2018 COMPREHENSIVE SURFACE WATER REPORT FOR DARK HEAD COVE AND COW PEN CREEK LOCKHEED MARTIN CORPORATION MIDDLE RIVER COMPLEX 2323 EASTERN BOULEVARD MIDDLE RIVER, MARYLAND

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ACRONYMS AND ABBREVIATIONS

AECOM	AECOM Technical Services, Inc.
BTAG	Biological Technical Advisory Group
cis-1,2-DCE	*cis*-1,2-dichloroethene
COMAR	Code of Maryland Regulations
DO	dissolved oxygen
EEHS	energy, environment, safety and health
g/d/feet	gallon(s) per day per foot
GIS	geographic information system
gpm	gallon(s) per minute
HASP	health and safety plan
Lockheed Martin	Lockheed Martin Corporation
mg/L	milligrams per liter
MDE	Maryland Department of the Environment
µg/L	microgram(s) per liter
MRC	Middle River Complex
ORP	oxidation-reduction potential
PCB(s)	polychlorinated biphenyl(s)
TCE	trichloroethene
USEPA	United States Environmental Protection Agency
VOC	volatile organic compound

EXECUTIVE SUMMARY

On behalf of Lockheed Martin Corporation, AECOM Technical Services, Inc., has prepared this report documenting the April, June, and September 2018 surface water monitoring at the Lockheed Martin Corporation Middle River Complex in Middle River, Maryland. This report is part of the long-term groundwater and surface water monitoring program at the Middle River Complex. The objectives for the surface water monitoring program are to update surface water analytical data, understand the nature and extent of contamination, evaluate contaminant trends to supplement the ongoing remediation efforts, and assess off-site contaminant migration. The surface water monitoring program for 2018 to 2020 includes three rounds of sampling and chemical analyses of surface water in Dark Head Cove and Cow Pen Creek each year in April, June, and September.

This report evaluates the April, June, and September 2018 surface water sampling analytical data based on current and historical results. The April and June sampling rounds were previously summarized and transmitted by Technical Memoranda to Lockheed Martin Corporation, the Remediation Technical Operations contractor, and Maryland Department of the Environment. During each sampling round, 18 field samples from 17 sampling locations at Cow Pen Creek and Dark Head Cove were collected for chemical analysis. Surface water samples were sent to ALS Environmental (in Middletown, Pennsylvania) to be chemically analyzed for volatile organic compounds and 1,4-dioxane. Surface water samples for polychlorinated biphenyls were analyzed by ALS Environmental in Rochester, New York. The analytical results were compared to Maryland ambient water quality criteria for human health consumption of organisms (Code of Maryland Regulations 26.08.02.03), United States Environmental Protection Agency Region III Biological Technical Advisory Group freshwater screening levels (United States Environmental Protection Agency, 2006), and Maryland Department of the Environment-approved site-specific risk-based screening levels for swimming.

Findings from the April, June, and September 2018 surface water sampling are as follows:

- 1,4-dioxane – detected in four of fourteen primary surface water samples where it was analyzed for in 2018 (three samples from Cow Pen Creek and one sample from Dark Head Cove) with the highest concentration of 0.072 micrograms per liter (µg/L) at MRC-

22,000 µg/L. The concentrations are also below the Maryland Department of the Environment-approved site-specific risk-based swimming screening level of 30 µg/L.

- 1,2,4-trimethylbenzene – detected at an estimated concentration of 0.61 µg/L in MRC-SW8A-S in Dark Head Cove and adjacent to the southeastern Blocks E/F trichloroethene plume only during the June sampling event, below its ecological screening level of 33 µg/L.

- 2-butanone – detected in one Cow Pen Creek sample, MRC-SW2A at an estimated concentration of 1.9 µg/L only during the June sampling, below its ecological screening level of 14,000 µg/L.

- acetone – detected in a large majority of surface water sampling locations for all three sampling events in 2018, ranging from 3.1 to 21.5 µg/L, below its ecological screening level of 1500 µg/L.

