11
106-93-4	1,2-Dibromoethane	1.0	U	1.0	0.12
108-20-3	Diisopropyl ether	5.0	U	5.0	0.17
91-20-3	Naphthalene	1.0	U	1.0	0.32
179601-23-1	m-Xylene & p-Xylene	2.0	U	2.0	0.080
104-51-8	n-Butylbenzene	1.0	U	1.0	0.14
98-82-8	Isopropylbenzene	1.0	U	1.0	0.090
103-65-1	n-Propylbenzene	1.0	U	1.0	0.15
78-93-3	2-Butanone	5.0	U	5.0	1.2
108-10-1	4-Methyl-2-pentanone	5.0	U	5.0	0.42
135-98-8	sec-Butylbenzene	1.0	U	1.0	0.13
1634-04-4	Methyl tert-butyl ether	1.0	U	1.0	0.070
994-05-8	Tert-amyl-methyl ether (TAME)	5.0	U	5.0	0.11
75-09-2	Methylene Chloride	5.0	U	5.0	2.6
95-47-6	o-Xylene	1.0	U	1.0	0.090
100-42-5	Styrene	1.0	U	1.0	0.10
637-92-3	Ethyl-t-butyl ether (ETBE)	5.0	U	5.0	0.15
98-06-6	tert-Butylbenzene	1.0	U	1.0	0.14
127-18-4	Tetrachloroethene	1.0	U	1.0	0.15
108-88-3	Toluene	1.0	U	1.0	0.14
156-60-5	trans-1,2-Dichloroethene	1.0	U	1.0	0.19
10061-02-6	trans-1,3-Dichloropropene	1.0	U	1.0	0.67
79-01-6	Trichloroethene	1.0	U	1.0	0.10
75-69-4	Trichlorofluoromethane	1.0	U	1.0	0.45
108-05-4	Vinyl acetate	2.0	U	2.0	0.19
75-01-4	Vinyl chloride	0.50	U	0.50	0.20
75-65-0	tert-Butyl alcohol	20	U	20	1.7
1330-20-7	Xylenes, Total	2.0	U	2.0	0.15

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-118610-1

SDG No.:

Client Sample ID: MSA-SW47A-090919 Lab Sample ID: 240-118610-43

Matrix: Water Lab File ID: U1909792.d

Analysis Method: 8260C Date Collected: 09/09/2019 12:05

Sample wt/vol: 5(mL) Date Analyzed: 09/17/2019 21:11

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.: 401172 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
124-48-1	Dibromochloromethane	1.0	U	1.0	0.39

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	115		70-121
460-00-4	4-Bromofluorobenzene (Surr)	93		59-120
2037-26-5	Toluene-d8 (Surr)	103		70-123
1868-53-7	Dibromofluoromethane (Surr)	112		75-128

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-118610-1

SDG No.:

Client Sample ID: MSA-SW47A-090919 Lab Sample ID: 240-118610-43

Matrix: Water Lab File ID: U1909792.d

Analysis Method: 8260C Date Collected: 09/09/2019 12:05

Sample wt/vol: 5(mL) Date Analyzed: 09/17/2019 21:11

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.: 401172 Units: ug/L

Number TICs Found: 0 TIC Result Total: 0

CAS NO.	COMPOUND NAME	RT	RESULT	Q	MATCH QUALITY
	Tentatively Identified Compound		None		

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET
TARGETED TENATIVELY IDENTIFIED COMPOUNDS

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-118610-1

SDG No.:

Client Sample ID: MSA-SW47A-090919 Lab Sample ID: 240-118610-43

Matrix: Water Lab File ID: U1909792.d

Analysis Method: 8260C Date Collected: 09/09/2019 12:05

Sample wt/vol: 5(mL) Date Analyzed: 09/17/2019 21:11

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.: 401172 Units: ug/L

CAS NO.	COMPOUND NAME	RT	RESULT	Q	MATCH QUALITY
75-45-6	Chlorodifluoromethane TIC		1.0	U	

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-118610-1

SDG No.:

Client Sample ID: MSA-SW48A-090919 Lab Sample ID: 240-118610-44

Matrix: Water Lab File ID: U1909793.d

Analysis Method: 8260C Date Collected: 09/09/2019 11:44

Sample wt/vol: 5(mL) Date Analyzed: 09/17/2019 21:34

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.: 401172 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
630-20-6	1,1,1,2-Tetrachloroethane	1.0	U	1.0	0.14
71-55-6	1,1,1-Trichloroethane	1.0	U	1.0	0.24
79-34-5	1,1,2,2-Tetrachloroethane	1.0	U	1.0	0.13
76-13-1	1,1,2-Trichloro-1,2,2-trichfluoroeth ane	1.0	U	1.0	0.41
75-34-3	1,1-Dichloroethane	1.0	U	1.0	0.17
75-35-4	1,1-Dichloroethene	1.0	U	1.0	0.19
563-58-6	1,1-Dichloropropene	1.0	U	1.0	0.14
87-61-6	1,2,3-Trichlorobenzene	1.0	U	1.0	0.54
96-18-4	1,2,3-Trichloropropane	1.0	U	1.0	0.24
526-73-8	1,2,3-Trimethylbenzene	5.0	U	5.0	0.14
120-82-1	1,2,4-Trichlorobenzene	1.0	U	1.0	0.26
95-63-6	1,2,4-Trimethylbenzene	1.0	U	1.0	0.070
96-12-8	1,2-Dibromo-3-Chloropropane	5.0	U	5.0	0.91
95-50-1	1,2-Dichlorobenzene	1.0	U	1.0	0.15
107-06-2	1,2-Dichloroethane	1.0	U	1.0	0.21
78-87-5	1,2-Dichloropropane	1.0	U	1.0	0.15
541-73-1	1,3-Dichlorobenzene	1.0	U	1.0	0.15
142-28-9	1,3-Dichloropropane	1.0	U	1.0	0.21
106-46-7	1,4-Dichlorobenzene	1.0	U	1.0	0.16
594-20-7	2,2-Dichloropropane	1.0	U	1.0	0.31
110-75-8	2-Chloroethyl vinyl ether	10	U	10	0.26
95-49-8	2-Chlorotoluene	1.0	U	1.0	0.15
591-78-6	2-Hexanone	5.0	U	5.0	0.54
108-86-1	Bromobenzene	1.0	U	1.0	0.12
74-97-5	Bromochloromethane	1.0	U	1.0	0.14
106-43-4	4-Chlorotoluene	1.0	U	1.0	0.090
99-87-6	p-Isopropyltoluene	1.0	U	1.0	0.13
67-64-1	Acetone	5.0	U	5.0	5.4
71-43-2	Benzene	1.0	U	1.0	0.13
75-25-2	Bromoform	1.0	U	1.0	0.76
74-83-9	Bromomethane	1.0	U	1.0	0.42
75-15-0	Carbon disulfide	1.0	U	1.0	0.28
56-23-5	Carbon tetrachloride	1.0	U	1.0	0.26
108-90-7	Chlorobenzene	1.0	U	1.0	0.14
75-00-3	Chloroethane	1.0	U	1.0	0.83

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-118610-1

SDG No.:

Client Sample ID: MSA-SW48A-090919 Lab Sample ID: 240-118610-44

Matrix: Water Lab File ID: U1909793.d

Analysis Method: 8260C Date Collected: 09/09/2019 11:44

Sample wt/vol: 5(mL) Date Analyzed: 09/17/2019 21:34

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.: 401172 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
67-66-3	Chloroform	1.0	U	1.0	0.13
74-87-3	Chloromethane	1.0	U	1.0	0.20
156-59-2	cis-1,2-Dichloroethene	1.0	U	1.0	0.16
10061-01-5	cis-1,3-Dichloropropene	1.0	U	1.0	0.61
87-68-3	Hexachlorobutadiene	1.0	U	1.0	0.83
74-95-3	Dibromomethane	1.0	U	1.0	0.090
75-27-4	Bromodichloromethane	1.0	U	1.0	0.17
75-71-8	Dichlorodifluoromethane	1.0	U	1.0	0.35
100-41-4	Ethylbenzene	1.0	U	1.0	0.11
106-93-4	1,2-Dibromoethane	1.0	U	1.0	0.12
108-20-3	Diisopropyl ether	5.0	U	5.0	0.17
91-20-3	Naphthalene	1.0	U	1.0	0.32
179601-23-1	m-Xylene & p-Xylene	2.0	U	2.0	0.080
104-51-8	n-Butylbenzene	1.0	U	1.0	0.14
98-82-8	Isopropylbenzene	1.0	U	1.0	0.090
103-65-1	n-Propylbenzene	1.0	U	1.0	0.15
78-93-3	2-Butanone	5.0	U	5.0	1.2
108-10-1	4-Methyl-2-pentanone	5.0	U	5.0	0.42
135-98-8	sec-Butylbenzene	1.0	U	1.0	0.13
1634-04-4	Methyl tert-butyl ether	1.0	U	1.0	0.070
994-05-8	Tert-amyl-methyl ether (TAME)	5.0	U	5.0	0.11
75-09-2	Methylene Chloride	5.0	U	5.0	2.6
95-47-6	o-Xylene	1.0	U	1.0	0.090
100-42-5	Styrene	1.0	U	1.0	0.10
637-92-3	Ethyl-t-butyl ether (ETBE)	5.0	U	5.0	0.15
98-06-6	tert-Butylbenzene	1.0	U	1.0	0.14
127-18-4	Tetrachloroethene	1.0	U	1.0	0.15
108-88-3	Toluene	1.0	U	1.0	0.14
156-60-5	trans-1,2-Dichloroethene	1.0	U	1.0	0.19
10061-02-6	trans-1,3-Dichloropropene	1.0	U	1.0	0.67
79-01-6	Trichloroethene	1.0	U	1.0	0.10
75-69-4	Trichlorofluoromethane	1.0	U	1.0	0.45
108-05-4	Vinyl acetate	2.0	U	2.0	0.19
75-01-4	Vinyl chloride	0.50	U	0.50	0.20
75-65-0	tert-Butyl alcohol	20	U	20	1.7
1330-20-7	Xylenes, Total	2.0	U	2.0	0.15

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-118610-1

SDG No.:

Client Sample ID: MSA-SW48A-090919 Lab Sample ID: 240-118610-44

Matrix: Water Lab File ID: U1909793.d

Analysis Method: 8260C Date Collected: 09/09/2019 11:44

Sample wt/vol: 5(mL) Date Analyzed: 09/17/2019 21:34

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.: 401172 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
124-48-1	Dibromochloromethane	1.0	U	1.0	0.39

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	118		70-121
460-00-4	4-Bromofluorobenzene (Surr)	95		59-120
2037-26-5	Toluene-d8 (Surr)	103		70-123
1868-53-7	Dibromofluoromethane (Surr)	116		75-128

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-118610-1

SDG No.:

Client Sample ID: MSA-SW48A-090919 Lab Sample ID: 240-118610-44

Matrix: Water Lab File ID: U1909793.d

Analysis Method: 8260C Date Collected: 09/09/2019 11:44

Sample wt/vol: 5(mL) Date Analyzed: 09/17/2019 21:34

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.: 401172 Units: ug/L

Number TICs Found: 0 TIC Result Total: 0

CAS NO.	COMPOUND NAME	RT	RESULT	Q	MATCH QUALITY
	Tentatively Identified Compound		None		

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET
TARGETED TENATIVELY IDENTIFIED COMPOUNDS

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-118610-1

SDG No.:

Client Sample ID: MSA-SW48A-090919 Lab Sample ID: 240-118610-44

Matrix: Water Lab File ID: U1909793.d

Analysis Method: 8260C Date Collected: 09/09/2019 11:44

Sample wt/vol: 5(mL) Date Analyzed: 09/17/2019 21:34

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.: 401172 Units: ug/L

CAS NO.	COMPOUND NAME	RT	RESULT	Q	MATCH QUALITY
75-45-6	Chlorodifluoromethane TIC		1.0	U	

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-118610-1

SDG No.:

Client Sample ID: MSA-SW49A-090919 Lab Sample ID: 240-118610-45

Matrix: Water Lab File ID: U1909794.d

Analysis Method: 8260C Date Collected: 09/09/2019 11:24

Sample wt/vol: 5(mL) Date Analyzed: 09/17/2019 21:56

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.: 401172 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
630-20-6	1,1,1,2-Tetrachloroethane	1.0	U	1.0	0.14
71-55-6	1,1,1-Trichloroethane	1.0	U	1.0	0.24
79-34-5	1,1,2,2-Tetrachloroethane	1.0	U	1.0	0.13
76-13-1	1,1,2-Trichloro-1,2,2-trichfluoroeth ane	1.0	U	1.0	0.41
75-34-3	1,1-Dichloroethane	1.0	U	1.0	0.17
75-35-4	1,1-Dichloroethene	1.0	U	1.0	0.19
563-58-6	1,1-Dichloropropene	1.0	U	1.0	0.14
87-61-6	1,2,3-Trichlorobenzene	1.0	U	1.0	0.54
96-18-4	1,2,3-Trichloropropane	1.0	U	1.0	0.24
526-73-8	1,2,3-Trimethylbenzene	5.0	U	5.0	0.14
120-82-1	1,2,4-Trichlorobenzene	1.0	U	1.0	0.26
95-63-6	1,2,4-Trimethylbenzene	1.0	U	1.0	0.070
96-12-8	1,2-Dibromo-3-Chloropropane	5.0	U	5.0	0.91
95-50-1	1,2-Dichlorobenzene	1.0	U	1.0	0.15
107-06-2	1,2-Dichloroethane	1.0	U	1.0	0.21
78-87-5	1,2-Dichloropropane	1.0	U	1.0	0.15
541-73-1	1,3-Dichlorobenzene	1.0	U	1.0	0.15
142-28-9	1,3-Dichloropropane	1.0	U	1.0	0.21
106-46-7	1,4-Dichlorobenzene	1.0	U	1.0	0.16
594-20-7	2,2-Dichloropropane	1.0	U	1.0	0.31
110-75-8	2-Chloroethyl vinyl ether	10	U	10	0.26
95-49-8	2-Chlorotoluene	1.0	U	1.0	0.15
591-78-6	2-Hexanone	5.0	U	5.0	0.54
108-86-1	Bromobenzene	1.0	U	1.0	0.12
74-97-5	Bromochloromethane	1.0	U	1.0	0.14
106-43-4	4-Chlorotoluene	1.0	U	1.0	0.090
99-87-6	p-Isopropyltoluene	1.0	U	1.0	0.13
67-64-1	Acetone	5.0	U	5.0	5.4
71-43-2	Benzene	1.0	U	1.0	0.13
75-25-2	Bromoform	1.0	U	1.0	0.76
74-83-9	Bromomethane	1.0	U	1.0	0.42
75-15-0	Carbon disulfide	1.0	U	1.0	0.28
56-23-5	Carbon tetrachloride	1.0	U	1.0	0.26
108-90-7	Chlorobenzene	1.0	U	1.0	0.14
75-00-3	Chloroethane	1.0	U	1.0	0.83

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-118610-1

SDG No.:

Client Sample ID: MSA-SW49A-090919 Lab Sample ID: 240-118610-45

Matrix: Water Lab File ID: U1909794.d

Analysis Method: 8260C Date Collected: 09/09/2019 11:24

Sample wt/vol: 5(mL) Date Analyzed: 09/17/2019 21:56

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.: 401172 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
67-66-3	Chloroform	1.0	U	1.0	0.13
74-87-3	Chloromethane	1.0	U	1.0	0.20
156-59-2	cis-1,2-Dichloroethene	1.0	U	1.0	0.16
10061-01-5	cis-1,3-Dichloropropene	1.0	U	1.0	0.61
87-68-3	Hexachlorobutadiene	1.0	U	1.0	0.83
74-95-3	Dibromomethane	1.0	U	1.0	0.090
75-27-4	Bromodichloromethane	1.0	U	1.0	0.17
75-71-8	Dichlorodifluoromethane	1.0	U	1.0	0.35
100-41-4	Ethylbenzene	1.0	U	1.0	0.11
106-93-4	1,2-Dibromoethane	1.0	U	1.0	0.12
108-20-3	Diisopropyl ether	5.0	U	5.0	0.17
91-20-3	Naphthalene	1.0	U	1.0	0.32
179601-23-1	m-Xylene & p-Xylene	2.0	U	2.0	0.080
104-51-8	n-Butylbenzene	1.0	U	1.0	0.14
98-82-8	Isopropylbenzene	1.0	U	1.0	0.090
103-65-1	n-Propylbenzene	1.0	U	1.0	0.15
78-93-3	2-Butanone	5.0	U	5.0	1.2
108-10-1	4-Methyl-2-pentanone	5.0	U	5.0	0.42
135-98-8	sec-Butylbenzene	1.0	U	1.0	0.13
1634-04-4	Methyl tert-butyl ether	1.0	U	1.0	0.070
994-05-8	Tert-amyl-methyl ether (TAME)	5.0	U	5.0	0.11
75-09-2	Methylene Chloride	5.0	U	5.0	2.6
95-47-6	o-Xylene	1.0	U	1.0	0.090
100-42-5	Styrene	1.0	U	1.0	0.10
637-92-3	Ethyl-t-butyl ether (ETBE)	5.0	U	5.0	0.15
98-06-6	tert-Butylbenzene	1.0	U	1.0	0.14
127-18-4	Tetrachloroethene	1.0	U	1.0	0.15
108-88-3	Toluene	1.0	U	1.0	0.14
156-60-5	trans-1,2-Dichloroethene	1.0	U	1.0	0.19
10061-02-6	trans-1,3-Dichloropropene	1.0	U	1.0	0.67
79-01-6	Trichloroethene	1.0	U	1.0	0.10
75-69-4	Trichlorofluoromethane	1.0	U	1.0	0.45
108-05-4	Vinyl acetate	2.0	U	2.0	0.19
75-01-4	Vinyl chloride	0.50	U	0.50	0.20
75-65-0	tert-Butyl alcohol	2.2	J	20	1.7
1330-20-7	Xylenes, Total	2.0	U	2.0	0.15

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-118610-1

SDG No.:

Client Sample ID: MSA-SW49A-090919 Lab Sample ID: 240-118610-45

Matrix: Water Lab File ID: U1909794.d

Analysis Method: 8260C Date Collected: 09/09/2019 11:24

Sample wt/vol: 5(mL) Date Analyzed: 09/17/2019 21:56

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.: 401172 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
124-48-1	Dibromochloromethane	1.0	U	1.0	0.39

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	117		70-121
460-00-4	4-Bromofluorobenzene (Surr)	95		59-120
2037-26-5	Toluene-d8 (Surr)	102		70-123
1868-53-7	Dibromofluoromethane (Surr)	115		75-128

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-118610-1

SDG No.:

Client Sample ID: MSA-SW49A-090919 Lab Sample ID: 240-118610-45

Matrix: Water Lab File ID: U1909794.d

Analysis Method: 8260C Date Collected: 09/09/2019 11:24

Sample wt/vol: 5(mL) Date Analyzed: 09/17/2019 21:56

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.: 401172 Units: ug/L

Number TICs Found: 0 TIC Result Total: 0

CAS NO.	COMPOUND NAME	RT	RESULT	Q	MATCH QUALITY
	Tentatively Identified Compound		None		

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET
TARGETED TENATIVELY IDENTIFIED COMPOUNDS

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-118610-1

SDG No.:

Client Sample ID: MSA-SW49A-090919 Lab Sample ID: 240-118610-45

Matrix: Water Lab File ID: U1909794.d

Analysis Method: 8260C Date Collected: 09/09/2019 11:24

Sample wt/vol: 5(mL) Date Analyzed: 09/17/2019 21:56

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.: 401172 Units: ug/L

CAS NO.	COMPOUND NAME	RT	RESULT	Q	MATCH QUALITY
75-45-6	Chlorodifluoromethane TIC		1.0	U	

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - DISSOLVED

Client Sample ID: MSA-SW37A-090919 Lab Sample ID: 240-118610-1

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-118610-1

SDG ID.:

Matrix: Water Date Sampled: 09/09/2019 12:43

Reporting Basis: WET Date Received: 09/11/2019 09:30

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-36-0	Antimony	2.0	2.0	0.57	ug/L	U		1	6020
7440-38-2	Arsenic	2.3	5.0	0.75	ug/L	J		1	6020
7440-39-3	Barium	35	5.0	2.2	ug/L			1	6020
7440-41-7	Beryllium	0.59	1.0	0.31	ug/L	J		1	6020
7440-43-9	Cadmium	1.0	1.0	0.20	ug/L	U		1	6020
7440-47-3	Chromium	2.0	2.0	0.98	ug/L	U		1	6020
7440-48-4	Cobalt	0.30	1.0	0.19	ug/L	J		1	6020
7440-50-8	Copper	5.2	2.0	1.7	ug/L			1	6020
7439-92-1	Lead	1.0	1.0	0.45	ug/L	U		1	6020
7439-98-7	Molybdenum	1.9	5.0	1.1	ug/L	J		1	6020
7440-02-0	Nickel	2.1	2.0	1.5	ug/L			1	6020
7782-49-2	Selenium	1.2	5.0	0.89	ug/L	J		1	6020
7440-22-4	Silver	1.0	1.0	0.053	ug/L	U		1	6020
7440-28-0	Thallium	0.39	1.0	0.20	ug/L	J		1	6020
7440-62-2	Vanadium	5.0	5.0	0.82	ug/L	U		1	6020
7440-66-6	Zinc	20	20	15	ug/L	U		1	6020
7440-33-7	Tungsten	10	10	1.8	ug/L	U		1	6020
7439-97-6	Mercury	0.20	0.20	0.13	ug/L	U	F1	1	7470A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - DISSOLVED

Client Sample ID: MSA-SW37A-090919 Lab Sample ID: 240-118610-1

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-118610-1

SDG ID.:

Matrix: Water Date Sampled: 09/09/2019 12:43

Reporting Basis: WET Date Received: 09/11/2019 09:30

CAS No.	Analyte	Result	RL		Units	C	Q	DIL	Method
	Hardness as calcium carbonate	440	33		mg/L			1	SM 2340B
	Calcium hardness as calcium carbonate	77	12		mg/L			1	SM 2340B
	Magnesium hardness as calcium carbonate	360	21		mg/L			1	SM 2340B

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - DISSOLVED

Client Sample ID: MSA-SW37B-090919 Lab Sample ID: 240-118610-2

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-118610-1

SDG ID.:

Matrix: Water Date Sampled: 09/09/2019 12:47

Reporting Basis: WET Date Received: 09/11/2019 09:30

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-36-0	Antimony	0.61	2.0	0.57	ug/L	J		1	6020
7440-38-2	Arsenic	2.5	5.0	0.75	ug/L	J		1	6020
7440-39-3	Barium	35	5.0	2.2	ug/L			1	6020
7440-41-7	Beryllium	0.89	1.0	0.31	ug/L	J		1	6020
7440-43-9	Cadmium	1.0	1.0	0.20	ug/L	U		1	6020
7440-47-3	Chromium	2.0	2.0	0.98	ug/L	U		1	6020
7440-48-4	Cobalt	0.28	1.0	0.19	ug/L	J		1	6020
7440-50-8	Copper	6.1	2.0	1.7	ug/L			1	6020
7439-92-1	Lead	1.0	1.0	0.45	ug/L	U		1	6020
7439-98-7	Molybdenum	2.0	5.0	1.1	ug/L	J		1	6020
7440-02-0	Nickel	2.2	2.0	1.5	ug/L			1	6020
7782-49-2	Selenium	1.0	5.0	0.89	ug/L	J		1	6020
7440-22-4	Silver	1.0	1.0	0.053	ug/L	U		1	6020
7440-28-0	Thallium	0.44	1.0	0.20	ug/L	J		1	6020
7440-62-2	Vanadium	5.0	5.0	0.82	ug/L	U		1	6020
7440-66-6	Zinc	20	20	15	ug/L	U		1	6020
7440-33-7	Tungsten	10	10	1.8	ug/L	U		1	6020
7439-97-6	Mercury	0.20	0.20	0.13	ug/L	U		1	7470A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - DISSOLVED

Client Sample ID: MSA-SW37B-090919 Lab Sample ID: 240-118610-2

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-118610-1

SDG ID.:

Matrix: Water Date Sampled: 09/09/2019 12:47

Reporting Basis: WET Date Received: 09/11/2019 09:30

CAS No.	Analyte	Result	RL		Units	C	Q	DIL	Method
	Hardness as calcium carbonate	440	33		mg/L			1	SM 2340B
	Calcium hardness as calcium carbonate	77	12		mg/L			1	SM 2340B
	Magnesium hardness as calcium carbonate	360	21		mg/L			1	SM 2340B

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - DISSOLVED

Client Sample ID: MSA-SW37C-090919 Lab Sample ID: 240-118610-3

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-118610-1

SDG ID.:

Matrix: Water Date Sampled: 09/09/2019 12:50

Reporting Basis: WET Date Received: 09/11/2019 09:30

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-36-0	Antimony	2.0	2.0	0.57	ug/L	U		1	6020
7440-38-2	Arsenic	2.3	5.0	0.75	ug/L	J		1	6020
7440-39-3	Barium	34	5.0	2.2	ug/L			1	6020
7440-41-7	Beryllium	0.36	1.0	0.31	ug/L	J		1	6020
7440-43-9	Cadmium	1.0	1.0	0.20	ug/L	U		1	6020
7440-47-3	Chromium	2.0	2.0	0.98	ug/L	U		1	6020
7440-48-4	Cobalt	0.32	1.0	0.19	ug/L	J		1	6020
7440-50-8	Copper	6.2	2.0	1.7	ug/L			1	6020
7439-92-1	Lead	1.0	1.0	0.45	ug/L	U		1	6020
7439-98-7	Molybdenum	1.4	5.0	1.1	ug/L	J		1	6020
7440-02-0	Nickel	2.1	2.0	1.5	ug/L			1	6020
7782-49-2	Selenium	5.0	5.0	0.89	ug/L	U		1	6020
7440-22-4	Silver	1.0	1.0	0.053	ug/L	U		1	6020
7440-28-0	Thallium	1.0	1.0	0.20	ug/L	U		1	6020
7440-62-2	Vanadium	5.0	5.0	0.82	ug/L	U		1	6020
7440-66-6	Zinc	20	20	15	ug/L	U		1	6020
7440-33-7	Tungsten	10	10	1.8	ug/L	U		1	6020
7439-97-6	Mercury	0.20	0.20	0.13	ug/L	U		1	7470A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - DISSOLVED

Client Sample ID: MSA-SW37C-090919 Lab Sample ID: 240-118610-3

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-118610-1

SDG ID.:

Matrix: Water Date Sampled: 09/09/2019 12:50

Reporting Basis: WET Date Received: 09/11/2019 09:30

CAS No.	Analyte	Result	RL		Units	C	Q	DIL	Method
	Hardness as calcium carbonate	430	33		mg/L			1	SM 2340B
	Calcium hardness as calcium carbonate	76	12		mg/L			1	SM 2340B
	Magnesium hardness as calcium carbonate	360	21		mg/L			1	SM 2340B

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - DISSOLVED

Client Sample ID: MSA-SW37D-090919 Lab Sample ID: 240-118610-4

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-118610-1

SDG ID.:

Matrix: Water Date Sampled: 09/09/2019 12:53

Reporting Basis: WET Date Received: 09/11/2019 09:30

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-36-0	Antimony	2.0	2.0	0.57	ug/L	U		1	6020
7440-38-2	Arsenic	1.9	5.0	0.75	ug/L	J		1	6020
7440-39-3	Barium	35	5.0	2.2	ug/L			1	6020
7440-41-7	Beryllium	1.0	1.0	0.31	ug/L	U		1	6020
7440-43-9	Cadmium	1.0	1.0	0.20	ug/L	U		1	6020
7440-47-3	Chromium	2.0	2.0	0.98	ug/L	U		1	6020
7440-48-4	Cobalt	0.26	1.0	0.19	ug/L	J		1	6020
7440-50-8	Copper	5.9	2.0	1.7	ug/L			1	6020
7439-92-1	Lead	1.0	1.0	0.45	ug/L	U		1	6020
7439-98-7	Molybdenum	1.3	5.0	1.1	ug/L	J		1	6020
7440-02-0	Nickel	1.9	2.0	1.5	ug/L	J		1	6020
7782-49-2	Selenium	5.0	5.0	0.89	ug/L	U		1	6020
7440-22-4	Silver	1.0	1.0	0.053	ug/L	U		1	6020
7440-28-0	Thallium	1.0	1.0	0.20	ug/L	U		1	6020
7440-62-2	Vanadium	5.0	5.0	0.82	ug/L	U		1	6020
7440-66-6	Zinc	20	20	15	ug/L	U		1	6020
7440-33-7	Tungsten	10	10	1.8	ug/L	U		1	6020
7439-97-6	Mercury	0.20	0.20	0.13	ug/L	U		1	7470A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - DISSOLVED

Client Sample ID: MSA-SW37D-090919 Lab Sample ID: 240-118610-4

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-118610-1

SDG ID.:

Matrix: Water Date Sampled: 09/09/2019 12:53

Reporting Basis: WET Date Received: 09/11/2019 09:30

CAS No.	Analyte	Result	RL		Units	C	Q	DIL	Method
	Hardness as calcium carbonate	440	33		mg/L			1	SM 2340B
	Calcium hardness as calcium carbonate	78	12		mg/L			1	SM 2340B
	Magnesium hardness as calcium carbonate	370	21		mg/L			1	SM 2340B

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - DISSOLVED

Client Sample ID: MSA-SW38A-090919 Lab Sample ID: 240-118610-5

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-118610-1

SDG ID.:

Matrix: Water Date Sampled: 09/09/2019 11:49

Reporting Basis: WET Date Received: 09/11/2019 09:30

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-36-0	Antimony	2.0	2.0	0.57	ug/L	U		1	6020
7440-38-2	Arsenic	1.7	5.0	0.75	ug/L	J		1	6020
7440-39-3	Barium	35	5.0	2.2	ug/L			1	6020
7440-41-7	Beryllium	1.0	1.0	0.31	ug/L	U		1	6020
7440-43-9	Cadmium	1.0	1.0	0.20	ug/L	U		1	6020
7440-47-3	Chromium	2.0	2.0	0.98	ug/L	U		1	6020
7440-48-4	Cobalt	0.24	1.0	0.19	ug/L	J		1	6020
7440-50-8	Copper	3.9	2.0	1.7	ug/L			1	6020
7439-92-1	Lead	1.0	1.0	0.45	ug/L	U		1	6020
7439-98-7	Molybdenum	1.1	5.0	1.1	ug/L	J		1	6020
7440-02-0	Nickel	2.0	2.0	1.5	ug/L			1	6020
7782-49-2	Selenium	5.0	5.0	0.89	ug/L	U		1	6020
7440-22-4	Silver	1.0	1.0	0.053	ug/L	U		1	6020
7440-28-0	Thallium	1.0	1.0	0.20	ug/L	U		1	6020
7440-62-2	Vanadium	5.0	5.0	0.82	ug/L	U		1	6020
7440-66-6	Zinc	20	20	15	ug/L	U		1	6020
7440-33-7	Tungsten	10	10	1.8	ug/L	U		1	6020
7439-97-6	Mercury	0.20	0.20	0.13	ug/L	U		1	7470A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - DISSOLVED

Client Sample ID: MSA-SW38A-090919 Lab Sample ID: 240-118610-5

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-118610-1

SDG ID.:

Matrix: Water Date Sampled: 09/09/2019 11:49

Reporting Basis: WET Date Received: 09/11/2019 09:30

CAS No.	Analyte	Result	RL		Units	C	Q	DIL	Method
	Hardness as calcium carbonate	440	33		mg/L			1	SM 2340B
	Calcium hardness as calcium carbonate	76	12		mg/L			1	SM 2340B
	Magnesium hardness as calcium carbonate	360	21		mg/L			1	SM 2340B

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - DISSOLVED

Client Sample ID: MSA-SW38B-090919 Lab Sample ID: 240-118610-6

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-118610-1

SDG ID.:

Matrix: Water Date Sampled: 09/09/2019 11:53

Reporting Basis: WET Date Received: 09/11/2019 09:30

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-36-0	Antimony	2.0	2.0	0.57	ug/L	U		1	6020
7440-38-2	Arsenic	2.5	5.0	0.75	ug/L	J		1	6020
7440-39-3	Barium	35	5.0	2.2	ug/L			1	6020
7440-41-7	Beryllium	1.0	1.0	0.31	ug/L	U		1	6020
7440-43-9	Cadmium	1.0	1.0	0.20	ug/L	U		1	6020
7440-47-3	Chromium	2.0	2.0	0.98	ug/L	U		1	6020
7440-48-4	Cobalt	0.23	1.0	0.19	ug/L	J		1	6020
7440-50-8	Copper	4.6	2.0	1.7	ug/L			1	6020
7439-92-1	Lead	1.0	1.0	0.45	ug/L	U		1	6020
7439-98-7	Molybdenum	1.2	5.0	1.1	ug/L	J		1	6020
7440-02-0	Nickel	2.1	2.0	1.5	ug/L			1	6020
7782-49-2	Selenium	5.0	5.0	0.89	ug/L	U		1	6020
7440-22-4	Silver	1.0	1.0	0.053	ug/L	U		1	6020
7440-28-0	Thallium	1.0	1.0	0.20	ug/L	U		1	6020
7440-62-2	Vanadium	5.0	5.0	0.82	ug/L	U		1	6020
7440-66-6	Zinc	20	20	15	ug/L	U		1	6020
7440-33-7	Tungsten	10	10	1.8	ug/L	U		1	6020
7439-97-6	Mercury	0.20	0.20	0.13	ug/L	U		1	7470A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - DISSOLVED

Client Sample ID: MSA-SW38B-090919 Lab Sample ID: 240-118610-6

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-118610-1

SDG ID.:

Matrix: Water Date Sampled: 09/09/2019 11:53

Reporting Basis: WET Date Received: 09/11/2019 09:30

CAS No.	Analyte	Result	RL		Units	C	Q	DIL	Method
	Hardness as calcium carbonate	440	33		mg/L			1	SM 2340B
	Calcium hardness as calcium carbonate	76	12		mg/L			1	SM 2340B
	Magnesium hardness as calcium carbonate	360	21		mg/L			1	SM 2340B

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - DISSOLVED

Client Sample ID: MSA-SW38C090919 Lab Sample ID: 240-118610-7

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-118610-1

SDG ID.:

Matrix: Water Date Sampled: 09/09/2019 11:58

Reporting Basis: WET Date Received: 09/11/2019 09:30

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-36-0	Antimony	2.0	2.0	0.57	ug/L	U		1	6020
7440-38-2	Arsenic	2.0	5.0	0.75	ug/L	J		1	6020
7440-39-3	Barium	35	5.0	2.2	ug/L			1	6020
7440-41-7	Beryllium	1.0	1.0	0.31	ug/L	U		1	6020
7440-43-9	Cadmium	1.0	1.0	0.20	ug/L	U		1	6020
7440-47-3	Chromium	2.0	2.0	0.98	ug/L	U		1	6020
7440-48-4	Cobalt	0.23	1.0	0.19	ug/L	J		1	6020
7440-50-8	Copper	4.2	2.0	1.7	ug/L			1	6020
7439-92-1	Lead	1.0	1.0	0.45	ug/L	U		1	6020
7439-98-7	Molybdenum	1.2	5.0	1.1	ug/L	J		1	6020
7440-02-0	Nickel	2.0	2.0	1.5	ug/L			1	6020
7782-49-2	Selenium	5.0	5.0	0.89	ug/L	U		1	6020
7440-22-4	Silver	1.0	1.0	0.053	ug/L	U		1	6020
7440-28-0	Thallium	1.0	1.0	0.20	ug/L	U		1	6020
7440-62-2	Vanadium	5.0	5.0	0.82	ug/L	U		1	6020
7440-66-6	Zinc	20	20	15	ug/L	U		1	6020
7440-33-7	Tungsten	10	10	1.8	ug/L	U		1	6020
7439-97-6	Mercury	0.20	0.20	0.13	ug/L	U		1	7470A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - DISSOLVED

Client Sample ID: MSA-SW38C090919 Lab Sample ID: 240-118610-7

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-118610-1

SDG ID.:

Matrix: Water Date Sampled: 09/09/2019 11:58

Reporting Basis: WET Date Received: 09/11/2019 09:30

CAS No.	Analyte	Result	RL		Units	C	Q	DIL	Method
	Hardness as calcium carbonate	440	33		mg/L			1	SM 2340B
	Calcium hardness as calcium carbonate	76	12		mg/L			1	SM 2340B
	Magnesium hardness as calcium carbonate	360	21		mg/L			1	SM 2340B

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - DISSOLVED

Client Sample ID: MSA-SW38D-090919 Lab Sample ID: 240-118610-8

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-118610-1

SDG ID.:

Matrix: Water Date Sampled: 09/09/2019 12:01

Reporting Basis: WET Date Received: 09/11/2019 09:30

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-36-0	Antimony	2.0	2.0	0.57	ug/L	U		1	6020
7440-38-2	Arsenic	1.8	5.0	0.75	ug/L	J		1	6020
7440-39-3	Barium	35	5.0	2.2	ug/L			1	6020
7440-41-7	Beryllium	1.0	1.0	0.31	ug/L	U		1	6020
7440-43-9	Cadmium	1.0	1.0	0.20	ug/L	U		1	6020
7440-47-3	Chromium	2.0	2.0	0.98	ug/L	U		1	6020
7440-48-4	Cobalt	0.21	1.0	0.19	ug/L	J		1	6020
7440-50-8	Copper	4.2	2.0	1.7	ug/L			1	6020
7439-92-1	Lead	1.0	1.0	0.45	ug/L	U		1	6020
7439-98-7	Molybdenum	1.2	5.0	1.1	ug/L	J		1	6020
7440-02-0	Nickel	2.0	2.0	1.5	ug/L			1	6020
7782-49-2	Selenium	5.0	5.0	0.89	ug/L	U		1	6020
7440-22-4	Silver	1.0	1.0	0.053	ug/L	U		1	6020
7440-28-0	Thallium	1.0	1.0	0.20	ug/L	U		1	6020
7440-62-2	Vanadium	5.0	5.0	0.82	ug/L	U		1	6020
7440-66-6	Zinc	20	20	15	ug/L	U		1	6020
7440-33-7	Tungsten	10	10	1.8	ug/L	U		1	6020
7439-97-6	Mercury	0.20	0.20	0.13	ug/L	U		1	7470A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - DISSOLVED

Client Sample ID: MSA-SW38D-090919 Lab Sample ID: 240-118610-8

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-118610-1

SDG ID.:

Matrix: Water Date Sampled: 09/09/2019 12:01

Reporting Basis: WET Date Received: 09/11/2019 09:30

CAS No.	Analyte	Result	RL		Units	C	Q	DIL	Method
	Hardness as calcium carbonate	430	33		mg/L			1	SM 2340B
	Calcium hardness as calcium carbonate	75	12		mg/L			1	SM 2340B
	Magnesium hardness as calcium carbonate	360	21		mg/L			1	SM 2340B

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - DISSOLVED

Client Sample ID: MSA-SW39A-090919 Lab Sample ID: 240-118610-9

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-118610-1

SDG ID.:

Matrix: Water Date Sampled: 09/09/2019 10:15

Reporting Basis: WET Date Received: 09/11/2019 09:30

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-36-0	Antimony	2.0	2.0	0.57	ug/L	U		1	6020
7440-38-2	Arsenic	1.9	5.0	0.75	ug/L	J		1	6020
7440-39-3	Barium	35	5.0	2.2	ug/L			1	6020
7440-41-7	Beryllium	1.0	1.0	0.31	ug/L	U		1	6020
7440-43-9	Cadmium	1.0	1.0	0.20	ug/L	U		1	6020
7440-47-3	Chromium	2.0	2.0	0.98	ug/L	U		1	6020
7440-48-4	Cobalt	1.0	1.0	0.19	ug/L	U		1	6020
7440-50-8	Copper	3.4	2.0	1.7	ug/L			1	6020
7439-92-1	Lead	1.0	1.0	0.45	ug/L	U		1	6020
7439-98-7	Molybdenum	1.1	5.0	1.1	ug/L	J		1	6020
7440-02-0	Nickel	2.0	2.0	1.5	ug/L			1	6020
7782-49-2	Selenium	5.0	5.0	0.89	ug/L	U		1	6020
7440-22-4	Silver	1.0	1.0	0.053	ug/L	U		1	6020
7440-28-0	Thallium	1.0	1.0	0.20	ug/L	U		1	6020
7440-62-2	Vanadium	5.0	5.0	0.82	ug/L	U		1	6020
7440-66-6	Zinc	20	20	15	ug/L	U		1	6020
7440-33-7	Tungsten	10	10	1.8	ug/L	U		1	6020
7439-97-6	Mercury	0.20	0.20	0.13	ug/L	U		1	7470A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - DISSOLVED

Client Sample ID: MSA-SW39A-090919 Lab Sample ID: 240-118610-9

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-118610-1

SDG ID.:

Matrix: Water Date Sampled: 09/09/2019 10:15

Reporting Basis: WET Date Received: 09/11/2019 09:30

CAS No.	Analyte	Result	RL		Units	C	Q	DIL	Method
	Hardness as calcium carbonate	450	33		mg/L			1	SM 2340B
	Calcium hardness as calcium carbonate	77	12		mg/L			1	SM 2340B
	Magnesium hardness as calcium carbonate	370	21		mg/L			1	SM 2340B

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - DISSOLVED

Client Sample ID: MSA-SW39B-090919 Lab Sample ID: 240-118610-10

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-118610-1

SDG ID.:

Matrix: Water Date Sampled: 09/09/2019 10:22

Reporting Basis: WET Date Received: 09/11/2019 09:30

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-36-0	Antimony	2.0	2.0	0.57	ug/L	U		1	6020
7440-38-2	Arsenic	1.3	5.0	0.75	ug/L	J		1	6020
7440-39-3	Barium	36	5.0	2.2	ug/L			1	6020
7440-41-7	Beryllium	1.0	1.0	0.31	ug/L	U		1	6020
7440-43-9	Cadmium	1.0	1.0	0.20	ug/L	U		1	6020
7440-47-3	Chromium	2.0	2.0	0.98	ug/L	U		1	6020
7440-48-4	Cobalt	1.0	1.0	0.19	ug/L	U		1	6020
7440-50-8	Copper	3.7	2.0	1.7	ug/L			1	6020
7439-92-1	Lead	1.0	1.0	0.45	ug/L	U		1	6020
7439-98-7	Molybdenum	1.2	5.0	1.1	ug/L	J		1	6020
7440-02-0	Nickel	2.0	2.0	1.5	ug/L			1	6020
7782-49-2	Selenium	5.0	5.0	0.89	ug/L	U		1	6020
7440-22-4	Silver	1.0	1.0	0.053	ug/L	U		1	6020
7440-28-0	Thallium	1.0	1.0	0.20	ug/L	U		1	6020
7440-62-2	Vanadium	5.0	5.0	0.82	ug/L	U		1	6020
7440-66-6	Zinc	20	20	15	ug/L	U		1	6020
7440-33-7	Tungsten	10	10	1.8	ug/L	U		1	6020
7439-97-6	Mercury	0.20	0.20	0.13	ug/L	U		1	7470A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - DISSOLVED

Client Sample ID: MSA-SW39B-090919 Lab Sample ID: 240-118610-10

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-118610-1

SDG ID.:

Matrix: Water Date Sampled: 09/09/2019 10:22

Reporting Basis: WET Date Received: 09/11/2019 09:30

CAS No.	Analyte	Result	RL		Units	C	Q	DIL	Method
	Hardness as calcium carbonate	470	33		mg/L			1	SM 2340B
	Calcium hardness as calcium carbonate	81	12		mg/L			1	SM 2340B
	Magnesium hardness as calcium carbonate	390	21		mg/L			1	SM 2340B

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - DISSOLVED

Client Sample ID: MSA-SW39C-090919 Lab Sample ID: 240-118610-11

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-118610-1

SDG ID.:

Matrix: Water Date Sampled: 09/09/2019 10:28

Reporting Basis: WET Date Received: 09/11/2019 09:30

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-36-0	Antimony	2.0	2.0	0.57	ug/L	U		1	6020
7440-38-2	Arsenic	1.7	5.0	0.75	ug/L	J		1	6020
7440-39-3	Barium	36	5.0	2.2	ug/L			1	6020
7440-41-7	Beryllium	1.0	1.0	0.31	ug/L	U		1	6020
7440-43-9	Cadmium	1.0	1.0	0.20	ug/L	U		1	6020
7440-47-3	Chromium	2.0	2.0	0.98	ug/L	U		1	6020
7440-48-4	Cobalt	1.0	1.0	0.19	ug/L	U		1	6020
7440-50-8	Copper	3.9	2.0	1.7	ug/L			1	6020
7439-92-1	Lead	1.0	1.0	0.45	ug/L	U		1	6020
7439-98-7	Molybdenum	1.2	5.0	1.1	ug/L	J		1	6020
7440-02-0	Nickel	2.3	2.0	1.5	ug/L			1	6020
7782-49-2	Selenium	5.0	5.0	0.89	ug/L	U		1	6020
7440-22-4	Silver	1.0	1.0	0.053	ug/L	U		1	6020
7440-28-0	Thallium	1.0	1.0	0.20	ug/L	U		1	6020
7440-62-2	Vanadium	5.0	5.0	0.82	ug/L	U		1	6020
7440-66-6	Zinc	20	20	15	ug/L	U		1	6020
7440-33-7	Tungsten	10	10	1.8	ug/L	U		1	6020
7439-97-6	Mercury	0.20	0.20	0.13	ug/L	U		1	7470A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - DISSOLVED

Client Sample ID: MSA-SW39C-090919 Lab Sample ID: 240-118610-11

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-118610-1

SDG ID.:

Matrix: Water Date Sampled: 09/09/2019 10:28

Reporting Basis: WET Date Received: 09/11/2019 09:30

CAS No.	Analyte	Result	RL		Units	C	Q	DIL	Method
	Hardness as calcium carbonate	460	33		mg/L			1	SM 2340B
	Calcium hardness as calcium carbonate	81	12		mg/L			1	SM 2340B
	Magnesium hardness as calcium carbonate	380	21		mg/L			1	SM 2340B

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - DISSOLVED

Client Sample ID: MSA-SW39D-090919 Lab Sample ID: 240-118610-12

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-118610-1

SDG ID.:

Matrix: Water Date Sampled: 09/09/2019 10:31

Reporting Basis: WET Date Received: 09/11/2019 09:30

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-36-0	Antimony	2.0	2.0	0.57	ug/L	U		1	6020
7440-38-2	Arsenic	2.0	5.0	0.75	ug/L	J		1	6020
7440-39-3	Barium	34	5.0	2.2	ug/L			1	6020
7440-41-7	Beryllium	1.0	1.0	0.31	ug/L	U		1	6020
7440-43-9	Cadmium	1.0	1.0	0.20	ug/L	U		1	6020
7440-47-3	Chromium	2.0	2.0	0.98	ug/L	U		1	6020
7440-48-4	Cobalt	1.0	1.0	0.19	ug/L	U		1	6020
7440-50-8	Copper	4.6	2.0	1.7	ug/L			1	6020
7439-92-1	Lead	1.0	1.0	0.45	ug/L	U		1	6020
7439-98-7	Molybdenum	1.1	5.0	1.1	ug/L	J		1	6020
7440-02-0	Nickel	1.9	2.0	1.5	ug/L	J		1	6020
7782-49-2	Selenium	5.0	5.0	0.89	ug/L	U		1	6020
7440-22-4	Silver	1.0	1.0	0.053	ug/L	U		1	6020
7440-28-0	Thallium	1.0	1.0	0.20	ug/L	U		1	6020
7440-62-2	Vanadium	5.0	5.0	0.82	ug/L	U		1	6020
7440-66-6	Zinc	20	20	15	ug/L	U		1	6020
7440-33-7	Tungsten	10	10	1.8	ug/L	U		1	6020
7439-97-6	Mercury	0.20	0.20	0.13	ug/L	U		1	7470A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - DISSOLVED

Client Sample ID: MSA-SW39D-090919 Lab Sample ID: 240-118610-12

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-118610-1

SDG ID.:

Matrix: Water Date Sampled: 09/09/2019 10:31

Reporting Basis: WET Date Received: 09/11/2019 09:30

CAS No.	Analyte	Result	RL		Units	C	Q	DIL	Method
	Hardness as calcium carbonate	450	33		mg/L			1	SM 2340B
	Calcium hardness as calcium carbonate	77	12		mg/L			1	SM 2340B
	Magnesium hardness as calcium carbonate	370	21		mg/L			1	SM 2340B

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - DISSOLVED

Client Sample ID: MSA-SW40A-090919 Lab Sample ID: 240-118610-13

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-118610-1

SDG ID.:

Matrix: Water Date Sampled: 09/09/2019 12:09

Reporting Basis: WET Date Received: 09/11/2019 09:30

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-36-0	Antimony	2.0	2.0	0.57	ug/L	U		1	6020
7440-38-2	Arsenic	2.1	5.0	0.75	ug/L	J		1	6020
7440-39-3	Barium	37	5.0	2.2	ug/L			1	6020
7440-41-7	Beryllium	1.0	1.0	0.31	ug/L	U		1	6020
7440-43-9	Cadmium	1.0	1.0	0.20	ug/L	U		1	6020
7440-47-3	Chromium	2.0	2.0	0.98	ug/L	U		1	6020
7440-48-4	Cobalt	0.27	1.0	0.19	ug/L	J		1	6020
7440-50-8	Copper	4.3	2.0	1.7	ug/L			1	6020
7439-92-1	Lead	1.0	1.0	0.45	ug/L	U		1	6020
7439-98-7	Molybdenum	1.2	5.0	1.1	ug/L	J		1	6020
7440-02-0	Nickel	2.0	2.0	1.5	ug/L			1	6020
7782-49-2	Selenium	5.0	5.0	0.89	ug/L	U		1	6020
7440-22-4	Silver	1.0	1.0	0.053	ug/L	U		1	6020
7440-28-0	Thallium	1.0	1.0	0.20	ug/L	U		1	6020
7440-62-2	Vanadium	5.0	5.0	0.82	ug/L	U		1	6020
7440-66-6	Zinc	20	20	15	ug/L	U		1	6020
7440-33-7	Tungsten	10	10	1.8	ug/L	U		1	6020
7439-97-6	Mercury	0.20	0.20	0.13	ug/L	U		1	7470A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - DISSOLVED

Client Sample ID: MSA-SW40A-090919 Lab Sample ID: 240-118610-13

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-118610-1

SDG ID.:

Matrix: Water Date Sampled: 09/09/2019 12:09

Reporting Basis: WET Date Received: 09/11/2019 09:30

CAS No.	Analyte	Result	RL		Units	C	Q	DIL	Method
	Hardness as calcium carbonate	450	33		mg/L			1	SM 2340B
	Calcium hardness as calcium carbonate	78	12		mg/L			1	SM 2340B
	Magnesium hardness as calcium carbonate	370	21		mg/L			1	SM 2340B

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - DISSOLVED

Client Sample ID: MSA-SW40B-090919 Lab Sample ID: 240-118610-14

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-118610-1

SDG ID.:

Matrix: Water Date Sampled: 09/09/2019 12:12

Reporting Basis: WET Date Received: 09/11/2019 09:30

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-36-0	Antimony	2.0	2.0	0.57	ug/L	U		1	6020
7440-38-2	Arsenic	1.9	5.0	0.75	ug/L	J		1	6020
7440-39-3	Barium	36	5.0	2.2	ug/L			1	6020
7440-41-7	Beryllium	1.0	1.0	0.31	ug/L	U		1	6020
7440-43-9	Cadmium	1.0	1.0	0.20	ug/L	U		1	6020
7440-47-3	Chromium	2.0	2.0	0.98	ug/L	U		1	6020
7440-48-4	Cobalt	0.26	1.0	0.19	ug/L	J		1	6020
7440-50-8	Copper	4.7	2.0	1.7	ug/L			1	6020
7439-92-1	Lead	1.0	1.0	0.45	ug/L	U		1	6020
7439-98-7	Molybdenum	1.2	5.0	1.1	ug/L	J		1	6020
7440-02-0	Nickel	2.2	2.0	1.5	ug/L			1	6020
7782-49-2	Selenium	5.0	5.0	0.89	ug/L	U		1	6020
7440-22-4	Silver	1.0	1.0	0.053	ug/L	U		1	6020
7440-28-0	Thallium	1.0	1.0	0.20	ug/L	U		1	6020
7440-62-2	Vanadium	5.0	5.0	0.82	ug/L	U		1	6020
7440-66-6	Zinc	20	20	15	ug/L	U		1	6020
7440-33-7	Tungsten	10	10	1.8	ug/L	U	^	1	6020
7439-97-6	Mercury	0.20	0.20	0.13	ug/L	U		1	7470A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - DISSOLVED

Client Sample ID: MSA-SW40B-090919 Lab Sample ID: 240-118610-14

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-118610-1

SDG ID.:

Matrix: Water Date Sampled: 09/09/2019 12:12

Reporting Basis: WET Date Received: 09/11/2019 09:30

CAS No.	Analyte	Result	RL		Units	C	Q	DIL	Method
	Hardness as calcium carbonate	450	33		mg/L			1	SM 2340B
	Calcium hardness as calcium carbonate	78	12		mg/L			1	SM 2340B
	Magnesium hardness as calcium carbonate	370	21		mg/L			1	SM 2340B

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - DISSOLVED

Client Sample ID: MSA-SW40C-090919 Lab Sample ID: 240-118610-15

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-118610-1

SDG ID.:

Matrix: Water Date Sampled: 09/09/2019 12:18

Reporting Basis: WET Date Received: 09/11/2019 09:30

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-36-0	Antimony	2.0	2.0	0.57	ug/L	U		1	6020
7440-38-2	Arsenic	2.2	5.0	0.75	ug/L	J		1	6020
7440-39-3	Barium	37	5.0	2.2	ug/L			1	6020
7440-41-7	Beryllium	1.0	1.0	0.31	ug/L	U		1	6020
7440-43-9	Cadmium	1.0	1.0	0.20	ug/L	U		1	6020
7440-47-3	Chromium	2.0	2.0	0.98	ug/L	U		1	6020
7440-48-4	Cobalt	0.32	1.0	0.19	ug/L	J		1	6020
7440-50-8	Copper	4.6	2.0	1.7	ug/L			1	6020
7439-92-1	Lead	1.0	1.0	0.45	ug/L	U		1	6020
7439-98-7	Molybdenum	1.2	5.0	1.1	ug/L	J		1	6020
7440-02-0	Nickel	2.0	2.0	1.5	ug/L			1	6020
7782-49-2	Selenium	5.0	5.0	0.89	ug/L	U		1	6020
7440-22-4	Silver	1.0	1.0	0.053	ug/L	U		1	6020
7440-28-0	Thallium	1.0	1.0	0.20	ug/L	U		1	6020
7440-62-2	Vanadium	5.0	5.0	0.82	ug/L	U		1	6020
7440-66-6	Zinc	20	20	15	ug/L	U		1	6020
7440-33-7	Tungsten	10	10	1.8	ug/L	U	^	1	6020
7439-97-6	Mercury	0.20	0.20	0.13	ug/L	U		1	7470A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - DISSOLVED

Client Sample ID: MSA-SW40C-090919 Lab Sample ID: 240-118610-15

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-118610-1

SDG ID.:

Matrix: Water Date Sampled: 09/09/2019 12:18

Reporting Basis: WET Date Received: 09/11/2019 09:30

CAS No.	Analyte	Result	RL		Units	C	Q	DIL	Method
	Hardness as calcium carbonate	440	33		mg/L			1	SM 2340B
	Calcium hardness as calcium carbonate	77	12		mg/L			1	SM 2340B
	Magnesium hardness as calcium carbonate	370	21		mg/L			1	SM 2340B

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - DISSOLVED

Client Sample ID: MSA-SW40D-090919 Lab Sample ID: 240-118610-16

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-118610-1

SDG ID.:

Matrix: Water Date Sampled: 09/09/2019 12:23

Reporting Basis: WET Date Received: 09/11/2019 09:30

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-36-0	Antimony	2.0	2.0	0.57	ug/L	U		1	6020
7440-38-2	Arsenic	2.4	5.0	0.75	ug/L	J		1	6020
7440-39-3	Barium	34	5.0	2.2	ug/L			1	6020
7440-41-7	Beryllium	1.0	1.0	0.31	ug/L	U		1	6020
7440-43-9	Cadmium	1.0	1.0	0.20	ug/L	U		1	6020
7440-47-3	Chromium	2.0	2.0	0.98	ug/L	U		1	6020
7440-48-4	Cobalt	0.24	1.0	0.19	ug/L	J		1	6020
7440-50-8	Copper	4.2	2.0	1.7	ug/L			1	6020
7439-92-1	Lead	1.0	1.0	0.45	ug/L	U		1	6020
7439-98-7	Molybdenum	1.1	5.0	1.1	ug/L	J		1	6020
7440-02-0	Nickel	2.0	2.0	1.5	ug/L			1	6020
7782-49-2	Selenium	5.0	5.0	0.89	ug/L	U		1	6020
7440-22-4	Silver	1.0	1.0	0.053	ug/L	U		1	6020
7440-28-0	Thallium	1.0	1.0	0.20	ug/L	U		1	6020
7440-62-2	Vanadium	5.0	5.0	0.82	ug/L	U		1	6020
7440-66-6	Zinc	20	20	15	ug/L	U		1	6020
7440-33-7	Tungsten	10	10	1.8	ug/L	U	^	1	6020
7439-97-6	Mercury	0.20	0.20	0.13	ug/L	U		1	7470A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - DISSOLVED

Client Sample ID: MSA-SW40D-090919 Lab Sample ID: 240-118610-16

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-118610-1

SDG ID.:

Matrix: Water Date Sampled: 09/09/2019 12:23

Reporting Basis: WET Date Received: 09/11/2019 09:30

CAS No.	Analyte	Result	RL		Units	C	Q	DIL	Method
	Hardness as calcium carbonate	430	33		mg/L			1	SM 2340B
	Calcium hardness as calcium carbonate	74	12		mg/L			1	SM 2340B
	Magnesium hardness as calcium carbonate	360	21		mg/L			1	SM 2340B

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - DISSOLVED

Client Sample ID: MSA-SW41A-090919 Lab Sample ID: 240-118610-17

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-118610-1

SDG ID.:

Matrix: Water Date Sampled: 09/09/2019 11:29

Reporting Basis: WET Date Received: 09/11/2019 09:30

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-36-0	Antimony	2.0	2.0	0.57	ug/L	U		1	6020
7440-38-2	Arsenic	1.5	5.0	0.75	ug/L	J		1	6020
7440-39-3	Barium	35	5.0	2.2	ug/L			1	6020
7440-41-7	Beryllium	1.0	1.0	0.31	ug/L	U		1	6020
7440-43-9	Cadmium	1.0	1.0	0.20	ug/L	U		1	6020
7440-47-3	Chromium	2.0	2.0	0.98	ug/L	U		1	6020
7440-48-4	Cobalt	0.20	1.0	0.19	ug/L	J		1	6020
7440-50-8	Copper	4.2	2.0	1.7	ug/L			1	6020
7439-92-1	Lead	1.0	1.0	0.45	ug/L	U		1	6020
7439-98-7	Molybdenum	1.1	5.0	1.1	ug/L	J		1	6020
7440-02-0	Nickel	2.0	2.0	1.5	ug/L			1	6020
7782-49-2	Selenium	5.0	5.0	0.89	ug/L	U		1	6020
7440-22-4	Silver	1.0	1.0	0.053	ug/L	U		1	6020
7440-28-0	Thallium	1.0	1.0	0.20	ug/L	U		1	6020
7440-62-2	Vanadium	5.0	5.0	0.82	ug/L	U		1	6020
7440-66-6	Zinc	20	20	15	ug/L	U		1	6020
7440-33-7	Tungsten	10	10	1.8	ug/L	U	^	1	6020
7439-97-6	Mercury	0.20	0.20	0.13	ug/L	U		1	7470A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - DISSOLVED

Client Sample ID: MSA-SW41A-090919 Lab Sample ID: 240-118610-17

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-118610-1

SDG ID.:

Matrix: Water Date Sampled: 09/09/2019 11:29

Reporting Basis: WET Date Received: 09/11/2019 09:30

CAS No.	Analyte	Result	RL		Units	C	Q	DIL	Method
	Hardness as calcium carbonate	440	33		mg/L			1	SM 2340B
	Calcium hardness as calcium carbonate	76	12		mg/L			1	SM 2340B
	Magnesium hardness as calcium carbonate	360	21		mg/L			1	SM 2340B

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - DISSOLVED

Client Sample ID: MSA-SW41B-090919 Lab Sample ID: 240-118610-18

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-118610-1

SDG ID.:

Matrix: Water Date Sampled: 09/09/2019 11:32

Reporting Basis: WET Date Received: 09/11/2019 09:30

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-36-0	Antimony	2.0	2.0	0.57	ug/L	U		1	6020
7440-38-2	Arsenic	1.9	5.0	0.75	ug/L	J		1	6020
7440-39-3	Barium	35	5.0	2.2	ug/L			1	6020
7440-41-7	Beryllium	1.0	1.0	0.31	ug/L	U		1	6020
7440-43-9	Cadmium	1.0	1.0	0.20	ug/L	U		1	6020
7440-47-3	Chromium	2.0	2.0	0.98	ug/L	U		1	6020
7440-48-4	Cobalt	0.21	1.0	0.19	ug/L	J		1	6020
7440-50-8	Copper	4.2	2.0	1.7	ug/L			1	6020
7439-92-1	Lead	1.0	1.0	0.45	ug/L	U		1	6020
7439-98-7	Molybdenum	1.2	5.0	1.1	ug/L	J		1	6020
7440-02-0	Nickel	2.1	2.0	1.5	ug/L			1	6020
7782-49-2	Selenium	5.0	5.0	0.89	ug/L	U		1	6020
7440-22-4	Silver	1.0	1.0	0.053	ug/L	U		1	6020
7440-28-0	Thallium	1.0	1.0	0.20	ug/L	U		1	6020
7440-62-2	Vanadium	5.0	5.0	0.82	ug/L	U		1	6020
7440-66-6	Zinc	20	20	15	ug/L	U		1	6020
7440-33-7	Tungsten	10	10	1.8	ug/L	U	^	1	6020
7439-97-6	Mercury	0.20	0.20	0.13	ug/L	U		1	7470A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - DISSOLVED

Client Sample ID: MSA-SW41B-090919 Lab Sample ID: 240-118610-18

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-118610-1

SDG ID.:

Matrix: Water Date Sampled: 09/09/2019 11:32

Reporting Basis: WET Date Received: 09/11/2019 09:30

CAS No.	Analyte	Result	RL		Units	C	Q	DIL	Method
	Hardness as calcium carbonate	440	33		mg/L			1	SM 2340B
	Calcium hardness as calcium carbonate	78	12		mg/L			1	SM 2340B
	Magnesium hardness as calcium carbonate	360	21		mg/L			1	SM 2340B

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - DISSOLVED

Client Sample ID: MSA-SW41C-090919 Lab Sample ID: 240-118610-19

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-118610-1

SDG ID.:

Matrix: Water Date Sampled: 09/09/2019 11:36

Reporting Basis: WET Date Received: 09/11/2019 09:30

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-36-0	Antimony	2.0	2.0	0.57	ug/L	U		1	6020
7440-38-2	Arsenic	2.0	5.0	0.75	ug/L	J		1	6020
7440-39-3	Barium	35	5.0	2.2	ug/L			1	6020
7440-41-7	Beryllium	1.0	1.0	0.31	ug/L	U		1	6020
7440-43-9	Cadmium	1.0	1.0	0.20	ug/L	U		1	6020
7440-47-3	Chromium	3.3	2.0	0.98	ug/L			1	6020
7440-48-4	Cobalt	0.21	1.0	0.19	ug/L	J		1	6020
7440-50-8	Copper	4.6	2.0	1.7	ug/L			1	6020
7439-92-1	Lead	1.0	1.0	0.45	ug/L	U		1	6020
7439-98-7	Molybdenum	1.2	5.0	1.1	ug/L	J		1	6020
7440-02-0	Nickel	2.2	2.0	1.5	ug/L			1	6020
7782-49-2	Selenium	5.0	5.0	0.89	ug/L	U		1	6020
7440-22-4	Silver	1.0	1.0	0.053	ug/L	U		1	6020
7440-28-0	Thallium	1.0	1.0	0.20	ug/L	U		1	6020
7440-62-2	Vanadium	5.0	5.0	0.82	ug/L	U		1	6020
7440-66-6	Zinc	20	20	15	ug/L	U		1	6020
7440-33-7	Tungsten	10	10	1.8	ug/L	U	^	1	6020
7439-97-6	Mercury	0.20	0.20	0.13	ug/L	U		1	7470A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - DISSOLVED

Client Sample ID: MSA-SW41C-090919 Lab Sample ID: 240-118610-19

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-118610-1

SDG ID.:

Matrix: Water Date Sampled: 09/09/2019 11:36

Reporting Basis: WET Date Received: 09/11/2019 09:30

CAS No.	Analyte	Result	RL		Units	C	Q	DIL	Method
	Hardness as calcium carbonate	450	33		mg/L			1	SM 2340B
	Calcium hardness as calcium carbonate	77	12		mg/L			1	SM 2340B
	Magnesium hardness as calcium carbonate	370	21		mg/L			1	SM 2340B

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - DISSOLVED

Client Sample ID: MSA-SW41D-090919 Lab Sample ID: 240-118610-20

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-118610-1

SDG ID.:

Matrix: Water Date Sampled: 09/09/2019 11:41

Reporting Basis: WET Date Received: 09/11/2019 09:30

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-36-0	Antimony	2.0	2.0	0.57	ug/L	U		1	6020
7440-38-2	Arsenic	1.9	5.0	0.75	ug/L	J		1	6020
7440-39-3	Barium	36	5.0	2.2	ug/L			1	6020
7440-41-7	Beryllium	1.0	1.0	0.31	ug/L	U		1	6020
7440-43-9	Cadmium	1.0	1.0	0.20	ug/L	U		1	6020
7440-47-3	Chromium	2.0	2.0	0.98	ug/L	U		1	6020
7440-48-4	Cobalt	0.21	1.0	0.19	ug/L	J		1	6020
7440-50-8	Copper	4.3	2.0	1.7	ug/L			1	6020
7439-92-1	Lead	1.0	1.0	0.45	ug/L	U		1	6020
7439-98-7	Molybdenum	1.2	5.0	1.1	ug/L	J		1	6020
7440-02-0	Nickel	2.0	2.0	1.5	ug/L			1	6020
7782-49-2	Selenium	5.0	5.0	0.89	ug/L	U		1	6020
7440-22-4	Silver	1.0	1.0	0.053	ug/L	U		1	6020
7440-28-0	Thallium	1.0	1.0	0.20	ug/L	U		1	6020
7440-62-2	Vanadium	5.0	5.0	0.82	ug/L	U		1	6020
7440-66-6	Zinc	20	20	15	ug/L	U		1	6020
7440-33-7	Tungsten	10	10	1.8	ug/L	U	^	1	6020
7439-97-6	Mercury	0.20	0.20	0.13	ug/L	U		1	7470A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - DISSOLVED

Client Sample ID: MSA-SW41D-090919 Lab Sample ID: 240-118610-20

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-118610-1

SDG ID.:

Matrix: Water Date Sampled: 09/09/2019 11:41

Reporting Basis: WET Date Received: 09/11/2019 09:30

CAS No.	Analyte	Result	RL		Units	C	Q	DIL	Method
	Hardness as calcium carbonate	450	33		mg/L			1	SM 2340B
	Calcium hardness as calcium carbonate	77	12		mg/L			1	SM 2340B
	Magnesium hardness as calcium carbonate	370	21		mg/L			1	SM 2340B

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - DISSOLVED

Client Sample ID: MSA-SW42A-090919 Lab Sample ID: 240-118610-21

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-118610-1

SDG ID.:

Matrix: Water Date Sampled: 09/09/2019 12:30

Reporting Basis: WET Date Received: 09/11/2019 09:30

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-36-0	Antimony	2.0	2.0	0.57	ug/L	U		1	6020
7440-38-2	Arsenic	2.4	5.0	0.75	ug/L	J		1	6020
7440-39-3	Barium	37	5.0	2.2	ug/L			1	6020
7440-41-7	Beryllium	0.60	1.0	0.31	ug/L	J		1	6020
7440-43-9	Cadmium	1.0	1.0	0.20	ug/L	U		1	6020
7440-47-3	Chromium	2.0	2.0	0.98	ug/L	U		1	6020
7440-48-4	Cobalt	0.27	1.0	0.19	ug/L	J		1	6020
7440-50-8	Copper	4.1	2.0	1.7	ug/L			1	6020
7439-92-1	Lead	1.0	1.0	0.45	ug/L	U		1	6020
7439-98-7	Molybdenum	1.2	5.0	1.1	ug/L	J		1	6020
7440-02-0	Nickel	2.0	2.0	1.5	ug/L			1	6020
7782-49-2	Selenium	5.0	5.0	0.89	ug/L	U		1	6020
7440-22-4	Silver	1.0	1.0	0.053	ug/L	U		1	6020
7440-28-0	Thallium	1.0	1.0	0.20	ug/L	U		1	6020
7440-62-2	Vanadium	5.0	5.0	0.82	ug/L	U		1	6020
7440-66-6	Zinc	20	20	15	ug/L	U		1	6020
7440-33-7	Tungsten	2.0	10	1.8	ug/L	J	B	1	6020
7439-97-6	Mercury	0.20	0.20	0.13	ug/L	U	F1	1	7470A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - DISSOLVED

Client Sample ID: MSA-SW42A-090919 Lab Sample ID: 240-118610-21

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-118610-1

SDG ID.:

Matrix: Water Date Sampled: 09/09/2019 12:30

Reporting Basis: WET Date Received: 09/11/2019 09:30

CAS No.	Analyte	Result	RL		Units	C	Q	DIL	Method
	Hardness as calcium carbonate	450	33		mg/L			1	SM 2340B
	Calcium hardness as calcium carbonate	78	12		mg/L			1	SM 2340B
	Magnesium hardness as calcium carbonate	370	21		mg/L			1	SM 2340B

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - DISSOLVED

Client Sample ID: MSA-SW42B-090919 Lab Sample ID: 240-118610-22

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-118610-1

SDG ID.:

Matrix: Water Date Sampled: 09/09/2019 12:32

Reporting Basis: WET Date Received: 09/11/2019 09:30

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-36-0	Antimony	2.0	2.0	0.57	ug/L	U		1	6020
7440-38-2	Arsenic	2.4	5.0	0.75	ug/L	J		1	6020
7440-39-3	Barium	36	5.0	2.2	ug/L			1	6020
7440-41-7	Beryllium	1.0	1.0	0.31	ug/L	U		1	6020
7440-43-9	Cadmium	1.0	1.0	0.20	ug/L	U		1	6020
7440-47-3	Chromium	2.0	2.0	0.98	ug/L	U		1	6020
7440-48-4	Cobalt	0.26	1.0	0.19	ug/L	J		1	6020
7440-50-8	Copper	5.0	2.0	1.7	ug/L			1	6020
7439-92-1	Lead	1.0	1.0	0.45	ug/L	U		1	6020
7439-98-7	Molybdenum	1.2	5.0	1.1	ug/L	J		1	6020
7440-02-0	Nickel	2.1	2.0	1.5	ug/L			1	6020
7782-49-2	Selenium	5.0	5.0	0.89	ug/L	U		1	6020
7440-22-4	Silver	1.0	1.0	0.053	ug/L	U		1	6020
7440-28-0	Thallium	1.0	1.0	0.20	ug/L	U		1	6020
7440-62-2	Vanadium	5.0	5.0	0.82	ug/L	U		1	6020
7440-66-6	Zinc	20	20	15	ug/L	U		1	6020
7440-33-7	Tungsten	1.8	10	1.8	ug/L	J	B	1	6020
7439-97-6	Mercury	0.20	0.20	0.13	ug/L	U		1	7470A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - DISSOLVED

Client Sample ID: MSA-SW42B-090919 Lab Sample ID: 240-118610-22

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-118610-1

SDG ID.:

Matrix: Water Date Sampled: 09/09/2019 12:32

Reporting Basis: WET Date Received: 09/11/2019 09:30

CAS No.	Analyte	Result	RL		Units	C	Q	DIL	Method
	Hardness as calcium carbonate	440	33		mg/L			1	SM 2340B
	Calcium hardness as calcium carbonate	78	12		mg/L			1	SM 2340B
	Magnesium hardness as calcium carbonate	370	21		mg/L			1	SM 2340B

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - DISSOLVED

Client Sample ID: MSA-SW42C-090919 Lab Sample ID: 240-118610-23

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-118610-1

SDG ID.:

Matrix: Water Date Sampled: 09/09/2019 12:36

Reporting Basis: WET Date Received: 09/11/2019 09:30

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-36-0	Antimony	2.0	2.0	0.57	ug/L	U		1	6020
7440-38-2	Arsenic	2.0	5.0	0.75	ug/L	J		1	6020
7440-39-3	Barium	35	5.0	2.2	ug/L			1	6020
7440-41-7	Beryllium	1.0	1.0	0.31	ug/L	U		1	6020
7440-43-9	Cadmium	1.0	1.0	0.20	ug/L	U		1	6020
7440-47-3	Chromium	1.1	2.0	0.98	ug/L	J		1	6020
7440-48-4	Cobalt	0.23	1.0	0.19	ug/L	J		1	6020
7440-50-8	Copper	5.6	2.0	1.7	ug/L			1	6020
7439-92-1	Lead	1.0	1.0	0.45	ug/L	U		1	6020
7439-98-7	Molybdenum	1.1	5.0	1.1	ug/L	J		1	6020
7440-02-0	Nickel	2.1	2.0	1.5	ug/L			1	6020
7782-49-2	Selenium	5.0	5.0	0.89	ug/L	U		1	6020
7440-22-4	Silver	1.0	1.0	0.053	ug/L	U		1	6020
7440-28-0	Thallium	1.0	1.0	0.20	ug/L	U		1	6020
7440-62-2	Vanadium	5.0	5.0	0.82	ug/L	U		1	6020
7440-66-6	Zinc	20	20	15	ug/L	U		1	6020
7440-33-7	Tungsten	10	10	1.8	ug/L	U		1	6020
7439-97-6	Mercury	0.20	0.20	0.13	ug/L	U		1	7470A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - DISSOLVED

Client Sample ID: MSA-SW42C-090919 Lab Sample ID: 240-118610-23

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-118610-1

SDG ID.:

Matrix: Water Date Sampled: 09/09/2019 12:36

Reporting Basis: WET Date Received: 09/11/2019 09:30

CAS No.	Analyte	Result	RL		Units	C	Q	DIL	Method
	Hardness as calcium carbonate	430	33		mg/L			1	SM 2340B
	Calcium hardness as calcium carbonate	76	12		mg/L			1	SM 2340B
	Magnesium hardness as calcium carbonate	360	21		mg/L			1	SM 2340B

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - DISSOLVED

Client Sample ID: MSA-SW42D-090919 Lab Sample ID: 240-118610-24

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-118610-1

SDG ID.:

Matrix: Water Date Sampled: 09/09/2019 12:39

Reporting Basis: WET Date Received: 09/11/2019 09:30

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-36-0	Antimony	2.0	2.0	0.57	ug/L	U		1	6020
7440-38-2	Arsenic	2.5	5.0	0.75	ug/L	J		1	6020
7440-39-3	Barium	35	5.0	2.2	ug/L			1	6020
7440-41-7	Beryllium	1.0	1.0	0.31	ug/L	U		1	6020
7440-43-9	Cadmium	1.0	1.0	0.20	ug/L	U		1	6020
7440-47-3	Chromium	2.0	2.0	0.98	ug/L	U		1	6020
7440-48-4	Cobalt	0.22	1.0	0.19	ug/L	J		1	6020
7440-50-8	Copper	5.4	2.0	1.7	ug/L			1	6020
7439-92-1	Lead	1.0	1.0	0.45	ug/L	U		1	6020
7439-98-7	Molybdenum	1.1	5.0	1.1	ug/L	J		1	6020
7440-02-0	Nickel	2.2	2.0	1.5	ug/L			1	6020
7782-49-2	Selenium	5.0	5.0	0.89	ug/L	U		1	6020
7440-22-4	Silver	1.0	1.0	0.053	ug/L	U		1	6020
7440-28-0	Thallium	1.0	1.0	0.20	ug/L	U		1	6020
7440-62-2	Vanadium	5.0	5.0	0.82	ug/L	U		1	6020
7440-66-6	Zinc	20	20	15	ug/L	U		1	6020
7440-33-7	Tungsten	10	10	1.8	ug/L	U		1	6020
7439-97-6	Mercury	0.20	0.20	0.13	ug/L	U		1	7470A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - DISSOLVED

Client Sample ID: MSA-SW42D-090919 Lab Sample ID: 240-118610-24

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-118610-1

SDG ID.:

Matrix: Water Date Sampled: 09/09/2019 12:39

Reporting Basis: WET Date Received: 09/11/2019 09:30

CAS No.	Analyte	Result	RL		Units	C	Q	DIL	Method
	Hardness as calcium carbonate	440	33		mg/L			1	SM 2340B
	Calcium hardness as calcium carbonate	76	12		mg/L			1	SM 2340B
	Magnesium hardness as calcium carbonate	360	21		mg/L			1	SM 2340B

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - DISSOLVED

Client Sample ID: MSA-SW43A-090919 Lab Sample ID: 240-118610-25

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-118610-1

SDG ID.:

Matrix: Water Date Sampled: 09/09/2019 11:10

Reporting Basis: WET Date Received: 09/11/2019 09:30

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-36-0	Antimony	2.0	2.0	0.57	ug/L	U		1	6020
7440-38-2	Arsenic	2.0	5.0	0.75	ug/L	J		1	6020
7440-39-3	Barium	35	5.0	2.2	ug/L			1	6020
7440-41-7	Beryllium	1.0	1.0	0.31	ug/L	U		1	6020
7440-43-9	Cadmium	1.0	1.0	0.20	ug/L	U		1	6020
7440-47-3	Chromium	2.0	2.0	0.98	ug/L	U		1	6020
7440-48-4	Cobalt	0.19	1.0	0.19	ug/L	J		1	6020
7440-50-8	Copper	4.4	2.0	1.7	ug/L			1	6020
7439-92-1	Lead	1.0	1.0	0.45	ug/L	U		1	6020
7439-98-7	Molybdenum	1.2	5.0	1.1	ug/L	J		1	6020
7440-02-0	Nickel	2.1	2.0	1.5	ug/L			1	6020
7782-49-2	Selenium	5.0	5.0	0.89	ug/L	U		1	6020
7440-22-4	Silver	1.0	1.0	0.053	ug/L	U		1	6020
7440-28-0	Thallium	1.0	1.0	0.20	ug/L	U		1	6020
7440-62-2	Vanadium	5.0	5.0	0.82	ug/L	U		1	6020
7440-66-6	Zinc	20	20	15	ug/L	U		1	6020
7440-33-7	Tungsten	10	10	1.8	ug/L	U		1	6020
7439-97-6	Mercury	0.20	0.20	0.13	ug/L	U		1	7470A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - DISSOLVED

Client Sample ID: MSA-SW43A-090919 Lab Sample ID: 240-118610-25

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-118610-1

SDG ID.:

Matrix: Water Date Sampled: 09/09/2019 11:10

Reporting Basis: WET Date Received: 09/11/2019 09:30

CAS No.	Analyte	Result	RL		Units	C	Q	DIL	Method
	Hardness as calcium carbonate	440	33		mg/L			1	SM 2340B
	Calcium hardness as calcium carbonate	76	12		mg/L			1	SM 2340B
	Magnesium hardness as calcium carbonate	360	21		mg/L			1	SM 2340B

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - DISSOLVED

Client Sample ID: MSA-SW43B-090919 Lab Sample ID: 240-118610-26

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-118610-1

SDG ID.:

Matrix: Water Date Sampled: 09/09/2019 11:15

Reporting Basis: WET Date Received: 09/11/2019 09:30

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-36-0	Antimony	2.0	2.0	0.57	ug/L	U		1	6020
7440-38-2	Arsenic	2.3	5.0	0.75	ug/L	J		1	6020
7440-39-3	Barium	36	5.0	2.2	ug/L			1	6020
7440-41-7	Beryllium	1.0	1.0	0.31	ug/L	U		1	6020
7440-43-9	Cadmium	1.0	1.0	0.20	ug/L	U		1	6020
7440-47-3	Chromium	2.0	2.0	0.98	ug/L	U		1	6020
7440-48-4	Cobalt	0.20	1.0	0.19	ug/L	J		1	6020
7440-50-8	Copper	4.5	2.0	1.7	ug/L			1	6020
7439-92-1	Lead	1.0	1.0	0.45	ug/L	U		1	6020
7439-98-7	Molybdenum	1.1	5.0	1.1	ug/L	J		1	6020
7440-02-0	Nickel	2.0	2.0	1.5	ug/L			1	6020
7782-49-2	Selenium	5.0	5.0	0.89	ug/L	U		1	6020
7440-22-4	Silver	1.0	1.0	0.053	ug/L	U		1	6020
7440-28-0	Thallium	1.0	1.0	0.20	ug/L	U		1	6020
7440-62-2	Vanadium	5.0	5.0	0.82	ug/L	U		1	6020
7440-66-6	Zinc	20	20	15	ug/L	U		1	6020
7440-33-7	Tungsten	10	10	1.8	ug/L	U		1	6020
7439-97-6	Mercury	0.20	0.20	0.13	ug/L	U		1	7470A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - DISSOLVED

Client Sample ID: MSA-SW43B-090919 Lab Sample ID: 240-118610-26

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-118610-1

SDG ID.:

Matrix: Water Date Sampled: 09/09/2019 11:15

Reporting Basis: WET Date Received: 09/11/2019 09:30

CAS No.	Analyte	Result	RL		Units	C	Q	DIL	Method
	Hardness as calcium carbonate	450	33		mg/L			1	SM 2340B
	Calcium hardness as calcium carbonate	78	12		mg/L			1	SM 2340B
	Magnesium hardness as calcium carbonate	370	21		mg/L			1	SM 2340B

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - DISSOLVED

Client Sample ID: MSA-SW43C-090919 Lab Sample ID: 240-118610-27

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-118610-1

SDG ID.:

Matrix: Water Date Sampled: 09/09/2019 11:18

Reporting Basis: WET Date Received: 09/11/2019 09:30

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-36-0	Antimony	2.0	2.0	0.57	ug/L	U		1	6020
7440-38-2	Arsenic	2.3	5.0	0.75	ug/L	J		1	6020
7440-39-3	Barium	35	5.0	2.2	ug/L			1	6020
7440-41-7	Beryllium	1.0	1.0	0.31	ug/L	U		1	6020
7440-43-9	Cadmium	1.0	1.0	0.20	ug/L	U		1	6020
7440-47-3	Chromium	1.3	2.0	0.98	ug/L	J		1	6020
7440-48-4	Cobalt	1.0	1.0	0.19	ug/L	U		1	6020
7440-50-8	Copper	4.7	2.0	1.7	ug/L			1	6020
7439-92-1	Lead	1.0	1.0	0.45	ug/L	U		1	6020
7439-98-7	Molybdenum	1.2	5.0	1.1	ug/L	J		1	6020
7440-02-0	Nickel	2.1	2.0	1.5	ug/L			1	6020
7782-49-2	Selenium	5.0	5.0	0.89	ug/L	U		1	6020
7440-22-4	Silver	1.0	1.0	0.053	ug/L	U		1	6020
7440-28-0	Thallium	1.0	1.0	0.20	ug/L	U		1	6020
7440-62-2	Vanadium	5.0	5.0	0.82	ug/L	U		1	6020
7440-66-6	Zinc	20	20	15	ug/L	U		1	6020
7440-33-7	Tungsten	10	10	1.8	ug/L	U		1	6020
7439-97-6	Mercury	0.15	0.20	0.13	ug/L	J		1	7470A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - DISSOLVED