- bromodichloromethane – detected at MRC-SW17A at an estimated concentration of 0.31 µg/L only during the June sampling, below its human health consumption screening level of 170 µg/L.

- bromomethane – detected at seven locations (June) and one location (September), all below its human health consumption screening level of 1,500 µg/L.

- carbon disulfide – detected at four locations (June only), below its ecological screening level of 0.92 µg/L.

- chloroform – detected in one sampling location in Cow Pen Creek, in MRC-SW17A at a concentration of 1.1 µg/L only during the June 2018 sampling, below its most conservative ecological screening level of 1.8 µg/L.

- *cis*-1,2-dichloroethene – detected in five surface water samples in Dark Head Cove: MRC-SW5A2-S, MRC-SW6A-S, MRC-SW13A-S, MRC-SW15A-S, and MRC-SW16A-S at concentrations ranging from 0.32 and 0.51 µg/L from the three 2018 sampling events, all below the most conservative Maryland Department of the Environment-approved site-specific risk-based screening level of 70 µg/L. *Cis*-1,2-dichlorethene is not used on-site but is a degradation product of trichloroethene, which was historically used on-site.

- naphthalene – detected at MRC-SW8A-S at an estimated concentration of 0.53 µg/L during the June sampling, below its ecological screening level of 1.1 µg/L.

- Polychlorinated biphenyls, as the dichlorobiphenyl homolog group – were detected at all 14 of the Dark Head Cove surface water sampling locations, ranging from 0.0019 to 0.0066 µg/L during the April 2018 sampling. In comparison, the detection of polychlorinated biphenyls, as the tertachlorobiphenyl group, was identified at just one location in 2017 (Tetra Tech Inc., 2017b). The April 2018 polychlorinated biphenyl concentrations are below site-specific risk-based swimming standards and below Maryland ambient water quality for organisms; however, they are above Maryland ambient water quality criteria (0.00064 µg/L) for human health consumption-of-organisms (Code of Maryland Regulations 26.08.02.03). Surface water sampling and analysis for

polychlorinated biphenyls was conducted only during the April 2018 sampling event and not during the June 2018 or September 2018 sampling events.

- trichloroethene – detected in six sampling locations in Dark Head Cove: MRC-SW6A-S, MRC-SW6B-S, MRC-SW8A-S, MRC-SW13A-S, MRC-SW15A-S, and MRC-SW16A-S at concentrations ranging from 0.59 to 2.5 µg/L from the three 2018 sampling events, all below screening levels. The two highest concentrations of trichloroethene observed during the June sampling (2.5 micrograms per liter in MRC-SW16A-S and 2.3 µg/L in MRC-SW15A-S) are where the southwestern portion of the southeastern Blocks E/F trichloroethene groundwater plume may discharge to Dark Head Cove.

To further evaluate the 2018 surface water polychlorinated biphenyl detections, Lockheed Martin Corporation proposes two action items:

1. Perform a laboratory comparison study between the 2018 laboratory (ALS Environmental) and the previous laboratory (TestAmerica), by obtaining full data packages from both laboratories for the existing 2017 and 2018 analyses, and perform a thorough review of method detection limits, reporting limits, laboratory quality controls, and recoveries to identify any potential laboratory issues contributing to the detections.

2. Conduct an interim limited-scope surface water sampling event in Dark Head Cove. Laboratory split samples will be collected as a set of co-located field samples at eight of the Dark Head Cove locations, which will be analyzed by the two different laboratories (TestAmerica and ALS Environmental), prior to the April 2019 surface water sampling event to determine if procedures used by the different laboratories caused the variability between the 2017 and 2018 results. Laboratory split samples will be collected at a rate of 100% for polychlorinated biphenyl homolog analysis. The results of this study will be submitted to Maryland Department of the Environment once it is available.