Client Sample ID: MSA-SW43C-090919 Lab Sample ID: 240-118610-27

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-118610-1

SDG ID.:

Matrix: Water Date Sampled: 09/09/2019 11:18

Reporting Basis: WET Date Received: 09/11/2019 09:30

CAS No.	Analyte	Result	RL		Units	C	Q	DIL	Method
	Hardness as calcium carbonate	450	33		mg/L			1	SM 2340B
	Calcium hardness as calcium carbonate	78	12		mg/L			1	SM 2340B
	Magnesium hardness as calcium carbonate	370	21		mg/L			1	SM 2340B

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - DISSOLVED

Client Sample ID: MSA-SW43D-090919 Lab Sample ID: 240-118610-28

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-118610-1

SDG ID.:

Matrix: Water Date Sampled: 09/09/2019 11:21

Reporting Basis: WET Date Received: 09/11/2019 09:30

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-36-0	Antimony	2.0	2.0	0.57	ug/L	U		1	6020
7440-38-2	Arsenic	2.4	5.0	0.75	ug/L	J		1	6020
7440-39-3	Barium	35	5.0	2.2	ug/L			1	6020
7440-41-7	Beryllium	1.0	1.0	0.31	ug/L	U		1	6020
7440-43-9	Cadmium	1.0	1.0	0.20	ug/L	U		1	6020
7440-47-3	Chromium	2.0	2.0	0.98	ug/L	U		1	6020
7440-48-4	Cobalt	0.19	1.0	0.19	ug/L	J		1	6020
7440-50-8	Copper	4.7	2.0	1.7	ug/L			1	6020
7439-92-1	Lead	1.0	1.0	0.45	ug/L	U		1	6020
7439-98-7	Molybdenum	1.1	5.0	1.1	ug/L	J		1	6020
7440-02-0	Nickel	2.0	2.0	1.5	ug/L			1	6020
7782-49-2	Selenium	5.0	5.0	0.89	ug/L	U		1	6020
7440-22-4	Silver	1.0	1.0	0.053	ug/L	U		1	6020
7440-28-0	Thallium	1.0	1.0	0.20	ug/L	U		1	6020
7440-62-2	Vanadium	5.0	5.0	0.82	ug/L	U		1	6020
7440-66-6	Zinc	20	20	15	ug/L	U		1	6020
7440-33-7	Tungsten	10	10	1.8	ug/L	U		1	6020
7439-97-6	Mercury	0.15	0.20	0.13	ug/L	J		1	7470A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - DISSOLVED

Client Sample ID: MSA-SW43D-090919 Lab Sample ID: 240-118610-28

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-118610-1

SDG ID.:

Matrix: Water Date Sampled: 09/09/2019 11:21

Reporting Basis: WET Date Received: 09/11/2019 09:30

CAS No.	Analyte	Result	RL		Units	C	Q	DIL	Method
	Hardness as calcium carbonate	440	33		mg/L			1	SM 2340B
	Calcium hardness as calcium carbonate	77	12		mg/L			1	SM 2340B
	Magnesium hardness as calcium carbonate	360	21		mg/L			1	SM 2340B

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - DISSOLVED

Client Sample ID: MSA-SW44A-090919 Lab Sample ID: 240-118610-29

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-118610-1

SDG ID.:

Matrix: Water Date Sampled: 09/09/2019 10:54

Reporting Basis: WET Date Received: 09/11/2019 09:30

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-36-0	Antimony	2.0	2.0	0.57	ug/L	U		1	6020
7440-38-2	Arsenic	1.9	5.0	0.75	ug/L	J		1	6020
7440-39-3	Barium	36	5.0	2.2	ug/L			1	6020
7440-41-7	Beryllium	1.0	1.0	0.31	ug/L	U		1	6020
7440-43-9	Cadmium	1.0	1.0	0.20	ug/L	U		1	6020
7440-47-3	Chromium	1.3	2.0	0.98	ug/L	J		1	6020
7440-48-4	Cobalt	0.20	1.0	0.19	ug/L	J		1	6020
7440-50-8	Copper	4.9	2.0	1.7	ug/L			1	6020
7439-92-1	Lead	1.0	1.0	0.45	ug/L	U		1	6020
7439-98-7	Molybdenum	1.3	5.0	1.1	ug/L	J		1	6020
7440-02-0	Nickel	2.8	2.0	1.5	ug/L			1	6020
7782-49-2	Selenium	5.0	5.0	0.89	ug/L	U		1	6020
7440-22-4	Silver	1.0	1.0	0.053	ug/L	U		1	6020
7440-28-0	Thallium	1.0	1.0	0.20	ug/L	U		1	6020
7440-62-2	Vanadium	5.0	5.0	0.82	ug/L	U		1	6020
7440-66-6	Zinc	20	20	15	ug/L	U		1	6020
7440-33-7	Tungsten	10	10	1.8	ug/L	U		1	6020
7439-97-6	Mercury	0.18	0.20	0.13	ug/L	J		1	7470A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - DISSOLVED

Client Sample ID: MSA-SW44A-090919 Lab Sample ID: 240-118610-29

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-118610-1

SDG ID.:

Matrix: Water Date Sampled: 09/09/2019 10:54

Reporting Basis: WET Date Received: 09/11/2019 09:30

CAS No.	Analyte	Result	RL		Units	C	Q	DIL	Method
	Hardness as calcium carbonate	460	33		mg/L			1	SM 2340B
	Calcium hardness as calcium carbonate	79	12		mg/L			1	SM 2340B
	Magnesium hardness as calcium carbonate	380	21		mg/L			1	SM 2340B

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - DISSOLVED

Client Sample ID: MSA-SW44B-090919 Lab Sample ID: 240-118610-30

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-118610-1

SDG ID.:

Matrix: Water Date Sampled: 09/09/2019 10:58

Reporting Basis: WET Date Received: 09/11/2019 09:30

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-36-0	Antimony	2.0	2.0	0.57	ug/L	U		1	6020
7440-38-2	Arsenic	2.0	5.0	0.75	ug/L	J		1	6020
7440-39-3	Barium	36	5.0	2.2	ug/L			1	6020
7440-41-7	Beryllium	1.0	1.0	0.31	ug/L	U		1	6020
7440-43-9	Cadmium	1.0	1.0	0.20	ug/L	U		1	6020
7440-47-3	Chromium	1.5	2.0	0.98	ug/L	J		1	6020
7440-48-4	Cobalt	1.0	1.0	0.19	ug/L	U		1	6020
7440-50-8	Copper	4.8	2.0	1.7	ug/L			1	6020
7439-92-1	Lead	1.0	1.0	0.45	ug/L	U		1	6020
7439-98-7	Molybdenum	1.2	5.0	1.1	ug/L	J		1	6020
7440-02-0	Nickel	2.1	2.0	1.5	ug/L			1	6020
7782-49-2	Selenium	5.0	5.0	0.89	ug/L	U		1	6020
7440-22-4	Silver	1.0	1.0	0.053	ug/L	U		1	6020
7440-28-0	Thallium	1.0	1.0	0.20	ug/L	U		1	6020
7440-62-2	Vanadium	5.0	5.0	0.82	ug/L	U		1	6020
7440-66-6	Zinc	20	20	15	ug/L	U		1	6020
7440-33-7	Tungsten	10	10	1.8	ug/L	U		1	6020
7439-97-6	Mercury	0.13	0.20	0.13	ug/L	J		1	7470A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - DISSOLVED

Client Sample ID: MSA-SW44B-090919 Lab Sample ID: 240-118610-30

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-118610-1

SDG ID.:

Matrix: Water Date Sampled: 09/09/2019 10:58

Reporting Basis: WET Date Received: 09/11/2019 09:30

CAS No.	Analyte	Result	RL		Units	C	Q	DIL	Method
	Hardness as calcium carbonate	440	33		mg/L			1	SM 2340B
	Calcium hardness as calcium carbonate	78	12		mg/L			1	SM 2340B
	Magnesium hardness as calcium carbonate	370	21		mg/L			1	SM 2340B

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - DISSOLVED

Client Sample ID: MSA-SW44C-090919 Lab Sample ID: 240-118610-31

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-118610-1

SDG ID.:

Matrix: Water Date Sampled: 09/09/2019 11:01

Reporting Basis: WET Date Received: 09/11/2019 09:30

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-36-0	Antimony	2.0	2.0	0.57	ug/L	U		1	6020
7440-38-2	Arsenic	2.0	5.0	0.75	ug/L	J		1	6020
7440-39-3	Barium	37	5.0	2.2	ug/L			1	6020
7440-41-7	Beryllium	1.0	1.0	0.31	ug/L	U		1	6020
7440-43-9	Cadmium	1.0	1.0	0.20	ug/L	U		1	6020
7440-47-3	Chromium	2.0	2.0	0.98	ug/L	U		1	6020
7440-48-4	Cobalt	1.0	1.0	0.19	ug/L	U		1	6020
7440-50-8	Copper	4.9	2.0	1.7	ug/L			1	6020
7439-92-1	Lead	1.0	1.0	0.45	ug/L	U		1	6020
7439-98-7	Molybdenum	1.2	5.0	1.1	ug/L	J		1	6020
7440-02-0	Nickel	2.1	2.0	1.5	ug/L			1	6020
7782-49-2	Selenium	5.0	5.0	0.89	ug/L	U		1	6020
7440-22-4	Silver	1.0	1.0	0.053	ug/L	U		1	6020
7440-28-0	Thallium	1.0	1.0	0.20	ug/L	U		1	6020
7440-62-2	Vanadium	5.0	5.0	0.82	ug/L	U		1	6020
7440-66-6	Zinc	20	20	15	ug/L	U		1	6020
7440-33-7	Tungsten	10	10	1.8	ug/L	U		1	6020
7439-97-6	Mercury	0.13	0.20	0.13	ug/L	J		1	7470A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - DISSOLVED

Client Sample ID: MSA-SW44C-090919 Lab Sample ID: 240-118610-31

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-118610-1

SDG ID.:

Matrix: Water Date Sampled: 09/09/2019 11:01

Reporting Basis: WET Date Received: 09/11/2019 09:30

CAS No.	Analyte	Result	RL		Units	C	Q	DIL	Method
	Hardness as calcium carbonate	450	33		mg/L			1	SM 2340B
	Calcium hardness as calcium carbonate	80	12		mg/L			1	SM 2340B
	Magnesium hardness as calcium carbonate	370	21		mg/L			1	SM 2340B

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - DISSOLVED

Client Sample ID: MSA-SW44D-090919 Lab Sample ID: 240-118610-32

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-118610-1

SDG ID.:

Matrix: Water Date Sampled: 09/09/2019 11:05

Reporting Basis: WET Date Received: 09/11/2019 09:30

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-36-0	Antimony	2.0	2.0	0.57	ug/L	U		1	6020
7440-38-2	Arsenic	1.9	5.0	0.75	ug/L	J		1	6020
7440-39-3	Barium	36	5.0	2.2	ug/L			1	6020
7440-41-7	Beryllium	1.0	1.0	0.31	ug/L	U		1	6020
7440-43-9	Cadmium	1.0	1.0	0.20	ug/L	U		1	6020
7440-47-3	Chromium	2.0	2.0	0.98	ug/L	U		1	6020
7440-48-4	Cobalt	1.0	1.0	0.19	ug/L	U		1	6020
7440-50-8	Copper	4.9	2.0	1.7	ug/L			1	6020
7439-92-1	Lead	1.0	1.0	0.45	ug/L	U		1	6020
7439-98-7	Molybdenum	1.2	5.0	1.1	ug/L	J		1	6020
7440-02-0	Nickel	2.1	2.0	1.5	ug/L			1	6020
7782-49-2	Selenium	5.0	5.0	0.89	ug/L	U		1	6020
7440-22-4	Silver	1.0	1.0	0.053	ug/L	U		1	6020
7440-28-0	Thallium	1.0	1.0	0.20	ug/L	U		1	6020
7440-62-2	Vanadium	5.0	5.0	0.82	ug/L	U		1	6020
7440-66-6	Zinc	20	20	15	ug/L	U		1	6020
7440-33-7	Tungsten	10	10	1.8	ug/L	U		1	6020
7439-97-6	Mercury	0.20	0.20	0.13	ug/L	U		1	7470A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - DISSOLVED

Client Sample ID: MSA-SW44D-090919 Lab Sample ID: 240-118610-32

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-118610-1

SDG ID.:

Matrix: Water Date Sampled: 09/09/2019 11:05

Reporting Basis: WET Date Received: 09/11/2019 09:30

CAS No.	Analyte	Result	RL		Units	C	Q	DIL	Method
	Hardness as calcium carbonate	460	33		mg/L			1	SM 2340B
	Calcium hardness as calcium carbonate	80	12		mg/L			1	SM 2340B
	Magnesium hardness as calcium carbonate	380	21		mg/L			1	SM 2340B

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - DISSOLVED

Client Sample ID: MSA-SW45A-090919 Lab Sample ID: 240-118610-33

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-118610-1

SDG ID.:

Matrix: Water Date Sampled: 09/09/2019 10:36

Reporting Basis: WET Date Received: 09/11/2019 09:30

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-36-0	Antimony	2.0	2.0	0.57	ug/L	U		1	6020
7440-38-2	Arsenic	2.0	5.0	0.75	ug/L	J		1	6020
7440-39-3	Barium	34	5.0	2.2	ug/L			1	6020
7440-41-7	Beryllium	1.0	1.0	0.31	ug/L	U		1	6020
7440-43-9	Cadmium	1.0	1.0	0.20	ug/L	U		1	6020
7440-47-3	Chromium	2.0	2.0	0.98	ug/L	U		1	6020
7440-48-4	Cobalt	1.0	1.0	0.19	ug/L	U		1	6020
7440-50-8	Copper	3.9	2.0	1.7	ug/L			1	6020
7439-92-1	Lead	1.0	1.0	0.45	ug/L	U		1	6020
7439-98-7	Molybdenum	1.1	5.0	1.1	ug/L	J		1	6020
7440-02-0	Nickel	1.9	2.0	1.5	ug/L	J		1	6020
7782-49-2	Selenium	5.0	5.0	0.89	ug/L	U		1	6020
7440-22-4	Silver	1.0	1.0	0.053	ug/L	U		1	6020
7440-28-0	Thallium	1.0	1.0	0.20	ug/L	U		1	6020
7440-62-2	Vanadium	5.0	5.0	0.82	ug/L	U		1	6020
7440-66-6	Zinc	20	20	15	ug/L	U		1	6020
7440-33-7	Tungsten	10	10	1.8	ug/L	U		1	6020
7439-97-6	Mercury	0.20	0.20	0.13	ug/L	U		1	7470A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - DISSOLVED

Client Sample ID: MSA-SW45A-090919 Lab Sample ID: 240-118610-33

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-118610-1

SDG ID.:

Matrix: Water Date Sampled: 09/09/2019 10:36

Reporting Basis: WET Date Received: 09/11/2019 09:30

CAS No.	Analyte	Result	RL		Units	C	Q	DIL	Method
	Hardness as calcium carbonate	440	33		mg/L			1	SM 2340B
	Calcium hardness as calcium carbonate	77	12		mg/L			1	SM 2340B
	Magnesium hardness as calcium carbonate	370	21		mg/L			1	SM 2340B

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - DISSOLVED

Client Sample ID: MSA-SW45B-090919 Lab Sample ID: 240-118610-34

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-118610-1

SDG ID.:

Matrix: Water Date Sampled: 09/09/2019 10:40

Reporting Basis: WET Date Received: 09/11/2019 09:30

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-36-0	Antimony	2.0	2.0	0.57	ug/L	U		1	6020
7440-38-2	Arsenic	2.1	5.0	0.75	ug/L	J		1	6020
7440-39-3	Barium	34	5.0	2.2	ug/L			1	6020
7440-41-7	Beryllium	1.0	1.0	0.31	ug/L	U		1	6020
7440-43-9	Cadmium	1.0	1.0	0.20	ug/L	U		1	6020
7440-47-3	Chromium	2.0	2.0	0.98	ug/L	U		1	6020
7440-48-4	Cobalt	0.19	1.0	0.19	ug/L	J		1	6020
7440-50-8	Copper	4.9	2.0	1.7	ug/L			1	6020
7439-92-1	Lead	1.0	1.0	0.45	ug/L	U		1	6020
7439-98-7	Molybdenum	1.1	5.0	1.1	ug/L	J		1	6020
7440-02-0	Nickel	2.1	2.0	1.5	ug/L			1	6020
7782-49-2	Selenium	5.0	5.0	0.89	ug/L	U		1	6020
7440-22-4	Silver	1.0	1.0	0.053	ug/L	U		1	6020
7440-28-0	Thallium	1.0	1.0	0.20	ug/L	U		1	6020
7440-62-2	Vanadium	5.0	5.0	0.82	ug/L	U		1	6020
7440-66-6	Zinc	20	20	15	ug/L	U		1	6020
7440-33-7	Tungsten	10	10	1.8	ug/L	U		1	6020
7439-97-6	Mercury	0.20	0.20	0.13	ug/L	U		1	7470A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - DISSOLVED

Client Sample ID: MSA-SW45B-090919 Lab Sample ID: 240-118610-34

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-118610-1

SDG ID.:

Matrix: Water Date Sampled: 09/09/2019 10:40

Reporting Basis: WET Date Received: 09/11/2019 09:30

CAS No.	Analyte	Result	RL		Units	C	Q	DIL	Method
	Hardness as calcium carbonate	440	33		mg/L			1	SM 2340B
	Calcium hardness as calcium carbonate	76	12		mg/L			1	SM 2340B
	Magnesium hardness as calcium carbonate	370	21		mg/L			1	SM 2340B

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - DISSOLVED

Client Sample ID: MSA-SW45C-090919 Lab Sample ID: 240-118610-35

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-118610-1

SDG ID.:

Matrix: Water Date Sampled: 09/09/2019 10:45

Reporting Basis: WET Date Received: 09/11/2019 09:30

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-36-0	Antimony	2.0	2.0	0.57	ug/L	U		1	6020
7440-38-2	Arsenic	1.9	5.0	0.75	ug/L	J		1	6020
7440-39-3	Barium	37	5.0	2.2	ug/L			1	6020
7440-41-7	Beryllium	1.0	1.0	0.31	ug/L	U		1	6020
7440-43-9	Cadmium	1.0	1.0	0.20	ug/L	U		1	6020
7440-47-3	Chromium	2.0	2.0	0.98	ug/L	U		1	6020
7440-48-4	Cobalt	1.0	1.0	0.19	ug/L	U		1	6020
7440-50-8	Copper	5.0	2.0	1.7	ug/L			1	6020
7439-92-1	Lead	1.0	1.0	0.45	ug/L	U		1	6020
7439-98-7	Molybdenum	1.2	5.0	1.1	ug/L	J		1	6020
7440-02-0	Nickel	2.1	2.0	1.5	ug/L			1	6020
7782-49-2	Selenium	5.0	5.0	0.89	ug/L	U		1	6020
7440-22-4	Silver	1.0	1.0	0.053	ug/L	U		1	6020
7440-28-0	Thallium	1.0	1.0	0.20	ug/L	U		1	6020
7440-62-2	Vanadium	5.0	5.0	0.82	ug/L	U		1	6020
7440-66-6	Zinc	20	20	15	ug/L	U		1	6020
7440-33-7	Tungsten	10	10	1.8	ug/L	U		1	6020
7439-97-6	Mercury	0.20	0.20	0.13	ug/L	U		1	7470A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - DISSOLVED

Client Sample ID: MSA-SW45C-090919 Lab Sample ID: 240-118610-35

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-118610-1

SDG ID.:

Matrix: Water Date Sampled: 09/09/2019 10:45

Reporting Basis: WET Date Received: 09/11/2019 09:30

CAS No.	Analyte	Result	RL		Units	C	Q	DIL	Method
	Hardness as calcium carbonate	470	33		mg/L			1	SM 2340B
	Calcium hardness as calcium carbonate	82	12		mg/L			1	SM 2340B
	Magnesium hardness as calcium carbonate	390	21		mg/L			1	SM 2340B

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - DISSOLVED

Client Sample ID: MSA-SW45D-090919 Lab Sample ID: 240-118610-36

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-118610-1

SDG ID.:

Matrix: Water Date Sampled: 09/09/2019 10:49

Reporting Basis: WET Date Received: 09/11/2019 09:30

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-36-0	Antimony	2.0	2.0	0.57	ug/L	U		1	6020
7440-38-2	Arsenic	2.1	5.0	0.75	ug/L	J		1	6020
7440-39-3	Barium	36	5.0	2.2	ug/L			1	6020
7440-41-7	Beryllium	1.0	1.0	0.31	ug/L	U		1	6020
7440-43-9	Cadmium	1.0	1.0	0.20	ug/L	U		1	6020
7440-47-3	Chromium	2.0	2.0	0.98	ug/L	U		1	6020
7440-48-4	Cobalt	1.0	1.0	0.19	ug/L	U		1	6020
7440-50-8	Copper	5.1	2.0	1.7	ug/L			1	6020
7439-92-1	Lead	1.0	1.0	0.45	ug/L	U		1	6020
7439-98-7	Molybdenum	1.1	5.0	1.1	ug/L	J		1	6020
7440-02-0	Nickel	2.1	2.0	1.5	ug/L			1	6020
7782-49-2	Selenium	5.0	5.0	0.89	ug/L	U		1	6020
7440-22-4	Silver	1.0	1.0	0.053	ug/L	U		1	6020
7440-28-0	Thallium	1.0	1.0	0.20	ug/L	U		1	6020
7440-62-2	Vanadium	5.0	5.0	0.82	ug/L	U		1	6020
7440-66-6	Zinc	20	20	15	ug/L	U		1	6020
7440-33-7	Tungsten	10	10	1.8	ug/L	U		1	6020
7439-97-6	Mercury	0.20	0.20	0.13	ug/L	U		1	7470A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - DISSOLVED

Client Sample ID: MSA-SW45D-090919 Lab Sample ID: 240-118610-36

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-118610-1

SDG ID.:

Matrix: Water Date Sampled: 09/09/2019 10:49

Reporting Basis: WET Date Received: 09/11/2019 09:30

CAS No.	Analyte	Result	RL		Units	C	Q	DIL	Method
	Hardness as calcium carbonate	460	33		mg/L			1	SM 2340B
	Calcium hardness as calcium carbonate	81	12		mg/L			1	SM 2340B
	Magnesium hardness as calcium carbonate	380	21		mg/L			1	SM 2340B

1B-IN
INORGANIC ANALYSIS DATA SHEET
GENERAL CHEMISTRY - DISSOLVED

Client Sample ID: MSA-SW37B-090919 Lab Sample ID: 240-118610-2

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-118610-1

SDG ID.:

Matrix: Water Date Sampled: 09/09/2019 12:47

Reporting Basis: WET Date Received: 09/11/2019 09:30

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-44-0	Dissolved Organic Carbon	2.4	1.0	0.14	mg/L			1	9060

1B-IN
INORGANIC ANALYSIS DATA SHEET
GENERAL CHEMISTRY - DISSOLVED

Client Sample ID: MSA-SW38B-090919 Lab Sample ID: 240-118610-6

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-118610-1

SDG ID.:

Matrix: Water Date Sampled: 09/09/2019 11:53

Reporting Basis: WET Date Received: 09/11/2019 09:30

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-44-0	Dissolved Organic Carbon	2.3	1.0	0.14	mg/L			1	9060

1B-IN
INORGANIC ANALYSIS DATA SHEET
GENERAL CHEMISTRY - DISSOLVED

Client Sample ID: MSA-SW39B-090919 Lab Sample ID: 240-118610-10

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-118610-1

SDG ID.:

Matrix: Water Date Sampled: 09/09/2019 10:22

Reporting Basis: WET Date Received: 09/11/2019 09:30

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-44-0	Dissolved Organic Carbon	2.2	1.0	0.14	mg/L			1	9060

1B-IN
INORGANIC ANALYSIS DATA SHEET
GENERAL CHEMISTRY - DISSOLVED

Client Sample ID: MSA-SW40B-090919 Lab Sample ID: 240-118610-14

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-118610-1

SDG ID.:

Matrix: Water Date Sampled: 09/09/2019 12:12

Reporting Basis: WET Date Received: 09/11/2019 09:30

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-44-0	Dissolved Organic Carbon	2.3	1.0	0.14	mg/L			1	9060

1B-IN
INORGANIC ANALYSIS DATA SHEET
GENERAL CHEMISTRY - DISSOLVED

Client Sample ID: MSA-SW41B-090919 Lab Sample ID: 240-118610-18

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-118610-1

SDG ID.:

Matrix: Water Date Sampled: 09/09/2019 11:32

Reporting Basis: WET Date Received: 09/11/2019 09:30

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-44-0	Dissolved Organic Carbon	2.3	1.0	0.14	mg/L			1	9060

1B-IN
INORGANIC ANALYSIS DATA SHEET
GENERAL CHEMISTRY - DISSOLVED

Client Sample ID: MSA-SW42B-090919 Lab Sample ID: 240-118610-22

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-118610-1

SDG ID.:

Matrix: Water Date Sampled: 09/09/2019 12:32

Reporting Basis: WET Date Received: 09/11/2019 09:30

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-44-0	Dissolved Organic Carbon	2.5	1.0	0.14	mg/L			1	9060

1B-IN
INORGANIC ANALYSIS DATA SHEET
GENERAL CHEMISTRY - DISSOLVED

Client Sample ID: MSA-SW43B-090919 Lab Sample ID: 240-118610-26

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-118610-1

SDG ID.:

Matrix: Water Date Sampled: 09/09/2019 11:15

Reporting Basis: WET Date Received: 09/11/2019 09:30

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-44-0	Dissolved Organic Carbon	2.3	1.0	0.14	mg/L			1	9060

1B-IN
INORGANIC ANALYSIS DATA SHEET
GENERAL CHEMISTRY - DISSOLVED

Client Sample ID: MSA-SW44B-090919 Lab Sample ID: 240-118610-30

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-118610-1

SDG ID.:

Matrix: Water Date Sampled: 09/09/2019 10:58

Reporting Basis: WET Date Received: 09/11/2019 09:30

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-44-0	Dissolved Organic Carbon	2.3	1.0	0.14	mg/L			1	9060

1B-IN
INORGANIC ANALYSIS DATA SHEET
GENERAL CHEMISTRY - DISSOLVED

Client Sample ID: MSA-SW45B-090919 Lab Sample ID: 240-118610-34

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-118610-1

SDG ID.:

Matrix: Water Date Sampled: 09/09/2019 10:40

Reporting Basis: WET Date Received: 09/11/2019 09:30

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-44-0	Dissolved Organic Carbon	2.4	1.0	0.14	mg/L			1	9060

Appendix C

Support Documentation

1.8/2.4 3.0/3.6 1.1/1.7

North Canton
4101 Shuffel Street, N. W.
North Canton, OH 44720
phone 330.497.9396 fax 330.497.0772

Baltimore #201

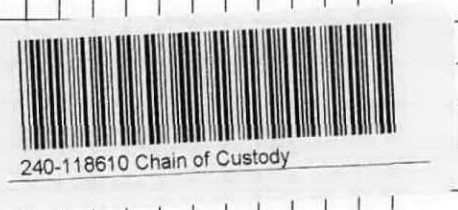
Chain of Custody Record

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

TestAmerica Laboratories, Inc.

Client Contact	Project Manager: Tony Apanavage	Site Contact: Tony Apanavage	Date: 9/9/2019	COC No:
Tetra Tech	Tel/Fax: 301-233-8230 (cell)	Lab Contact: John McFadden	Carrier: Fedex	1 of 4 COCs
20251 Century Blvd, Suite 200	Analysis Turnaround Time			Job No.
Germantown, MD 20874	Calendar (C) or Work Days (W)			
(301) 528-3021 Phone	TAT if different from Below: STANDARD			SDG No.
(301) 528-3000 FAX	☐ 2 weeks ☐ 1 week ☐ 2 days ☐ 1 day (Standard)			
Project Name: MSA Surface Water Sampling				Sampler: S. Larson
Site: MSA Frog Mortar Creek				
Project # 112IC08735				

Sample Identification	Sample Date	Sample Time	Sample Type	Matrix	# of Cont.	Filtered Sample	VOCs + Freon 113/22 + TIC (8260C)	Dissolved Metals (6020B/7470A)	Hardness SW846 SM	Dissolved organic carbon	Sample Specific Notes:
MSA-SW37A-090919	9/9/2019	1243	SW	Water	4	x	x	x	x		
MSA-SW37B-090919	9/9/2019	1247	SW	Water	6	x	x	x	x	x	
MSA-SW37C-090919	9/9/2019	1250	SW	Water	4	x	x	x	x		
MSA-SW37D-090919	9/9/2019	1253	SW	Water	4	x	x	x	x		
MSA-SW38A-090919	9/9/2019	1149	SW	Water	4	x	x	x	x		
MSA-SW38B-090919	9/9/2019	1153	SW	Water	6	x	x	x	x	x	
MSA-SW38C-090919	9/9/2019	1158	SW	Water	4	x	x	x	x		
MSA-SW38D-090919	9/9/2019	1201	SW	Water	4	x	x	x	x		
MSA-SW39A-090919	9/9/2019	1015	SW	Water	4	x	x	x	x		
MSA-SW39B-090919	9/9/2019	1022	SW	Water	6	x	x	x	x	x	
MSA-SW39C-090919	9/9/2019	1028	SW	Water	4	x	x	x	x		
MSA-SW39D-090919	9/9/2019	1031	SW	Water	4	x	x	x	x		



Preservation Used: 1= Ice, 2= HCl; 3= H2SO4; 4=HNO3; 5=NaOH; 6= Other _____

	2	4	4	3

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

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

Special Instructions/QC Requirements & Comments: Dissolved Metals and DOC filtered in field

Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
[signature]	Tetra Tech	09/09/19	[signature]		9/9/19 16:00
Relinquished by: [signature]	Company:	Date/Time: 9/9/19 1740	Received by: [signature]	Company: TA	Date/Time: 9-11-19 930
Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:

Form No. CA-C-WI-002, Rev. 2, dated 03/06/2012

North Canton
4101 Shuffel Street, N. W.

North Canton, OH 44720
phone 330.497.9396 fax 330.497.0772

Baltimore #201

Chain of Custody Record

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

TestAmerica Laboratories, Inc.

Client Contact	Project Manager: Tony Apanavage	Site Contact: Tony Apanavage	Date: 9/9/2019	COC No:
Tetra Tech	Tel/Fax: 301-233-8230 (cell)	Lab Contact: John McFadden	Carrier: Fedex	2 of 4 COCs
20251 Century Blvd, Suite 200	Analysis Turnaround Time			Job No.
Germantown, MD 20874	Calendar (C) or Work Days (W)			
(301) 528-3021 Phone	TAT if different from Below: ~~STANDARD~~			
(301) 528-3000 FAX	☐ 2 weeks			SDG No.
Project Name: MSA Surface Water Sampling	☐ 1 week Standard			
Site: MSA Frog Mortar Creek	☐ 2 days			Sampler: S. Larson
Project # 112IC08735	☐ 1 day			

Sample Identification	Sample Date	Sample Time	Sample Type	Matrix	# of Cont.	Filtered Sample	VOCs + Freon 113/22 + TIC (8260C)	Dissolved Metals (6020B/7470A)	Hardness SW846 SM	Dissolved organic carbon	Sample Specific Notes:
MSA-SW40A-090919	9/9/2019	1209	SW	Water	4	x	x	x	x		
MSA-SW40B-090919	9/9/2019	1212	SW	Water	6	x	x	x	x	x	
MSA-SW40C-090919	9/9/2019	1218	SW	Water	4	x	x	x	x		
MSA-SW40D-090919	9/9/2019	1223	SW	Water	4	x	x	x	x		
MSA-SW41A-090919	9/9/2019	1124	SW	Water	4	x	x	x	x		
MSA-SW41B-090919	9/9/2019	1132	SW	Water	6	x	x	x	x	x	
MSA-SW41C-090919	9/9/2019	1136	SW	Water	4	x	x	x	x		
MSA-SW41D-090919	9/9/2019	1141	SW	Water	4	x	x	x	x		
MSA-SW42A-090919	9/9/2019	1230	SW	Water	4	x	x	x	x		
MSA-SW42B-090919	9/9/2019	1232	SW	Water	6	x	x	x	x	x	
MSA-SW42C-090919	9/9/2019	1236	SW	Water	4	x	x	x	x		
MSA-SW42D-090919	9/9/2019	1239	SW	Water	4	x	x	x	x		

Preservation Used: 1= Ice, 2= HCl; 3= H2SO4; 4=HNO3; 5=NaOH; 6= Other _____

	2	4	4	3

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

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

Special Instructions/QC Requirements & Comments: Dissolved Metals and DOC filtered in field

Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
[signature]	TetraTech	9/09/19	[signature]	9/9/19 16:5[illegible]	
Relinquished by: [signature]	Company: 9/9/19 17:50	Date/Time:	Received by: [signature]	Company: T-1	Date/Time: 9-11-19 930
Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:

Form No. CA-C-WI-002, Rev. 2, dated 03/06/2012

North Canton
4101 Shuffel Street, N. W.

North Canton, OH 44720
phone 330.497.9396 fax 330.497.0772

Baltimore #201

Chain of Custody Record

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

TestAmerica Laboratories, Inc.

Client Contact	Project Manager: Tony Apanavage	Site Contact: Tony Apanavage	Date: 9/9/2019	COC No:
Tetra Tech	Tel/Fax: 301-233-8230 (cell)	Lab Contact: John McFadden	Carrier: Fedex	3 of 4 COCs
20251 Century Blvd, Suite 200	Analysis Turnaround Time			Job No.
Germantown, MD 20874	Calendar (C) or Work Days (W)			
(301) 528-3021 Phone	TAT if different from Below: STANDARD			SDG No.
(301) 528-3000 FAX	☐ 2 weeks ☐ 1 week ☐ 2 days ☐ 1 day (Standard)			
Project Name: MSA Surface Water Sampling				Sampler: S. Larson
Site: MSA Frog Mortar Creek				
Project # 112IC08735				

Sample Identification	Sample Date	Sample Time	Sample Type	Matrix	# of Cont.	Filtered Sample	VOCs + Freon 113/22 + TIC (8260C)	Dissolved Metals (6020B/7470A)	Hardness SW846 SM	Dissolved organic carbon	Sample Specific Notes:
MSA-SW43A-090919	9/9/2019	1110	SW	Water	4	x	x	x	x		
MSA-SW43B-090919	9/9/2019	1115	SW	Water	6	x	x	x	x	x	
MSA-SW43C-090919	9/9/2019	1118	SW	Water	4	x	x	x	x		
MSA-SW43D-090919	9/9/2019	1121	SW	Water	4	x	x	x	x		
MSA-SW44A-090919	9/9/2019	1054	SW	Water	4	x	x	x	x		
MSA-SW44B-090919	9/9/2019	1058	SW	Water	6	x	x	x	x	x	
MSA-SW44C-090919	9/9/2019	1101	SW	Water	4	x	x	x	x		
MSA-SW44D-090919	9/9/2019	1105	SW	Water	4	x	x	x	x		
MSA-SW45A-090919	9/9/2019	1036	SW	Water	4	x	x	x	x		
MSA-SW45B-090919	9/9/2019	1040	SW	Water	6	x	x	x	x	x	
MSA-SW45C-090919	9/9/2019	1045	SW	Water	4	x	x	x	x		
MSA-SW45D-090919	9/9/2019	1049	SW	Water	4	x	x	x	x		

Preservation Used: 1= Ice, 2= HCl; 3= H2SO4; 4=HNO3; 5=NaOH; 6= Other _____

	2	4	4	3

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

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

Special Instructions/QC Requirements & Comments: Dissolved Metals and DOC filtered in field

Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
[signature]	Tetra Tech	09/09/2019	[signature]	9/9/19 16:40	
Relinquished by: [signature]	Company: 9/9/19 17:30	Date/Time:	Received by: [signature]	Company: TA	Date/Time: 9-11-19 930
Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:

Form No. CA-C-WI-002, Rev. 2, dated 03/06/2012

North Canton
4101 Shuffel Street, N. W.

North Canton, OH 44720
phone 330.497.9396 fax 330.497.0772

Baltimore #201

Chain of Custody Record

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

TestAmerica Laboratories, Inc.

Client Contact	Project Manager: Tony Apanavage	Site Contact: Tony Apanavage	Date: 9/9/2019	COC No:
Tetra Tech	Tel/Fax: 301-233-8230 (cell)	Lab Contact: John McFadden	Carrier: Fedex	4 of 4 COCs
20251 Century Blvd, Suite 200	**Analysis Turnaround Time**			Job No.
Germantown, MD 20874	Calendar (C) or Work Days (W)			
(301) 528-3021 Phone	TAT if different from Below: STANDARD			
(301) 528-3000 FAX	☐ 2 weeks			SDG No.
Project Name: MSA Surface Water Sampling	☐ 1 week Standard			
Site: MSA Frog Mortar Creek	☐ 2 days			Sampler: S. Larson
Project # 112IC08735	☐ 1 day			

Sample Identification	Sample Date	Sample Time	Sample Type	Matrix	# of Cont.	Filtered Sample	VOCs (8260C)	Sample Specific Notes:
EL-SW01A-090919	9/9/2019	0951	SW	AQ	3		x	
EL-SW01B-090919	9/9/2019	1000	SW	AQ	3		x	
EL-SW01C-090919	9/9/2019	1004	SW	AQ	3		x	
EL-SW01D-090919	9/9/2019	1107	SW	AQ	3		x	
TB-090919	--	--	TB	AQ	2		x	
MSA-SW46A-090919	9/9/2019	1227	SW	AQ	3		x	
MSA-SW47A-090919	9/9/2019	1205	SW	AQ	3		x	
MSA-SW48A-090919	9/9/2019	1144	SW	AQ	3		x	
MSA-SW49A-090919	9/9/2019	1124	SW	AQ	3		x	
							2	

Preservation Used: 1= Ice, 2= HCl; 3= H2SO4; 4=HNO3; 5=NaOH; 6= Other _____

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

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

Special Instructions/QC Requirements & Comments: Dissolved Metals and DOC filtered in field, samples on this page to be analyzed for VOCs ONLY

Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
	Tetra Tech	09/09/2019		9/9/19 1640	
Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
	9/9/19 1715			TA	9-11-19 930
Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:

Form No. CA-C-WI-002, Rev. 2, dated 03/06/2012

Login # : 118610

TestAmerica Canton Sample Receipt Multiple Cooler Form

Cooler Description (Circle)	IR Gun # (Circle)	Observed Temp °C	Corrected Temp °C	Coolant (Circle)
TA Client Box Other	IR-8 #36	1.8	2.4	Wet Ice Blue Ice Dry Ice Water None
TA Client Box Other	IR-8 #36	3.0	3.6	Wet Ice Blue Ice Dry Ice Water None
TA Client Box Other	IR-8 #36	1.1	1.7	Wet Ice Blue Ice Dry Ice Water None
TA Client Box Other	IR-8 #36			Wet Ice Blue Ice Dry Ice Water None
TA Client Box Other	IR-8 #36			Wet Ice Blue Ice Dry Ice Water None
TA Client Box Other	IR-8 #36			Wet Ice Blue Ice Dry Ice Water None
TA Client Box Other	IR-8 #36			Wet Ice Blue Ice Dry Ice Water None
TA Client Box Other	IR-8 #36			Wet Ice Blue Ice Dry Ice Water None
TA Client Box Other	IR-8 #36			Wet Ice Blue Ice Dry Ice Water None
TA Client Box Other	IR-8 #36			Wet Ice Blue Ice Dry Ice Water None
TA Client Box Other	IR-8 #36			Wet Ice Blue Ice Dry Ice Water None
TA Client Box Other	IR-8 #36			Wet Ice Blue Ice Dry Ice Water None
TA Client Box Other	IR-8 #36			Wet Ice Blue Ice Dry Ice Water None
TA Client Box Other	IR-8 #36			Wet Ice Blue Ice Dry Ice Water None
TA Client Box Other	IR-8 #36			Wet Ice Blue Ice Dry Ice Water None
TA Client Box Other	IR-8 #36			Wet Ice Blue Ice Dry Ice Water None
TA Client Box Other	IR-8 #36			Wet Ice Blue Ice Dry Ice Water None
TA Client Box Other	IR-8 #36			Wet Ice Blue Ice Dry Ice Water None
TA Client Box Other	IR-8 #36			Wet Ice Blue Ice Dry Ice Water None
TA Client Box Other	IR-8 #36			Wet Ice Blue Ice Dry Ice Water None
TA Client Box Other	IR-8 #36			Wet Ice Blue Ice Dry Ice Water None
TA Client Box Other	IR-8 #36			Wet Ice Blue Ice Dry Ice Water None
TA Client Box Other	IR-8 #36			Wet Ice Blue Ice Dry Ice Water None
TA Client Box Other	IR-8 #36			Wet Ice Blue Ice Dry Ice Water None
TA Client Box Other	IR-8 #36			Wet Ice Blue Ice Dry Ice Water None
TA Client Box Other	IR-8 #36			Wet Ice Blue Ice Dry Ice Water None
TA Client Box Other	IR-8 #36			Wet Ice Blue Ice Dry Ice Water None
TA Client Box Other	IR-8 #36			Wet Ice Blue Ice Dry Ice Water None
TA Client Box Other	IR-8 #36			Wet Ice Blue Ice Dry Ice Water None
TA Client Box Other	IR-8 #36			Wet Ice Blue Ice Dry Ice Water None
TA Client Box Other	IR-8 #36			Wet Ice Blue Ice Dry Ice Water None
TA Client Box Other	IR-8 #36			Wet Ice Blue Ice Dry Ice Water None
TA Client Box Other	IR-8 #36			Wet Ice Blue Ice Dry Ice Water None
TA Client Box Other	IR-8 #36			Wet Ice Blue Ice Dry Ice Water None

☐ See Temperature Excursion Form

Login Container Summary Report

Temperature readings: _____

Client Sample ID	Lab ID	Container Type	Container pH	Preservative Added (mls)	Lot #
MSA-SW37A-090919	240-118610-D-1	Plastic 500ml - w/ Nitric - Dis.	<2		
MSA-SW37B-090919	240-118610-G-2	Plastic 500ml - w/ Nitric - Dis.	<2		
MSA-SW37C-090919	240-118610-D-3	Plastic 500ml - w/ Nitric - Dis.	<2		
MSA-SW37D-090919	240-118610-D-4	Plastic 500ml - w/ Nitric - Dis.	<2		
MSA-SW38A-090919	240-118610-D-5	Plastic 500ml - w/ Nitric - Dis.	<2		
MSA-SW38B-090919	240-118610-F-6	Plastic 500ml - w/ Nitric - Dis.	<2		
MSA-SW38C090919	240-118610-D-7	Plastic 500ml - w/ Nitric - Dis.	<2		
MSA-SW38D-090919	240-118610-D-8	Plastic 500ml - w/ Nitric - Dis.	<2		
MSA-SW39A-090919	240-118610-D-9	Plastic 500ml - w/ Nitric - Dis.	<2		
MSA-SW39B-090919	240-118610-F-10	Plastic 500ml - w/ Nitric - Dis.	<2		
MSA-SW39C-090919	240-118610-E-11	Plastic 500ml - w/ Nitric - Dis.	<2		
MSA-SW39D-090919	240-118610-D-12	Plastic 500ml - w/ Nitric - Dis.	<2		
MSA-SW40A-090919	240-118610-D-13	Plastic 500ml - w/ Nitric - Dis.	<2		
MSA-SW40B-090919	240-118610-F-14	Plastic 500ml - w/ Nitric - Dis.	<2		
MSA-SW40C-090919	240-118610-D-15	Plastic 500ml - w/ Nitric - Dis.	<2		
MSA-SW40D-090919	240-118610-D-16	Plastic 500ml - w/ Nitric - Dis.	<2		
MSA-SW41A-090919	240-118610-D-17	Plastic 500ml - w/ Nitric - Dis.	<2		
MSA-SW41B-090919	240-118610-F-18	Plastic 500ml - w/ Nitric - Dis.	<2		
MSA-SW41C-090919	240-118610-D-19	Plastic 500ml - w/ Nitric - Dis.	<2		
MSA-SW41D-090919	240-118610-D-20	Plastic 500ml - w/ Nitric - Dis.	<2		
MSA-SW42A-090919	240-118610-D-21	Plastic 500ml - w/ Nitric - Dis.	<2		
MSA-SW42B-090919	240-118610-G-22	Plastic 500ml - w/ Nitric - Dis.	<2		
MSA-SW42C-090919	240-118610-D-23	Plastic 500ml - w/ Nitric - Dis.	<2		
MSA-SW42D-090919	240-118610-D-24	Plastic 500ml - w/ Nitric - Dis.	<2		
MSA-SW43A-090919	240-118610-D-25	Plastic 500ml - w/ Nitric - Dis.	<2		
MSA-SW43B-090919	240-118610-F-26	Plastic 500ml - w/ Nitric - Dis.	<2		
MSA-SW43C-090919	240-118610-D-27	Plastic 500ml - w/ Nitric - Dis.	<2		
MSA-SW43D-090919	240-118610-D-28	Plastic 500ml - w/ Nitric - Dis.	<2		
MSA-SW44A-090919	240-118610-D-29	Plastic 500ml - w/ Nitric - Dis.	<2		
MSA-SW44B-090919	240-118610-F-30	Plastic 500ml - w/ Nitric - Dis.	<2		
MSA-SW44C-090919	240-118610-D-31	Plastic 500ml - w/ Nitric - Dis.	<2		
MSA-SW44D-090919	240-118610-D-32	Plastic 500ml - w/ Nitric - Dis.	<2		
MSA-SW45A-090919	240-118610-D-33	Plastic 500ml - w/ Nitric - Dis.	<2		
MSA-SW45B-090919	240-118610-F-34	Plastic 500ml - with Nitric Acid	<2		
MSA-SW45C-090919	240-118610-D-35	Plastic 500ml - w/ Nitric - Dis.	<2		
MSA-SW45D-090919	240-118610-D-36	Plastic 500ml - w/ Nitric - Dis.	<2		

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ANALYTICAL REPORT

Job Number: 240-118610-1

Job Description: MSA Surface Water

For:
Tetra Tech, Inc.
20251 Century Blvd
Suite 200
Germantown, MD 20874

Attention: Tony Apanavage

Approved for release.
John McFadden
Project Manager I
9/24/2019 2:36 PM

John McFadden, Project Manager I
4101 Shuffel Street NW, North Canton, OH, 44720
(330)497-9396
john.mcfadden@testamericainc.com
09/24/2019

The test results in this report meet all NELAP requirements for parameters for which accreditation is required or available. Any exceptions to the 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. This report is confidential and is intended for the sole use of TestAmerica and its client. All questions regarding this report should be directed to the TestAmerica Project Manager who has signed this report.

The test results in this report relate only to the samples as received by the laboratory and will meet all requirements of the methodology, with any exceptions noted. This report shall not be reproduced except in full, without the express written approval of the laboratory. All questions should be directed to the Eurofins TestAmerica Project Manager.

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
U	Indicates the analyte was analyzed for but not detected.

GC/MS VOA TICs

Qualifier	Qualifier Description
U	Indicates the analyte was analyzed for but not detected.

Metals

Qualifier	Qualifier Description
^	ICV,CCV,ICB,CCB, ISA, ISB, CRI, CRA, DLCK or MRL standard: Instrument related QC is outside acceptance limits.
B	Compound was found in the blank and sample.
F1	MS and/or MSD Recovery is outside acceptance limits.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
U	Indicates the analyte was analyzed for but not detected.

General Chemistry

Qualifier	Qualifier Description
U	Indicates the analyte was analyzed for but not detected.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

CASE NARRATIVE

Client: Tetra Tech, Inc.

Project: MSA Surface Water

Report Number: 240-118610-1

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.

Eurofins TestAmerica, Canton attests to the validity of the laboratory data generated by Eurofins TestAmerica facilities reported herein. All analyses performed by Eurofins TestAmerica facilities were done using established laboratory SOPs that incorporate QA/QC procedures described in the application methods. Eurofins 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 Eurofins TestAmerica and its client.

RECEIPT

The samples were received on 9/11/2019 9:30 AM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperatures of the 3 coolers at receipt time were 1.7º C, 2.4º C and 3.6º C.

VOLATILE ORGANIC COMPOUNDS (GCMS)

Samples MSA-SW37A-090919 (240-118610-1), MSA-SW37B-090919 (240-118610-2), MSA-SW37C-090919 (240-118610-3), MSA-SW37D-090919 (240-118610-4), MSA-SW38A-090919 (240-118610-5), MSA-SW38B-090919 (240-118610-6), MSA-SW38C090919 (240-118610-7), MSA-SW38D-090919 (240-118610-8), MSA-SW39A-090919 (240-118610-9), MSA-SW39B-090919 (240-118610-10), MSA-SW39C-090919 (240-118610-11), MSA-SW39D-090919 (240-118610-12), MSA-SW40A-090919 (240-118610-13), MSA-SW40B-090919 (240-118610-14), MSA-SW40C-090919 (240-118610-15), MSA-SW40D-090919 (240-118610-16), MSA-SW41A-090919 (240-118610-17), MSA-SW41B-090919 (240-118610-18), MSA-SW41C-090919 (240-118610-19), MSA-SW41D-090919 (240-118610-20), MSA-SW42A-090919 (240-118610-21), MSA-SW42B-090919 (240-118610-22), MSA-SW42C-090919 (240-118610-23), MSA-SW42D-090919 (240-118610-24), MSA-SW43A-090919 (240-118610-25), MSA-SW43B-090919 (240-118610-26), MSA-SW43C-090919 (240-118610-27), MSA-SW43D-090919 (240-118610-28), MSA-SW44A-090919 (240-118610-29), MSA-SW44B-090919 (240-118610-30), MSA-SW44C-090919 (240-118610-31), MSA-SW44D-090919 (240-118610-32), MSA-SW45A-090919 (240-118610-33), MSA-SW45B-090919 (240-118610-34), MSA-SW45C-090919 (240-118610-35), MSA-SW45D-090919 (240-118610-36), EL-SW01A-090919 (240-118610-37), EL-SW01B-090919 (240-118610-38), EL-SW01C-090919 (240-118610-39), EL-SW01D-090919 (240-118610-40), TB-090919 (240-118610-41), MSA-SW46A-090919 (240-118610-42), MSA-SW47A-090919 (240-118610-43), MSA-SW48A-090919 (240-118610-44) and MSA-SW49A-090919 (240-118610-45) were analyzed for volatile organic compounds (GCMS) in accordance with EPA SW-846 Method 8260C. The samples were analyzed on 09/13/2019, 09/14/2019 and 09/17/2019.

The continuing calibration verification (CCV) analyzed in batch 240-400639 was outside the method criteria for 2-methyl-2-propanol, and 1,2,3-trichlorobenzene. 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(s) is considered estimated.

Insufficient sample volume was available to perform a matrix spike/matrix spike duplicate (MS/MSD) associated with analytical batch 240-400639.

The continuing calibration verification (CCV) analyzed in batch 240-400715 was outside the method criteria for 1,2,3-trichlorobenzene. 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(s) is considered estimated.

Insufficient sample volume was available to perform a matrix spike/matrix spike duplicate (MS/MSD) associated with analytical batch

240-400715.

The continuing calibration verification (CCV) analyzed in batch 240-401172 was outside the method criteria for 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 analyte(s) is considered estimated.

Insufficient sample volume was available to perform a matrix spike/matrix spike duplicate (MS/MSD) associated with analytical batch 240-401172.

The following samples were received preserved with hydrochloric acid:MSA-SW37A-090919 (240-118610-1), MSA-SW37B-090919 (240-118610-2), MSA-SW37C-090919 (240-118610-3), MSA-SW37D-090919 (240-118610-4), MSA-SW38A-090919 (240-118610-5), MSA-SW38B-090919 (240-118610-6), MSA-SW38C090919 (240-118610-7), MSA-SW38D-090919 (240-118610-8), MSA-SW39A-090919 (240-118610-9), MSA-SW39B-090919 (240-118610-10), MSA-SW39C-090919 (240-118610-11), MSA-SW39D-090919 (240-118610-12), MSA-SW40A-090919 (240-118610-13), MSA-SW40B-090919 (240-118610-14), MSA-SW40C-090919 (240-118610-15), MSA-SW40D-090919 (240-118610-16), MSA-SW41A-090919 (240-118610-17), MSA-SW41B-090919 (240-118610-18), MSA-SW41C-090919 (240-118610-19), MSA-SW41D-090919 (240-118610-20), MSA-SW42A-090919 (240-118610-21), MSA-SW42B-090919 (240-118610-22), MSA-SW42C-090919 (240-118610-23), MSA-SW42D-090919 (240-118610-24), MSA-SW43A-090919 (240-118610-25), MSA-SW43B-090919 (240-118610-26), MSA-SW43C-090919 (240-118610-27), MSA-SW43D-090919 (240-118610-28), MSA-SW44A-090919 (240-118610-29), MSA-SW44B-090919 (240-118610-30), MSA-SW44C-090919 (240-118610-31), MSA-SW44D-090919 (240-118610-32), MSA-SW45A-090919 (240-118610-33), MSA-SW45B-090919 (240-118610-34), MSA-SW45C-090919 (240-118610-35), MSA-SW45D-090919 (240-118610-36), EL-SW01A-090919 (240-118610-37), EL-SW01B-090919 (240-118610-38), EL-SW01C-090919 (240-118610-39), EL-SW01D-090919 (240-118610-40), TB-090919 (240-118610-41), MSA-SW46A-090919 (240-118610-42), MSA-SW47A-090919 (240-118610-43), MSA-SW48A-090919 (240-118610-44) and MSA-SW49A-090919 (240-118610-45) . The requested target analyte list includes 2-Chloroethyl vinyl ether, an acid-labile compound that degrades in an acidic medium.

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

DISSOLVED METALS (ICPMS)

Samples MSA-SW37A-090919 (240-118610-1), MSA-SW37B-090919 (240-118610-2), MSA-SW37C-090919 (240-118610-3), MSA-SW37D-090919 (240-118610-4), MSA-SW38A-090919 (240-118610-5), MSA-SW38B-090919 (240-118610-6), MSA-SW38C090919 (240-118610-7), MSA-SW38D-090919 (240-118610-8), MSA-SW39A-090919 (240-118610-9), MSA-SW39B-090919 (240-118610-10), MSA-SW39C-090919 (240-118610-11), MSA-SW39D-090919 (240-118610-12), MSA-SW40A-090919 (240-118610-13), MSA-SW40B-090919 (240-118610-14), MSA-SW40C-090919 (240-118610-15), MSA-SW40D-090919 (240-118610-16), MSA-SW41A-090919 (240-118610-17), MSA-SW41B-090919 (240-118610-18), MSA-SW41C-090919 (240-118610-19), MSA-SW41D-090919 (240-118610-20), MSA-SW42A-090919 (240-118610-21), MSA-SW42B-090919 (240-118610-22), MSA-SW42C-090919 (240-118610-23), MSA-SW42D-090919 (240-118610-24), MSA-SW43A-090919 (240-118610-25), MSA-SW43B-090919 (240-118610-26), MSA-SW43C-090919 (240-118610-27), MSA-SW43D-090919 (240-118610-28), MSA-SW44A-090919 (240-118610-29), MSA-SW44B-090919 (240-118610-30), MSA-SW44C-090919 (240-118610-31), MSA-SW44D-090919 (240-118610-32), MSA-SW45A-090919 (240-118610-33), MSA-SW45B-090919 (240-118610-34), MSA-SW45C-090919 (240-118610-35) and MSA-SW45D-090919 (240-118610-36) were analyzed for dissolved metals (ICPMS) in accordance with EPA SW-846 Method 6020. The samples were prepared on 09/12/2019 and analyzed on 09/13/2019 and 09/16/2019.

Lead and Tungsten were detected in method blank MB 240-400294/1-A 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.

The continuing calibration verification (CCV) associated with batch 240-400809 recovered above the upper control limit for tungsten. The samples associated with this CCV were less than the reporting limit for the affected analyte; therefore, the data have been reported. The following samples are impacted: MSA-SW40B-090919 (240-118610-14), MSA-SW40C-090919 (240-118610-15), MSA-SW40D-090919 (240-118610-16), MSA-SW41A-090919 (240-118610-17), MSA-SW41B-090919 (240-118610-18), MSA-SW41C-090919 (240-118610-19) and MSA-SW41D-090919 (240-118610-20).

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

DISSOLVED MERCURY (CVAA)

Samples MSA-SW37A-090919 (240-118610-1), MSA-SW37B-090919 (240-118610-2), MSA-SW37C-090919 (240-118610-3), MSA-SW37D-090919 (240-118610-4), MSA-SW38A-090919 (240-118610-5), MSA-SW38B-090919 (240-118610-6), MSA-SW38C090919 (240-118610-7), MSA-SW38D-090919 (240-118610-8), MSA-SW39A-090919 (240-118610-9), MSA-SW39B-090919 (240-118610-10), MSA-SW39C-090919 (240-118610-11), MSA-SW39D-090919 (240-118610-12), MSA-SW40A-090919 (240-118610-13), MSA-SW40B-090919 (240-118610-14), MSA-SW40C-090919 (240-118610-15), MSA-SW40D-090919 (240-118610-16), MSA-SW41A-090919 (240-118610-17), MSA-SW41B-090919 (240-118610-18), MSA-SW41C-090919 (240-118610-19), MSA-SW41D-090919 (240-118610-20), MSA-SW42A-090919 (240-118610-21), MSA-SW42B-090919 (240-118610-22), MSA-SW42C-090919 (240-118610-23), MSA-SW42D-090919 (240-118610-24), MSA-SW43A-090919 (240-118610-25), MSA-SW43B-090919 (240-118610-26), MSA-SW43C-090919 (240-118610-27), MSA-SW43D-090919 (240-118610-28), MSA-SW44A-090919 (240-118610-29), MSA-SW44B-090919 (240-118610-30), MSA-SW44C-090919 (240-118610-31), MSA-SW44D-090919 (240-118610-32), MSA-SW45A-090919 (240-118610-33),

MSA-SW45B-090919 (240-118610-34), MSA-SW45C-090919 (240-118610-35) and MSA-SW45D-090919 (240-118610-36) were analyzed for dissolved mercury (CVAA) in accordance with EPA SW-846 Methods 7470A. The samples were prepared on 09/12/2019 and analyzed on 09/13/2019.

Mercury failed the recovery criteria high for the MS of sample MSA-SW37A-090919MS (240-118610-1) in batch 240-400725.

Mercury failed the recovery criteria high for the MS of sample MSA-SW42A-090919MS (240-118610-21) in batch 240-400725.

Mercury failed the recovery criteria high for the MSD of sample MSA-SW42A-090919MSD (240-118610-21) in batch 240-400725.

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

DISSOLVED ORGANIC CARBON

Samples MSA-SW37B-090919 (240-118610-2), MSA-SW38B-090919 (240-118610-6), MSA-SW39B-090919 (240-118610-10), MSA-SW40B-090919 (240-118610-14), MSA-SW41B-090919 (240-118610-18), MSA-SW42B-090919 (240-118610-22), MSA-SW43B-090919 (240-118610-26), MSA-SW44B-090919 (240-118610-30) and MSA-SW45B-090919 (240-118610-34) were analyzed for dissolved organic carbon in accordance with EPA SW-846 Method 9060. The samples were analyzed on 09/22/2019.

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

DISSOLVED HARDNESS (AS CACO3) BY CALCULATION

Samples MSA-SW37A-090919 (240-118610-1), MSA-SW37B-090919 (240-118610-2), MSA-SW37C-090919 (240-118610-3), MSA-SW37D-090919 (240-118610-4), MSA-SW38A-090919 (240-118610-5), MSA-SW38B-090919 (240-118610-6), MSA-SW38C090919 (240-118610-7), MSA-SW38D-090919 (240-118610-8), MSA-SW39A-090919 (240-118610-9), MSA-SW39B-090919 (240-118610-10), MSA-SW39C-090919 (240-118610-11), MSA-SW39D-090919 (240-118610-12), MSA-SW40A-090919 (240-118610-13), MSA-SW40B-090919 (240-118610-14), MSA-SW40C-090919 (240-118610-15), MSA-SW40D-090919 (240-118610-16), MSA-SW41A-090919 (240-118610-17), MSA-SW41B-090919 (240-118610-18), MSA-SW41C-090919 (240-118610-19), MSA-SW41D-090919 (240-118610-20), MSA-SW42A-090919 (240-118610-21), MSA-SW42B-090919 (240-118610-22), MSA-SW42C-090919 (240-118610-23), MSA-SW42D-090919 (240-118610-24), MSA-SW43A-090919 (240-118610-25), MSA-SW43B-090919 (240-118610-26), MSA-SW43C-090919 (240-118610-27), MSA-SW43D-090919 (240-118610-28), MSA-SW44A-090919 (240-118610-29), MSA-SW44B-090919 (240-118610-30), MSA-SW44C-090919 (240-118610-31), MSA-SW44D-090919 (240-118610-32), MSA-SW45A-090919 (240-118610-33), MSA-SW45B-090919 (240-118610-34), MSA-SW45C-090919 (240-118610-35) and MSA-SW45D-090919 (240-118610-36) were analyzed for dissolved hardness (as CaCO3) by calculation in accordance with SM 2340B. The samples were analyzed on 09/20/2019.

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

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-118610-1 Analy Batch No.: 337766

SDG No.:

Instrument ID: A3UX19 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/24/2018 17:50 Calibration End Date: 07/24/2018 20:04 Calibration ID: 46235

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD8260 240-337766/13	U1900794.d
Level 2	STD8260 240-337766/12	U1900793.d
Level 3	STD8260 240-337766/11	U1900792.d
Level 4	ICIS 240-337766/10	U1900791.d
Level 5	STD8260 240-337766/9	U1900790.d
Level 6	STD8260 240-337766/3	U1900784.d
Level 7	STD8260 240-337766/2	U1900783.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								
Dichlorodifluoromethane	0.2985 0.3869	0.3275 0.3899	0.3189	0.3531	0.3613	Ave		0.3480			0.1000	10.0		20.0			
Chloromethane	0.3558 0.3258	0.3705 0.3191	0.3263	0.3392	0.3223	Ave		0.3370			0.1000	5.8		20.0			
Butadiene	0.3408 0.3374	0.3424 0.3377	0.2895	0.3248	0.3219	Ave		0.3278				5.7		20.0			
Vinyl chloride	0.2746 0.3390	0.3544 0.3374	0.3113	0.3366	0.3288	Ave		0.3260			0.1000	8.0		20.0			
Bromomethane	0.2749 0.2254	0.2866 0.2173	0.2405	0.2466	0.2251	Ave		0.2452			0.0500	10.8		20.0			
Chloroethane	0.2109 0.1921	0.2097 0.1854	0.1960	0.2032	0.1901	Ave		0.1982			0.0500	5.0		20.0			
Dichlorofluoromethane	0.5221 0.4475	0.4917 0.4372	0.4526	0.4727	0.4486	Ave		0.4675				6.5		20.0			
Trichlorofluoromethane	0.4494 0.4561	0.4680 0.4427	0.3932	0.4472	0.4396	Ave		0.4423			0.1000	5.3		20.0			
Ethyl ether	0.2193 0.1979	0.2111 0.1891	0.1902	0.1939	0.1890	Ave		0.1987				6.0		20.0			
Acrolein	0.0586 0.0546	0.0507 0.0535	0.0446	0.0490	0.0542	Ave		0.0522				8.7		20.0			
1,1-Dichloroethene	0.3808 0.3850	0.3828 0.3735	0.3902	0.3740	0.3655	Ave		0.3788			0.1000	2.2		20.0			
1,1,2-Trichloro-1,2,2-trifluoroethane	0.2602 0.2706	0.2860 0.2683	0.2820	0.2661	0.2580	Ave		0.2702			0.0500	3.9		20.0			
Acetone	+++++ 0.0784	0.0790 0.0643	0.0549	0.0580	0.0606	Ave		0.0659			0.0100	15.8		20.0			
Iodomethane	0.4645 0.4649	0.4824 0.4542	0.4796	0.4736	0.4610	Ave		0.4686				2.2		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: Eurofins TestAmerica, Canton Job No.: 240-118610-1 Analy Batch No.: 337766

SDG No.:

Instrument ID: A3UX19 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/24/2018 17:50 Calibration End Date: 07/24/2018 20:04 Calibration ID: 46235

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								
Carbon disulfide	1.0264 0.7904	0.9769 0.7703	0.8143	0.7839	0.7630	Ave		0.8465			0.1000	12.8		20.0			
3-Chloro-1-propene	0.4236 0.3955	0.4245 0.3845	0.3864	0.3828	0.3812	Ave		0.3969				4.8		20.0			
Methyl acetate	0.2893 0.2388	0.2199 0.2093	0.2069	0.2105	0.2113	Ave		0.2266			0.1000	13.1		20.0			
Methylene Chloride	+++++ 0.2977	0.3380 0.2854	0.3031	0.3009	0.2892	Ave		0.3024			0.1000	6.2		20.0			
2-Methyl-2-propanol	+++++ 0.0272	0.0286 +++++	0.0233	0.0231	0.0210	Ave		0.0246				12.8		20.0			
Acrylonitrile	0.1149 0.1149	0.0936 0.0991	0.0942	0.0985	0.1008	Ave		0.1023				8.8		20.0			
trans-1,2-Dichloroethene	0.4272 0.3621	0.3980 0.3508	0.3681	0.3544	0.3490	Ave		0.3728			0.1000	7.8		20.0			
Methyl tert-butyl ether	0.6889 0.7038	0.7226 0.6502	0.7037	0.7046	0.6888	Ave		0.6946			0.1000	3.3		20.0			
Hexane	0.4016 0.4127	0.4088 0.4136	0.4369	0.3839	0.3905	Ave		0.4069				4.3		20.0			
1,1-Dichloroethane	0.4297 0.4479	0.4309 0.4358	0.4483	0.4451	0.4391	Ave		0.4395			0.2000	1.8		20.0			
Vinyl acetate	0.4180 0.4211	0.3784 0.4083	0.3943	0.3850	0.3928	Ave		0.3997				4.1		20.0			
cis-1,2-Dichloroethene	0.3259 0.3058	0.3308 0.2928	0.3020	0.3030	0.2971	Ave		0.3082			0.1000	4.7		20.0			
2-Butanone (MEK)	+++++ 0.0411	0.0357 0.0381	0.0358	0.0358	0.0391	Ave		0.0376			0.0100	6.0		20.0			
2,2-Dichloropropane	0.2667 0.2404	0.2856 0.2633	0.2822	0.2661	0.2457	Ave		0.2643				6.4		20.0			
Chlorobromomethane	0.2447 0.2004	0.2207 0.1830	0.1878	0.1937	0.1884	Ave		0.2027				11.0		20.0			
Tetrahydrofuran	0.0995 0.1054	0.1040 0.0940	0.0907	0.0913	0.0950	Ave		0.0971				6.1		20.0			
Chloroform	0.4629 0.4616	0.4798 0.4429	0.4485	0.4541	0.4433	Ave		0.4561			0.2000	2.9		20.0			
1,1,1-Trichloroethane	0.3956 0.4177	0.3988 0.4154	0.4324	0.4070	0.4089	Ave		0.4108			0.1000	3.0		20.0			
Cyclohexane	0.4246 0.4364	0.4382 0.4292	0.4507	0.4156	0.4161	Ave		0.4301			0.1000	3.0		20.0			
1,1-Dichloropropene	0.3755 0.3758	0.3903 0.3692	0.3840	0.3595	0.3614	Ave		0.3737				3.0		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: Eurofins TestAmerica, Canton Job No.: 240-118610-1 Analy Batch No.: 337766

SDG No.:

Instrument ID: A3UX19 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/24/2018 17:50 Calibration End Date: 07/24/2018 20:04 Calibration ID: 46235

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								
Carbon tetrachloride	0.3639 0.3981	0.3846 0.3917	0.3944	0.3722	0.3729	Ave		0.3825			0.1000	3.4		20.0			
Isobutyl alcohol	0.0095 0.0104	0.0071 0.0087	0.0088	0.0079	0.0092	Ave		0.0088				12.2		20.0			
Benzene	0.9890 1.0452	1.0827 1.0051	1.0373	1.0007	1.0215	Ave		1.0259			0.5000	3.1		20.0			
1,2-Dichloroethane	0.3674 0.3257	0.3549 0.3127	0.3205	0.3110	0.3150	Ave		0.3296			0.1000	6.8		20.0			
n-Heptane	+++++ 0.2252	0.7970 0.2266	0.2839	0.2324	0.2217	Lin1	0.5799	0.2147				4.3			0.9990		0.9900
Trichloroethene	0.3122 0.3167	0.3258 0.3140	0.3258	0.3068	0.3105	Ave		0.3160			0.1500	2.3		20.0			
Methylcyclohexane	0.4985 0.5342	0.5073 0.5200	0.5394	0.4970	0.4957	Ave		0.5132			0.1000	3.6		20.0			
1,2-Dichloropropane	0.2050 0.2404	0.2394 0.2326	0.2309	0.2270	0.2376	Ave		0.2304			0.1000	5.3		20.0			
Dibromomethane	0.2379 0.2151	0.2154 0.2010	0.2009	0.2115	0.2105	Ave		0.2132				5.8		20.0			
1,4-Dioxane	+++++ 0.0024	0.0017 0.0024	0.0024	0.0024	0.0023	Ave		0.0023				13.5		20.0			
Dichlorobromomethane	0.3232 0.3408	0.3027 0.3295	0.3203	0.3127	0.3310	Ave		0.3229			0.1500	3.9		20.0			
2-Chloroethyl vinyl ether	0.1601 0.1755	0.1580 0.1783	0.1797	0.1698	0.1774	Ave		0.1713				5.2		20.0			
cis-1,3-Dichloropropene	0.3599 0.3873	0.3811 0.3872	0.3686	0.3735	0.3865	Ave		0.3777			0.1500	2.8		20.0			
4-Methyl-2-pentanone (MIBK)	0.2834 0.3221	0.2998 0.3046	0.3240	0.2983	0.3095	Ave		0.3059			0.0500	4.6		20.0			
Toluene	1.5618 1.4027	1.4672 1.4180	1.4098	1.3276	1.3894	Ave		1.4252			0.4000	5.1		20.0			
trans-1,3-Dichloropropene	0.4760 0.4702	0.4587 0.4631	0.4478	0.4252	0.4649	Ave		0.4580			0.1000	3.7		20.0			
Ethyl methacrylate	0.4185 0.4604	0.4061 0.4531	0.4309	0.4112	0.4583	Ave		0.4341				5.3		20.0			
1,1,2-Trichloroethane	0.2547 0.2895	0.2773 0.2862	0.2834	0.2725	0.2908	Ave		0.2792			0.1000	4.5		20.0			
Tetrachloroethene	0.4086 0.4320	0.4228 0.4317	0.4309	0.4048	0.4173	Ave		0.4212			0.1500	2.7		20.0			
1,3-Dichloropropane	0.4853 0.4890	0.5028 0.4855	0.4893	0.4635	0.4865	Ave		0.4860				2.4		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: Eurofins TestAmerica, Canton Job No.: 240-118610-1 Analy Batch No.: 337766

SDG No.:

Instrument ID: A3UX19 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/24/2018 17:50 Calibration End Date: 07/24/2018 20:04 Calibration ID: 46235

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								
2-Hexanone	0.2860 0.3061	0.2740 0.2989	0.3048	0.2770	0.2999	Ave		0.2924			0.0500	4.5		20.0			
Chlorodibromomethane	0.3153 0.3531	0.3347 0.3456	0.3254	0.3197	0.3424	Ave		0.3337				4.2		20.0			
Ethylene Dibromide	0.3316 0.3186	0.3371 0.3125	0.3153	0.3013	0.3163	Ave		0.3190				3.8		20.0			
Chlorobenzene	0.9988 0.9439	1.0195 0.9268	0.9392	0.9052	0.9346	Ave		0.9526			0.3000	4.3		20.0			
1,1,1,2-Tetrachloroethane	0.2852 0.3466	0.3288 0.3341	0.3290	0.3310	0.3341	Ave		0.3270				5.9		20.0			
Ethylbenzene	0.4594 0.5246	0.5226 0.5211	0.5127	0.4996	0.5108	Ave		0.5073				4.5		20.0			
m-Xylene & p-Xylene	0.6169 0.6437	0.6148 0.6359	0.6355	0.6137	0.6232	Ave		0.6262				1.9		20.0			
o-Xylene	0.5941 0.6233	0.5896 0.6029	0.6245	0.6014	0.5968	Ave		0.6047				2.3		20.0			
Styrene	0.9580 1.0545	0.9583 1.0320	1.0135	0.9872	1.0201	Ave		1.0034			0.3000	3.7		20.0			
Bromoform	+++++ 0.2846	0.2440 0.2826	0.2606	0.2566	0.2726	Ave		0.2668			0.1000	6.0		20.0			
Isopropylbenzene	1.5546 1.6483	1.5581 1.6164	1.6482	1.5866	1.5868	Ave		1.5999			0.1000	2.4		20.0			
1,1,2,2-Tetrachloroethane	0.7561 0.8073	0.8321 0.7913	0.8175	0.7659	0.8099	Ave		0.7972			0.3000	3.5		20.0			
Bromobenzene	0.8153 0.7490	0.7267 0.7427	0.7731	0.7237	0.7577	Ave		0.7555				4.2		20.0			
1,2,3-Trichloropropane	0.3160 0.2796	0.2566 0.2769	0.2966	0.2651	0.2852	Ave		0.2823				7.0		20.0			
trans-1,4-Dichloro-2-butene	0.2699 0.2473	0.2213 0.2516	0.2435	0.2261	0.2517	Ave		0.2445				6.7		20.0			
N-Propylbenzene	0.7798 0.8210	0.7523 0.8202	0.8514	0.7731	0.8029	Ave		0.8001				4.2		20.0			
2-Chlorotoluene	0.6509 0.6957	0.7125 0.6833	0.7132	0.6770	0.6858	Ave		0.6883				3.1		20.0			
1,3,5-Trimethylbenzene	2.0585 2.3418	2.1282 2.3386	2.4321	2.2627	2.2905	Ave		2.2646				5.7		20.0			
4-Chlorotoluene	0.7199 0.7173	0.7260 0.7141	0.7528	0.6936	0.7171	Ave		0.7201				2.4		20.0			
tert-Butylbenzene	2.0893 2.2086	2.2305 2.1805	2.3049	2.0958	2.1272	Ave		2.1767				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
CURVE EVALUATION

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-118610-1 Analy Batch No.: 337766

SDG No.:

Instrument ID: A3UX19 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/24/2018 17:50 Calibration End Date: 07/24/2018 20:04 Calibration ID: 46235

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								
1,2,4-Trimethylbenzene	2.3016 2.3641	2.3139 2.3974	2.4350	2.3225	2.3165	Ave		2.3501				2.1		20.0			
sec-Butylbenzene	2.8312 3.0965	2.8639 3.1341	3.2011	2.9684	2.9595	Ave		3.0078				4.6		20.0			
1,3-Dichlorobenzene	1.6206 1.4203	1.5501 1.4165	1.4543	1.3821	1.4074	Ave		1.4645			0.6000	6.0		20.0			
4-Isopropyltoluene	2.3868 2.6740	2.3755 2.7456	2.7383	2.5786	2.5586	Ave		2.5796				5.9		20.0			
1,4-Dichlorobenzene	1.7882 1.4335	1.6574 1.4328	1.4853	1.4002	1.4320	Ave		1.5185			0.5000	9.7		20.0			
n-Butylbenzene	2.0220 2.3242	2.1252 2.3914	2.3447	2.2111	2.1782	Ave		2.2281				5.9		20.0			
1,2-Dichlorobenzene	1.3936 1.3079	1.4283 1.3217	1.3446	1.2913	1.2861	Ave		1.3391			0.4000	4.0		20.0			
1,2-Dibromo-3-Chloropropane	0.2394 0.2501	0.2225 0.2556	0.2287	0.2293	0.2369	Ave		0.2375			0.0500	5.0		20.0			
1,2,4-Trichlorobenzene	1.0063 0.8577	1.0084 0.9508	0.8893	0.8765	0.8484	Ave		0.9196			0.2000	7.4		20.0			
Hexachlorobutadiene	0.4988 0.4431	0.5134 0.5128	0.4874	0.4604	0.4444	Ave		0.4800				6.4		20.0			
Naphthalene	2.5280 2.5374	2.6896 2.7560	2.5594	2.5256	2.5586	Ave		2.5935				3.5		20.0			
1,2,3-Trichlorobenzene	0.8270 0.7867	0.8451 0.9084	0.8355	0.8114	0.8072	Ave		0.8316				4.7		20.0			
Dibromofluoromethane (Surr)	0.2924 0.2586	0.2650 0.2453	0.2515	0.2531	0.2466	Ave		0.2589				6.3		20.0			
1,2-Dichloroethane-d4 (Surr)	0.3213 0.2669	0.3001 0.2485	0.2625	0.2659	0.2555	Ave		0.2744				9.6		20.0			
Toluene-d8 (Surr)	1.2522 1.2151	1.2033 1.2031	1.2111	1.1433	1.2004	Ave		1.2041				2.7		20.0			
4-Bromofluorobenzene (Surr)	0.5696 0.4390	0.4918 0.4279	0.4472	0.4315	0.4318	Ave		0.4627				11.2		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: Eurofins TestAmerica, Canton Job No.: 240-118610-1 Analy Batch No.: 337766

SDG No.:

Instrument ID: A3UX19 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/24/2018 17:50 Calibration End Date: 07/24/2018 20:04 Calibration ID: 46235

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD8260 240-337766/13	U1900794.d
Level 2	STD8260 240-337766/12	U1900793.d
Level 3	STD8260 240-337766/11	U1900792.d
Level 4	ICIS 240-337766/10	U1900791.d
Level 5	STD8260 240-337766/9	U1900790.d
Level 6	STD8260 240-337766/3	U1900784.d
Level 7	STD8260 240-337766/2	U1900783.d

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (UG/L)				
			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
Dichlorodifluoromethane	FB	Ave	6894 1134505	14647 1522047	151920	328230	708511	0.500 60.0	1.00 80.0	10.0	20.0	40.0
Chloromethane	FB	Ave	8217 955231	16570 1245553	155433	315290	632033	0.500 60.0	1.00 80.0	10.0	20.0	40.0
Butadiene	FB	Ave	7871 989374	15313 1318121	137925	301883	631099	0.500 60.0	1.00 80.0	10.0	20.0	40.0
Vinyl chloride	FB	Ave	6342 993940	15847 1317064	148293	312915	644632	0.500 60.0	1.00 80.0	10.0	20.0	40.0
Bromomethane	FB	Ave	6350 660888	12818 848050	114577	229239	441425	0.500 60.0	1.00 80.0	10.0	20.0	40.0
Chloroethane	FB	Ave	4872 563348	9377 723733	93395	188891	372825	0.500 60.0	1.00 80.0	10.0	20.0	40.0
Dichlorofluoromethane	FB	Ave	12059 1312016	21989 1706469	215631	439391	879608	0.500 60.0	1.00 80.0	10.0	20.0	40.0
Trichlorofluoromethane	FB	Ave	10381 1337225	20928 1728039	187339	415720	861954	0.500 60.0	1.00 80.0	10.0	20.0	40.0
Ethyl ether	FB	Ave	5066 580370	9442 738330	90620	180269	370565	0.500 60.0	1.00 80.0	10.0	20.0	40.0
Acrolein	FB	Ave	6772 800130	11339 1043418	106196	227879	531628	2.50 300	5.00 400	50.0	100	200
1,1-Dichloroethene	FB	Ave	8796 1128785	17119 1458107	185910	347690	716665	0.500 60.0	1.00 80.0	10.0	20.0	40.0
1,1,2-Trichloro-1,2,2-trifluoroethane	FB	Ave	6009 793296	12789 1047375	134365	247358	505930	0.500 60.0	1.00 80.0	10.0	20.0	40.0
Acetone	FB	Ave	+++++ 459712	7064 501797	52355	107763	237768	+++++ 120	2.00 160	20.0	40.0	80.0
Iodomethane	FB	Ave	10728 1363038	21574 1772860	228493	440198	903919	0.500 60.0	1.00 80.0	10.0	20.0	40.0
Carbon disulfide	FB	Ave	23708 2317545	43688 3006958	387941	728690	1496184	0.500 60.0	1.00 80.0	10.0	20.0	40.0

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-118610-1 Analy Batch No.: 337766

SDG No.:

Instrument ID: A3UX19 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/24/2018 17:50 Calibration End Date: 07/24/2018 20:04 Calibration ID: 46235

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (UG/L)				
			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
3-Chloro-1-propene	FB	Ave	9784 1159498	18985 1500878	184068	355801	747474	0.500 60.0	1.00 80.0	10.0	20.0	40.0
Methyl acetate	FB	Ave	13362 1400331	19667 1633788	197122	391356	828794	1.00 120	2.00 160	20.0	40.0	80.0
Methylene Chloride	FB	Ave	+++++ 872855	15117 1113978	144386	279726	566982	+++++ 60.0	1.00 80.0	10.0	20.0	40.0
2-Methyl-2-propanol	FB	Ave	+++++ 798354	12788 +++++	110777	215092	411966	+++++ 600	10.0 +++++	100	200	400
Acrylonitrile	FB	Ave	26540 3368428	41875 3868018	448754	915892	1977138	5.00 600	10.0 800	100	200	400
trans-1,2-Dichloroethene	FB	Ave	9868 1061569	17800 1369327	175373	329454	684359	0.500 60.0	1.00 80.0	10.0	20.0	40.0
Methyl tert-butyl ether	FB	Ave	15911 2063462	32315 2537900	335243	654948	1350698	0.500 60.0	1.00 80.0	10.0	20.0	40.0
Hexane	FB	Ave	9277 1210166	18280 1614587	208123	356826	765779	0.500 60.0	1.00 80.0	10.0	20.0	40.0
1,1-Dichloroethane	FB	Ave	9924 1313347	19272 1701003	213583	413734	860929	0.500 60.0	1.00 80.0	10.0	20.0	40.0
Vinyl acetate	FB	Ave	9654 1234805	16923 1593713	187841	357825	770166	0.500 60.0	1.00 80.0	10.0	20.0	40.0
cis-1,2-Dichloroethene	FB	Ave	7528 896669	14795 1142993	143871	281663	582599	0.500 60.0	1.00 80.0	10.0	20.0	40.0
2-Butanone (MEK)	FB	Ave	+++++ 241145	3193 297238	34072	66486	153177	+++++ 120	2.00 160	20.0	40.0	80.0
2,2-Dichloropropane	FB	Ave	6159 704769	12773 1027916	134434	247316	481767	0.500 60.0	1.00 80.0	10.0	20.0	40.0
Chlorobromomethane	FB	Ave	5651 587580	9868 714392	89489	180080	369472	0.500 60.0	1.00 80.0	10.0	20.0	40.0
Tetrahydrofuran	FB	Ave	4596 618274	9301 734202	86462	169823	372381	1.00 120	2.00 160	20.0	40.0	80.0
Chloroform	FB	Ave	10692 1353439	21458 1728769	213657	422069	869181	0.500 60.0	1.00 80.0	10.0	20.0	40.0
1,1,1-Trichloroethane	FB	Ave	9137 1224716	17835 1621508	206006	378348	801860	0.500 60.0	1.00 80.0	10.0	20.0	40.0
Cyclohexane	FB	Ave	9806 1279473	19597 1675220	214696	386296	815868	0.500 60.0	1.00 80.0	10.0	20.0	40.0
1,1-Dichloropropene	FB	Ave	8674 1102013	17455 1441115	182947	334178	708682	0.500 60.0	1.00 80.0	10.0	20.0	40.0
Carbon tetrachloride	FB	Ave	8406 1167256	17198 1528972	187898	345961	731238	0.500 60.0	1.00 80.0	10.0	20.0	40.0
Isobutyl alcohol	FB	Ave	5482 758926	7910 849021	105355	183028	449380	12.5 1500	25.0 2000	250	500	1000