SECTION 1
INTRODUCTION

On behalf of Lockheed Martin Corporation, AECOM Technical Services, Inc., has prepared the following report for the April, June, and September 2018 surface water monitoring at the Lockheed Martin Corporation Middle River Complex in Middle River, Maryland (see Figure 1). This report details the analytical results from 17 surface water samples and one duplicate sample collected along Dark Head Cove and Cow Pen Creek. Site contaminants at the Middle River Complex could potentially be introduced to surface water through groundwater discharge or through groundwater infiltration into storm drains, thereby discharging into surface water through nearby outfalls.

Before 2017, surface water had been sampled annually. In 2017, the sampling frequency increased to three times per year (April, June, and September) to assess whether volatile organic compounds were reaching Dark Head Cove and Cow Pen Creek during implementation of the groundwater remedy at concentrations exceeding site-specific risk-based swimming screening levels. Additional sampling (as compared to previous surface water events) was conducted in 2017 to determine if polychlorinated biphenyls were in surface water subsequent to the sediment removal actions and in-place treatment that Lockheed Martin Corporation performed in Dark Head Cove between 2013 and 2017, and to determine if the Block G 1,4-dioxane groundwater plume is potentially discharging to Cow Pen Creek (see Appendix A).

This technical memorandum is organized as follows:

- Section 1—Introduction: Presents objectives for the surface water monitoring program.
- Section 2—Site Background: Briefly describes site history and surface water sampling history.
- Section 3—Investigation Approach and Methodology: Presents the technical approach to surface water sampling and describes the field methodology employed.
- Section 4—Analytical Results: Discusses the analytical results for each analyte.
- Section 5 – Summary: Summarizes findings and conclusions.

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

SECTION 2
SITE BACKGROUND

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

LMC Properties, Inc., owns the Middle River Complex. Its primary activities at the Middle River Complex include facility and building management and maintenance. The main site tenant, MRA Systems, Inc., designs, manufactures, fabricates, tests, overhauls, repairs, and maintains aeronautical structures, parts, and components for military and commercial applications. Lockheed Martin Rotary and Mission Systems (a division of Lockheed Martin Corporation) conducts engineering activities and fabricates, assembles, tests, and otherwise supports vertical-launch systems.

2.1 MIDDLE RIVER COMPLEX HISTORY

In 1929, the Glenn L. Martin Company (a predecessor entity of Lockheed Martin Corporation) acquired large parcels of undeveloped land in Middle River, Maryland, on which to manufacture aircraft for the United States government and commercial clients. In the early 1960s, Glenn L. Martin Company merged with American-Marietta Company to form Martin Marietta Corporation. In 1975, the adjacent eastern airport area (currently Martin State Airport), approximately 750 acres, was transferred to the State of Maryland. In the mid-1990s, Martin Marietta Corporation merged with Lockheed Corporation to form Lockheed Martin Corporation. Shortly after the merger, General Electric Company entities acquired most of Lockheed Martin Corporation’s aeronautical business in Middle River and the General Electric subsidiary, MRA Systems, Inc., began operations at the site.

2.2 MIDDLE RIVER COMPLEX CHARACTERISTICS

2.2.1 Physiography

The Middle River Complex is in the Western Shore of the Coastal Plain physiographic province, which is generally characterized by low relief. The Middle River Complex's topography slopes gently, ranging from sea level to 32 feet above mean sea level (Cassell, 1977). The topography declines from Eastern Boulevard to the southwest and south toward Cow Pen Creek and Dark Head Cove.

2.2.2 Hydrology

The Middle River Complex is at the junction of Cow Pen Creek and Dark Head Cove. Both of these surface water bodies discharge into Dark Head Creek, a tributary of Middle River, which is a tributary of Chesapeake Bay. The Middle River Complex is approximately 3.24 miles (17,100 feet) upstream of Chesapeake Bay. The Middle River Complex has no surface water bodies on-site.

Surface water runoff discharges from the facility via storm drains, except for areas immediately adjacent to Cow Pen Creek and Dark Head Cove. Lockheed Martin Corporation maintains a National Pollutant Discharge Elimination System permit (state discharge permit No. 00-DP-0298, National Pollutant Discharge Elimination System No. MD0002852), issued by the Maryland Department of the Environment Industrial Discharge Permits Division, Water Management Administration. The permit covers storm-water discharge from the entire property, rather than from individual tenants.