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-118610-1 Analy Batch No.: 337766

SDG No.:

Instrument ID: A3UX19 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/24/2018 17:50 Calibration End Date: 07/24/2018 20:04 Calibration ID: 46235

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (UG/L)				
			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
Benzene	FB	Ave	22844 3064496	48419 3923346	494183	930203	2003056	0.500 60.0	1.00 80.0	10.0	20.0	40.0
1,2-Dichloroethane	FB	Ave	8485 954899	15873 1220640	152677	289097	617748	0.500 60.0	1.00 80.0	10.0	20.0	40.0
n-Heptane	FB	Lin1	+++++ 660181	35642 884598	135257	216048	434651	+++++ 60.0	1.00 80.0	10.0	20.0	40.0
Trichloroethene	FB	Ave	7211 928718	14571 1225880	155201	285190	608912	0.500 60.0	1.00 80.0	10.0	20.0	40.0
Methylcyclohexane	FB	Ave	11515 1566351	22689 2029926	256970	461990	972024	0.500 60.0	1.00 80.0	10.0	20.0	40.0
1,2-Dichloropropane	FB	Ave	4734 704987	10704 908144	110015	210992	465852	0.500 60.0	1.00 80.0	10.0	20.0	40.0
Dibromomethane	FB	Ave	5496 630606	9635 784539	95707	196594	412829	0.500 60.0	1.00 80.0	10.0	20.0	40.0
1,4-Dioxane	FB	Ave	+++++ 142512	1478 187742	23290	43840	91591	+++++ 1200	20.0 1600	200	400	800
Dichlorobromomethane	FB	Ave	7466 999127	13539 1286301	152581	290639	649042	0.500 60.0	1.00 80.0	10.0	20.0	40.0
2-Chloroethyl vinyl ether	FB	Ave	7395 1029389	14128 1392220	171233	315645	695808	1.00 120	2.00 160	20.0	40.0	80.0
cis-1,3-Dichloropropene	FB	Ave	8313 1135535	17042 1511629	175580	347181	757793	0.500 60.0	1.00 80.0	10.0	20.0	40.0
4-Methyl-2-pentanone (MIBK)	FB	Ave	13091 1889071	26811 2377711	308673	554613	1213622	1.00 120	2.00 160	20.0	40.0	80.0
Toluene	CBNZ d5	Ave	28549 3229981	51989 4260144	544060	985962	2123092	0.500 60.0	1.00 80.0	10.0	20.0	40.0
trans-1,3-Dichloropropene	CBNZ d5	Ave	8702 1082760	16254 1391341	172822	315763	710372	0.500 60.0	1.00 80.0	10.0	20.0	40.0
Ethyl methacrylate	CBNZ d5	Ave	7650 1060082	14391 1361372	166277	305349	700245	0.500 60.0	1.00 80.0	10.0	20.0	40.0
1,1,2-Trichloroethane	CBNZ d5	Ave	4656 666583	9825 859718	109350	202390	444369	0.500 60.0	1.00 80.0	10.0	20.0	40.0
Tetrachloroethene	CBNZ d5	Ave	7470 994717	14983 1297004	166266	300622	637692	0.500 60.0	1.00 80.0	10.0	20.0	40.0
1,3-Dichloropropane	CBNZ d5	Ave	8871 1126088	17817 1458618	188817	344194	743433	0.500 60.0	1.00 80.0	10.0	20.0	40.0
2-Hexanone	CBNZ d5	Ave	10457 1409861	19416 1795814	235229	411400	916606	1.00 120	2.00 160	20.0	40.0	80.0
Chlorodibromomethane	CBNZ d5	Ave	5763 813124	11860 1038431	125585	237418	523153	0.500 60.0	1.00 80.0	10.0	20.0	40.0
Ethylene Dibromide	CBNZ d5	Ave	6061 733594	11944 938884	121691	223763	483377	0.500 60.0	1.00 80.0	10.0	20.0	40.0

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-118610-1 Analy Batch No.: 337766

SDG No.:

Instrument ID: A3UX19 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/24/2018 17:50 Calibration End Date: 07/24/2018 20:04 Calibration ID: 46235

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (UG/L)				
			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
Chlorobenzene	CBNZ d5	Ave	18258 2173534	36126 2784427	362449	672294	1428038	0.500 60.0	1.00 80.0	10.0	20.0	40.0
1,1,1,2-Tetrachloroethane	CBNZ d5	Ave	5213 798193	11650 1003714	126948	245845	510579	0.500 60.0	1.00 80.0	10.0	20.0	40.0
Ethylbenzene	CBNZ d5	Ave	8398 1207976	18517 1565528	197845	371072	780525	0.500 60.0	1.00 80.0	10.0	20.0	40.0
m-Xylene & p-Xylene	CBNZ d5	Ave	11276 1482266	21784 1910562	245222	455770	952249	0.500 60.0	1.00 80.0	10.0	20.0	40.0
o-Xylene	CBNZ d5	Ave	10860 1435324	20892 1811249	240986	446659	911893	0.500 60.0	1.00 80.0	10.0	20.0	40.0
Styrene	CBNZ d5	Ave	17512 2428268	33956 3100442	391122	733164	1558780	0.500 60.0	1.00 80.0	10.0	20.0	40.0
Bromoform	CBNZ d5	Ave	+++++ 655265	8645 849153	100560	190577	416502	+++++ 60.0	1.00 80.0	10.0	20.0	40.0
Isopropylbenzene	CBNZ d5	Ave	28418 3795594	55210 4856288	636049	1178300	2424662	0.500 60.0	1.00 80.0	10.0	20.0	40.0
1,1,2,2-Tetrachloroethane	DCBd 4	Ave	8105 1065677	17817 1352703	173948	331847	686661	0.500 60.0	1.00 80.0	10.0	20.0	40.0
Bromobenzene	DCBd 4	Ave	8740 988831	15559 1269533	164497	313555	642419	0.500 60.0	1.00 80.0	10.0	20.0	40.0
1,2,3-Trichloropropane	DCBd 4	Ave	3387 369092	5494 473318	63108	114884	241838	0.500 60.0	1.00 80.0	10.0	20.0	40.0
trans-1,4-Dichloro-2-butene	DCBd 4	Ave	2893 326498	4738 430124	51819	97955	213375	0.500 60.0	1.00 80.0	10.0	20.0	40.0
N-Propylbenzene	DCBd 4	Ave	8359 1083875	16107 1402046	181166	334963	680756	0.500 60.0	1.00 80.0	10.0	20.0	40.0
2-Chlorotoluene	DCBd 4	Ave	6977 918378	15255 1168008	151745	293354	581507	0.500 60.0	1.00 80.0	10.0	20.0	40.0
1,3,5-Trimethylbenzene	DCBd 4	Ave	22067 3091430	45567 3997648	517511	980405	1942019	0.500 60.0	1.00 80.0	10.0	20.0	40.0
4-Chlorotoluene	DCBd 4	Ave	7717 946982	15545 1220622	160173	300515	607997	0.500 60.0	1.00 80.0	10.0	20.0	40.0
tert-Butylbenzene	DCBd 4	Ave	22397 2915643	47758 3727392	490442	908078	1803602	0.500 60.0	1.00 80.0	10.0	20.0	40.0
1,2,4-Trimethylbenzene	DCBd 4	Ave	24672 3120829	49545 4098181	518127	1006317	1964040	0.500 60.0	1.00 80.0	10.0	20.0	40.0
sec-Butylbenzene	DCBd 4	Ave	30350 4087764	61320 5357379	681132	1286147	2509293	0.500 60.0	1.00 80.0	10.0	20.0	40.0
1,3-Dichlorobenzene	DCBd 4	Ave	17372 1874897	33191 2421314	309437	598840	1193296	0.500 60.0	1.00 80.0	10.0	20.0	40.0
4-Isopropyltoluene	DCBd 4	Ave	25586 3530033	50862 4693383	582655	1117286	2169356	0.500 60.0	1.00 80.0	10.0	20.0	40.0

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-118610-1 Analy Batch No.: 337766

SDG No.:

Instrument ID: A3UX19 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/24/2018 17:50 Calibration End Date: 07/24/2018 20:04 Calibration ID: 46235

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (UG/L)				
			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-Dichlorobenzene	DCBd 4	Ave	19169 1892443	35488 2449293	316046	606688	1214157	0.500 60.0	1.00 80.0	10.0	20.0	40.0
n-Butylbenzene	DCBd 4	Ave	21675 3068191	45503 4087812	498908	958018	1846843	0.500 60.0	1.00 80.0	10.0	20.0	40.0
1,2-Dichlorobenzene	DCBd 4	Ave	14939 1726550	30581 2259323	286113	559506	1090448	0.500 60.0	1.00 80.0	10.0	20.0	40.0
1,2-Dibromo-3-Chloropropane	DCBd 4	Ave	2566 330105	4764 436864	48670	99335	200822	0.500 60.0	1.00 80.0	10.0	20.0	40.0
1,2,4-Trichlorobenzene	DCBd 4	Ave	10787 1132196	21592 1625332	189226	379757	719342	0.500 60.0	1.00 80.0	10.0	20.0	40.0
Hexachlorobutadiene	DCBd 4	Ave	5347 584967	10992 876579	103707	199490	376786	0.500 60.0	1.00 80.0	10.0	20.0	40.0
Naphthalene	DCBd 4	Ave	27099 3349616	57589 4711177	544587	1094286	2169342	0.500 60.0	1.00 80.0	10.0	20.0	40.0
1,2,3-Trichlorobenzene	DCBd 4	Ave	8865 1038523	18094 1552764	177768	351575	684438	0.500 60.0	1.00 80.0	10.0	20.0	40.0
Dibromofluoromethane (Surr)	FB	Ave	6754 758227	11849 957680	119809	235239	483501	0.500 60.0	1.00 80.0	10.0	20.0	40.0
1,2-Dichloroethane-d4 (Surr)	FB	Ave	7422 782592	13421 970142	125069	247201	501017	0.500 60.0	1.00 80.0	10.0	20.0	40.0
Toluene-d8 (Surr)	CBNZ d5	Ave	22890 2798059	42636 3614422	467380	849081	1834190	0.500 60.0	1.00 80.0	10.0	20.0	40.0
4-Bromofluorobenzene (Surr)	CBNZ d5	Ave	10413 1010844	17427 1285631	172585	320453	659738	0.500 60.0	1.00 80.0	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
READBACK PERCENT ERROR

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-118610-1 Analy Batch No.: 337766

SDG No.:

Instrument ID: A3UX19 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/24/2018 17:50 Calibration End Date: 07/24/2018 20:04 Calibration ID: 46235

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD8260 240-337766/13	U1900794.d
Level 2	STD8260 240-337766/12	U1900793.d
Level 3	STD8260 240-337766/11	U1900792.d
Level 4	ICIS 240-337766/10	U1900791.d
Level 5	STD8260 240-337766/9	U1900790.d
Level 6	STD8260 240-337766/3	U1900784.d
Level 7	STD8260 240-337766/2	U1900783.d

ANALYTE	PERCENT ERROR						PERCENT ERROR LIMIT					
	LVL 1 # LVL 7 #	LVL 2 #	LVL 3 #	LVL 4 #	LVL 5 #	LVL 6 #	LVL 1 LVL 7	LVL 2	LVL 3	LVL 4	LVL 5	LVL 6
n-Heptane	+++++	1.1						50				

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-118610-1 Analy Batch No.: 337917

SDG No.:

Instrument ID: A3UX19 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/25/2018 13:24 Calibration End Date: 07/25/2018 15:15 Calibration ID: 46243

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STDA9 240-337917/13	U1900807.d
Level 2	STDA9 240-337917/12	U1900806.d
Level 3	STDA9 240-337917/11	U1900805.d
Level 4	STDA9 240-337917/10	U1900804.d
Level 5	STDA9 240-337917/9	U1900803.d
Level 6	STDA9 240-337917/8	U1900802.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								
Acetonitrile	0.0267 0.0420	0.0243	0.0339	0.0383	0.0393	Lin1	-0.123	0.0406				15.8			0.9970		0.9900
Diisopropyl ether	0.2480 0.2295	0.2266	0.2186	0.2314	0.2335	Ave		0.2313				4.2		20.0			
2-Chloro-1,3-butadiene	0.4103 0.4183	0.3468	0.3861	0.4073	0.4185	Ave		0.3979				7.0		20.0			
Ethyl-t-butyl ether (ETBE)	0.6986 0.7570	0.7116	0.6979	0.7473	0.7423	Ave		0.7258				3.6		20.0			
Ethyl acetate	0.3112 0.3333	0.2920	0.2787	0.2931	0.2963	Ave		0.3007				6.3		20.0			
Propionitrile	0.0310 0.0489	0.0345	0.0381	0.0469	0.0451	Ave		0.0408				17.8		20.0			
Methacrylonitrile	0.1725 0.1953	0.1825	0.1747	0.1831	0.1889	Ave		0.1828				4.7		20.0			
Tert-amyl-methyl ether (TAME)	0.7358 0.8075	0.7777	0.7365	0.7842	0.7786	Ave		0.7700				3.7		20.0			
n-Butanol	0.0093 0.0103	0.0088	0.0085	0.0096	0.0096	Ave		0.0094				7.2		20.0			
Ethyl acrylate	0.3503 0.4100	0.3368	0.3674	0.3811	0.3761	Ave		0.3703				6.9		20.0			
Methyl methacrylate	0.2597 0.2591	0.2305	0.2383	0.2454	0.2423	Ave		0.2459				4.7		20.0			
2-Nitropropane	0.0701 0.0817	0.0670	0.0681	0.0750	0.0735	Ave		0.0726				7.5		20.0			
n-Butyl acetate	0.5119 0.5820	0.5042	0.5279	0.5447	0.5478	Ave		0.5364				5.3		20.0			
1-Chlorohexane	0.5172 0.4745	0.4432	0.4302	0.4451	0.4558	Ave		0.4610				6.8		20.0			
Cyclohexanone	0.0133 0.0157	0.0130	0.0126	0.0136	0.0138	Ave		0.0137				7.9		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: Eurofins TestAmerica, Canton Job No.: 240-118610-1 Analy Batch No.: 337917

SDG No.:

Instrument ID: A3UX19 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/25/2018 13:24 Calibration End Date: 07/25/2018 15:15 Calibration ID: 46243

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								
Pentachloroethane	0.3347 0.3690	0.3068	0.3632	0.3574	0.3461	Ave		0.3462				6.6		20.0			
1,2,3-Trimethylbenzene	2.1501 2.3751	2.2616	2.2092	2.3745	2.2840	Ave		2.2757				3.9		20.0			
Benzyl chloride	1.0405 1.5547	1.1450	1.1839	1.3693	1.4244	Ave		1.2863				15.1		20.0			
1,3,5-Trichlorobenzene	1.0658 1.0430	1.1076	0.9448	1.0009	0.9668	Ave		1.0215				6.1		20.0			
2-Methylnaphthalene	1.2994 1.8015	1.3689	1.2543	1.3185	1.5534	Ave		1.4327				14.6		20.0			
1-Chloro-1-fluoroethane TIC	0.2622 0.2664	0.2640	0.2502	0.2645	0.2646	Ave		0.2620				2.3		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: Eurofins TestAmerica, Canton Job No.: 240-118610-1 Analy Batch No.: 337917

SDG No.:

Instrument ID: A3UX19 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/25/2018 13:24 Calibration End Date: 07/25/2018 15:15 Calibration ID: 46243

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STDA9 240-337917/13	U1900807.d
Level 2	STDA9 240-337917/12	U1900806.d
Level 3	STDA9 240-337917/11	U1900805.d
Level 4	STDA9 240-337917/10	U1900804.d
Level 5	STDA9 240-337917/9	U1900803.d
Level 6	STDA9 240-337917/8	U1900802.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
Acetonitrile	FB	Lin1	6053 1541995	10939	154933	344974	710013	5.00 800	10.0	100	200	400
Diisopropyl ether	FB	Ave	5629 842560	10198	100050	208654	422081	0.500 80.0	1.00	10.0	20.0	40.0
2-Chloro-1,3-butadiene	FB	Ave	9314 1535298	15609	176705	367286	756317	0.500 80.0	1.00	10.0	20.0	40.0
Ethyl-t-butyl ether (ETBE)	FB	Ave	15860 2778668	32026	319412	673922	1341567	0.500 80.0	1.00	10.0	20.0	40.0
Ethyl acetate	FB	Ave	14128 2446844	26280	255115	528543	1070993	1.00 160	2.00	20.0	40.0	80.0
Propionitrile	FB	Ave	7042 1793207	15532	174314	423266	816037	5.00 800	10.0	100	200	400
Methacrylonitrile	FB	Ave	39164 7168171	82133	799457	1651014	3414371	5.00 800	10.0	100	200	400
Tert-amyl-methyl ether (TAME)	FB	Ave	16704 2963984	35001	337094	707156	1407333	0.500 80.0	1.00	10.0	20.0	40.0
n-Butanol	FB	Ave	5296 949589	9875	96861	216043	435974	12.5 2000	25.0	250	500	1000
Ethyl acrylate	FB	Ave	7952 1504928	15158	168159	343646	679802	0.500 80.0	1.00	10.0	20.0	40.0
Methyl methacrylate	FB	Ave	11793 1902368	20747	218113	442524	875995	1.00 160	2.00	20.0	40.0	80.0
2-Nitropropane	FB	Ave	3185 599949	6028	62364	135288	265523	1.00 160	2.00	20.0	40.0	80.0
n-Butyl acetate	CBNZ d5	Ave	9641 1740666	17906	199107	397090	794623	0.500 80.0	1.00	10.0	20.0	40.0
1-Chlorohexane	CBNZ d5	Ave	9741 1419019	15739	162266	324476	661168	0.500 80.0	1.00	10.0	20.0	40.0
Cyclohexanone	CBNZ d5	Ave	2498 468992	4617	47625	99504	200187	5.00 800	10.0	100	200	400
Pentachloroethane	DCBd 4	Ave	7164 1229564	12769	154980	304359	585743	1.00 160	2.00	20.0	40.0	80.0

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-118610-1 Analy Batch No.: 337917

SDG No.:

Instrument ID: A3UX19 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/25/2018 13:24 Calibration End Date: 07/25/2018 15:15 Calibration ID: 46243

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
1,2,3-Trimethylbenzene	DCBd 4	Ave	23009 3957298	47067	471355	1010948	1932917	0.500 80.0	1.00	10.0	20.0	40.0
Benzyl chloride	DCBd 4	Ave	11135 2590360	23829	252607	582984	1205410	0.500 80.0	1.00	10.0	20.0	40.0
1,3,5-Trichlorobenzene	DCBd 4	Ave	11406 1737829	23051	201583	426143	818176	0.500 80.0	1.00	10.0	20.0	40.0
2-Methylnaphthalene	DCBd 4	Ave	27811 6003075	56979	535247	1122673	2629143	1.00 160	2.00	20.0	40.0	80.0
1-Chloro-1-fluoroethane TIC	FB	Ave	5953 977727	11883	114539	238507	478166	0.500 80.0	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
READBACK PERCENT ERROR

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-118610-1 Analy Batch No.: 337917

SDG No.:

Instrument ID: A3UX19 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/25/2018 13:24 Calibration End Date: 07/25/2018 15:15 Calibration ID: 46243

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STDA9 240-337917/13	U1900807.d
Level 2	STDA9 240-337917/12	U1900806.d
Level 3	STDA9 240-337917/11	U1900805.d
Level 4	STDA9 240-337917/10	U1900804.d
Level 5	STDA9 240-337917/9	U1900803.d
Level 6	STDA9 240-337917/8	U1900802.d

ANALYTE	PERCENT ERROR						PERCENT ERROR LIMIT					
	LVL 1 #	LVL 2 #	LVL 3 #	LVL 4 #	LVL 5 #	LVL 6 #	LVL 1	LVL 2	LVL 3	LVL 4	LVL 5	LVL 6
Acetonitrile	26.1						50					

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-118610-1 Analy Batch No.: 342719

SDG No.:

Instrument ID: A3UX19 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 08/27/2018 17:09 Calibration End Date: 08/27/2018 19:23 Calibration ID: 46687

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD8260 240-342719/13	U1901329.d
Level 2	STD8260 240-342719/12	U1901328.d
Level 3	STD8260 240-342719/11	U1901327.d
Level 4	ICIS 240-342719/10	U1901326.d
Level 5	STD8260 240-342719/9	U1901325.d
Level 6	STD8260 240-342719/8	U1901324.d
Level 7	STD8260 240-342719/7	U1901323.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								
Dichlorodifluoromethane	0.3252 0.4073	0.3858 0.4041	0.3902	0.3772	0.4052	Ave		0.3850			0.1000	7.5		20.0			
Chloromethane	0.3476 0.2860	0.2731 0.2757	0.2817	0.2748	0.2796	Ave		0.2883			0.1000	9.2		20.0			
Butadiene	0.2863 0.2923	0.2971 0.2827	0.2967	0.2831	0.2826	Ave		0.2887				2.3		20.0			
Vinyl chloride	0.2799 0.3039	0.3000 0.2955	0.3102	0.2950	0.3013	Ave		0.2980			0.1000	3.2		20.0			
Bromomethane	0.2530 0.2308	0.2391 0.2251	0.2340	0.2259	0.2264	Ave		0.2335			0.0500	4.3		20.0			
Chloroethane	0.2052 0.1842	0.1766 0.1812	0.1882	0.1779	0.1807	Ave		0.1848			0.0500	5.3		20.0			
Dichlorofluoromethane	0.4944 0.4514	0.4567 0.4411	0.4677	0.4468	0.4490	Ave		0.4581				3.9		20.0			
Trichlorofluoromethane	0.4941 0.5030	0.4893 0.4931	0.5122	0.4967	0.5003	Ave		0.4984			0.1000	1.5		20.0			
Ethyl ether	0.1731 0.1798	0.1898 0.1760	0.1849	0.1771	0.1791	Ave		0.1800				3.1		20.0			
Acrolein	0.0495 0.0430	0.0446 0.0441	0.0420	0.0454	0.0427	Ave		0.0445				5.6		20.0			
1,1-Dichloroethene	0.3476 0.3661	0.3473 0.3597	0.3727	0.3582	0.3610	Ave		0.3589			0.1000	2.6		20.0			
1,1,2-Trichloro-1,2,2-trichfluoroethane	0.2493 0.2658	0.2366 0.2616	0.2651	0.2563	0.2622	Ave		0.2567			0.0500	4.1		20.0			
Acetone	+++++ 0.0747	0.0941 0.0735	0.0766	0.0752	0.0764	Ave		0.0784			0.0100	9.9		20.0			
Iodomethane	0.4872 0.4597	0.4730 0.4538	0.4730	0.4575	0.4539	Ave		0.4655				2.7		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: Eurofins TestAmerica, Canton Job No.: 240-118610-1 Analy Batch No.: 342719

SDG No.:

Instrument ID: A3UX19 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 08/27/2018 17:09 Calibration End Date: 08/27/2018 19:23 Calibration ID: 46687

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								
Carbon disulfide	0.8746 0.7168	0.8257 0.7023	0.7362	0.7031	0.7015	Ave		0.7515			0.1000	9.3		20.0			
3-Chloro-1-propene	0.3735 0.3489	0.3837 0.3396	0.3586	0.3361	0.3385	Ave		0.3541				5.3		20.0			
Methyl acetate	0.2638 0.2201	0.2366 0.2157	0.2398	0.2267	0.2267	Ave		0.2328			0.1000	6.9		20.0			
Methylene Chloride	+++++ 0.2751	0.3184 0.2694	0.2925	0.2792	0.2733	Ave		0.2846			0.1000	6.5		20.0			
tert-Butyl alcohol	0.0302 0.0245	0.0277 0.0251	0.0284	0.0260	0.0277	Ave		0.0271				7.4		20.0			
Acrylonitrile	0.1006 0.0983	0.1046 0.0951	0.1079	0.0977	0.0997	Ave		0.1006				4.3		20.0			
trans-1,2-Dichloroethene	0.3568 0.3338	0.3540 0.3216	0.3508	0.3269	0.3267	Ave		0.3387			0.1000	4.4		20.0			
Methyl tert-butyl ether	0.6459 0.7174	0.6970 0.7172	0.7178	0.6715	0.6899	Ave		0.6938			0.1000	3.9		20.0			
Hexane	0.3287 0.3643	0.3216 0.3693	0.3652	0.3577	0.3600	Ave		0.3524				5.4		20.0			
1,1-Dichloroethane	0.3877 0.4112	0.4141 0.3990	0.4182	0.3989	0.4043	Ave		0.4048			0.2000	2.6		20.0			
Vinyl acetate	0.4652 0.4557	0.4582 0.4625	0.4853	0.4584	0.4619	Ave		0.4639				2.1		20.0			
cis-1,2-Dichloroethene	0.3057 0.2869	0.2992 0.2782	0.2948	0.2801	0.2786	Ave		0.2891			0.1000	3.8		20.0			
2,2-Dichloropropane	0.2469 0.2502	0.2497 0.2458	0.2443	0.2181	0.2515	Ave		0.2438				4.8		20.0			
2-Butanone	0.0487 0.0444	0.0481 0.0466	0.0506	0.0457	0.0465	Ave		0.0472			0.0100	4.3		20.0			
Bromochloromethane	0.2347 0.1831	0.2161 0.1713	0.1973	0.1804	0.1790	Ave		0.1945				11.9		20.0			
Tetrahydrofuran	+++++ 0.0978	0.2111 0.0981	0.1202	0.1027	0.1037	Lin1	0.2460	0.0976				7.4			0.9990		0.9900
Chloroform	0.4336 0.4423	0.4430 0.4326	0.4702	0.4398	0.4415	Ave		0.4433			0.2000	2.8		20.0			
1,1,1-Trichloroethane	0.3739 0.4296	0.4106 0.4262	0.4442	0.4096	0.4275	Ave		0.4174			0.1000	5.4		20.0			
Cyclohexane	0.3499 0.3999	0.3515 0.3986	0.3944	0.3825	0.3967	Ave		0.3819			0.1000	5.8		20.0			
1,1-Dichloropropene	0.3411 0.3565	0.3509 0.3499	0.3664	0.3469	0.3516	Ave		0.3519				2.3		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: Eurofins TestAmerica, Canton Job No.: 240-118610-1 Analy Batch No.: 342719

SDG No.:

Instrument ID: A3UX19 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 08/27/2018 17:09 Calibration End Date: 08/27/2018 19:23 Calibration ID: 46687

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								
Carbon tetrachloride	0.3818 0.4136	0.3781 0.4121	0.4219	0.3956	0.4130	Ave		0.4023			0.1000	4.3		20.0			
Isobutyl alcohol	0.0122 0.0101	0.0118 0.0103	0.0107	0.0108	0.0111	Ave		0.0110				7.0		20.0			
Benzene	0.9270 0.9480	0.9546 0.9366	1.0106	0.9431	0.9423	Ave		0.9518			0.5000	2.9		20.0			
1,2-Dichloroethane	0.3794 0.3459	0.3845 0.3369	0.3743	0.3513	0.3479	Ave		0.3600			0.1000	5.2		20.0			
n-Heptane	+++++ 0.1978	0.8214 0.1912	0.2589	0.2169	0.2053	Lin1	0.6437	0.1861				3.4			1.0000		0.9900
Trichloroethene	0.3334 0.3137	0.3081 0.3106	0.3277	0.3076	0.3109	Ave		0.3160			0.1500	3.3		20.0			
Methylcyclohexane	0.4282 0.4825	0.4267 0.4698	0.4724	0.4580	0.4751	Ave		0.4590			0.1000	5.0		20.0			
1,2-Dichloropropane	0.2171 0.2187	0.2141 0.2164	0.2362	0.2209	0.2218	Ave		0.2208			0.1000	3.3		20.0			
Dibromomethane	0.2410 0.2204	0.2408 0.2155	0.2336	0.2191	0.2191	Ave		0.2271				4.9		20.0			
1,4-Dioxane	+++++ 0.0025	0.0016 0.0027	0.0021	0.0026	0.0028	Ave		0.0024				17.9		20.0			
Bromodichloromethane	0.3399 0.3440	0.3630 0.3379	0.3620	0.3462	0.3426	Ave		0.3479			0.1500	3.0		20.0			
2-Chloroethyl vinyl ether	0.1593 0.1741	0.1654 0.1828	0.1943	0.1818	0.1815	Ave		0.1770				6.6		20.0			
cis-1,3-Dichloropropene	0.3743 0.3841	0.3867 0.3870	0.4032	0.3827	0.3872	Ave		0.3865			0.1500	2.2		20.0			
4-Methyl-2-pentanone	0.3150 0.3064	0.3110 0.3144	0.3487	0.3229	0.3240	Ave		0.3203			0.0500	4.4		20.0			
Toluene	1.3762 1.3312	1.3706 1.3223	1.4018	1.3282	1.3309	Ave		1.3516			0.4000	2.3		20.0			
trans-1,3-Dichloropropene	0.4999 0.4712	0.5033 0.4805	0.4835	0.4641	0.4704	Ave		0.4818			0.1000	3.1		20.0			
Ethyl methacrylate	0.3824 0.4408	0.4001 0.4600	0.4577	0.4462	0.4540	Ave		0.4344				7.1		20.0			
1,1,2-Trichloroethane	0.2808 0.2823	0.2821 0.2821	0.2973	0.2798	0.2847	Ave		0.2842			0.1000	2.1		20.0			
Tetrachloroethene	0.4234 0.4375	0.4194 0.4317	0.4508	0.4248	0.4314	Ave		0.4313			0.1500	2.4		20.0			
1,3-Dichloropropane	0.4988 0.4724	0.4733 0.4772	0.5009	0.4686	0.4705	Ave		0.4802				2.8		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: Eurofins TestAmerica, Canton Job No.: 240-118610-1 Analy Batch No.: 342719

SDG No.:

Instrument ID: A3UX19 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 08/27/2018 17:09 Calibration End Date: 08/27/2018 19:23 Calibration ID: 46687

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								
2-Hexanone	0.2781 0.3092	0.3020 0.3219	0.3438	0.3247	0.3245	Ave		0.3149			0.0500	6.6		20.0			
Dibromochloromethane	0.3308 0.3663	0.3497 0.3646	0.3736	0.3604	0.3630	Ave		0.3583				3.9		20.0			
1,2-Dibromoethane	0.3770 0.3214	0.3321 0.3219	0.3422	0.3286	0.3194	Ave		0.3346				6.1		20.0			
Chlorobenzene	0.9370 0.9055	0.9832 0.8914	0.9544	0.9002	0.9056	Ave		0.9253			0.3000	3.7		20.0			
1,1,1,2-Tetrachloroethane	0.3225 0.3380	0.3313 0.3315	0.3490	0.3282	0.3347	Ave		0.3336				2.5		20.0			
Ethylbenzene	0.4566 0.4899	0.4640 0.4838	0.5159	0.4863	0.4886	Ave		0.4836				4.0		20.0			
m-Xylene & p-Xylene	0.5709 0.5980	0.5535 0.5943	0.6142	0.5959	0.5965	Ave		0.5890				3.4		20.0			
o-Xylene	0.5188 0.5706	0.5578 0.5579	0.5806	0.5638	0.5683	Ave		0.5597				3.5		20.0			
Styrene	0.8915 0.9829	0.9056 0.9730	1.0088	0.9699	0.9794	Ave		0.9588			0.3000	4.5		20.0			
Bromoform	0.2892 0.2933	0.2907 0.2979	0.3020	0.2847	0.2951	Ave		0.2933			0.1000	2.0		20.0			
Isopropylbenzene	1.3694 1.5447	1.4922 1.4942	1.5808	1.5060	1.5314	Ave		1.5027			0.1000	4.4		20.0			
1,1,2,2-Tetrachloroethane	0.7123 0.7674	0.7872 0.7661	0.8261	0.7624	0.7730	Ave		0.7706			0.3000	4.4		20.0			
Bromobenzene	0.7562 0.7639	0.7920 0.7473	0.8125	0.7532	0.7575	Ave		0.7690				3.1		20.0			
1,2,3-Trichloropropane	0.2805 0.2866	0.2903 0.2882	0.3178	0.2884	0.2929	Ave		0.2921				4.1		20.0			
trans-1,4-Dichloro-2-butene	+++++ 0.2667	0.2763 0.2751	0.2902	0.2665	0.2675	Ave		0.2737				3.3		20.0			
n-Propylbenzene	0.7009 0.7973	0.7492 0.7772	0.8251	0.7710	0.7894	Ave		0.7729				5.1		20.0			
2-Chlorotoluene	0.6131 0.6732	0.6212 0.6509	0.7079	0.6539	0.6587	Ave		0.6541				4.9		20.0			
1,3,5-Trimethylbenzene	2.1099 2.2883	2.1099 2.2183	2.3988	2.1936	2.2594	Ave		2.2255				4.6		20.0			
4-Chlorotoluene	0.7307 0.7048	0.6944 0.6840	0.7470	0.7010	0.6888	Ave		0.7072				3.3		20.0			
tert-Butylbenzene	1.9093 2.2037	2.0260 2.1009	2.2785	2.0983	2.1715	Ave		2.1126				5.7		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: Eurofins TestAmerica, Canton Job No.: 240-118610-1 Analy Batch No.: 342719

SDG No.:

Instrument ID: A3UX19 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 08/27/2018 17:09 Calibration End Date: 08/27/2018 19:23 Calibration ID: 46687

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								
1,2,4-Trimethylbenzene	2.0996 2.3002	2.2590 2.2368	2.3762	2.2406	2.2826	Ave		2.2564				3.7		20.0			
sec-Butylbenzene	2.5921 3.0046	2.6994 2.8685	2.9965	2.8235	2.9285	Ave		2.8447				5.4		20.0			
1,3-Dichlorobenzene	1.4791 1.3933	1.5035 1.3394	1.4385	1.3676	1.3647	Ave		1.4123			0.6000	4.4		20.0			
p-Isopropyltoluene	2.2955 2.5970	2.3910 2.5362	2.6099	2.4625	2.5496	Ave		2.4917				4.6		20.0			
1,4-Dichlorobenzene	1.6054 1.4113	1.5675 1.3669	1.4816	1.3825	1.3984	Ave		1.4591			0.5000	6.5		20.0			
n-Butylbenzene	1.8944 2.1259	2.0232 2.0712	2.1091	2.0276	2.0953	Ave		2.0495				3.8		20.0			
1,2-Dichlorobenzene	1.3437 1.2534	1.3687 1.2318	1.3105	1.2348	1.2330	Ave		1.2823			0.4000	4.5		20.0			
1,2-Dibromo-3-Chloropropane	0.2630 0.2491	0.2219 0.2547	0.2430	0.2371	0.2465	Ave		0.2450			0.0500	5.4		20.0			
1,2,4-Trichlorobenzene	0.9409 0.8412	0.9494 0.8737	0.8099	0.7792	0.7909	Ave		0.8550			0.2000	8.1		20.0			
Hexachlorobutadiene	0.4751 0.4459	0.4859 0.4196	0.4201	0.4076	0.4202	Ave		0.4392				7.0		20.0			
Naphthalene	+++++ 2.4081	2.5248 2.5673	2.2519	2.1428	2.2829	Ave		2.3630				7.0		20.0			
1,2,3-Trichlorobenzene	0.7893 0.7724	0.8277 0.8517	0.7383	0.6846	0.7103	Ave		0.7677				7.9		20.0			
Dibromofluoromethane (Surr)	0.2950 0.2630	0.2820 0.2531	0.2707	0.2587	0.2619	Ave		0.2692				5.5		20.0			
1,2-Dichloroethane-d4 (Surr)	0.3515 0.2903	0.3408 0.2779	0.3137	0.2940	0.2963	Ave		0.3092				8.9		20.0			
Toluene-d8 (Surr)	1.2799 1.1805	1.2018 1.1653	1.2236	1.1594	1.1844	Ave		1.1993				3.5		20.0			
4-Bromofluorobenzene (Surr)	0.5295 0.4325	0.4716 0.4172	0.4467	0.4309	0.4307	Ave		0.4513				8.5		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
RESPONSE AND CONCENTRATION

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-118610-1 Analy Batch No.: 342719

SDG No.:

Instrument ID: A3UX19 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 08/27/2018 17:09 Calibration End Date: 08/27/2018 19:23 Calibration ID: 46687

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD8260 240-342719/13	U1901329.d
Level 2	STD8260 240-342719/12	U1901328.d
Level 3	STD8260 240-342719/11	U1901327.d
Level 4	ICIS 240-342719/10	U1901326.d
Level 5	STD8260 240-342719/9	U1901325.d
Level 6	STD8260 240-342719/8	U1901324.d
Level 7	STD8260 240-342719/7	U1901323.d

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (UG/L)				
			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
Dichlorodifluoromethane	FB	Ave	7625 1180992	18328 1552738	186223	366772	792590	0.500 60.0	1.00 80.0	10.0	20.0	40.0
Chloromethane	FB	Ave	8152 829233	12972 1059365	134420	267203	546909	0.500 60.0	1.00 80.0	10.0	20.0	40.0
Butadiene	FB	Ave	6713 847603	14115 1086231	141609	275330	552757	0.500 60.0	1.00 80.0	10.0	20.0	40.0
Vinyl chloride	FB	Ave	6564 881108	14250 1135494	148037	286894	589426	0.500 60.0	1.00 80.0	10.0	20.0	40.0
Bromomethane	FB	Ave	5934 669257	11360 864872	111689	219651	442826	0.500 60.0	1.00 80.0	10.0	20.0	40.0
Chloroethane	FB	Ave	4812 533953	8387 696179	89838	172968	353502	0.500 60.0	1.00 80.0	10.0	20.0	40.0
Dichlorofluoromethane	FB	Ave	11593 1308784	21694 1694878	223205	434465	878380	0.500 60.0	1.00 80.0	10.0	20.0	40.0
Trichlorofluoromethane	FB	Ave	11587 1458414	23241 1894654	244417	483006	978643	0.500 60.0	1.00 80.0	10.0	20.0	40.0
Ethyl ether	FB	Ave	4060 521372	9015 676475	88252	172224	350377	0.500 60.0	1.00 80.0	10.0	20.0	40.0
Acrolein	FB	Ave	5804 622965	10600 846753	100203	220720	417769	2.50 300	5.00 400	50.0	100	200
1,1-Dichloroethene	FB	Ave	8152 1061526	16498 1382045	177882	348307	706289	0.500 60.0	1.00 80.0	10.0	20.0	40.0
1,1,2-Trichloro-1,2,2-trichfluoroethane	FB	Ave	5847 770733	11240 1005400	126531	249289	512861	0.500 60.0	1.00 80.0	10.0	20.0	40.0
Acetone	FB	Ave	+++++ 433055	8941 564923	73077	146204	298968	+++++ 120	2.00 160	20.0	40.0	80.0
Iodomethane	FB	Ave	11424 1332936	22471 1743886	225726	444884	888035	0.500 60.0	1.00 80.0	10.0	20.0	40.0
Carbon disulfide	FB	Ave	20511 2078244	39223 2698750	351356	683722	1372316	0.500 60.0	1.00 80.0	10.0	20.0	40.0

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-118610-1 Analy Batch No.: 342719

SDG No.:

Instrument ID: A3UX19 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 08/27/2018 17:09 Calibration End Date: 08/27/2018 19:23 Calibration ID: 46687

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (UG/L)				
			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
3-Chloro-1-propene	FB	Ave	8759 1011692	18227 1304832	171118	326833	662138	0.500 60.0	1.00 80.0	10.0	20.0	40.0
Methyl acetate	FB	Ave	12374 1276471	22480 1658043	228841	440913	886871	1.00 120	2.00 160	20.0	40.0	80.0
Methylene Chloride	FB	Ave	+++++ 797526	15126 1035294	139613	271471	534613	+++++ 60.0	1.00 80.0	10.0	20.0	40.0
tert-Butyl alcohol	FB	Ave	7089 709594	13140 963916	135517	252801	542388	5.00 600	10.0 800	100	200	400
Acrylonitrile	FB	Ave	23600 2849701	49680 3654042	514757	950386	1951040	5.00 600	10.0 800	100	200	400
trans-1,2-Dichloroethene	FB	Ave	8368 967924	16818 1235776	167419	317885	639131	0.500 60.0	1.00 80.0	10.0	20.0	40.0
Methyl tert-butyl ether	FB	Ave	15146 2079947	33109 2755910	342568	653045	1349603	0.500 60.0	1.00 80.0	10.0	20.0	40.0
Hexane	FB	Ave	7709 1056328	15276 1419117	174299	347875	704185	0.500 60.0	1.00 80.0	10.0	20.0	40.0
1,1-Dichloroethane	FB	Ave	9092 1192355	19673 1533220	199597	387941	790957	0.500 60.0	1.00 80.0	10.0	20.0	40.0
Vinyl acetate	FB	Ave	10910 1321142	21765 1777280	231586	445770	903595	0.500 60.0	1.00 80.0	10.0	20.0	40.0
cis-1,2-Dichloroethene	FB	Ave	7168 831715	14212 1069027	140685	272438	545012	0.500 60.0	1.00 80.0	10.0	20.0	40.0
2,2-Dichloropropane	FB	Ave	5791 725393	11860 944363	116583	212094	491954	0.500 60.0	1.00 80.0	10.0	20.0	40.0
2-Butanone	FB	Ave	2283 257675	4567 358198	48290	88909	181887	1.00 120	2.00 160	20.0	40.0	80.0
Bromochloromethane	FB	Ave	5503 530825	10266 658069	94139	175479	350082	0.500 60.0	1.00 80.0	10.0	20.0	40.0
Tetrahydrofuran	FB	Lin1	+++++ 566965	20056 753652	114720	199816	405539	+++++ 120	2.00 160	20.0	40.0	80.0
Chloroform	FB	Ave	10169 1282514	21044 1662428	224371	427697	863672	0.500 60.0	1.00 80.0	10.0	20.0	40.0
1,1,1-Trichloroethane	FB	Ave	8767 1245609	19503 1637723	211997	398309	836381	0.500 60.0	1.00 80.0	10.0	20.0	40.0
Cyclohexane	FB	Ave	8206 1159393	16696 1531667	188221	372006	776128	0.500 60.0	1.00 80.0	10.0	20.0	40.0
1,1-Dichloropropene	FB	Ave	7998 1033663	16667 1344377	174842	337392	687882	0.500 60.0	1.00 80.0	10.0	20.0	40.0
Carbon tetrachloride	FB	Ave	8954 1199313	17959 1583649	201366	384700	807965	0.500 60.0	1.00 80.0	10.0	20.0	40.0
Isobutyl alcohol	FB	Ave	7140 731439	14010 985172	127213	263438	540692	12.5 1500	25.0 2000	250	500	1000

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-118610-1 Analy Batch No.: 342719

SDG No.:

Instrument ID: A3UX19 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 08/27/2018 17:09 Calibration End Date: 08/27/2018 19:23 Calibration ID: 46687

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (UG/L)				
			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
Benzene	FB	Ave	21738 2748682	45349 3599104	482300	917150	1843426	0.500 60.0	1.00 80.0	10.0	20.0	40.0
1,2-Dichloroethane	FB	Ave	8896 1002994	18266 1294416	178638	341638	680627	0.500 60.0	1.00 80.0	10.0	20.0	40.0
n-Heptane	FB	Lin1	+++++ 573367	39021 734621	123554	210893	401639	+++++ 60.0	1.00 80.0	10.0	20.0	40.0
Trichloroethene	FB	Ave	7819 909646	14636 1193487	156409	299123	608172	0.500 60.0	1.00 80.0	10.0	20.0	40.0
Methylcyclohexane	FB	Ave	10042 1399000	20268 1805108	225444	445411	929492	0.500 60.0	1.00 80.0	10.0	20.0	40.0
1,2-Dichloropropane	FB	Ave	5092 634222	10172 831616	112735	214790	433884	0.500 60.0	1.00 80.0	10.0	20.0	40.0
Dibromomethane	FB	Ave	5652 638964	11437 828119	111478	213090	428543	0.500 60.0	1.00 80.0	10.0	20.0	40.0
1,4-Dioxane	FB	Ave	+++++ 147508	1560 204613	20257	50489	108387	+++++ 1200	20.0 1600	200	400	800
Bromodichloromethane	FB	Ave	7972 997303	17242 1298324	172767	336655	670319	0.500 60.0	1.00 80.0	10.0	20.0	40.0
2-Chloroethyl vinyl ether	FB	Ave	7473 1009556	15714 1404589	185460	353595	710198	1.00 120	2.00 160	20.0	40.0	80.0
cis-1,3-Dichloropropene	FB	Ave	8778 1113655	18371 1486992	192411	372198	757475	0.500 60.0	1.00 80.0	10.0	20.0	40.0
4-Methyl-2-pentanone	FB	Ave	14774 1776570	29549 2416341	332777	627983	1267570	1.00 120	2.00 160	20.0	40.0	80.0
Toluene	CBNZ d5	Ave	25413 3039879	50838 4036837	544474	1040131	2085055	0.500 60.0	1.00 80.0	10.0	20.0	40.0
trans-1,3-Dichloropropene	CBNZ d5	Ave	9232 1076004	18668 1466824	187797	363416	737016	0.500 60.0	1.00 80.0	10.0	20.0	40.0
Ethyl methacrylate	CBNZ d5	Ave	7062 1006534	14839 1404401	177753	349427	711262	0.500 60.0	1.00 80.0	10.0	20.0	40.0
1,1,2-Trichloroethane	CBNZ d5	Ave	5186 644677	10462 861140	115489	219105	445968	0.500 60.0	1.00 80.0	10.0	20.0	40.0
Tetrachloroethene	CBNZ d5	Ave	7818 999011	15556 1317893	175104	332664	675866	0.500 60.0	1.00 80.0	10.0	20.0	40.0
1,3-Dichloropropane	CBNZ d5	Ave	9211 1078694	17554 1456758	194537	366944	737142	0.500 60.0	1.00 80.0	10.0	20.0	40.0
2-Hexanone	CBNZ d5	Ave	10272 1411899	22402 1965782	267096	508487	1016835	1.00 120	2.00 160	20.0	40.0	80.0
Dibromochloromethane	CBNZ d5	Ave	6108 836499	12969 1113195	145120	282195	568645	0.500 60.0	1.00 80.0	10.0	20.0	40.0
1,2-Dibromoethane	CBNZ d5	Ave	6962 733806	12317 982631	132926	257341	500324	0.500 60.0	1.00 80.0	10.0	20.0	40.0

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-118610-1 Analy Batch No.: 342719

SDG No.:

Instrument ID: A3UX19 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 08/27/2018 17:09 Calibration End Date: 08/27/2018 19:23 Calibration ID: 46687

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (UG/L)				
			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
Chlorobenzene	CBNZ d5	Ave	17303 2067581	36469 2721351	370702	704913	1418747	0.500 60.0	1.00 80.0	10.0	20.0	40.0
1,1,1,2-Tetrachloroethane	CBNZ d5	Ave	5956 771705	12290 1012040	135561	257026	524311	0.500 60.0	1.00 80.0	10.0	20.0	40.0
Ethylbenzene	CBNZ d5	Ave	8431 1118678	17209 1476959	200390	380861	765441	0.500 60.0	1.00 80.0	10.0	20.0	40.0
m-Xylene & p-Xylene	CBNZ d5	Ave	10542 1365436	20530 1814431	238543	466651	934583	0.500 60.0	1.00 80.0	10.0	20.0	40.0
o-Xylene	CBNZ d5	Ave	9580 1302937	20689 1703380	225509	441487	890297	0.500 60.0	1.00 80.0	10.0	20.0	40.0
Styrene	CBNZ d5	Ave	16463 2244503	33591 2970527	391834	759556	1534422	0.500 60.0	1.00 80.0	10.0	20.0	40.0
Bromoform	CBNZ d5	Ave	5340 669771	10783 909465	117306	222929	462320	0.500 60.0	1.00 80.0	10.0	20.0	40.0
Isopropylbenzene	CBNZ d5	Ave	25288 3527221	55346 4561888	613985	1179370	2399226	0.500 60.0	1.00 80.0	10.0	20.0	40.0
1,1,2,2-Tetrachloroethane	DCBd 4	Ave	7218 951258	16261 1271933	172140	328526	660294	0.500 60.0	1.00 80.0	10.0	20.0	40.0
Bromobenzene	DCBd 4	Ave	7663 946835	16361 1240722	169316	324573	647055	0.500 60.0	1.00 80.0	10.0	20.0	40.0
1,2,3-Trichloropropane	DCBd 4	Ave	2842 355186	5997 478494	66218	124262	250203	0.500 60.0	1.00 80.0	10.0	20.0	40.0
trans-1,4-Dichloro-2-butene	DCBd 4	Ave	+++++ 330637	5707 456736	60466	114842	228469	+++++ 60.0	1.00 80.0	10.0	20.0	40.0
n-Propylbenzene	DCBd 4	Ave	7103 988262	15476 1290307	171938	332244	674293	0.500 60.0	1.00 80.0	10.0	20.0	40.0
2-Chlorotoluene	DCBd 4	Ave	6213 834423	12831 1080636	147510	281753	562614	0.500 60.0	1.00 80.0	10.0	20.0	40.0
1,3,5-Trimethylbenzene	DCBd 4	Ave	21381 2836427	43584 3682951	499875	945225	1929863	0.500 60.0	1.00 80.0	10.0	20.0	40.0
4-Chlorotoluene	DCBd 4	Ave	7405 873575	14345 1135643	155656	302046	588358	0.500 60.0	1.00 80.0	10.0	20.0	40.0
tert-Butylbenzene	DCBd 4	Ave	19348 2731529	41850 3487952	474813	904165	1854784	0.500 60.0	1.00 80.0	10.0	20.0	40.0
1,2,4-Trimethylbenzene	DCBd 4	Ave	21277 2851175	46663 3713592	495166	965487	1949684	0.500 60.0	1.00 80.0	10.0	20.0	40.0
sec-Butylbenzene	DCBd 4	Ave	26267 3724288	55760 4762339	624437	1216655	2501406	0.500 60.0	1.00 80.0	10.0	20.0	40.0
1,3-Dichlorobenzene	DCBd 4	Ave	14989 1726981	31057 2223773	299776	589299	1165661	0.500 60.0	1.00 80.0	10.0	20.0	40.0
p-Isopropyltoluene	DCBd 4	Ave	23262 3219084	49391 4210777	543873	1061108	2177763	0.500 60.0	1.00 80.0	10.0	20.0	40.0

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-118610-1 Analy Batch No.: 342719

SDG No.:

Instrument ID: A3UX19 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 08/27/2018 17:09 Calibration End Date: 08/27/2018 19:23 Calibration ID: 46687

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (UG/L)				
			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-Dichlorobenzene	DCBd 4	Ave	16269 1749380	32379 2269476	308743	595729	1194426	0.500 60.0	1.00 80.0	10.0	20.0	40.0
n-Butylbenzene	DCBd 4	Ave	19197 2635155	41792 3438646	439518	873706	1789693	0.500 60.0	1.00 80.0	10.0	20.0	40.0
1,2-Dichlorobenzene	DCBd 4	Ave	13617 1553579	28272 2045057	273092	532075	1053180	0.500 60.0	1.00 80.0	10.0	20.0	40.0
1,2-Dibromo-3-Chloropropane	DCBd 4	Ave	2665 308798	4583 422865	50642	102189	210526	0.500 60.0	1.00 80.0	10.0	20.0	40.0
1,2,4-Trichlorobenzene	DCBd 4	Ave	9535 1042664	19612 1450610	168774	335760	675526	0.500 60.0	1.00 80.0	10.0	20.0	40.0
Hexachlorobutadiene	DCBd 4	Ave	4814 552719	10037 696652	87534	175651	358938	0.500 60.0	1.00 80.0	10.0	20.0	40.0
Naphthalene	DCBd 4	Ave	+++++ 2984863	52154 4262332	469280	923339	1949946	+++++ 60.0	1.00 80.0	10.0	20.0	40.0
1,2,3-Trichlorobenzene	DCBd 4	Ave	7998 957428	17097 1414051	153843	295011	606712	0.500 60.0	1.00 80.0	10.0	20.0	40.0
Dibromofluoromethane (Surr)	FB	Ave	6919 762443	13395 972724	129168	251584	512374	0.500 60.0	1.00 80.0	10.0	20.0	40.0
1,2-Dichloroethane-d4 (Surr)	FB	Ave	8242 841615	16187 1067780	149716	285917	579615	0.500 60.0	1.00 80.0	10.0	20.0	40.0
Toluene-d8 (Surr)	CBNZ d5	Ave	23636 2695636	44577 3557725	475254	907923	1855495	0.500 60.0	1.00 80.0	10.0	20.0	40.0
4-Bromofluorobenzene (Surr)	CBNZ d5	Ave	9778 987516	17494 1273707	173480	337411	674745	0.500 60.0	1.00 80.0	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
READBACK PERCENT ERROR

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-118610-1 Analy Batch No.: 342719

SDG No.:

Instrument ID: A3UX19 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 08/27/2018 17:09 Calibration End Date: 08/27/2018 19:23 Calibration ID: 46687

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD8260 240-342719/13	U1901329.d
Level 2	STD8260 240-342719/12	U1901328.d
Level 3	STD8260 240-342719/11	U1901327.d
Level 4	ICIS 240-342719/10	U1901326.d
Level 5	STD8260 240-342719/9	U1901325.d
Level 6	STD8260 240-342719/8	U1901324.d
Level 7	STD8260 240-342719/7	U1901323.d

ANALYTE	PERCENT ERROR						PERCENT ERROR LIMIT					
	LVL 1 # LVL 7 #	LVL 2 #	LVL 3 #	LVL 4 #	LVL 5 #	LVL 6 #	LVL 1 LVL 7	LVL 2	LVL 3	LVL 4	LVL 5	LVL 6
Tetrahydrofuran	+++++	-9.7						50				
n-Heptane	+++++	-4.5						50				

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-118610-1

SDG No.:

Lab Sample ID: ICV 240-337917/14 Calibration Date: 07/25/2018 15:37

Instrument ID: A3UX19 Calib Start Date: 07/24/2018 17:50

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 07/24/2018 20:04

Lab File ID: U1900808.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
Dibromofluoromethane (Surr)	Ave	0.2589	0.2758		0.0213	0.0200	6.5	30.0
1,2-Dichloroethane-d4 (Surr)	Ave	0.2744	0.2888		0.0211	0.0200	5.3	30.0
Toluene-d8 (Surr)	Ave	1.204	1.258		0.0209	0.0200	4.5	30.0
4-Bromofluorobenzene (Surr)	Ave	0.4627	0.4749		0.0205	0.0200	2.6	30.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-118610-1

SDG No.:

Lab Sample ID: ICV 240-337917/14 Calibration Date: 07/25/2018 15:37

Instrument ID: A3UX19 Calib Start Date: 07/25/2018 13:24

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 07/25/2018 15:15

Lab File ID: U1900808.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
Acetonitrile	Lin1		0.0327		0.164	0.200	-17.8	30.0
Diisopropyl ether	Ave	0.2313	0.2381		0.0206	0.0200	3.0	30.0
2-Chloro-1,3-butadiene	Ave	0.3979	0.4016		0.0202	0.0200	0.9	30.0
Ethyl-t-butyl ether (ETBE)	Ave	0.7258	0.7451		0.0205	0.0200	2.7	30.0
Ethyl acetate	Ave	0.3007	0.2753		0.0366	0.0400	-8.5	30.0
Propionitrile	Ave	0.0408	0.0395		0.194	0.200	-3.0	30.0
Methacrylonitrile	Ave	0.1828	0.1926		0.211	0.200	5.3	30.0
Tert-amyl-methyl ether (TAME)	Ave	0.7700	0.7828		0.0203	0.0200	1.7	30.0
n-Butanol	Ave	0.0094	0.0086		0.457	0.500	-8.6	30.0
Ethyl acrylate	Ave	0.3703	0.3736		0.0202	0.0200	0.9	30.0
Methyl methacrylate	Ave	0.2459	0.2495		0.0406	0.0400	1.5	30.0
2-Nitropropane	Ave	0.0726	0.0727		0.0400	0.0400	0.1	30.0
n-Butyl acetate	Ave	0.5364	0.5464		0.0204	0.0200	1.9	30.0
1-Chlorohexane	Ave	0.4610	0.4451		0.0193	0.0200	-3.4	30.0
Cyclohexanone	Ave	0.0137	0.0138		0.202	0.200	1.0	30.0
Pentachloroethane	Ave	0.3462	0.3376		0.0390	0.0400	-2.5	30.0
1,2,3-Trimethylbenzene	Ave	2.276	2.407		0.0212	0.0200	5.8	30.0
Benzyl chloride	Ave	1.286	1.208		0.0188	0.0200	-6.1	30.0
1,3,5-Trichlorobenzene	Ave	1.021	1.003		0.0196	0.0200	-1.8	30.0
2-Methylnaphthalene	Ave	1.433	1.388		0.0388	0.0400	-3.1	30.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-118610-1

SDG No.:

Lab Sample ID: ICV 240-342719/14 Calibration Date: 08/27/2018 19:45

Instrument ID: A3UX19 Calib Start Date: 08/27/2018 17:09

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 08/27/2018 19:23

Lab File ID: U1901330.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	0.3850	0.2913	0.1000	0.0151	0.0200	-24.3	30.0
Chloromethane	Ave	0.2883	0.2492	0.1000	0.0173	0.0200	-13.6	30.0
Butadiene	Ave	0.2887	0.2477		0.0172	0.0200	-14.2	30.0
Vinyl chloride	Ave	0.2980	0.2874	0.1000	0.0193	0.0200	-3.5	30.0
Bromomethane	Ave	0.2335	0.2187	0.0500	0.0187	0.0200	-6.3	30.0
Chloroethane	Ave	0.1848	0.1799	0.0500	0.0195	0.0200	-2.7	30.0
Dichlorofluoromethane	Ave	0.4581	0.4762		0.0208	0.0200	3.9	30.0
Trichlorofluoromethane	Ave	0.4984	0.5062	0.1000	0.0203	0.0200	1.6	30.0
Ethyl ether	Ave	0.1800	0.1933		0.0215	0.0200	7.4	30.0
Acrolein	Ave	0.0445	0.0361		0.0812	0.100	-18.8	30.0
1,1-Dichloroethene	Ave	0.3589	0.3889	0.1000	0.0217	0.0200	8.3	30.0
1,1,2-Trichloro-1,2,2-trichfluoroethane	Ave	0.2567	0.2852	0.0500	0.0222	0.0200	11.1	30.0
Acetone	Ave	0.0784	0.0730	0.0100	0.0372	0.0400	-6.9	50.0
Iodomethane	Ave	0.4655	0.4827		0.0207	0.0200	3.7	30.0
Carbon disulfide	Ave	0.7515	0.7522	0.1000	0.0200	0.0200	0.0	30.0
3-Chloro-1-propene	Ave	0.3541	0.3611		0.0204	0.0200	2.0	30.0
Methyl acetate	Ave	0.2328	0.2202	0.1000	0.0378	0.0400	-5.4	50.0
Methylene Chloride	Ave	0.2846	0.2847	0.1000	0.0200	0.0200	0.0	50.0
tert-Butyl alcohol	Ave	0.0271	0.0283		0.209	0.200	4.3	30.0
Acrylonitrile	Ave	0.1006	0.1020		0.203	0.200	1.4	30.0
Methyl tert-butyl ether	Ave	0.6938	0.7063	0.1000	0.0204	0.0200	1.8	30.0
trans-1,2-Dichloroethene	Ave	0.3387	0.3554	0.1000	0.0210	0.0200	4.9	30.0
Hexane	Ave	0.3524	0.3872		0.0220	0.0200	9.9	30.0
1,1-Dichloroethane	Ave	0.4048	0.4171	0.2000	0.0206	0.0200	3.0	30.0
Vinyl acetate	Ave	0.4639	0.5080		0.0219	0.0200	9.5	30.0
2,2-Dichloropropane	Ave	0.2438	0.2691		0.0221	0.0200	10.4	30.0
2-Butanone	Ave	0.0472	0.0464	0.0100	0.0393	0.0400	-1.8	50.0
cis-1,2-Dichloroethene	Ave	0.2891	0.2867	0.1000	0.0198	0.0200	-0.8	30.0
Bromochloromethane	Ave	0.1945	0.1891		0.0194	0.0200	-2.8	30.0
Tetrahydrofuran	Lin1		0.1082		0.0418	0.0400	4.6	30.0
Chloroform	Ave	0.4433	0.4563	0.2000	0.0206	0.0200	2.9	30.0
1,1,1-Trichloroethane	Ave	0.4174	0.4498	0.1000	0.0216	0.0200	7.8	30.0
Cyclohexane	Ave	0.3819	0.4119	0.1000	0.0216	0.0200	7.8	30.0
1,1-Dichloropropene	Ave	0.3519	0.3667		0.0208	0.0200	4.2	30.0
Carbon tetrachloride	Ave	0.4023	0.4240	0.1000	0.0211	0.0200	5.4	30.0
Isobutyl alcohol	Ave	0.0110	0.0112		0.508	0.500	1.6	30.0
1,2-Dichloroethane	Ave	0.3600	0.3604	0.1000	0.0200	0.0200	0.1	30.0
Benzene	Ave	0.9518	0.9713	0.5000	0.0204	0.0200	2.1	30.0
n-Heptane	Lin1		0.2300		0.0213	0.0200	6.3	30.0
Trichloroethene	Ave	0.3160	0.3196	0.1500	0.0202	0.0200	1.1	30.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-118610-1

SDG No.:

Lab Sample ID: ICV 240-342719/14 Calibration Date: 08/27/2018 19:45

Instrument ID: A3UX19 Calib Start Date: 08/27/2018 17:09

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 08/27/2018 19:23

Lab File ID: U1901330.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	0.4590	0.4761	0.1000	0.0207	0.0200	3.7	30.0
1,2-Dichloropropane	Ave	0.2208	0.2306	0.1000	0.0209	0.0200	4.5	30.0
Dibromomethane	Ave	0.2271	0.2193		0.0193	0.0200	-3.4	30.0
1,4-Dioxane	Ave	0.0024	0.0028		0.474	0.400	18.4	50.0
Bromodichloromethane	Ave	0.3479	0.3495	0.1500	0.0201	0.0200	0.4	30.0
2-Chloroethyl vinyl ether	Ave	0.1770	0.1822		0.0206	0.0200	2.9	30.0
cis-1,3-Dichloropropene	Ave	0.3865	0.4060	0.1500	0.0210	0.0200	5.1	50.0
4-Methyl-2-pentanone	Ave	0.3203	0.3230	0.0500	0.0403	0.0400	0.8	50.0
Toluene	Ave	1.352	1.362	0.4000	0.0201	0.0200	0.7	30.0
trans-1,3-Dichloropropene	Ave	0.4818	0.4613	0.1000	0.0191	0.0200	-4.3	30.0
Ethyl methacrylate	Ave	0.4344	0.4432		0.0204	0.0200	2.0	30.0
1,1,2-Trichloroethane	Ave	0.2842	0.2905	0.1000	0.0204	0.0200	2.2	30.0
Tetrachloroethene	Ave	0.4313	0.4447	0.1500	0.0206	0.0200	3.1	30.0
1,3-Dichloropropane	Ave	0.4802	0.4738		0.0197	0.0200	-1.3	30.0
2-Hexanone	Ave	0.3149	0.3202	0.0500	0.0407	0.0400	1.7	50.0
Dibromochloromethane	Ave	0.3583	0.3632		0.0203	0.0200	1.3	30.0
1,2-Dibromoethane	Ave	0.3346	0.3230		0.0193	0.0200	-3.5	30.0
Chlorobenzene	Ave	0.9253	0.9231	0.3000	0.0200	0.0200	-0.2	30.0
1,1,1,2-Tetrachloroethane	Ave	0.3336	0.3465		0.0208	0.0200	3.9	30.0
Ethylbenzene	Ave	0.4836	0.4959		0.0205	0.0200	2.5	30.0
m-Xylene & p-Xylene	Ave	0.5890	0.6110		0.0207	0.0200	3.7	30.0
o-Xylene	Ave	0.5597	0.5768		0.0206	0.0200	3.1	30.0
Styrene	Ave	0.9588	0.9701	0.3000	0.0202	0.0200	1.2	30.0
Bromoform	Ave	0.2933	0.2923	0.1000	0.0199	0.0200	-0.3	30.0
Isopropylbenzene	Ave	1.503	1.583	0.1000	0.0211	0.0200	5.3	30.0
1,1,2,2-Tetrachloroethane	Ave	0.7706	0.7768	0.3000	0.0202	0.0200	0.8	30.0
Bromobenzene	Ave	0.7690	0.7545		0.0196	0.0200	-1.9	30.0
1,2,3-Trichloropropane	Ave	0.2921	0.3010		0.0206	0.0200	3.0	30.0
trans-1,4-Dichloro-2-butene	Ave	0.2737	0.2785		0.0203	0.0200	1.7	30.0
n-Propylbenzene	Ave	0.7729	0.7998		0.0207	0.0200	3.5	30.0
2-Chlorotoluene	Ave	0.6541	0.6592		0.0202	0.0200	0.8	30.0
1,3,5-Trimethylbenzene	Ave	2.225	2.303		0.0207	0.0200	3.5	30.0
4-Chlorotoluene	Ave	0.7072	0.7078		0.0200	0.0200	0.0	30.0
tert-Butylbenzene	Ave	2.113	2.203		0.0209	0.0200	4.3	30.0
1,2,4-Trimethylbenzene	Ave	2.256	2.278		0.0202	0.0200	1.0	30.0
sec-Butylbenzene	Ave	2.845	3.009		0.0212	0.0200	5.8	30.0
1,3-Dichlorobenzene	Ave	1.412	1.370	0.6000	0.0194	0.0200	-3.0	30.0
p-Isopropyltoluene	Ave	2.492	2.628		0.0211	0.0200	5.5	30.0
1,4-Dichlorobenzene	Ave	1.459	1.395	0.5000	0.0191	0.0200	-4.4	30.0
n-Butylbenzene	Ave	2.050	2.114		0.0206	0.0200	3.1	30.0
1,2-Dichlorobenzene	Ave	1.282	1.257	0.4000	0.0196	0.0200	-2.0	30.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-118610-1

SDG No.:

Lab Sample ID: ICV 240-342719/14 Calibration Date: 08/27/2018 19:45

Instrument ID: A3UX19 Calib Start Date: 08/27/2018 17:09

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 08/27/2018 19:23

Lab File ID: U1901330.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	Ave	0.2450	0.2412	0.0500	0.0197	0.0200	-1.6	50.0
1,2,4-Trichlorobenzene	Ave	0.8550	0.8004	0.2000	0.0187	0.0200	-6.4	50.0
Hexachlorobutadiene	Ave	0.4392	0.4373		0.0199	0.0200	-0.4	50.0
Naphthalene	Ave	2.363	2.262		0.0191	0.0200	-4.3	50.0
1,2,3-Trichlorobenzene	Ave	0.7677	0.7284		0.0190	0.0200	-5.1	30.0
Dibromofluoromethane (Surr)	Ave	0.2692	0.2770		0.0206	0.0200	2.9	30.0
1,2-Dichloroethane-d4 (Surr)	Ave	0.3092	0.3266		0.0211	0.0200	5.6	30.0
Toluene-d8 (Surr)	Ave	1.199	1.238		0.0206	0.0200	3.2	30.0
4-Bromofluorobenzene (Surr)	Ave	0.4513	0.4759		0.0211	0.0200	5.5	30.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-118610-1

SDG No.:

Lab Sample ID: CCV 240-400639/3 Calibration Date: 09/13/2019 15:55

Instrument ID: A3UX19 Calib Start Date: 07/25/2018 13:24

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 07/25/2018 15:15

Lab File ID: U1909701.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	
Acetonitrile	Lin1		0.0397		0.199	0.200	-0.7	20.0	
Diisopropyl ether	Ave	0.2313	0.2193		0.0190	0.0200	-5.2	20.0	
2-Chloro-1,3-butadiene	Ave	0.3979	0.4192		0.0211	0.0200	5.4	20.0	
Ethyl-t-butyl ether (ETBE)	Ave	0.7258	0.6777		0.0187	0.0200	-6.6	20.0	
Ethyl acetate	Ave	0.3007	0.2814		0.0374	0.0400	-6.4	20.0	
Propionitrile	Ave	0.0408	0.0579		0.284	0.200	42.2*	20.0	N
Methacrylonitrile	Ave	0.1828	0.1889		0.207	0.200	3.3	20.0	A
Tert-amyl-methyl ether (TAME)	Ave	0.7700	0.7116		0.0185	0.0200	-7.6	20.0	
n-Butanol	Ave	0.0094	0.0143		0.761	0.500	52.3*	20.0	N
Ethyl acrylate	Ave	0.3703	0.3279		0.0177	0.0200	-11.4	20.0	A
Methyl methacrylate	Ave	0.2459	0.2109		0.0343	0.0400	-14.2	20.0	
2-Nitropropane	Ave	0.0726	0.0907	NA	0.0500	0.0400	25.0*	20.0	
n-Butyl acetate	Ave	0.5364	0.5072		0.0189	0.0200	-5.4	20.0	
1-Chlorohexane	Ave	0.4610	0.4403		0.0191	0.0200	-4.5	20.0	
Cyclohexanone	Ave	0.0137	0.0170	NA	0.249	0.200	24.4*	20.0	
Pentachloroethane	Ave	0.3462	0.4599	NA	0.0531	0.0400	32.8*	20.0	
1,2,3-Trimethylbenzene	Ave	2.276	2.452		0.0216	0.0200	7.8	20.0	
Benzyl chloride	Ave	1.286	1.768	NA	0.0275	0.0200	37.5*	20.0	
1,3,5-Trichlorobenzene	Ave	1.021	0.8613		0.0169	0.0200	-15.7	20.0	
2-Methylnaphthalene	Ave	1.433	0.9396	NA	0.0262	0.0400	-34.4*	20.0	

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-118610-1

SDG No.:

Lab Sample ID: CCVIS 240-400639/4 Calibration Date: 09/13/2019 16:17

Instrument ID: A3UX19 Calib Start Date: 08/27/2018 17:09

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 08/27/2018 19:23

Lab File ID: U1909702.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	0.3850	0.3960	0.1000	0.0206	0.0200	2.8	20.0
Chloromethane	Ave	0.2883	0.2776	0.1000	0.0193	0.0200	-3.7	20.0
Butadiene	Ave	0.2887	0.2841		0.0197	0.0200	-1.6	20.0
Vinyl chloride	Ave	0.2980	0.3084	0.1000	0.0207	0.0200	3.5	20.0
Bromomethane	Ave	0.2335	0.2378	0.0500	0.0204	0.0200	1.9	20.0
Chloroethane	Ave	0.1848	0.2012	0.0500	0.0218	0.0200	8.9	20.0
Dichlorofluoromethane	Ave	0.4581	0.4707		0.0205	0.0200	2.7	20.0
Trichlorofluoromethane	Ave	0.4984	0.5079	0.1000	0.0204	0.0200	1.9	20.0
Ethyl ether	Ave	0.1800	0.2133		0.0237	0.0200	18.5	20.0
Acrolein	Ave	0.0445	0.0334		0.0751	0.100	-24.9*	20.0
1,1-Dichloroethene	Ave	0.3589	0.3930	0.1000	0.0219	0.0200	9.5	20.0
1,1,2-Trichloro-1,2,2-trichfluoroethane	Ave	0.2567	0.2930	0.0500	0.0228	0.0200	14.1	20.0
Acetone	Ave	0.0784	0.1150	0.0100	0.0587	0.0400	46.7	50.0
Iodomethane	Ave	0.4655	0.4726		0.0203	0.0200	1.5	20.0
Carbon disulfide	Ave	0.7515	0.8098	0.1000	0.0216	0.0200	7.8	20.0
3-Chloro-1-propene	Ave	0.3541	0.3490		0.0197	0.0200	-1.4	20.0
Methyl acetate	Ave	0.2328	0.2573	0.1000	0.0442	0.0400	10.5	50.0
Methylene Chloride	Ave	0.2846	0.3093	0.1000	0.0217	0.0200	8.7	50.0
tert-Butyl alcohol	Ave	0.0271	0.0437		0.323	0.200	61.5*	20.0
Acrylonitrile	Ave	0.1006	0.1349		0.268	0.200	34.1*	20.0
Methyl tert-butyl ether	Ave	0.6938	0.7188	0.1000	0.0207	0.0200	3.6	20.0
trans-1,2-Dichloroethene	Ave	0.3387	0.3701	0.1000	0.0219	0.0200	9.3	20.0
Hexane	Ave	0.3524	0.3422		0.0194	0.0200	-2.9	20.0
1,1-Dichloroethane	Ave	0.4048	0.4529	0.2000	0.0224	0.0200	11.9	20.0
Vinyl acetate	Ave	0.4639	0.4617		0.0199	0.0200	-0.5	20.0
2-Butanone	Ave	0.0472	0.0497	0.0100	0.0421	0.0400	5.2	50.0
cis-1,2-Dichloroethene	Ave	0.2891	0.3091	0.1000	0.0214	0.0200	6.9	20.0
2,2-Dichloropropane	Ave	0.2438	0.2523		0.0207	0.0200	3.5	20.0
Bromochloromethane	Ave	0.1945	0.2060		0.0212	0.0200	5.9	20.0
Tetrahydrofuran	Lin1		0.1067		0.0412	0.0400	3.0	20.0
Chloroform	Ave	0.4433	0.4960	0.2000	0.0224	0.0200	11.9	20.0
1,1,1-Trichloroethane	Ave	0.4174	0.4241	0.1000	0.0203	0.0200	1.6	20.0
Cyclohexane	Ave	0.3819	0.4118	0.1000	0.0216	0.0200	7.8	20.0
1,1-Dichloropropene	Ave	0.3519	0.3712		0.0211	0.0200	5.5	20.0
Carbon tetrachloride	Ave	0.4023	0.4005	0.1000	0.0199	0.0200	-0.4	20.0
Isobutyl alcohol	Ave	0.0110	0.0139		0.631	0.500	26.3*	20.0
Benzene	Ave	0.9518	1.011	0.5000	0.0212	0.0200	6.2	20.0
1,2-Dichloroethane	Ave	0.3600	0.3628	0.1000	0.0202	0.0200	0.8	20.0
n-Heptane	Lin1		0.1649		0.0143	0.0200	-28.7*	20.0
Trichloroethene	Ave	0.3160	0.2913	0.1500	0.0184	0.0200	-7.8	20.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-118610-1

SDG No.:

Lab Sample ID: CCVIS 240-400639/4 Calibration Date: 09/13/2019 16:17

Instrument ID: A3UX19 Calib Start Date: 08/27/2018 17:09

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 08/27/2018 19:23

Lab File ID: U1909702.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	0.4590	0.4408	0.1000	0.0192	0.0200	-4.0	20.0
1,2-Dichloropropane	Ave	0.2208	0.2215	0.1000	0.0201	0.0200	0.4	20.0
1,4-Dioxane	Ave	0.0024	0.0040		0.676	0.400	69.0*	50.0
Dibromomethane	Ave	0.2271	0.1921		0.0169	0.0200	-15.4	20.0
Bromodichloromethane	Ave	0.3479	0.3331	0.1500	0.0191	0.0200	-4.3	20.0
2-Chloroethyl vinyl ether	Ave	0.1770	0.1501		0.0339	0.0400	-15.2	20.0
cis-1,3-Dichloropropene	Ave	0.3865	0.3522	0.1500	0.0182	0.0200	-8.9	50.0
4-Methyl-2-pentanone	Ave	0.3203	0.2948	0.0500	0.0368	0.0400	-8.0	50.0
Toluene	Ave	1.352	1.434	0.4000	0.0212	0.0200	6.1	20.0
trans-1,3-Dichloropropene	Ave	0.4818	0.4411	0.1000	0.0183	0.0200	-8.5	20.0
Ethyl methacrylate	Ave	0.4344	0.4233		0.0195	0.0200	-2.6	20.0
1,1,2-Trichloroethane	Ave	0.2842	0.2965	0.1000	0.0209	0.0200	4.4	20.0
1,3-Dichloropropane	Ave	0.4802	0.4954		0.0206	0.0200	3.2	20.0
Tetrachloroethene	Ave	0.4313	0.3882	0.1500	0.0180	0.0200	-10.0	20.0
2-Hexanone	Ave	0.3149	0.3089	0.0500	0.0392	0.0400	-1.9	50.0
Dibromochloromethane	Ave	0.3583	0.3453		0.0193	0.0200	-3.6	20.0
1,2-Dibromoethane	Ave	0.3346	0.3196		0.0191	0.0200	-4.5	20.0
Chlorobenzene	Ave	0.9253	0.9174	0.3000	0.0198	0.0200	-0.9	20.0
1,1,1,2-Tetrachloroethane	Ave	0.3336	0.3589		0.0215	0.0200	7.6	20.0
Ethylbenzene	Ave	0.4836	0.4909		0.0203	0.0200	1.5	20.0
m-Xylene & p-Xylene	Ave	0.5890	0.6186		0.0210	0.0200	5.0	20.0
o-Xylene	Ave	0.5597	0.6105		0.0218	0.0200	9.1	20.0
Styrene	Ave	0.9588	1.003	0.3000	0.0209	0.0200	4.6	20.0
Bromoform	Ave	0.2933	0.2570	0.1000	0.0175	0.0200	-12.4	20.0
Isopropylbenzene	Ave	1.503	1.587	0.1000	0.0211	0.0200	5.6	20.0
1,1,2,2-Tetrachloroethane	Ave	0.7706	0.8821	0.3000	0.0229	0.0200	14.5	20.0
Bromobenzene	Ave	0.7690	0.7082		0.0184	0.0200	-7.9	20.0
1,2,3-Trichloropropane	Ave	0.2921	0.3073		0.0210	0.0200	5.2	20.0
trans-1,4-Dichloro-2-butene	Ave	0.2737	0.2604		0.0190	0.0200	-4.9	20.0
n-Propylbenzene	Ave	0.7729	0.7827		0.0203	0.0200	1.3	20.0
2-Chlorotoluene	Ave	0.6541	0.6760		0.0207	0.0200	3.3	20.0
1,3,5-Trimethylbenzene	Ave	2.225	2.271		0.0204	0.0200	2.0	20.0
4-Chlorotoluene	Ave	0.7072	0.6891		0.0195	0.0200	-2.6	20.0
tert-Butylbenzene	Ave	2.113	1.935		0.0183	0.0200	-8.4	20.0
1,2,4-Trimethylbenzene	Ave	2.256	2.301		0.0204	0.0200	2.0	20.0
sec-Butylbenzene	Ave	2.845	2.754		0.0194	0.0200	-3.2	20.0
1,3-Dichlorobenzene	Ave	1.412	1.330	0.6000	0.0188	0.0200	-5.8	20.0
p-Isopropyltoluene	Ave	2.492	2.363		0.0190	0.0200	-5.2	20.0
1,4-Dichlorobenzene	Ave	1.459	1.356	0.5000	0.0186	0.0200	-7.1	20.0
n-Butylbenzene	Ave	2.050	1.947		0.0190	0.0200	-5.0	20.0
1,2-Dichlorobenzene	Ave	1.282	1.309	0.4000	0.0204	0.0200	2.1	20.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-118610-1

SDG No.:

Lab Sample ID: CCVIS 240-400639/4 Calibration Date: 09/13/2019 16:17

Instrument ID: A3UX19 Calib Start Date: 08/27/2018 17:09

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 08/27/2018 19:23

Lab File ID: U1909702.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	Ave	0.2450	0.2357	0.0500	0.0192	0.0200	-3.8	50.0
1,2,4-Trichlorobenzene	Ave	0.8550	0.6225	0.2000	0.0146	0.0200	-27.2	50.0
Hexachlorobutadiene	Ave	0.4392	0.2486		0.0113	0.0200	-43.4	50.0
Naphthalene	Ave	2.363	2.105		0.0178	0.0200	-10.9	50.0
1,2,3-Trichlorobenzene	Ave	0.7677	0.5695		0.0148	0.0200	-25.8*	20.0
Dibromofluoromethane (Surr)	Ave	0.2692	0.2926		0.0217	0.0200	8.7	20.0
1,2-Dichloroethane-d4 (Surr)	Ave	0.3092	0.3369		0.0218	0.0200	9.0	20.0
Toluene-d8 (Surr)	Ave	1.199	1.267		0.0211	0.0200	5.6	20.0
4-Bromofluorobenzene (Surr)	Ave	0.4513	0.4686		0.0208	0.0200	3.8	20.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-118610-1

SDG No.:

Lab Sample ID: CCV 240-400715/3 Calibration Date: 09/14/2019 12:00

Instrument ID: A3UX19 Calib Start Date: 07/25/2018 13:24

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 07/25/2018 15:15

Lab File ID: U1909727.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
Acetonitrile	Lin1		0.0346		0.174	0.200	-13.2	20.0
Diisopropyl ether	Ave	0.2313	0.2212		0.0191	0.0200	-4.4	20.0
2-Chloro-1,3-butadiene	Ave	0.3979	0.4202		0.0211	0.0200	5.6	20.0
Ethyl-t-butyl ether (ETBE)	Ave	0.7258	0.6759		0.0186	0.0200	-6.9	20.0
Ethyl acetate	Ave	0.3007	0.2792		0.0371	0.0400	-7.2	20.0
Propionitrile	Ave	0.0408	0.0509		0.250	0.200	24.8*	20.0
Methacrylonitrile	Ave	0.1828	0.1880		0.206	0.200	2.8	20.0
Tert-amyl-methyl ether (TAME)	Ave	0.7700	0.7289		0.0189	0.0200	-5.3	20.0
n-Butanol	Ave	0.0094	0.0119		0.634	0.500	26.8*	20.0
Ethyl acrylate	Ave	0.3703	0.3347		0.0181	0.0200	-9.6	20.0
Methyl methacrylate	Ave	0.2459	0.2133		0.0347	0.0400	-13.2	20.0
2-Nitropropane	Ave	0.0726	0.0887		0.0489	0.0400	22.2*	20.0
n-Butyl acetate	Ave	0.5364	0.5178		0.0193	0.0200	-3.5	20.0
1-Chlorohexane	Ave	0.4610	0.4385		0.0190	0.0200	-4.9	20.0
Cyclohexanone	Ave	0.0137	0.0145		0.212	0.200	5.9	20.0
Pentachloroethane	Ave	0.3462	0.4640		0.0536	0.0400	34.0*	20.0
1,2,3-Trimethylbenzene	Ave	2.276	2.449		0.0215	0.0200	7.6	20.0
Benzyl chloride	Ave	1.286	1.699		0.0264	0.0200	32.1*	20.0
1,3,5-Trichlorobenzene	Ave	1.021	0.8225		0.0161	0.0200	-19.5	20.0
2-Methylnaphthalene	Ave	1.433	0.9884		0.0276	0.0400	-31.0*	20.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-118610-1