2.2.3 Regional Hydrogeology

Sand and gravel zones in the unconsolidated surficial deposits at the Middle River Complex, when present, may form an unconfined or water table aquifer system (Bennett and Meyer, 1952). The water table at the Middle River Complex generally conforms to the land surface, with the highest water levels in interior land areas and the lowest levels at approximately surface water elevations along the shoreline. The Patuxent Formation is the most important water-bearing formation in the Baltimore area. Industrial wells in the southeastern part of the area, specifically Curtis Bay and Sparrows Point, yield 500-900 gallons per minute. In these industrialized areas,

the transmissivity and storage coefficient in confined portions of the aquifer average about 50,000 gallons per day per foot and 0.00026, respectively.

The Patapsco Formation is also an important water-bearing formation in industrialized Baltimore, where it is separated by clay into a lower and an upper aquifer. Industrial wells screened in the lower aquifer yield as much as 500–750 gallons per minute, with an estimated transmissivity of 25,000 gallons per day per foot (Bennett and Meyer, 1952).

2.3 SURFACE WATER

Dark Head Cove and Cow Pen Creek receive groundwater discharge from the Middle River Complex either directly or through groundwater infiltration into storm drains, thereby discharging into surface water through nearby outfalls. Chemicals of concern found in Middle River Complex groundwater (e.g., trichloroethene and 1,4-dioxane) have historically been detected both in creek and cove samples. Sampling of surface water and sediment adjacent to the Middle River Complex's southern and western property boundaries began in March 2005 (Tetra Tech, 2005).

Sampling in 2005 and from 2010-2017 was performed to: (1) characterize surface water and sediment, (2) conduct a human health and ecological risk assessment, (3) aid in subsequent design of the sediment and groundwater remedies, and (4) support storm-drain investigations (Tetra Tech, 2017b). The current ongoing sampling program seeks to determine the extent to which chemicals in groundwater and soil at the Middle River Complex are being transported to surface water, and if constituents in sediments might be affecting surface water. The sampling program (occurring each year in April, June, and September) is also designed to provide analytical data during times of greatest recreational use of these surface water bodies.

SECTION 3
INVESTIGATION APPROACH AND METHODOLOGY

The overall objective in characterizing site surface water is to provide updated surface water quality data. Surface water analytical data from Cow Pen Creek and Dark Head Cove will be used to assess the nature and extent of contamination, including potential contaminant transport from the Middle River Complex (MRC) into surface water. Before beginning fieldwork, appropriate personnel from AECOM Technical Services, Inc., (AECOM) reviewed the site-specific health and safety plan (HASP) and the respective "Safe Work" permits and emergency response plan included in the HASP. AECOM conducted mandatory health and safety tailgate meetings before each day's fieldwork and twilight debrief meetings at the end of each day. The AECOM site health and safety officer documented the topics covered and personnel in attendance. All surface water sampling was conducted in accordance with the *2018–2020 Groundwater and Surface Water Monitoring Work Plan* and its addenda (AECOM, 2017, 2018a, 2018b).

3.1 SURFACE WATER SAMPLING

The April, June, and September 2018 surface water sampling described herein provides additional and updated surface water quality data for Dark Head Cove and Cow Pen Creek. Specifically, current goals are to determine whether volatile organic compounds (VOCs), polychlorinated biphenyls (PCBs), and/or 1,4-dioxane previously detected in groundwater and soil may be reaching Dark Head Cove and Cow Pen Creek via groundwater seepage, infiltration, or transport through nearby storm drains at concentrations greater than the established site-specific risk-based swimming screening levels (Tetra Tech, 2017b). Concentrations of VOCs, PCBs, and 1,4-dioxane in surface water were determined through laboratory analyses of the collected samples.

All samples in Dark Head Cove and Cow Pen Creek were collected with dedicated, disposable tubing, attached to a depth transducer that was part of the YSI water quality meter, which measures the water quality parameters outlined in Section 4.4. The meter was lowered to one foot below the water surface and marked by electrical tape on the cord at the one foot mark. The

appropriate length of tubing was cut (to ensure collection from one foot below the water surface) and samples were collected via a peristaltic pump set at a purge rate of approximately 500 milliliters per minute. The one exception to this is MRC-SW17A, located in Cow Pen Creek. MRC-SW17A was collected approximately three to six inches below the water surface (total water column thickness) during each sampling event using either a dipper cup or peristaltic pump.

3.1.1 Dark Head Cove

Fourteen surface water samples were collected each sampling round in Dark Head Cove at and near Outfalls 005E, 005W, 006, 007, 008, and 009 which discharge to the cove (Figure 3). Two samples were collected at Outfalls 006, 007, 008, and 009: one sample from 10-feet offshore ("A" sample) and a second sample from 50-feet offshore ("B" sample). Three sampling locations west of Outfall 008 (MRC-SW13A-S, MRC-SW15A-S, and MRC-SW16A-S) do not have an associated "B" sample. These surface water samples were collected 10-feet offshore. Two outlets are at Outfalls 005: 005E and 005W. One sample was collected at each outlet, 10 feet offshore, recorded as the 5A1-S and 5A2-S samples during each round of sampling. A single sample was collected 50 feet offshore, perpendicular to the bulkhead and halfway between the outlets, and was recorded as the "5B-S" sample (Table 1).

3.1.2 Cow Pen Creek

Two samples (MRC-SW1A and MRC-SW2A) were collected along the centerline of the Cow Pen Creek, with one sample collected upstream of the southwestern trichloroethene (TCE) plume near the Block G swale outfall and one sample collected downstream of the southwestern TCE plume during each sampling event. A third sample (MRC-SW17A) was collected near Outfall 003 and represents the farthest upgradient sample in Cow Pen Creek that can be collected within the Lockheed Martin Property boundary. MRC-SW17A, was collected immediately downstream of the Baltimore Gas and Electric property boundary during each sampling event.

3.1.3 Chemical Analyses

Surface water samples were analyzed at ALS Environmental (in Middletown, Pennsylvania) for chemical analysis of VOCs and 1,4-dioxane. Surface water samples for PCBs were analyzed by ALS Environmental in Rochester, New York. In addition to VOCs, Cow Pen Creek surface water samples were analyzed for 1,4-dioxane, Dark Head Cove surface water samples were

analyzed for PCB homologs, and select samples were analyzed for 1,4-dioxane. Sampling methods are described in the 2*018-2020 Groundwater and Surface Water Monitoring Work Plan* and addenda (AECOM, 2017, 2018a, 2018b).

The current surface water sampling program is summarized in Table 1. Analytical testing for PCBs is performed only in the April round of sampling for Dark Head Cove samples. Selected surface water samples collected in 2018 were analyzed for 1,4-dioxane because it had been detected in the 2017 groundwater samples in the southeastern TCE Blocks E/F groundwater plume, and screening levels for 1,4-dioxane had since been revised lower.

One duplicate sample for each parameter (VOCs, 1,4-dioxane, and PCB homologs) was collected during the April, June, and September 2018 surface water sampling events. One trip blank sample per sampling event (i.e., one per cooler) was also collected for VOC analysis for quality assurance/quality control purposes. Water quality parameters, including color, temperature, pH, specific conductance, hardness, salinity, turbidity, dissolved oxygen, and oxidation-reduction potential, were measured at all surface water sampling locations at the time of sampling.

3.1.4 Staff Gauges and Tidal Stages

Both existing staff gauges in Dark Head Cove had been damaged or destroyed and were replaced in June 2018. As a result, the Wilson Point Park direct-read staff gauge was used during the April 2018 sampling. Tidal stages were recorded on April 16 and 17, 2018, before and after sampling. The day before sampling began (April 15), approximately 0.34 inches of precipitation was recorded during a heavy rain, and an additional 0.68 inches of rain was recorded during the first day of sampling.