SDG No.:

Lab Sample ID: CCVIS 240-400715/4 Calibration Date: 09/14/2019 12:23

Instrument ID: A3UX19 Calib Start Date: 08/27/2018 17:09

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 08/27/2018 19:23

Lab File ID: U1909728.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	0.3850	0.3851	0.1000	0.0200	0.0200	0.0	20.0
Chloromethane	Ave	0.2883	0.2727	0.1000	0.0189	0.0200	-5.4	20.0
Butadiene	Ave	0.2887	0.2780		0.0193	0.0200	-3.7	20.0
Vinyl chloride	Ave	0.2980	0.3002	0.1000	0.0201	0.0200	0.7	20.0
Bromomethane	Ave	0.2335	0.2367	0.0500	0.0203	0.0200	1.4	20.0
Chloroethane	Ave	0.1848	0.1987	0.0500	0.0215	0.0200	7.5	20.0
Dichlorofluoromethane	Ave	0.4581	0.4696		0.0205	0.0200	2.5	20.0
Trichlorofluoromethane	Ave	0.4984	0.5005	0.1000	0.0201	0.0200	0.4	20.0
Ethyl ether	Ave	0.1800	0.2065		0.0229	0.0200	14.7	20.0
Acrolein	Ave	0.0445	0.0306		0.0687	0.100	-31.3*	20.0
1,1-Dichloroethene	Ave	0.3589	0.3827	0.1000	0.0213	0.0200	6.6	20.0
1,1,2-Trichloro-1,2,2-trichfluoroethane	Ave	0.2567	0.2893	0.0500	0.0225	0.0200	12.7	20.0
Acetone	Ave	0.0784	0.0904	0.0100	0.0461	0.0400	15.3	50.0
Iodomethane	Ave	0.4655	0.4579		0.0197	0.0200	-1.6	20.0
Carbon disulfide	Ave	0.7515	0.7787	0.1000	0.0207	0.0200	3.6	20.0
3-Chloro-1-propene	Ave	0.3541	0.3290		0.0186	0.0200	-7.1	20.0
Methyl acetate	Ave	0.2328	0.2438	0.1000	0.0419	0.0400	4.7	50.0
Methylene Chloride	Ave	0.2846	0.2952	0.1000	0.0207	0.0200	3.7	50.0
tert-Butyl alcohol	Ave	0.0271	0.0316		0.233	0.200	16.6	20.0
Acrylonitrile	Ave	0.1006	0.1236		0.246	0.200	22.9*	20.0
Methyl tert-butyl ether	Ave	0.6938	0.6838	0.1000	0.0197	0.0200	-1.4	20.0
trans-1,2-Dichloroethene	Ave	0.3387	0.3601	0.1000	0.0213	0.0200	6.3	20.0
Hexane	Ave	0.3524	0.3449		0.0196	0.0200	-2.1	20.0
1,1-Dichloroethane	Ave	0.4048	0.4470	0.2000	0.0221	0.0200	10.4	20.0
Vinyl acetate	Ave	0.4639	0.4447		0.0192	0.0200	-4.1	20.0
2,2-Dichloropropane	Ave	0.2438	0.2509		0.0206	0.0200	2.9	20.0
2-Butanone	Ave	0.0472	0.0476	0.0100	0.0403	0.0400	0.8	50.0
cis-1,2-Dichloroethene	Ave	0.2891	0.2975	0.1000	0.0206	0.0200	2.9	20.0
Bromochloromethane	Ave	0.1945	0.2046		0.0210	0.0200	5.2	20.0
Tetrahydrofuran	Lin1		0.1006		0.0387	0.0400	-3.2	20.0
Chloroform	Ave	0.4433	0.4842	0.2000	0.0218	0.0200	9.2	20.0
1,1,1-Trichloroethane	Ave	0.4174	0.4174	0.1000	0.0200	0.0200	0.0	20.0
Cyclohexane	Ave	0.3819	0.4116	0.1000	0.0216	0.0200	7.8	20.0
1,1-Dichloropropene	Ave	0.3519	0.3721		0.0211	0.0200	5.7	20.0
Carbon tetrachloride	Ave	0.4023	0.3924	0.1000	0.0195	0.0200	-2.5	20.0
Isobutyl alcohol	Ave	0.0110	0.0120		0.547	0.500	9.4	20.0
Benzene	Ave	0.9518	1.028	0.5000	0.0216	0.0200	8.0	20.0
1,2-Dichloroethane	Ave	0.3600	0.3662	0.1000	0.0203	0.0200	1.7	20.0
n-Heptane	Lin1		0.1722		0.0150	0.0200	-24.8*	20.0
Trichloroethene	Ave	0.3160	0.2928	0.1500	0.0185	0.0200	-7.4	20.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-118610-1

SDG No.:

Lab Sample ID: CCVIS 240-400715/4 Calibration Date: 09/14/2019 12:23

Instrument ID: A3UX19 Calib Start Date: 08/27/2018 17:09

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 08/27/2018 19:23

Lab File ID: U1909728.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	0.4590	0.4351	0.1000	0.0190	0.0200	-5.2	20.0
1,2-Dichloropropane	Ave	0.2208	0.2281	0.1000	0.0207	0.0200	3.3	20.0
1,4-Dioxane	Ave	0.0024	0.0035		0.579	0.400	44.7	50.0
Dibromomethane	Ave	0.2271	0.1842		0.0162	0.0200	-18.9	20.0
Bromodichloromethane	Ave	0.3479	0.3299	0.1500	0.0190	0.0200	-5.2	20.0
2-Chloroethyl vinyl ether	Ave	0.1770	0.1615		0.0365	0.0400	-8.8	20.0
cis-1,3-Dichloropropene	Ave	0.3865	0.3607	0.1500	0.0187	0.0200	-6.7	50.0
4-Methyl-2-pentanone	Ave	0.3203	0.2963	0.0500	0.0370	0.0400	-7.5	50.0
Toluene	Ave	1.352	1.425	0.4000	0.0211	0.0200	5.4	20.0
trans-1,3-Dichloropropene	Ave	0.4818	0.4412	0.1000	0.0183	0.0200	-8.4	20.0
Ethyl methacrylate	Ave	0.4344	0.4271		0.0197	0.0200	-1.7	20.0
1,1,2-Trichloroethane	Ave	0.2842	0.2900	0.1000	0.0204	0.0200	2.0	20.0
Tetrachloroethene	Ave	0.4313	0.3870	0.1500	0.0179	0.0200	-10.3	20.0
1,3-Dichloropropane	Ave	0.4802	0.4960		0.0207	0.0200	3.3	20.0
2-Hexanone	Ave	0.3149	0.3062	0.0500	0.0389	0.0400	-2.8	50.0
Dibromochloromethane	Ave	0.3583	0.3378		0.0189	0.0200	-5.7	20.0
1,2-Dibromoethane	Ave	0.3346	0.3235		0.0193	0.0200	-3.3	20.0
Chlorobenzene	Ave	0.9253	0.9216	0.3000	0.0199	0.0200	-0.4	20.0
1,1,1,2-Tetrachloroethane	Ave	0.3336	0.3321		0.0199	0.0200	-0.5	20.0
Ethylbenzene	Ave	0.4836	0.4827		0.0200	0.0200	-0.2	20.0
m-Xylene & p-Xylene	Ave	0.5890	0.6112		0.0208	0.0200	3.8	20.0
o-Xylene	Ave	0.5597	0.5837		0.0209	0.0200	4.3	20.0
Styrene	Ave	0.9588	0.9843	0.3000	0.0205	0.0200	2.7	20.0
Bromoform	Ave	0.2933	0.2489	0.1000	0.0170	0.0200	-15.1	20.0
Isopropylbenzene	Ave	1.503	1.535	0.1000	0.0204	0.0200	2.1	20.0
1,1,2,2-Tetrachloroethane	Ave	0.7706	0.9138	0.3000	0.0237	0.0200	18.6	20.0
Bromobenzene	Ave	0.7690	0.7259		0.0189	0.0200	-5.6	20.0
1,2,3-Trichloropropane	Ave	0.2921	0.3209		0.0220	0.0200	9.9	20.0
trans-1,4-Dichloro-2-butene	Ave	0.2737	0.2729		0.0199	0.0200	-0.3	20.0
n-Propylbenzene	Ave	0.7729	0.8041		0.0208	0.0200	4.0	20.0
2-Chlorotoluene	Ave	0.6541	0.7047		0.0215	0.0200	7.7	20.0
1,3,5-Trimethylbenzene	Ave	2.225	2.366		0.0213	0.0200	6.3	20.0
4-Chlorotoluene	Ave	0.7072	0.7427		0.0210	0.0200	5.0	20.0
tert-Butylbenzene	Ave	2.113	2.061		0.0195	0.0200	-2.5	20.0
1,2,4-Trimethylbenzene	Ave	2.256	2.352		0.0208	0.0200	4.2	20.0
sec-Butylbenzene	Ave	2.845	2.879		0.0202	0.0200	1.2	20.0
1,3-Dichlorobenzene	Ave	1.412	1.364	0.6000	0.0193	0.0200	-3.5	20.0
p-Isopropyltoluene	Ave	2.492	2.450		0.0197	0.0200	-1.7	20.0
1,4-Dichlorobenzene	Ave	1.459	1.383	0.5000	0.0190	0.0200	-5.2	20.0
n-Butylbenzene	Ave	2.050	1.980		0.0193	0.0200	-3.4	20.0
1,2-Dichlorobenzene	Ave	1.282	1.302	0.4000	0.0203	0.0200	1.6	20.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-118610-1

SDG No.:

Lab Sample ID: CCVIS 240-400715/4 Calibration Date: 09/14/2019 12:23

Instrument ID: A3UX19 Calib Start Date: 08/27/2018 17:09

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 08/27/2018 19:23

Lab File ID: U1909728.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	Ave	0.2450	0.2269	0.0500	0.0185	0.0200	-7.4	50.0
1,2,4-Trichlorobenzene	Ave	0.8550	0.5903	0.2000	0.0138	0.0200	-31.0	50.0
Hexachlorobutadiene	Ave	0.4392	0.2565		0.0117	0.0200	-41.6	50.0
Naphthalene	Ave	2.363	1.993		0.0169	0.0200	-15.7	50.0
1,2,3-Trichlorobenzene	Ave	0.7677	0.5524		0.0144	0.0200	-28.0*	20.0
~~Dibromofluoromethane (Surr)~~	~~Ave~~	~~0.2692~~	~~0.2880~~		~~0.0214~~	~~0.0200~~	~~7.0~~	~~20.0~~
1,2-Dichloroethane-d4 (Surr)	Ave	0.3092	0.3349		0.0217	0.0200	8.3	20.0
Toluene-d8 (Surr)	Ave	1.199	1.266		0.0211	0.0200	5.6	20.0
4-Bromofluorobenzene (Surr)	Ave	0.4513	0.4580		0.0203	0.0200	1.5	20.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-118610-1

SDG No.:

Lab Sample ID: CCV 240-401172/3 Calibration Date: 09/17/2019 18:11

Instrument ID: A3UX19 Calib Start Date: 07/25/2018 13:24

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 07/25/2018 15:15

Lab File ID: U1909784.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
Acetonitrile	Lin1		0.0310		0.156	0.200	-22.0*	20.0
Diisopropyl ether	Ave	0.2313	0.2169		0.0188	0.0200	-6.2	20.0
2-Chloro-1,3-butadiene	Ave	0.3979	0.4046		0.0203	0.0200	1.7	20.0
Ethyl-t-butyl ether (ETBE)	Ave	0.7258	0.6397		0.0176	0.0200	-11.9	20.0
Ethyl acetate	Ave	0.3007	0.2967		0.0395	0.0400	-1.3	20.0
Propionitrile	Ave	0.0408	0.0465		0.228	0.200	14.1	20.0
Methacrylonitrile	Ave	0.1828	0.1864		0.204	0.200	1.9	20.0
Tert-amyl-methyl ether (TAME)	Ave	0.7700	0.7025		0.0182	0.0200	-8.8	20.0
n-Butanol	Ave	0.0094	0.0116		0.622	0.500	24.3*	20.0
Ethyl acrylate	Ave	0.3703	0.3600		0.0194	0.0200	-2.8	20.0
Methyl methacrylate	Ave	0.2459	0.2303		0.0375	0.0400	-6.3	20.0
2-Nitropropane	Ave	0.0726	0.0878		0.0484	0.0400	21.0*	20.0
n-Butyl acetate	Ave	0.5364	0.5089		0.0190	0.0200	-5.1	20.0
1-Chlorohexane	Ave	0.4610	0.4442		0.0193	0.0200	-3.6	20.0
Cyclohexanone	Ave	0.0137	0.0135		0.197	0.200	-1.5	20.0
Pentachloroethane	Ave	0.3462	0.4355		0.0503	0.0400	25.8*	20.0
1,2,3-Trimethylbenzene	Ave	2.276	2.465		0.0217	0.0200	8.3	20.0
Benzyl chloride	Ave	1.286	1.649		0.0256	0.0200	28.2*	20.0
1,3,5-Trichlorobenzene	Ave	1.021	0.8281		0.0162	0.0200	-18.9	20.0
2-Methylnaphthalene	Ave	1.433	0.9667		0.0270	0.0400	-32.5*	20.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-118610-1

SDG No.:

Lab Sample ID: CCVIS 240-401172/4 Calibration Date: 09/17/2019 18:33

Instrument ID: A3UX19 Calib Start Date: 08/27/2018 17:09

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 08/27/2018 19:23

Lab File ID: U1909785.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	0.3850	0.3899	0.1000	0.0203	0.0200	1.3	20.0
Chloromethane	Ave	0.2883	0.2917	0.1000	0.0202	0.0200	1.2	20.0
Butadiene	Ave	0.2887	0.2912		0.0202	0.0200	0.9	20.0
Vinyl chloride	Ave	0.2980	0.3149	0.1000	0.0211	0.0200	5.7	20.0
Bromomethane	Ave	0.2335	0.2485	0.0500	0.0213	0.0200	6.5	20.0
Chloroethane	Ave	0.1848	0.2082	0.0500	0.0225	0.0200	12.6	20.0
Dichlorofluoromethane	Ave	0.4581	0.4829		0.0211	0.0200	5.4	20.0
Trichlorofluoromethane	Ave	0.4984	0.5216	0.1000	0.0209	0.0200	4.7	20.0
Ethyl ether	Ave	0.1800	0.2180		0.0242	0.0200	21.1*	20.0
Acrolein	Ave	0.0445	0.0331		0.0745	0.100	-25.5*	20.0
1,1-Dichloroethene	Ave	0.3589	0.4123	0.1000	0.0230	0.0200	14.9	20.0
1,1,2-Trichloro-1,2,2-trichfluoroethane	Ave	0.2567	0.3092	0.0500	0.0241	0.0200	20.4*	20.0
Acetone	Ave	0.0784	0.0936	0.0100	0.0477	0.0400	19.4	50.0
Iodomethane	Ave	0.4655	0.4824		0.0207	0.0200	3.6	20.0
Carbon disulfide	Ave	0.7515	0.8180	0.1000	0.0218	0.0200	8.9	20.0
3-Chloro-1-propene	Ave	0.3541	0.3559		0.0201	0.0200	0.5	20.0
Methyl acetate	Ave	0.2328	0.2291	0.1000	0.0394	0.0400	-1.6	50.0
Methylene Chloride	Ave	0.2846	0.3122	0.1000	0.0219	0.0200	9.7	50.0
tert-Butyl alcohol	Ave	0.0271	0.0292		0.215	0.200	7.7	20.0
Acrylonitrile	Ave	0.1006	0.1172		0.233	0.200	16.6	20.0
Methyl tert-butyl ether	Ave	0.6938	0.7343	0.1000	0.0212	0.0200	5.8	20.0
trans-1,2-Dichloroethene	Ave	0.3387	0.3847	0.1000	0.0227	0.0200	13.6	20.0
Hexane	Ave	0.3524	0.3627		0.0206	0.0200	2.9	20.0
1,1-Dichloroethane	Ave	0.4048	0.4678	0.2000	0.0231	0.0200	15.6	20.0
Vinyl acetate	Ave	0.4639	0.4759		0.0205	0.0200	2.6	20.0
2-Butanone	Ave	0.0472	0.0444	0.0100	0.0376	0.0400	-6.0	50.0
cis-1,2-Dichloroethene	Ave	0.2891	0.3173	0.1000	0.0220	0.0200	9.8	20.0
2,2-Dichloropropane	Ave	0.2438	0.2858		0.0234	0.0200	17.2	20.0
Bromochloromethane	Ave	0.1945	0.2084		0.0214	0.0200	7.1	20.0
Tetrahydrofuran	Lin1		0.0965		0.0370	0.0400	-7.4	20.0
Chloroform	Ave	0.4433	0.5036	0.2000	0.0227	0.0200	13.6	20.0
1,1,1-Trichloroethane	Ave	0.4174	0.4439	0.1000	0.0213	0.0200	6.4	20.0
Cyclohexane	Ave	0.3819	0.4475	0.1000	0.0234	0.0200	17.2	20.0
1,1-Dichloropropene	Ave	0.3519	0.3849		0.0219	0.0200	9.4	20.0
Carbon tetrachloride	Ave	0.4023	0.4121	0.1000	0.0205	0.0200	2.4	20.0
Isobutyl alcohol	Ave	0.0110	0.0112		0.510	0.500	2.0	20.0
Benzene	Ave	0.9518	1.035	0.5000	0.0217	0.0200	8.7	20.0
1,2-Dichloroethane	Ave	0.3600	0.3627	0.1000	0.0202	0.0200	0.8	20.0
n-Heptane	Lin1		0.1684		0.0146	0.0200	-26.8*	20.0
Trichloroethene	Ave	0.3160	0.3016	0.1500	0.0191	0.0200	-4.6	20.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-118610-1

SDG No.:

Lab Sample ID: CCVIS 240-401172/4 Calibration Date: 09/17/2019 18:33

Instrument ID: A3UX19 Calib Start Date: 08/27/2018 17:09

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 08/27/2018 19:23

Lab File ID: U1909785.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	0.4590	0.4719	0.1000	0.0206	0.0200	2.8	20.0
1,2-Dichloropropane	Ave	0.2208	0.2237	0.1000	0.0203	0.0200	1.3	20.0
1,4-Dioxane	Ave	0.0024	0.0036		0.597	0.400	49.4	50.0
Dibromomethane	Ave	0.2271	0.1890		0.0166	0.0200	-16.8	20.0
Bromodichloromethane	Ave	0.3479	0.3286	0.1500	0.0189	0.0200	-5.6	20.0
2-Chloroethyl vinyl ether	Ave	0.1770	0.1478		0.0334	0.0400	-16.5	20.0
cis-1,3-Dichloropropene	Ave	0.3865	0.3497	0.1500	0.0181	0.0200	-9.5	50.0
4-Methyl-2-pentanone	Ave	0.3203	0.2872	0.0500	0.0359	0.0400	-10.4	50.0
Toluene	Ave	1.352	1.428	0.4000	0.0211	0.0200	5.6	20.0
trans-1,3-Dichloropropene	Ave	0.4818	0.4312	0.1000	0.0179	0.0200	-10.5	20.0
Ethyl methacrylate	Ave	0.4344	0.4129		0.0190	0.0200	-5.0	20.0
1,1,2-Trichloroethane	Ave	0.2842	0.2910	0.1000	0.0205	0.0200	2.4	20.0
1,3-Dichloropropane	Ave	0.4802	0.4905		0.0204	0.0200	2.1	20.0
Tetrachloroethene	Ave	0.4313	0.3912	0.1500	0.0181	0.0200	-9.3	20.0
2-Hexanone	Ave	0.3149	0.2975	0.0500	0.0378	0.0400	-5.5	50.0
Dibromochloromethane	Ave	0.3583	0.3253		0.0182	0.0200	-9.2	20.0
1,2-Dibromoethane	Ave	0.3346	0.3147		0.0188	0.0200	-6.0	20.0
Chlorobenzene	Ave	0.9253	0.9157	0.3000	0.0198	0.0200	-1.0	20.0
1,1,1,2-Tetrachloroethane	Ave	0.3336	0.3440		0.0206	0.0200	3.1	20.0
Ethylbenzene	Ave	0.4836	0.4997		0.0207	0.0200	3.3	20.0
m-Xylene & p-Xylene	Ave	0.5890	0.6076		0.0206	0.0200	3.2	20.0
o-Xylene	Ave	0.5597	0.5942		0.0212	0.0200	6.2	20.0
Styrene	Ave	0.9588	0.9899	0.3000	0.0206	0.0200	3.2	20.0
Bromoform	Ave	0.2933	0.2378	0.1000	0.0162	0.0200	-18.9	20.0
Isopropylbenzene	Ave	1.503	1.577	0.1000	0.0210	0.0200	5.0	20.0
1,1,2,2-Tetrachloroethane	Ave	0.7706	0.9167	0.3000	0.0238	0.0200	19.0	20.0
Bromobenzene	Ave	0.7690	0.7457		0.0194	0.0200	-3.0	20.0
1,2,3-Trichloropropane	Ave	0.2921	0.3321		0.0227	0.0200	13.7	20.0
trans-1,4-Dichloro-2-butene	Ave	0.2737	0.2749		0.0201	0.0200	0.4	20.0
n-Propylbenzene	Ave	0.7729	0.8196		0.0212	0.0200	6.0	20.0
2-Chlorotoluene	Ave	0.6541	0.7208		0.0220	0.0200	10.2	20.0
1,3,5-Trimethylbenzene	Ave	2.225	2.446		0.0220	0.0200	9.9	20.0
4-Chlorotoluene	Ave	0.7072	0.7459		0.0211	0.0200	5.5	20.0
tert-Butylbenzene	Ave	2.113	2.075		0.0196	0.0200	-1.8	20.0
1,2,4-Trimethylbenzene	Ave	2.256	2.442		0.0216	0.0200	8.2	20.0
sec-Butylbenzene	Ave	2.845	2.996		0.0211	0.0200	5.3	20.0
1,3-Dichlorobenzene	Ave	1.412	1.394	0.6000	0.0197	0.0200	-1.3	20.0
p-Isopropyltoluene	Ave	2.492	2.546		0.0204	0.0200	2.2	20.0
1,4-Dichlorobenzene	Ave	1.459	1.419	0.5000	0.0195	0.0200	-2.7	20.0
n-Butylbenzene	Ave	2.050	2.051		0.0200	0.0200	0.0	20.0
1,2-Dichlorobenzene	Ave	1.282	1.348	0.4000	0.0210	0.0200	5.1	20.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-118610-1

SDG No.:

Lab Sample ID: CCVIS 240-401172/4 Calibration Date: 09/17/2019 18:33

Instrument ID: A3UX19 Calib Start Date: 08/27/2018 17:09

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 08/27/2018 19:23

Lab File ID: U1909785.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	Ave	0.2450	0.2257	0.0500	0.0184	0.0200	-7.9	50.0
1,2,4-Trichlorobenzene	Ave	0.8550	0.6488	0.2000	0.0152	0.0200	-24.1	50.0
Hexachlorobutadiene	Ave	0.4392	0.2806		0.0128	0.0200	-36.1	50.0
Naphthalene	Ave	2.363	2.170		0.0184	0.0200	-8.2	50.0
1,2,3-Trichlorobenzene	Ave	0.7677	0.6232		0.0162	0.0200	-18.8	20.0
Dibromofluoromethane (Surr)	Ave	0.2692	0.2981		0.0221	0.0200	10.7	20.0
1,2-Dichloroethane-d4 (Surr)	Ave	0.3092	0.3451		0.0223	0.0200	11.6	20.0
Toluene-d8 (Surr)	Ave	1.199	1.268		0.0211	0.0200	5.7	20.0
4-Bromofluorobenzene (Surr)	Ave	0.4513	0.4696		0.0208	0.0200	4.1	20.0

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-118610-1

SDG No.:

Client Sample ID: Lab Sample ID: MB 240-400639/8

Matrix: Water Lab File ID: U1909706.d

Analysis Method: 8260C Date Collected:

Sample wt/vol: 5(mL) Date Analyzed: 09/13/2019 17:48

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.: 400639 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
630-20-6	1,1,1,2-Tetrachloroethane	1.0	U	1.0	0.14
71-55-6	1,1,1-Trichloroethane	1.0	U	1.0	0.24
79-34-5	1,1,2,2-Tetrachloroethane	1.0	U	1.0	0.13
76-13-1	1,1,2-Trichloro-1,2,2-trichfluoroeth ane	1.0	U	1.0	0.41
75-34-3	1,1-Dichloroethane	1.0	U	1.0	0.17
75-35-4	1,1-Dichloroethene	1.0	U	1.0	0.19
563-58-6	1,1-Dichloropropene	1.0	U	1.0	0.14
87-61-6	1,2,3-Trichlorobenzene	1.0	U	1.0	0.54
96-18-4	1,2,3-Trichloropropane	1.0	U	1.0	0.24
526-73-8	1,2,3-Trimethylbenzene	5.0	U	5.0	0.14
120-82-1	1,2,4-Trichlorobenzene	1.0	U	1.0	0.26
95-63-6	1,2,4-Trimethylbenzene	1.0	U	1.0	0.070
96-12-8	1,2-Dibromo-3-Chloropropane	5.0	U	5.0	0.91
95-50-1	1,2-Dichlorobenzene	1.0	U	1.0	0.15
107-06-2	1,2-Dichloroethane	1.0	U	1.0	0.21
78-87-5	1,2-Dichloropropane	1.0	U	1.0	0.15
541-73-1	1,3-Dichlorobenzene	1.0	U	1.0	0.15
142-28-9	1,3-Dichloropropane	1.0	U	1.0	0.21
106-46-7	1,4-Dichlorobenzene	1.0	U	1.0	0.16
594-20-7	2,2-Dichloropropane	1.0	U	1.0	0.31
110-75-8	2-Chloroethyl vinyl ether	10	U	10	0.26
95-49-8	2-Chlorotoluene	1.0	U	1.0	0.15
591-78-6	2-Hexanone	5.0	U	5.0	0.54
108-86-1	Bromobenzene	1.0	U	1.0	0.12
74-97-5	Bromochloromethane	1.0	U	1.0	0.14
106-43-4	4-Chlorotoluene	1.0	U	1.0	0.090
99-87-6	p-Isopropyltoluene	1.0	U	1.0	0.13
67-64-1	Acetone	5.0	U	5.0	5.4
71-43-2	Benzene	1.0	U	1.0	0.13
75-25-2	Bromoform	1.0	U	1.0	0.76
74-83-9	Bromomethane	1.0	U	1.0	0.42
75-15-0	Carbon disulfide	1.0	U	1.0	0.28
56-23-5	Carbon tetrachloride	1.0	U	1.0	0.26
108-90-7	Chlorobenzene	1.0	U	1.0	0.14
75-00-3	Chloroethane	1.0	U	1.0	0.83

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-118610-1

SDG No.:

Client Sample ID: Lab Sample ID: MB 240-400639/8

Matrix: Water Lab File ID: U1909706.d

Analysis Method: 8260C Date Collected:

Sample wt/vol: 5(mL) Date Analyzed: 09/13/2019 17:48

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.: 400639 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
67-66-3	Chloroform	1.0	U	1.0	0.13
74-87-3	Chloromethane	1.0	U	1.0	0.20
156-59-2	cis-1,2-Dichloroethene	1.0	U	1.0	0.16
10061-01-5	cis-1,3-Dichloropropene	1.0	U	1.0	0.61
87-68-3	Hexachlorobutadiene	1.0	U	1.0	0.83
74-95-3	Dibromomethane	1.0	U	1.0	0.090
75-27-4	Bromodichloromethane	1.0	U	1.0	0.17
75-71-8	Dichlorodifluoromethane	1.0	U	1.0	0.35
100-41-4	Ethylbenzene	1.0	U	1.0	0.11
106-93-4	1,2-Dibromoethane	1.0	U	1.0	0.12
108-20-3	Diisopropyl ether	5.0	U	5.0	0.17
91-20-3	Naphthalene	1.0	U	1.0	0.32
179601-23-1	m-Xylene & p-Xylene	2.0	U	2.0	0.080
104-51-8	n-Butylbenzene	1.0	U	1.0	0.14
98-82-8	Isopropylbenzene	1.0	U	1.0	0.090
103-65-1	n-Propylbenzene	1.0	U	1.0	0.15
78-93-3	2-Butanone	5.0	U	5.0	1.2
108-10-1	4-Methyl-2-pentanone	5.0	U	5.0	0.42
135-98-8	sec-Butylbenzene	1.0	U	1.0	0.13
1634-04-4	Methyl tert-butyl ether	1.0	U	1.0	0.070
994-05-8	Tert-amyl-methyl ether (TAME)	5.0	U	5.0	0.11
75-09-2	Methylene Chloride	5.0	U	5.0	2.6
95-47-6	o-Xylene	1.0	U	1.0	0.090
100-42-5	Styrene	1.0	U	1.0	0.10
637-92-3	Ethyl-t-butyl ether (ETBE)	5.0	U	5.0	0.15
98-06-6	tert-Butylbenzene	1.0	U	1.0	0.14
127-18-4	Tetrachloroethene	1.0	U	1.0	0.15
108-88-3	Toluene	1.0	U	1.0	0.14
156-60-5	trans-1,2-Dichloroethene	1.0	U	1.0	0.19
10061-02-6	trans-1,3-Dichloropropene	1.0	U	1.0	0.67
79-01-6	Trichloroethene	1.0	U	1.0	0.10
75-69-4	Trichlorofluoromethane	1.0	U	1.0	0.45
108-05-4	Vinyl acetate	2.0	U	2.0	0.19
75-01-4	Vinyl chloride	0.50	U	0.50	0.20
75-65-0	tert-Butyl alcohol	20	U	20	1.7
1330-20-7	Xylenes, Total	2.0	U	2.0	0.15

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-118610-1

SDG No.:

Client Sample ID: Lab Sample ID: MB 240-400639/8

Matrix: Water Lab File ID: U1909706.d

Analysis Method: 8260C Date Collected:

Sample wt/vol: 5(mL) Date Analyzed: 09/13/2019 17:48

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.: 400639 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
124-48-1	Dibromochloromethane	1.0	U	1.0	0.39

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	115		70-121
460-00-4	4-Bromofluorobenzene (Surr)	95		59-120
2037-26-5	Toluene-d8 (Surr)	104		70-123
1868-53-7	Dibromofluoromethane (Surr)	112		75-128

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-118610-1

SDG No.:

Client Sample ID: Lab Sample ID: MB 240-400715/8

Matrix: Water Lab File ID: U1909732.d

Analysis Method: 8260C Date Collected:

Sample wt/vol: 5(mL) Date Analyzed: 09/14/2019 13:53

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.: 400715 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
630-20-6	1,1,1,2-Tetrachloroethane	1.0	U	1.0	0.14
71-55-6	1,1,1-Trichloroethane	1.0	U	1.0	0.24
79-34-5	1,1,2,2-Tetrachloroethane	1.0	U	1.0	0.13
76-13-1	1,1,2-Trichloro-1,2,2-trichfluoroeth ane	1.0	U	1.0	0.41
75-34-3	1,1-Dichloroethane	1.0	U	1.0	0.17
75-35-4	1,1-Dichloroethene	1.0	U	1.0	0.19
563-58-6	1,1-Dichloropropene	1.0	U	1.0	0.14
87-61-6	1,2,3-Trichlorobenzene	1.0	U	1.0	0.54
96-18-4	1,2,3-Trichloropropane	1.0	U	1.0	0.24
526-73-8	1,2,3-Trimethylbenzene	5.0	U	5.0	0.14
120-82-1	1,2,4-Trichlorobenzene	1.0	U	1.0	0.26
95-63-6	1,2,4-Trimethylbenzene	1.0	U	1.0	0.070
96-12-8	1,2-Dibromo-3-Chloropropane	5.0	U	5.0	0.91
95-50-1	1,2-Dichlorobenzene	1.0	U	1.0	0.15
107-06-2	1,2-Dichloroethane	1.0	U	1.0	0.21
78-87-5	1,2-Dichloropropane	1.0	U	1.0	0.15
541-73-1	1,3-Dichlorobenzene	1.0	U	1.0	0.15
142-28-9	1,3-Dichloropropane	1.0	U	1.0	0.21
106-46-7	1,4-Dichlorobenzene	1.0	U	1.0	0.16
594-20-7	2,2-Dichloropropane	1.0	U	1.0	0.31
110-75-8	2-Chloroethyl vinyl ether	10	U	10	0.26
95-49-8	2-Chlorotoluene	1.0	U	1.0	0.15
591-78-6	2-Hexanone	5.0	U	5.0	0.54
108-86-1	Bromobenzene	1.0	U	1.0	0.12
74-97-5	Bromochloromethane	1.0	U	1.0	0.14
106-43-4	4-Chlorotoluene	1.0	U	1.0	0.090
99-87-6	p-Isopropyltoluene	1.0	U	1.0	0.13
67-64-1	Acetone	5.0	U	5.0	5.4
71-43-2	Benzene	1.0	U	1.0	0.13
75-25-2	Bromoform	1.0	U	1.0	0.76
74-83-9	Bromomethane	1.0	U	1.0	0.42
75-15-0	Carbon disulfide	1.0	U	1.0	0.28
56-23-5	Carbon tetrachloride	1.0	U	1.0	0.26
108-90-7	Chlorobenzene	1.0	U	1.0	0.14
75-00-3	Chloroethane	1.0	U	1.0	0.83

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-118610-1

SDG No.:

Client Sample ID: Lab Sample ID: MB 240-400715/8

Matrix: Water Lab File ID: U1909732.d

Analysis Method: 8260C Date Collected:

Sample wt/vol: 5(mL) Date Analyzed: 09/14/2019 13:53

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.: 400715 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
67-66-3	Chloroform	1.0	U	1.0	0.13
74-87-3	Chloromethane	1.0	U	1.0	0.20
156-59-2	cis-1,2-Dichloroethene	1.0	U	1.0	0.16
10061-01-5	cis-1,3-Dichloropropene	1.0	U	1.0	0.61
87-68-3	Hexachlorobutadiene	1.0	U	1.0	0.83
74-95-3	Dibromomethane	1.0	U	1.0	0.090
75-27-4	Bromodichloromethane	1.0	U	1.0	0.17
75-71-8	Dichlorodifluoromethane	1.0	U	1.0	0.35
100-41-4	Ethylbenzene	1.0	U	1.0	0.11
106-93-4	1,2-Dibromoethane	1.0	U	1.0	0.12
108-20-3	Diisopropyl ether	5.0	U	5.0	0.17
91-20-3	Naphthalene	1.0	U	1.0	0.32
179601-23-1	m-Xylene & p-Xylene	2.0	U	2.0	0.080
104-51-8	n-Butylbenzene	1.0	U	1.0	0.14
98-82-8	Isopropylbenzene	1.0	U	1.0	0.090
103-65-1	n-Propylbenzene	1.0	U	1.0	0.15
78-93-3	2-Butanone	5.0	U	5.0	1.2
108-10-1	4-Methyl-2-pentanone	5.0	U	5.0	0.42
135-98-8	sec-Butylbenzene	1.0	U	1.0	0.13
1634-04-4	Methyl tert-butyl ether	1.0	U	1.0	0.070
994-05-8	Tert-amyl-methyl ether (TAME)	5.0	U	5.0	0.11
75-09-2	Methylene Chloride	5.0	U	5.0	2.6
95-47-6	o-Xylene	1.0	U	1.0	0.090
100-42-5	Styrene	1.0	U	1.0	0.10
637-92-3	Ethyl-t-butyl ether (ETBE)	5.0	U	5.0	0.15
98-06-6	tert-Butylbenzene	1.0	U	1.0	0.14
127-18-4	Tetrachloroethene	1.0	U	1.0	0.15
108-88-3	Toluene	1.0	U	1.0	0.14
156-60-5	trans-1,2-Dichloroethene	1.0	U	1.0	0.19
10061-02-6	trans-1,3-Dichloropropene	1.0	U	1.0	0.67
79-01-6	Trichloroethene	1.0	U	1.0	0.10
75-69-4	Trichlorofluoromethane	1.0	U	1.0	0.45
108-05-4	Vinyl acetate	2.0	U	2.0	0.19
75-01-4	Vinyl chloride	0.50	U	0.50	0.20
75-65-0	tert-Butyl alcohol	20	U	20	1.7
1330-20-7	Xylenes, Total	2.0	U	2.0	0.15

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-118610-1

SDG No.:

Client Sample ID: Lab Sample ID: MB 240-400715/8

Matrix: Water Lab File ID: U1909732.d

Analysis Method: 8260C Date Collected:

Sample wt/vol: 5(mL) Date Analyzed: 09/14/2019 13:53

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.: 400715 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
124-48-1	Dibromochloromethane	1.0	U	1.0	0.39

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	118		70-121
460-00-4	4-Bromofluorobenzene (Surr)	94		59-120
2037-26-5	Toluene-d8 (Surr)	101		70-123
1868-53-7	Dibromofluoromethane (Surr)	116		75-128

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-118610-1

SDG No.:

Client Sample ID: Lab Sample ID: MB 240-401172/8

Matrix: Water Lab File ID: U1909789.d

Analysis Method: 8260C Date Collected:

Sample wt/vol: 5(mL) Date Analyzed: 09/17/2019 20:03

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.: 401172 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
630-20-6	1,1,1,2-Tetrachloroethane	1.0	U	1.0	0.14
71-55-6	1,1,1-Trichloroethane	1.0	U	1.0	0.24
79-34-5	1,1,2,2-Tetrachloroethane	1.0	U	1.0	0.13
76-13-1	1,1,2-Trichloro-1,2,2-trichfluoroethane	1.0	U	1.0	0.41
75-34-3	1,1-Dichloroethane	1.0	U	1.0	0.17
75-35-4	1,1-Dichloroethene	1.0	U	1.0	0.19
563-58-6	1,1-Dichloropropene	1.0	U	1.0	0.14
87-61-6	1,2,3-Trichlorobenzene	1.0	U	1.0	0.54
96-18-4	1,2,3-Trichloropropane	1.0	U	1.0	0.24
526-73-8	1,2,3-Trimethylbenzene	5.0	U	5.0	0.14
120-82-1	1,2,4-Trichlorobenzene	1.0	U	1.0	0.26
95-63-6	1,2,4-Trimethylbenzene	1.0	U	1.0	0.070
96-12-8	1,2-Dibromo-3-Chloropropane	5.0	U	5.0	0.91
95-50-1	1,2-Dichlorobenzene	1.0	U	1.0	0.15
107-06-2	1,2-Dichloroethane	1.0	U	1.0	0.21
78-87-5	1,2-Dichloropropane	1.0	U	1.0	0.15
541-73-1	1,3-Dichlorobenzene	1.0	U	1.0	0.15
142-28-9	1,3-Dichloropropane	1.0	U	1.0	0.21
106-46-7	1,4-Dichlorobenzene	1.0	U	1.0	0.16
594-20-7	2,2-Dichloropropane	1.0	U	1.0	0.31
110-75-8	2-Chloroethyl vinyl ether	10	U	10	0.26
95-49-8	2-Chlorotoluene	1.0	U	1.0	0.15
591-78-6	2-Hexanone	5.0	U	5.0	0.54
108-86-1	Bromobenzene	1.0	U	1.0	0.12
74-97-5	Bromochloromethane	1.0	U	1.0	0.14
106-43-4	4-Chlorotoluene	1.0	U	1.0	0.090
99-87-6	p-Isopropyltoluene	1.0	U	1.0	0.13
67-64-1	Acetone	5.0	U	5.0	5.4
71-43-2	Benzene	1.0	U	1.0	0.13
75-25-2	Bromoform	1.0	U	1.0	0.76
74-83-9	Bromomethane	1.0	U	1.0	0.42
75-15-0	Carbon disulfide	1.0	U	1.0	0.28
56-23-5	Carbon tetrachloride	1.0	U	1.0	0.26
108-90-7	Chlorobenzene	1.0	U	1.0	0.14
75-00-3	Chloroethane	1.0	U	1.0	0.83

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-118610-1

SDG No.:

Client Sample ID: Lab Sample ID: MB 240-401172/8

Matrix: Water Lab File ID: U1909789.d

Analysis Method: 8260C Date Collected:

Sample wt/vol: 5(mL) Date Analyzed: 09/17/2019 20:03

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.: 401172 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
67-66-3	Chloroform	1.0	U	1.0	0.13
74-87-3	Chloromethane	1.0	U	1.0	0.20
156-59-2	cis-1,2-Dichloroethene	1.0	U	1.0	0.16
10061-01-5	cis-1,3-Dichloropropene	1.0	U	1.0	0.61
87-68-3	Hexachlorobutadiene	1.0	U	1.0	0.83
74-95-3	Dibromomethane	1.0	U	1.0	0.090
75-27-4	Bromodichloromethane	1.0	U	1.0	0.17
75-71-8	Dichlorodifluoromethane	1.0	U	1.0	0.35
100-41-4	Ethylbenzene	1.0	U	1.0	0.11
106-93-4	1,2-Dibromoethane	1.0	U	1.0	0.12
108-20-3	Diisopropyl ether	5.0	U	5.0	0.17
91-20-3	Naphthalene	1.0	U	1.0	0.32
179601-23-1	m-Xylene & p-Xylene	2.0	U	2.0	0.080
104-51-8	n-Butylbenzene	1.0	U	1.0	0.14
98-82-8	Isopropylbenzene	1.0	U	1.0	0.090
103-65-1	n-Propylbenzene	1.0	U	1.0	0.15
78-93-3	2-Butanone	5.0	U	5.0	1.2
108-10-1	4-Methyl-2-pentanone	5.0	U	5.0	0.42
135-98-8	sec-Butylbenzene	1.0	U	1.0	0.13
1634-04-4	Methyl tert-butyl ether	1.0	U	1.0	0.070
994-05-8	Tert-amyl-methyl ether (TAME)	5.0	U	5.0	0.11
75-09-2	Methylene Chloride	5.0	U	5.0	2.6
95-47-6	o-Xylene	1.0	U	1.0	0.090
100-42-5	Styrene	1.0	U	1.0	0.10
637-92-3	Ethyl-t-butyl ether (ETBE)	5.0	U	5.0	0.15
98-06-6	tert-Butylbenzene	1.0	U	1.0	0.14
127-18-4	Tetrachloroethene	1.0	U	1.0	0.15
108-88-3	Toluene	1.0	U	1.0	0.14
156-60-5	trans-1,2-Dichloroethene	1.0	U	1.0	0.19
10061-02-6	trans-1,3-Dichloropropene	1.0	U	1.0	0.67
79-01-6	Trichloroethene	1.0	U	1.0	0.10
75-69-4	Trichlorofluoromethane	1.0	U	1.0	0.45
108-05-4	Vinyl acetate	2.0	U	2.0	0.19
75-01-4	Vinyl chloride	0.50	U	0.50	0.20
75-65-0	tert-Butyl alcohol	20	U	20	1.7
1330-20-7	Xylenes, Total	2.0	U	2.0	0.15

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-118610-1

SDG No.:

Client Sample ID: Lab Sample ID: MB 240-401172/8

Matrix: Water Lab File ID: U1909789.d

Analysis Method: 8260C Date Collected:

Sample wt/vol: 5(mL) Date Analyzed: 09/17/2019 20:03

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.: 401172 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
124-48-1	Dibromochloromethane	1.0	U	1.0	0.39

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	115		70-121
460-00-4	4-Bromofluorobenzene (Surr)	94		59-120
2037-26-5	Toluene-d8 (Surr)	100		70-123
1868-53-7	Dibromofluoromethane (Surr)	113		75-128

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-118610-1

SDG No.:

Client Sample ID: Lab Sample ID: MB 240-401172/8

Matrix: Water Lab File ID: U1909789.d

Analysis Method: 8260C Date Collected:

Sample wt/vol: 5(mL) Date Analyzed: 09/17/2019 20:03

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.: 401172 Units: ug/L

Number TICs Found: 0 TIC Result Total: 0

CAS NO.	COMPOUND NAME	RT	RESULT	Q	MATCH QUALITY
	Tentatively Identified Compound		None		

GC/MS VOA ANALYSIS RUN LOG

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-118610-1

SDG No.:

Instrument ID: A3UX19 Start Date: 07/24/2018 17:22

Analysis Batch Number: 337766 End Date: 07/24/2018 21:10

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
BFB 240-337766/1		07/24/2018 17:22	1	bfb036.d	DB-624 0.18(mm)
STD8260 240-337766/2 IC		07/24/2018 17:50	1	U1900783.d	DB-624 0.18(mm)
STD8260 240-337766/3 IC		07/24/2018 18:13	1	U1900784.d	DB-624 0.18(mm)
STD8260 240-337766/9 IC		07/24/2018 18:35	1	U1900790.d	DB-624 0.18(mm)
ICIS 240-337766/10		07/24/2018 18:57	1	U1900791.d	DB-624 0.18(mm)
STD8260 240-337766/11 IC		07/24/2018 19:20	1	U1900792.d	DB-624 0.18(mm)
STD8260 240-337766/12 IC		07/24/2018 19:42	1	U1900793.d	DB-624 0.18(mm)
STD8260 240-337766/13 IC		07/24/2018 20:04	1	U1900794.d	DB-624 0.18(mm)
ICV 240-337766/14		07/24/2018 20:26	1		DB-624 0.18(mm)
MRL 240-337766/15 MDLV		07/24/2018 20:48	1		DB-624 0.18(mm)
MDLV 240-337766/16		07/24/2018 21:10	1		DB-624 0.18(mm)

GC/MS VOA ANALYSIS RUN LOG

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-118610-1

SDG No.:

Instrument ID: A3UX19 Start Date: 07/25/2018 11:28

Analysis Batch Number: 337917 End Date: 07/25/2018 19:42

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
BFB 240-337917/1		07/25/2018 11:28	1	bfb037.d	DB-624 0.18(mm)
CCVIS 240-337917/3		07/25/2018 12:17	1		DB-624 0.18(mm)
ZZZZZ		07/25/2018 12:39	1		DB-624 0.18(mm)
STDA9 240-337917/8 IC		07/25/2018 13:24	1	U1900802.d	DB-624 0.18(mm)
STDA9 240-337917/9 IC		07/25/2018 13:46	1	U1900803.d	DB-624 0.18(mm)
STDA9 240-337917/10 IC		07/25/2018 14:08	1	U1900804.d	DB-624 0.18(mm)
STDA9 240-337917/11 IC		07/25/2018 14:30	1	U1900805.d	DB-624 0.18(mm)
STDA9 240-337917/12 IC		07/25/2018 14:52	1	U1900806.d	DB-624 0.18(mm)
STDA9 240-337917/13 IC		07/25/2018 15:15	1	U1900807.d	DB-624 0.18(mm)
ICV 240-337917/14		07/25/2018 15:37	1	U1900808.d	DB-624 0.18(mm)
MRL 240-337917/15 MDLV		07/25/2018 15:59	1		DB-624 0.18(mm)
ZZZZZ		07/25/2018 16:21	1		DB-624 0.18(mm)
ZZZZZ		07/25/2018 16:44	1		DB-624 0.18(mm)
ZZZZZ		07/25/2018 17:06	1		DB-624 0.18(mm)
ZZZZZ		07/25/2018 17:29	1		DB-624 0.18(mm)
ZZZZZ		07/25/2018 17:51	1		DB-624 0.18(mm)
ZZZZZ		07/25/2018 18:13	1		DB-624 0.18(mm)
ZZZZZ		07/25/2018 18:35	1		DB-624 0.18(mm)
ZZZZZ		07/25/2018 18:57	1		DB-624 0.18(mm)
ZZZZZ		07/25/2018 19:20	1		DB-624 0.18(mm)
ZZZZZ		07/25/2018 19:42	1		DB-624 0.18(mm)

GC/MS VOA ANALYSIS RUN LOG

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-118610-1

SDG No.:

Instrument ID: A3UX19 Start Date: 08/27/2018 16:23

Analysis Batch Number: 342719 End Date: 08/27/2018 20:52

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
BFB 240-342719/1		08/27/2018 16:23	1	bfb058.d	DB-624 0.18(mm)
CCV 240-342719/2		08/27/2018 16:46	1		DB-624 0.18(mm)
STD8260 240-342719/7 IC		08/27/2018 17:09	1	U1901323.d	DB-624 0.18(mm)
STD8260 240-342719/8 IC		08/27/2018 17:31	1	U1901324.d	DB-624 0.18(mm)
STD8260 240-342719/9 IC		08/27/2018 17:53	1	U1901325.d	DB-624 0.18(mm)
ICIS 240-342719/10		08/27/2018 18:16	1	U1901326.d	DB-624 0.18(mm)
STD8260 240-342719/11 IC		08/27/2018 18:38	1	U1901327.d	DB-624 0.18(mm)
STD8260 240-342719/12 IC		08/27/2018 19:01	1	U1901328.d	DB-624 0.18(mm)
STD8260 240-342719/13 IC		08/27/2018 19:23	1	U1901329.d	DB-624 0.18(mm)
ICV 240-342719/14		08/27/2018 19:45	1	U1901330.d	DB-624 0.18(mm)
MRL 240-342719/15 MDLV		08/27/2018 20:07	1		DB-624 0.18(mm)
MDLV 240-342719/16		08/27/2018 20:30	1		DB-624 0.18(mm)
ZZZZZ		08/27/2018 20:52	1		DB-624 0.18(mm)

GC/MS VOA ANALYSIS RUN LOG

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-118610-1

SDG No.:

Instrument ID: A3UX19 Start Date: 09/13/2019 15:32

Analysis Batch Number: 400639 End Date: 09/14/2019 01:22

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
BFB 240-400639/1		09/13/2019 15:32	1	bfb342.d	DB-624 0.18(mm)
CCV 240-400639/3		09/13/2019 15:55	1	U1909701.d	DB-624 0.18(mm)
CCVIS 240-400639/4		09/13/2019 16:17	1	U1909702.d	DB-624 0.18(mm)
LCS 240-400639/5		09/13/2019 16:40	1	U1909703.d	DB-624 0.18(mm)
MRL 240-400639/6 MDLV		09/13/2019 17:03	1		DB-624 0.18(mm)
MRL 240-400639/7 MDLV		09/13/2019 17:25	1		DB-624 0.18(mm)
MB 240-400639/8		09/13/2019 17:48	1	U1909706.d	DB-624 0.18(mm)
240-118610-1		09/13/2019 18:11	1	U1909707.d	DB-624 0.18(mm)
240-118610-2		09/13/2019 18:34	1	U1909708.d	DB-624 0.18(mm)
240-118610-3		09/13/2019 18:56	1	U1909709.d	DB-624 0.18(mm)
240-118610-4		09/13/2019 19:19	1	U1909710.d	DB-624 0.18(mm)
240-118610-5		09/13/2019 19:42	1	U1909711.d	DB-624 0.18(mm)
240-118610-6		09/13/2019 20:05	1	U1909712.d	DB-624 0.18(mm)
240-118610-7		09/13/2019 20:27	1	U1909713.d	DB-624 0.18(mm)
240-118610-8		09/13/2019 20:50	1	U1909714.d	DB-624 0.18(mm)
240-118610-9		09/13/2019 21:13	1	U1909715.d	DB-624 0.18(mm)
240-118610-10		09/13/2019 21:35	1	U1909716.d	DB-624 0.18(mm)
240-118610-11		09/13/2019 21:58	1	U1909717.d	DB-624 0.18(mm)
240-118610-12		09/13/2019 22:21	1	U1909718.d	DB-624 0.18(mm)
240-118610-13		09/13/2019 22:43	1	U1909719.d	DB-624 0.18(mm)
240-118610-14		09/13/2019 23:06	1	U1909720.d	DB-624 0.18(mm)
240-118610-15		09/13/2019 23:28	1	U1909721.d	DB-624 0.18(mm)
240-118610-16		09/13/2019 23:51	1	U1909722.d	DB-624 0.18(mm)
240-118610-17		09/14/2019 00:14	1	U1909723.d	DB-624 0.18(mm)
240-118610-18		09/14/2019 00:36	1	U1909724.d	DB-624 0.18(mm)
240-118610-19		09/14/2019 00:59	1	U1909725.d	DB-624 0.18(mm)
240-118610-20		09/14/2019 01:22	1	U1909726.d	DB-624 0.18(mm)

GC/MS VOA ANALYSIS RUN LOG

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-118610-1

SDG No.:

Instrument ID: A3UX19 Start Date: 09/14/2019 11:37

Analysis Batch Number: 400715 End Date: 09/14/2019 23:31

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
BFB 240-400715/1		09/14/2019 11:37	1	bfb343.d	DB-624 0.18(mm)
CCV 240-400715/3		09/14/2019 12:00	1	U1909727.d	DB-624 0.18(mm)
CCVIS 240-400715/4		09/14/2019 12:23	1	U1909728.d	DB-624 0.18(mm)
LCS 240-400715/5		09/14/2019 12:45	1	U1909729.d	DB-624 0.18(mm)
MRL 240-400715/6 MDLV		09/14/2019 13:08	1		DB-624 0.18(mm)
MRL 240-400715/7 MDLV		09/14/2019 13:31	1		DB-624 0.18(mm)
MB 240-400715/8		09/14/2019 13:53	1	U1909732.d	DB-624 0.18(mm)
240-118610-21		09/14/2019 14:16	1	U1909733.d	DB-624 0.18(mm)
240-118610-22		09/14/2019 14:41	1	U1909734.d	DB-624 0.18(mm)
240-118610-23		09/14/2019 15:06	1	U1909735.d	DB-624 0.18(mm)
240-118610-24		09/14/2019 15:37	1	U1909736.d	DB-624 0.18(mm)
240-118610-25		09/14/2019 16:09	1	U1909737.d	DB-624 0.18(mm)
240-118610-26		09/14/2019 16:39	1	U1909738.d	DB-624 0.18(mm)
240-118610-27		09/14/2019 17:13	1	U1909739.d	DB-624 0.18(mm)
240-118610-28		09/14/2019 17:43	1	U1909740.d	DB-624 0.18(mm)
240-118610-29		09/14/2019 18:11	1	U1909741.d	DB-624 0.18(mm)
240-118610-30		09/14/2019 18:41	1	U1909742.d	DB-624 0.18(mm)
240-118610-31		09/14/2019 19:13	1	U1909743.d	DB-624 0.18(mm)
240-118610-32		09/14/2019 19:40	1	U1909744.d	DB-624 0.18(mm)
240-118610-33		09/14/2019 20:08	1	U1909745.d	DB-624 0.18(mm)
240-118610-34		09/14/2019 20:37	1	U1909746.d	DB-624 0.18(mm)
240-118610-35		09/14/2019 21:03	1	U1909747.d	DB-624 0.18(mm)
240-118610-36		09/14/2019 21:31	1	U1909748.d	DB-624 0.18(mm)
240-118610-37		09/14/2019 21:59	1	U1909749.d	DB-624 0.18(mm)
240-118610-38		09/14/2019 22:31	1	U1909750.d	DB-624 0.18(mm)
240-118610-39		09/14/2019 23:00	1	U1909751.d	DB-624 0.18(mm)
240-118610-40		09/14/2019 23:31	1	U1909752.d	DB-624 0.18(mm)

GC/MS VOA ANALYSIS RUN LOG

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-118610-1

SDG No.:

Instrument ID: A3UX19 Start Date: 09/17/2019 17:48

Analysis Batch Number: 401172 End Date: 09/17/2019 21:56

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
BFB 240-401172/1		09/17/2019 17:48	1	bfb345.d	DB-624 0.18(mm)
CCV 240-401172/3		09/17/2019 18:11	1	U1909784.d	DB-624 0.18(mm)
CCVIS 240-401172/4		09/17/2019 18:33	1	U1909785.d	DB-624 0.18(mm)
LCS 240-401172/5		09/17/2019 18:55	1	U1909786.d	DB-624 0.18(mm)
MRL 240-401172/6 MDLV		09/17/2019 19:18	1		DB-624 0.18(mm)
MRL 240-401172/7 MDLV		09/17/2019 19:40	1		DB-624 0.18(mm)
MB 240-401172/8		09/17/2019 20:03	1	U1909789.d	DB-624 0.18(mm)
240-118610-41		09/17/2019 20:26	1	U1909790.d	DB-624 0.18(mm)
240-118610-42		09/17/2019 20:48	1	U1909791.d	DB-624 0.18(mm)
240-118610-43		09/17/2019 21:11	1	U1909792.d	DB-624 0.18(mm)
240-118610-44		09/17/2019 21:34	1	U1909793.d	DB-624 0.18(mm)
240-118610-45		09/17/2019 21:56	1	U1909794.d	DB-624 0.18(mm)

GC/MS VOA BATCH WORKSHEET

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-118610-1

SDG No.:

Batch Number: 337917 Batch Start Date: 07/25/18 11:28 Batch Analyst: Lavey, Tim

Batch Method: 8260C Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount	vm50is_stk_A 00001	vm50ss_stk 00077	vmbfb 00020	VMFASA9W 00194
BFB 240-337917/1		8260C		5 mL	5 mL			1 uL	
STDA9 240-337917/8 IC		8260C		5 mL	5 mL	2 uL			
STDA9 240-337917/9 IC		8260C		5 mL	5 mL	2 uL			
STDA9 240-337917/10 IC		8260C		5 mL	5 mL	2 uL			
STDA9 240-337917/11 IC		8260C		5 mL	5 mL	2 uL			
STDA9 240-337917/12 IC		8260C		5 mL	5 mL	2 uL			
STDA9 240-337917/13 IC		8260C		5 mL	5 mL	2 uL			
ICV 240-337917/14		8260C		5 mL	5 mL	2 uL	2 uL		16 uL

Lab Sample ID	Client Sample ID	Method Chain	Basis	vmra9w 00259					
BFB 240-337917/1		8260C							
STDA9 240-337917/8 IC		8260C		64 uL					
STDA9 240-337917/9 IC		8260C		32 uL					
STDA9 240-337917/10 IC		8260C		16 uL					
STDA9 240-337917/11 IC		8260C		8 uL					
STDA9 240-337917/12 IC		8260C		0.8 uL					
STDA9 240-337917/13 IC		8260C		0.4 uL					

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.

GC/MS VOA BATCH WORKSHEET

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-118610-1

SDG No.:

Batch Number: 337917 Batch Start Date: 07/25/18 11:28 Batch Analyst: Lavey, Tim

Batch Method: 8260C Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	vmra9w 00259					
ICV 240-337917/14		8260C							

Batch Notes	
pH Indicator ID	HC746949

Basis	Basis Description

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.

GC/MS VOA BATCH WORKSHEET

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-118610-1

SDG No.:

Batch Number: 342719 Batch Start Date: 08/27/18 16:23 Batch Analyst: Lavey, Tim

Batch Method: 8260C Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount	vm50is_stk_A 00001	vm50ss 00333	vm50ss_stk 00077	vmarolistdw 00260
BFB 240-342719/1		8260C		5 mL	5 mL				
STD8260 240-342719/7 IC		8260C		5 mL	5 mL	2 uL	64 uL		64 uL
STD8260 240-342719/8 IC		8260C		5 mL	5 mL	2 uL	48 uL		48 uL
STD8260 240-342719/9 IC		8260C		5 mL	5 mL	2 uL	32 uL		32 uL
ICIS 240-342719/10		8260C		5 mL	5 mL	2 uL	16 uL		16 uL
STD8260 240-342719/11 IC		8260C		5 mL	5 mL	2 uL	8 uL		8 uL
STD8260 240-342719/12 IC		8260C		5 mL	5 mL	2 uL	0.8 uL		0.8 uL
STD8260 240-342719/13 IC		8260C		5 mL	5 mL	2 uL	0.4 uL		0.4 uL
ICV 240-342719/14		8260C		5 mL	5 mL	2 uL		2 uL	

Lab Sample ID	Client Sample ID	Method Chain	Basis	vmbfb 00020	vmfasaw 00246	vmfasgw 00271	vmfaspw 00264	vmrgas 00259	vmrprimw 00297
BFB 240-342719/1		8260C		1 uL					
STD8260 240-342719/7 IC		8260C						64 uL	64 uL
STD8260 240-342719/8 IC		8260C						48 uL	48 uL
STD8260 240-342719/9 IC		8260C						32 uL	32 uL
ICIS 240-342719/10		8260C						16 uL	16 uL
STD8260 240-342719/11 IC		8260C						8 uL	8 uL
STD8260 240-342719/12 IC		8260C						0.8 uL	0.8 uL

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.

GC/MS VOA BATCH WORKSHEET

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-118610-1

SDG No.:

Batch Number: 342719 Batch Start Date: 08/27/18 16:23 Batch Analyst: Lavey, Tim

Batch Method: 8260C Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	vmbfb 00020	vmfasaw 00246	vmfasgw 00271	vmfaspw 00264	vmrgas 00259	vmrprimw 00297
STD8260 240-342719/13 IC		8260C						0.4 uL	0.4 uL
ICV 240-342719/14		8260C			16 uL	16 uL	16 uL		

Batch Notes	

Basis	Basis Description

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.

GC/MS VOA BATCH WORKSHEET

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-118610-1

SDG No.:

Batch Number: 400639 Batch Start Date: 09/13/19 15:32 Batch Analyst: Lavey, Tim

Batch Method: 8260C Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount	Initial pH	vm50is_stk_A 00005	vm50ss_stk 00081	vmarolistdw 00312
BFB 240-400639/1		8260C		5 mL	5 mL				
CCV 240-400639/3		8260C		5 mL	5 mL		2 uL		
CCVIS 240-400639/4		8260C		5 mL	5 mL		2 uL	2 uL	16 uL
LCS 240-400639/5		8260C		5 mL	5 mL		2 uL	2 uL	
MB 240-400639/8		8260C		5 mL	5 mL		2 uL	2 uL	
240-118610-C-1	MSA-SW37A-090919	8260C	T	5 mL	5 mL	<2 SU	2 uL	2 uL	
240-118610-B-2	MSA-SW37B-090919	8260C	T	5 mL	5 mL	<2 SU	2 uL	2 uL	
240-118610-B-3	MSA-SW37C-090919	8260C	T	5 mL	5 mL	<2 SU	2 uL	2 uL	
240-118610-B-4	MSA-SW37D-090919	8260C	T	5 mL	5 mL	<2 SU	2 uL	2 uL	
240-118610-B-5	MSA-SW38A-090919	8260C	T	5 mL	5 mL	<2 SU	2 uL	2 uL	
240-118610-B-6	MSA-SW38B-090919	8260C	T	5 mL	5 mL	<2 SU	2 uL	2 uL	
240-118610-A-7	MSA-SW38C090919	8260C	T	5 mL	5 mL	<2 SU	2 uL	2 uL	
240-118610-B-8	MSA-SW38D-090919	8260C	T	5 mL	5 mL	<2 SU	2 uL	2 uL	
240-118610-A-9	MSA-SW39A-090919	8260C	T	5 mL	5 mL	<2 SU	2 uL	2 uL	
240-118610-B-10	MSA-SW39B-090919	8260C	T	5 mL	5 mL	<2 SU	2 uL	2 uL	
240-118610-B-11	MSA-SW39C-090919	8260C	T	5 mL	5 mL	<2 SU	2 uL	2 uL	
240-118610-B-12	MSA-SW39D-090919	8260C	T	5 mL	5 mL	<2 SU	2 uL	2 uL	
240-118610-A-13	MSA-SW40A-090919	8260C	T	5 mL	5 mL	<2 SU	2 uL	2 uL	
240-118610-A-14	MSA-SW40B-090919	8260C	T	5 mL	5 mL	<2 SU	2 uL	2 uL	
240-118610-B-15	MSA-SW40C-090919	8260C	T	5 mL	5 mL	<2 SU	2 uL	2 uL	
240-118610-B-16	MSA-SW40D-090919	8260C	T	5 mL	5 mL	<2 SU	2 uL	2 uL	
240-118610-A-17	MSA-SW41A-090919	8260C	T	5 mL	5 mL	<2 SU	2 uL	2 uL	
240-118610-B-18	MSA-SW41B-090919	8260C	T	5 mL	5 mL	<2 SU	2 uL	2 uL	
240-118610-B-19	MSA-SW41C-090919	8260C	T	5 mL	5 mL	<2 SU	2 uL	2 uL	
240-118610-B-20	MSA-SW41D-090919	8260C	T	5 mL	5 mL	<2 SU	2 uL	2 uL	

Lab Sample ID	Client Sample ID	Method Chain	Basis	vmbfb 00023	vmfasaw 00296	vmfasgw 00326	vmfaspw 00315	vmra9w 00313	vmrgas 00308
BFB 240-400639/1		8260C		1 uL					

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.

GC/MS VOA BATCH WORKSHEET

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-118610-1

SDG No.:

Batch Number: 400639 Batch Start Date: 09/13/19 15:32 Batch Analyst: Lavey, Tim

Batch Method: 8260C Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	vmbfb 00023	vmfasaw 00296	vmfasgw 00326	vmfaspw 00315	vmra9w 00313	vmrgas 00308
CCV 240-400639/3		8260C						16 uL	
CCVIS 240-400639/4		8260C							16 uL
LCS 240-400639/5		8260C			16 uL	16 uL	16 uL		
MB 240-400639/8		8260C							
240-118610-C-1	MSA-SW37A-090919	8260C	T						
240-118610-B-2	MSA-SW37B-090919	8260C	T						
240-118610-B-3	MSA-SW37C-090919	8260C	T						
240-118610-B-4	MSA-SW37D-090919	8260C	T						
240-118610-B-5	MSA-SW38A-090919	8260C	T						
240-118610-B-6	MSA-SW38B-090919	8260C	T						
240-118610-A-7	MSA-SW38C090919	8260C	T						
240-118610-B-8	MSA-SW38D-090919	8260C	T						
240-118610-A-9	MSA-SW39A-090919	8260C	T						
240-118610-B-10	MSA-SW39B-090919	8260C	T						
240-118610-B-11	MSA-SW39C-090919	8260C	T						
240-118610-B-12	MSA-SW39D-090919	8260C	T						
240-118610-A-13	MSA-SW40A-090919	8260C	T						
240-118610-A-14	MSA-SW40B-090919	8260C	T						
240-118610-B-15	MSA-SW40C-090919	8260C	T						
240-118610-B-16	MSA-SW40D-090919	8260C	T						
240-118610-A-17	MSA-SW41A-090919	8260C	T						
240-118610-B-18	MSA-SW41B-090919	8260C	T						
240-118610-B-19	MSA-SW41C-090919	8260C	T						
240-118610-B-20	MSA-SW41D-090919	8260C	T						

Lab Sample ID	Client Sample ID	Method Chain	Basis	vmrprimw 00352					
BFB 240-400639/1		8260C							
CCV 240-400639/3		8260C							

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.

GC/MS VOA BATCH WORKSHEET

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-118610-1

SDG No.:

Batch Number: 400639 Batch Start Date: 09/13/19 15:32 Batch Analyst: Lavey, Tim

Batch Method: 8260C Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	vmrprimw 00352					
CCVIS 240-400639/4		8260C		16 uL					
LCS 240-400639/5		8260C							
MB 240-400639/8		8260C							
240-118610-C-1	MSA-SW37A-090919	8260C	T						
240-118610-B-2	MSA-SW37B-090919	8260C	T						
240-118610-B-3	MSA-SW37C-090919	8260C	T						
240-118610-B-4	MSA-SW37D-090919	8260C	T						
240-118610-B-5	MSA-SW38A-090919	8260C	T						
240-118610-B-6	MSA-SW38B-090919	8260C	T						
240-118610-A-7	MSA-SW38C090919	8260C	T						
240-118610-B-8	MSA-SW38D-090919	8260C	T						
240-118610-A-9	MSA-SW39A-090919	8260C	T						
240-118610-B-10	MSA-SW39B-090919	8260C	T						
240-118610-B-11	MSA-SW39C-090919	8260C	T						
240-118610-B-12	MSA-SW39D-090919	8260C	T						
240-118610-A-13	MSA-SW40A-090919	8260C	T						
240-118610-A-14	MSA-SW40B-090919	8260C	T						
240-118610-B-15	MSA-SW40C-090919	8260C	T						
240-118610-B-16	MSA-SW40D-090919	8260C	T						
240-118610-A-17	MSA-SW41A-090919	8260C	T						
240-118610-B-18	MSA-SW41B-090919	8260C	T						
240-118610-B-19	MSA-SW41C-090919	8260C	T						
240-118610-B-20	MSA-SW41D-090919	8260C	T						

Batch Notes	
pH Indicator ID	HC861525

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.

GC/MS VOA BATCH WORKSHEET

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-118610-1

SDG No.:

Batch Number: 400715 Batch Start Date: 09/14/19 11:37 Batch Analyst: Lavey, Tim

Batch Method: 8260C Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount	Initial pH	vm50is_stk_A 00005	vm50ss_stk 00081	vmarolistdw 00312
BFB 240-400715/1		8260C		5 mL	5 mL				
CCV 240-400715/3		8260C		5 mL	5 mL		2 uL		
CCVIS 240-400715/4		8260C		5 mL	5 mL		2 uL	2 uL	16 uL
LCS 240-400715/5		8260C		5 mL	5 mL		2 uL	2 uL	
MB 240-400715/8		8260C		5 mL	5 mL		2 uL	2 uL	
240-118610-C-21	MSA-SW42A-090919	8260C	T	5 mL	5 mL	<2 SU	2 uL	2 uL	
240-118610-B-22	MSA-SW42B-090919	8260C	T	5 mL	5 mL	<2 SU	2 uL	2 uL	
240-118610-B-23	MSA-SW42C-090919	8260C	T	5 mL	5 mL	<2 SU	2 uL	2 uL	
240-118610-B-24	MSA-SW42D-090919	8260C	T	5 mL	5 mL	<2 SU	2 uL	2 uL	
240-118610-B-25	MSA-SW43A-090919	8260C	T	5 mL	5 mL	<2 SU	2 uL	2 uL	
240-118610-B-26	MSA-SW43B-090919	8260C	T	5 mL	5 mL	<2 SU	2 uL	2 uL	
240-118610-B-27	MSA-SW43C-090919	8260C	T	5 mL	5 mL	<2 SU	2 uL	2 uL	
240-118610-A-28	MSA-SW43D-090919	8260C	T	5 mL	5 mL	<2 SU	2 uL	2 uL	
240-118610-B-29	MSA-SW44A-090919	8260C	T	5 mL	5 mL	<2 SU	2 uL	2 uL	
240-118610-B-30	MSA-SW44B-090919	8260C	T	5 mL	5 mL	<2 SU	2 uL	2 uL	
240-118610-B-31	MSA-SW44C-090919	8260C	T	5 mL	5 mL	<2 SU	2 uL	2 uL	
240-118610-B-32	MSA-SW44D-090919	8260C	T	5 mL	5 mL	<2 SU	2 uL	2 uL	
240-118610-B-33	MSA-SW45A-090919	8260C	T	5 mL	5 mL	<2 SU	2 uL	2 uL	
240-118610-B-34	MSA-SW45B-090919	8260C	T	5 mL	5 mL	<2 SU	2 uL	2 uL	
240-118610-A-35	MSA-SW45C-090919	8260C	T	5 mL	5 mL	<2 SU	2 uL	2 uL	
240-118610-B-36	MSA-SW45D-090919	8260C	T	5 mL	5 mL	<2 SU	2 uL	2 uL	
240-118610-A-37	EL-SW01A-090919	8260C	T	5 mL	5 mL	<2 SU	2 uL	2 uL	
240-118610-B-38	EL-SW01B-090919	8260C	T	5 mL	5 mL	<2 SU	2 uL	2 uL	
240-118610-B-39	EL-SW01C-090919	8260C	T	5 mL	5 mL	<2 SU	2 uL	2 uL	
240-118610-B-40	EL-SW01D-090919	8260C	T	5 mL	5 mL	<2 SU	2 uL	2 uL	

Lab Sample ID	Client Sample ID	Method Chain	Basis	vmbfb 00023	vmfasaw 00296	vmfasgw 00326	vmfaspw 00315	vmra9w 00313	vmrgas 00308
BFB 240-400715/1		8260C		1 uL					

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.

GC/MS VOA BATCH WORKSHEET

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-118610-1

SDG No.:

Batch Number: 400715 Batch Start Date: 09/14/19 11:37 Batch Analyst: Lavey, Tim

Batch Method: 8260C Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	vmbfb 00023	vmfasaw 00296	vmfasgw 00326	vmfaspw 00315	vmra9w 00313	vmrgas 00308
CCV 240-400715/3		8260C						16 uL	
CCVIS 240-400715/4		8260C							16 uL
LCS 240-400715/5		8260C			16 uL	16 uL	16 uL		
MB 240-400715/8		8260C							
240-118610-C-21	MSA-SW42A-090919	8260C	T						
240-118610-B-22	MSA-SW42B-090919	8260C	T						
240-118610-B-23	MSA-SW42C-090919	8260C	T						
240-118610-B-24	MSA-SW42D-090919	8260C	T						
240-118610-B-25	MSA-SW43A-090919	8260C	T						
240-118610-B-26	MSA-SW43B-090919	8260C	T						
240-118610-B-27	MSA-SW43C-090919	8260C	T						
240-118610-A-28	MSA-SW43D-090919	8260C	T						
240-118610-B-29	MSA-SW44A-090919	8260C	T						
240-118610-B-30	MSA-SW44B-090919	8260C	T						
240-118610-B-31	MSA-SW44C-090919	8260C	T						
240-118610-B-32	MSA-SW44D-090919	8260C	T						
240-118610-B-33	MSA-SW45A-090919	8260C	T						
240-118610-B-34	MSA-SW45B-090919	8260C	T						
240-118610-A-35	MSA-SW45C-090919	8260C	T						
240-118610-B-36	MSA-SW45D-090919	8260C	T						
240-118610-A-37	EL-SW01A-090919	8260C	T						
240-118610-B-38	EL-SW01B-090919	8260C	T						
240-118610-B-39	EL-SW01C-090919	8260C	T						
240-118610-B-40	EL-SW01D-090919	8260C	T						

Lab Sample ID	Client Sample ID	Method Chain	Basis	vmrprimw 00352					
BFB 240-400715/1		8260C							
CCV 240-400715/3		8260C							

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.

GC/MS VOA BATCH WORKSHEET

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-118610-1

SDG No.:

Batch Number: 400715 Batch Start Date: 09/14/19 11:37 Batch Analyst: Lavey, Tim

Batch Method: 8260C Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	vmrprimw 00352					
CCVIS 240-400715/4		8260C		16 uL					
LCS 240-400715/5		8260C							
MB 240-400715/8		8260C							
240-118610-C-21	MSA-SW42A-090919	8260C	T						
240-118610-B-22	MSA-SW42B-090919	8260C	T						
240-118610-B-23	MSA-SW42C-090919	8260C	T						
240-118610-B-24	MSA-SW42D-090919	8260C	T						
240-118610-B-25	MSA-SW43A-090919	8260C	T						
240-118610-B-26	MSA-SW43B-090919	8260C	T						
240-118610-B-27	MSA-SW43C-090919	8260C	T						
240-118610-A-28	MSA-SW43D-090919	8260C	T						
240-118610-B-29	MSA-SW44A-090919	8260C	T						
240-118610-B-30	MSA-SW44B-090919	8260C	T						
240-118610-B-31	MSA-SW44C-090919	8260C	T						
240-118610-B-32	MSA-SW44D-090919	8260C	T						
240-118610-B-33	MSA-SW45A-090919	8260C	T						
240-118610-B-34	MSA-SW45B-090919	8260C	T						
240-118610-A-35	MSA-SW45C-090919	8260C	T						
240-118610-B-36	MSA-SW45D-090919	8260C	T						
240-118610-A-37	EL-SW01A-090919	8260C	T						
240-118610-B-38	EL-SW01B-090919	8260C	T						
240-118610-B-39	EL-SW01C-090919	8260C	T						
240-118610-B-40	EL-SW01D-090919	8260C	T						

Batch Notes	
pH Indicator ID	HC861525

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.

GC/MS VOA BATCH WORKSHEET

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-118610-1

SDG No.:

Batch Number: 401172 Batch Start Date: 09/17/19 17:48 Batch Analyst: Lavey, Tim

Batch Method: 8260C Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount	Initial pH	vm50is_stk_A 00005	vm50ss_stk 00081	vmarolistdw 00313
BFB 240-401172/1		8260C		5 mL	5 mL				
CCV 240-401172/3		8260C		5 mL	5 mL		2 uL		
CCVIS 240-401172/4		8260C		5 mL	5 mL		2 uL	2 uL	16 uL
LCS 240-401172/5		8260C		5 mL	5 mL		2 uL	2 uL	
MB 240-401172/8		8260C		5 mL	5 mL		2 uL	2 uL	
240-118610-A-41	TB-090919	8260C	T	5 mL	5 mL	<2 SU	2 uL	2 uL	
240-118610-B-42	MSA-SW46A-090919	8260C	T	5 mL	5 mL	<2 SU	2 uL	2 uL	
240-118610-B-43	MSA-SW47A-090919	8260C	T	5 mL	5 mL	<2 SU	2 uL	2 uL	
240-118610-A-44	MSA-SW48A-090919	8260C	T	5 mL	5 mL	<2 SU	2 uL	2 uL	
240-118610-B-45	MSA-SW49A-090919	8260C	T	5 mL	5 mL	<2 SU	2 uL	2 uL	

Lab Sample ID	Client Sample ID	Method Chain	Basis	vmbfb 00023	vmfasaw 00297	vmfasgw 00326	vmfaspw 00316	vmra9w 00313	vmrgas 00308
BFB 240-401172/1		8260C		1 uL					
CCV 240-401172/3		8260C						16 uL	
CCVIS 240-401172/4		8260C							16 uL
LCS 240-401172/5		8260C			16 uL	16 uL	16 uL		
MB 240-401172/8		8260C							
240-118610-A-41	TB-090919	8260C	T						
240-118610-B-42	MSA-SW46A-090919	8260C	T						
240-118610-B-43	MSA-SW47A-090919	8260C	T						
240-118610-A-44	MSA-SW48A-090919	8260C	T						
240-118610-B-45	MSA-SW49A-090919	8260C	T						

Lab Sample ID	Client Sample ID	Method Chain	Basis	vmrprimw 00353					
BFB 240-401172/1		8260C							

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.

GC/MS VOA BATCH WORKSHEET

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-118610-1

SDG No.:

Batch Number: 401172 Batch Start Date: 09/17/19 17:48 Batch Analyst: Lavey, Tim

Batch Method: 8260C Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	vmrprimw 00353					
CCV 240-401172/3		8260C							
CCVIS 240-401172/4		8260C		16 uL					
LCS 240-401172/5		8260C							
MB 240-401172/8		8260C							
240-118610-A-41	TB-090919	8260C	T						
240-118610-B-42	MSA-SW46A-090919	8260C	T						
240-118610-B-43	MSA-SW47A-090919	8260C	T						
240-118610-A-44	MSA-SW48A-090919	8260C	T						
240-118610-B-45	MSA-SW49A-090919	8260C	T						

Batch Notes	
pH Indicator ID	HC861525

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.

FORM II
GC/MS VOA SURROGATE RECOVERY

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-118610-1

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 #
MSA-SW37A-090919	240-118610-1	111	112	97	90
MSA-SW37B-090919	240-118610-2	111	114	102	94
MSA-SW37C-090919	240-118610-3	114	115	101	96
MSA-SW37D-090919	240-118610-4	115	117	102	95
MSA-SW38A-090919	240-118610-5	110	113	101	91
MSA-SW38B-090919	240-118610-6	112	115	102	93
MSA-SW38C090919	240-118610-7	114	112	103	94
MSA-SW38D-090919	240-118610-8	110	110	99	89
MSA-SW39A-090919	240-118610-9	118	119	105	96
MSA-SW39B-090919	240-118610-10	118	121	102	92
MSA-SW39C-090919	240-118610-11	111	115	101	94
MSA-SW39D-090919	240-118610-12	110	113	99	90
MSA-SW40A-090919	240-118610-13	117	119	104	94
MSA-SW40B-090919	240-118610-14	116	117	100	94
MSA-SW40C-090919	240-118610-15	118	118	102	92
MSA-SW40D-090919	240-118610-16	113	117	101	92
MSA-SW41A-090919	240-118610-17	112	117	102	92
MSA-SW41B-090919	240-118610-18	111	114	100	92
MSA-SW41C-090919	240-118610-19	114	116	103	95
MSA-SW41D-090919	240-118610-20	117	117	99	93
MSA-SW42A-090919	240-118610-21	114	116	102	91
MSA-SW42B-090919	240-118610-22	110	115	102	93
MSA-SW42C-090919	240-118610-23	108	111	100	90
MSA-SW42D-090919	240-118610-24	112	115	101	92
MSA-SW43A-090919	240-118610-25	106	111	98	88
MSA-SW43B-090919	240-118610-26	112	116	100	94
MSA-SW43C-090919	240-118610-27	110	115	101	98
MSA-SW43D-090919	240-118610-28	111	115	101	94
MSA-SW44A-090919	240-118610-29	111	114	101	93
MSA-SW44B-090919	240-118610-30	109	110	98	90
MSA-SW44C-090919	240-118610-31	112	117	104	98
MSA-SW44D-090919	240-118610-32	108	113	99	93
MSA-SW45A-090919	240-118610-33	109	112	100	92
MSA-SW45B-090919	240-118610-34	108	112	100	94
MSA-SW45C-090919	240-118610-35	113	115	101	93

	QC LIMITS
DBFM = Dibromofluoromethane (Surr)	75-128
DCA = 1,2-Dichloroethane-d4 (Surr)	70-121
TOL = Toluene-d8 (Surr)	70-123
BFB = 4-Bromofluorobenzene (Surr)	59-120

Column to be used to flag recovery values

FORM II 8260C

FORM II
GC/MS VOA SURROGATE RECOVERY

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-118610-1

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 #
MSA-SW45D-090919	240-118610-36	111	115	101	93
EL-SW01A-090919	240-118610-37	110	114	101	93
EL-SW01B-090919	240-118610-38	111	114	102	92
EL-SW01C-090919	240-118610-39	113	116	102	93
EL-SW01D-090919	240-118610-40	108	111	100	91
TB-090919	240-118610-41	111	115	103	93
MSA-SW46A-090919	240-118610-42	110	113	101	93
MSA-SW47A-090919	240-118610-43	112	115	103	93
MSA-SW48A-090919	240-118610-44	116	118	103	95
MSA-SW49A-090919	240-118610-45	115	117	102	95
	MB 240-400639/8	112	115	104	95
	MB 240-400715/8	116	118	101	94
	MB 240-401172/8	113	115	100	94
	LCS 240-400639/5	110	109	105	102
	LCS 240-400715/5	109	107	105	102
	LCS 240-401172/5	107	109	104	100

	QC LIMITS
DBFM = Dibromofluoromethane (Surr)	75-128
DCA = 1,2-Dichloroethane-d4 (Surr)	70-121
TOL = Toluene-d8 (Surr)	70-123
BFB = 4-Bromofluorobenzene (Surr)	59-120

Column to be used to flag recovery values

FORM II 8260C

FORM III
GC/MS VOA LAB CONTROL SAMPLE RECOVERY

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-118610-1

SDG No.:

Matrix: Water Level: Low Lab File ID: U1909703.d

Lab ID: LCS 240-400639/5 Client ID:

COMPOUND	SPIKE ADDED (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC	QC LIMITS REC	#
1,1,1,2-Tetrachloroethane	20.0	21.4	107	80-124	
1,1,1-Trichloroethane	20.0	21.2	106	69-134	
1,1,2,2-Tetrachloroethane	20.0	23.0	115	65-139	
1,1,2-Trichloro-1,2,2-trichfluoroethane	20.0	22.6	113	50-156	
1,1-Dichloroethane	20.0	22.5	112	75-133	
1,1-Dichloroethene	20.0	22.7	114	65-139	
1,1-Dichloropropene	20.0	21.2	106	78-126	
1,2,3-Trichlorobenzene	20.0	16.6	83	39-138	
1,2,3-Trichloropropane	20.0	21.9	110	66-139	
1,2,4-Trichlorobenzene	20.0	15.6	78	42-133	
1,2,4-Trimethylbenzene	20.0	21.2	106	74-120	
1,2-Dibromo-3-Chloropropane	20.0	19.7	98	46-132	
1,2-Dichlorobenzene	20.0	20.4	102	78-120	
1,2-Dichloroethane	20.0	20.4	102	71-135	
1,2-Dichloropropane	20.0	20.6	103	78-133	
1,3-Dichlorobenzene	20.0	19.0	95	78-120	
1,3-Dichloropropane	20.0	20.3	102	72-134	
1,4-Dichlorobenzene	20.0	19.2	96	78-120	
2,2-Dichloropropane	20.0	23.9	119	42-150	
2-Chloroethyl vinyl ether	20.0	16.1	80	55-137	
2-Chlorotoluene	20.0	21.3	107	78-123	
2-Hexanone	40.0	37.8	95	43-148	
Bromobenzene	20.0	18.8	94	74-129	
Bromochloromethane	20.0	21.2	106	74-130	
4-Chlorotoluene	20.0	20.3	102	77-125	
p-Isopropyltoluene	20.0	19.9	99	69-122	
Acetone	40.0	55.1	138	21-162	
Benzene	20.0	21.6	108	80-123	
Bromoform	20.0	17.4	87	49-141	
Bromomethane	20.0	19.9	99	41-175	
Carbon disulfide	20.0	21.7	108	60-138	
Carbon tetrachloride	20.0	20.4	102	63-140	
Chlorobenzene	20.0	19.9	99	80-121	
Chloroethane	20.0	21.1	106	33-173	
Chloroform	20.0	22.6	113	79-127	
Chloromethane	20.0	17.7	89	54-143	
cis-1,2-Dichloroethene	20.0	22.0	110	76-128	
cis-1,3-Dichloropropene	20.0	18.2	91	64-132	
Hexachlorobutadiene	20.0	12.6	63	38-136	
Dibromomethane	20.0	17.1	85	74-124	
Bromodichloromethane	20.0	19.5	98	77-125	

Column to be used to flag recovery and RPD values

FORM III 8260C

FORM III
GC/MS VOA LAB CONTROL SAMPLE RECOVERY

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-118610-1

SDG No.:

Matrix: Water Level: Low Lab File ID: U1909703.d

Lab ID: LCS 240-400639/5 Client ID:

COMPOUND	SPIKE ADDED (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC	QC LIMITS REC	#
Dichlorodifluoromethane	20.0	15.8	79	29-148	
Ethylbenzene	20.0	20.5	103	80-120	
1,2-Dibromoethane	20.0	19.1	95	77-123	
Naphthalene	20.0	19.2	96	28-141	
m-Xylene & p-Xylene	20.0	21.0	105	80-120	
n-Butylbenzene	20.0	19.9	100	57-126	
Isopropylbenzene	20.0	21.6	108	74-120	
n-Propylbenzene	20.0	20.7	104	77-123	
2-Butanone	40.0	40.6	101	39-163	
4-Methyl-2-pentanone	40.0	36.4	91	49-143	
sec-Butylbenzene	20.0	20.3	101	68-123	
Methyl tert-butyl ether	20.0	20.5	103	51-133	
Methylene Chloride	20.0	21.8	109	70-134	
o-Xylene	20.0	21.9	110	80-120	
Styrene	20.0	20.9	105	79-120	
tert-Butylbenzene	20.0	19.0	95	70-121	
Tetrachloroethene	20.0	18.4	92	74-130	
Toluene	20.0	21.0	105	78-129	
trans-1,2-Dichloroethene	20.0	22.9	114	78-133	
trans-1,3-Dichloropropene	20.0	17.2	86	55-128	
Trichloroethene	20.0	18.8	94	76-125	
Trichlorofluoromethane	20.0	19.6	98	51-164	
Vinyl acetate	20.0	20.1	100	45-151	
Vinyl chloride	20.0	19.0	95	58-143	
tert-Butyl alcohol	200	302	151	10-161	
Xylenes, Total	40.0	42.9	107	80-120	
Dibromochloromethane	20.0	19.3	96	70-132	

Column to be used to flag recovery and RPD values

FORM III 8260C

FORM III
GC/MS VOA LAB CONTROL SAMPLE RECOVERY

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-118610-1

SDG No.:

Matrix: Water Level: Low Lab File ID: U1909729.d

Lab ID: LCS 240-400715/5 Client ID:

COMPOUND	SPIKE ADDED (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC	QC LIMITS REC	#
1,1,1,2-Tetrachloroethane	20.0	21.1	106	80-124	
1,1,1-Trichloroethane	20.0	20.9	105	69-134	
1,1,2,2-Tetrachloroethane	20.0	23.2	116	65-139	
1,1,2-Trichloro-1,2,2-trichfluoroethane	20.0	22.7	113	50-156	
1,1-Dichloroethane	20.0	22.4	112	75-133	
1,1-Dichloroethene	20.0	22.7	113	65-139	
1,1-Dichloropropene	20.0	20.6	103	78-126	
1,2,3-Trichlorobenzene	20.0	16.4	82	39-138	
1,2,3-Trichloropropane	20.0	20.9	105	66-139	
1,2,4-Trichlorobenzene	20.0	15.3	77	42-133	
1,2,4-Trimethylbenzene	20.0	21.3	106	74-120	
1,2-Dibromo-3-Chloropropane	20.0	18.7	94	46-132	
1,2-Dichlorobenzene	20.0	20.8	104	78-120	
1,2-Dichloroethane	20.0	20.0	100	71-135	
1,2-Dichloropropane	20.0	20.1	100	78-133	
1,3-Dichlorobenzene	20.0	19.3	97	78-120	
1,3-Dichloropropane	20.0	20.0	100	72-134	
1,4-Dichlorobenzene	20.0	19.2	96	78-120	
2,2-Dichloropropane	20.0	21.7	108	42-150	
2-Chloroethyl vinyl ether	20.0	16.0	80	55-137	
2-Chlorotoluene	20.0	21.4	107	78-123	
2-Hexanone	40.0	36.9	92	43-148	
Bromobenzene	20.0	18.5	93	74-129	
Bromochloromethane	20.0	20.9	104	74-130	
4-Chlorotoluene	20.0	20.5	103	77-125	
p-Isopropyltoluene	20.0	20.1	100	69-122	
Acetone	40.0	44.7	112	21-162	
Benzene	20.0	21.2	106	80-123	
Bromoform	20.0	17.3	86	49-141	
Bromomethane	20.0	20.1	100	41-175	
Carbon disulfide	20.0	21.1	106	60-138	
Carbon tetrachloride	20.0	20.0	100	63-140	
Chlorobenzene	20.0	20.1	101	80-121	
Chloroethane	20.0	21.4	107	33-173	
Chloroform	20.0	22.6	113	79-127	
Chloromethane	20.0	17.9	90	54-143	
cis-1,2-Dichloroethene	20.0	21.9	110	76-128	
cis-1,3-Dichloropropene	20.0	17.5	88	64-132	
Hexachlorobutadiene	20.0	13.1	66	38-136	
Dibromomethane	20.0	17.0	85	74-124	
Bromodichloromethane	20.0	19.2	96	77-125	

Column to be used to flag recovery and RPD values

FORM III 8260C

FORM III
GC/MS VOA LAB CONTROL SAMPLE RECOVERY

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-118610-1

SDG No.:

Matrix: Water Level: Low Lab File ID: U1909729.d

Lab ID: LCS 240-400715/5 Client ID:

COMPOUND	SPIKE ADDED (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC	QC LIMITS REC	#
Dichlorodifluoromethane	20.0	15.3	77	29-148	
Ethylbenzene	20.0	20.6	103	80-120	
1,2-Dibromoethane	20.0	19.2	96	77-123	
Naphthalene	20.0	18.2	91	28-141	
m-Xylene & p-Xylene	20.0	20.8	104	80-120	
n-Butylbenzene	20.0	19.8	99	57-126	
Isopropylbenzene	20.0	21.5	108	74-120	
n-Propylbenzene	20.0	20.6	103	77-123	
2-Butanone	40.0	36.6	91	39-163	
4-Methyl-2-pentanone	40.0	35.7	89	49-143	
sec-Butylbenzene	20.0	20.2	101	68-123	
Methyl tert-butyl ether	20.0	20.4	102	51-133	
Methylene Chloride	20.0	21.4	107	70-134	
o-Xylene	20.0	22.2	111	80-120	
Styrene	20.0	20.9	104	79-120	
tert-Butylbenzene	20.0	18.9	95	70-121	
Tetrachloroethene	20.0	17.8	89	74-130	
Toluene	20.0	20.9	104	78-129	
trans-1,2-Dichloroethene	20.0	22.4	112	78-133	
trans-1,3-Dichloropropene	20.0	17.0	85	55-128	
Trichloroethene	20.0	18.5	93	76-125	
Trichlorofluoromethane	20.0	19.6	98	51-164	
Vinyl acetate	20.0	19.4	97	45-151	
Vinyl chloride	20.0	19.1	96	58-143	
tert-Butyl alcohol	200	224	112	10-161	
Xylenes, Total	40.0	43.0	108	80-120	
Dibromochloromethane	20.0	19.5	97	70-132	

Column to be used to flag recovery and RPD values

FORM III 8260C

FORM III
GC/MS VOA LAB CONTROL SAMPLE RECOVERY

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-118610-1

SDG No.:

Matrix: Water Level: Low Lab File ID: U1909786.d

Lab ID: LCS 240-401172/5 Client ID:

COMPOUND	SPIKE ADDED (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC	QC LIMITS REC	#
1,1,1,2-Tetrachloroethane	20.0	21.1	105	80-124	
1,1,1-Trichloroethane	20.0	22.0	110	69-134	
1,1,2,2-Tetrachloroethane	20.0	24.1	120	65-139	
1,1,2-Trichloro-1,2,2-trichfluoroethane	20.0	23.6	118	50-156	
1,1-Dichloroethane	20.0	23.2	116	75-133	
1,1-Dichloroethene	20.0	23.8	119	65-139	
1,1-Dichloropropene	20.0	21.6	108	78-126	
1,2,3-Trichlorobenzene	20.0	16.5	83	39-138	
1,2,3-Trichloropropane	20.0	22.8	114	66-139	
1,2,4-Trichlorobenzene	20.0	15.2	76	42-133	
1,2,4-Trimethylbenzene	20.0	22.0	110	74-120	
1,2-Dibromo-3-Chloropropane	20.0	18.6	93	46-132	
1,2-Dichlorobenzene	20.0	20.3	102	78-120	
1,2-Dichloroethane	20.0	20.6	103	71-135	
1,2-Dichloropropane	20.0	21.0	105	78-133	
1,3-Dichlorobenzene	20.0	19.8	99	78-120	
1,3-Dichloropropane	20.0	21.2	106	72-134	
1,4-Dichlorobenzene	20.0	19.9	100	78-120	
2,2-Dichloropropane	20.0	23.2	116	42-150	
2-Chloroethyl vinyl ether	20.0	16.8	84	55-137	
2-Chlorotoluene	20.0	22.9	114	78-123	
2-Hexanone	40.0	39.3	98	43-148	
Bromobenzene	20.0	20.2	101	74-129	
Bromochloromethane	20.0	21.4	107	74-130	
4-Chlorotoluene	20.0	21.4	107	77-125	
p-Isopropyltoluene	20.0	20.7	104	69-122	
Acetone	40.0	46.8	117	21-162	
Benzene	20.0	22.1	111	80-123	
Bromoform	20.0	16.7	84	49-141	
Bromomethane	20.0	19.7	99	41-175	
Carbon disulfide	20.0	21.9	109	60-138	
Carbon tetrachloride	20.0	20.4	102	63-140	
Chlorobenzene	20.0	20.0	100	80-121	
Chloroethane	20.0	21.3	106	33-173	
Chloroform	20.0	22.9	115	79-127	
Chloromethane	20.0	17.6	88	54-143	
cis-1,2-Dichloroethene	20.0	22.5	113	76-128	
cis-1,3-Dichloropropene	20.0	18.9	94	64-132	
Hexachlorobutadiene	20.0	13.6	68	38-136	
Dibromomethane	20.0	17.2	86	74-124	
Bromodichloromethane	20.0	19.8	99	77-125	

Column to be used to flag recovery and RPD values

FORM III 8260C

FORM III
GC/MS VOA LAB CONTROL SAMPLE RECOVERY

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-118610-1

SDG No.:

Matrix: Water Level: Low Lab File ID: U1909786.d

Lab ID: LCS 240-401172/5 Client ID:

COMPOUND	SPIKE ADDED (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC	QC LIMITS REC	#
Dichlorodifluoromethane	20.0	13.8	69	29-148	
Ethylbenzene	20.0	20.8	104	80-120	
1,2-Dibromoethane	20.0	19.7	99	77-123	
Naphthalene	20.0	18.3	91	28-141	
m-Xylene & p-Xylene	20.0	21.4	107	80-120	
n-Butylbenzene	20.0	19.9	100	57-126	
Isopropylbenzene	20.0	21.6	108	74-120	
n-Propylbenzene	20.0	21.8	109	77-123	
2-Butanone	40.0	38.7	97	39-163	
4-Methyl-2-pentanone	40.0	36.8	92	49-143	
sec-Butylbenzene	20.0	21.2	106	68-123	
Methyl tert-butyl ether	20.0	21.2	106	51-133	
Methylene Chloride	20.0	22.3	112	70-134	
o-Xylene	20.0	21.6	108	80-120	
Styrene	20.0	21.1	105	79-120	
tert-Butylbenzene	20.0	20.2	101	70-121	
Tetrachloroethene	20.0	18.9	94	74-130	
Toluene	20.0	21.6	108	78-129	
trans-1,2-Dichloroethene	20.0	23.3	116	78-133	
trans-1,3-Dichloropropene	20.0	18.0	90	55-128	
Trichloroethene	20.0	19.6	98	76-125	
Trichlorofluoromethane	20.0	19.6	98	51-164	
Vinyl acetate	20.0	21.3	106	45-151	
Vinyl chloride	20.0	18.6	93	58-143	
tert-Butyl alcohol	200	235	118	10-161	
Xylenes, Total	40.0	43.0	108	80-120	
Dibromochloromethane	20.0	19.1	95	70-132	

Column to be used to flag recovery and RPD values

FORM III 8260C

FORM IV
GC/MS VOA METHOD BLANK SUMMARY

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-118610-1

SDG No.:

Lab File ID: U1909706.d Lab Sample ID: MB 240-400639/8

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

Instrument ID: A3UX19 Date Analyzed: 09/13/2019 17:48

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 240-400639/5	U1909703.d	09/13/2019 16:40
MSA-SW37A-090919	240-118610-1	U1909707.d	09/13/2019 18:11
MSA-SW37B-090919	240-118610-2	U1909708.d	09/13/2019 18:34
MSA-SW37C-090919	240-118610-3	U1909709.d	09/13/2019 18:56
MSA-SW37D-090919	240-118610-4	U1909710.d	09/13/2019 19:19
MSA-SW38A-090919	240-118610-5	U1909711.d	09/13/2019 19:42
MSA-SW38B-090919	240-118610-6	U1909712.d	09/13/2019 20:05
MSA-SW38C090919	240-118610-7	U1909713.d	09/13/2019 20:27
MSA-SW38D-090919	240-118610-8	U1909714.d	09/13/2019 20:50
MSA-SW39A-090919	240-118610-9	U1909715.d	09/13/2019 21:13
MSA-SW39B-090919	240-118610-10	U1909716.d	09/13/2019 21:35
MSA-SW39C-090919	240-118610-11	U1909717.d	09/13/2019 21:58
MSA-SW39D-090919	240-118610-12	U1909718.d	09/13/2019 22:21
MSA-SW40A-090919	240-118610-13	U1909719.d	09/13/2019 22:43
MSA-SW40B-090919	240-118610-14	U1909720.d	09/13/2019 23:06
MSA-SW40C-090919	240-118610-15	U1909721.d	09/13/2019 23:28
MSA-SW40D-090919	240-118610-16	U1909722.d	09/13/2019 23:51
MSA-SW41A-090919	240-118610-17	U1909723.d	09/14/2019 00:14
MSA-SW41B-090919	240-118610-18	U1909724.d	09/14/2019 00:36
MSA-SW41C-090919	240-118610-19	U1909725.d	09/14/2019 00:59
MSA-SW41D-090919	240-118610-20	U1909726.d	09/14/2019 01:22

FORM IV
GC/MS VOA METHOD BLANK SUMMARY

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-118610-1

SDG No.:

Lab File ID: U1909732.d Lab Sample ID: MB 240-400715/8

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

Instrument ID: A3UX19 Date Analyzed: 09/14/2019 13:53

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 240-400715/5	U1909729.d	09/14/2019 12:45
MSA-SW42A-090919	240-118610-21	U1909733.d	09/14/2019 14:16
MSA-SW42B-090919	240-118610-22	U1909734.d	09/14/2019 14:41
MSA-SW42C-090919	240-118610-23	U1909735.d	09/14/2019 15:06
MSA-SW42D-090919	240-118610-24	U1909736.d	09/14/2019 15:37
MSA-SW43A-090919	240-118610-25	U1909737.d	09/14/2019 16:09
MSA-SW43B-090919	240-118610-26	U1909738.d	09/14/2019 16:39
MSA-SW43C-090919	240-118610-27	U1909739.d	09/14/2019 17:13
MSA-SW43D-090919	240-118610-28	U1909740.d	09/14/2019 17:43
MSA-SW44A-090919	240-118610-29	U1909741.d	09/14/2019 18:11
MSA-SW44B-090919	240-118610-30	U1909742.d	09/14/2019 18:41
MSA-SW44C-090919	240-118610-31	U1909743.d	09/14/2019 19:13
MSA-SW44D-090919	240-118610-32	U1909744.d	09/14/2019 19:40
MSA-SW45A-090919	240-118610-33	U1909745.d	09/14/2019 20:08
MSA-SW45B-090919	240-118610-34	U1909746.d	09/14/2019 20:37
MSA-SW45C-090919	240-118610-35	U1909747.d	09/14/2019 21:03
MSA-SW45D-090919	240-118610-36	U1909748.d	09/14/2019 21:31
EL-SW01A-090919	240-118610-37	U1909749.d	09/14/2019 21:59
EL-SW01B-090919	240-118610-38	U1909750.d	09/14/2019 22:31
EL-SW01C-090919	240-118610-39	U1909751.d	09/14/2019 23:00
EL-SW01D-090919	240-118610-40	U1909752.d	09/14/2019 23:31

FORM IV
GC/MS VOA METHOD BLANK SUMMARY

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-118610-1

SDG No.:

Lab File ID: U1909789.d Lab Sample ID: MB 240-401172/8

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

Instrument ID: A3UX19 Date Analyzed: 09/17/2019 20:03

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 240-401172/5	U1909786.d	09/17/2019 18:55
TB-090919	240-118610-41	U1909790.d	09/17/2019 20:26
MSA-SW46A-090919	240-118610-42	U1909791.d	09/17/2019 20:48
MSA-SW47A-090919	240-118610-43	U1909792.d	09/17/2019 21:11
MSA-SW48A-090919	240-118610-44	U1909793.d	09/17/2019 21:34
MSA-SW49A-090919	240-118610-45	U1909794.d	09/17/2019 21:56

FORM V
GC/MS VOA INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-118610-1

SDG No.:

Lab File ID: bfb036.d BFB Injection Date: 07/24/2018

Instrument ID: A3UX19 BFB Injection Time: 17:22

Analysis Batch No.: 337766

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
50	15.0 - 40.0 % of mass 95	21.1	
75	30.0 - 60.0 % of mass 95	53.5	
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	1.1	(1.2) 1
174	50.0 - 120.00 % of mass 95	84.3	
175	5.0 - 9.0 % of mass 174	6.2	(7.4) 1
176	95.0 - 101.0 % of mass 174	80.7	(95.7) 1
177	5.0 - 9.0 % of mass 176	5.4	(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 240-337766/2	U1900783.d	07/24/2018	17:50
	STD8260 240-337766/3	U1900784.d	07/24/2018	18:13
	STD8260 240-337766/9	U1900790.d	07/24/2018	18:35
	ICIS 240-337766/10	U1900791.d	07/24/2018	18:57
	STD8260 240-337766/11	U1900792.d	07/24/2018	19:20
	STD8260 240-337766/12	U1900793.d	07/24/2018	19:42
	STD8260 240-337766/13	U1900794.d	07/24/2018	20:04

FORM V
GC/MS VOA INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-118610-1

SDG No.:

Lab File ID: bfb037.d BFB Injection Date: 07/25/2018

Instrument ID: A3UX19 BFB Injection Time: 11:28

Analysis Batch No.: 337917

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
50	15.0 - 40.0 % of mass 95	21.4	
75	30.0 - 60.0 % of mass 95	52.5	
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	1.1	(1.3) 1
174	50.0 - 120.00 % of mass 95	82.7	
175	5.0 - 9.0 % of mass 174	6.4	(7.8) 1
176	95.0 - 101.0 % of mass 174	80.3	(97.1) 1
177	5.0 - 9.0 % of mass 176	5.2	(6.5) 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
	STDA9 240-337917/8	U1900802.d	07/25/2018	13:24
	STDA9 240-337917/9	U1900803.d	07/25/2018	13:46
	STDA9 240-337917/10	U1900804.d	07/25/2018	14:08
	STDA9 240-337917/11	U1900805.d	07/25/2018	14:30
	STDA9 240-337917/12	U1900806.d	07/25/2018	14:52
	STDA9 240-337917/13	U1900807.d	07/25/2018	15:15
	ICV 240-337917/14	U1900808.d	07/25/2018	15:37

FORM V
GC/MS VOA INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-118610-1

SDG No.:

Lab File ID: bfb058.d BFB Injection Date: 08/27/2018

Instrument ID: A3UX19 BFB Injection Time: 16:23

Analysis Batch No.: 342719

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
50	15.0 - 40.0 % of mass 95	17.5	
75	30.0 - 60.0 % of mass 95	49.5	
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	0.6	(0.6) 1
174	50.0 - 120.00 % of mass 95	94.9	
175	5.0 - 9.0 % of mass 174	7.3	(7.7) 1
176	95.0 - 101.0 % of mass 174	92.7	(97.7) 1
177	5.0 - 9.0 % of mass 176	5.9	(6.4) 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 240-342719/7	U1901323.d	08/27/2018	17:09
	STD8260 240-342719/8	U1901324.d	08/27/2018	17:31
	STD8260 240-342719/9	U1901325.d	08/27/2018	17:53
	ICIS 240-342719/10	U1901326.d	08/27/2018	18:16
	STD8260 240-342719/11	U1901327.d	08/27/2018	18:38
	STD8260 240-342719/12	U1901328.d	08/27/2018	19:01
	STD8260 240-342719/13	U1901329.d	08/27/2018	19:23
	ICV 240-342719/14	U1901330.d	08/27/2018	19:45

FORM V
GC/MS VOA INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-118610-1

SDG No.:

Lab File ID: bfb342.d BFB Injection Date: 09/13/2019

Instrument ID: A3UX19 BFB Injection Time: 15:32

Analysis Batch No.: 400639

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
50	15.0 - 40.0 % of mass 95	18.0	
75	30.0 - 60.0 % of mass 95	51.5	
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	84.0	
175	5.0 - 9.0 % of mass 174	6.2	(7.4) 1
176	95.0 - 101.0 % of mass 174	81.0	(96.4) 1
177	5.0 - 9.0 % of mass 176	5.4	(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
	CCV 240-400639/3	U1909701.d	09/13/2019	15:55
	CCVIS 240-400639/4	U1909702.d	09/13/2019	16:17
	LCS 240-400639/5	U1909703.d	09/13/2019	16:40
	MB 240-400639/8	U1909706.d	09/13/2019	17:48
MSA-SW37A-090919	240-118610-1	U1909707.d	09/13/2019	18:11
MSA-SW37B-090919	240-118610-2	U1909708.d	09/13/2019	18:34
MSA-SW37C-090919	240-118610-3	U1909709.d	09/13/2019	18:56
MSA-SW37D-090919	240-118610-4	U1909710.d	09/13/2019	19:19
MSA-SW38A-090919	240-118610-5	U1909711.d	09/13/2019	19:42
MSA-SW38B-090919	240-118610-6	U1909712.d	09/13/2019	20:05
MSA-SW38C090919	240-118610-7	U1909713.d	09/13/2019	20:27
MSA-SW38D-090919	240-118610-8	U1909714.d	09/13/2019	20:50
MSA-SW39A-090919	240-118610-9	U1909715.d	09/13/2019	21:13
MSA-SW39B-090919	240-118610-10	U1909716.d	09/13/2019	21:35
MSA-SW39C-090919	240-118610-11	U1909717.d	09/13/2019	21:58
MSA-SW39D-090919	240-118610-12	U1909718.d	09/13/2019	22:21
MSA-SW40A-090919	240-118610-13	U1909719.d	09/13/2019	22:43
MSA-SW40B-090919	240-118610-14	U1909720.d	09/13/2019	23:06
MSA-SW40C-090919	240-118610-15	U1909721.d	09/13/2019	23:28
MSA-SW40D-090919	240-118610-16	U1909722.d	09/13/2019	23:51
MSA-SW41A-090919	240-118610-17	U1909723.d	09/14/2019	00:14
MSA-SW41B-090919	240-118610-18	U1909724.d	09/14/2019	00:36
MSA-SW41C-090919	240-118610-19	U1909725.d	09/14/2019	00:59
MSA-SW41D-090919	240-118610-20	U1909726.d	09/14/2019	01:22

FORM V
GC/MS VOA INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-118610-1

SDG No.:

Lab File ID: bfb343.d BFB Injection Date: 09/14/2019

Instrument ID: A3UX19 BFB Injection Time: 11:37

Analysis Batch No.: 400715

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
50	15.0 - 40.0 % of mass 95	18.5	
75	30.0 - 60.0 % of mass 95	51.2	
95	Base Peak, 100% relative abundance	100.0	
96	5.0 - 9.0 % of mass 95	6.3	
173	Less than 2.0 % of mass 174	0.0	(0.0) 1
174	50.0 - 120.00 % of mass 95	83.4	
175	5.0 - 9.0 % of mass 174	6.8	(8.1) 1
176	95.0 - 101.0 % of mass 174	80.2	(96.1) 1
177	5.0 - 9.0 % of mass 176	5.4	(6.7) 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
	CCV 240-400715/3	U1909727.d	09/14/2019	12:00
	CCVIS 240-400715/4	U1909728.d	09/14/2019	12:23
	LCS 240-400715/5	U1909729.d	09/14/2019	12:45
	MB 240-400715/8	U1909732.d	09/14/2019	13:53
MSA-SW42A-090919	240-118610-21	U1909733.d	09/14/2019	14:16
MSA-SW42B-090919	240-118610-22	U1909734.d	09/14/2019	14:41
MSA-SW42C-090919	240-118610-23	U1909735.d	09/14/2019	15:06
MSA-SW42D-090919	240-118610-24	U1909736.d	09/14/2019	15:37
MSA-SW43A-090919	240-118610-25	U1909737.d	09/14/2019	16:09
MSA-SW43B-090919	240-118610-26	U1909738.d	09/14/2019	16:39
MSA-SW43C-090919	240-118610-27	U1909739.d	09/14/2019	17:13
MSA-SW43D-090919	240-118610-28	U1909740.d	09/14/2019	17:43
MSA-SW44A-090919	240-118610-29	U1909741.d	09/14/2019	18:11
MSA-SW44B-090919	240-118610-30	U1909742.d	09/14/2019	18:41
MSA-SW44C-090919	240-118610-31	U1909743.d	09/14/2019	19:13
MSA-SW44D-090919	240-118610-32	U1909744.d	09/14/2019	19:40
MSA-SW45A-090919	240-118610-33	U1909745.d	09/14/2019	20:08
MSA-SW45B-090919	240-118610-34	U1909746.d	09/14/2019	20:37
MSA-SW45C-090919	240-118610-35	U1909747.d	09/14/2019	21:03
MSA-SW45D-090919	240-118610-36	U1909748.d	09/14/2019	21:31
EL-SW01A-090919	240-118610-37	U1909749.d	09/14/2019	21:59
EL-SW01B-090919	240-118610-38	U1909750.d	09/14/2019	22:31
EL-SW01C-090919	240-118610-39	U1909751.d	09/14/2019	23:00
EL-SW01D-090919	240-118610-40	U1909752.d	09/14/2019	23:31

FORM V
GC/MS VOA INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-118610-1

SDG No.:

Lab File ID: bfb345.d BFB Injection Date: 09/17/2019

Instrument ID: A3UX19 BFB Injection Time: 17:48

Analysis Batch No.: 401172

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
50	15.0 - 40.0 % of mass 95	18.3	
75	30.0 - 60.0 % of mass 95	50.4	
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	82.7	
175	5.0 - 9.0 % of mass 174	6.3	(7.7) 1
176	95.0 - 101.0 % of mass 174	80.4	(97.2) 1
177	5.0 - 9.0 % of mass 176	4.9	(6.1) 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
	CCV 240-401172/3	U1909784.d	09/17/2019	18:11
	CCVIS 240-401172/4	U1909785.d	09/17/2019	18:33
	LCS 240-401172/5	U1909786.d	09/17/2019	18:55
	MB 240-401172/8	U1909789.d	09/17/2019	20:03
TB-090919	240-118610-41	U1909790.d	09/17/2019	20:26
MSA-SW46A-090919	240-118610-42	U1909791.d	09/17/2019	20:48
MSA-SW47A-090919	240-118610-43	U1909792.d	09/17/2019	21:11
MSA-SW48A-090919	240-118610-44	U1909793.d	09/17/2019	21:34
MSA-SW49A-090919	240-118610-45	U1909794.d	09/17/2019	21:56

FORM VIII
GC/MS VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-118610-1

SDG No.:

Sample No.: ICIS 240-342719/10 Date Analyzed: 08/27/2018 18:16

Instrument ID: A3UX19 GC Column: DB-624 ID: 0.18(mm)

Lab File ID (Standard): U1901326.d Heated Purge: (Y/N) N

Calibration ID: 46687

		FB		CBNZd5		DCBd4	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
INITIAL CALIBRATION MID-POINT		972482	5.65	783101	8.50	430906	10.88
UPPER LIMIT		1944964	6.15	1566202	9.00	861812	11.38
LOWER LIMIT		486241	5.15	391551	8.00	215453	10.38
LAB SAMPLE ID	CLIENT SAMPLE ID						
ICV 240-342719/14		955207	5.65	765531	8.50	424750	10.88
CCVIS 240-400639/4		909265	5.67	649808	8.50	366704	10.88
CCVIS 240-400715/4		916305	5.67	687818	8.50	357226	10.88
CCVIS 240-401172/4		931606	5.67	675426	8.50	350900	10.88

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: Eurofins TestAmerica, Canton Job No.: 240-118610-1

SDG No.:

Sample No.: CCVIS 240-400639/4 Date Analyzed: 09/13/2019 16:17

Instrument ID: A3UX19 GC Column: DB-624 ID: 0.18(mm)

Lab File ID (Standard): U1909702.d Heated Purge: (Y/N) N

Calibration ID: 51687

		FB		CBNZd5		DCBd4	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
12/24 HOUR STD		909265	5.67	649808	8.50	366704	10.88
UPPER LIMIT		1818530	6.17	1299616	9.00	733408	11.38
LOWER LIMIT		454633	5.17	324904	8.00	183352	10.38
LAB SAMPLE ID	CLIENT SAMPLE ID						
LCS 240-400639/5		928939	5.65	671520	8.50	371416	10.88
MB 240-400639/8		883662	5.67	660189	8.50	334627	10.88
240-118610-1	MSA-SW37A-090919	860477	5.67	658971	8.50	332713	10.88
240-118610-2	MSA-SW37B-090919	871125	5.67	652721	8.50	317430	10.88
240-118610-3	MSA-SW37C-090919	841503	5.67	618835	8.50	318257	10.88
240-118610-4	MSA-SW37D-090919	837948	5.67	622233	8.50	310669	10.88
240-118610-5	MSA-SW38A-090919	881126	5.67	668527	8.50	325016	10.88
240-118610-6	MSA-SW38B-090919	841343	5.67	609635	8.50	299997	10.88
240-118610-7	MSA-SW38C090919	838440	5.67	609467	8.50	303591	10.88
240-118610-8	MSA-SW38D-090919	831245	5.67	603092	8.50	300757	10.88
240-118610-9	MSA-SW39A-090919	815945	5.67	598152	8.50	289509	10.88
240-118610-10	MSA-SW39B-090919	796006	5.67	589313	8.50	291526	10.88
240-118610-11	MSA-SW39C-090919	839039	5.65	642585	8.50	317313	10.88
240-118610-12	MSA-SW39D-090919	849141	5.67	651853	8.50	309796	10.88
240-118610-13	MSA-SW40A-090919	807467	5.67	601337	8.50	288927	10.88
240-118610-14	MSA-SW40B-090919	788987	5.67	579734	8.50	285452	10.88
240-118610-15	MSA-SW40C-090919	790385	5.67	583397	8.50	283878	10.88
240-118610-16	MSA-SW40D-090919	825832	5.65	640452	8.50	317612	10.88
240-118610-17	MSA-SW41A-090919	826698	5.65	632467	8.50	303057	10.88
240-118610-18	MSA-SW41B-090919	816332	5.67	615333	8.50	298927	10.88
240-118610-19	MSA-SW41C-090919	822762	5.67	631865	8.50	305708	10.88
240-118610-20	MSA-SW41D-090919	783085	5.67	585845	8.50	282055	10.88

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: Eurofins TestAmerica, Canton Job No.: 240-118610-1

SDG No.:

Sample No.: CCVIS 240-400715/4 Date Analyzed: 09/14/2019 12:23

Instrument ID: A3UX19 GC Column: DB-624 ID: 0.18(mm)

Lab File ID (Standard): U1909728.d Heated Purge: (Y/N) N

Calibration ID: 51687

		FB		CBNZd5		DCBd4	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
12/24 HOUR STD		916305	5.67	687818	8.50	357226	10.88
UPPER LIMIT		1832610	6.17	1375636	9.00	714452	11.38
LOWER LIMIT		458153	5.17	343909	8.00	178613	10.38
LAB SAMPLE ID	CLIENT SAMPLE ID						
LCS 240-400715/5		900628	5.67	648850	8.50	357238	10.88
MB 240-400715/8		795261	5.67	579714	8.50	285668	10.88
240-118610-21	MSA-SW42A-090919	801460	5.67	580127	8.50	285894	10.88
240-118610-22	MSA-SW42B-090919	849615	5.67	664645	8.50	303321	10.88
240-118610-23	MSA-SW42C-090919	868696	5.65	677224	8.50	313214	10.88
240-118610-24	MSA-SW42D-090919	844234	5.65	659680	8.50	319057	10.88
240-118610-25	MSA-SW43A-090919	864324	5.65	677121	8.50	319473	10.88
240-118610-26	MSA-SW43B-090919	841412	5.67	665049	8.50	315669	10.88
240-118610-27	MSA-SW43C-090919	864933	5.65	673614	8.50	340457	10.88
240-118610-28	MSA-SW43D-090919	860681	5.65	673332	8.50	326322	10.88
240-118610-29	MSA-SW44A-090919	856134	5.67	666181	8.50	310117	10.88
240-118610-30	MSA-SW44B-090919	862105	5.67	665594	8.50	313093	10.88
240-118610-31	MSA-SW44C-090919	849510	5.65	658692	8.50	322870	10.88
240-118610-32	MSA-SW44D-090919	849215	5.67	669575	8.50	314054	10.88
240-118610-33	MSA-SW45A-090919	845843	5.67	655570	8.50	308316	10.88
240-118610-34	MSA-SW45B-090919	856482	5.65	663425	8.50	310161	10.88
240-118610-35	MSA-SW45C-090919	827098	5.67	644703	8.50	300574	10.88
240-118610-36	MSA-SW45D-090919	849608	5.65	669578	8.50	328676	10.88
240-118610-37	EL-SW01A-090919	849758	5.67	664289	8.50	307964	10.88
240-118610-38	EL-SW01B-090919	845518	5.65	661103	8.50	303248	10.88
240-118610-39	EL-SW01C-090919	831725	5.67	651136	8.50	305605	10.88
240-118610-40	EL-SW01D-090919	845618	5.65	657757	8.50	300465	10.88

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: Eurofins TestAmerica, Canton Job No.: 240-118610-1

SDG No.:

Sample No.: CCVIS 240-401172/4 Date Analyzed: 09/17/2019 18:33

Instrument ID: A3UX19 GC Column: DB-624 ID: 0.18(mm)

Lab File ID (Standard): U1909785.d Heated Purge: (Y/N) N

Calibration ID: 51687

		FB		CBNZd5		DCBd4	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
12/24 HOUR STD		931606	5.67	675426	8.50	350900	10.88
UPPER LIMIT		1863212	6.17	1350852	9.00	701800	11.38
LOWER LIMIT		465803	5.17	337713	8.00	175450	10.38
LAB SAMPLE ID	CLIENT SAMPLE ID						
LCS 240-401172/5		954099	5.67	695319	8.50	361382	10.88
MB 240-401172/8		870911	5.65	660735	8.50	338970	10.88
240-118610-41	TB-090919	906021	5.65	695658	8.50	330039	10.88
240-118610-42	MSA-SW46A-090919	893943	5.67	678962	8.50	325068	10.88
240-118610-43	MSA-SW47A-090919	888790	5.67	681274	8.50	325394	10.88
240-118610-44	MSA-SW48A-090919	842573	5.67	615998	8.50	302142	10.88
240-118610-45	MSA-SW49A-090919	841631	5.67	617134	8.50	302787	10.88

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

2A-IN
CALIBRATION VERIFICATIONS
METALS

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-118610-1

SDG No.:

ICV Source: MTMSICVW_00093 Concentration Units: ug/L

CCV Source: MTMSCAL2CCVW_00243

Analyte	ICV 240-400809/7 09/13/2019 15:21				CCV 240-400809/109 09/13/2019 19:20				CCV 240-400809/121 09/13/2019 19:48			
	Found	C	True	%R	Found	C	True	%R	Found	C	True	%R
Antimony	40.4		40.0	101	49.2		50.0	98	49.4		50.0	99
Arsenic	39.4		40.0	98	53.9		50.0	108	53.0		50.0	106
Barium	37.9		40.0	95	47.9		50.0	96	47.5		50.0	95
Cadmium	38.1		40.0	95	47.1		50.0	94	46.8		50.0	94
Calcium	19400		20000	97	25600		25000	103	25700		25000	103
Chromium	40.1		40.0	100	47.2		50.0	94	48.0		50.0	96
Cobalt	38.8		40.0	97	52.7		50.0	105	52.0		50.0	104
Copper	39.4		40.0	99	52.5		50.0	105	51.5		50.0	103
Lead	39.2		40.0	98	47.6		50.0	95	47.7		50.0	95
Magnesium	19200		20000	96	25300		25000	101	25700		25000	103
Molybdenum	41.6		40.0	104	54.7		50.0	109	52.4		50.0	105
Nickel	39.8		40.0	99	52.3		50.0	105	51.6		50.0	103
Selenium	39.7		40.0	99	54.5		50.0	109	54.0		50.0	108
Silver	40.7		40.0	102	48.6		50.0	97	48.3		50.0	97
Thallium	38.4		40.0	96	47.6		50.0	95	48.0		50.0	96
Tungsten	41.6		40.0	104	46.6		50.0	93	46.7		50.0	93
Vanadium	38.6		40.0	97	47.6		50.0	95	47.2		50.0	94
Zinc	39.6		40.0	99	53.1		50.0	106	52.1		50.0	104

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.
Italicized analytes were not requested for this sequence.

2A-IN
CALIBRATION VERIFICATIONS
METALS

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-118610-1

SDG No.:

ICV Source: MTMSICVW_00093 Concentration Units: ug/L

CCV Source: MTMSCAL2CCVW_00243

Analyte	CCV 240-400809/133 09/13/2019 20:17				CCV 240-400809/145 09/13/2019 20:45				CCV 240-400809/151 09/13/2019 21:00			
	Found	C	True	%R	Found	C	True	%R	Found	C	True	%R
Antimony	49.5		50.0	99	50.4		50.0	101	49.8		50.0	100
Arsenic	52.6		50.0	105	52.9		50.0	106	51.3		50.0	103
Barium	48.3		50.0	97	48.2		50.0	96	48.4		50.0	97
Cadmium	47.6		50.0	95	47.4		50.0	95	47.5		50.0	95
Calcium	25700		25000	103	25800		25000	103	25400		25000	102
Chromium	48.6		50.0	97	48.1		50.0	96	48.5		50.0	97
Cobalt	51.8		50.0	104	52.3		50.0	105	51.2		50.0	102
Copper	51.9		50.0	104	52.3		50.0	105	50.9		50.0	102
Lead	47.9		50.0	96	48.0		50.0	96	48.4		50.0	97
Magnesium	26000		25000	104	25900		25000	104	25300		25000	101
Molybdenum	52.9		50.0	106	53.5		50.0	107				
Nickel	51.7		50.0	103	51.9		50.0	104	51.0		50.0	102
Selenium	54.7		50.0	109	54.3		50.0	109				
Silver	48.8		50.0	98	49.4		50.0	99	48.7		50.0	97
Thallium	48.2		50.0	96	48.1		50.0	96	48.5		50.0	97
Tungsten	46.5		50.0	93	61.7		50.0	123	49.7		50.0	99
Vanadium	48.3		50.0	97	47.5		50.0	95	48.5		50.0	97
Zinc	51.3		50.0	103	52.6		50.0	105	51.6		50.0	103

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.
Italicized analytes were not requested for this sequence.

2A-IN
CALIBRATION VERIFICATIONS
METALS

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-118610-1

SDG No.:

ICV Source: MTMSICVW_00093 Concentration Units: ug/L

CCV Source: MTMSCAL2CCVW_00243

Analyte	CCV 240-400809/163 09/13/2019 21:27				CCV 240-400809/175 09/13/2019 21:56				CCV 240-400809/184 09/13/2019 22:17			
	Found	C	True	%R	Found	C	True	%R	Found	C	True	%R
Antimony	50.7		50.0	101	50.3		50.0	101	49.8		50.0	100
Arsenic	51.6		50.0	103	51.7		50.0	103	51.2		50.0	102
Barium	49.4		50.0	99	48.8		50.0	98	48.3		50.0	97
Cadmium	48.6		50.0	97	48.3		50.0	97	47.2		50.0	94
Calcium	25600		25000	103	25700		25000	103	25700		25000	103
Chromium	48.6		50.0	97	47.9		50.0	96	48.1		50.0	96
Cobalt	51.1		50.0	102	51.1		50.0	102	51.8		50.0	104
Copper	50.9		50.0	102	51.3		50.0	103	51.6		50.0	103
Lead	48.7		50.0	97	47.7		50.0	95	48.1		50.0	96
Magnesium	25500		25000	102	25700		25000	103	25600		25000	102
Molybdenum	53.4		50.0	107	52.2		50.0	104	53.1		50.0	106
Nickel	51.0		50.0	102	51.4		50.0	103	51.2		50.0	102
Selenium	53.6		50.0	107	54.1		50.0	108	55.2		50.0	110
Silver	48.8		50.0	98	48.5		50.0	97	48.7		50.0	97
Thallium	48.7		50.0	97	47.7		50.0	95	47.9		50.0	96
Tungsten	48.7		50.0	97	48.0		50.0	96	47.4		50.0	95
Vanadium	48.3		50.0	97	47.7		50.0	95	48.2		50.0	96
Zinc	51.4		50.0	103	51.8		50.0	104	52.1		50.0	104

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.
Italicized analytes were not requested for this sequence.

2A-IN
CALIBRATION VERIFICATIONS
METALS

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-118610-1

SDG No.:

ICV Source: ICVLCCVLICPMS_00003 Concentration Units: ug/L

CCV Source: MTMSCAL2CCVW_00243

Analyte	ICVL 240-400809/9 09/13/2019 15:26				CCV 240-400809/109 09/13/2019 19:20				CCV 240-400809/121 09/13/2019 19:48			
	Found	C	True	%R	Found	C	True	%R	Found	C	True	%R
Antimony	1.95	J	2.00	97	49.2		50.0	98	49.4		50.0	99
Arsenic	4.69	J	5.00	94	53.9		50.0	108	53.0		50.0	106
Barium	4.75	J	5.00	95	47.9		50.0	96	47.5		50.0	95
Cadmium	0.998	J	1.00	100	47.1		50.0	94	46.8		50.0	94
Calcium	978	J	1000	98	25600		25000	103	25700		25000	103
Chromium	2.30		2.00	115	47.2		50.0	94	48.0		50.0	96
Cobalt	0.962	J	1.00	96	52.7		50.0	105	52.0		50.0	104
Copper	2.06		2.00	103	52.5		50.0	105	51.5		50.0	103
Lead	1.03		1.00	103	47.6		50.0	95	47.7		50.0	95
Magnesium	983	J	1000	98	25300		25000	101	25700		25000	103
Molybdenum	4.97	J	5.00	99	54.7		50.0	109	52.4		50.0	105
Nickel	1.93	J	2.00	96	52.3		50.0	105	51.6		50.0	103
Selenium	5.08		5.00	102	54.5		50.0	109	54.0		50.0	108
Silver	1.03		1.00	103	48.6		50.0	97	48.3		50.0	97
Thallium	1.01		1.00	101	47.6		50.0	95	48.0		50.0	96
Tungsten	10.7		10.0	107	46.6		50.0	93	46.7		50.0	93
Vanadium	4.64	J	5.00	93	47.6		50.0	95	47.2		50.0	94
Zinc	19.2	J	20.0	96	53.1		50.0	106	52.1		50.0	104

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.
Italicized analytes were not requested for this sequence.

2A-IN
CALIBRATION VERIFICATIONS
METALS

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-118610-1

SDG No.:

ICV Source: ICVLCCVLICPMS_00003 Concentration Units: ug/L

CCV Source: MTMSCAL2CCVW_00243

Analyte	CCV 240-400809/133 09/13/2019 20:17				CCV 240-400809/145 09/13/2019 20:45				CCV 240-400809/151 09/13/2019 21:00			
	Found	C	True	%R	Found	C	True	%R	Found	C	True	%R
Antimony	49.5		50.0	99	50.4		50.0	101	49.8		50.0	100
Arsenic	52.6		50.0	105	52.9		50.0	106	51.3		50.0	103
Barium	48.3		50.0	97	48.2		50.0	96	48.4		50.0	97
Cadmium	47.6		50.0	95	47.4		50.0	95	47.5		50.0	95
Calcium	25700		25000	103	25800		25000	103	25400		25000	102
Chromium	48.6		50.0	97	48.1		50.0	96	48.5		50.0	97
Cobalt	51.8		50.0	104	52.3		50.0	105	51.2		50.0	102
Copper	51.9		50.0	104	52.3		50.0	105	50.9		50.0	102
Lead	47.9		50.0	96	48.0		50.0	96	48.4		50.0	97
Magnesium	26000		25000	104	25900		25000	104	25300		25000	101
Molybdenum	52.9		50.0	106	53.5		50.0	107				
Nickel	51.7		50.0	103	51.9		50.0	104	51.0		50.0	102
Selenium	54.7		50.0	109	54.3		50.0	109				
Silver	48.8		50.0	98	49.4		50.0	99	48.7		50.0	97
Thallium	48.2		50.0	96	48.1		50.0	96	48.5		50.0	97
Tungsten	46.5		50.0	93	61.7		50.0	123	49.7		50.0	99
Vanadium	48.3		50.0	97	47.5		50.0	95	48.5		50.0	97
Zinc	51.3		50.0	103	52.6		50.0	105	51.6		50.0	103

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.
Italicized analytes were not requested for this sequence.

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-118610-1

SDG No.:

ICV Source: ICVLCCVLICPMS_00003 Concentration Units: ug/L

CCV Source: MTMSCAL2CCVW_00243

Analyte	CCV 240-400809/163 09/13/2019 21:27				CCV 240-400809/175 09/13/2019 21:56				CCV 240-400809/184 09/13/2019 22:17			
	Found	C	True	%R	Found	C	True	%R	Found	C	True	%R
Antimony	50.7		50.0	101	50.3		50.0	101	49.8		50.0	100
Arsenic	51.6		50.0	103	51.7		50.0	103	51.2		50.0	102
Barium	49.4		50.0	99	48.8		50.0	98	48.3		50.0	97
Cadmium	48.6		50.0	97	48.3		50.0	97	47.2		50.0	94
Calcium	25600		25000	103	25700		25000	103	25700		25000	103
Chromium	48.6		50.0	97	47.9		50.0	96	48.1		50.0	96
Cobalt	51.1		50.0	102	51.1		50.0	102	51.8		50.0	104
Copper	50.9		50.0	102	51.3		50.0	103	51.6		50.0	103
Lead	48.7		50.0	97	47.7		50.0	95	48.1		50.0	96
Magnesium	25500		25000	102	25700		25000	103	25600		25000	102
Molybdenum	53.4		50.0	107	52.2		50.0	104	53.1		50.0	106
Nickel	51.0		50.0	102	51.4		50.0	103	51.2		50.0	102
Selenium	53.6		50.0	107	54.1		50.0	108	55.2		50.0	110
Silver	48.8		50.0	98	48.5		50.0	97	48.7		50.0	97
Thallium	48.7		50.0	97	47.7		50.0	95	47.9		50.0	96
Tungsten	48.7		50.0	97	48.0		50.0	96	47.4		50.0	95
Vanadium	48.3		50.0	97	47.7		50.0	95	48.2		50.0	96
Zinc	51.4		50.0	103	51.8		50.0	104	52.1		50.0	104

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.
Italicized analytes were not requested for this sequence.

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-118610-1

SDG No.:

ICV Source: MTMSICVW_00093 Concentration Units: ug/L

CCV Source: MTMSCAL2CCVW_00243

Analyte	ICV 240-401016/7 09/16/2019 14:53				CCV 240-401016/128 09/16/2019 19:35				CCV 240-401016/140 09/16/2019 20:03			
	Found	C	True	%R	Found	C	True	%R	Found	C	True	%R
Beryllium	39.6		40.0	99	45.1		50.0	90	46.3		50.0	93
Selenium	39.7		40.0	99	49.9		50.0	100	49.9		50.0	100
Antimony	40.6		40.0	102	50.3		50.0	101	50.9		50.0	102
Arsenic	39.3		40.0	98	50.1		50.0	100	49.7		50.0	99
Barium	39.5		40.0	99	49.5		50.0	99	49.7		50.0	99
Cadmium	39.6		40.0	99	49.1		50.0	98	49.6		50.0	99
Calcium	20200		20000	101	25700		25000	103	26100		25000	105
Chromium	41.0		40.0	102	50.6		50.0	101	51.6		50.0	103
Cobalt	39.4		40.0	98	49.7		50.0	99	48.8		50.0	98
Copper	40.0		40.0	100	50.7		50.0	101	49.6		50.0	99
Lead	40.4		40.0	101	49.7		50.0	99	50.9		50.0	102
Magnesium	19700		20000	99	25000		25000	100	25100		25000	100
Molybdenum	42.1		40.0	105	52.8		50.0	106	52.5		50.0	105
Nickel	40.4		40.0	101	49.4		50.0	99	49.1		50.0	98
Silver	41.2		40.0	103	49.7		50.0	99	49.8		50.0	100
Thallium	39.8		40.0	100	49.8		50.0	100	51.4		50.0	103
Tungsten	41.7		40.0	104	49.0		50.0	98	49.7		50.0	99
Vanadium	39.4		40.0	98	50.8		50.0	102	50.5		50.0	101
Zinc	38.7		40.0	97	49.7		50.0	99	49.8		50.0	100

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.
Italicized analytes were not requested for this sequence.

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-118610-1

SDG No.:

ICV Source: MTMSICVW_00093 Concentration Units: ug/L

CCV Source: MTMSCAL2CCVW_00243

Analyte	CCV 240-401016/152 09/16/2019 20:32				CCV 240-401016/164 09/16/2019 21:01				CCV 240-401016/170 09/16/2019 21:15			
	Found	C	True	%R	Found	C	True	%R	Found	C	True	%R
Beryllium	46.5		50.0	93	47.9		50.0	96	46.2		50.0	92
Selenium	49.8		50.0	100	50.6		50.0	101	50.8		50.0	102
Antimony	50.9		50.0	102	51.6		50.0	103	51.3		50.0	103
Arsenic	49.0		50.0	98	48.5		50.0	97	48.5		50.0	97
Barium	49.9		50.0	100	50.4		50.0	101	50.3		50.0	101
Cadmium	49.7		50.0	99	50.8		50.0	102	50.1		50.0	100
Calcium	26000		25000	104	26100		25000	104	25900		25000	103
Chromium	51.5		50.0	103	51.5		50.0	103	51.6		50.0	103
Cobalt	48.8		50.0	98	49.3		50.0	99	47.6		50.0	95
Copper	49.5		50.0	99	49.7		50.0	99	48.7		50.0	97
Lead	50.4		50.0	101	50.6		50.0	101	50.7		50.0	101
Magnesium	25800		25000	103	25700		25000	103	24500		25000	98
Molybdenum	52.3		50.0	105	52.5		50.0	105				
Nickel	48.8		50.0	98	49.3		50.0	99	47.7		50.0	95
Silver	49.3		50.0	99	50.0		50.0	100	49.5		50.0	99
Thallium	50.4		50.0	101	50.5		50.0	101	51.1		50.0	102
Tungsten	49.7		50.0	99					51.1		50.0	102
Vanadium	50.9		50.0	102	51.0		50.0	102	51.1		50.0	102
Zinc	49.7		50.0	99	49.4		50.0	99	49.0		50.0	98

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.
Italicized analytes were not requested for this sequence.

2A-IN
CALIBRATION VERIFICATIONS
METALS

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-118610-1

SDG No.:

ICV Source: MTMSICVW_00093 Concentration Units: ug/L

CCV Source: MTMSCAL2CCVW_00243

Analyte	CCV 240-401016/182 09/16/2019 21:43				CCV 240-401016/193 09/16/2019 22:10							
	Found	C	True	%R	Found	C	True	%R	Found	C	True	%R
Beryllium	46.6		50.0	93	45.5		50.0	91				
Selenium	49.8		50.0	100	49.3		50.0	99				
Antimony	51.3		50.0	103	50.5		50.0	101				
Arsenic	48.7		50.0	97	49.2		50.0	98				
Barium	50.0		50.0	100	49.8		50.0	100				
Cadmium	50.4		50.0	101	49.5		50.0	99				
Calcium	26000		25000	104	25700		25000	103				
Chromium	51.5		50.0	103	50.1		50.0	100				
Cobalt	48.6		50.0	97	48.5		50.0	97				
Copper	48.8		50.0	98	48.3		50.0	97				
Lead	50.7		50.0	101	49.7		50.0	99				
Magnesium	25100		25000	100	24800		25000	99				
Molybdenum	52.2		50.0	104	51.6		50.0	103				
Nickel	48.6		50.0	97	47.8		50.0	96				
Silver	50.1		50.0	100	48.8		50.0	98				
Thallium	51.1		50.0	102	50.1		50.0	100				
Tungsten	50.4		50.0	101	49.6		50.0	99				
Vanadium	51.3		50.0	103	49.7		50.0	99				
Zinc	49.0		50.0	98	48.3		50.0	97				

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.
Italicized analytes were not requested for this sequence.

2A-IN
CALIBRATION VERIFICATIONS
METALS

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-118610-1

SDG No.:

ICV Source: ICVLCCVLICPMS_00003 Concentration Units: ug/L

CCV Source: MTMSCAL2CCVW_00243

Analyte	ICVL 240-401016/9 09/16/2019 14:58				CCV 240-401016/128 09/16/2019 19:35				CCV 240-401016/140 09/16/2019 20:03			
	Found	C	True	%R	Found	C	True	%R	Found	C	True	%R
Beryllium	1.07		1.00	107	45.1		50.0	90	46.3		50.0	93
Selenium	4.95	J	5.00	99	49.9		50.0	100	49.9		50.0	100
Antimony	2.00		2.00	100	50.3		50.0	101	50.9		50.0	102
Arsenic	4.86	J	5.00	97	50.1		50.0	100	49.7		50.0	99
Barium	4.97	J	5.00	99	49.5		50.0	99	49.7		50.0	99
Cadmium	1.02		1.00	102	49.1		50.0	98	49.6		50.0	99
Calcium	1020		1000	102	25700		25000	103	26100		25000	105
Chromium	2.32		2.00	116	50.6		50.0	101	51.6		50.0	103
Cobalt	0.990	J	1.00	99	49.7		50.0	99	48.8		50.0	98
Copper	2.18		2.00	109	50.7		50.0	101	49.6		50.0	99
Lead	1.06		1.00	106	49.7		50.0	99	50.9		50.0	102
Magnesium	1010		1000	101	25000		25000	100	25100		25000	100
Molybdenum	5.09		5.00	102	52.8		50.0	106	52.5		50.0	105
Nickel	2.10		2.00	105	49.4		50.0	99	49.1		50.0	98
Silver	1.07		1.00	107	49.7		50.0	99	49.8		50.0	100
Thallium	1.03		1.00	103	49.8		50.0	100	51.4		50.0	103
Tungsten	10.1		10.0	101	49.0		50.0	98	49.7		50.0	99
Vanadium	4.57	J	5.00	91	50.8		50.0	102	50.5		50.0	101
Zinc	18.9	J	20.0	94	49.7		50.0	99	49.8		50.0	100

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.
Italicized analytes were not requested for this sequence.

2A-IN
CALIBRATION VERIFICATIONS
METALS

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-118610-1

SDG No.:

ICV Source: ICVLCCVLICPMS_00003 Concentration Units: ug/L

CCV Source: MTMSCAL2CCVW_00243

Analyte	CCV 240-401016/152 09/16/2019 20:32				CCV 240-401016/164 09/16/2019 21:01				CCV 240-401016/170 09/16/2019 21:15			
	Found	C	True	%R	Found	C	True	%R	Found	C	True	%R
Beryllium	46.5		50.0	93	47.9		50.0	96	46.2		50.0	92
Selenium	49.8		50.0	100	50.6		50.0	101	50.8		50.0	102
Antimony	50.9		50.0	102	51.6		50.0	103	51.3		50.0	103
Arsenic	49.0		50.0	98	48.5		50.0	97	48.5		50.0	97
Barium	49.9		50.0	100	50.4		50.0	101	50.3		50.0	101
Cadmium	49.7		50.0	99	50.8		50.0	102	50.1		50.0	100
Calcium	26000		25000	104	26100		25000	104	25900		25000	103
Chromium	51.5		50.0	103	51.5		50.0	103	51.6		50.0	103
Cobalt	48.8		50.0	98	49.3		50.0	99	47.6		50.0	95
Copper	49.5		50.0	99	49.7		50.0	99	48.7		50.0	97
Lead	50.4		50.0	101	50.6		50.0	101	50.7		50.0	101
Magnesium	25800		25000	103	25700		25000	103	24500		25000	98
Molybdenum	52.3		50.0	105	52.5		50.0	105				
Nickel	48.8		50.0	98	49.3		50.0	99	47.7		50.0	95
Silver	49.3		50.0	99	50.0		50.0	100	49.5		50.0	99
Thallium	50.4		50.0	101	50.5		50.0	101	51.1		50.0	102
Tungsten	49.7		50.0	99					51.1		50.0	102
Vanadium	50.9		50.0	102	51.0		50.0	102	51.1		50.0	102
Zinc	49.7		50.0	99	49.4		50.0	99	49.0		50.0	98

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.
Italicized analytes were not requested for this sequence.

2A-IN
CALIBRATION VERIFICATIONS
METALS

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-118610-1

SDG No.:

ICV Source: ICVLCCVLICPMS_00003 Concentration Units: ug/L

CCV Source: MTMSCAL2CCVW_00243

Analyte	CCV 240-401016/182 09/16/2019 21:43				CCV 240-401016/193 09/16/2019 22:10							
	Found	C	True	%R	Found	C	True	%R	Found	C	True	%R
Beryllium	46.6		50.0	93	45.5		50.0	91				
Selenium	49.8		50.0	100	49.3		50.0	99				
Antimony	51.3		50.0	103	50.5		50.0	101				
Arsenic	48.7		50.0	97	49.2		50.0	98				
Barium	50.0		50.0	100	49.8		50.0	100				
Cadmium	50.4		50.0	101	49.5		50.0	99				
Calcium	26000		25000	104	25700		25000	103				
Chromium	51.5		50.0	103	50.1		50.0	100				
Cobalt	48.6		50.0	97	48.5		50.0	97				
Copper	48.8		50.0	98	48.3		50.0	97				
Lead	50.7		50.0	101	49.7		50.0	99				
Magnesium	25100		25000	100	24800		25000	99				
Molybdenum	52.2		50.0	104	51.6		50.0	103				
Nickel	48.6		50.0	97	47.8		50.0	96				
Silver	50.1		50.0	100	48.8		50.0	98				
Thallium	51.1		50.0	102	50.1		50.0	100				
Tungsten	50.4		50.0	101	49.6		50.0	99				
Vanadium	51.3		50.0	103	49.7		50.0	99				
Zinc	49.0		50.0	98	48.3		50.0	97				

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.
Italicized analytes were not requested for this sequence.

2A-IN
CALIBRATION VERIFICATIONS
METALS

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-118610-1

SDG No.:

ICV Source: MTHgICV_00001_00567 Concentration Units: ug/L

CCV Source: MTHGCALW_02210

Analyte	ICV 240-400406/7-A 09/13/2019 11:49				CCV 240-400406/10-A 09/13/2019 17:58				CCV 240-400406/10-A 09/13/2019 18:23			
	Found	C	True	%R	Found	C	True	%R	Found	C	True	%R
Mercury	4.83		5.00	97	5.45		5.00	109	5.02		5.00	100

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.
Italicized analytes were not requested for this sequence.

2A-IN
CALIBRATION VERIFICATIONS
METALS

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-118610-1

SDG No.:

ICV Source: MTHgICV_00001_00567 Concentration Units: ug/L

CCV Source: MTHGCALW_02210

Analyte	CCV 240-400406/10-A 09/13/2019 18:48				CCV 240-400406/10-A 09/13/2019 19:13				CCV 240-400406/10-A 09/13/2019 19:38			
	Found	C	True	%R	Found	C	True	%R	Found	C	True	%R
Mercury	5.31		5.00	106	5.30		5.00	106	5.22		5.00	104

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.
Italicized analytes were not requested for this sequence.

2A-IN
CALIBRATION VERIFICATIONS
METALS

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-118610-1

SDG No.:

ICV Source: MTHgICV_00001_00567 Concentration Units: ug/L

CCV Source: MTHGCALW_02210

Analyte	CCV 240-400406/10-A 09/13/2019 20:01											
	Found	C	True	%R	Found	C	True	%R	Found	C	True	%R
Mercury	5.35		5.00	107								

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.
Italicized analytes were not requested for this sequence.

2B-IN
CRQL CHECK STANDARD
METALS

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-118610-1

SDG No.:

Method: 7470A Instrument ID: H2

Lab Sample ID: CRA 240-400406/9-A Concentration Units: ug/L

CRQL Check Standard Source: MTHGCALW_02210

Analyte	CRQL Check Standard				
	True	Found	Qualifiers	%R(1)	Limits
Mercury	0.200	0.277		139	50-150

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

FORM IIB-IN

3-IN
INSTRUMENT BLANKS
METALS

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-118610-1

SDG No.:

Concentration Units: ug/L

Analyte	RL	ICB 240-400809/8 09/13/2019 15:23		CCB 240-400809/110 09/13/2019 19:23		CCB 240-400809/122 09/13/2019 19:50		CCB 240-400809/134 09/13/2019 20:19	
		Found	C	Found	C	Found	C	Found	C
Antimony	2.0	2.0	U	2.0	U	2.0	U	2.0	U
Arsenic	5.0	5.0	U	5.0	U	5.0	U	5.0	U
Barium	5.0	5.0	U	5.0	U	5.0	U	5.0	U
Cadmium	1.0	1.0	U	1.0	U	1.0	U	1.0	U
Calcium	1000	1000	U	1000	U	1000	U	1000	U
Chromium	2.0	2.0	U	2.0	U	2.0	U	2.0	U
Cobalt	1.0	1.0	U	1.0	U	1.0	U	1.0	U
Copper	2.0	2.0	U	2.0	U	2.0	U	2.0	U
Lead	1.0	1.0	U	1.0	U	1.0	U	1.0	U
Magnesium	1000	1000	U	1000	U	1000	U	1000	U
Molybdenum	5.0	5.0	U	5.0	U	5.0	U	5.0	U
Nickel	2.0	2.0	U	2.0	U	2.0	U	2.0	U
Selenium	5.0	5.0	U	5.0	U	5.0	U	5.0	U
Silver	1.0	1.0	U	1.0	U	1.0	U	1.0	U
Thallium	1.0	1.0	U	1.0	U	1.0	U	1.0	U
Tungsten	10	10	U	10	U	10	U	10	U
Vanadium	5.0	5.0	U	5.0	U	5.0	U	5.0	U
Zinc	20	20	U	20	U	20	U	20	U
Beryllium	1.0	1.0	U						

Italicized analytes were not requested for this sequence.

3-IN
INSTRUMENT BLANKS
METALS

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-118610-1

SDG No.:

Concentration Units: ug/L

Analyte	RL	CCB 240-400809/146 09/13/2019 20:48		CCB 240-400809/152 09/13/2019 21:02		CCB 240-400809/164 09/13/2019 21:29		CCB 240-400809/176 09/13/2019 21:58	
		Found	C	Found	C	Found	C	Found	C
Antimony	2.0	2.0	U	2.0	U	2.0	U	2.0	U
Arsenic	5.0	5.0	U	5.0	U	5.0	U	5.0	U
Barium	5.0	5.0	U	5.0	U	5.0	U	5.0	U
Cadmium	1.0	1.0	U	1.0	U	1.0	U	1.0	U
Calcium	1000	1000	U	1000	U	1000	U	1000	U
Chromium	2.0	2.0	U	2.0	U	2.0	U	2.0	U
Cobalt	1.0	1.0	U	1.0	U	1.0	U	1.0	U
Copper	2.0	2.0	U	2.0	U	2.0	U	2.0	U
Lead	1.0	1.0	U	1.0	U	1.0	U	1.0	U
Magnesium	1000	1000	U	1000	U	1000	U	1000	U
Molybdenum	5.0	5.0	U	1.17	J	5.0	U	5.0	U
Nickel	2.0	2.0	U	2.0	U	2.0	U	2.0	U
Selenium	5.0	5.0	U	5.0	U	5.0	U	5.0	U
Silver	1.0	1.0	U	1.0	U	1.0	U	1.0	U
Thallium	1.0	1.0	U	1.0	U	1.0	U	1.0	U
Tungsten	10	3.91	J	10	U	10	U	10	U
Vanadium	5.0	5.0	U	5.0	U	5.0	U	5.0	U
Zinc	20	20	U	20	U	20	U	20	U
Beryllium	1.0								

Italicized analytes were not requested for this sequence.

3-IN
INSTRUMENT BLANKS
METALS

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-118610-1

SDG No.:

Concentration Units: ug/L

Analyte	RL	CCB 240-400809/185 09/13/2019 22:20							
		Found	C	Found	C	Found	C	Found	C
Antimony	2.0	2.0	U						
Arsenic	5.0	5.0	U						
Barium	5.0	5.0	U						
Cadmium	1.0	1.0	U						
Calcium	1000	1000	U						
Chromium	2.0	2.0	U						
Cobalt	1.0	1.0	U						
Copper	2.0	2.0	U						
Lead	1.0	1.0	U						
Magnesium	1000	1000	U						
Molybdenum	5.0	5.0	U						
Nickel	2.0	2.0	U						
Selenium	5.0	5.0	U						
Silver	1.0	1.0	U						
Thallium	1.0	1.0	U						
Tungsten	10	10	U						
Vanadium	5.0	5.0	U						
Zinc	20	20	U						
Beryllium	1.0								

Italicized analytes were not requested for this sequence.

3-IN
INSTRUMENT BLANKS
METALS

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-118610-1

SDG No.:

Concentration Units: ug/L

Analyte	RL	ICB 240-401016/8 09/16/2019 14:56		CCB 240-401016/129 09/16/2019 19:38		CCB 240-401016/141 09/16/2019 20:05		CCB 240-401016/153 09/16/2019 20:34	
		Found	C	Found	C	Found	C	Found	C
Beryllium	1.0	1.0	U	1.0	U	0.312	J	1.0	U
Selenium	5.0	5.0	U	5.0	U	5.0	U	5.0	U
Antimony	2.0	2.0	U	2.0	U	2.0	U	2.0	U
Arsenic	5.0	5.0	U	5.0	U	5.0	U	5.0	U
Barium	5.0	5.0	U	5.0	U	5.0	U	5.0	U
Cadmium	1.0	1.0	U	1.0	U	1.0	U	1.0	U
Calcium	1000	1000	U	1000	U	1000	U	1000	U
Chromium	2.0	2.0	U	2.0	U	2.0	U	2.0	U
Cobalt	1.0	1.0	U	1.0	U	1.0	U	1.0	U
Copper	2.0	2.0	U	2.0	U	2.0	U	2.0	U
Lead	1.0	1.0	U	1.0	U	1.0	U	1.0	U
Magnesium	1000	1000	U	1000	U	1000	U	1000	U
Molybdenum	5.0	5.0	U	5.0	U	5.0	U	5.0	U
Nickel	2.0	2.0	U	2.0	U	2.0	U	2.0	U
Silver	1.0	1.0	U	1.0	U	1.0	U	1.0	U
Thallium	1.0	1.0	U	1.0	U	1.0	U	1.0	U
Tungsten	10	10	U	10	U	10	U	10	U
Vanadium	5.0	5.0	U	5.0	U	5.0	U	5.0	U
Zinc	20	20	U	20	U	20	U	20	U

Italicized analytes were not requested for this sequence.

3-IN
INSTRUMENT BLANKS
METALS

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-118610-1

SDG No.:

Concentration Units: ug/L

Analyte	RL	CCB 240-401016/165 09/16/2019 21:03		CCB 240-401016/171 09/16/2019 21:17		CCB 240-401016/183 09/16/2019 21:46		CCB 240-401016/194 09/16/2019 22:12	
		Found	C	Found	C	Found	C	Found	C
Beryllium	1.0	1.0	U	1.0	U	1.0	U	1.0	U
Selenium	5.0	5.0	U	5.0	U	5.0	U	5.0	U
Antimony	2.0	2.0	U	2.0	U	2.0	U	2.0	U
Arsenic	5.0	5.0	U	5.0	U	5.0	U	5.0	U
Barium	5.0	5.0	U	5.0	U	5.0	U	5.0	U
Cadmium	1.0	1.0	U	1.0	U	1.0	U	1.0	U
Calcium	1000	1000	U	1000	U	1000	U	1000	U
Chromium	2.0	2.0	U	2.0	U	2.0	U	2.0	U
Cobalt	1.0	1.0	U	1.0	U	1.0	U	1.0	U
Copper	2.0	2.0	U	2.0	U	2.0	U	2.0	U
Lead	1.0	1.0	U	1.0	U	1.0	U	1.0	U
Magnesium	1000	1000	U	1000	U	1000	U	1000	U
Molybdenum	5.0	5.0	U	1.57	J	5.0	U	5.0	U
Nickel	2.0	2.0	U	2.0	U	2.0	U	2.0	U
Silver	1.0	1.0	U	1.0	U	1.0	U	1.0	U
Thallium	1.0	1.0	U	1.0	U	1.0	U	1.0	U
Tungsten	10	3.56	J	10	U	10	U	10	U
Vanadium	5.0	5.0	U	5.0	U	5.0	U	5.0	U
Zinc	20	20	U	20	U	20	U	20	U

Italicized analytes were not requested for this sequence.

3-IN
INSTRUMENT BLANKS
METALS

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-118610-1

SDG No.:

Concentration Units: ug/L

Analyte	RL	ICB 240-400406/8-A 09/13/2019 11:51		CCB 240-400406/11-A 09/13/2019 18:00		CCB 240-400406/11-A 09/13/2019 18:25		CCB 240-400406/11-A 09/13/2019 18:50	
		Found	C	Found	C	Found	C	Found	C
Mercury	0.20	0.20	U	0.20	U	0.20	U	0.20	U

Italicized analytes were not requested for this sequence.

3-IN
INSTRUMENT BLANKS
METALS

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-118610-1

SDG No.:

Concentration Units: ug/L

Analyte	RL	CCB 240-400406/11-A 09/13/2019 19:15		CCB 240-400406/11-A 09/13/2019 19:40		CCB 240-400406/11-A 09/13/2019 20:03			
		Found	C	Found	C	Found	C	Found	C
Mercury	0.20	0.20	U	0.20	U	0.20	U		

Italicized analytes were not requested for this sequence.

3-IN
METHOD BLANK
METALS - TOTAL RECOVERABLE

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-118610-1

SDG No.:

Concentration Units: ug/L Lab Sample ID: MB 240-400294/1-A

Instrument Code: I14 Batch No.: 400809

CAS No.	Analyte	Concentration	C	Q	Method
7440-36-0	Antimony	2.0	U		6020
7440-38-2	Arsenic	5.0	U		6020
7440-39-3	Barium	5.0	U		6020
7440-43-9	Cadmium	1.0	U		6020
7440-47-3	Chromium	2.0	U		6020
7440-48-4	Cobalt	1.0	U		6020
7440-50-8	Copper	2.0	U		6020
7439-92-1	Lead	0.562	J		6020
7440-02-0	Nickel	2.0	U		6020
7440-22-4	Silver	1.0	U		6020
7440-28-0	Thallium	1.0	U		6020
7440-62-2	Vanadium	5.0	U		6020
7440-66-6	Zinc	20	U		6020
7440-70-2	Calcium	1000	U		6020
7439-95-4	Magnesium	1000	U		6020
7440-33-7	Tungsten	2.69	J		6020

3-IN
METHOD BLANK
METALS - TOTAL RECOVERABLE

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-118610-1

SDG No.:

Concentration Units: ug/L Lab Sample ID: MB 240-400302/1-A

Instrument Code: I14 Batch No.: 400809

CAS No.	Analyte	Concentration	C	Q	Method
7440-36-0	Antimony	2.0	U		6020
7440-38-2	Arsenic	5.0	U		6020
7440-39-3	Barium	5.0	U		6020
7440-43-9	Cadmium	1.0	U		6020
7440-47-3	Chromium	2.0	U		6020
7440-48-4	Cobalt	1.0	U		6020
7440-50-8	Copper	2.0	U		6020
7439-92-1	Lead	1.0	U		6020
7439-98-7	Molybdenum	5.0	U		6020
7440-02-0	Nickel	2.0	U		6020
7782-49-2	Selenium	5.0	U		6020
7440-22-4	Silver	1.0	U		6020
7440-28-0	Thallium	1.0	U		6020
7440-62-2	Vanadium	5.0	U		6020
7440-66-6	Zinc	20	U		6020
7440-70-2	Calcium	1000	U		6020
7439-95-4	Magnesium	1000	U		6020
7440-33-7	Tungsten	10	U		6020

3-IN
METHOD BLANK
METALS - TOTAL RECOVERABLE

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-118610-1

SDG No.:

Concentration Units: ug/L Lab Sample ID: MB 240-400294/1-A

Instrument Code: I14 Batch No.: 401016

CAS No.	Analyte	Concentration	C	Q	Method
7440-41-7	Beryllium	1.0	U		6020
7782-49-2	Selenium	5.0	U		6020

3-IN
METHOD BLANK
METALS - TOTAL RECOVERABLE

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-118610-1

SDG No.:

Concentration Units: ug/L Lab Sample ID: MB 240-400302/1-A

Instrument Code: I14 Batch No.: 401016

CAS No.	Analyte	Concentration	C	Q	Method
7440-41-7	Beryllium	1.0	U		6020

3-IN
METHOD BLANK
METALS

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-118610-1

SDG No.:

Concentration Units: ug/L Lab Sample ID: MB 240-400301/1-A

Instrument Code: H2 Batch No.: 400725

CAS No.	Analyte	Concentration	C	Q	Method
7439-97-6	Mercury	0.20	U		7470A

3-IN
METHOD BLANK
METALS

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-118610-1

SDG No.:

Concentration Units: ug/L Lab Sample ID: MB 240-400304/1-A

Instrument Code: H2 Batch No.: 400725

CAS No.	Analyte	Concentration	C	Q	Method
7439-97-6	Mercury	0.20	U		7470A

4A-IN
INTERFERENCE CHECK STANDARD
METALS

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-118610-1

SDG No.:

Lab Sample ID: ICSA 240-400809/10 Instrument ID: I14

Lab File ID: 010ICSA.d ICS Source: MTMSICSAW_00092

Concentration Units: ug/L

Analyte	True Solution A	Found Solution A	Percent Recovery
Antimony		**0.0980**	
Arsenic		**0.105**	
Barium		**0.0790**	
Cadmium		**0.266**	
Calcium	**50000**	**48992**	**98**
Chromium		**0.161**	
Cobalt		**0.150**	
Copper		**0.0200**	
Lead		**0.0260**	
Magnesium	**50000**	**47263**	**95**
Molybdenum	**1000**	**1084**	**108**
Nickel		**0.123**	
Selenium		**0.105**	
Silver		**0.0060**	
Thallium		**0.0030**	
Tungsten		**1.32**	
Vanadium		**-0.281**	
Zinc		**-0.597**	
Aluminum	*50000*	*47135*	*94*
Beryllium		*0.0010*	
Boron		*1.45*	
Iron	*50000*	*48440*	*97*
Lithium		*-0.395*	
Manganese		*-0.0200*	
Potassium	*50000*	*48210*	*96*
Sodium	*50000*	*47388*	*95*
Strontium		*0.424*	
Tin		*0.132*	
Titanium	*1000*	*981*	*98*

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

FORM IVA-IN

4A-IN
INTERFERENCE CHECK STANDARD
METALS

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-118610-1

SDG No.:

Lab Sample ID: ICSAB 240-400809/11 Instrument ID: I14

Lab File ID: 011ICAB.d ICS Source: MTMSICSABW_00091

Concentration Units: ug/L

Analyte	True Solution AB	Found Solution AB	Found Percent Recovery
Antimony	**100**	**101**	**101**
Arsenic	**100**	**98.8**	**99**
Barium	**100**	**99.2**	**99**
Cadmium	**100**	**97.8**	**98**
Calcium	**50000**	**47840**	**96**
Chromium	**100**	**96.4**	**96**
Cobalt	**100**	**98.1**	**98**
Copper	**100**	**96.5**	**96**
Lead	**100**	**98.3**	**98**
Magnesium	**50000**	**45774**	**92**
Molybdenum	**1100**	**1148**	**104**
Nickel	**100**	**97.5**	**98**
Selenium	**100**	**99.7**	**100**
Silver	**100**	**98.7**	**99**
Thallium	**100**	**96.1**	**96**
Tungsten	**100**	**98.3**	**98**
Vanadium	**100**	**96.1**	**96**
Zinc	**100**	**97.1**	**97**
Aluminum	*50000*	*45796*	*92*
Beryllium	*100*	*93.4*	*93*
Boron	*100*	*94.4*	*94*
Iron	*50000*	*47001*	*94*
Lithium	*100*	*92.5*	*92*
Manganese	*100*	*97.3*	*97*
Potassium	*50000*	*47106*	*94*
Sodium	*50000*	*46060*	*92*
Strontium	*100*	*97.9*	*98*
Tin	*100*	*101*	*101*
Titanium	*1100*	*1065*	*97*

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

FORM IVA-IN

4A-IN
INTERFERENCE CHECK STANDARD
METALS

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-118610-1

SDG No.:

Lab Sample ID: ICSA 240-401016/10 Instrument ID: I14

Lab File ID: 010ICSA.d ICS Source: MTMSICSAW_00092

Concentration Units: ug/L

Analyte	True Solution A	Found Solution A	Percent Recovery
Beryllium		**0.0160**	
Selenium		**0.198**	
Aluminum	*50000*	*48971*	*98*
Antimony		*0.0880*	
Arsenic		*-0.107*	
Barium		*0.0840*	
Boron		*1.11*	
Cadmium		*0.314*	
Calcium	*50000*	*49040*	*98*
Chromium		*0.0580*	
Cobalt		*0.147*	
Copper		*-0.0040*	
Iron	*50000*	*49264*	*99*
Lead		*0.0110*	
Lithium		*0.0020*	
Magnesium	*50000*	*49524*	*99*
Manganese		*-0.478*	
Molybdenum	*1000*	*1097*	*110*
Nickel		*0.0980*	
Potassium	*50000*	*49438*	*99*
Silver		*0.0040*	
Sodium	*50000*	*49171*	*98*
Strontium		*0.403*	
Thallium		*-0.0060*	
Tin		*-0.101*	
Titanium	*1000*	*1002*	*100*
Tungsten		*0.434*	
Vanadium		*-0.195*	
Zinc		*-2.79*	

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

FORM IVA-IN

4A-IN
INTERFERENCE CHECK STANDARD
METALS

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-118610-1

SDG No.:

Lab Sample ID: ICSAB 240-401016/11 Instrument ID: I14

Lab File ID: 011ICAB.d ICS Source: MTMSICSABW_00091

Concentration Units: ug/L

Analyte	True Solution AB	Found Solution AB	Found Percent Recovery
Beryllium	**100**	**98.7**	**99**
Selenium	**100**	**100**	**100**
Aluminum	*50000*	*47456*	*95*
Antimony	*100*	*100*	*100*
Arsenic	*100*	*102*	*102*
Barium	*100*	*100*	*100*
Boron	*100*	*102*	*102*
Cadmium	*100*	*99.7*	*100*
Calcium	*50000*	*47129*	*94*
Chromium	*100*	*98.8*	*99*
Cobalt	*100*	*101*	*101*
Copper	*100*	*99.3*	*99*
Iron	*50000*	*48563*	*97*
Lead	*100*	*102*	*102*
Lithium	*100*	*98.9*	*99*
Magnesium	*50000*	*48089*	*96*
Manganese	*100*	*98.4*	*98*
Molybdenum	*1100*	*1183*	*108*
Nickel	*100*	*101*	*101*
Potassium	*50000*	*47478*	*95*
Silver	*100*	*101*	*101*
Sodium	*50000*	*47803*	*96*
Strontium	*100*	*100*	*100*
Thallium	*100*	*99.8*	*100*
Tin	*100*	*100*	*100*
Titanium	*1100*	*1077*	*98*
Tungsten	*100*	*100*	*100*
Vanadium	*100*	*99.2*	*99*
Zinc	*100*	*102*	*102*

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

FORM IVA-IN

5A-IN
MATRIX SPIKE SAMPLE RECOVERY
METALS - DISSOLVED

Client ID: MSA-SW37A-090919 MS
Lab ID: 240-118610-1 MS
Lab Name: Eurofins TestAmerica, Canton
Job No.: 240-118610-1
SDG No.:
Matrix: Water
Concentration Units: ug/L
% Solids:

Analyte	SSR	C	Sample Result (SR)	C	Spike Added (SA)	%R	Control Limit %R	Q	Method
Antimony	97.1		2.0	U	100	97	75-125		6020
Arsenic	1040		2.3	J	1000	104	75-125		6020
Barium	982		35		1000	95	75-125		6020
Beryllium	449		0.59	J	500	90	75-125		6020
Cadmium	431		1.0	U	500	86	75-125		6020
Chromium	447		2.0	U	500	89	75-125		6020
Cobalt	512		0.30	J	500	102	75-125		6020
Copper	494		5.2		500	98	75-125		6020
Lead	452		1.0	U	500	90	75-125		6020
Molybdenum	517		1.9	J	500	103	75-125		6020
Nickel	484		2.1		500	96	75-125		6020
Selenium	990		1.2	J	1000	99	75-125		6020
Silver	95.2		1.0	U	100	95	75-125		6020
Thallium	865		0.39	J	1000	87	75-125		6020
Vanadium	472		5.0	U	500	94	75-125		6020
Zinc	503		20	U	500	101	75-125		6020
Calcium	52200		31000		25000	86	75-125		6020
Magnesium	109000		88000		25000	86	75-125		6020
Tungsten	87.7		10	U	100	88	75-125		6020
Mercury	1.26		0.20	U	1.00	126	80-120	F1	7470A

SSR = Spiked Sample Result

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

FORM VA - IN

5A-IN
MATRIX SPIKE SAMPLE RECOVERY
METALS - DISSOLVED

Client ID: MSA-SW42A-090919 MS
Lab ID: 240-118610-21 MS
Lab Name: Eurofins TestAmerica, Canton
Job No.: 240-118610-1
SDG No.:
Matrix: Water
Concentration Units: ug/L
% Solids:

Analyte	SSR	C	Sample Result (SR)	C	Spike Added (SA)	%R	Control Limit %R	Q	Method
Mercury	1.32		0.20	U	1.00	132	80-120	F1	7470A

SSR = Spiked Sample Result

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

FORM VA - IN

5A-IN
MATRIX SPIKE DUPLICATE SAMPLE RECOVERY
METALS - DISSOLVED

Client ID: MSA-SW37A-090919 MSD
Lab ID: 240-118610-1 MSD
Lab Name: Eurofins TestAmerica, Canton
Job No.: 240-118610-1
SDG No.:
Matrix: Water
Concentration Units: ug/L
% Solids:

Analyte	(SDR)	C	Spike Added (SA)	%R	Control Limit %R	RPD	RPD Limit	Q	Method
Antimony	98.1		100	98	75-125	1	20		6020
Arsenic	1060		1000	105	75-125	1	20		6020
Barium	994		1000	96	75-125	1	20		6020
Beryllium	447		500	89	75-125	0	20		6020
Cadmium	435		500	87	75-125	1	20		6020
Chromium	453		500	91	75-125	1	20		6020
Cobalt	517		500	103	75-125	1	20		6020
Copper	496		500	98	75-125	0	20		6020
Lead	464		500	93	75-125	3	20		6020
Molybdenum	525		500	105	75-125	1	20		6020
Nickel	487		500	97	75-125	1	20		6020
Selenium	991		1000	99	75-125	0	20		6020
Silver	95.2		100	95	75-125	0	20		6020
Thallium	888		1000	89	75-125	3	20		6020
Vanadium	477		500	95	75-125	1	20		6020
Zinc	502		500	100	75-125	0	20		6020
Calcium	53000		25000	89	75-125	1	20		6020
Magnesium	111000		25000	93	75-125	1	20		6020
Tungsten	91.5		100	91	75-125	4	20		6020
Mercury	1.18		1.00	118	80-120	7	20		7470A

SDR = Sample Duplicate Result

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

FORM VD - IN

5A-IN
MATRIX SPIKE DUPLICATE SAMPLE RECOVERY
METALS - DISSOLVED

Client ID: MSA-SW42A-090919 MSD
Lab ID: 240-118610-21 MSD
Lab Name: Eurofins TestAmerica, Canton
Job No.: 240-118610-1
SDG No.:
Matrix: Water
Concentration Units: ug/L
% Solids:

Analyte	(SDR)	C	Spike Added (SA)	%R	Control Limit %R	RPD	RPD Limit	Q	Method
Mercury	1.24		1.00	124	80-120	6	20	F1	7470A

SDR = Sample Duplicate Result

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

FORM VD - IN

7A-IN
LAB CONTROL SAMPLE
METALS - TOTAL RECOVERABLE

Lab ID: LCS 240-400302/2-A

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-118610-1

Sample Matrix: Water LCS Source: ICPMSspike3_00003

Analyte	Water(ug/L)							
	True	Found	C	%R	Limits		Q	Method
Antimony	100	92.3		92	80	120		6020
Arsenic	1000	998		100	80	120		6020
Barium	1000	912		91	80	120		6020
Cadmium	500	432		86	80	120		6020
Chromium	500	435		87	80	120		6020
Cobalt	500	496		99	80	120		6020
Copper	500	486		97	80	120		6020
Lead	500	459		92	80	120		6020
Molybdenum	500	489		98	80	120		6020
Nickel	500	475		95	80	120		6020
Selenium	1000	996		100	80	120		6020
Silver	100	94.3		94	80	120		6020
Thallium	1000	882		88	80	120		6020
Vanadium	500	450		90	80	120		6020
Zinc	500	499		100	80	120		6020
Calcium	25000	23500		94	80	120		6020
Magnesium	25000	23200		93	80	120		6020
Tungsten	100	84.6		85	80	120		6020

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

FORM VIIA - IN

7A-IN
LAB CONTROL SAMPLE
METALS - TOTAL RECOVERABLE

Lab ID: LCS 240-400294/2-A

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-118610-1

Sample Matrix: Water LCS Source: ICPMSspike3_00003

Analyte	Water(ug/L)							
	True	Found	C	%R	Limits		Q	Method
Antimony	100	95.7		96	80	120		6020
Arsenic	1000	985		98	80	120		6020
Barium	1000	954		95	80	120		6020
Cadmium	500	447		89	80	120		6020
Chromium	500	459		92	80	120		6020
Cobalt	500	495		99	80	120		6020
Copper	500	474		95	80	120		6020
Lead	500	473		95	80	120		6020
Nickel	500	469		94	80	120		6020
Silver	100	95.9		96	80	120		6020
Thallium	1000	897		90	80	120		6020
Vanadium	500	467		93	80	120		6020
Zinc	500	492		98	80	120		6020
Calcium	25000	23900		96	80	120		6020
Magnesium	25000	23600		94	80	120		6020
Tungsten	100	88.4		88	80	120		6020

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

FORM VIIA - IN

7A-IN
LAB CONTROL SAMPLE
METALS - TOTAL RECOVERABLE

Lab ID: LCS 240-400302/2-A

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-118610-1

Sample Matrix: Water LCS Source: SPIKE1_00005

Analyte	Water(ug/L)							
	True	Found	C	%R	Limits		Q	Method
Beryllium	500	451		90	80	120		6020

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

FORM VIIA - IN

7A-IN
LAB CONTROL SAMPLE
METALS - TOTAL RECOVERABLE

Lab ID: LCS 240-400294/2-A

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-118610-1

Sample Matrix: Water LCS Source: SPIKE1_00005

Analyte	Water(ug/L)							
	True	Found	C	%R	Limits		Q	Method
Beryllium	500	450		90	80	120		6020
Selenium	1000	933		93	80	120		6020

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

FORM VIIA - IN

7A-IN
LAB CONTROL SAMPLE
METALS

Lab ID: LCS 240-400301/2-A

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-118610-1

Sample Matrix: Water LCS Source: MTHGCALW_02210

Analyte	Water(ug/L)							
	True	Found	C	%R	Limits		Q	Method
Mercury	5.00	5.19		104	80	120		7470A

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

FORM VIIA - IN

7A-IN
LAB CONTROL SAMPLE
METALS

Lab ID: LCS 240-400304/2-A

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-118610-1

Sample Matrix: Water LCS Source: MTHGCALW_02210

Analyte	Water(ug/L)							
	True	Found	C	%R	Limits		Q	Method
Mercury	5.00	5.19		104	80	120		7470A

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

FORM VIIA - IN

8-IN
ICP-AES AND ICP-MS SERIAL DILUTIONS
METALS - DISSOLVED

Lab ID: 240-118610-1

SDG No:

Lab Name: Eurofins TestAmerica, Canton Job No: 240-118610-1

Matrix: Water Concentration Units: ug/L

Analyte	Initial Sample Result (I)	C	Serial Dilution Result (S)	C	% Difference	Q	Method
Antimony	2.0	U	10	U	NC		6020
Arsenic	2.3	J	25	U	NC		6020
Barium	35		35.8		NC		6020
Beryllium	0.59	J	5.0	U	NC		6020
Cadmium	1.0	U	5.0	U	NC		6020
Chromium	2.0	U	10	U	NC		6020
Cobalt	0.30	J	5.0	U	NC		6020
Copper	5.2		10	U	NC		6020
Lead	1.0	U	5.0	U	NC		6020
Molybdenum	1.9	J	25	U	NC		6020
Nickel	2.1		10	U	NC		6020
Selenium	1.2	J	25	U	NC		6020
Silver	1.0	U	5.0	U	NC		6020
Thallium	0.39	J	5.0	U	NC		6020
Vanadium	5.0	U	25	U	NC		6020
Zinc	20	U	100	U	NC		6020
Calcium	31000		32000		NC		6020
Magnesium	88000		91800		NC		6020
Tungsten	10	U	50	U	NC		6020

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

FORM VIII-IN

9-IN
DETECTION LIMITS
METALS - DISSOLVED

Lab Name: Eurofins TestAmerica, Canton Job Number: 240-118610-1

SDG Number:

Matrix: Water Instrument ID: I14

Method: 6020 MDL Date: 08/12/2019 14:16

Prep Method: 3005A

Analyte	Wavelength/ Mass	RL (ug/L)	MDL (ug/L)
Antimony	121.00	2	0.57
Arsenic	75.00	5	0.75
Barium	137.00	5	2.23
Beryllium	9.00	1	0.305
Cadmium	111.00	1	0.197
Chromium	52.00	2	0.98
Cobalt	59.00	1	0.19
Copper	65.00	2	1.7
Lead	208.00	1	0.45
Molybdenum	95.00	5	1.08
Nickel	60.00	2	1.47
Selenium	78.00	5	0.89
Silver	107.00	1	0.053
Thallium	205.00	1	0.2
Tungsten	182.00	10	1.78
Vanadium	51.00	5	0.82
Zinc	66.00	20	15

9-IN
CALIBRATION BLANK DETECTION LIMITS
METALS - DISSOLVED

Lab Name: Eurofins TestAmerica, Canton Job Number: 240-118610-1

SDG Number:

Matrix: Water Instrument ID: I14

Method: 6020 XMDL Date: 08/12/2019 14:16

Analyte	Wavelength/ Mass	XRL (ug/L)	XMDL (ug/L)
Antimony	121.00	2	0.57
Arsenic	75.00	5	0.75
Barium	137.00	5	2.23
Beryllium	9.00	1	0.305
Cadmium	111.00	1	0.197
Chromium	52.00	2	0.98
Cobalt	59.00	1	0.19
Copper	65.00	2	1.7
Lead	208.00	1	0.45
Molybdenum	95.00	5	1.08
Nickel	60.00	2	1.47
Selenium	78.00	5	0.89
Silver	107.00	1	0.053
Thallium	205.00	1	0.2
Tungsten	182.00	10	1.78
Vanadium	51.00	5	0.82
Zinc	66.00	20	15

9-IN
DETECTION LIMITS
METALS - DISSOLVED

Lab Name: Eurofins TestAmerica, Canton Job Number: 240-118610-1

SDG Number:

Matrix: Water Instrument ID: H2

Method: 7470A MDL Date: 02/22/2017 15:12

Prep Method: 7470A

Analyte	Wavelength/ Mass	RL (ug/L)	MDL (ug/L)
Mercury	253.7	0.2	0.13

9-IN
CALIBRATION BLANK DETECTION LIMITS
METALS - DISSOLVED

Lab Name: Eurofins TestAmerica, Canton Job Number: 240-118610-1

SDG Number:

Matrix: Water Instrument ID: H2

Method: 7470A XMDL Date: 02/22/2017 15:12

Analyte	Wavelength/ Mass	XRL (ug/L)	XMDL (ug/L)
Mercury	253.7	0.2	0.13

9-IN
DETECTION LIMITS
METALS - DISSOLVED

Lab Name: Eurofins TestAmerica, Canton Job Number: 240-118610-1

SDG Number:

Matrix: Water Instrument ID: NOEQUIP

Method: SM 2340B RL Date: 04/14/2011 14:06

Analyte	Wavelength/ Mass	RL (mg/L)	
Calcium hardness as calcium carbonate		12	
Hardness as calcium carbonate		33	
Magnesium hardness as calcium carbonate		21	

9-IN
CALIBRATION BLANK DETECTION LIMITS
METALS - DISSOLVED

Lab Name: Eurofins TestAmerica, Canton Job Number: 240-118610-1

SDG Number:

Matrix: Water Instrument ID: NOEQUIP

Method: SM 2340B XMDL Date: 04/14/2011 14:07

Analyte	Wavelength/ Mass	XRL (ug/L)	XMDL (ug/L)
Calcium hardness as calcium carbonate		12000	325
Hardness as calcium carbonate		33000	465
Magnesium hardness as calcium carbonate		21000	140

11-IN
LINEAR RANGES
METALS

Lab Name: Eurofins TestAmerica, Canton Job No: 240-118610-1

SDG No.:

Instrument ID: I14 Date: 10/02/2018 11:17

Analyte	Integ. Time (Sec.)	Concentration (ppb)	Method
Antimony		200	6020
Arsenic		10000	6020
Barium		10000	6020
Beryllium		2000	6020
Cadmium		4000	6020
Chromium		10000	6020
Cobalt		10000	6020
Copper		10000	6020
Lead		4000	6020
Molybdenum		2000	6020
Nickel		10000	6020
Selenium		10000	6020
Silver		300	6020
Thallium		2000	6020
Vanadium		10000	6020
Zinc		10000	6020
Tungsten		2500	6020

11-IN
LINEAR RANGES
METALS

Lab Name: Eurofins TestAmerica, Canton Job No: 240-118610-1

SDG No.:

Instrument ID: H2 Date: 05/15/2016 09:06

Analyte	Integ. Time (Sec.)	Concentration (ppb)	Method
Mercury		10	7470A

12-IN
PREPARATION LOG
METALS

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-118610-1

SDG No.:

Prep Method: 3005A

Lab Sample ID	Preparation Date	Prep Batch	Initial Weight	Initial Volume (mL)	Final Volume (mL)
MB 240-400294/1-A	09/12/2019 14:00	400294		50	50
LCS 240-400294/2-A	09/12/2019 14:00	400294		50	50
240-118610-21	09/12/2019 14:00	400294		50	50
240-118610-22	09/12/2019 14:00	400294		50	50
240-118610-23	09/12/2019 14:00	400294		50	50
240-118610-24	09/12/2019 14:00	400294		50	50
240-118610-25	09/12/2019 14:00	400294		50	50
240-118610-26	09/12/2019 14:00	400294		50	50
240-118610-27	09/12/2019 14:00	400294		50	50
240-118610-28	09/12/2019 14:00	400294		50	50
240-118610-29	09/12/2019 14:00	400294		50	50
240-118610-30	09/12/2019 14:00	400294		50	50
240-118610-31	09/12/2019 14:00	400294		50	50
240-118610-32	09/12/2019 14:00	400294		50	50
240-118610-33	09/12/2019 14:00	400294		50	50
240-118610-34	09/12/2019 14:00	400294		50	50
240-118610-35	09/12/2019 14:00	400294		50	50
240-118610-36	09/12/2019 14:00	400294		50	50

12-IN
PREPARATION LOG
METALS

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-118610-1

SDG No.:

Prep Method: 3005A

Lab Sample ID	Preparation Date	Prep Batch	Initial Weight	Initial Volume (mL)	Final Volume (mL)
MB 240-400302/1-A	09/12/2019 14:00	400302		50	50
LCS 240-400302/2-A	09/12/2019 14:00	400302		50	50
240-118610-1	09/12/2019 14:00	400302		50	50
240-118610-1 MS	09/12/2019 14:00	400302		50	50
240-118610-1 MSD	09/12/2019 14:00	400302		50	50
240-118610-2	09/12/2019 14:00	400302		50	50
240-118610-3	09/12/2019 14:00	400302		50	50
240-118610-4	09/12/2019 14:00	400302		50	50
240-118610-5	09/12/2019 14:00	400302		50	50
240-118610-6	09/12/2019 14:00	400302		50	50
240-118610-7	09/12/2019 14:00	400302		50	50
240-118610-8	09/12/2019 14:00	400302		50	50
240-118610-9	09/12/2019 14:00	400302		50	50
240-118610-10	09/12/2019 14:00	400302		50	50
240-118610-11	09/12/2019 14:00	400302		50	50
240-118610-12	09/12/2019 14:00	400302		50	50
240-118610-13	09/12/2019 14:00	400302		50	50
240-118610-14	09/12/2019 14:00	400302		50	50
240-118610-15	09/12/2019 14:00	400302		50	50
240-118610-16	09/12/2019 14:00	400302		50	50
240-118610-17	09/12/2019 14:00	400302		50	50
240-118610-18	09/12/2019 14:00	400302		50	50
240-118610-19	09/12/2019 14:00	400302		50	50
240-118610-20	09/12/2019 14:00	400302		50	50

12-IN
PREPARATION LOG
METALS

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-118610-1

SDG No.:

Prep Method: 7470A

Lab Sample ID	Preparation Date	Prep Batch	Initial Weight	Initial Volume (mL)	Final Volume (mL)
MB 240-400301/1-A	09/12/2019 12:00	400301		50	50
LCS 240-400301/2-A	09/12/2019 12:00	400301		50	50
240-118610-21	09/12/2019 12:00	400301		50	50
240-118610-21 MS	09/12/2019 12:00	400301		50	50
240-118610-21 MSD	09/12/2019 12:00	400301		50	50
240-118610-22	09/12/2019 12:00	400301		50	50
240-118610-23	09/12/2019 12:00	400301		50	50
240-118610-24	09/12/2019 12:00	400301		50	50
240-118610-25	09/12/2019 12:00	400301		50	50
240-118610-26	09/12/2019 12:00	400301		50	50
240-118610-27	09/12/2019 12:00	400301		50	50
240-118610-28	09/12/2019 12:00	400301		50	50
240-118610-29	09/12/2019 12:00	400301		50	50
240-118610-30	09/12/2019 12:00	400301		50	50
240-118610-31	09/12/2019 12:00	400301		50	50
240-118610-32	09/12/2019 12:00	400301		50	50
240-118610-33	09/12/2019 12:00	400301		50	50
240-118610-34	09/12/2019 12:00	400301		50	50
240-118610-35	09/12/2019 12:00	400301		50	50
240-118610-36	09/12/2019 12:00	400301		50	50

12-IN
PREPARATION LOG
METALS

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-118610-1

SDG No.:

Prep Method: 7470A

Lab Sample ID	Preparation Date	Prep Batch	Initial Weight	Initial Volume (mL)	Final Volume (mL)
MB 240-400304/1-A	09/12/2019 12:00	400304		50	50
LCS 240-400304/2-A	09/12/2019 12:00	400304		50	50
240-118610-1	09/12/2019 12:00	400304		50	50
240-118610-1 MS	09/12/2019 12:00	400304		50	50
240-118610-1 MSD	09/12/2019 12:00	400304		50	50
240-118610-2	09/12/2019 12:00	400304		50	50
240-118610-3	09/12/2019 12:00	400304		50	50
240-118610-4	09/12/2019 12:00	400304		50	50
240-118610-5	09/12/2019 12:00	400304		50	50
240-118610-6	09/12/2019 12:00	400304		50	50
240-118610-7	09/12/2019 12:00	400304		50	50
240-118610-8	09/12/2019 12:00	400304		50	50
240-118610-9	09/12/2019 12:00	400304		50	50
240-118610-10	09/12/2019 12:00	400304		50	50
240-118610-11	09/12/2019 12:00	400304		50	50
240-118610-12	09/12/2019 12:00	400304		50	50
240-118610-13	09/12/2019 12:00	400304		50	50
240-118610-14	09/12/2019 12:00	400304		50	50
240-118610-15	09/12/2019 12:00	400304		50	50
240-118610-16	09/12/2019 12:00	400304		50	50
240-118610-17	09/12/2019 12:00	400304		50	50
240-118610-18	09/12/2019 12:00	400304		50	50
240-118610-19	09/12/2019 12:00	400304		50	50
240-118610-20	09/12/2019 12:00	400304		50	50

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ANALYSIS RUN LOG
METALS

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-118610-1

SDG No.:

Instrument ID: I14 Analysis Method: 6020

Start Date: 09/13/2019 15:07 End Date: 09/13/2019 22:20

Lab Sample Id	D/F	Type	Time	Analytes																								
				Ag	As	Ba	Ca	Cd	Co	Cr	Cu	Mg	Mo	Ni	Pb	Sb	Se	Tl	V	W	Zn								
RINSE 240-400809/1			15:07																									
ICIS 240-400809/2			15:09	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X								
STD1 240-400809/3 IC	1		15:11	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X								
STD2 240-400809/4 IC	1		15:14	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X								
STD3 240-400809/5 IC	1		15:16	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X								
STD4 240-400809/6 IC	1		15:18	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X								
ICV 240-400809/7	1		15:21	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X								
ICB 240-400809/8	1		15:23	X	X	X		X	X	X	X		X	X	X	X	X	X	X	X	X								
ICVL 240-400809/9	1		15:26	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X								
ICSA 240-400809/10	1		15:28	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X								
ICSAB 240-400809/11	1		15:30	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X								
CCV 240-400809/12			15:33																									
CCB 240-400809/13			15:35																									
ZZZZZZ			15:40																									
ZZZZZZ			15:43																									
ZZZZZZ			15:45																									
ZZZZZZ			15:47																									
ZZZZZZ			15:50																									
ZZZZZZ			15:52																									
ZZZZZZ			15:54																									
ZZZZZZ			15:56																									
ZZZZZZ			15:58																									
ZZZZZZ			16:00																									
CCV 240-400809/24			16:03																									
CCB 240-400809/25			16:05																									
ZZZZZZ			16:07																									
ZZZZZZ			16:10																									
ZZZZZZ			16:12																									
ZZZZZZ			16:14																									
ZZZZZZ			16:17																									
ZZZZZZ			16:19																									
ZZZZZZ			16:21																									
ZZZZZZ			16:24																									
ZZZZZZ			16:26																									
ZZZZZZ			16:28																									
CCV 240-400809/36			16:31																									
CCB 240-400809/37			16:33																									
ZZZZZZ			16:35																									
ZZZZZZ			16:38																									
ZZZZZZ			16:40																									
ZZZZZZ			16:42																									
ZZZZZZ			16:45																									

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-118610-1

SDG No.:

Instrument ID: I14 Analysis Method: 6020

Start Date: 09/13/2019 15:07 End Date: 09/13/2019 22:20

Lab Sample Id	D/F	Type	Time	Analytes																								
				Ag	As	Ba	Ca	Cd	Co	Cr	Cu	Mg	Mo	Ni	Pb	Sb	Se	Tl	V	W	Zn								
ZZZZZZ			16:47																									
ZZZZZZ			16:49																									
ZZZZZZ			16:51																									
ZZZZZZ			16:54																									
ZZZZZZ			16:56																									
CCV 240-400809/48			16:59																									
CCB 240-400809/49			17:01																									
ZZZZZZ			17:03																									
ZZZZZZ			17:06																									
ZZZZZZ			17:08																									
ZZZZZZ			17:10																									
ZZZZZZ			17:13																									
CCV 240-400809/55			17:15																									
CCB 240-400809/56			17:17																									
CCVL 240-400809/57			17:20																									
ZZZZZZ			17:22																									
ZZZZZZ			17:24																									
ZZZZZZ			17:27																									
ZZZZZZ			17:29																									
ZZZZZZ			17:31																									
ZZZZZZ			17:34																									
ZZZZZZ			17:36																									
ZZZZZZ			17:38																									
ZZZZZZ			17:40																									
CCV 240-400809/67			17:42																									
CCB 240-400809/68			17:45																									
ZZZZZZ			17:47																									
ZZZZZZ			17:49																									
ZZZZZZ			17:51																									
ZZZZZZ			17:54																									
ZZZZZZ			17:56																									
ZZZZZZ			17:58																									
ZZZZZZ			18:01																									
ZZZZZZ			18:03																									
ZZZZZZ			18:05																									
ZZZZZZ			18:08																									
CCV 240-400809/79			18:10																									
CCB 240-400809/80			18:12																									
ZZZZZZ			18:15																									
ZZZZZZ			18:17																									
ZZZZZZ			18:19																									
ZZZZZZ			18:22																									

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-118610-1

SDG No.:

Instrument ID: I14 Analysis Method: 6020

Start Date: 09/13/2019 15:07 End Date: 09/13/2019 22:20

Lab Sample Id	D/F	Type	Time	Analytes																								
				Ag	As	Ba	Ca	Cd	Co	Cr	Cu	Mg	Mo	Ni	Pb	Sb	Se	Tl	V	W	Zn								
ZZZZZZ			18:24																									
ZZZZZZ			18:26																									
ZZZZZZ			18:29																									
ZZZZZZ			18:31																									
ZZZZZZ			18:34																									
ZZZZZZ			18:36																									
CCV 240-400809/91			18:38																									
CCB 240-400809/92			18:41																									
ZZZZZZ			18:43																									
ZZZZZZ			18:45																									
ZZZZZZ			18:48																									
ZZZZZZ			18:50																									
ZZZZZZ			18:52																									
ZZZZZZ			18:54																									
ZZZZZZ			18:56																									
ZZZZZZ			18:59																									
ZZZZZZ			19:01																									
ZZZZZZ			19:04																									
CCV 240-400809/103			19:06																									
CCB 240-400809/104			19:08																									
ZZZZZZ			19:11																									
ZZZZZZ			19:13																									
ZZZZZZ			19:16																									
ZZZZZZ			19:18																									
CCV 240-400809/109	1		19:20	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X							
CCB 240-400809/110	1		19:23	X	X	X		X	X	X	X		X	X	X	X	X	X	X	X	X	X							
CCVL 240-400809/111			19:25																									
MB 240-400302/1-A	1	R	19:27	X	X	X		X	X	X	X		X	X	X	X	X	X	X	X	X	X							
LCS 240-400302/2-A	1	R	19:30	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X							
240-118610-1	1	D	19:32	X	X	X		X	X	X	X		X	X	X	X	X	X	X	X	X	X							
240-118610-1 SD	5	D	19:34	X	X	X		X	X	X	X		X	X	X	X	X	X	X	X	X	X							
ZZZZZZ			19:37																									
240-118610-1 MS	1	D	19:39	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X							
240-118610-1 MSD	1	D	19:41	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X							
240-118610-2	1	D	19:43	X	X	X		X	X	X	X		X	X	X	X	X	X	X	X	X	X							
240-118610-3	1	D	19:46	X	X	X		X	X	X	X		X	X	X	X	X	X	X	X	X	X							
CCV 240-400809/121	1		19:48	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X							
CCB 240-400809/122	1		19:50	X	X	X		X	X	X	X		X	X	X	X	X	X	X	X	X	X							
240-118610-4	1	D	19:53	X	X	X		X	X	X	X		X	X	X	X	X	X	X	X	X	X							
240-118610-5	1	D	19:55	X	X	X		X	X	X	X		X	X	X	X	X	X	X	X	X	X							
240-118610-6	1	D	19:58	X	X	X		X	X	X	X		X	X	X	X	X	X	X	X	X	X							
240-118610-7	1	D	20:00	X	X	X		X	X	X	X		X	X	X	X	X	X	X	X	X	X							

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-118610-1

SDG No.:

Instrument ID: I14 Analysis Method: 6020

Start Date: 09/13/2019 15:07 End Date: 09/13/2019 22:20

Lab Sample Id	D/F	Type	Time	Analytes																											
				Ag	As	Ba	Ca	Cd	Co	Cr	Cu	Mg	Mo	Ni	Pb	Sb	Se	Tl	V	W	Zn										
240-118610-8	1	D	20:02	X	X	X		X	X	X	X		X	X	X	X	X	X	X	X	X										
240-118610-9	1	D	20:05	X	X	X		X	X	X	X		X	X	X	X	X	X	X	X	X										
240-118610-10	1	D	20:07	X	X	X		X	X	X	X		X	X	X	X	X	X	X	X	X										
240-118610-11	1	D	20:10	X	X	X		X	X	X	X		X	X	X	X	X	X	X	X	X										
240-118610-12	1	D	20:12	X	X	X		X	X	X	X		X	X	X	X	X	X	X	X	X										
240-118610-13	1	D	20:14	X	X	X		X	X	X	X		X	X	X	X	X	X	X	X	X										
CCV 240-400809/133	1		20:17	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X										
CCB 240-400809/134	1		20:19	X	X	X		X	X	X	X		X	X	X	X	X	X	X	X	X										
240-118610-14	1	D	20:22	X	X	X		X	X	X	X		X	X	X	X	X	X	X	X	X										
240-118610-15	1	D	20:24	X	X	X		X	X	X	X		X	X	X	X	X	X	X	X	X										
240-118610-16	1	D	20:26	X	X	X		X	X	X	X		X	X	X	X	X	X	X	X	X										
240-118610-17	1	D	20:29	X	X	X		X	X	X	X		X	X	X	X	X	X	X	X	X										
240-118610-18	1	D	20:31	X	X	X		X	X	X	X		X	X	X	X	X	X	X	X	X										
240-118610-19	1	D	20:34	X	X	X		X	X	X	X		X	X	X	X	X	X	X	X	X										
240-118610-20	1	D	20:36	X	X	X		X	X	X	X		X	X	X	X	X	X	X	X	X										
ZZZZZZ			20:38																											
ZZZZZZ			20:41																											
ZZZZZZ			20:43																											
CCV 240-400809/145	1		20:45	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X										
CCB 240-400809/146	1		20:48	X	X	X		X	X	X	X		X	X	X	X	X	X	X	X	X										
ZZZZZZ			20:50																											
ZZZZZZ			20:52																											
ZZZZZZ			20:55																											
ZZZZZZ			20:57																											
CCV 240-400809/151	1		21:00	X	X	X	X	X	X	X	X	X		X	X	X		X	X	X	X										
CCB 240-400809/152	1		21:02	X	X	X		X	X	X	X		X	X	X	X	X	X	X	X	X										
CCVL 240-400809/153			21:04																											
MB 240-400294/1-A	1	R	21:07	X	X	X		X	X	X	X			X	X	X		X	X	X	X										
LCS 240-400294/2-A	1	R	21:09	X	X	X	X	X	X	X	X	X		X	X	X		X	X	X	X										
ZZZZZZ			21:11																											
ZZZZZZ			21:14																											
ZZZZZZ			21:16																											
ZZZZZZ			21:18																											
ZZZZZZ			21:20																											
ZZZZZZ			21:22																											
ZZZZZZ			21:25																											
CCV 240-400809/163	1		21:27	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X										
CCB 240-400809/164	1		21:29	X	X	X		X	X	X	X		X	X	X	X	X	X	X	X	X										
ZZZZZZ			21:32																											
240-118610-21	1	D	21:34	X	X	X		X	X	X	X		X	X	X	X	X	X	X	X	X										
240-118610-22	1	D	21:36	X	X	X		X	X	X	X		X	X	X	X	X	X	X	X	X										
240-118610-23	1	D	21:39	X	X	X		X	X	X	X		X	X	X	X	X	X	X	X	X										

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13-IN
ANALYSIS RUN LOG
METALS

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-118610-1

SDG No.:

Instrument ID: I14 Analysis Method: 6020

Start Date: 09/13/2019 15:07 End Date: 09/13/2019 22:20

Lab Sample Id	D/F	Type	Time	Analytes																											
				Ag	As	Ba	Ca	Cd	Co	Cr	Cu	Mg	Mo	Ni	Pb	Sb	Se	Tl	V	W	Zn										
240-118610-24	1	D	21:41	X	X	X		X	X	X	X		X	X	X	X	X	X	X	X	X										
240-118610-25	1	D	21:44	X	X	X		X	X	X	X		X	X	X	X	X	X	X	X	X										
240-118610-26	1	D	21:46	X	X	X		X	X	X	X		X	X	X	X	X	X	X	X	X										
240-118610-27	1	D	21:48	X	X	X		X	X	X	X		X	X	X	X	X	X	X	X	X										
240-118610-28	1	D	21:51	X	X	X		X	X	X	X		X	X	X	X	X	X	X	X	X										
240-118610-29	1	D	21:53	X	X	X		X	X	X	X		X	X	X	X	X	X	X	X	X										
CCV 240-400809/175	1		21:56	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X										
CCB 240-400809/176	1		21:58	X	X	X		X	X	X	X		X	X	X	X	X	X	X	X	X										
240-118610-30	1	D	22:00	X	X	X		X	X	X	X		X	X	X	X	X	X	X	X	X										
240-118610-31	1	D	22:03	X	X	X		X	X	X	X		X	X	X	X	X	X	X	X	X										
240-118610-32	1	D	22:05	X	X	X		X	X	X	X		X	X	X	X	X	X	X	X	X										
240-118610-33	1	D	22:08	X	X	X		X	X	X	X		X	X	X	X	X	X	X	X	X										
240-118610-34	1	D	22:10	X	X	X		X	X	X	X		X	X	X	X	X	X	X	X	X										
240-118610-35	1	D	22:12	X	X	X		X	X	X	X		X	X	X	X	X	X	X	X	X										
240-118610-36	1	D	22:15	X	X	X		X	X	X	X		X	X	X	X	X	X	X	X	X										
CCV 240-400809/184	1		22:17	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X										
CCB 240-400809/185	1		22:20	X	X	X		X	X	X	X		X	X	X	X	X	X	X	X	X										

Prep Types:
D = Dissolved
R = Total Recoverable

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-118610-1

SDG No.:

Instrument ID: I14 Analysis Method: 6020

Start Date: 09/16/2019 14:39 End Date: 09/16/2019 23:40

Lab Sample Id	D/F	Type	Time	Analytes																									
				Be	Se																								
RINSE 240-401016/1			14:39																										
ICIS 240-401016/2			14:42	X	X																								
STD1 240-401016/3 IC	1		14:44	X	X																								
STD2 240-401016/4 IC	1		14:46	X	X																								
STD3 240-401016/5 IC	1		14:49	X	X																								
STD4 240-401016/6 IC	1		14:51	X	X																								
ICV 240-401016/7	1		14:53	X	X																								
ICB 240-401016/8	1		14:56	X	X																								
ICVL 240-401016/9	1		14:58	X	X																								
ICSA 240-401016/10	1		15:00	X	X																								
ICSAB 240-401016/11	1		15:03	X	X																								
CCV 240-401016/12			15:05																										
CCB 240-401016/13			15:07																										
ZZZZZZ			15:11																										
ZZZZZZ			15:14																										
ZZZZZZ			15:16																										
ZZZZZZ			15:18																										
ZZZZZZ			15:21																										
ZZZZZZ			15:23																										
ZZZZZZ			15:25																										
ZZZZZZ			15:27																										
ZZZZZZ			15:29																										
ZZZZZZ			15:32																										
CCV 240-401016/24			15:34																										
CCB 240-401016/25			15:36																										
ZZZZZZ			15:39																										
ZZZZZZ			15:41																										
ZZZZZZ			15:43																										
ZZZZZZ			15:45																										
ZZZZZZ			15:48																										
ZZZZZZ			15:50																										
ZZZZZZ			15:53																										
ZZZZZZ			15:55																										
ZZZZZZ			15:57																										
ZZZZZZ			16:00																										
CCV 240-401016/36			16:02																										
CCB 240-401016/37			16:04																										
ZZZZZZ			16:07																										
CCV 240-401016/39			16:09																										
CCB 240-401016/40			16:12																										
CCVL 240-401016/41			16:14																										
ZZZZZZ			16:16																										

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-118610-1

SDG No.:

Instrument ID: I14 Analysis Method: 6020

Start Date: 09/16/2019 14:39 End Date: 09/16/2019 23:40

Lab Sample Id	D/F	Type	Time	Analytes																									
				Be	Se																								
ZZZZZZ			16:19																										
ZZZZZZ			16:21																										
ZZZZZZ			16:23																										
ZZZZZZ			16:26																										
CCV 240-401016/47			16:28																										
CCB 240-401016/48			16:30																										
ZZZZZZ			16:33																										
ZZZZZZ			16:35																										
ZZZZZZ			16:37																										
ZZZZZZ			16:39																										
ZZZZZZ			16:41																										
ZZZZZZ			16:44																										
ZZZZZZ			16:46																										
ZZZZZZ			16:48																										
CCV 240-401016/57			16:51																										
ZZZZZZ			16:53																										
CCVL 240-401016/59			16:55																										
ZZZZZZ			16:58																										
ZZZZZZ			17:00																										
ZZZZZZ			17:02																										
ZZZZZZ			17:04																										
ZZZZZZ			17:06																										
ZZZZZZ			17:08																										
CCV 240-401016/66			17:12																										
CCB 240-401016/67			17:15																										
ZZZZZZ			17:17																										
ZZZZZZ			17:19																										
ZZZZZZ			17:22																										
ZZZZZZ			17:24																										
ZZZZZZ			17:26																										
ZZZZZZ			17:28																										
ZZZZZZ			17:30																										
ZZZZZZ			17:33																										
CCV 240-401016/76			17:35																										
CCB 240-401016/77			17:37																										
CCVL 240-401016/78			17:40																										
ZZZZZZ			17:42																										
ZZZZZZ			17:44																										
ZZZZZZ			17:46																										
ZZZZZZ			17:49																										
ZZZZZZ			17:51																										
ZZZZZZ			17:53																										

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-118610-1

SDG No.:

Instrument ID: I14 Analysis Method: 6020

Start Date: 09/16/2019 14:39 End Date: 09/16/2019 23:40

Lab Sample Id	D/F	Type	Time	Analytes																								
				Be	Se																							
ZZZZZZ			17:55																									
ZZZZZZ			17:58																									
ZZZZZZ			18:00																									
CCV 240-401016/88			18:02																									
CCB 240-401016/89			18:04																									
ZZZZZZ			18:07																									
ZZZZZZ			18:09																									
ZZZZZZ			18:11																									
ZZZZZZ			18:13																									
ZZZZZZ			18:16																									
ZZZZZZ			18:18																									
ZZZZZZ			18:20																									
ZZZZZZ			18:23																									
ZZZZZZ			18:25																									
ZZZZZZ			18:27																									
CCV 240-401016/100			18:30																									
CCB 240-401016/101			18:32																									
ZZZZZZ			18:34																									
ZZZZZZ			18:37																									
ZZZZZZ			18:39																									
ZZZZZZ			18:42																									
ZZZZZZ			18:44																									
ZZZZZZ			18:46																									
ZZZZZZ			18:49																									
ZZZZZZ			18:51																									
ZZZZZZ			18:53																									
ZZZZZZ			18:55																									
CCV 240-401016/112			18:58																									
CCB 240-401016/113			19:00																									
ZZZZZZ			19:03																									
ZZZZZZ			19:05																									
ZZZZZZ			19:07																									
ZZZZZZ			19:09																									
ZZZZZZ			19:11																									
ZZZZZZ			19:14																									
ZZZZZZ			19:16																									
ZZZZZZ			19:19																									
ZZZZZZ			19:21																									
ZZZZZZ			19:23																									
CCV 240-401016/124			19:26																									
CCB 240-401016/125			19:28																									
ZZZZZZ			19:31																									

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13-IN
ANALYSIS RUN LOG
METALS

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-118610-1

SDG No.:

Instrument ID: I14 Analysis Method: 6020

Start Date: 09/16/2019 14:39 End Date: 09/16/2019 23:40

Lab Sample Id	D/F	Type	Time	Analytes																										
				Be	Se																									
ZZZZZZ			19:33																											
CCV 240-401016/128	1		19:35	X	X																									
CCB 240-401016/129	1		19:38	X	X																									
CCVL 240-401016/130			19:40																											
MB 240-400302/1-A	1	R	19:42	X																										
LCS 240-400302/2-A	1	R	19:45	X																										
240-118610-1	1	D	19:47	X																										
240-118610-1 SD	5	D	19:49	X																										
ZZZZZZ			19:52																											
240-118610-1 MS	1	D	19:54	X																										
240-118610-1 MSD	1	D	19:56	X																										
240-118610-2	1	D	19:58	X																										
240-118610-3	1	D	20:01	X																										
CCV 240-401016/140	1		20:03	X	X																									
CCB 240-401016/141	1		20:05	X	X																									
240-118610-4	1	D	20:08	X																										
240-118610-5	1	D	20:10	X																										
240-118610-6	1	D	20:13	X																										
240-118610-7	1	D	20:15	X																										
240-118610-8	1	D	20:18	X																										
240-118610-9	1	D	20:20	X																										
240-118610-10	1	D	20:22	X																										
240-118610-11	1	D	20:25	X																										
240-118610-12	1	D	20:27	X																										
240-118610-13	1	D	20:30	X																										
CCV 240-401016/152	1		20:32	X	X																									
CCB 240-401016/153	1		20:34	X	X																									
240-118610-14	1	D	20:37	X																										
240-118610-15	1	D	20:39	X																										
240-118610-16	1	D	20:42	X																										
240-118610-17	1	D	20:44	X																										
240-118610-18	1	D	20:46	X																										
240-118610-19	1	D	20:49	X																										
240-118610-20	1	D	20:51	X																										
ZZZZZZ			20:54																											
ZZZZZZ			20:56																											
ZZZZZZ			20:58																											
CCV 240-401016/164	1		21:01	X	X																									
CCB 240-401016/165	1		21:03	X	X																									
ZZZZZZ			21:05																											
ZZZZZZ			21:08																											
ZZZZZZ			21:10																											

FORM XIII-IN

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ANALYSIS RUN LOG
METALS

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-118610-1

SDG No.:

Instrument ID: I14 Analysis Method: 6020

Start Date: 09/16/2019 14:39 End Date: 09/16/2019 23:40

Lab Sample Id	D/F	Type	Time	Analytes																									
				Be	Se																								
ZZZZZZ			21:13																										
CCV 240-401016/170	1		21:15	X	X																								
CCB 240-401016/171	1		21:17	X	X																								
CCVL 240-401016/172			21:20																										
MB 240-400294/1-A	1	R	21:22	X	X																								
LCS 240-400294/2-A	1	R	21:24	X	X																								
240-118610-21	1	D	21:26	X																									
240-118610-22	1	D	21:29	X																									
240-118610-23	1	D	21:31	X																									
240-118610-24	1	D	21:34	X																									
240-118610-25	1	D	21:36	X																									
240-118610-26	1	D	21:39	X																									
240-118610-27	1	D	21:41	X																									
CCV 240-401016/182	1		21:43	X	X																								
CCB 240-401016/183	1		21:46	X	X																								
240-118610-28	1	D	21:48	X																									
240-118610-29	1	D	21:51	X																									
240-118610-30	1	D	21:53	X																									
240-118610-31	1	D	21:55	X																									
240-118610-32	1	D	21:58	X																									
240-118610-33	1	D	22:00	X																									
240-118610-34	1	D	22:03	X																									
240-118610-35	1	D	22:05	X																									
240-118610-36	1	D	22:07	X																									
CCV 240-401016/193	1		22:10	X	X																								
CCB 240-401016/194	1		22:12	X	X																								
ZZZZZZ			22:15																										
ZZZZZZ			22:17																										
ZZZZZZ			22:19																										
ZZZZZZ			22:22																										
ZZZZZZ			22:24																										
ZZZZZZ			22:26																										
ZZZZZZ			22:28																										
ZZZZZZ			22:31																										
ZZZZZZ			22:33																										
ZZZZZZ			22:35																										
CCV 240-401016/205			22:37																										
CCB 240-401016/206			22:40																										
ZZZZZZ			22:42																										
ZZZZZZ			22:44																										
ZZZZZZ			22:47																										
ZZZZZZ			22:49																										

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-118610-1

SDG No.:

Instrument ID: I14 Analysis Method: 6020

Start Date: 09/16/2019 14:39 End Date: 09/16/2019 23:40

Lab Sample Id	D/F	Type	Time	Analytes																								
				Be	Se																							
ZZZZZZ			22:51																									
ZZZZZZ			22:54																									
ZZZZZZ			22:56																									
ZZZZZZ			22:58																									
ZZZZZZ			23:00																									
ZZZZZZ			23:03																									
CCV 240-401016/217			23:05																									
CCB 240-401016/218			23:07																									
ZZZZZZ			23:10																									
ZZZZZZ			23:12																									
ZZZZZZ			23:14																									
ZZZZZZ			23:17																									
ZZZZZZ			23:19																									
ZZZZZZ			23:21																									
ZZZZZZ			23:24																									
ZZZZZZ			23:26																									
ZZZZZZ			23:28																									
ZZZZZZ			23:31																									
CCV 240-401016/229			23:33																									
CCB 240-401016/230			23:35																									
CCV 240-401016/231			23:38																									
CCB 240-401016/232			23:40																									

Prep Types:
D = Dissolved
R = Total Recoverable

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ANALYSIS RUN LOG
METALS

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-118610-1

SDG No.:

Instrument ID: H2 Analysis Method: 7470A

Start Date: 09/13/2019 11:36 End Date: 09/13/2019 20:03

Lab Sample Id	D/F	Type	Time	Analytes																								
				Hg																								
IC 240-400406/1-A			11:36	X																								
IC 240-400406/2-A			11:38	X																								
IC 240-400406/3-A			11:40	X																								
IC 240-400406/4-A			11:42	X																								
IC 240-400406/5-A			11:44	X																								
IC 240-400406/6-A			11:46	X																								
ICV 240-400406/7-A	1		11:49	X																								
ICB 240-400406/8-A	1		11:51	X																								
CRA 240-400406/9-A	1		11:53	X																								
CCV 240-400406/10-A			11:55																									
CCB 240-400406/11-A			11:57																									
CCV 240-400406/10-A			12:00																									
CCB 240-400406/11-A			12:02																									
ZZZZZZ			12:07																									
ZZZZZZ			12:09																									
ZZZZZZ			12:11																									
ZZZZZZ			12:13																									
ZZZZZZ			12:15																									
ZZZZZZ			12:17																									
ZZZZZZ			12:19																									
ZZZZZZ			12:22																									
ZZZZZZ			12:24																									
ZZZZZZ			12:26																									
CCV 240-400406/10-A			12:28																									
CCB 240-400406/11-A			12:30																									
ZZZZZZ			12:33																									
ZZZZZZ			12:35																									
ZZZZZZ			12:37																									
ZZZZZZ			12:39																									
ZZZZZZ			12:41																									
ZZZZZZ			12:43																									
ZZZZZZ			12:45																									
ZZZZZZ			12:47																									
ZZZZZZ			12:49																									
ZZZZZZ			12:51																									
CCV 240-400406/10-A			12:53																									
CCB 240-400406/11-A			12:55																									
ZZZZZZ			12:58																									
ZZZZZZ			13:00																									
ZZZZZZ			13:02																									
ZZZZZZ			13:04																									
ZZZZZZ			13:06																									

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-118610-1

SDG No.:

Instrument ID: H2 Analysis Method: 7470A

Start Date: 09/13/2019 11:36 End Date: 09/13/2019 20:03

Lab Sample Id	D/F	Type	Time	Analytes																								
				Hg																								
ZZZZZZ			13:08																									
ZZZZZZ			13:10																									
ZZZZZZ			13:12																									
ZZZZZZ			13:14																									
ZZZZZZ			13:16																									
CCV 240-400406/10-A			13:18																									
CCB 240-400406/11-A			13:20																									
ZZZZZZ			13:23																									
ZZZZZZ			13:25																									
ZZZZZZ			13:27																									
ZZZZZZ			13:29																									
CCV 240-400406/10-A			13:31																									
CCB 240-400406/11-A			13:33																									
CCV 240-400406/10-A			16:52																									
CCB 240-400406/11-A			16:54																									
ZZZZZZ			16:57																									
ZZZZZZ			16:59																									
ZZZZZZ			17:01																									
ZZZZZZ			17:03																									
ZZZZZZ			17:05																									
ZZZZZZ			17:07																									
CCV 240-400406/10-A			17:09																									
CCB 240-400406/11-A			17:11																									
ZZZZZZ			17:13																									
ZZZZZZ			17:15																									
ZZZZZZ			17:17																									
ZZZZZZ			17:19																									
ZZZZZZ			17:22																									
ZZZZZZ			17:24																									
ZZZZZZ			17:26																									
ZZZZZZ			17:28																									
ZZZZZZ			17:30																									
ZZZZZZ			17:32																									
CCV 240-400406/10-A			17:34																									
CCB 240-400406/11-A			17:36																									
ZZZZZZ			17:38																									
ZZZZZZ			17:40																									
ZZZZZZ			17:42																									
ZZZZZZ			17:44																									
ZZZZZZ			17:46																									
ZZZZZZ			17:48																									
ZZZZZZ			17:50																									

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-118610-1

SDG No.:

Instrument ID: H2 Analysis Method: 7470A

Start Date: 09/13/2019 11:36 End Date: 09/13/2019 20:03

Lab Sample Id	D/F	Type	Time	Analytes
				Hg
ZZZZZZ			17:52	
ZZZZZZ			17:54	
ZZZZZZ			17:56	
CCV 240-400406/10-A	1		17:58	X
CCB 240-400406/11-A	1		18:00	X
ZZZZZZ			18:03	
MB 240-400301/1-A	1	T	18:05	X
LCS 240-400301/2-A	1	T	18:07	X
240-118610-21	1	D	18:09	X
240-118610-21 MS	1	D	18:11	X
240-118610-21 MSD	1	D	18:13	X
240-118610-22	1	D	18:15	X
240-118610-23	1	D	18:17	X
240-118610-24	1	D	18:19	X
240-118610-25	1	D	18:21	X
CCV 240-400406/10-A	1		18:23	X
CCB 240-400406/11-A	1		18:25	X
240-118610-26	1	D	18:28	X
240-118610-27	1	D	18:30	X
240-118610-28	1	D	18:32	X
240-118610-29	1	D	18:34	X
240-118610-30	1	D	18:36	X
240-118610-31	1	D	18:38	X
240-118610-32	1	D	18:40	X
240-118610-33	1	D	18:42	X
240-118610-34	1	D	18:44	X
240-118610-35	1	D	18:46	X
CCV 240-400406/10-A	1		18:48	X
CCB 240-400406/11-A	1		18:50	X
240-118610-36	1	D	18:53	X
ZZZZZZ			18:55	
ZZZZZZ			18:57	
ZZZZZZ			18:59	
ZZZZZZ			19:01	
MB 240-400304/1-A	1	T	19:03	X
LCS 240-400304/2-A	1	T	19:05	X
240-118610-1	1	D	19:07	X
240-118610-1 MS	1	D	19:09	X
240-118610-1 MSD	1	D	19:11	X
CCV 240-400406/10-A	1		19:13	X
CCB 240-400406/11-A	1		19:15	X
240-118610-2	1	D	19:18	X

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13-IN
ANALYSIS RUN LOG
METALS

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-118610-1

SDG No.:

Instrument ID: H2 Analysis Method: 7470A

Start Date: 09/13/2019 11:36 End Date: 09/13/2019 20:03

Lab Sample Id	D/F	Type	Time	Analytes																								
				Hg																								
240-118610-3	1	D	19:20	X																								
240-118610-4	1	D	19:22	X																								
240-118610-5	1	D	19:24	X																								
240-118610-6	1	D	19:26	X																								
240-118610-7	1	D	19:28	X																								
240-118610-8	1	D	19:30	X																								
240-118610-9	1	D	19:32	X																								
240-118610-10	1	D	19:34	X																								
240-118610-11	1	D	19:36	X																								
CCV 240-400406/10-A	1		19:38	X																								
CCB 240-400406/11-A	1		19:40	X																								
240-118610-12	1	D	19:42	X																								
240-118610-13	1	D	19:44	X																								
240-118610-14	1	D	19:46	X																								
240-118610-15	1	D	19:48	X																								
240-118610-16	1	D	19:51	X																								
240-118610-17	1	D	19:53	X																								
240-118610-18	1	D	19:55	X																								
240-118610-19	1	D	19:57	X																								
240-118610-20	1	D	19:59	X																								
CCV 240-400406/10-A	1		20:01	X																								
CCB 240-400406/11-A	1		20:03	X																								

Prep Types:
D = Dissolved
T = Total/NA

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-118610-1

SDG No.:

Instrument ID: NOEQUIP Analysis Method: SM 2340B

Start Date: 09/20/2019 10:12 End Date: 09/20/2019 10:16

Lab Sample Id	D/F	Type	Time	Analytes																												
				CaCO3	HardCC	MgHARD																												
ZZZZZZ			10:12																														
ZZZZZZ			10:12																														
240-118610-1	1	D	10:12	X	X	X																											
240-118610-2	1	D	10:12	X	X	X																											
240-118610-3	1	D	10:12	X	X	X																											
240-118610-4	1	D	10:12	X	X	X																											
240-118610-5	1	D	10:12	X	X	X																											
240-118610-6	1	D	10:12	X	X	X																											
240-118610-7	1	D	10:12	X	X	X																											
240-118610-8	1	D	10:12	X	X	X																											
240-118610-9	1	D	10:12	X	X	X																											
240-118610-10	1	D	10:12	X	X	X																											
240-118610-11	1	D	10:12	X	X	X																											
240-118610-12	1	D	10:12	X	X	X																											
240-118610-13	1	D	10:12	X	X	X																											
240-118610-14	1	D	10:12	X	X	X																											
240-118610-15	1	D	10:12	X	X	X																											
240-118610-16	1	D	10:12	X	X	X																											
240-118610-17	1	D	10:12	X	X	X																											
240-118610-18	1	D	10:12	X	X	X																											
240-118610-19	1	D	10:14	X	X	X																											
240-118610-20	1	D	10:14	X	X	X																											
240-118610-21	1	D	10:14	X	X	X																											
240-118610-22	1	D	10:14	X	X	X																											
240-118610-23	1	D	10:14	X	X	X																											
240-118610-24	1	D	10:14	X	X	X																											
240-118610-25	1	D	10:14	X	X	X																											
240-118610-26	1	D	10:14	X	X	X																											
240-118610-27	1	D	10:14	X	X	X																											
240-118610-28	1	D	10:14	X	X	X																											
240-118610-29	1	D	10:14	X	X	X																											
240-118610-30	1	D	10:14	X	X	X																											
240-118610-31	1	D	10:14	X	X	X																											
240-118610-32	1	D	10:14	X	X	X																											
240-118610-33	1	D	10:14	X	X	X																											
240-118610-34	1	D	10:14	X	X	X																											
240-118610-35	1	D	10:14	X	X	X																											
240-118610-36	1	D	10:14	X	X	X																											

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-118610-1

SDG No.:

Instrument ID: NOEQUIP Analysis Method: SM 2340B

Start Date: 09/20/2019 10:12 End Date: 09/20/2019 10:16

Lab Sample Id	D/F	Type	Time	Analytes																										
				CaCO3	HardCC	MgHARD																								
ZZZZZZ			10:14																											
ZZZZZZ			10:14																											
ZZZZZZ			10:16																											
ZZZZZZ			10:16																											
ZZZZZZ			10:16																											
ZZZZZZ			10:16																											
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ZZZZZZ			10:16																											
ZZZZZZ			10:16																											
ZZZZZZ			10:16																											
ZZZZZZ			10:16																											

Prep Types:
D = Dissolved

FORM XIII-IN

15-IN
ICP-MS INTERNAL STANDARDS RELATIVE INTENSITY SUMMARY
METALS

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-118610-1

SDG No.:

ICP-MS Instrument ID: I14 Start Date: 09/13/2019 End Date: 09/13/2019

Lab Sample ID	Time	Internal Standards %RI For:									
		Element Li-6	Q	Element Sc/1	Q	Element Sc/2	Q	Element Sc/3	Q	Element Rh/2	Q
STD1 240-400809/3 IC	15:11	81		87		91		94		89	
STD2 240-400809/4 IC	15:14	75		83		91		92		85	
STD3 240-400809/5 IC	15:16	76		83		90		91		84	
STD4 240-400809/6 IC	15:18	82		88		94		95		93	
ICV 240-400809/7	15:21	78		85		92		94		87	
ICB 240-400809/8	15:23	94		96		100		101		101	
ICVL 240-400809/9	15:26	78		86		93		94		91	
ICSA 240-400809/10	15:28	75		84		90		91		83	
ICSAB 240-400809/11	15:30	69		82		89		91		84	
CCV 240-400809/109	19:20					114		108			
CCB 240-400809/110	19:23					119		112			
MB 240-400302/1-A	19:27					115		109			
LCS 240-400302/2-A	19:30					112		106			
240-118610-1	19:32					105		100		111	
240-118610-1 SD	19:34					111		104		120	
240-118610-1 MS	19:39					105		99		108	
240-118610-1 MSD	19:41					105		98		109	
240-118610-2	19:43					107		101		111	
240-118610-3	19:46					106		100		109	
CCV 240-400809/121	19:48					111		104		120	
CCB 240-400809/122	19:50					116		110			
240-118610-4	19:53					106		100		110	
240-118610-5	19:55					107		100		110	
240-118610-6	19:58					107		100		109	
240-118610-7	20:00					107		101		110	
240-118610-8	20:02					107		100		110	
240-118610-9	20:05					108		100		111	
240-118610-10	20:07					105		100		108	
240-118610-11	20:10					107		99		108	
240-118610-12	20:12					107		100		108	
240-118610-13	20:14					105		100		107	
CCV 240-400809/133	20:17					112		104		118	
CCB 240-400809/134	20:19					116		110			
240-118610-14	20:22					104		99		106	
240-118610-15	20:24					107		100		108	
240-118610-16	20:26					107		101		108	
240-118610-17	20:29					108		101		108	
240-118610-18	20:31					107		100		108	
240-118610-19	20:34					106		100		107	

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ICP-MS INTERNAL STANDARDS RELATIVE INTENSITY SUMMARY
METALS

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-118610-1

SDG No.:

ICP-MS Instrument ID: I14 Start Date: 09/13/2019 End Date: 09/13/2019

Lab Sample ID	Time	Internal Standards %RI For:									
		Element	Q	Element	Q	Element Sc/2	Q	Element Sc/3	Q	Element Rh/2	Q
240-118610-20	20:36					107		100		107	
CCV 240-400809/145	20:45					110		104		116	
CCB 240-400809/146	20:48					117		109			
CCV 240-400809/151	21:00					105		100		110	
CCB 240-400809/152	21:02					113		105			
MB 240-400294/1-A	21:07					108		101		117	
LCS 240-400294/2-A	21:09					107		100		111	
CCV 240-400809/163	21:27					105		99		109	
CCB 240-400809/164	21:29					111		104		120	
240-118610-21	21:34					101		95		101	
240-118610-22	21:36			120		102		97		102	
240-118610-23	21:39					105		98		106	
240-118610-24	21:41					104		97		103	
240-118610-25	21:44			120		105		97		104	
240-118610-26	21:46					103		97		102	
240-118610-27	21:48					104		97		103	
240-118610-28	21:51					104		98		103	
240-118610-29	21:53					104		97		103	
CCV 240-400809/175	21:56					109		102		113	
CCB 240-400809/176	21:58					115		107			
240-118610-30	22:00					104		97		104	
240-118610-31	22:03					105		98		105	
240-118610-32	22:05					106		97		105	
240-118610-33	22:08					108		101		110	
240-118610-34	22:10					106		98		106	
240-118610-35	22:12			120		104		97		103	
240-118610-36	22:15			120		105		97		104	
CCV 240-400809/184	22:17					109		102		115	
CCB 240-400809/185	22:20					115		108			

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ICP-MS INTERNAL STANDARDS RELATIVE INTENSITY SUMMARY
METALS

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-118610-1

SDG No.:

ICP-MS Instrument ID: I14 Start Date: 09/13/2019 End Date: 09/13/2019

Lab Sample ID	Time	Internal Standards %RI For:									
		Element Rh/3	Q	Element In/2	Q	Element In/3	Q	Element Tb	Q	Element Ho	Q
STD1 240-400809/3 IC	15:11	95		93		95		96		97	
STD2 240-400809/4 IC	15:14	92		91		91		95		95	
STD3 240-400809/5 IC	15:16	89		89		89		93		93	
STD4 240-400809/6 IC	15:18	97		97		96		97		97	
ICV 240-400809/7	15:21	93		93		93		97		97	
ICB 240-400809/8	15:23	102		102		101		102		102	
ICVL 240-400809/9	15:26	96		96		96		97		97	
ICSA 240-400809/10	15:28	89		90		90		95		95	
ICSAB 240-400809/11	15:30	90		91		90		95		96	
CCV 240-400809/109	19:20	94		98		100		95		95	
CCB 240-400809/110	19:23	101		105		107		99		99	
MB 240-400302/1-A	19:27	98		100		103		97		97	
LCS 240-400302/2-A	19:30	92		97		98		95		95	
240-118610-1	19:32	85		89		91		87		88	
240-118610-1 SD	19:34	90		96		96		92		93	
240-118610-1 MS	19:39	84		90		89		89		89	
240-118610-1 MSD	19:41	84		90		90		88		88	
240-118610-2	19:43	86		91		91		89		89	
240-118610-3	19:46	86		90		93		90		91	
CCV 240-400809/121	19:48	94		98		99		96		95	
CCB 240-400809/122	19:50	101		103		105		99		99	
240-118610-4	19:53	85		90		92		90		90	
240-118610-5	19:55	86		91		92		90		90	
240-118610-6	19:58	86		92		92		90		89	
240-118610-7	20:00	87		92		92		90		90	
240-118610-8	20:02	87		91		92		90		90	
240-118610-9	20:05	86		92		92		90		90	
240-118610-10	20:07	85		91		91		89		89	
240-118610-11	20:10	85		92		90		90		89	
240-118610-12	20:12	85		91		92		90		90	
240-118610-13	20:14	85		91		91		89		89	
CCV 240-400809/133	20:17	94		96		98		95		95	
CCB 240-400809/134	20:19	101		103		106		100		100	
240-118610-14	20:22	84		89		92		89		89	
240-118610-15	20:24	85		91		91		90		90	
240-118610-16	20:26	86		92		92		90		90	
240-118610-17	20:29	86		91		91		90		90	
240-118610-18	20:31	86		92		93		89		90	
240-118610-19	20:34	85		91		92		90		90	

FORM XV - IN

15-IN
ICP-MS INTERNAL STANDARDS RELATIVE INTENSITY SUMMARY
METALS

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-118610-1

SDG No.:

ICP-MS Instrument ID: I14 Start Date: 09/13/2019 End Date: 09/13/2019

Lab Sample ID	Time	Internal Standards %RI For:									
		Element Rh/3	Q	Element In/2	Q	Element In/3	Q	Element Tb	Q	Element Ho	Q
240-118610-20	20:36	86		93		92		90		90	
CCV 240-400809/145	20:45	92		96		97		95		95	
CCB 240-400809/146	20:48	101		103		104		99		98	
CCV 240-400809/151	21:00	92		93		96		95		95	
CCB 240-400809/152	21:02	99		102		102		99		98	
MB 240-400294/1-A	21:07	97		97		99		95		96	
LCS 240-400294/2-A	21:09	92		95		94		95		96	
CCV 240-400809/163	21:27	92		94		94		95		95	
CCB 240-400809/164	21:29	99		100		102		98		98	
240-118610-21	21:34	85		88		89		89		90	
240-118610-22	21:36	84		89		90		89		90	
240-118610-23	21:39	84		91		91		89		89	
240-118610-24	21:41	85		90		90		89		90	
240-118610-25	21:44	85		91		90		90		90	
240-118610-26	21:46	84		90		90		90		89	
240-118610-27	21:48	84		90		90		89		89	
240-118610-28	21:51	85		90		91		89		89	
240-118610-29	21:53	84		90		90		89		89	
CCV 240-400809/175	21:56	93		95		96		95		95	
CCB 240-400809/176	21:58	100		103		103		99		99	
240-118610-30	22:00	85		90		89		89		89	
240-118610-31	22:03	85		91		90		89		89	
240-118610-32	22:05	85		91		90		89		89	
240-118610-33	22:08	87		93		93		92		92	
240-118610-34	22:10	86		92		92		90		91	
240-118610-35	22:12	84		91		90		88		88	
240-118610-36	22:15	84		91		89		88		89	
CCV 240-400809/184	22:17	92		95		97		94		94	
CCB 240-400809/185	22:20	99		102		104		99		100	

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ICP-MS INTERNAL STANDARDS RELATIVE INTENSITY SUMMARY
METALS

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-118610-1

SDG No.:

ICP-MS Instrument ID: I14 Start Date: 09/13/2019 End Date: 09/13/2019

Lab Sample ID	Time	Internal Standards %RI For:									
		Element Bi	Q	Element	Q	Element	Q	Element	Q	Element	Q
STD1 240-400809/3 IC	15:11	98									
STD2 240-400809/4 IC	15:14	94									
STD3 240-400809/5 IC	15:16	89									
STD4 240-400809/6 IC	15:18	97									
ICV 240-400809/7	15:21	95									
ICB 240-400809/8	15:23	101									
ICVL 240-400809/9	15:26	97									
ICSA 240-400809/10	15:28	93									
ICSAB 240-400809/11	15:30	93									
CCV 240-400809/109	19:20	90									
CCB 240-400809/110	19:23	97									
MB 240-400302/1-A	19:27	96									
LCS 240-400302/2-A	19:30	91									
240-118610-1	19:32	80									
240-118610-1 SD	19:34	87									
240-118610-1 MS	19:39	80									
240-118610-1 MSD	19:41	80									
240-118610-2	19:43	81									
240-118610-3	19:46	80									
CCV 240-400809/121	19:48	90									
CCB 240-400809/122	19:50	97									
240-118610-4	19:53	81									
240-118610-5	19:55	81									
240-118610-6	19:58	81									
240-118610-7	20:00	81									
240-118610-8	20:02	81									
240-118610-9	20:05	81									
240-118610-10	20:07	80									
240-118610-11	20:10	80									
240-118610-12	20:12	80									
240-118610-13	20:14	81									
CCV 240-400809/133	20:17	90									
CCB 240-400809/134	20:19	98									
240-118610-14	20:22	80									
240-118610-15	20:24	80									
240-118610-16	20:26	80									
240-118610-17	20:29	80									
240-118610-18	20:31	81									
240-118610-19	20:34	81									

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ICP-MS INTERNAL STANDARDS RELATIVE INTENSITY SUMMARY
METALS

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-118610-1

SDG No.:

ICP-MS Instrument ID: I14 Start Date: 09/13/2019 End Date: 09/13/2019

Lab Sample ID	Time	Internal Standards %RI For:									
		Element Bi	Q	Element	Q	Element	Q	Element	Q	Element	Q
240-118610-20	20:36	80									
CCV 240-400809/145	20:45	90									
CCB 240-400809/146	20:48	96									
CCV 240-400809/151	21:00	91									
CCB 240-400809/152	21:02	97									
MB 240-400294/1-A	21:07	96									
LCS 240-400294/2-A	21:09	91									
CCV 240-400809/163	21:27	90									
CCB 240-400809/164	21:29	97									
240-118610-21	21:34	82									
240-118610-22	21:36	81									
240-118610-23	21:39	81									
240-118610-24	21:41	80									
240-118610-25	21:44	81									
240-118610-26	21:46	81									
240-118610-27	21:48	81									
240-118610-28	21:51	80									
240-118610-29	21:53	80									
CCV 240-400809/175	21:56	91									
CCB 240-400809/176	21:58	97									
240-118610-30	22:00	80									
240-118610-31	22:03	80									
240-118610-32	22:05	79									
240-118610-33	22:08	81									
240-118610-34	22:10	81									
240-118610-35	22:12	79									
240-118610-36	22:15	80									
CCV 240-400809/184	22:17	89									
CCB 240-400809/185	22:20	97									

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ICP-MS INTERNAL STANDARDS RELATIVE INTENSITY SUMMARY
METALS

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-118610-1

SDG No.:

ICP-MS Instrument ID: I14 Start Date: 09/16/2019 End Date: 09/16/2019

Lab Sample ID	Time	Internal Standards %RI For:									
		Element Li-6	Q	Element Sc/1	Q	Element Sc/2	Q	Element Sc/3	Q	Element Rh/2	Q
STD1 240-401016/3 IC	14:44	96		96		98		99		97	
STD2 240-401016/4 IC	14:46	92		94		96		97		93	
STD3 240-401016/5 IC	14:49	92		94		93		95		90	
STD4 240-401016/6 IC	14:51	97		96		98		98		97	
ICV 240-401016/7	14:53	94		96		96		97		94	
ICB 240-401016/8	14:56	99		98		98		99		98	
ICVL 240-401016/9	14:58	95		96		97		96		97	
ICSA 240-401016/10	15:00	93		94		91		94		86	
ICSAB 240-401016/11	15:03	89		92		93		94		86	
CCV 240-401016/128	19:35	96		100		98		94		96	
CCB 240-401016/129	19:38	102		100		96		93		98	
MB 240-400302/1-A	19:42	103		101		95		93		98	
LCS 240-400302/2-A	19:45	97		101		93		91		93	
240-118610-1	19:47	90		94		88		88		84	
240-118610-1 SD	19:49	94		99		94		92		91	
240-118610-1 MS	19:54	84		93		89		86		81	
240-118610-1 MSD	19:56	83		93		88		86		81	
240-118610-2	19:58	86		93		91		89		84	
240-118610-3	20:01	86		93		91		89		84	
CCV 240-401016/140	20:03	92		98		95		92		93	
CCB 240-401016/141	20:05	98		100		93		93		96	
240-118610-4	20:08	87		94		90		88		83	
240-118610-5	20:10	85		93		92		89		84	
240-118610-6	20:13	85		93		91		89		83	
240-118610-7	20:15	83		92		91		88		83	
240-118610-8	20:18	83		92		92		89		83	
240-118610-9	20:20	84		93		91		90		83	
240-118610-10	20:22	84		92		92		89		83	
240-118610-11	20:25	83		92		92		89		82	
240-118610-12	20:27	82		90		92		89		82	
240-118610-13	20:30	79		89		90		88		81	
CCV 240-401016/152	20:32	88		94		95		91		90	
CCB 240-401016/153	20:34	93		96		95		93		94	
240-118610-14	20:37	82		89		89		87		81	
240-118610-15	20:39	80		88		91		88		81	
240-118610-16	20:42	83		91		93		89		83	
240-118610-17	20:44	83		92		92		89		83	
240-118610-18	20:46	82		92		92		89		83	
240-118610-19	20:49	82		91		91		88		82	

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15-IN
ICP-MS INTERNAL STANDARDS RELATIVE INTENSITY SUMMARY
METALS

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-118610-1

SDG No.:

ICP-MS Instrument ID: I14 Start Date: 09/16/2019 End Date: 09/16/2019

Lab Sample ID	Time	Internal Standards %RI For:									
		Element Li-6	Q	Element Sc/1	Q	Element Sc/2	Q	Element Sc/3	Q	Element Rh/2	Q
240-118610-20	20:51	82		91		90		88		81	
CCV 240-401016/164	21:01	89		93		93		90		89	
CCB 240-401016/165	21:03	95		94		93		92		92	
CCV 240-401016/170	21:15	87		93		88		86		85	
CCB 240-401016/171	21:17	89		93		88		87		90	
MB 240-400294/1-A	21:22	90		95		89		88		90	
LCS 240-400294/2-A	21:24	85		94		90		88		87	
240-118610-21	21:26	79		89		86		86		79	
240-118610-22	21:29	79		90		88		86		79	
240-118610-23	21:31	80		91		91		87		81	
240-118610-24	21:34	78		88		89		86		80	
240-118610-25	21:36	78		88		91		88		81	
240-118610-26	21:39	80		90		90		87		80	
240-118610-27	21:41	80		92		91		88		81	
CCV 240-401016/182	21:43	90		96		92		90		89	
CCB 240-401016/183	21:46	94		96		92		90		91	
240-118610-28	21:48	83		90		88		87		79	
240-118610-29	21:51	82		91		89		88		81	
240-118610-30	21:53	81		90		91		87		80	
240-118610-31	21:55	80		90		89		86		80	
240-118610-32	21:58	79		89		89		87		79	
240-118610-33	22:00	84		93		94		90		83	
240-118610-34	22:03	82		92		92		88		82	
240-118610-35	22:05	80		90		90		87		80	
240-118610-36	22:07	79		89		90		86		79	
CCV 240-401016/193	22:10	88		94		93		90		88	
CCB 240-401016/194	22:12	93		95		93		90		92	

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ICP-MS INTERNAL STANDARDS RELATIVE INTENSITY SUMMARY
METALS

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-118610-1

SDG No.:

ICP-MS Instrument ID: I14 Start Date: 09/16/2019 End Date: 09/16/2019

Lab Sample ID	Time	Internal Standards %RI For:									
		Element Rh/3	Q	Element In/2	Q	Element In/3	Q	Element Tb	Q	Element Ho	Q
STD1 240-401016/3 IC	14:44	98		98		100		99		99	
STD2 240-401016/4 IC	14:46	95		94		96		97		97	
STD3 240-401016/5 IC	14:49	91		92		93		95		98	
STD4 240-401016/6 IC	14:51	99		98		100		99		100	
ICV 240-401016/7	14:53	95		95		96		98		99	
ICB 240-401016/8	14:56	100		98		100		100		100	
ICVL 240-401016/9	14:58	97		97		100		99		99	
ICSA 240-401016/10	15:00	91		90		93		98		99	
ICSAB 240-401016/11	15:03	91		92		94		97		98	
CCV 240-401016/128	19:35	93		97		96		98		98	
CCB 240-401016/129	19:38	95		98		98		97		97	
MB 240-400302/1-A	19:42	97		96		98		98		100	
LCS 240-400302/2-A	19:45	91		94		93		96		97	
240-118610-1	19:47	83		87		89		90		91	
240-118610-1 SD	19:49	90		94		94		96		96	
240-118610-1 MS	19:54	83		88		86		90		90	
240-118610-1 MSD	19:56	82		87		85		90		90	
240-118610-2	19:58	84		89		88		92		91	
240-118610-3	20:01	84		88		88		91		91	
CCV 240-401016/140	20:03	93		96		96		97		97	
CCB 240-401016/141	20:05	97		97		98		98		99	
240-118610-4	20:08	85		88		89		91		91	
240-118610-5	20:10	85		90		89		91		92	
240-118610-6	20:13	85		89		89		92		93	
240-118610-7	20:15	86		90		89		91		92	
240-118610-8	20:18	86		89		89		91		93	
240-118610-9	20:20	86		90		88		92		93	
240-118610-10	20:22	85		89		89		92		92	
240-118610-11	20:25	85		90		88		91		92	
240-118610-12	20:27	85		90		88		91		91	
240-118610-13	20:30	84		88		88		91		91	
CCV 240-401016/152	20:32	92		95		94		96		97	
CCB 240-401016/153	20:34	97		97		97		98		99	
240-118610-14	20:37	84		88		87		89		90	
240-118610-15	20:39	84		89		87		90		91	
240-118610-16	20:42	85		90		89		91		92	
240-118610-17	20:44	84		90		88		92		91	
240-118610-18	20:46	85		90		88		90		91	
240-118610-19	20:49	84		89		88		90		91	

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ICP-MS INTERNAL STANDARDS RELATIVE INTENSITY SUMMARY
METALS

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-118610-1

SDG No.:

ICP-MS Instrument ID: I14 Start Date: 09/16/2019 End Date: 09/16/2019

Lab Sample ID	Time	Internal Standards %RI For:									
		Element Rh/3	Q	Element In/2	Q	Element In/3	Q	Element Tb	Q	Element Ho	Q
240-118610-20	20:51	83		89		87		90		90	
CCV 240-401016/164	21:01	92		93		93		96		96	
CCB 240-401016/165	21:03	95		96		97		97		97	
CCV 240-401016/170	21:15	92		93		93		98		98	
CCB 240-401016/171	21:17	95		96		97		98		100	
MB 240-400294/1-A	21:22	98		95		97		99		100	
LCS 240-400294/2-A	21:24	92		96		93		97		98	
240-118610-21	21:26	85		87		88		92		92	
240-118610-22	21:29	85		89		88		92		93	
240-118610-23	21:31	85		91		89		91		93	
240-118610-24	21:34	84		89		87		91		92	
240-118610-25	21:36	85		90		89		92		94	
240-118610-26	21:39	85		90		89		92		92	
240-118610-27	21:41	85		90		88		92		93	
CCV 240-401016/182	21:43	93		96		95		98		99	
CCB 240-401016/183	21:46	97		96		98		100		100	
240-118610-28	21:48	85		88		89		93		94	
240-118610-29	21:51	85		90		88		92		93	
240-118610-30	21:53	85		89		87		92		92	
240-118610-31	21:55	83		89		87		91		91	
240-118610-32	21:58	83		88		87		90		91	
240-118610-33	22:00	86		93		89		92		93	
240-118610-34	22:03	84		89		88		92		92	
240-118610-35	22:05	83		88		87		90		90	
240-118610-36	22:07	83		87		86		89		89	
CCV 240-401016/193	22:10	91		93		93		96		97	
CCB 240-401016/194	22:12	97		97		97		98		99	

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ICP-MS INTERNAL STANDARDS RELATIVE INTENSITY SUMMARY
METALS

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-118610-1

SDG No.:

ICP-MS Instrument ID: I14 Start Date: 09/16/2019 End Date: 09/16/2019

Lab Sample ID	Time	Internal Standards %RI For:									
		Element Bi	Q	Element	Q	Element	Q	Element	Q	Element	Q
STD1 240-401016/3 IC	14:44	98									
STD2 240-401016/4 IC	14:46	94									
STD3 240-401016/5 IC	14:49	92									
STD4 240-401016/6 IC	14:51	99									
ICV 240-401016/7	14:53	95									
ICB 240-401016/8	14:56	98									
ICVL 240-401016/9	14:58	97									
ICSA 240-401016/10	15:00	94									
ICSAB 240-401016/11	15:03	93									
CCV 240-401016/128	19:35	93									
CCB 240-401016/129	19:38	97									
MB 240-400302/1-A	19:42	99									
LCS 240-400302/2-A	19:45	94									
240-118610-1	19:47	83									
240-118610-1 SD	19:49	91									
240-118610-1 MS	19:54	83									
240-118610-1 MSD	19:56	82									
240-118610-2	19:58	83									
240-118610-3	20:01	83									
CCV 240-401016/140	20:03	94									
CCB 240-401016/141	20:05	97									
240-118610-4	20:08	84									
240-118610-5	20:10	83									
240-118610-6	20:13	84									
240-118610-7	20:15	84									
240-118610-8	20:18	83									
240-118610-9	20:20	84									
240-118610-10	20:22	83									
240-118610-11	20:25	83									
240-118610-12	20:27	83									
240-118610-13	20:30	82									
CCV 240-401016/152	20:32	93									
CCB 240-401016/153	20:34	97									
240-118610-14	20:37	81									
240-118610-15	20:39	82									
240-118610-16	20:42	83									
240-118610-17	20:44	83									
240-118610-18	20:46	83									
240-118610-19	20:49	82									

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15-IN
ICP-MS INTERNAL STANDARDS RELATIVE INTENSITY SUMMARY
METALS

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-118610-1

SDG No.:

ICP-MS Instrument ID: I14 Start Date: 09/16/2019 End Date: 09/16/2019

Lab Sample ID	Time	Internal Standards %RI For:									
		Element Bi	Q	Element	Q	Element	Q	Element	Q	Element	Q
240-118610-20	20:51	82									
CCV 240-401016/164	21:01	92									
CCB 240-401016/165	21:03	96									
CCV 240-401016/170	21:15	96									
CCB 240-401016/171	21:17	99									
MB 240-400294/1-A	21:22	101									
LCS 240-400294/2-A	21:24	96									
240-118610-21	21:26	86									
240-118610-22	21:29	84									
240-118610-23	21:31	84									
240-118610-24	21:34	83									
240-118610-25	21:36	85									
240-118610-26	21:39	84									
240-118610-27	21:41	84									
CCV 240-401016/182	21:43	95									
CCB 240-401016/183	21:46	99									
240-118610-28	21:48	85									
240-118610-29	21:51	84									
240-118610-30	21:53	84									
240-118610-31	21:55	83									
240-118610-32	21:58	82									
240-118610-33	22:00	85									
240-118610-34	22:03	84									
240-118610-35	22:05	82									
240-118610-36	22:07	81									
CCV 240-401016/193	22:10	93									
CCB 240-401016/194	22:12	97									

METALS BATCH WORKSHEET

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-118610-1

SDG No.:

Batch Number: 400294 Batch Start Date: 09/12/19 14:00 Batch Analyst: Dillon, Samuel

Batch Method: 3005A Batch End Date: 09/12/19 22:00

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount	ICPMSspike3 00003	MTTMHCL 00266	MTTMHNO3 00203	SPIKE1 00005
MB 240-400294/1		3005A, 6020		50 mL	50 mL		2.5 mL	1 mL	
LCS 240-400294/2		3005A, 6020		50 mL	50 mL	0.25 mL	2.5 mL	1 mL	0.25 mL
240-118610-D-21	MSA-SW42A-090919	3005A, 6020	D	50 mL	50 mL		2.5 mL	1 mL	
240-118610-G-22	MSA-SW42B-090919	3005A, 6020	D	50 mL	50 mL		2.5 mL	1 mL	
240-118610-D-23	MSA-SW42C-090919	3005A, 6020	D	50 mL	50 mL		2.5 mL	1 mL	
240-118610-D-24	MSA-SW42D-090919	3005A, 6020	D	50 mL	50 mL		2.5 mL	1 mL	
240-118610-D-25	MSA-SW43A-090919	3005A, 6020	D	50 mL	50 mL		2.5 mL	1 mL	
240-118610-F-26	MSA-SW43B-090919	3005A, 6020	D	50 mL	50 mL		2.5 mL	1 mL	
240-118610-D-27	MSA-SW43C-090919	3005A, 6020	D	50 mL	50 mL		2.5 mL	1 mL	
240-118610-D-28	MSA-SW43D-090919	3005A, 6020	D	50 mL	50 mL		2.5 mL	1 mL	
240-118610-D-29	MSA-SW44A-090919	3005A, 6020	D	50 mL	50 mL		2.5 mL	1 mL	
240-118610-F-30	MSA-SW44B-090919	3005A, 6020	D	50 mL	50 mL		2.5 mL	1 mL	
240-118610-D-31	MSA-SW44C-090919	3005A, 6020	D	50 mL	50 mL		2.5 mL	1 mL	
240-118610-D-32	MSA-SW44D-090919	3005A, 6020	D	50 mL	50 mL		2.5 mL	1 mL	
240-118610-D-33	MSA-SW45A-090919	3005A, 6020	D	50 mL	50 mL		2.5 mL	1 mL	
240-118610-F-34	MSA-SW45B-090919	3005A, 6020	D	50 mL	50 mL		2.5 mL	1 mL	
240-118610-D-35	MSA-SW45C-090919	3005A, 6020	D	50 mL	50 mL		2.5 mL	1 mL	
240-118610-D-36	MSA-SW45D-090919	3005A, 6020	D	50 mL	50 mL		2.5 mL	1 mL	

Lab Sample ID	Client Sample ID	Method Chain	Basis	SPIKE2 00003	TungstenSpike 00007				
MB 240-400294/1		3005A, 6020							
LCS 240-400294/2		3005A, 6020		0.25 mL	0.25 mL				
240-118610-D-21	MSA-SW42A-090919	3005A, 6020	D						
240-118610-G-22	MSA-SW42B-090919	3005A, 6020	D						
240-118610-D-23	MSA-SW42C-090919	3005A, 6020	D						
240-118610-D-24	MSA-SW42D-090919	3005A, 6020	D						
240-118610-D-25	MSA-SW43A-090919	3005A, 6020	D						
240-118610-F-26	MSA-SW43B-090919	3005A, 6020	D						

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.

METALS BATCH WORKSHEET

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-118610-1

SDG No.:

Batch Number: 400294 Batch Start Date: 09/12/19 14:00 Batch Analyst: Dillon, Samuel

Batch Method: 3005A Batch End Date: 09/12/19 22:00

Lab Sample ID	Client Sample ID	Method Chain	Basis	SPIKE2 00003	TungstenSpike 00007				
240-118610-D-27	MSA-SW43C-090919	3005A, 6020	D						
240-118610-D-28	MSA-SW43D-090919	3005A, 6020	D						
240-118610-D-29	MSA-SW44A-090919	3005A, 6020	D						
240-118610-F-30	MSA-SW44B-090919	3005A, 6020	D						
240-118610-D-31	MSA-SW44C-090919	3005A, 6020	D						
240-118610-D-32	MSA-SW44D-090919	3005A, 6020	D						
240-118610-D-33	MSA-SW45A-090919	3005A, 6020	D						
240-118610-F-34	MSA-SW45B-090919	3005A, 6020	D						
240-118610-D-35	MSA-SW45C-090919	3005A, 6020	D						
240-118610-D-36	MSA-SW45D-090919	3005A, 6020	D						

Batch Notes	
Batch Comment	filter paper: 80918102
Temperature - Corrected - End	temp log Degrees C
Temperature - Corrected - Start	temp log Degrees C
Digestion Unit ID	hb1, hb0
Pipette/Syringe/Dispenser ID	mp1
Thermometer ID	temp log
Digestion Tube/Cup ID	1902243
Temperature - Uncorrected - End	temp log Degrees C
Temperature - Uncorrected - Start	temp log Degrees C

Basis	Basis Description
D	Dissolved

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.

METALS BATCH WORKSHEET

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-118610-1

SDG No.:

Batch Number: 400302 Batch Start Date: 09/12/19 14:00 Batch Analyst: Dillon, Samuel

Batch Method: 3005A Batch End Date: 09/12/19 22:00

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount	ICPMSspike3 00003	MTTMHCL 00266	MTTMHNO3 00203	SPIKE1 00005
MB 240-400302/1		3005A, 6020		50 mL	50 mL		2.5 mL	1 mL	
LCS 240-400302/2		3005A, 6020		50 mL	50 mL	0.25 mL	2.5 mL	1 mL	0.25 mL
240-118610-D-1	MSA-SW37A-090919	3005A, 6020	D	50 mL	50 mL		2.5 mL	1 mL	
240-118610-D-1 MS	MSA-SW37A-090919	3005A, 6020	D	50 mL	50 mL	0.25 mL	2.5 mL	1 mL	0.25 mL
240-118610-D-1 MSD	MSA-SW37A-090919	3005A, 6020	D	50 mL	50 mL	0.25 mL	2.5 mL	1 mL	0.25 mL
240-118610-G-2	MSA-SW37B-090919	3005A, 6020	D	50 mL	50 mL		2.5 mL	1 mL	
240-118610-D-3	MSA-SW37C-090919	3005A, 6020	D	50 mL	50 mL		2.5 mL	1 mL	
240-118610-D-4	MSA-SW37D-090919	3005A, 6020	D	50 mL	50 mL		2.5 mL	1 mL	
240-118610-D-5	MSA-SW38A-090919	3005A, 6020	D	50 mL	50 mL		2.5 mL	1 mL	
240-118610-F-6	MSA-SW38B-090919	3005A, 6020	D	50 mL	50 mL		2.5 mL	1 mL	
240-118610-D-7	MSA-SW38C090919	3005A, 6020	D	50 mL	50 mL		2.5 mL	1 mL	
240-118610-D-8	MSA-SW38D-090919	3005A, 6020	D	50 mL	50 mL		2.5 mL	1 mL	
240-118610-D-9	MSA-SW39A-090919	3005A, 6020	D	50 mL	50 mL		2.5 mL	1 mL	
240-118610-F-10	MSA-SW39B-090919	3005A, 6020	D	50 mL	50 mL		2.5 mL	1 mL	
240-118610-E-11	MSA-SW39C-090919	3005A, 6020	D	50 mL	50 mL		2.5 mL	1 mL	
240-118610-D-12	MSA-SW39D-090919	3005A, 6020	D	50 mL	50 mL		2.5 mL	1 mL	
240-118610-D-13	MSA-SW40A-090919	3005A, 6020	D	50 mL	50 mL		2.5 mL	1 mL	
240-118610-F-14	MSA-SW40B-090919	3005A, 6020	D	50 mL	50 mL		2.5 mL	1 mL	
240-118610-D-15	MSA-SW40C-090919	3005A, 6020	D	50 mL	50 mL		2.5 mL	1 mL	
240-118610-D-16	MSA-SW40D-090919	3005A, 6020	D	50 mL	50 mL		2.5 mL	1 mL	
240-118610-D-17	MSA-SW41A-090919	3005A, 6020	D	50 mL	50 mL		2.5 mL	1 mL	
240-118610-F-18	MSA-SW41B-090919	3005A, 6020	D	50 mL	50 mL		2.5 mL	1 mL	
240-118610-D-19	MSA-SW41C-090919	3005A, 6020	D	50 mL	50 mL		2.5 mL	1 mL	
240-118610-D-20	MSA-SW41D-090919	3005A, 6020	D	50 mL	50 mL		2.5 mL	1 mL	

Lab Sample ID	Client Sample ID	Method Chain	Basis	SPIKE2 00003	TungstenSpike 00007				
MB 240-400302/1		3005A, 6020							
LCS 240-400302/2		3005A, 6020		0.25 mL	0.25 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.

METALS BATCH WORKSHEET

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-118610-1

SDG No.:

Batch Number: 400302 Batch Start Date: 09/12/19 14:00 Batch Analyst: Dillon, Samuel

Batch Method: 3005A Batch End Date: 09/12/19 22:00

Lab Sample ID	Client Sample ID	Method Chain	Basis	SPIKE2 00003	TungstenSpike 00007				
240-118610-D-1	MSA-SW37A-090919	3005A, 6020	D						
240-118610-D-1 MS	MSA-SW37A-090919	3005A, 6020	D	0.25 mL	0.25 mL				
240-118610-D-1 MSD	MSA-SW37A-090919	3005A, 6020	D	0.25 mL	0.25 mL				
240-118610-G-2	MSA-SW37B-090919	3005A, 6020	D						
240-118610-D-3	MSA-SW37C-090919	3005A, 6020	D						
240-118610-D-4	MSA-SW37D-090919	3005A, 6020	D						
240-118610-D-5	MSA-SW38A-090919	3005A, 6020	D						
240-118610-F-6	MSA-SW38B-090919	3005A, 6020	D						
240-118610-D-7	MSA-SW38C090919	3005A, 6020	D						
240-118610-D-8	MSA-SW38D-090919	3005A, 6020	D						
240-118610-D-9	MSA-SW39A-090919	3005A, 6020	D						
240-118610-F-10	MSA-SW39B-090919	3005A, 6020	D						
240-118610-E-11	MSA-SW39C-090919	3005A, 6020	D						
240-118610-D-12	MSA-SW39D-090919	3005A, 6020	D						
240-118610-D-13	MSA-SW40A-090919	3005A, 6020	D						
240-118610-F-14	MSA-SW40B-090919	3005A, 6020	D						
240-118610-D-15	MSA-SW40C-090919	3005A, 6020	D						
240-118610-D-16	MSA-SW40D-090919	3005A, 6020	D						
240-118610-D-17	MSA-SW41A-090919	3005A, 6020	D						
240-118610-F-18	MSA-SW41B-090919	3005A, 6020	D						
240-118610-D-19	MSA-SW41C-090919	3005A, 6020	D						
240-118610-D-20	MSA-SW41D-090919	3005A, 6020	D						

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.

METALS BATCH WORKSHEET

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-118610-1

SDG No.:

Batch Number: 400302 Batch Start Date: 09/12/19 14:00 Batch Analyst: Dillon, Samuel

Batch Method: 3005A Batch End Date: 09/12/19 22:00

Batch Notes	
Batch Comment	filter paper: 80918102
Temperature - Corrected - End	temp log Degrees C
Temperature - Corrected - Start	temp log Degrees C
Digestion Unit ID	c4
Pipette/Syringe/Dispenser ID	mp1
Thermometer ID	temp log
Digestion Tube/Cup ID	1902243
Temperature - Uncorrected - End	temp log Degrees C
Temperature - Uncorrected - Start	temp log Degrees C

Basis	Basis Description
D	Dissolved

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.

METALS BATCH WORKSHEET

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-118610-1

SDG No.:

Batch Number: 400301 Batch Start Date: 09/12/19 12:00 Batch Analyst: Dillon, Samuel

Batch Method: 7470A Batch End Date: 09/12/19 14:00

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount	K2S2O8 00108	MTH2S04 00078	MTHGCALW 02210	MTKMN04W 00206
MB 240-400301/1		7470A, 7470A		50 mL	50 mL	4 mL	2.5 mL		7.5 mL
LCS 240-400301/2		7470A, 7470A		50 mL	50 mL	4 mL	2.5 mL	2.5 mL	7.5 mL
240-118610-D-21	MSA-SW42A-090919	7470A, 7470A	D	50 mL	50 mL	4 mL	2.5 mL		7.5 mL
240-118610-D-21 MS	MSA-SW42A-090919	7470A, 7470A	D	50 mL	50 mL	4 mL	2.5 mL	0.5 mL	7.5 mL
240-118610-D-21 MSD	MSA-SW42A-090919	7470A, 7470A	D	50 mL	50 mL	4 mL	2.5 mL	0.5 mL	7.5 mL
240-118610-G-22	MSA-SW42B-090919	7470A, 7470A	D	50 mL	50 mL	4 mL	2.5 mL		7.5 mL
240-118610-D-23	MSA-SW42C-090919	7470A, 7470A	D	50 mL	50 mL	4 mL	2.5 mL		7.5 mL
240-118610-D-24	MSA-SW42D-090919	7470A, 7470A	D	50 mL	50 mL	4 mL	2.5 mL		7.5 mL
240-118610-D-25	MSA-SW43A-090919	7470A, 7470A	D	50 mL	50 mL	4 mL	2.5 mL		7.5 mL
240-118610-F-26	MSA-SW43B-090919	7470A, 7470A	D	50 mL	50 mL	4 mL	2.5 mL		7.5 mL
240-118610-D-27	MSA-SW43C-090919	7470A, 7470A	D	50 mL	50 mL	4 mL	2.5 mL		7.5 mL
240-118610-D-28	MSA-SW43D-090919	7470A, 7470A	D	50 mL	50 mL	4 mL	2.5 mL		7.5 mL
240-118610-D-29	MSA-SW44A-090919	7470A, 7470A	D	50 mL	50 mL	4 mL	2.5 mL		7.5 mL
240-118610-F-30	MSA-SW44B-090919	7470A, 7470A	D	50 mL	50 mL	4 mL	2.5 mL		7.5 mL
240-118610-D-31	MSA-SW44C-090919	7470A, 7470A	D	50 mL	50 mL	4 mL	2.5 mL		7.5 mL
240-118610-D-32	MSA-SW44D-090919	7470A, 7470A	D	50 mL	50 mL	4 mL	2.5 mL		7.5 mL
240-118610-D-33	MSA-SW45A-090919	7470A, 7470A	D	50 mL	50 mL	4 mL	2.5 mL		7.5 mL
240-118610-F-34	MSA-SW45B-090919	7470A, 7470A	D	50 mL	50 mL	4 mL	2.5 mL		7.5 mL
240-118610-D-35	MSA-SW45C-090919	7470A, 7470A	D	50 mL	50 mL	4 mL	2.5 mL		7.5 mL
240-118610-D-36	MSA-SW45D-090919	7470A, 7470A	D	50 mL	50 mL	4 mL	2.5 mL		7.5 mL

Lab Sample ID	Client Sample ID	Method Chain	Basis	MTTMHNO3 00203
MB 240-400301/1		7470A, 7470A		1.25 mL
LCS 240-400301/2		7470A, 7470A		1.25 mL
240-118610-D-21	MSA-SW42A-090919	7470A, 7470A	D	1.25 mL
240-118610-D-21 MS	MSA-SW42A-090919	7470A, 7470A	D	1.25 mL
240-118610-D-21 MSD	MSA-SW42A-090919	7470A, 7470A	D	1.25 mL
240-118610-G-22	MSA-SW42B-090919	7470A, 7470A	D	1.25 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.

METALS BATCH WORKSHEET

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-118610-1

SDG No.:

Batch Number: 400301 Batch Start Date: 09/12/19 12:00 Batch Analyst: Dillon, Samuel

Batch Method: 7470A Batch End Date: 09/12/19 14:00

Lab Sample ID	Client Sample ID	Method Chain	Basis	MTTMHNO3 00203					
240-118610-D-23	MSA-SW42C-090919	7470A, 7470A	D	1.25 mL					
240-118610-D-24	MSA-SW42D-090919	7470A, 7470A	D	1.25 mL					
240-118610-D-25	MSA-SW43A-090919	7470A, 7470A	D	1.25 mL					
240-118610-F-26	MSA-SW43B-090919	7470A, 7470A	D	1.25 mL					
240-118610-D-27	MSA-SW43C-090919	7470A, 7470A	D	1.25 mL					
240-118610-D-28	MSA-SW43D-090919	7470A, 7470A	D	1.25 mL					
240-118610-D-29	MSA-SW44A-090919	7470A, 7470A	D	1.25 mL					
240-118610-F-30	MSA-SW44B-090919	7470A, 7470A	D	1.25 mL					
240-118610-D-31	MSA-SW44C-090919	7470A, 7470A	D	1.25 mL					
240-118610-D-32	MSA-SW44D-090919	7470A, 7470A	D	1.25 mL					
240-118610-D-33	MSA-SW45A-090919	7470A, 7470A	D	1.25 mL					
240-118610-F-34	MSA-SW45B-090919	7470A, 7470A	D	1.25 mL					
240-118610-D-35	MSA-SW45C-090919	7470A, 7470A	D	1.25 mL					
240-118610-D-36	MSA-SW45D-090919	7470A, 7470A	D	1.25 mL					

Batch Notes	
Batch Comment	take out temp in range
Temperature - Corrected - End	temp log Degrees C
Temperature - Corrected - Start	temp log Degrees C
Digestion Unit ID	c1
Pipette/Syringe/Dispenser ID	mp2, mp3
Thermometer ID	temp log
Digestion Tube/Cup ID	1902243
Temperature - Uncorrected - End	temp log Degrees C
Temperature - Uncorrected - Start	temp log Degrees C

Basis	Basis Description
D	Dissolved

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.

METALS BATCH WORKSHEET

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-118610-1

SDG No.:

Batch Number: 400304 Batch Start Date: 09/12/19 12:00 Batch Analyst: Dillon, Samuel

Batch Method: 7470A Batch End Date: 09/12/19 14:00

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount	K2S2O8 00108	MTH2S04 00078	MTHGCALW 02210	MTKMN04W 00206
MB 240-400304/1		7470A, 7470A		50 mL	50 mL	4 mL	2.5 mL		7.5 mL
LCS 240-400304/2		7470A, 7470A		50 mL	50 mL	4 mL	2.5 mL	2.5 mL	7.5 mL
240-118610-D-1	MSA-SW37A-090919	7470A, 7470A	D	50 mL	50 mL	4 mL	2.5 mL		7.5 mL
240-118610-D-1 MS	MSA-SW37A-090919	7470A, 7470A	D	50 mL	50 mL	4 mL	2.5 mL	0.5 mL	7.5 mL
240-118610-D-1 MSD	MSA-SW37A-090919	7470A, 7470A	D	50 mL	50 mL	4 mL	2.5 mL	0.5 mL	7.5 mL
240-118610-G-2	MSA-SW37B-090919	7470A, 7470A	D	50 mL	50 mL	4 mL	2.5 mL		7.5 mL
240-118610-D-3	MSA-SW37C-090919	7470A, 7470A	D	50 mL	50 mL	4 mL	2.5 mL		7.5 mL
240-118610-D-4	MSA-SW37D-090919	7470A, 7470A	D	50 mL	50 mL	4 mL	2.5 mL		7.5 mL
240-118610-D-5	MSA-SW38A-090919	7470A, 7470A	D	50 mL	50 mL	4 mL	2.5 mL		7.5 mL
240-118610-F-6	MSA-SW38B-090919	7470A, 7470A	D	50 mL	50 mL	4 mL	2.5 mL		7.5 mL
240-118610-D-7	MSA-SW38C090919	7470A, 7470A	D	50 mL	50 mL	4 mL	2.5 mL		7.5 mL
240-118610-D-8	MSA-SW38D-090919	7470A, 7470A	D	50 mL	50 mL	4 mL	2.5 mL		7.5 mL
240-118610-D-9	MSA-SW39A-090919	7470A, 7470A	D	50 mL	50 mL	4 mL	2.5 mL		7.5 mL
240-118610-F-10	MSA-SW39B-090919	7470A, 7470A	D	50 mL	50 mL	4 mL	2.5 mL		7.5 mL
240-118610-E-11	MSA-SW39C-090919	7470A, 7470A	D	50 mL	50 mL	4 mL	2.5 mL		7.5 mL
240-118610-D-12	MSA-SW39D-090919	7470A, 7470A	D	50 mL	50 mL	4 mL	2.5 mL		7.5 mL
240-118610-D-13	MSA-SW40A-090919	7470A, 7470A	D	50 mL	50 mL	4 mL	2.5 mL		7.5 mL
240-118610-F-14	MSA-SW40B-090919	7470A, 7470A	D	50 mL	50 mL	4 mL	2.5 mL		7.5 mL
240-118610-D-15	MSA-SW40C-090919	7470A, 7470A	D	50 mL	50 mL	4 mL	2.5 mL		7.5 mL
240-118610-D-16	MSA-SW40D-090919	7470A, 7470A	D	50 mL	50 mL	4 mL	2.5 mL		7.5 mL
240-118610-D-17	MSA-SW41A-090919	7470A, 7470A	D	50 mL	50 mL	4 mL	2.5 mL		7.5 mL
240-118610-F-18	MSA-SW41B-090919	7470A, 7470A	D	50 mL	50 mL	4 mL	2.5 mL		7.5 mL
240-118610-D-19	MSA-SW41C-090919	7470A, 7470A	D	50 mL	50 mL	4 mL	2.5 mL		7.5 mL
240-118610-D-20	MSA-SW41D-090919	7470A, 7470A	D	50 mL	50 mL	4 mL	2.5 mL		7.5 mL

Lab Sample ID	Client Sample ID	Method Chain	Basis	MTTMHNO3 00203					
MB 240-400304/1		7470A, 7470A		1.25 mL					
LCS 240-400304/2		7470A, 7470A		1.25 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.

METALS BATCH WORKSHEET

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-118610-1

SDG No.:

Batch Number: 400304 Batch Start Date: 09/12/19 12:00 Batch Analyst: Dillon, Samuel

Batch Method: 7470A Batch End Date: 09/12/19 14:00

Lab Sample ID	Client Sample ID	Method Chain	Basis	MTTMHNO3 00203					
240-118610-D-1	MSA-SW37A-090919	7470A, 7470A	D	1.25 mL					
240-118610-D-1 MS	MSA-SW37A-090919	7470A, 7470A	D	1.25 mL					
240-118610-D-1 MSD	MSA-SW37A-090919	7470A, 7470A	D	1.25 mL					
240-118610-G-2	MSA-SW37B-090919	7470A, 7470A	D	1.25 mL					
240-118610-D-3	MSA-SW37C-090919	7470A, 7470A	D	1.25 mL					
240-118610-D-4	MSA-SW37D-090919	7470A, 7470A	D	1.25 mL					
240-118610-D-5	MSA-SW38A-090919	7470A, 7470A	D	1.25 mL					
240-118610-F-6	MSA-SW38B-090919	7470A, 7470A	D	1.25 mL					
240-118610-D-7	MSA-SW38C090919	7470A, 7470A	D	1.25 mL					
240-118610-D-8	MSA-SW38D-090919	7470A, 7470A	D	1.25 mL					
240-118610-D-9	MSA-SW39A-090919	7470A, 7470A	D	1.25 mL					
240-118610-F-10	MSA-SW39B-090919	7470A, 7470A	D	1.25 mL					
240-118610-E-11	MSA-SW39C-090919	7470A, 7470A	D	1.25 mL					
240-118610-D-12	MSA-SW39D-090919	7470A, 7470A	D	1.25 mL					
240-118610-D-13	MSA-SW40A-090919	7470A, 7470A	D	1.25 mL					
240-118610-F-14	MSA-SW40B-090919	7470A, 7470A	D	1.25 mL					
240-118610-D-15	MSA-SW40C-090919	7470A, 7470A	D	1.25 mL					
240-118610-D-16	MSA-SW40D-090919	7470A, 7470A	D	1.25 mL					
240-118610-D-17	MSA-SW41A-090919	7470A, 7470A	D	1.25 mL					
240-118610-F-18	MSA-SW41B-090919	7470A, 7470A	D	1.25 mL					
240-118610-D-19	MSA-SW41C-090919	7470A, 7470A	D	1.25 mL					
240-118610-D-20	MSA-SW41D-090919	7470A, 7470A	D	1.25 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.

METALS BATCH WORKSHEET

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-118610-1

SDG No.:

Batch Number: 400304 Batch Start Date: 09/12/19 12:00 Batch Analyst: Dillon, Samuel

Batch Method: 7470A Batch End Date: 09/12/19 14:00

Batch Notes	
Batch Comment	take out temp in range
Temperature - Corrected - End	temp log Degrees C
Temperature - Corrected - Start	temp log Degrees C
Digestion Unit ID	b1
Pipette/Syringe/Dispenser ID	mp2, mp3
Thermometer ID	temp log
Digestion Tube/Cup ID	1902243
Temperature - Uncorrected - End	temp log Degrees C
Temperature - Uncorrected - Start	temp log Degrees C

Basis	Basis Description
D	Dissolved

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.

METALS BATCH WORKSHEET

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-118610-1

SDG No.:

Batch Number: 400406 Batch Start Date: 09/12/19 13:00 Batch Analyst: Dillon, Samuel

Batch Method: 7470A Batch End Date: 09/12/19 15:00

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount	K2S2O8 00108	MTH2S04 00078	MTHGCALW 02210	MTHgICV_00001 00567
ICV 240-400406/7		7470A, 7470A		50 mL	50 mL	4 mL	2.5 mL		2.5 mL
ICB 240-400406/8		7470A, 7470A		50 mL	50 mL	4 mL	2.5 mL		
CRA 240-400406/9		7470A, 7470A		50 mL	50 mL	4 mL	2.5 mL	0.1 mL	
CCV 240-400406/10		7470A, 7470A		50 mL	50 mL	4 mL	2.5 mL	2.5 mL	
CCB 240-400406/11		7470A, 7470A		50 mL	50 mL	4 mL	2.5 mL		

Lab Sample ID	Client Sample ID	Method Chain	Basis	MTKMN04W 00206	MTTMHNO3 00203				
ICV 240-400406/7		7470A, 7470A		7.5 mL	1.25 mL				
ICB 240-400406/8		7470A, 7470A		7.5 mL	1.25 mL				
CRA 240-400406/9		7470A, 7470A		7.5 mL	1.25 mL				
CCV 240-400406/10		7470A, 7470A		7.5 mL	1.25 mL				
CCB 240-400406/11		7470A, 7470A		7.5 mL	1.25 mL				

Batch Notes	
Batch Comment	take out temp in range
Temperature - Corrected - End	temp log Degrees C
Temperature - Corrected - Start	temp log Degrees C
Digestion Unit ID	C2
Pipette/Syringe/Dispenser ID	MP1, MP2, MP3, A7
Thermometer ID	temp log
Digestion Tube/Cup ID	1902243
Temperature - Uncorrected - End	temp log Degrees C
Temperature - Uncorrected - Start	temp log Degrees C

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.

METALS BATCH WORKSHEET

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-118610-1

SDG No.:

Batch Number: 400406 Batch Start Date: 09/12/19 13:00 Batch Analyst: Dillon, Samuel

Batch Method: 7470A Batch End Date: 09/12/19 15:00

Basis	Basis Description

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.

2-IN
CALIBRATION QUALITY CONTROL
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-118610-1

SDG No.:

Analyst: TPH Batch Start Date: 09/22/2019

Reporting Units: mg/L Analytical Batch No.: 401886

Sample Number	QC Type	Time	Analyte	Result	Spike Amount	(%) Recovery	Limits	Qual	Reagent
2	CCVL	10:09	Dissolved Organic Carbon	5.08	5.00	102	90-110		WC TOC CCVL_00273
3	CCB	10:17	Dissolved Organic Carbon	1.0				U	
14	CCVL	14:28	Dissolved Organic Carbon	5.14	5.00	103	90-110		WC TOC CCVL_00273
15	CCB	14:40	Dissolved Organic Carbon	0.203				J	
19	CCVL	16:28	Dissolved Organic Carbon	5.04	5.00	101	90-110		WC TOC CCVL_00273
20	CCB	16:39	Dissolved Organic Carbon	0.201				J	

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

FORM II-IN

3-IN
METHOD BLANK
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-118610-1

SDG No.:

Method	Lab Sample ID	Analyte	Result	Qual	Units	RL	Dil
Batch ID: 401886 Date: 09/22/2019 10:27							
9060	MB 240-401886/4	Dissolved Organic Carbon	1.0	U	mg/L	1.0	1

FORM III-IN

5-IN
MATRIX SPIKE SAMPLE RECOVERY
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-118610-1

SDG No.:

Matrix: Water

Method	Lab Sample ID	Analyte	Result	C	Unit	Spike Amount	Pct. Rec.	Limits	RPD	RPD Limit	Q
Batch ID: 401886 Date: 09/22/2019 11:24											
9060	240-118610-2	Dissolved Organic Carbon	2.4		mg/L						
9060	240-118610-2 MS	Dissolved Organic Carbon	7.60		mg/L	5.00	104	65-134			

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

FORM V-IN

5-IN
MATRIX SPIKE DUPLICATE SAMPLE RECOVERY
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-118610-1

SDG No.:

Matrix: Water

Method	Lab Sample ID	Analyte	Result	C	Unit	Spike Amount	Pct. Rec.	Limits	RPD	RPD Limit	Q
Batch ID: 401886 Date: 09/22/2019 11:35											
9060	240-118610-2 MSD	Dissolved Organic Carbon	7.86		mg/L	5.00	109	65-134	3	10	

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

FORM V-IN

7A-IN
LOW LEVEL CONTROL SAMPLE
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-118610-1

SDG No.:

Matrix: Water

Method	Lab Sample ID	Analyte	Result	C	Unit	Spike Amount	Pct. Rec.	Limits	RPD	RPD Limit	Q
Batch ID: 401886 Date: 09/22/2019 10:37											
						LCS Source: WC LCS_00086					
9060	LLCS 240-401886/5	Dissolved Organic Carbon	6.42		mg/L	6.75	95	88-115			

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

FORM VIIA-IN

9-IN
DETECTION LIMITS
GENERAL CHEMISTRY - DISSOLVED

Lab Name: Eurofins TestAmerica, Canton Job Number: 240-118610-1

SDG Number:

Matrix: Water Instrument ID: Clark

Method: 9060 MDL Date: 04/25/2017 15:02

Analyte	Wavelength/ Mass	RL (mg/L)	MDL (mg/L)
Dissolved Organic Carbon		1	0.141

9-IN
CALIBRATION BLANK DETECTION LIMITS
GENERAL CHEMISTRY - DISSOLVED

Lab Name: Eurofins TestAmerica, Canton Job Number: 240-118610-1

SDG Number:

Matrix: Water Instrument ID: Clark

Method: 9060 XMDL Date: 04/25/2017 15:02

Analyte	Wavelength/ Mass	XRL (mg/L)	XMDL (mg/L)
Dissolved Organic Carbon		1	0.141

13-IN
ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-118610-1

SDG No.:

Instrument ID: Clark Analysis Method: 9060

Start Date: 09/22/2019 09:22 End Date: 09/22/2019 16:42

Lab Sample Id	D/F	Type	Time	Analytes																								
				DOC																								
ZZZZZZ			09:22																									
CCVL 240-401886/2	1		10:09	X																								
CCB 240-401886/3	1		10:17	X																								
MB 240-401886/4	1	D	10:27	X																								
LLCS 240-401886/5	1	D	10:37	X																								
240-118610-2	1	D	10:53	X																								
240-118610-2 MS	2	D	11:24	X																								
240-118610-2 MSD	2	D	11:35	X																								
240-118610-6	1	D	11:45	X																								
240-118610-10	1	D	12:18	X																								
240-118610-14	1	D	12:51	X																								
240-118610-18	1	D	13:24	X																								
240-118610-22	1	D	13:56	X																								
CCVL 240-401886/14	1		14:28	X																								
CCB 240-401886/15	1		14:40	X																								
240-118610-26	1	D	14:50	X																								
240-118610-30	1	D	15:23	X																								
240-118610-34	1	D	15:56	X																								
CCVL 240-401886/19	1		16:28	X																								
CCB 240-401886/20	1		16:39	X																								
ZZZZZZ			16:42																									

Prep Types:
D = Dissolved

FORM XIII-IN

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-118610-1

SDG No.:

Batch Number: 401886 Batch Start Date: 09/22/19 09:22 Batch Analyst: Harshman, Tom

Batch Method: 9060 Batch End Date: 09/22/19 16:42

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount	WC LCS 00086	WC TOC CCVL 00273		
CCVL 240-401886/2		9060		40 mL	40 mL		40 mL		
CCB 240-401886/3		9060		40 mL	40 mL				
MB 240-401886/4		9060		40 mL	40 mL				
LLCS 240-401886/5		9060		40 mL	40 mL	10 mL			
240-118610-D-2	MSA-SW37B-090919	9060	D	40 mL	40 mL				
240-118610-D-2 MS	MSA-SW37B-090919	9060	D	40 mL	40 mL		20 mL		
240-118610-D-2 MSD	MSA-SW37B-090919	9060	D	40 mL	40 mL		20 mL		
240-118610-E-6	MSA-SW38B-090919	9060	D	40 mL	40 mL				
240-118610-E-10	MSA-SW39B-090919	9060	D	40 mL	40 mL				
240-118610-E-14	MSA-SW40B-090919	9060	D	40 mL	40 mL				
240-118610-D-18	MSA-SW41B-090919	9060	D	40 mL	40 mL				
240-118610-D-22	MSA-SW42B-090919	9060	D	40 mL	40 mL				
CCVL 240-401886/14		9060		40 mL	40 mL		40 mL		
CCB 240-401886/15		9060		40 mL	40 mL				
240-118610-E-26	MSA-SW43B-090919	9060	D	40 mL	40 mL				
240-118610-E-30	MSA-SW44B-090919	9060	D	40 mL	40 mL				
240-118610-D-34	MSA-SW45B-090919	9060	D	40 mL	40 mL				
CCVL 240-401886/19		9060		40 mL	40 mL		40 mL		
CCB 240-401886/20		9060		40 mL	40 mL				

Batch Notes	
Phosphoric Acid ID	4238225
Pipette/Syringe/Dispenser ID	X
Sodium Persulfate ID	4238226

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.

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-118610-1

SDG No.:

Batch Number: 401886 Batch Start Date: 09/22/19 09:22 Batch Analyst: Harshman, Tom

Batch Method: 9060 Batch End Date: 09/22/19 16:42

Basis	Basis Description
D	Dissolved

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.

TETRA TECH

INTERNAL CORRESPONDENCE

TO: **S. BRENNER** **DATE:** **DECEMBER 12, 2019**

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

SUBJECT: **INORGANIC DATA VALIDATION – HEXAVALENT CHROMIUM**
LOCKHEED MARTIN CORPORATION (LMC) – MARTIN STATE AIRPORT (MSA)
FROG MORTAR CREEK
SAMPLE DELIVERY GROUP (SDG) TLG-043

SAMPLES: 36/Aqueous/Hexavalent Chromium

MSA-SW37A-090919	MSA-SW37B-090919	MSA-SW37C-090919
MSA-SW37D-090919	MSA-SW38A-090919	MSA-SW38B-090919
MSA-SW38C-090919	MSA-SW38D-090919	MSA-SW39A-090919
MSA-SW39B-090919	MSA-SW39C-090919	MSA-SW39D-090919
MSA-SW40A-090919	MSA-SW40B-090919	MSA-SW40C-090919
MSA-SW40D-090919	MSA-SW41A-090919	MSA-SW41B-090919
MSA-SW41C-090919	MSA-SW41D-090919	MSA-SW42A-090919
MSA-SW42B-090919	MSA-SW42C-090919	MSA-SW42D-090919
MSA-SW43A-090919	MSA-SW43B-090919	MSA-SW43C-090919
MSA-SW43D-090919	MSA-SW44A-090919	MSA-SW44B-090919
MSA-SW44C-090919	MSA-SW44D-090919	MSA-SW45A-090919
MSA-SW45B-090919	MSA-SW45C-090919	MSA-SW45D-090919

Overview

The sample set for LMC – MSA Frog Mortar Creek, SDG TLG-043 consisted of thirty-six (36) aqueous environmental samples. All thirty-six (36) aqueous samples were analyzed for hexavalent chromium. No field duplicate pair was included in the sample delivery group (SDG).

The samples were collected by Tetra Tech, Inc. on September 9, 2019 and analyzed by ALS Environmental. All analyses were conducted in accordance with EPA Method 218.6 analytical and reporting protocols.

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

Major

No major issues were identified.

Minor

Sixteen samples were analyzed after 24 hours but were within 48 hours of collection. Nondetected results were qualified as estimated, (UJ).

Notes

All samples were properly preserved to a pH of 9.0 – 9.5 and analyzed within 24 hours of sample receipt.

The non-detected results were reported to the Method Detection Limit (MDL).

Executive Summary

Laboratory Performance: Sixteen samples were analyzed after 24 hours from sample collection.

Other Factors Affecting Data Quality: None.

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

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

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

Qualifier Codes:

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

Data Qualifier Definitions

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

U	The analyte was analyzed for, but was not detected at a level greater than or equal to the level of the adjusted detection limit.
J	The result is an estimated quantity. The associated numerical value is the approximate concentration of the analyte in the sample (due either to the quality of the data generated because certain quality control criteria were not met, or the concentration of the analyte was below the reporting limit).
J+	The result is an estimated quantity, but the result may be biased high.
J-	The result is an estimated quantity, but the result may be biased low.
UJ	The analyte was analyzed for, but was not detected. The reported detection limit is approximate and may be inaccurate or imprecise.
NJ	The analyte has been “tentatively identified” or “presumptively” as present and the associated numerical value is the estimated concentration in the sample.
R	The sample result (detected) is unusable due to the quality of the data generated because certain criteria were not met. The analyte may or may not be present in the sample.
UR	The sample result (nondetected) is unusable due to the quality of the data generated because certain criteria were not met. The analyte may or may not be present in the sample.
X	The sample results (including non-detects) were affected by serious deficiencies in the ability to analyze the sample and meet published method and project quality control criteria. The presence or absence of the analyte cannot be substantiated by the data provided. Acceptance or rejection of the data should be decided by the project team, but exclusion of the data is recommended.

Appendix A

Qualified Analytical Results

PROJ_NO: 08735	NSAMPLE	MSA-SW37A-090919			MSA-SW37B-090919			MSA-SW37C-090919			MSA-SW37D-090919		
SDG: TLG-043	LAB_ID	3056655001			3056655002			3056655003			3056655004		
FRACTION: MISC	SAMP_DATE	9/9/2019			9/9/2019			9/9/2019			9/9/2019		
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
HEXAVALENT CHROMIUM		0.047	UJ	H	0.047	UJ	H	0.047	UJ	H	0.047	UJ	H

PROJ_NO: 08735	NSAMPLE	MSA-SW38A-090919			MSA-SW38B-090919			MSA-SW38C-090919			MSA-SW38D-090919		
SDG: TLG-043	LAB_ID	3056655005			3056655006			3056655007			3056655008		
FRACTION: MISC	SAMP_DATE	9/9/2019			9/9/2019			9/9/2019			9/9/2019		
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
HEXAVALENT CHROMIUM		0.047	UJ	H	0.047	UJ	H	0.047	UJ	H	0.047	UJ	H

PROJ_NO: 08735	NSAMPLE	MSA-SW39A-090919			MSA-SW39B-090919			MSA-SW39C-090919			MSA-SW39D-090919		
SDG: TLG-043	LAB_ID	3056655009			3056655010			3056655011			3056655012		
FRACTION: MISC	SAMP_DATE	9/9/2019			9/9/2019			9/9/2019			9/9/2019		
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
HEXAVALENT CHROMIUM		0.047	U		0.047	U		0.047	U		0.047	U	

PROJ_NO: 08735	NSAMPLE	MSA-SW40A-090919			MSA-SW40B-090919			MSA-SW40C-090919			MSA-SW40D-090919		
SDG: TLG-043	LAB_ID	3056655013			3056655014			3056655015			3056655016		
FRACTION: MISC	SAMP_DATE	9/9/2019			9/9/2019			9/9/2019			9/9/2019		
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
HEXAVALENT CHROMIUM		0.047	UJ	H	0.047	UJ	H	0.047	UJ	H	0.047	UJ	H

PROJ_NO: 08735	NSAMPLE	MSA-SW41A-090919			MSA-SW41B-090919			MSA-SW41C-090919			MSA-SW41D-090919		
SDG: TLG-043	LAB_ID	3056655017			3056655018			3056655019			3056655020		
FRACTION: MISC	SAMP_DATE	9/9/2019			9/9/2019			9/9/2019			9/9/2019		
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
HEXAVALENT CHROMIUM		0.047	U		0.047	U		0.047	U		0.047	U	

PROJ_NO: 08735	NSAMPLE	MSA-SW42A-090919			MSA-SW42B-090919			MSA-SW42C-090919			MSA-SW42D-090919		
SDG: TLG-043	LAB_ID	3056655021			3056655022			3056655023			3056655024		
FRACTION: MISC	SAMP_DATE	9/9/2019			9/9/2019			9/9/2019			9/9/2019		
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
HEXAVALENT CHROMIUM		0.047	UJ	H	0.047	UJ	H	0.047	UJ	H	0.047	UJ	H

PROJ_NO: 08735	NSAMPLE	MSA-SW43A-090919			MSA-SW43B-090919			MSA-SW43C-090919			MSA-SW43D-090919		
SDG: TLG-043	LAB_ID	3056655025			3056655026			3056655027			3056655028		
FRACTION: MISC	SAMP_DATE	9/9/2019			9/9/2019			9/9/2019			9/9/2019		
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
HEXAVALENT CHROMIUM		0.047	U		0.047	U		0.047	U		0.047	U	

PROJ_NO: 08735	NSAMPLE	MSA-SW44A-090919			MSA-SW44B-090919			MSA-SW44C-090919			MSA-SW44D-090919		
SDG: TLG-043	LAB_ID	3056655029			3056655030			3056655031			3056655032		
FRACTION: MISC	SAMP_DATE	9/9/2019			9/9/2019			9/9/2019			9/9/2019		
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
HEXAVALENT CHROMIUM		0.047	U		0.047	U		0.047	U		0.047	U	

PROJ_NO: 08735	NSAMPLE	MSA-SW45A-090919			MSA-SW45B-090919			MSA-SW45C-090919			MSA-SW45D-090919		
SDG: TLG-043	LAB_ID	3056655033			3056655034			3056655035			3056655036		
FRACTION: MISC	SAMP_DATE	9/9/2019			9/9/2019			9/9/2019			9/9/2019		
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
HEXAVALENT CHROMIUM		0.047	U		0.047	U		0.047	U		0.047	U	

Appendix B

Results as Reported by the Laboratory

ALS Environmental

301 Fulling Mill Road - Middletown, PA 17057 - Phone: 717-944-5541 - Fax: 717-944-1430 - www.alsglobal.com

NELAP Certifications: NJ PA010 , NY 11759 , PA 22-293 DoD ELAP: PJLA 74618
State Certifications: FL E871113 , WA C999 , MD 128 , VA 460157 , WV DW 9961-C , WV 343

ANALYTICAL RESULTS

Workorder: 3056655 TLG043|MSA Surface Water Sampl

Lab ID: **3056655001** Date Collected: 9/9/2019 12:43 Matrix: Water

Sample ID: **MSA-SW37A-090919** Date Received: 9/10/2019 01:20

Parameters	Results	Flag	Units	RDL	MDL	Method	Prepared By	Analyzed	By	*Cntr*
WET CHEMISTRY										
Hexavalent Chromium	ND		ug/L	0.25	0.047	EPA 218.6		9/11/19 02:42	MBW	A

Vanessa N. Badman

Mrs. Vanessa N Badman
Project Coordinator

ALS Environmental

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State Certifications: FL E871113 , WA C999 , MD 128 , VA 460157 , WV DW 9961-C , WV 343

ANALYTICAL RESULTS

Workorder: 3056655 TLG043|MSA Surface Water Sampl

Lab ID: **3056655002** Date Collected: 9/9/2019 12:47 Matrix: Water

Sample ID: **MSA-SW37B-090919** Date Received: 9/10/2019 01:20

Parameters	Results	Flag	Units	RDL	MDL	Method	Prepared By	Analyzed	By	*Cntr*
WET CHEMISTRY										
Hexavalent Chromium	ND		ug/L	0.25	0.047	EPA 218.6		9/11/19 02:50	MBW	A

Vanessa N. Badman

Mrs. Vanessa N Badman
Project Coordinator

ALS Environmental

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State Certifications: FL E871113 , WA C999 , MD 128 , VA 460157 , WV DW 9961-C , WV 343

ANALYTICAL RESULTS

Workorder: 3056655 TLG043|MSA Surface Water Sampl

Lab ID: **3056655003** Date Collected: 9/9/2019 12:50 Matrix: Water

Sample ID: **MSA-SW37C-090919** Date Received: 9/10/2019 01:20

Parameters	Results	Flag	Units	RDL	MDL	Method	Prepared By	Analyzed	By	*Cntr*
WET CHEMISTRY										
Hexavalent Chromium	ND		ug/L	0.25	0.047	EPA 218.6		9/11/19 02:57	MBW	A

Vanessa N. Badman

Mrs. Vanessa N Badman
Project Coordinator

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NELAP Certifications: NJ PA010 , NY 11759 , PA 22-293 DoD ELAP: PJLA 74618
State Certifications: FL E871113 , WA C999 , MD 128 , VA 460157 , WV DW 9961-C , WV 343

ANALYTICAL RESULTS

Workorder: 3056655 TLG043|MSA Surface Water Sampl

Lab ID: **3056655004** Date Collected: 9/9/2019 12:53 Matrix: Water

Sample ID: **MSA-SW37D-090919** Date Received: 9/10/2019 01:20

Parameters	Results	Flag	Units	RDL	MDL	Method	Prepared By	Analyzed	By	*Cntr*
WET CHEMISTRY										
Hexavalent Chromium	ND		ug/L	0.25	0.047	EPA 218.6		9/11/19 03:05	MBW	A

Vanessa N. Badman

Mrs. Vanessa N Badman
Project Coordinator

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NELAP Certifications: NJ PA010 , NY 11759 , PA 22-293 DoD ELAP: PJLA 74618
State Certifications: FL E871113 , WA C999 , MD 128 , VA 460157 , WV DW 9961-C , WV 343

ANALYTICAL RESULTS

Workorder: 3056655 TLG043|MSA Surface Water Sampl

Lab ID: **3056655005** Date Collected: 9/9/2019 11:49 Matrix: Water

Sample ID: **MSA-SW38A-090919** Date Received: 9/10/2019 01:20

Parameters	Results	Flag	Units	RDL	MDL	Method	Prepared By	Analyzed	By	*Cntr*
WET CHEMISTRY										
Hexavalent Chromium	ND		ug/L	0.25	0.047	EPA 218.6		9/11/19 00:03	MBW	A

Vanessa N. Badman

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ANALYTICAL RESULTS

Workorder: 3056655 TLG043|MSA Surface Water Sampl

Lab ID: **3056655006** Date Collected: 9/9/2019 11:53 Matrix: Water

Sample ID: **MSA-SW38B-090919** Date Received: 9/10/2019 01:20

Parameters	Results	Flag	Units	RDL	MDL	Method	Prepared By	Analyzed	By	*Cntr*
WET CHEMISTRY										
Hexavalent Chromium	ND		ug/L	0.25	0.047	EPA 218.6		9/11/19 00:48	MBW	A

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ANALYTICAL RESULTS

Workorder: 3056655 TLG043|MSA Surface Water Sampl

Lab ID: **3056655007** Date Collected: 9/9/2019 11:58 Matrix: Water

Sample ID: **MSA-SW38C-090919** Date Received: 9/10/2019 01:20

Parameters	Results	Flag	Units	RDL	MDL	Method	Prepared By	Analyzed	By	*Cntr*
WET CHEMISTRY										
Hexavalent Chromium	ND		ug/L	0.25	0.047	EPA 218.6		9/11/19 00:56	MBW	A

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ANALYTICAL RESULTS

Workorder: 3056655 TLG043|MSA Surface Water Sampl

Lab ID: **3056655008** Date Collected: 9/9/2019 12:01 Matrix: Water

Sample ID: **MSA-SW38D-090919** Date Received: 9/10/2019 01:20

Parameters	Results	Flag	Units	RDL	MDL	Method	Prepared By	Analyzed	By	*Cntr*
WET CHEMISTRY										
Hexavalent Chromium	ND		ug/L	0.25	0.047	EPA 218.6		9/11/19 01:03	MBW	A

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ANALYTICAL RESULTS

Workorder: 3056655 TLG043|MSA Surface Water Sampl

Lab ID: **3056655009** Date Collected: 9/9/2019 10:15 Matrix: Water

Sample ID: **MSA-SW39A-090919** Date Received: 9/10/2019 01:20

Parameters	Results	Flag	Units	RDL	MDL	Method	Prepared By	Analyzed	By	*Cntr*
WET CHEMISTRY										
Hexavalent Chromium	ND		ug/L	0.25	0.047	EPA 218.6		9/10/19 04:49	MBW	A

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ANALYTICAL RESULTS

Workorder: 3056655 TLG043|MSA Surface Water Sampl

Lab ID: **3056655010** Date Collected: 9/9/2019 10:22 Matrix: Water

Sample ID: **MSA-SW39B-090919** Date Received: 9/10/2019 01:20

Parameters	Results	Flag	Units	RDL	MDL	Method	Prepared By	Analyzed	By	*Cntr*
WET CHEMISTRY										
Hexavalent Chromium	ND		ug/L	0.25	0.047	EPA 218.6		9/10/19 05:11	MBW	A

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ANALYTICAL RESULTS

Workorder: 3056655 TLG043|MSA Surface Water Sampl

Lab ID: **3056655011** Date Collected: 9/9/2019 10:28 Matrix: Water

Sample ID: **MSA-SW39C-090919** Date Received: 9/10/2019 01:20

Parameters	Results	Flag	Units	RDL	MDL	Method	Prepared By	Analyzed	By	*Cntr*
WET CHEMISTRY										
Hexavalent Chromium	ND		ug/L	0.25	0.047	EPA 218.6		9/10/19 05:19	MBW	A

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ANALYTICAL RESULTS

Workorder: 3056655 TLG043|MSA Surface Water Sampl

Lab ID: **3056655012** Date Collected: 9/9/2019 10:31 Matrix: Water

Sample ID: **MSA-SW39D-090919** Date Received: 9/10/2019 01:20

Parameters	Results	Flag	Units	RDL	MDL	Method	Prepared By	Analyzed	By	*Cntr*
WET CHEMISTRY										
Hexavalent Chromium	ND		ug/L	0.25	0.047	EPA 218.6		9/10/19 05:27	MBW	A

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ANALYTICAL RESULTS

Workorder: 3056655 TLG043|MSA Surface Water Sampl

Lab ID: **3056655013** Date Collected: 9/9/2019 12:09 Matrix: Water

Sample ID: **MSA-SW40A-090919** Date Received: 9/10/2019 01:20

Parameters	Results	Flag	Units	RDL	MDL	Method	Prepared By	Analyzed	By	*Cntr*
WET CHEMISTRY										
Hexavalent Chromium	ND		ug/L	0.25	0.047	EPA 218.6		9/11/19 01:11	MBW	A

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ANALYTICAL RESULTS

Workorder: 3056655 TLG043|MSA Surface Water Sampl

Lab ID: **3056655014** Date Collected: 9/9/2019 12:12 Matrix: Water

Sample ID: **MSA-SW40B-090919** Date Received: 9/10/2019 01:20

Parameters	Results	Flag	Units	RDL	MDL	Method	Prepared By	Analyzed	By	*Cntr*
WET CHEMISTRY										
Hexavalent Chromium	ND		ug/L	0.25	0.047	EPA 218.6		9/11/19 01:18	MBW	A

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ANALYTICAL RESULTS

Workorder: 3056655 TLG043|MSA Surface Water Sampl

Lab ID: **3056655015** Date Collected: 9/9/2019 12:18 Matrix: Water

Sample ID: **MSA-SW40C-090919** Date Received: 9/10/2019 01:20

Parameters	Results	Flag	Units	RDL	MDL	Method	Prepared By	Analyzed	By	*Cntr*
WET CHEMISTRY										
Hexavalent Chromium	ND		ug/L	0.25	0.047	EPA 218.6		9/11/19 01:26	MBW	A

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ANALYTICAL RESULTS

Workorder: 3056655 TLG043|MSA Surface Water Sampl

Lab ID: **3056655016** Date Collected: 9/9/2019 12:23 Matrix: Water

Sample ID: **MSA-SW40D-090919** Date Received: 9/10/2019 01:20

Parameters	Results	Flag	Units	RDL	MDL	Method	Prepared By	Analyzed	By	*Cntr*
WET CHEMISTRY										
Hexavalent Chromium	ND		ug/L	0.25	0.047	EPA 218.6		9/11/19 01:34	MBW	A

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ANALYTICAL RESULTS

Workorder: 3056655 TLG043|MSA Surface Water Sampl

Lab ID: **3056655017** Date Collected: 9/9/2019 11:29 Matrix: Water

Sample ID: **MSA-SW41A-090919** Date Received: 9/10/2019 01:20

Parameters	Results	Flag	Units	RDL	MDL	Method	Prepared By	Analyzed	By	*Cntr*
WET CHEMISTRY										
Hexavalent Chromium	ND		ug/L	0.25	0.047	EPA 218.6		9/10/19 07:21	MBW	A

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ANALYTICAL RESULTS

Workorder: 3056655 TLG043|MSA Surface Water Sampl

Lab ID: **3056655018** Date Collected: 9/9/2019 11:32 Matrix: Water

Sample ID: **MSA-SW41B-090919** Date Received: 9/10/2019 01:20

Parameters	Results	Flag	Units	RDL	MDL	Method	Prepared By	Analyzed	By	*Cntr*
WET CHEMISTRY										
Hexavalent Chromium	ND		ug/L	0.25	0.047	EPA 218.6		9/10/19 07:28	MBW	A

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ANALYTICAL RESULTS

Workorder: 3056655 TLG043|MSA Surface Water Sampl

Lab ID: **3056655019** Date Collected: 9/9/2019 11:36 Matrix: Water

Sample ID: **MSA-SW41C-090919** Date Received: 9/10/2019 01:20

Parameters	Results	Flag	Units	RDL	MDL	Method	Prepared By	Analyzed	By	*Cntr*
WET CHEMISTRY										
Hexavalent Chromium	ND		ug/L	0.25	0.047	EPA 218.6		9/10/19 07:36	MBW	A

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ANALYTICAL RESULTS

Workorder: 3056655 TLG043|MSA Surface Water Sampl

Lab ID: **3056655020** Date Collected: 9/9/2019 11:41 Matrix: Water

Sample ID: **MSA-SW41D-090919** Date Received: 9/10/2019 01:20

Parameters	Results	Flag	Units	RDL	MDL	Method	Prepared By	Analyzed	By	*Cntr*
WET CHEMISTRY										
Hexavalent Chromium	ND		ug/L	0.25	0.047	EPA 218.6		9/10/19 07:43	MBW	A

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ANALYTICAL RESULTS

Workorder: 3056655 TLG043|MSA Surface Water Sampl

Lab ID: **3056655021** Date Collected: 9/9/2019 12:30 Matrix: Water

Sample ID: **MSA-SW42A-090919** Date Received: 9/10/2019 01:20

Parameters	Results	Flag	Units	RDL	MDL	Method	Prepared By	Analyzed	By	*Cntr*
WET CHEMISTRY										
Hexavalent Chromium	ND		ug/L	0.25	0.047	EPA 218.6		9/11/19 01:41	MBW	A

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ANALYTICAL RESULTS

Workorder: 3056655 TLG043|MSA Surface Water Sampl

Lab ID: **3056655022** Date Collected: 9/9/2019 12:32 Matrix: Water

Sample ID: **MSA-SW42B-090919** Date Received: 9/10/2019 01:20

Parameters	Results	Flag	Units	RDL	MDL	Method	Prepared By	Analyzed	By	*Cntr*
WET CHEMISTRY										
Hexavalent Chromium	ND		ug/L	0.25	0.047	EPA 218.6		9/11/19 01:49	MBW	A

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ANALYTICAL RESULTS

Workorder: 3056655 TLG043|MSA Surface Water Sampl

Lab ID: **3056655023** Date Collected: 9/9/2019 12:36 Matrix: Water

Sample ID: **MSA-SW42C-090919** Date Received: 9/10/2019 01:20

Parameters	Results	Flag	Units	RDL	MDL	Method	Prepared By	Analyzed	By	*Cntr*
WET CHEMISTRY										
Hexavalent Chromium	ND		ug/L	0.25	0.047	EPA 218.6		9/11/19 02:12	MBW	A

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ANALYTICAL RESULTS

Workorder: 3056655 TLG043|MSA Surface Water Sampl

Lab ID: **3056655024** Date Collected: 9/9/2019 12:39 Matrix: Water

Sample ID: **MSA-SW42D-090919** Date Received: 9/10/2019 01:20

Parameters	Results	Flag	Units	RDL	MDL	Method	Prepared By	Analyzed	By	*Cntr*
WET CHEMISTRY										
Hexavalent Chromium	ND		ug/L	0.25	0.047	EPA 218.6		9/11/19 02:34	MBW	A

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ANALYTICAL RESULTS

Workorder: 3056655 TLG043|MSA Surface Water Sampl

Lab ID: **3056655025** Date Collected: 9/9/2019 11:10 Matrix: Water

Sample ID: **MSA-SW43A-090919** Date Received: 9/10/2019 01:20

Parameters	Results	Flag	Units	RDL	MDL	Method	Prepared By	Analyzed	By	*Cntr*
WET CHEMISTRY										
Hexavalent Chromium	ND		ug/L	0.25	0.047	EPA 218.6		9/10/19 06:50	MBW	A

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ANALYTICAL RESULTS

Workorder: 3056655 TLG043|MSA Surface Water Sampl

Lab ID: **3056655026** Date Collected: 9/9/2019 11:15 Matrix: Water

Sample ID: **MSA-SW43B-090919** Date Received: 9/10/2019 01:20

Parameters	Results	Flag	Units	RDL	MDL	Method	Prepared By	Analyzed	By	*Cntr*
WET CHEMISTRY										
Hexavalent Chromium	ND		ug/L	0.25	0.047	EPA 218.6		9/10/19 06:58	MBW	A

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ANALYTICAL RESULTS

Workorder: 3056655 TLG043|MSA Surface Water Sampl

Lab ID: **3056655027** Date Collected: 9/9/2019 11:18 Matrix: Water

Sample ID: **MSA-SW43C-090919** Date Received: 9/10/2019 01:20

Parameters	Results	Flag	Units	RDL	MDL	Method	Prepared By	Analyzed	By	*Cntr*
WET CHEMISTRY										
Hexavalent Chromium	ND		ug/L	0.25	0.047	EPA 218.6		9/10/19 07:05	MBW	A

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ANALYTICAL RESULTS

Workorder: 3056655 TLG043|MSA Surface Water Sampl

Lab ID: **3056655028** Date Collected: 9/9/2019 11:21 Matrix: Water

Sample ID: **MSA-SW43D-090919** Date Received: 9/10/2019 01:20

Parameters	Results	Flag	Units	RDL	MDL	Method	Prepared By	Analyzed	By	*Cntr*
WET CHEMISTRY										
Hexavalent Chromium	ND		ug/L	0.25	0.047	EPA 218.6		9/10/19 07:13	MBW	A

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ANALYTICAL RESULTS

Workorder: 3056655 TLG043|MSA Surface Water Sampl

Lab ID: **3056655029** Date Collected: 9/9/2019 10:54 Matrix: Water

Sample ID: **MSA-SW44A-090919** Date Received: 9/10/2019 01:20

Parameters	Results	Flag	Units	RDL	MDL	Method	Prepared By	Analyzed	By	*Cntr*
WET CHEMISTRY										
Hexavalent Chromium	ND		ug/L	0.25	0.047	EPA 218.6		9/10/19 06:05	MBW	A

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ANALYTICAL RESULTS

Workorder: 3056655 TLG043|MSA Surface Water Sampl

Lab ID: **3056655030** Date Collected: 9/9/2019 10:58 Matrix: Water

Sample ID: **MSA-SW44B-090919** Date Received: 9/10/2019 01:20

Parameters	Results	Flag	Units	RDL	MDL	Method	Prepared By	Analyzed	By	*Cntr*
WET CHEMISTRY										
Hexavalent Chromium	ND		ug/L	0.25	0.047	EPA 218.6		9/10/19 06:12	MBW	A

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ANALYTICAL RESULTS

Workorder: 3056655 TLG043|MSA Surface Water Sampl

Lab ID: **3056655031** Date Collected: 9/9/2019 11:01 Matrix: Water

Sample ID: **MSA-SW44C-090919** Date Received: 9/10/2019 01:20

Parameters	Results	Flag	Units	RDL	MDL	Method	Prepared By	Analyzed	By	*Cntr*
WET CHEMISTRY										
Hexavalent Chromium	ND		ug/L	0.25	0.047	EPA 218.6		9/10/19 06:35	MBW	A

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ANALYTICAL RESULTS

Workorder: 3056655 TLG043|MSA Surface Water Sampl

Lab ID: **3056655032** Date Collected: 9/9/2019 11:05 Matrix: Water

Sample ID: **MSA-SW44D-090919** Date Received: 9/10/2019 01:20

Parameters	Results	Flag	Units	RDL	MDL	Method	Prepared By	Analyzed	By	*Cntr*
WET CHEMISTRY										
Hexavalent Chromium	ND		ug/L	0.25	0.047	EPA 218.6		9/10/19 06:43	MBW	A

Vanessa N. Badman

Mrs. Vanessa N Badman
Project Coordinator

ALS Environmental

301 Fulling Mill Road - Middletown, PA 17057 - Phone: 717-944-5541 - Fax: 717-944-1430 - www.alsglobal.com

NELAP Certifications: NJ PA010 , NY 11759 , PA 22-293 DoD ELAP: PJLA 74618
State Certifications: FL E871113 , WA C999 , MD 128 , VA 460157 , WV DW 9961-C , WV 343

ANALYTICAL RESULTS

Workorder: 3056655 TLG043|MSA Surface Water Sampl

Lab ID: **3056655033** Date Collected: 9/9/2019 10:36 Matrix: Water

Sample ID: **MSA-SW45A-090919** Date Received: 9/10/2019 01:20

Parameters	Results	Flag	Units	RDL	MDL	Method	Prepared By	Analyzed	By	*Cntr*
WET CHEMISTRY										
Hexavalent Chromium	ND		ug/L	0.25	0.047	EPA 218.6		9/10/19 05:34	MBW	A

Vanessa N. Badman

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ANALYTICAL RESULTS

Workorder: 3056655 TLG043|MSA Surface Water Sampl

Lab ID: **3056655034** Date Collected: 9/9/2019 10:40 Matrix: Water

Sample ID: **MSA-SW45B-090919** Date Received: 9/10/2019 01:20

Parameters	Results	Flag	Units	RDL	MDL	Method	Prepared By	Analyzed	By	*Cntr*
WET CHEMISTRY										
Hexavalent Chromium	ND		ug/L	0.25	0.047	EPA 218.6		9/10/19 05:42	MBW	A

Vanessa N. Badman

Mrs. Vanessa N Badman
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301 Fulling Mill Road - Middletown, PA 17057 - Phone: 717-944-5541 - Fax: 717-944-1430 - www.alsglobal.com

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State Certifications: FL E871113 , WA C999 , MD 128 , VA 460157 , WV DW 9961-C , WV 343

ANALYTICAL RESULTS

Workorder: 3056655 TLG043|MSA Surface Water Sampl

Lab ID: **3056655035** Date Collected: 9/9/2019 10:45 Matrix: Water

Sample ID: **MSA-SW45C-090919** Date Received: 9/10/2019 01:20

Parameters	Results	Flag	Units	RDL	MDL	Method	Prepared By	Analyzed	By	*Cntr*
WET CHEMISTRY										
Hexavalent Chromium	ND		ug/L	0.25	0.047	EPA 218.6		9/10/19 05:49	MBW	A

Vanessa N. Badman

Mrs. Vanessa N Badman
Project Coordinator

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NELAP Certifications: NJ PA010 , NY 11759 , PA 22-293 DoD ELAP: PJLA 74618
State Certifications: FL E871113 , WA C999 , MD 128 , VA 460157 , WV DW 9961-C , WV 343

ANALYTICAL RESULTS

Workorder: 3056655 TLG043|MSA Surface Water Sampl

Lab ID: **3056655036** Date Collected: 9/9/2019 10:49 Matrix: Water

Sample ID: **MSA-SW45D-090919** Date Received: 9/10/2019 01:20

Parameters	Results	Flag	Units	RDL	MDL	Method	Prepared By	Analyzed	By	*Cntr*
WET CHEMISTRY										
Hexavalent Chromium	ND		ug/L	0.25	0.047	EPA 218.6		9/10/19 05:57	MBW	A

Vanessa N. Badman

Mrs. Vanessa N Badman
Project Coordinator

Appendix C

Support Documentation

Middletown

34 Dogwood Lane
Middletown, PA

Chain of Custody Record

* 3 0 5 6 6 5 5 *

Client Contact	Project Manager: Tony Apanavage	Site Contact: Tony Apanavage	Date: 9/9/2019	COC No:
Tetra Tech	Tel/Fax: 301-233-8230 (cell)	Lab Contact: Vanessa Badman	Carrier: Fedex	1 of 3 COCs
20251 Century Blvd, Suite 200	Analysis Turnaround Time			Job No.
Germantown, MD 20874	Calendar (C) or Work Days (W)			
(301) 528-3021 Phone	TAT if different from Below: 24 HR HOLD TIME			SDG No.
(301) 528-3000 FAX	☐ 2 weeks 24HR Hold Time			
Project Name: MSA Surface Water Sampling	☐ 1 week			Sampler: S. Larson
Site: MSA Frog Mortar Creek	☐ 2 days			
Project # 112IC08735	☐ 1 day			Sample Specific Notes:

Sample Identification	Sample Date	Sample Time	Sample Type	Matrix	# of Cont.	Filtered Sample	Dissolved Hexavalent Chromium (218.6)
MSA-SW37A-090919	9/9/2019	1243	SW	Water	1	x	x
MSA-SW37B-090919	9/9/2019	1247	SW	Water	1	x	x
MSA-SW37C-090919	9/9/2019	1250	SW	Water	1	x	x
MSA-SW37D-090919	9/9/2019	1253	SW	Water	1	x	x
MSA-SW38A-090919	9/9/2019	1149	SW	Water	1	x	x
MSA-SW38B-090919	9/9/2019	1153	SW	Water	1	x	x
MSA-SW38C-090919	9/9/2019	1158	SW	Water	1	x	x
MSA-SW38D-090919	9/9/2019	1201	SW	Water	1	x	x
MSA-SW39A-090919	9/9/2019	1015	SW	Water	1	x	x
MSA-SW39B-090919	9/9/2019	1020	SW	Water	1	x	x
MSA-SW39C-090919	9/9/2019	1028	SW	Water	1	x	x
MSA-SW39D-090919	9/9/2019	1031	SW	Water	1	x	x
						6	

Preservation Used: 1= Ice, 2= HCl; 3= H2SO4; 4=HNO3; 5=NaOH; 6= Other __Hex chrome buffer_____

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

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

Special Instructions/QC Requirements & Comments: **Samples must be analyzed within 24 hours of sample time. Filtered in Field**

Relinquished by:	Company: Tetra Tech	Date/Time: 9/09/2019	Received by:	Company: ALS	Date/Time: 9/9/19 1515
Relinquished by:	Company: ALS	Date/Time: 9/9/19 1630	Received by: FEDEX COURIER	Company:	Date/Time:
Relinquished by: FEDEX COURIER	Company:	Date/Time:	Received by:	Company:	Date/Time: 9/10/19 0120

Middletown

34 Dogwood Lane
Middletown, PA

Chain of Custody Record

ALS Environmental

Client Contact	Project Manager: Tony Apanavage	Site Contact: Tony Apanavage	Date: 9/9/2019	COC No:
Tetra Tech	Tel/Fax: 301-233-8230 (cell)	Lab Contact: Vanessa Badman	Carrier: Fedex	2 of 3 COCs
20251 Century Blvd, Suite 200	Analysis Turnaround Time			Job No.
Germantown, MD 20874	Calendar (C) or Work Days (W)			
(301) 528-3021 Phone	TAT if different from Below: 24 HR HOLD TIME			SDG No.
(301) 528-3000 FAX	☐ 2 weeks 24 Hour Hold Time			
Project Name: MSA Surface Water Sampling	☐ 1 week			Sampler: S. Larson
Site: MSA Frog Mortar Creek	☐ 2 days			
Project # 112IC08735	☐ 1 day			Sample Specific Notes:

Sample Identification	Sample Date	Sample Time	Sample Type	Matrix	# of Cont.	Filtered Sample	Dissolved Hexavalent Chromium (218.6)
MSA-SW40A-090919	9/9/2019	1204	SW	Water	1	x	x
MSA-SW40B-090919	9/9/2019	1212	SW	Water	1	x	x
MSA-SW40C-090919	9/9/2019	1218	SW	Water	1	x	x
MSA-SW40D-090919	9/9/2019	1223	SW	Water	1	x	x
MSA-SW41A-090919	9/9/2019	1129	SW	Water	1	x	x
MSA-SW41B-090919	9/9/2019	1132	SW	Water	1	x	x
MSA-SW41C-090919	9/9/2019	1136	SW	Water	1	x	x
MSA-SW41D-090919	9/9/2019	1141	SW	Water	1	x	x
MSA-SW42A-090919	9/9/2019	1230	SW	Water	1	x	x
MSA-SW42B-090919	9/9/2019	1232	SW	Water	1	x	x
MSA-SW42C-090919	9/9/2019	1236	SW	Water	1	x	x
MSA-SW42D-090919	9/9/2019	1239	SW	Water	1	x	x
							6

Preservation Used: 1= Ice, 2= HCl; 3= H2SO4; 4=HNO3; 5=NaOH; 6= Other ____ Hex Chrom Buffer ____

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

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

Special Instructions/QC Requirements & Comments: Samples must be analyzed within 24 hours of sample time. Filtered in Field

Relinquished by:	Company: Tetra Tech	Date/Time: 09/09/19	Received by:	Company: ALS	Date/Time: 9/9/19 1515
Relinquished by:	Company: ALS	Date/Time: 9/9 1630	Received by:	Company:	Date/Time:
Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time: 9/10/19 0120

Middletown

34 Dogwood Lane
Middletown, PA

Chain of Custody Record

ALS Environmental

Client Contact	Project Manager: Tony Apanavage	Site Contact: Tony Apanavage	Date: 9/9/2019	COC No:
Tetra Tech	Tel/Fax: 301-233-8230 (cell)	Lab Contact: Vanessa Badman	Carrier: Fedex	3 of 3 COCs
20251 Century Blvd, Suite 200	Analysis Turnaround Time			Job No.
Germantown, MD 20874	Calendar (C) or Work Days (W)			
(301) 528-3021 Phone	TAT if different from Below ~~24 HR HOLD TIME~~			SDG No.
(301) 528-3000 FAX	☐ 2 weeks 24 Hour Hold Time			
Project Name: MSA Surface Water Sampling	☐ 1 week			Sampler: S. Larson
Site: MSA Frog Mortar Creek	☐ 2 days			
Project # 112IC08735	☐ 1 day			Sample Specific Notes:

Sample Identification	Sample Date	Sample Time	Sample Type	Matrix	# of Cont.	Filtered Sample	Dissolved Hexavalent Chromium (218.6)
MSA-SW43A-090919	9/9/2019	1110	SW	Water	1	x	x
MSA-SW43B-090919	9/9/2019	1115	SW	Water	1	x	x
MSA-SW43C-090919	9/9/2019	1118	SW	Water	1	x	x
MSA-SW43D-090919	9/9/2019	1121	SW	Water	1	x	x
MSA-SW44A-090919	9/9/2019	1054	SW	Water	1	x	x
MSA-SW44B-090919	9/9/2019	1058	SW	Water	1	x	x
MSA-SW44C-090919	9/9/2019	1101	SW	Water	1	x	x
MSA-SW44D-090919	9/9/2019	1105	SW	Water	1	x	x
MSA-SW45A-090919 1036	9/9/2019	~~1054~~	SW	Water	1	x	x
MSA-SW45B-090919 1040	9/9/2019	~~1058~~	SW	Water	1	x	x
MSA-SW45C-090919	9/9/2019	1045	SW	Water	1	x	x
MSA-SW45D-090919	9/9/2019	1049	SW	Water	1	x	x
						6	

Preservation Used: 1= Ice, 2= HCl; 3= H2SO4; 4=HNO3; 5=NaOH; 6= Other Hex Chrom buffer

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

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

Special Instructions/QC Requirements & Comments: Samples must be analyzed within 24 hours of sample time. Filtered in Field

Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
[signature]	Tetra Tech	09/09/2019	[signature]	ALS	9/9/19 1525
Relinquished by: [signature]	Company: ALS	Date/Time: 9/9 1630	Received by: [signature]	Company:	Date/Time:
Relinquished by: [signature]	Company:	Date/Time:	Received by: [signature]	Company:	Date/Time: 9-10-19 0120

Wednesday, September 11, 2019 8:51:04 AM
Page 49 of 50
Page 8 of 132 Total Pages

301 Fulling Mill Road
Middletown, PA 17057
P: (717) 944-5541
F: (717) 944-1430

Condition of Sample Receipt Form

Client:	Work Order #:	Initials:	Date:
Tetra Tech	3056655	QV	9/10/19

1. Were airbills / tracking numbers present and recorded?	(NONE)	YES	NO
Tracking number: _____			
2. Are Custody Seals on shipping containers intact?	NONE	(YES)	NO
3. Are Custody Seals on sample containers intact?	(NONE)	YES	NO
4. Is there a COC (Chain-of-Custody) present?		(YES)	NO
5. Are the COC and bottle labels complete, legible and in agreement?		(YES)	NO
5a. Does the COC contain sample locations?		(YES)	NO
5b. Does the COC contain date and time of sample collection for all samples?		(YES)	NO
5c. Does the COC contain sample collectors name?		(YES)	NO
5d. Does the COC note the type(s) of preservation for all bottles?		(YES)	NO
5e. Does the COC note the number of bottles submitted for each sample?		(YES)	NO
5f. Does the COC note the type of sample, composite or grab?		(YES)	NO
5g. Does the COC note the matrix of the sample(s)?		(YES)	NO
6. Are all aqueous samples requiring preservation preserved correctly?	N/A	(YES)	NO
7. Were all samples placed in the proper containers for the requested analyses, with sufficient volume?		(YES)	NO
8. Are all samples within holding times for the requested analyses?		(YES)	NO
9. Were all sample containers received intact and headspace free when required? (not broken, leaking, frozen, etc.)		(YES)	NO
10. Did we receive trip blanks (applies only for methods EPA 504, EPA 524.2 and 1631E (LL Hg)?	(N/A)	YES	NO
11. Were the samples received on ice?		(YES)	NO
12. Were sample temperatures measured at 0.0-6.0°C		(YES)	NO
13. Are the samples DW matrix ? If YES, fill out Reportable Drinking Water questions below		YES	(NO)
13a. Are the samples required for SDWA compliance reporting?	(N/A)	YES	NO
13b. Did the client provide a SDWA PWS ID#?	(N/A)	YES	NO
13c. Are all aqueous unpreserved SDWA samples pH 5-9?	(N/A)	YES	NO
13d. Did the client provide the SDWA sample location ID/Description?	(N/A)	YES	NO
13e. Did the client provide the SDWA sample type (D, E, R, C, P, S)?	(N/A)	YES	NO

Cooler #: _____

Temperature (°C): 3°C

Thermometer ID: 402

Radiological (µCi): _____

COMMENTS (Required for all NO responses above and any sample non-conformance):

Rev. 4/29/2019

ALS Environmental

34 Dogwood Lane ■ Middletown, PA 17057 ■ Phone: 717-944-5541 ■ Fax: 717-944-1430 ■ www.alsglobal.com

NELAP Certifications: NJ PA010 , NY 11759 , PA 22-293 , DoD ELAP: A2LA 0818.01
State Certifications: DE ID 11 , MA PA0102 , MD 128 , VA 460157 , WV 343

September 17, 2019

Work Order: 3056655
SDG: TLG043

Ms. Amy Thomson
Tetra Tech, Inc.
Foster Plaza 7
661 Andersen Drive
Pittsburgh, PA 15220

Laboratory Results for: Lockheed Martin Middle River Project

Dear Ms. Amy Thomson:

Enclosed are the analytical results for samples received by the laboratory starting on September 10, 2019.

The ALS Environmental laboratory in Middletown, Pennsylvania is a National Environmental Laboratory Accreditation Program (NELAP) accredited laboratory and as such, certifies that all applicable test results meet the requirements of NELAP. Analyses were performed according to our laboratory's NELAP-approved quality assurance program and any applicable state requirements. The test results meet requirements of the current NELAP standards or state requirements, where applicable. For a specific list of accredited analytes, refer to the certifications section of the ALS website at www.alsglobal.com/en/Our-Services/Life-Sciences/Environmental/Downloads. This laboratory report may not be reproduced, except infull, without the written approval of ALS Environmental. Any events, such as QC failures, are explained in the report narrative.

If you have any questions regarding this certificate of analysis, please contact Ms. Jennifer M Stanhope Lamoreux (Reporting Manager) at (717) 944-5541. You may also contact me via email at jennifer.lamoreux@ALSglobal.com.

Respectfully submitted,

ALS Group USA Corp. dba ALS Environmental

Jennifer M Stanhope Lamoreux
Reporting Manager

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Case Narrative

Tetra Tech, Inc.
ALS-Middletown
Case Narrative
TLG-043

Sample Management

This report contains the results of the analysis of thirty-six (36) water samples collected on September 9, 2019. Analytical results and quality control information are summarized in this data package.

Sample Receipt

The samples arrived at ALS via courier on September 10, 2019. Upon receipt, the samples were inspected and compared to the Chain of Custody. Sample temperature was documented on the enclosed Chain of Custody. The samples were received intact and properly preserved, unless noted on the enclosed Certificate of Analysis and/or Chain of Custody.

Hexavalent Chromium by EPA Method 218.6

Sample handling. Thirty-six (36) water samples were analyzed for hexavalent chromium by EPA Method 218.6. The samples were pH adjusted using ammonium sulfate buffer to a range of 9.3-9.7 and analyzed within the 28-day hold time.

Calibration. A monthly calibration was properly established on instrument IC#5 on 9/10/2019. Continuing calibration verification standards were analyzed to verify the calibration. The initial calibration standard was within the QC limit of 95-105% and the continuous calibration standards were within the QC limits of 90-110%.

Blanks. Method blanks were analyzed with the samples. Hexavalent chromium was not detected above the reporting limit of 0.25 µg/L in the blanks.

Laboratory Control Samples. Laboratory control samples identified as 3009615 and 3009625 were analyzed initially and every 20 samples. Recoveries were within the QC limits of 90-110%.

Laboratory control samples identified as 3009613 and 3009623 were analyzed initially and every 20 samples. Recoveries were within the QC limits of 50-150%.

Spikes. A matrix spike and matrix spike duplicate analysis was performed on sample 3056655005 (MSA-SW38A-090919). Recoveries were within QC criteria.

A matrix spike and matrix spike duplicate analysis was performed on sample 3056655009 (MSA-SW39A-090919). Recoveries were within QC criteria.

A matrix spike and matrix spike duplicate analysis was performed on sample 3056655020 (MSA-SW41D-090919). Recoveries were within QC criteria.

A matrix spike and matrix spike duplicate analysis was performed on sample 3056655023 (MSA-SW42C-090919). Recoveries were within QC criteria.

ALS Environmental

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NELAP Certifications: NJ PA010 , NY 11759 , PA 22-293 DoD ELAP: PJLA 74618
State Certifications: FL E871113 , WA C999 , MD 128 , VA 460157 , WV DW 9961-C , WV 343

September 11, 2019

Ms. Amy Thomson
Tetra Tech, Inc.
Foster Plaza 7
661 Andersen Drive
Pittsburgh, PA 15220

Certificate of Analysis

Project Name:	**Lockheed Martin Middle River Project**	Workorder:	**3056655**
Purchase Order:	**112IC08424**	Workorder ID:	**TLG043|MSA Surface Water Sampl**

Dear Ms. Thomson:

Enclosed are the analytical results for samples received by the laboratory on Tuesday, September 10, 2019.

The ALS Environmental laboratory in Middletown, Pennsylvania is a National Environmental Laboratory Accreditation Program (NELAP) accredited laboratory and as such, certifies that all applicable test results meet the requirements of NELAP.

If you have any questions regarding this certificate of analysis, please contact Mrs. Vanessa N Badman (Project Coordinator) at (717) 944-5541.

Analyses were performed according to our laboratory's NELAP-approved quality assurance program and any applicable state requirements. The test results meet requirements of the current NELAP standards or state requirements, where applicable. For a specific list of accredited analytes, refer to the certifications section of the ALS website at www.alsglobal.com/en/Our-Services/Life-Sciences/Environmental/Downloads.

This laboratory report may not be reproduced, except in full, without the written approval of ALS Environmental.

ALS Spring City: 10 Riverside Drive, Spring City, PA 19475 610-948-4903

CC: Mr. Josh Mullis , Ms. Samantha Brenner

This page is included as part of the Analytical Report and must be retained as a permanent record thereof.

Vanessa N. Badman

Mrs. Vanessa N Badman
Project Coordinator

SAMPLE SUMMARY

Workorder: 3056655 TLG043|MSA Surface Water Sampl

Lab ID	Sample ID	Matrix	Date Collected	Date Received	Collected By
3056655001	MSA-SW37A-090919	Water	9/9/2019 12:43	9/10/2019 01:20	Collected by Client
3056655002	MSA-SW37B-090919	Water	9/9/2019 12:47	9/10/2019 01:20	Collected by Client
3056655003	MSA-SW37C-090919	Water	9/9/2019 12:50	9/10/2019 01:20	Collected by Client
3056655004	MSA-SW37D-090919	Water	9/9/2019 12:53	9/10/2019 01:20	Collected by Client
3056655005	MSA-SW38A-090919	Water	9/9/2019 11:49	9/10/2019 01:20	Collected by Client
3056655006	MSA-SW38B-090919	Water	9/9/2019 11:53	9/10/2019 01:20	Collected by Client
3056655007	MSA-SW38C-090919	Water	9/9/2019 11:58	9/10/2019 01:20	Collected by Client
3056655008	MSA-SW38D-090919	Water	9/9/2019 12:01	9/10/2019 01:20	Collected by Client
3056655009	MSA-SW39A-090919	Water	9/9/2019 10:15	9/10/2019 01:20	Collected by Client
3056655010	MSA-SW39B-090919	Water	9/9/2019 10:22	9/10/2019 01:20	Collected by Client
3056655011	MSA-SW39C-090919	Water	9/9/2019 10:28	9/10/2019 01:20	Collected by Client
3056655012	MSA-SW39D-090919	Water	9/9/2019 10:31	9/10/2019 01:20	Collected by Client
3056655013	MSA-SW40A-090919	Water	9/9/2019 12:09	9/10/2019 01:20	Collected by Client
3056655014	MSA-SW40B-090919	Water	9/9/2019 12:12	9/10/2019 01:20	Collected by Client
3056655015	MSA-SW40C-090919	Water	9/9/2019 12:18	9/10/2019 01:20	Collected by Client
3056655016	MSA-SW40D-090919	Water	9/9/2019 12:23	9/10/2019 01:20	Collected by Client
3056655017	MSA-SW41A-090919	Water	9/9/2019 11:29	9/10/2019 01:20	Collected by Client
3056655018	MSA-SW41B-090919	Water	9/9/2019 11:32	9/10/2019 01:20	Collected by Client
3056655019	MSA-SW41C-090919	Water	9/9/2019 11:36	9/10/2019 01:20	Collected by Client
3056655020	MSA-SW41D-090919	Water	9/9/2019 11:41	9/10/2019 01:20	Collected by Client
3056655021	MSA-SW42A-090919	Water	9/9/2019 12:30	9/10/2019 01:20	Collected by Client
3056655022	MSA-SW42B-090919	Water	9/9/2019 12:32	9/10/2019 01:20	Collected by Client
3056655023	MSA-SW42C-090919	Water	9/9/2019 12:36	9/10/2019 01:20	Collected by Client
3056655024	MSA-SW42D-090919	Water	9/9/2019 12:39	9/10/2019 01:20	Collected by Client
3056655025	MSA-SW43A-090919	Water	9/9/2019 11:10	9/10/2019 01:20	Collected by Client
3056655026	MSA-SW43B-090919	Water	9/9/2019 11:15	9/10/2019 01:20	Collected by Client
3056655027	MSA-SW43C-090919	Water	9/9/2019 11:18	9/10/2019 01:20	Collected by Client
3056655028	MSA-SW43D-090919	Water	9/9/2019 11:21	9/10/2019 01:20	Collected by Client
3056655029	MSA-SW44A-090919	Water	9/9/2019 10:54	9/10/2019 01:20	Collected by Client
3056655030	MSA-SW44B-090919	Water	9/9/2019 10:58	9/10/2019 01:20	Collected by Client
3056655031	MSA-SW44C-090919	Water	9/9/2019 11:01	9/10/2019 01:20	Collected by Client
3056655032	MSA-SW44D-090919	Water	9/9/2019 11:05	9/10/2019 01:20	Collected by Client
3056655033	MSA-SW45A-090919	Water	9/9/2019 10:36	9/10/2019 01:20	Collected by Client
3056655034	MSA-SW45B-090919	Water	9/9/2019 10:40	9/10/2019 01:20	Collected by Client

ALS Environmental

301 Fulling Mill Road - Middletown, PA 17057 - Phone: 717-944-5541 - Fax: 717-944-1430 - www.alsglobal.com

NELAP Certifications: NJ PA010 , NY 11759 , PA 22-293 DoD ELAP: PJLA 74618
State Certifications: FL E871113 , WA C999 , MD 128 , VA 460157 , WV DW 9961-C , WV 343

SAMPLE SUMMARY

Workorder: 3056655 TLG043|MSA Surface Water Sampl

Lab ID	Sample ID	Matrix	Date Collected	Date Received	Collected By
3056655035	MSA-SW45C-090919	Water	9/9/2019 10:45	9/10/2019 01:20	Collected by Client
3056655036	MSA-SW45D-090919	Water	9/9/2019 10:49	9/10/2019 01:20	Collected by Client

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SAMPLE SUMMARY

Workorder: 3056655 TLG043|MSA Surface Water Sampl

Notes

-- Samples collected by ALS personnel are done so in accordance with the procedures set forth in the ALS Field Sampling Plan (20 - Field Services Sampling Plan).
-- All Waste Water analyses comply with methodology requirements of 40 CFR Part 136.
-- All Drinking Water analyses comply with methodology requirements of 40 CFR Part 141.
-- Unless otherwise noted, all quantitative results for soils are reported on a dry weight basis.
-- The Chain of Custody document is included as part of this report.
-- All Library Search analytes should be regarded as tentative identifications based on the presumptive evidence of the mass spectra. Concentrations reported are estimated values.
-- Parameters identified as "analyze immediately" require analysis within 15 minutes of collection. Any "analyze immediately" parameters not listed under the header "Field Parameters" are preformed in the laboratory and are therefore analyzed out of hold time.
-- Method references listed on this report beginning with the prefix “S” followed by a method number (such as S2310B-97) refer to methods from “Standard Methods for the Examination of Water and Wastewater”.
-- For microbiological analyses, the "Prepared" value is the date/time into the incubator and the "Analyzed" value is the date/time out the incubator.
-- An Analysis-Prep Method Cross Reference Table is included after Analytical Results & Qualifiers section in this report.

Standard Acronyms/Flags

J	Indicates an estimated value between the Method Detection Limit (MDL) and the Practical Quantitation Limit (PQL) for the analyte
U	Indicates that the analyte was Not Detected (ND)
N	Indicates presumptive evidence of the presence of a compound
MDL	Method Detection Limit
PQL	Practical Quantitation Limit
RDL	Reporting Detection Limit
ND	Not Detected - indicates that the analyte was Not Detected at the RDL
Cntr	Analysis was performed using this container
RegLmt	Regulatory Limit
LCS	Laboratory Control Sample
MS	Matrix Spike
MSD	Matrix Spike Duplicate
DUP	Sample Duplicate
%Rec	Percent Recovery
RPD	Relative Percent Difference
LOD	DoD Limit of Detection
LOQ	DoD Limit of Quantitation
DL	DoD Detection Limit
I	Indicates reported value is greater than or equal to the Method Detection Limit (MDL) but less than the Report Detection Limit (RDL)
(S)	Surrogate Compound
NC	Not Calculated
*	Result outside of QC limits

Sample Description

MSA-SW38A-090919

Form 3A
Matrix Spike and Matrix Spike Duplicate Recovery Summary

Analysis Method: EPA 218.6
Matrix (soil/water): Water

SDG No.: TLG043
Units: ug/L
Lab Sample ID: 3056655005
Lab MS Sample ID: 3009626
Lab MSD Sample ID: 3009627

Analyte	Spike Added	Sample Concentration	MS Concentration	MS Recovery (%)	(1)	Acceptable Limits (%)
Hexavalent Chromium	5	0.0	5.1	103		90 - 110

Analyte	Spike Added	MSD Concentration	MSD Recovery (%)	(1)	Acceptable Limits (%)	RPD (%)	(1)	Acc. Lim. (%)
Hexavalent Chromium	5	5.2	104		90 - 110	1.1		20

(1) The following qualifiers are used:

* : Values outside of acceptable limits
D : Spikes diluted out

Comments:

Sample Description

MSA-SW39A-090919

Form 3A
Matrix Spike and Matrix Spike Duplicate Recovery Summary

Analysis Method: EPA 218.6
Matrix (soil/water): Water

SDG No.: TLG043
Units: ug/L
Lab Sample ID: 3056655009
Lab MS Sample ID: 3009616
Lab MSD Sample ID: 3009617

Analyte	Spike Added	Sample Concentration	MS Concentration	MS Recovery (%)	(1)	Acceptable Limits (%)
Hexavalent Chromium	5	0.0	4.7	94.3		90 - 110

Analyte	Spike Added	MSD Concentration	MSD Recovery (%)	(1)	Acceptable Limits (%)	RPD (%)	(1)	Acc. Lim. (%)
Hexavalent Chromium	5	4.8	96.1		90 - 110	1.95		20

(1) The following qualifiers are used:

* : Values outside of acceptable limits
D : Spikes diluted out

Comments:

Sample Description

MSA-SW41D-090919

Form 3A
Matrix Spike and Matrix Spike Duplicate Recovery Summary

Analysis Method: EPA 218.6
Matrix (soil/water): Water

SDG No.: TLG043
Units: ug/L
Lab Sample ID: 3056655020
Lab MS Sample ID: 3009620
Lab MSD Sample ID: 3009621

Analyte	Spike Added	Sample Concentration	MS Concentration	MS Recovery (%)	(1)	Acceptable Limits (%)
Hexavalent Chromium	5	0.0	5.1	102		90 - 110

Analyte	Spike Added	MSD Concentration	MSD Recovery (%)	(1)	Acceptable Limits (%)	RPD (%)	(1)	Acc. Lim. (%)
Hexavalent Chromium	5	5.2	104		90 - 110	2.02		20

(1) The following qualifiers are used:

* : Values outside of acceptable limits
D : Spikes diluted out

Comments:

Sample Description

MSA-SW42C-090919

Form 3A
Matrix Spike and Matrix Spike Duplicate Recovery Summary

Analysis Method: EPA 218.6
Matrix (soil/water): Water

SDG No.: TLG043
Units: ug/L
Lab Sample ID: 3056655023
Lab MS Sample ID: 3009630
Lab MSD Sample ID: 3009631

Analyte	Spike Added	Sample Concentration	MS Concentration	MS Recovery (%)	(1)	Acceptable Limits (%)
Hexavalent Chromium	5	0.0	5.2	104		90 - 110

Analyte	Spike Added	MSD Concentration	MSD Recovery (%)	(1)	Acceptable Limits (%)	RPD (%)	(1)	Acc. Lim. (%)
Hexavalent Chromium	5	5.3	105		90 - 110	1.17		20

(1) The following qualifiers are used:

* : Values outside of acceptable limits
D : Spikes diluted out

Comments:

Form 4B
Inorganic Blank Summary

Analysis Method: EPA 218.6
Instrument: IC-4

SDG No.: TLG043

Sample ID	Analyte	Type	Matrix	Analyzed	Result	Q (1)	Units
3009612	Hexavalent Chromium	MB	QC-Water	09/10/2019 04:18	0.25	U	ug/L
3009619	Hexavalent Chromium	MB	QC-Water	09/10/2019 06:27	0.25	U	ug/L
3009622	Hexavalent Chromium	MB	QC-Water	09/10/2019 23:31	0.25	U	ug/L
3009629	Hexavalent Chromium	MB	QC-Water	09/11/2019 02:04	0.25	U	ug/L
3009633	Hexavalent Chromium	MB	QC-Water	09/11/2019 03:20	0.25	U	ug/L

(1) The following qualifiers are used:

U: The analyte concentration is less than the reporting limit listed
J: The analyte concentration is less than the reporting limit but greater than the method detection limit

Comments:

Form 6B
Inorganic Initial and Continuing Calibration Verification Summary

Analysis Method: EPA 218.6 SDG No. TLG043

Instrument ID: IC-4 Units: ug/L

Sample ID	Analyte	Type	Analyzed	True Conc.	Conc. Recovered	Recovery (%)	(1)	Acc. Limit (%)
3009618	Hexavalent Chromium	CCVH	09/10/2019 06:20	20	20.1	101		90 - 110
3009624	Hexavalent Chromium	CCVL	09/10/2019 23:48	5	5.1	103		90 - 110
3009628	Hexavalent Chromium	CCVH	09/11/2019 01:56	20	20.8	104		90 - 110
3009632	Hexavalent Chromium	CCVL	09/11/2019 03:13	5	5.1	102		90 - 110

(1) The following qualifiers are used:
* : Values outside of acceptable limits

Comments:

Form 8B
Laboratory Control Sample (LCS) Recovery Summary

Analysis Method: EPA 218.6 SDG No.: TLG043

Matrix (soil/water): QC-Water Instrument ID: IC-4

Units: ug/L

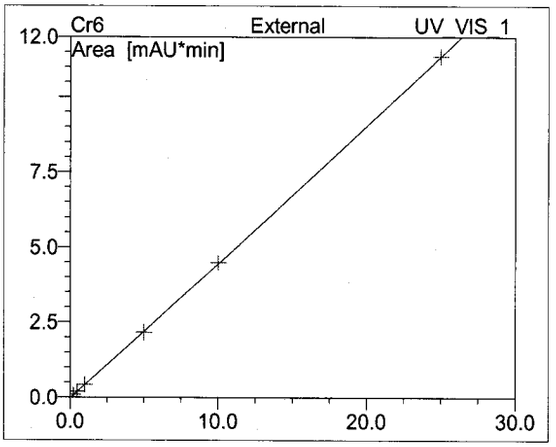
Sample ID	Analyte	Type	Analyzed	True Conc.	Conc. Recovered	Recovery (%)	(1)	Acc. Limit (%)
3009613	Hexavalent Chromium	MRL	09/10/2019 04:26	0.25	0.23	92.8		50 - 150
3009615	Hexavalent Chromium	LCS	09/10/2019 04:41	10	10.1	101		90 - 110
3009623	Hexavalent Chromium	MRL	09/10/2019 23:41	0.25	0.27	107		50 - 150
3009625	Hexavalent Chromium	LCS	09/10/2019 23:56	10	10.2	102		90 - 110

(1) The following qualifiers are used:
* : Values outside of acceptable limits

Comments:

Calibration Batch Report

Sequence:	**4-091019**	Instrument:	**IC-4**
Instrument Method:	**cr+6 AS40**	InitialCal:	**091019**
Ini. Date/Time:	**09/10/19 04:26**	Method:	**218_6_091019**



No.	Ret.Time min	Peak Name	Cal.Type	Points	Offset (C0)	Slope (C1)	Curve (C2)	Coeff.Det. %
1	3.66	Cr6	0QOff	6	-0.023	0.443	0.000	99.9970
AVERAGE:					-0.0230	0.4430	0.0005	99.9970

APPENDIX C—CHEMICAL-RESULTS DATA TABLE

Table C-1
FULL CHEMICAL RESULTS FOR FROG MORTAR CREEK SURFACE WATER SAMPLES (INCLUDING NONDETECTS)
SPETEMBER 2019 SAMPLING ROUND
LOCKHEED MARTIN MIDDLE RIVER COMPLEX, MIDDLE RIVER, MARYLAND

LOCATION	**EL-SW01A**	**EL-SW01B**	**EL-SW01C**	**EL-SW01D**
SAMPLE ID	**EL-SW01A-090919**	**EL-SW01B-090919**	**EL-SW01C-090919**	**EL-SW01D-090919**
SAMPLE DATE	**20190909**	**20190909**	**20190909**	**20190909**
VOLATILES (UG/L)				
1,1,1,2-TETRACHLOROETHANE	0.14 U	0.14 U	0.14 U	0.14 U
1,1,1-TRICHLOROETHANE	0.24 U	0.24 U	0.24 U	0.24 U
1,1,2,2-TETRACHLOROETHANE	0.13 U	0.13 U	0.13 U	0.13 U
1,1,2-TRICHLOROTRIFLUOROETHANE	0.41 U	0.41 U	0.41 U	0.41 U
1,1-DICHLOROETHANE	0.17 U	0.17 U	0.17 U	0.17 U
1,1-DICHLOROETHENE	0.19 U	0.19 U	0.19 U	0.19 U
1,1-DICHLOROPROPENE	0.14 U	0.14 U	0.14 U	0.14 U
1,2,3-TRICHLOROBENZENE	0.54 UJ	0.54 UJ	0.54 UJ	0.54 UJ
1,2,3-TRICHLOROPROPANE	0.24 U	0.24 U	0.24 U	0.24 U
1,2,3-TRIMETHYLBENZENE	0.14 U	0.14 U	0.14 U	0.14 U
1,2,4-TRICHLOROBENZENE	0.26 UJ	0.26 UJ	0.26 UJ	0.26 UJ
1,2,4-TRIMETHYLBENZENE	0.07 U	0.07 U	0.07 U	0.07 U
1,2-DIBROMO-3-CHLOROPROPANE	0.91 U	0.91 U	0.91 U	0.91 U
1,2-DIBROMOETHANE	0.12 U	0.12 U	0.12 U	0.12 U
1,2-DICHLOROBENZENE	0.15 U	0.15 U	0.15 U	0.15 U
1,2-DICHLOROETHANE	0.21 U	0.21 U	0.21 U	0.21 U
1,2-DICHLOROPROPANE	0.15 U	0.15 U	0.15 U	0.15 U
1,3-DICHLOROBENZENE	0.15 U	0.15 U	0.15 U	0.15 U
1,3-DICHLOROPROPANE	0.21 U	0.21 U	0.21 U	0.21 U
1,4-DICHLOROBENZENE	0.16 U	0.16 U	0.16 U	0.16 U
2,2-DICHLOROPROPANE	0.31 U	0.31 U	0.31 U	0.31 U
2-BUTANONE	1.2 U	1.2 U	1.2 U	1.2 U

Table C-1
FULL CHEMICAL RESULTS FOR FROG MORTAR CREEK SURFACE WATER SAMPLES (INCLUDING NONDETECTS)
SPETEMBER 2019 SAMPLING ROUND
LOCKHEED MARTIN MIDDLE RIVER COMPLEX, MIDDLE RIVER, MARYLAND

2-CHLOROETHYL VINYL ETHER	0.26 UR	0.26 UR	0.26 UR	0.26 UR
2-CHLOROTOLUENE	0.15 U	0.15 U	0.15 U	0.15 U
2-HEXANONE	0.54 U	0.54 U	0.54 U	0.54 U
4-CHLOROTOLUENE	0.09 U	0.09 U	0.09 U	0.09 U
4-ISOPROPYLTOLUENE	0.13 U	0.13 U	0.13 U	0.13 U
4-METHYL-2-PENTANONE	0.42 U	0.42 U	0.42 U	0.42 U
ACETONE	5.4 U	5.4 U	5.4 U	5.4 U
BENZENE	0.13 U	0.13 U	0.13 U	0.13 U
BROMOBENZENE	0.12 U	0.12 U	0.12 U	0.12 U
BROMOCHLOROMETHANE	0.14 U	0.14 U	0.14 U	0.14 U
BROMODICHLOROMETHANE	0.17 U	0.17 U	0.17 U	0.17 U
BROMOFORM	0.76 U	0.76 U	0.76 U	0.76 U
BROMOMETHANE	0.42 U	0.42 U	0.42 U	0.42 U
CARBON DISULFIDE	0.43 J	0.28 U	0.28 U	0.28 U
CARBON TETRACHLORIDE	0.26 U	0.26 U	0.26 U	0.26 U
CHLOROBENZENE	0.14 U	0.14 U	0.14 U	0.14 U
CHLORODIBROMOMETHANE	0.39 U	0.39 U	0.39 U	0.39 U
CHLORODIFLUOROMETHANE	1 UJ	1 UJ	1 UJ	1 UJ
CHLOROETHANE	0.83 U	0.83 U	0.83 U	0.83 U
CHLOROFORM	0.13 U	0.13 U	0.13 U	0.13 U
CHLOROMETHANE	0.2 U	0.2 U	0.2 U	0.2 U
CIS-1,2-DICHLOROETHENE	0.16 U	0.16 U	0.16 U	0.16 U
CIS-1,3-DICHLOROPROPENE	0.61 U	0.61 U	0.61 U	0.61 U
DIBROMOMETHANE	0.09 U	0.09 U	0.09 U	0.09 U
DICHLORODIFLUOROMETHANE	0.35 U	0.35 U	0.35 U	0.35 U
DIISOPROPYL ETHER	0.17 U	0.17 U	0.17 U	0.17 U
ETHYL TERT-BUTYL ETHER	0.15 U	0.15 U	0.15 U	0.15 U
ETHYLBENZENE	0.11 U	0.11 U	0.11 U	0.11 U

Table C-1
FULL CHEMICAL RESULTS FOR FROG MORTAR CREEK SURFACE WATER SAMPLES (INCLUDING NONDETECTS)
SPETEMBER 2019 SAMPLING ROUND
LOCKHEED MARTIN MIDDLE RIVER COMPLEX, MIDDLE RIVER, MARYLAND

HEXACHLOROBUTADIENE	0.83 UJ	0.83 UJ	0.83 UJ	0.83 UJ
ISOPROPYLBENZENE	0.09 U	0.09 U	0.09 U	0.09 U
M+P-XYLENES	0.08 U	0.08 U	0.08 U	0.08 U
METHYL TERT-BUTYL ETHER	0.07 U	0.07 U	0.07 U	0.07 U
METHYLENE CHLORIDE	2.6 U	2.6 U	2.6 U	2.6 U
NAPHTHALENE	0.32 U	0.32 U	0.32 U	0.32 U
N-BUTYLBENZENE	0.14 U	0.14 U	0.14 U	0.14 U
N-PROPYLBENZENE	0.15 U	0.15 U	0.15 U	0.15 U
O-XYLENE	0.09 U	0.09 U	0.09 U	0.09 U
SEC-BUTYLBENZENE	0.13 U	0.13 U	0.13 U	0.13 U
STYRENE	0.1 U	0.1 U	0.1 U	0.1 U
TERT-AMYL METHYL ETHER	0.11 U	0.11 U	0.11 U	0.11 U
TERT-BUTYLBENZENE	0.14 U	0.14 U	0.14 U	0.14 U
TERTIARY-BUTYL ALCOHOL	1.7 U	1.7 U	1.7 U	1.7 U
TETRACHLOROETHENE	0.15 U	0.15 U	0.15 U	0.15 U
TOLUENE	0.14 U	0.14 U	0.14 U	0.14 U
TOTAL XYLENES	0.15 U	0.15 U	0.15 U	0.15 U
TRANS-1,2-DICHLOROETHENE	0.19 U	0.19 U	0.19 U	0.19 U
TRANS-1,3-DICHLOROPROPENE	0.67 U	0.67 U	0.67 U	0.67 U
TRICHLOROETHENE	0.1 U	0.1 U	0.1 U	0.1 U
TRICHLOROFLUOROMETHANE	0.45 U	0.45 U	0.45 U	0.45 U
VINYL ACETATE	0.19 U	0.19 U	0.19 U	0.19 U
VINYL CHLORIDE	0.2 U	0.2 U	0.2 U	0.2 U
DISSOLVED METALS (UG/L)				
ANTIMONY	--	--	--	--
ARSENIC	--	--	--	--
BARIUM	--	--	--	--
BERYLLIUM	--	--	--	--

Table C-1
FULL CHEMICAL RESULTS FOR FROG MORTAR CREEK SURFACE WATER SAMPLES (INCLUDING NONDETECTS)
SPETEMBER 2019 SAMPLING ROUND
LOCKHEED MARTIN MIDDLE RIVER COMPLEX, MIDDLE RIVER, MARYLAND

CADMIUM	--	--	--	--
CHROMIUM	--	--	--	--
COBALT	--	--	--	--
COPPER	--	--	--	--
LEAD	--	--	--	--
MERCURY	--	--	--	--
MOLYBDENUM	--	--	--	--
NICKEL	--	--	--	--
SELENIUM	--	--	--	--
SILVER	--	--	--	--
THALLIUM	--	--	--	--
TUNGSTEN	--	--	--	--
VANADIUM	--	--	--	--
ZINC	--	--	--	--
MISCELLANEOUS PARAMETERS (MG/L)				
CALCIUM HARDNESS AS CACO3	--	--	--	--
DISSOLVED ORGANIC CARBON	--	--	--	--
HARDNESS AS CACO3	--	--	--	--
MAGNESIUM HARDNESS AS CACO3	--	--	--	--
MISCELLANEOUS PARAMETERS (UG/L)				
HEXAVALENT CHROMIUM	--	--	--	--

Table C-1
FULL CHEMICAL RESULTS FOR FROG MORTAR CREEK SURFACE WATER SAMPLES (INCLUDING NONDETECTS)
SPETEMBER 2019 SAMPLING ROUND
LOCKHEED MARTIN MIDDLE RIVER COMPLEX, MIDDLE RIVER, MARYLAND

MSA-SW37A MSA-SW37A-090919 20190909	MSA-SW37B MSA-SW37B-090919 20190909	MSA-SW37C MSA-SW37C-090919 20190909	MSA-SW37D MSA-SW37D-090919 20190909	MSA-SW38A MSA-SW38A-090919 20190909	MSA-SW38B MSA-SW38B-090919 20190909	MSA-SW38C MSA-SW38C-090919 20190909
0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U
0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U
0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U
0.41 U	0.41 U	0.41 U	0.41 U	0.41 U	0.41 U	0.41 U
0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U
0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U
0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U
0.54 UJ	0.54 UJ	0.54 UJ	0.54 UJ	0.54 UJ	0.54 UJ	0.54 UJ
0.24 UJ	0.24 UJ	0.24 UJ	0.24 UJ	0.24 UJ	0.24 UJ	0.24 UJ
0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U
0.26 UJ	0.26 UJ	0.26 UJ	0.26 UJ	0.26 UJ	0.26 UJ	0.26 UJ
0.07 U	0.07 U	0.07 U	0.07 U	0.07 U	0.07 U	0.07 U
0.91 U	0.91 U	0.91 U	0.91 U	0.91 U	0.91 U	0.91 U
0.12 U	0.12 U	0.12 U	0.12 U	0.12 U	0.12 U	0.12 U
0.15 U	0.15 U	0.15 U	0.15 U	0.15 U	0.15 U	0.15 U
0.21 U	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U
0.15 U	0.15 U	0.15 U	0.15 U	0.15 U	0.15 U	0.15 U
0.15 U	0.15 U	0.15 U	0.15 U	0.15 U	0.15 U	0.15 U
0.21 U	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U
0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U
0.31 U	0.31 U	0.31 U	0.31 U	0.31 U	0.31 U	0.31 U
1.2 U	1.2 U	1.2 U	1.2 U	1.2 U	1.2 U	1.2 U

0.26 UR	0.26 UR	0.26 UR	0.26 UR	0.26 UR	0.26 UR	0.26 UR
0.15 U	0.15 U	0.15 U	0.15 U	0.15 U	0.15 U	0.15 U
0.54 U	0.54 U	0.54 U	0.54 U	0.54 U	0.54 U	0.54 U
0.09 U	0.09 U	0.09 U	0.09 U	0.09 U	0.09 U	0.09 U
0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U
0.42 U	0.42 U	0.42 U	0.42 U	0.42 U	0.42 U	0.42 U
5.4 UJ	5.4 UJ	5.4 UJ	5.4 UJ	5.4 UJ	5.4 UJ	5.4 UJ
0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U
0.12 U	0.12 U	0.12 U	0.12 U	0.12 U	0.12 U	0.12 U
0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U
0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U
0.76 U	0.76 U	0.76 U	0.76 U	0.76 U	0.76 U	0.76 U
0.42 U	0.42 U	0.42 U	0.42 U	0.42 U	0.42 U	0.42 U
0.28 U	0.28 U	0.28 U	0.28 U	0.28 U	0.28 U	0.28 U
0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U
0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U
0.39 U	0.39 U	0.39 U	0.39 U	0.39 U	0.39 U	0.39 U
1 UJ	1 UJ	1 UJ	1 UJ	1 UJ	1 UJ	1 UJ
0.83 U	0.83 U	0.83 U	0.83 U	0.83 U	0.83 U	0.83 U
0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U
0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U
0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U
0.61 U	0.61 U	0.61 U	0.61 U	0.61 U	0.61 U	0.61 U
0.09 U	0.09 U	0.09 U	0.09 U	0.09 U	0.09 U	0.09 U
0.35 U	0.35 U	0.35 U	0.35 U	0.35 U	0.35 U	0.35 U
0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U
0.15 U	0.15 U	0.15 U	0.15 U	0.15 U	0.15 U	0.15 U
0.11 U	0.11 U	0.11 U	0.11 U	0.11 U	0.11 U	0.11 U

Table C-1
FULL CHEMICAL RESULTS FOR FROG MORTAR CREEK SURFACE WATER SAMPLES (INCLUDING NONDETECTS)
SPETEMBER 2019 SAMPLING ROUND
LOCKHEED MARTIN MIDDLE RIVER COMPLEX, MIDDLE RIVER, MARYLAND

0.83 UJ	0.83 UJ	0.83 UJ	0.83 UJ	0.83 UJ	0.83 UJ	0.83 UJ
0.09 U	0.09 U	0.09 U	0.09 U	0.09 U	0.09 U	0.09 U
0.08 U	0.08 U	0.08 U	0.08 U	0.08 U	0.08 U	0.08 U
0.07 U	0.07 U	0.07 U	0.07 U	0.07 U	0.07 U	0.07 U
2.6 U	2.6 U	2.6 U	2.6 U	2.6 U	2.6 U	2.6 U
0.32 U	0.32 U	0.32 U	0.32 U	0.32 U	0.32 U	0.32 U
0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U
0.15 U	0.15 U	0.15 U	0.15 U	0.15 U	0.15 U	0.15 U
0.09 U	0.09 U	0.09 U	0.09 U	0.09 U	0.09 U	0.09 U
0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U
0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
0.11 U	0.11 U	0.11 U	0.11 U	0.11 U	0.11 U	0.11 U
0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U
1.7 UJ	1.7 UJ	1.7 UJ	1.7 UJ	1.7 UJ	2.1 J	1.7 UJ
0.15 U	0.15 U	0.15 U	0.15 U	0.15 U	0.15 U	0.15 U
0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U
0.15 U	0.15 U	0.15 U	0.15 U	0.15 U	0.15 U	0.15 U
0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U
0.67 U	0.67 U	0.67 U	0.67 U	0.67 U	0.67 U	0.67 U
0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
0.45 U	0.45 U	0.45 U	0.45 U	0.45 U	0.45 U	0.45 U
0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U
0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U
0.57 U	0.61 J	0.57 U	0.57 U	0.57 U	0.57 U	0.57 U
2.3 J	2.5 J	2.3 J	1.9 J	1.7 J	2.5 J	2 J
35	35	34	35	35	35	35
0.59 J	0.89 J	0.36 J	0.31 U	0.31 U	0.31 U	0.31 U

Table C-1
FULL CHEMICAL RESULTS FOR FROG MORTAR CREEK SURFACE WATER SAMPLES (INCLUDING NONDETECTS)
SPETEMBER 2019 SAMPLING ROUND
LOCKHEED MARTIN MIDDLE RIVER COMPLEX, MIDDLE RIVER, MARYLAND

0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U
0.98 U	0.98 U	0.98 U	0.98 U	0.98 U	0.98 U	0.98 U
0.3 J	0.28 J	0.32 J	0.26 J	0.24 J	0.23 J	0.23 J
5.2	6.1	6.2	5.9	3.9	4.6	4.2
0.45 U	0.45 U	0.45 U	0.45 U	0.45 U	0.45 U	0.45 U
0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U
1.9 J	2 J	1.4 J	1.3 J	1.1 J	1.2 J	1.2 J
2.1	2.2	2.1	1.9 J	2	2.1	2
1.2 J	1 J	0.89 U	0.89 U	0.89 U	0.89 U	0.89 U
0.053 U	0.053 U	0.053 U	0.053 U	0.053 U	0.053 U	0.053 U
0.39 J	0.44 J	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U
1.8 U	1.8 U	1.8 U	1.8 U	1.8 U	1.8 U	1.8 U
0.82 U	0.82 U	0.82 U	0.82 U	0.82 U	0.82 U	0.82 U
15 U	15 U	15 U	15 U	15 U	15 U	15 U
77	77	76	78	76	76	76
--	2.4	--	--	--	2.3	--
440	440	430	440	440	440	440
360	360	360	370	360	360	360
0.047 UJ	0.047 UJ	0.047 UJ	0.047 UJ	0.047 UJ	0.047 UJ	0.047 UJ

Table C-1
FULL CHEMICAL RESULTS FOR FROG MORTAR CREEK SURFACE WATER SAMPLES (INCLUDING NONDETECTS)
SPETEMBER 2019 SAMPLING ROUND
LOCKHEED MARTIN MIDDLE RIVER COMPLEX, MIDDLE RIVER, MARYLAND

MSA-SW38D MSA-SW38D-090919 20190909	MSA-SW39A MSA-SW39A-090919 20190909	MSA-SW39B MSA-SW39B-090919 20190909	MSA-SW39C MSA-SW39C-090919 20190909	MSA-SW39D MSA-SW39D-090919 20190909	MSA-SW40A MSA-SW40A-090919 20190909	MSA-SW40B MSA-SW40B-090919 20190909
0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U
0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U
0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U
0.41 U	0.41 U	0.41 U	0.41 U	0.41 U	0.41 U	0.41 U
0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U
0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U
0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U
0.54 UJ	0.54 UJ	0.54 UJ	0.54 UJ	0.54 UJ	0.54 UJ	0.54 UJ
0.24 UJ	0.24 UJ	0.24 UJ	0.24 UJ	0.24 UJ	0.24 UJ	0.24 UJ
0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U
0.26 UJ	0.26 UJ	0.26 UJ	0.26 UJ	0.26 UJ	0.26 UJ	0.26 UJ
0.07 U	0.07 U	0.07 U	0.07 U	0.07 U	0.07 U	0.07 U
0.91 U	0.91 U	0.91 U	0.91 U	0.91 U	0.91 U	0.91 U
0.12 U	0.12 U	0.12 U	0.12 U	0.12 U	0.12 U	0.12 U
0.15 U	0.15 U	0.15 U	0.15 U	0.15 U	0.15 U	0.15 U
0.21 U	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U
0.15 U	0.15 U	0.15 U	0.15 U	0.15 U	0.15 U	0.15 U
0.15 U	0.15 U	0.15 U	0.15 U	0.15 U	0.15 U	0.15 U
0.21 U	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U
0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U
0.31 U	0.31 U	0.31 U	0.31 U	0.31 U	0.31 U	0.31 U
1.2 U	1.2 U	1.2 U	1.2 U	1.2 U	1.2 U	1.2 U

0.26 UR	0.26 UR	0.26 UR	0.26 UR	0.26 UR	0.26 UR	0.26 UR
0.15 U	0.15 U	0.15 U	0.15 U	0.15 U	0.15 U	0.15 U
0.54 U	0.54 U	0.54 U	0.54 U	0.54 U	0.54 U	0.54 U
0.09 U	0.09 U	0.09 U	0.09 U	0.09 U	0.09 U	0.09 U
0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U
0.42 U	0.42 U	0.42 U	0.42 U	0.42 U	0.42 U	0.42 U
5.4 UJ	5.4 UJ	5.4 UJ	5.4 UJ	5.4 UJ	5.4 UJ	5.4 UJ
0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U
0.12 U	0.12 U	0.12 U	0.12 U	0.12 U	0.12 U	0.12 U
0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U
0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U
0.76 U	0.76 U	0.76 U	0.76 U	0.76 U	0.76 U	0.76 U
0.42 U	0.42 U	0.42 U	0.42 U	0.42 U	0.42 U	0.42 U
0.28 U	0.28 U	0.28 U	0.28 U	0.28 U	0.28 U	0.28 U
0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U
0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U
0.39 U	0.39 U	0.39 U	0.39 U	0.39 U	0.39 U	0.39 U
1 UJ	1 UJ	1 UJ	1 UJ	1 UJ	1 UJ	1 UJ
0.83 U	0.83 U	0.83 U	0.83 U	0.83 U	0.83 U	0.83 U
0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U
0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U
0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U
0.61 U	0.61 U	0.61 U	0.61 U	0.61 U	0.61 U	0.61 U
0.09 U	0.09 U	0.09 U	0.09 U	0.09 U	0.09 U	0.09 U
0.35 U	0.35 U	0.35 U	0.35 U	0.35 U	0.35 U	0.35 U
0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U
0.15 U	0.15 U	0.15 U	0.15 U	0.15 U	0.15 U	0.15 U
0.11 U	0.11 U	0.11 U	0.11 U	0.11 U	0.11 U	0.11 U

Table C-1
FULL CHEMICAL RESULTS FOR FROG MORTAR CREEK SURFACE WATER SAMPLES (INCLUDING NONDETECTS)
SPETEMBER 2019 SAMPLING ROUND
LOCKHEED MARTIN MIDDLE RIVER COMPLEX, MIDDLE RIVER, MARYLAND

0.83 UJ	0.83 UJ	0.83 UJ	0.83 UJ	0.83 UJ	0.83 UJ	0.83 UJ
0.09 U	0.09 U	0.09 U	0.09 U	0.09 U	0.09 U	0.09 U
0.08 U	0.08 U	0.08 U	0.08 U	0.08 U	0.08 U	0.08 U
0.07 U	0.07 U	0.07 U	0.07 U	0.07 U	0.07 U	0.07 U
2.6 U	2.6 U	2.6 U	2.6 U	2.6 U	2.6 U	2.6 U
0.32 U	0.32 U	0.32 U	0.32 U	0.32 U	0.32 U	0.32 U
0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U
0.15 U	0.15 U	0.15 U	0.15 U	0.15 U	0.15 U	0.15 U
0.09 U	0.09 U	0.09 U	0.09 U	0.09 U	0.09 U	0.09 U
0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U
0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
0.11 U	0.11 U	0.11 U	0.11 U	0.11 U	0.11 U	0.11 U
0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U
1.7 UJ	2.7 J	1.7 UJ	1.7 UJ	1.7 UJ	1.7 UJ	1.7 UJ
0.15 U	0.15 U	0.15 U	0.15 U	0.15 U	0.15 U	0.15 U
0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U
0.15 U	0.15 U	0.15 U	0.15 U	0.15 U	0.15 U	0.15 U
0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U
0.67 U	0.67 U	0.67 U	0.67 U	0.67 U	0.67 U	0.67 U
0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
0.45 U	0.45 U	0.45 U	0.45 U	0.45 U	0.45 U	0.45 U
0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U
0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U
0.57 U	0.57 U	0.57 U	0.57 U	0.57 U	0.57 U	0.57 U
1.8 J	1.9 J	1.3 J	1.7 J	2 J	2.1 J	1.9 J
35	35	36	36	34	37	36
0.31 U	0.31 U	0.31 U	0.31 U	0.31 U	0.31 U	0.31 U

Table C-1
FULL CHEMICAL RESULTS FOR FROG MORTAR CREEK SURFACE WATER SAMPLES (INCLUDING NONDETECTS)
SPETEMBER 2019 SAMPLING ROUND
LOCKHEED MARTIN MIDDLE RIVER COMPLEX, MIDDLE RIVER, MARYLAND

0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U
0.98 U	0.98 U	0.98 U	0.98 U	0.98 U	0.98 U	0.98 U
0.21 J	0.19 U	0.19 U	0.19 U	0.19 U	0.27 J	0.26 J
4.2	3.4	3.7	3.9	4.6	4.3	4.7
0.45 U	0.45 U	0.45 U	0.45 U	0.45 U	0.45 U	0.45 U
0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U
1.2 J	1.1 J	1.2 J	1.2 J	1.1 J	1.2 J	1.2 J
2	2	2	2.3	1.9 J	2	2.2
0.89 U	0.89 U	0.89 U	0.89 U	0.89 U	0.89 U	0.89 U
0.053 U	0.053 U	0.053 U	0.053 U	0.053 U	0.053 U	0.053 U
0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U
1.8 U	1.8 U	1.8 U	1.8 U	1.8 U	1.8 U	1.8 U
0.82 U	0.82 U	0.82 U	0.82 U	0.82 U	0.82 U	0.82 U
15 U	15 U	15 U	15 U	15 U	15 U	15 U
75	77	81	81	77	78	78
--	--	2.2	--	--	--	2.3
430	450	470	460	450	450	450
360	370	390	380	370	370	370
0.047 UJ	0.047 U	0.047 U	0.047 U	0.047 U	0.047 UJ	0.047 UJ

Table C-1
FULL CHEMICAL RESULTS FOR FROG MORTAR CREEK SURFACE WATER SAMPLES (INCLUDING NONDETECTS)
SPETEMBER 2019 SAMPLING ROUND
LOCKHEED MARTIN MIDDLE RIVER COMPLEX, MIDDLE RIVER, MARYLAND

MSA-SW40C MSA-SW40C-090919 20190909	MSA-SW40D MSA-SW40D-090919 20190909	MSA-SW41A MSA-SW41A-090919 20190909	MSA-SW41B MSA-SW41B-090919 20190909	MSA-SW41C MSA-SW41C-090919 20190909	MSA-SW41D MSA-SW41D-090919 20190909	MSA-SW42A MSA-SW42A-090919 20190909
0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U
0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U
0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U
0.41 U	0.41 U	0.41 U	0.41 U	0.41 U	0.41 U	0.41 U
0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U
0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U
0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U
0.54 UJ	0.54 UJ	0.54 UJ	0.54 UJ	0.54 UJ	0.54 UJ	0.54 UJ
0.24 UJ	0.24 UJ	0.24 UJ	0.24 UJ	0.24 UJ	0.24 UJ	0.24 U
0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U
0.26 UJ	0.26 UJ	0.26 UJ	0.26 UJ	0.26 UJ	0.26 UJ	0.26 UJ
0.07 U	0.07 U	0.07 U	0.07 U	0.07 U	0.07 U	0.07 U
0.91 U	0.91 U	0.91 U	0.91 U	0.91 U	0.91 U	0.91 U
0.12 U	0.12 U	0.12 U	0.12 U	0.12 U	0.12 U	0.12 U
0.15 U	0.15 U	0.15 U	0.15 U	0.15 U	0.15 U	0.15 U
0.21 U	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U
0.15 U	0.15 U	0.15 U	0.15 U	0.15 U	0.15 U	0.15 U
0.15 U	0.15 U	0.15 U	0.15 U	0.15 U	0.15 U	0.15 U
0.21 U	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U
0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U
0.31 U	0.31 U	0.31 U	0.31 U	0.31 U	0.31 U	0.31 U
1.2 U	1.2 U	1.2 U	1.2 U	1.2 U	1.2 U	1.2 U

0.26 UR	0.26 UR	0.26 UR	0.26 UR	0.26 UR	0.26 UR	0.26 UR
0.15 U	0.15 U	0.15 U	0.15 U	0.15 U	0.15 U	0.15 U
0.54 U	0.54 U	0.54 U	0.54 U	0.54 U	0.54 U	0.54 U
0.09 U	0.09 U	0.09 U	0.09 U	0.09 U	0.09 U	0.09 U
0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U
0.42 U	0.42 U	0.42 U	0.42 U	0.42 U	0.42 U	0.42 U
5.4 UJ	5.4 UJ	5.4 UJ	5.4 UJ	5.4 UJ	5.4 UJ	5.4 U
0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U
0.12 U	0.12 U	0.12 U	0.12 U	0.12 U	0.12 U	0.12 U
0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U
0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U
0.76 U	0.76 U	0.76 U	0.76 U	0.76 U	0.76 U	0.76 U
0.42 U	0.42 U	0.42 U	0.42 U	0.42 U	0.42 U	0.42 U
0.28 U	0.28 U	0.28 U	0.28 U	0.28 U	0.28 U	0.28 U
0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U
0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U
0.39 U	0.39 U	0.39 U	0.39 U	0.39 U	0.39 U	0.39 U
1 UJ	1 UJ	1 UJ	1 UJ	1 UJ	1 UJ	1 UJ
0.83 U	0.83 U	0.83 U	0.83 U	0.83 U	0.83 U	0.83 U
0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U
0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U
0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U
0.61 U	0.61 U	0.61 U	0.61 U	0.61 U	0.61 U	0.61 U
0.09 U	0.09 U	0.09 U	0.09 U	0.09 U	0.09 U	0.09 U
0.35 U	0.35 U	0.35 U	0.35 U	0.35 U	0.35 U	0.35 U
0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U
0.15 U	0.15 U	0.15 U	0.15 U	0.15 U	0.15 U	0.15 U
0.11 U	0.11 U	0.11 U	0.11 U	0.11 U	0.11 U	0.11 U

Table C-1
FULL CHEMICAL RESULTS FOR FROG MORTAR CREEK SURFACE WATER SAMPLES (INCLUDING NONDETECTS)
SPETEMBER 2019 SAMPLING ROUND
LOCKHEED MARTIN MIDDLE RIVER COMPLEX, MIDDLE RIVER, MARYLAND

0.83 UJ	0.83 UJ	0.83 UJ	0.83 UJ	0.83 UJ	0.83 UJ	0.83 UJ
0.09 U	0.09 U	0.09 U	0.09 U	0.09 U	0.09 U	0.09 U
0.08 U	0.08 U	0.08 U	0.08 U	0.08 U	0.08 U	0.08 U
0.07 U	0.07 U	0.07 U	0.07 U	0.07 U	0.07 U	0.07 U
2.6 U	2.6 U	2.6 U	2.6 U	2.6 U	2.6 U	2.6 U
0.32 U	0.32 U	0.32 U	0.32 U	0.32 U	0.32 U	0.32 U
0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U
0.15 U	0.15 U	0.15 U	0.15 U	0.15 U	0.15 U	0.15 U
0.09 U	0.09 U	0.09 U	0.09 U	0.09 U	0.09 U	0.09 U
0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U
0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
0.11 U	0.11 U	0.11 U	0.11 U	0.11 U	0.11 U	0.11 U
0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U
1.7 UJ	1.7 UJ	1.7 UJ	1.7 UJ	1.7 UJ	1.7 UJ	1.7 U
0.15 U	0.15 U	0.15 U	0.15 U	0.15 U	0.15 U	0.15 U
0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U
0.15 U	0.15 U	0.15 U	0.15 U	0.15 U	0.15 U	0.15 U
0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U
0.67 U	0.67 U	0.67 U	0.67 U	0.67 U	0.67 U	0.67 U
0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
0.45 U	0.45 U	0.45 U	0.45 U	0.45 U	0.45 U	0.45 U
0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U
0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U
0.57 U	0.57 U	0.57 U	0.57 U	0.57 U	0.57 U	0.57 U
2.2 J	2.4 J	1.5 J	1.9 J	2 J	1.9 J	2.4 J
37	34	35	35	35	36	37
0.31 U	0.31 U	0.31 U	0.31 U	0.31 U	0.31 U	0.6 J

0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U
0.98 U	0.98 U	0.98 U	0.98 U	3.3	0.98 U	0.98 U
0.32 J	0.24 J	0.2 J	0.21 J	0.21 J	0.21 J	0.27 J
4.6	4.2	4.2	4.2	4.6	4.3	4.1
0.45 U	0.45 U	0.45 U	0.45 U	0.45 U	0.45 U	0.45 U
0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U
1.2 J	1.1 J	1.1 J	1.2 J	1.2 J	1.2 J	1.2 J
2	2	2	2.1	2.2	2	2
0.89 U	0.89 U	0.89 U	0.89 U	0.89 U	0.89 U	0.89 U
0.053 U	0.053 U	0.053 U	0.053 U	0.053 U	0.053 U	0.053 U
0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U
1.8 U	1.8 U	1.8 U	1.8 U	1.8 U	1.8 U	2 U
0.82 U	0.82 U	0.82 U	0.82 U	0.82 U	0.82 U	0.82 U
15 U	15 U	15 U	15 U	15 U	15 U	15 U
77	74	76	78	77	77	78
--	--	--	2.3	--	--	--
440	430	440	440	450	450	450
370	360	360	360	370	370	370
0.047 UJ	0.047 UJ	0.047 U	0.047 U	0.047 U	0.047 U	0.047 UJ

Table C-1
FULL CHEMICAL RESULTS FOR FROG MORTAR CREEK SURFACE WATER SAMPLES (INCLUDING NONDETECTS)
SPETEMBER 2019 SAMPLING ROUND
LOCKHEED MARTIN MIDDLE RIVER COMPLEX, MIDDLE RIVER, MARYLAND

MSA-SW42B MSA-SW42B-090919 20190909	MSA-SW42C MSA-SW42C-090919 20190909	MSA-SW42D MSA-SW42D-090919 20190909	MSA-SW43A MSA-SW43A-090919 20190909	MSA-SW43B MSA-SW43B-090919 20190909	MSA-SW43C MSA-SW43C-090919 20190909	MSA-SW43D MSA-SW43D-090919 20190909
0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U
0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U
0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U
0.41 U	0.41 U	0.41 U	0.41 U	0.41 U	0.41 U	0.41 U
0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U
0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U
0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U
0.54 UJ	0.54 UJ	0.54 UJ	0.54 UJ	0.54 UJ	0.54 UJ	0.54 UJ
0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U
0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U
0.26 UJ	0.26 UJ	0.26 UJ	0.26 UJ	0.26 UJ	0.26 UJ	0.26 UJ
0.07 U	0.07 U	0.07 U	0.07 U	0.07 U	0.07 U	0.07 U
0.91 U	0.91 U	0.91 U	0.91 U	0.91 U	0.91 U	0.91 U
0.12 U	0.12 U	0.12 U	0.12 U	0.12 U	0.12 U	0.12 U
0.15 U	0.15 U	0.15 U	0.15 U	0.15 U	0.15 U	0.15 U
0.21 U	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U
0.15 U	0.15 U	0.15 U	0.15 U	0.15 U	0.15 U	0.15 U
0.15 U	0.15 U	0.15 U	0.15 U	0.15 U	0.15 U	0.15 U
0.21 U	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U
0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U
0.31 U	0.31 U	0.31 U	0.31 U	0.31 U	0.31 U	0.31 U
1.2 U	1.2 U	1.2 U	1.2 U	1.2 U	1.2 U	1.2 U

0.26 UR	0.26 UR	0.26 UR	0.26 UR	0.26 UR	0.26 UR	0.26 UR
0.15 U	0.15 U	0.15 U	0.15 U	0.15 U	0.15 U	0.15 U
0.54 U	0.54 U	0.54 U	0.54 U	0.54 U	0.54 U	0.54 U
0.09 U	0.09 U	0.09 U	0.09 U	0.09 U	0.09 U	0.09 U
0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U
0.42 U	0.42 U	0.42 U	0.42 U	0.42 U	0.42 U	0.42 U
5.4 U	5.4 U	5.4 U	5.4 U	5.4 U	5.4 U	5.4 U
0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U
0.12 U	0.12 U	0.12 U	0.12 U	0.12 U	0.12 U	0.12 U
0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U
0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U
0.76 U	0.76 U	0.76 U	0.76 U	0.76 U	0.76 U	0.76 U
0.42 U	0.42 U	0.42 U	0.42 U	0.42 U	0.42 U	0.42 U
0.28 U	0.28 U	0.28 U	0.28 U	0.28 U	0.28 U	0.28 U
0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U
0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U
0.39 U	0.39 U	0.39 U	0.39 U	0.39 U	0.39 U	0.39 U
1 UJ	1 UJ	1 UJ	1 UJ	1 UJ	1 UJ	1 UJ
0.83 U	0.83 U	0.83 U	0.83 U	0.83 U	0.83 U	0.83 U
0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U
0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U
0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U
0.61 U	0.61 U	0.61 U	0.61 U	0.61 U	0.61 U	0.61 U
0.09 U	0.09 U	0.09 U	0.09 U	0.09 U	0.09 U	0.09 U
0.35 U	0.35 U	0.35 U	0.35 U	0.35 U	0.35 U	0.35 U
0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U
0.15 U	0.15 U	0.15 U	0.15 U	0.15 U	0.15 U	0.15 U
0.11 U	0.11 U	0.11 U	0.11 U	0.11 U	0.11 U	0.11 U

0.83 UJ	0.83 UJ	0.83 UJ	0.83 UJ	0.83 UJ	0.83 UJ	0.83 UJ
0.09 U	0.09 U	0.09 U	0.09 U	0.09 U	0.09 U	0.09 U
0.08 U	0.08 U	0.08 U	0.08 U	0.08 U	0.08 U	0.08 U
0.07 U	0.07 U	0.07 U	0.07 U	0.07 U	0.07 U	0.07 U
2.6 U	2.6 U	2.6 U	2.6 U	2.6 U	2.6 U	2.6 U
0.32 U	0.32 U	0.32 U	0.32 U	0.32 U	0.32 U	0.32 U
0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U
0.15 U	0.15 U	0.15 U	0.15 U	0.15 U	0.15 U	0.15 U
0.09 U	0.09 U	0.09 U	0.09 U	0.09 U	0.09 U	0.09 U
0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U
0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
0.11 U	0.11 U	0.11 U	0.11 U	0.11 U	0.11 U	0.11 U
0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U
1.7 U	1.7 U	1.7 U	2.3 J	1.7 U	1.7 U	3.3 J
0.15 U	0.15 U	0.15 U	0.15 U	0.15 U	0.15 U	0.15 U
0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U
0.15 U	0.15 U	0.15 U	0.15 U	0.15 U	0.15 U	0.15 U
0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U
0.67 U	0.67 U	0.67 U	0.67 U	0.67 U	0.67 U	0.67 U
0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
0.45 U	0.45 U	0.45 U	0.45 U	0.45 U	0.45 U	0.45 U
0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U
0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U
0.57 U	0.57 U	0.57 U	0.57 U	0.57 U	0.57 U	0.57 U
2.4 J	2 J	2.5 J	2 J	2.3 J	2.3 J	2.4 J
36	35	35	35	36	35	35
0.31 U	0.31 U	0.31 U	0.31 U	0.31 U	0.31 U	0.31 U

0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U
0.98 U	1.1 J	0.98 U	0.98 U	0.98 U	1.3 J	0.98 U
0.26 J	0.23 J	0.22 J	0.19 J	0.2 J	0.19 U	0.19 J
5	5.6	5.4	4.4	4.5	4.7	4.7
0.45 U	0.45 U	0.45 U	0.45 U	0.45 U	0.45 U	0.45 U
0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.15 J	0.15 J
1.2 J	1.1 J	1.1 J	1.2 J	1.1 J	1.2 J	1.1 J
2.1	2.1	2.2	2.1	2	2.1	2
0.89 U	0.89 U	0.89 U	0.89 U	0.89 U	0.89 U	0.89 U
0.053 U	0.053 U	0.053 U	0.053 U	0.053 U	0.053 U	0.053 U
0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U
1.8 U	1.8 U	1.8 U	1.8 U	1.8 U	1.8 U	1.8 U
0.82 U	0.82 U	0.82 U	0.82 U	0.82 U	0.82 U	0.82 U
15 U	15 U	15 U	15 U	15 U	15 U	15 U
78	76	76	76	78	78	77
2.5	--	--	--	2.3	--	--
440	430	440	440	450	450	440
370	360	360	360	370	370	360
0.047 UJ	0.047 UJ	0.047 UJ	0.047 U	0.047 U	0.047 U	0.047 U

Table C-1
FULL CHEMICAL RESULTS FOR FROG MORTAR CREEK SURFACE WATER SAMPLES (INCLUDING NONDETECTS)
SPETEMBER 2019 SAMPLING ROUND
LOCKHEED MARTIN MIDDLE RIVER COMPLEX, MIDDLE RIVER, MARYLAND

MSA-SW44A MSA-SW44A-090919 20190909	MSA-SW44B MSA-SW44B-090919 20190909	MSA-SW44C MSA-SW44C-090919 20190909	MSA-SW44D MSA-SW44D-090919 20190909	MSA-SW45A MSA-SW45A-090919 20190909	MSA-SW45B MSA-SW45B-090919 20190909	MSA-SW45C MSA-SW45C-090919 20190909
0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U
0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U
0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U
0.41 U	0.41 U	0.41 U	0.41 U	0.41 U	0.41 U	0.41 U
0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U
0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U
0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U
0.54 UJ	0.54 UJ	0.54 UJ	0.54 UJ	0.54 UJ	0.54 UJ	0.54 UJ
0.24 UJ	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U
0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U
0.26 UJ	0.26 UJ	0.26 UJ	0.26 UJ	0.26 UJ	0.26 UJ	0.26 UJ
0.07 U	0.07 U	0.07 U	0.07 U	0.07 U	0.07 U	0.07 U
0.91 U	0.91 U	0.91 U	0.91 U	0.91 U	0.91 U	0.91 U
0.12 U	0.12 U	0.12 U	0.12 U	0.12 U	0.12 U	0.12 U
0.15 U	0.15 U	0.15 U	0.15 U	0.15 U	0.15 U	0.15 U
0.21 U	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U
0.15 U	0.15 U	0.15 U	0.15 U	0.15 U	0.15 U	0.15 U
0.15 U	0.15 U	0.15 U	0.15 U	0.15 U	0.15 U	0.15 U
0.21 U	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U
0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U
0.31 U	0.31 U	0.31 U	0.31 U	0.31 U	0.31 U	0.31 U
1.2 U	1.2 U	1.2 U	1.2 U	1.2 U	1.2 U	1.2 U

0.26 UR	0.26 UR	0.26 UR	0.26 UR	0.26 UR	0.26 UR	0.26 UR
0.15 U	0.15 U	0.15 U	0.15 U	0.15 U	0.15 U	0.15 U
0.54 U	0.54 U	0.54 U	0.54 U	0.54 U	0.54 U	0.54 U
0.09 U	0.09 U	0.09 U	0.09 U	0.09 U	0.09 U	0.09 U
0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U
0.42 U	0.42 U	0.42 U	0.42 U	0.42 U	0.42 U	0.42 U
5.4 U	5.4 U	5.4 U	5.4 U	5.4 U	5.4 U	5.4 U
0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U
0.12 U	0.12 U	0.12 U	0.12 U	0.12 U	0.12 U	0.12 U
0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U
0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U
0.76 U	0.76 U	0.76 U	0.76 U	0.76 U	0.76 U	0.76 U
0.42 U	0.42 U	0.42 U	0.42 U	0.42 U	0.42 U	0.42 U
0.28 U	0.28 U	0.28 U	0.28 U	0.28 U	0.28 U	0.28 U
0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U
0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U
0.39 U	0.39 U	0.39 U	0.39 U	0.39 U	0.39 U	0.39 U
1 UJ	1 UJ	1 UJ	1 UJ	1 UJ	1 UJ	1 UJ
0.83 U	0.83 U	0.83 U	0.83 U	0.83 U	0.83 U	0.83 U
0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U
0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U
0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U
0.61 U	0.61 U	0.61 U	0.61 U	0.61 U	0.61 U	0.61 U
0.09 U	0.09 U	0.09 U	0.09 U	0.09 U	0.09 U	0.09 U
0.35 U	0.35 U	0.35 U	0.35 U	0.35 U	0.35 U	0.35 U
0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U
0.15 U	0.15 U	0.15 U	0.15 U	0.15 U	0.15 U	0.15 U
0.11 U	0.11 U	0.11 U	0.11 U	0.11 U	0.11 U	0.11 U

0.83 UJ	0.83 UJ	0.83 UJ	0.83 UJ	0.83 UJ	0.83 UJ	0.83 UJ
0.09 U	0.09 U	0.09 U	0.09 U	0.09 U	0.09 U	0.09 U
0.08 U	0.08 U	0.08 U	0.08 U	0.08 U	0.08 U	0.08 U
0.07 U	0.07 U	0.07 U	0.07 U	0.07 U	0.07 U	0.07 U
2.6 U	2.6 U	2.6 U	2.6 U	2.6 U	2.6 U	2.6 U
0.32 U	0.32 U	0.32 U	0.32 U	0.32 U	0.32 U	0.32 U
0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U
0.15 U	0.15 U	0.15 U	0.15 U	0.15 U	0.15 U	0.15 U
0.09 U	0.09 U	0.09 U	0.09 U	0.09 U	0.09 U	0.09 U
0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U
0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
0.11 U	0.11 U	0.11 U	0.11 U	0.11 U	0.11 U	0.11 U
0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U
1.7 UJ	1.8 J	1.7 U	1.7 J	1.7 U	2.3 J	1.7 U
0.15 U	0.15 U	0.15 U	0.15 U	0.15 U	0.15 U	0.15 U
0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U
0.15 U	0.15 U	0.15 U	0.15 U	0.15 U	0.15 U	0.15 U
0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U
0.67 U	0.67 U	0.67 U	0.67 U	0.67 U	0.67 U	0.67 U
0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
0.45 U	0.45 U	0.45 U	0.45 U	0.45 U	0.45 U	0.45 U
0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U
0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U
0.57 U	0.57 U	0.57 U	0.57 U	0.57 U	0.57 U	0.57 U
1.9 J	2 J	2 J	1.9 J	2 J	2.1 J	1.9 J
36	36	37	36	34	34	37
0.31 U	0.31 U	0.31 U	0.31 U	0.31 U	0.31 U	0.31 U

Table C-1
FULL CHEMICAL RESULTS FOR FROG MORTAR CREEK SURFACE WATER SAMPLES (INCLUDING NONDETECTS)
SPETEMBER 2019 SAMPLING ROUND
LOCKHEED MARTIN MIDDLE RIVER COMPLEX, MIDDLE RIVER, MARYLAND

0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U
1.3 J	1.5 J	0.98 U	0.98 U	0.98 U	0.98 U	0.98 U
0.2 J	0.19 U	0.19 U	0.19 U	0.19 U	0.19 J	0.19 U
4.9	4.8	4.9	4.9	3.9	4.9	5
0.45 U	0.45 U	0.45 U	0.45 U	0.45 U	0.45 U	0.45 U
0.18 J	0.13 J	0.13 J	0.13 U	0.13 U	0.13 U	0.13 U
1.3 J	1.2 J	1.2 J	1.2 J	1.1 J	1.1 J	1.2 J
2.8	2.1	2.1	2.1	1.9 J	2.1	2.1
0.89 U	0.89 U	0.89 U	0.89 U	0.89 U	0.89 U	0.89 U
0.053 U	0.053 U	0.053 U	0.053 U	0.053 U	0.053 U	0.053 U
0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U
1.8 U	1.8 U	1.8 U	1.8 U	1.8 U	1.8 U	1.8 U
0.82 U	0.82 U	0.82 U	0.82 U	0.82 U	0.82 U	0.82 U
15 U	15 U	15 U	15 U	15 U	15 U	15 U
79	78	80	80	77	76	82
--	2.3	--	--	--	2.4	--
460	440	450	460	440	440	470
380	370	370	380	370	370	390
0.047 U	0.047 U	0.047 U	0.047 U	0.047 U	0.047 U	0.047 U

Table C-1
FULL CHEMICAL RESULTS FOR FROG MORTAR CREEK SURFACE WATER SAMPLES (INCLUDING NONDETECTS)
SPETEMBER 2019 SAMPLING ROUND
LOCKHEED MARTIN MIDDLE RIVER COMPLEX, MIDDLE RIVER, MARYLAND

MSA-SW45D MSA-SW45D-090919 20190909	MSA-SW46A MSA-SW46A-090919 20190909	MSA-SW47A MSA-SW47A-090919 20190909	MSA-SW48A MSA-SW48A-090919 20190909	MSA-SW49A MSA-SW49A-090919 20190909	QC TB-090919 20190909
0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U
0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U
0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U
0.41 U	0.41 UJ	0.41 UJ	0.41 UJ	0.41 UJ	0.41 UJ
0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U
0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U
0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U
0.54 UJ	0.54 U	0.54 U	0.54 U	0.54 U	0.54 U
0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U
0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U
0.26 UJ	0.26 UJ	0.26 UJ	0.26 UJ	0.26 UJ	0.26 UJ
0.07 U	0.07 U	0.07 U	0.07 U	0.07 U	0.07 U
0.91 U	0.91 U	0.91 U	0.91 U	0.91 U	0.91 U
0.12 U	0.12 U	0.12 U	0.12 U	0.12 U	0.12 U
0.15 U	0.15 U	0.15 U	0.15 U	0.15 U	0.15 U
0.21 U	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U
0.15 U	0.15 U	0.15 U	0.15 U	0.15 U	0.15 U
0.15 U	0.15 U	0.15 U	0.15 U	0.15 U	0.15 U
0.21 U	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U
0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U
0.31 U	0.31 U	0.31 U	0.31 U	0.31 U	0.31 U
1.2 U	1.2 U	1.2 U	1.2 U	1.2 U	1.2 U

0.26 UR	0.26 UR	0.26 UR	0.26 UR	0.26 UR	0.26 UR
0.15 U	0.15 U	0.15 U	0.15 U	0.15 U	0.15 U
0.54 U	0.54 U	0.54 U	0.54 U	0.54 U	0.54 U
0.09 U	0.09 U	0.09 U	0.09 U	0.09 U	0.09 U
0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U
0.42 U	0.42 U	0.42 U	0.42 U	0.42 U	0.42 U
5.4 U	5.4 U	5.4 U	5.4 U	5.4 U	5.4 U
0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U
0.12 U	0.12 U	0.12 U	0.12 U	0.12 U	0.12 U
0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U
0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U
0.76 U	0.76 U	0.76 U	0.76 U	0.76 U	0.76 U
0.42 U	0.42 U	0.42 U	0.42 U	0.42 U	0.42 U
0.28 U	0.28 U	0.28 U	0.28 U	0.28 U	0.28 U
0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U
0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U
0.39 U	0.39 U	0.39 U	0.39 U	0.39 U	0.39 U
1 UJ	1 UJ	1 UJ	1 UJ	1 UJ	1 UJ
0.83 U	0.83 U	0.83 U	0.83 U	0.83 U	0.83 U
0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U
0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U
0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U
0.61 U	0.61 U	0.61 U	0.61 U	0.61 U	0.61 U
0.09 U	0.09 U	0.09 U	0.09 U	0.09 U	0.09 U
0.35 U	0.35 U	0.35 U	0.35 U	0.35 U	0.35 U
0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U
0.15 U	0.15 U	0.15 U	0.15 U	0.15 U	0.15 U
0.11 U	0.11 U	0.11 U	0.11 U	0.11 U	0.11 U

Table C-1
FULL CHEMICAL RESULTS FOR FROG MORTAR CREEK SURFACE WATER SAMPLES (INCLUDING NONDETECTS)
SPETEMBER 2019 SAMPLING ROUND
LOCKHEED MARTIN MIDDLE RIVER COMPLEX, MIDDLE RIVER, MARYLAND

0.83 UJ	0.83 UJ	0.83 UJ	0.83 UJ	0.83 UJ	0.83 UJ
0.09 U	0.09 U	0.09 U	0.09 U	0.09 U	0.09 U
0.08 U	0.08 U	0.08 U	0.08 U	0.08 U	0.08 U
0.07 U	0.07 U	0.07 U	0.07 U	0.07 U	0.07 U
2.6 U	2.6 U	2.6 U	2.6 U	2.6 U	2.6 U
0.32 U	0.32 U	0.32 U	0.32 U	0.32 U	0.32 U
0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U
0.15 U	0.15 U	0.15 U	0.15 U	0.15 U	0.15 U
0.09 U	0.09 U	0.09 U	0.09 U	0.09 U	0.09 U
0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U
0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
0.11 U	0.11 U	0.11 U	0.11 U	0.11 U	0.11 U
0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U
1.7 U	1.7 U	1.7 U	1.7 U	2.2 J	1.7 U
0.15 U	0.15 U	0.15 U	0.15 U	0.15 U	0.15 U
0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U
0.15 U	0.15 U	0.15 U	0.15 U	0.15 U	0.15 U
0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U
0.67 U	0.67 U	0.67 U	0.67 U	0.67 U	0.67 U
0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
0.45 U	0.45 U	0.45 U	0.45 U	0.45 U	0.45 U
0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U
0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U
0.57 U	--	--	--	--	--
2.1 J	--	--	--	--	--
36	--	--	--	--	--
0.31 U	--	--	--	--	--

0.2 U	--	--	--	--	--
0.98 U	--	--	--	--	--
0.19 U	--	--	--	--	--
5.1	--	--	--	--	--
0.45 U	--	--	--	--	--
0.13 U	--	--	--	--	--
1.1 J	--	--	--	--	--
2.1	--	--	--	--	--
0.89 U	--	--	--	--	--
0.053 U	--	--	--	--	--
0.2 U	--	--	--	--	--
1.8 U	--	--	--	--	--
0.82 U	--	--	--	--	--
15 U	--	--	--	--	--
81	--	--	--	--	--
--	--	--	--	--	--
460	--	--	--	--	--
380	--	--	--	--	--
0.047 U	--	--	--	--	--

APPENDIX D—BIOTIC LIGAND MODEL CALCULATIONS AND EPA 2007 BLM FACT SHEET

Appendix D
2007 Freshwater Biotic Ligand Model v. 3.41.2.45 Calculations in Surface Water Samples—September 2019
Frog Mortar Creek, Middle River, Maryland

Site Label	Sample Label	Temperature	pH*	Cu	DOC	Hardness	Final Acute Value	Acute CMC	Chronic CCC	Acute Toxic Units	Chronic Toxic Units	Censored Flag
		°C	s.u.	µg/L	mg/L	mg/L CaCO3	(FAV), ug/L	(CMC=FAV/ 2), ug/L	(CCC=FAV/ACR), ug/L	(Acute TU=Cu/CMC)	(Chronic TU=Cu/CCC)	(0 = quantified, 1 = BDL)
FMC SEPTEMBER 2019	SW37A	26.00	7.47	5.2	2.4	440	25.73	12.87	7.99	0.40	0.65	0.00
FMC SEPTEMBER 2019	SW37B	26.00	7.47	6.1	2.4	440	25.73	12.87	7.99	0.47	0.76	0.00
FMC SEPTEMBER 2019	SW37C	26.00	7.47	6.2	2.4	430	25.59	12.80	7.95	0.48	0.78	0.00
FMC SEPTEMBER 2019	SW37D	25.90	7.47	5.9	2.4	440	25.71	12.85	7.98	0.46	0.74	0.00
FMC SEPTEMBER 2019	SW38A	25.50	7.47	3.9	2.3	440	24.52	12.26	7.62	0.32	0.51	0.00
FMC SEPTEMBER 2019	SW38B	25.50	7.47	4.6	2.3	440	24.52	12.26	7.62	0.38	0.60	0.00
FMC SEPTEMBER 2019	SW38C	25.60	7.47	4.2	2.3	440	24.57	12.28	7.63	0.34	0.55	0.00
FMC SEPTEMBER 2019	SW38D	25.70	7.47	4.2	2.3	430	24.44	12.22	7.59	0.34	0.55	0.00
FMC SEPTEMBER 2019	SW39A	24.60	7.47	3.4	2.2	450	23.35	11.68	7.25	0.29	0.47	0.00
FMC SEPTEMBER 2019	SW39B	24.70	7.47	3.7	2.2	470	23.63	11.81	7.34	0.31	0.50	0.00
FMC SEPTEMBER 2019	SW39C	24.80	7.47	3.9	2.2	460	23.53	11.76	7.31	0.33	0.53	0.00
FMC SEPTEMBER 2019	SW39D	24.80	7.47	4.6	2.2	450	23.40	11.70	7.27	0.39	0.63	0.00
FMC SEPTEMBER 2019	SW40A	25.60	7.47	4.3	2.3	450	24.68	12.34	7.66	0.35	0.56	0.00
FMC SEPTEMBER 2019	SW40B	25.90	7.47	4.7	2.3	450	24.77	12.39	7.69	0.38	0.61	0.00
FMC SEPTEMBER 2019	SW40C	25.80	7.47	4.6	2.3	440	24.61	12.30	7.64	0.37	0.60	0.00
FMC SEPTEMBER 2019	SW40D	26.00	7.47	4.2	2.3	430	24.54	12.27	7.62	0.34	0.55	0.00
FMC SEPTEMBER 2019	SW41A	25.30	7.47	4.2	2.3	440	24.48	12.24	7.60	0.34	0.55	0.00
FMC SEPTEMBER 2019	SW41B	25.40	7.47	4.2	2.3	440	24.48	12.24	7.60	0.34	0.55	0.00
FMC SEPTEMBER 2019	SW41C	25.40	7.47	4.6	2.3	450	24.63	12.32	7.65	0.37	0.60	0.00
FMC SEPTEMBER 2019	SW41D	25.40	7.47	4.3	2.3	450	24.63	12.32	7.65	0.35	0.56	0.00
FMC SEPTEMBER 2019	SW42A	26.20	7.47	4.1	2.5	450	27.02	13.51	8.39	0.30	0.49	0.00
FMC SEPTEMBER 2019	SW42B	26.20	7.47	5.0	2.5	440	26.87	13.44	8.35	0.37	0.60	0.00
FMC SEPTEMBER 2019	SW42C	26.00	7.47	5.6	2.5	430	26.66	13.33	8.28	0.42	0.68	0.00
FMC SEPTEMBER 2019	SW42D	25.90	7.47	5.4	2.5	440	26.78	13.39	8.32	0.40	0.65	0.00
FMC SEPTEMBER 2019	SW43A	25.20	7.47	4.4	2.3	440	24.44	12.22	7.59	0.36	0.58	0.00
FMC SEPTEMBER 2019	SW43B	25.30	7.47	4.5	2.3	450	24.60	12.30	7.64	0.37	0.59	0.00
FMC SEPTEMBER 2019	SW43C	25.30	7.47	4.7	2.3	450	24.60	12.30	7.64	0.38	0.62	0.00
FMC SEPTEMBER 2019	SW43D	25.20	7.47	4.7	2.3	440	24.44	12.22	7.59	0.38	0.62	0.00
FMC SEPTEMBER 2019	SW44A	25.20	7.47	4.9	2.3	460	24.71	12.35	7.67	0.40	0.64	0.00
FMC SEPTEMBER 2019	SW44B	25.10	7.47	4.8	2.3	440	24.41	12.21	7.58	0.39	0.63	0.00
FMC SEPTEMBER 2019	SW44C	25.20	7.47	4.9	2.3	450	24.58	12.29	7.63	0.40	0.64	0.00
FMC SEPTEMBER 2019	SW44D	25.10	7.47	4.9	2.3	460	24.68	12.34	7.66	0.40	0.64	0.00
FMC SEPTEMBER 2019	SW45A	24.80	7.47	3.9	2.4	440	25.39	12.69	7.88	0.31	0.49	0.00
FMC SEPTEMBER 2019	SW45B	24.90	7.47	4.9	2.4	440	25.43	12.72	7.90	0.39	0.62	0.00
FMC SEPTEMBER 2019	SW45C	24.90	7.47	5.0	2.4	470	25.83	12.91	8.02	0.39	0.62	0.00
FMC SEPTEMBER 2019	SW45D	25.00	7.47	5.1	2.4	460	25.72	12.86	7.99	0.40	0.64	0.00

***pH values in the field were consistently measured at 5.3 s.u. which is uncommonly low for Frog Mortar Creek. It is assumed that the water quality meter was malfunctioning and therefore an average of all pH values collected in FMC over the previous four sampling rounds (March, June, July, and August) was used for the BLM output and copper screening criterion.**

Definitions:

BLM– biotic ligand model
CCC– Criterion Continuous Concentration
Cu– copper concentration
µg/L– micrograms per liter
mg/L— milligrams per liter
ppt– parts per trillion
TEMP--temperature
FAV--Final Acute Value
DOC--dissolved organic carbon

ACUTE CMC GEOMEAN (UG/L)=	12.46
CHRONIC CCC GEOMEAN (UG/L)=	7.74

Appendix D
2019 Frog Mortar Creek Water Quality Parameters, March 2019 to August 2019
Frog Mortar Creek, Middle River, MD

Mar-19

Sample ID	Date	pH
Location	mo/day/year	Standard unit (S.U.)
EL-SW01A	3/5/2019	7.86
EL-SW01B	3/5/2019	7.80
EL-SW01C	3/5/2019	7.79
EL-SW01D	3/5/2019	7.77
MSA-SW37A	3/5/2019	7.58
MSA-SW37B	3/5/2019	7.57
MSA-SW37C	3/5/2019	7.66
MSA-SW37D	3/5/2019	7.60
MSA-SW38A	3/5/2019	7.77
MSA-SW38B	3/5/2019	7.76
MSA-SW38C	3/5/2019	7.78
MSA-SW38D	3/5/2019	7.82
MSA-SW39A	3/5/2019	7.87
MSA-SW39B	3/5/2019	7.85
MSA-SW39C	3/5/2019	7.82
MSA-SW39D	3/5/2019	7.74
MSA-SW40A	3/5/2019	7.69
MSA-SW40B	3/5/2019	7.68
MSA-SW40C	3/5/2019	7.80
MSA-SW40D	3/5/2019	7.77
MSA-SW41A	3/5/2019	7.75
MSA-SW41B	3/5/2019	7.76
MSA-SW41C	3/5/2019	7.77
MSA-SW41D	3/5/2019	7.77
MSA-SW42A	3/5/2019	7.69
MSA-SW42B	3/5/2019	7.70
MSA-SW42C	3/5/2019	7.65
MSA-SW42D	3/5/2019	7.66
MSA-SW43A	3/5/2019	7.75
MSA-SW43B	3/5/2019	7.72
MSA-SW43C	3/5/2019	7.69
MSA-SW43D	3/5/2019	7.75
MSA-SW44A	3/5/2019	7.77
MSA-SW44B	3/5/2019	7.74
MSA-SW44C	3/5/2019	7.83
MSA-SW44D	3/5/2019	7.82
MSA-SW45A	3/5/2019	7.82
MSA-SW45B	3/5/2019	7.75
MSA-SW45C	3/5/2019	7.85
MSA-SW45D	3/5/2019	7.99
MSA-SW46A	3/5/2019	7.74
MSA-SW47A	3/5/2019	7.75
MSA-SW48A	3/5/2019	7.79
MSA-SW49A	3/5/2019	7.77
	AVERAGE=	7.76

Jun-19

Sample ID	Date	pH
Location	mo/day/year	Standard unit (S.U.)
EL-SW01A	6/12/2019	6.85
EL-SW01B	6/12/2019	7.02
EL-SW01C	6/12/2019	7.15
EL-SW01D	6/12/2019	7.18
MSA-SW37A	6/12/2019	7.72
MSA-SW37B	6/12/2019	7.86
MSA-SW37C	6/12/2019	7.84
MSA-SW37D	6/12/2019	7.84
MSA-SW38A	6/12/2019	7.57
MSA-SW38B	6/12/2019	7.62
MSA-SW38C	6/12/2019	7.59
MSA-SW38D	6/12/2019	7.59
MSA-SW39A	6/12/2019	7.24
MSA-SW39B	6/12/2019	7.39
MSA-SW39C	6/12/2019	7.41
MSA-SW39D	6/12/2019	7.36
MSA-SW40A	6/12/2019	7.67
MSA-SW40B	6/12/2019	7.76
MSA-SW40C	6/12/2019	7.64
MSA-SW40D	6/12/2019	7.62
MSA-SW41A	6/12/2019	7.51
MSA-SW41B	6/12/2019	7.53
MSA-SW41C	6/12/2019	7.53
MSA-SW41D	6/12/2019	7.48
MSA-SW42A	6/12/2019	7.72
MSA-SW42B	6/12/2019	7.78
MSA-SW42C	6/12/2019	7.71
MSA-SW42D	6/12/2019	7.68
MSA-SW43A	6/12/2019	7.40
MSA-SW43B	6/12/2019	7.50
MSA-SW43C	6/12/2019	7.51
MSA-SW43D	6/12/2019	7.56
MSA-SW44A	6/12/2019	7.45
MSA-SW44B	6/12/2019	7.37
MSA-SW44C	6/12/2019	7.40
MSA-SW44D	6/12/2019	7.48
MSA-SW45A	6/12/2019	7.26
MSA-SW45B	6/12/2019	7.36
MSA-SW45C	6/12/2019	7.36
MSA-SW45D	6/12/2019	7.32
MSA-SW46A	6/12/2019	7.66
MSA-SW47A	6/12/2019	7.61
MSA-SW48A	6/12/2019	7.53
MSA-SW49A	6/12/2019	7.49
	AVERAGE=	7.50

Jul-19

Sample ID	Date	pH
Location	mo/day/year	Standard unit (S.U.)
EL-SW01A	7/10/2019	6.55
EL-SW01B	7/10/2019	6.82
EL-SW01C	7/10/2019	6.82
EL-SW01D	7/10/2019	6.81
MSA-SW37A	7/10/2019	7.30
MSA-SW37B	7/10/2019	7.29
MSA-SW37C	7/10/2019	7.34
MSA-SW37D	7/10/2019	7.40
MSA-SW38A	7/10/2019	7.25
MSA-SW38B	7/10/2019	7.24
MSA-SW38C	7/10/2019	7.29
MSA-SW38D	7/10/2019	7.32
MSA-SW39A	7/10/2019	6.84
MSA-SW39B	7/10/2019	6.82
MSA-SW39C	7/10/2019	6.84
MSA-SW39D	7/10/2019	6.81
MSA-SW40A	7/10/2019	7.30
MSA-SW40B	7/10/2019	7.32
MSA-SW40C	7/10/2019	7.31
MSA-SW40D	7/10/2019	7.30
MSA-SW41A	7/10/2019	7.27
MSA-SW41B	7/10/2019	7.28
MSA-SW41C	7/10/2019	7.29
MSA-SW41D	7/10/2019	7.28
MSA-SW42A	7/10/2019	7.25
MSA-SW42B	7/10/2019	7.24
MSA-SW42C	7/10/2019	7.27
MSA-SW42D	7/10/2019	7.27
MSA-SW43A	7/10/2019	7.18
MSA-SW43B	7/10/2019	7.20
MSA-SW43C	7/10/2019	7.25
MSA-SW43D	7/10/2019	7.25
MSA-SW44A	7/10/2019	7.11
MSA-SW44B	7/10/2019	7.16
MSA-SW44C	7/10/2019	7.18
MSA-SW44D	7/10/2019	7.18
MSA-SW45A	7/10/2019	6.87
MSA-SW45B	7/10/2019	6.89
MSA-SW45C	7/10/2019	6.90
MSA-SW45D	7/10/2019	6.89
MSA-SW46A	7/10/2019	7.19
MSA-SW47A	7/10/2019	7.24
MSA-SW48A	7/10/2019	7.27
MSA-SW49A	7/10/2019	7.26
	AVERAGE=	7.14

Aug-19

Sample ID	Date	pH
Location	mo/day/year	Standard unit (S.U.)
EL-SW01A	8/8/2019	6.77
EL-SW01B	8/8/2019	7.24
EL-SW01C	8/8/2019	7.31
EL-SW01D	8/8/2019	7.34
MSA-SW37A	8/8/2019	7.79
MSA-SW37B	8/8/2019	7.87
MSA-SW37C	8/8/2019	7.92
MSA-SW37D	8/8/2019	7.87
MSA-SW38A	8/8/2019	7.54
MSA-SW38B	8/8/2019	7.50
MSA-SW38C	8/8/2019	7.50
MSA-SW38D	8/8/2019	7.53
MSA-SW39A	8/8/2019	7.29
MSA-SW39B	8/8/2019	7.25
MSA-SW39C	8/8/2019	7.27
MSA-SW39D	8/8/2019	7.26
MSA-SW40A	8/8/2019	7.57
MSA-SW40B	8/8/2019	7.43
MSA-SW40C	8/8/2019	7.54
MSA-SW40D	8/8/2019	7.61
MSA-SW41A	8/8/2019	7.52
MSA-SW41B	8/8/2019	7.51
MSA-SW41C	8/8/2019	7.50
MSA-SW41D	8/8/2019	7.49
MSA-SW42A	8/8/2019	7.59
MSA-SW42B	8/8/2019	7.59
MSA-SW42C	8/8/2019	7.71
MSA-SW42D	8/8/2019	7.68
MSA-SW43A	8/8/2019	7.40
MSA-SW43B	8/8/2019	7.43
MSA-SW43C	8/8/2019	7.44
MSA-SW43D	8/8/2019	7.44
MSA-SW44A	8/8/2019	7.42
MSA-SW44B	8/8/2019	7.39
MSA-SW44C	8/8/2019	7.42
MSA-SW44D	8/8/2019	7.44
MSA-SW45A	8/8/2019	7.56
MSA-SW45B	8/8/2019	7.32
MSA-SW45C	8/8/2019	7.31
MSA-SW45D	8/8/2019	7.31
MSA-SW46A	8/8/2019	7.59
MSA-SW47A	8/8/2019	7.52
MSA-SW48A	8/8/2019	7.49
MSA-SW49A	8/8/2019	7.49
	AVERAGE=	7.48

AVERAGE pH OVER PREVIOUS FOUR EVENTS (MARCH, JUNE, JULY, AUGUST)= 7.47

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AQUATIC LIFE AMBIENT FRESHWATER QUALITY CRITERIA – COPPER 2007 REVISION

EPA is issuing revised national recommended freshwater aquatic life criteria for copper *(Aquatic Life Ambient Freshwater Quality Criteria – Copper 2007 Revision).* As a companion to the criteria document, EPA is also issuing a document to answer Frequently Asked Questions (FAQs) from states, tribes, permittees, and other interested stakeholders on implementing the revised nationally recommended criteria.

Background

Copper is an abundant naturally occurring trace element found in the earth's crust that is also found in surface waters. Copper is a micronutrient at low concentrations and is essential to virtually all plants and animals. At higher concentrations copper can become toxic to aquatic life. Mining, leather and leather products, fabricated metal products, and electric equipment are a few of the industries with copper-bearing discharges that contribute to manmade discharges of copper into surface waters. Municipal effluents may also contribute additional copper loadings to surface waters.

Since EPA published the hardness-based recommendation for copper criteria in 1984, new data have become available on copper toxicity and its effects on aquatic life. The Biotic Ligand Model (BLM) – a metal bioavailability model that uses receiving water body characteristics to develop site-specific water quality criteria – utilizes the best available science and serves as the basis for the new national recommended criteria.

The BLM requires ten input parameters to calculate a freshwater copper criterion (a saltwater BLM is not yet available): temperature, pH, dissolved organic carbon (DOC), calcium, magnesium, sodium, potassium, sulfate, chloride, and alkalinity. The BLM is used to derive the criteria rather than as a post-derivation adjustment as was the case with the hardness-based criteria. This allows the BLM-based criteria to be customized to the particular water under consideration.

BLM-based criteria can be more stringent than the current hardness-based copper criteria and in certain cases the current hardness-based copper criteria may be overly stringent for particular water bodies. We expect that application of this model will result in more appropriate criteria and eliminate the need for costly, time-consuming site-specific modifications using the water effect ratio.

The FAQs document answers common questions regarding data requirements for the BLM, options to facilitate implementation, monitoring, assessment, and permitting issues, and BLM training opportunities.

Further Information

For more information about the *Aquatic Life Ambient Freshwater Criteria – Copper 2007 Revision*, you may contact Luis Cruz at (202) 566-1095 or Charles Delos at (202) 566-1097, or via mail at the U.S. Environmental Protection Agency, Office of Water, Office of Science and Technology, Health and Ecological Criteria Division, 1200 Pennsylvania Avenue, NW, Washington, D.C. 20460, or you may send an e-mail to cruz.luis@epa.gov or delos.charles@epa.gov.

For more information about the implementation FAQ document, you may contact Christina Jarvis at (202) 566-0537 or Lauren Wisniewski at (202) 566-0394, or via mail at the U.S. Environmental Protection Agency, Office of Water, Office of Science and Technology, Standards and Health Protection Division, 1200 Pennsylvania Avenue, NW, Washington, D.C. 20460, or you may send an e-mail to jarvis.christina@epa.gov or wisniewski.lauren@epa.gov.