Tidal stage at the time of sample collection for the June and September events was recorded from two staff gauges shown on Figure 3. One staff gauge is located in Dark Head Cove at the confluence with the mouth of Cow Pen Creek (MRC-STAFF02) and the other is located in Dark Head Cove in the vicinity of Outfall 009 (MRC-STAFF01). Tidal stages were recorded before and after sampling during the April, June, and September surface water sampling. Tidal information from the Bowley Bar Point station, southeast of Middle River, Maryland, was used to track tidal stages during the three sampling events. All tidal information is documented on the surface water sampling forms, in Appendix B.

3.2 MOBILE DATA-COLLECTION DOCUMENTATION

All site activities and observations, including an overall record of field activities, were recorded on electronic field log sheets and submitted in daily field reports to the Remediation Technical Operations (remediation oversite contractor for Lockheed Martin Corporation [Lockheed Martin]). Completed chains-of-custody and matrix specific sampling log sheets were maintained. Log sheets for each sample collected are presented in Appendix B.

AECOM used two Esri's mobile applications, *Survey123* and *Collector for ArcGIS®* (Esri, 2011) during surface water data collection. They feature map and business logic that enhances a technician's ability to locate and record accurate data.

Once in the field, if the technician required location services, needed to reference a base map, or needed to add or edit a location, *Collector for ArcGIS®* was used. The technician was also able to review historical information about the location, make edits, and take photos with the application, as required. New records were created within *Survey123*, leveraging form-based business logic, including related reference tables, and if/then-style follow-up fields.

Upon sampling completion, the technician submitted the record from their mobile device, where it was synchronized with AECOM's *Portal for ArcGIS®*. The team could access data immediately once it had synchronized. Data was downloaded from *Portal for ArcGIS®* and were available to be used in any other geographic information system (GIS) or database management system. Sampling locations were also surveyed using a handheld global positioning system receiver in the Maryland State Plane North American Datum 1983.

3.3 EQUIPMENT DECONTAMINATION

No decontamination fluids other than distilled water were used for the surface water sampling. Distilled water rinse was discharged directly into Dark Head Cove or Cow Pen Creek. Therefore, collecting and disposing of rinse water generated during the sampling events was unnecessary.

3.4 WASTE MANAGEMENT

No investigation-derived waste was generated during this surface water sampling. Purge water was returned to the surface water bodies after each sample was collected. General waste, e.g., gloves and tubing, was disposed of as general refuse.

3.5 DATA REVIEW

Laboratory data were entered into an internal sample database and evaluated against site-specific risk-based swimming screening levels and applicable regulatory criteria. AECOM performed a manual data review and data validation using the *EQuIS™ Automated Validation Assistant* tool. This included completing a limited data review (evaluating data completeness, holding times, laboratory and field blank contamination, laboratory batch quality control, field duplicate precision, and detection limits) concurrent with the data evaluation review. The review is based on the United States Environmental Protection Agency (USEPA) *National Functional Guidelines for Organic Superfund Methods Data Review* (USEPA-540-R-2017-002, January 2017a) and USEPA *National Functional Guidelines for Inorganic Superfund Methods Data Review* (USEPA 540-R-2017-001, January 2017b) for an Organic/Inorganic Level I (https://www.epa.gov/quality/epa-region-3-data-validation) data review. Data were reviewed based on the specifics of the analytical method used. The data-qualifying flags applied to the surface water chemical results during data validation are identified in the *Data Validation Reports* in Appendix C. The majority of the data is considered usable and meets the completeness requirement outlined in the Quality Assurance Project Plan. Chain of Custody forms are part of the Laboratory Analytical Reports presented in Appendix D.

3.5.1 Trip Blanks

Trip blanks are used to monitor contamination of VOCs from ambient sources present during laboratory processing and field shipment. These blanks are prepared by the laboratory and travel with the bottleware shipment from the laboratory to the field, and then back to the laboratory with the collected field samples. Field samples are considered to be associated with specific trip blank results only if those samples were shipped in the same cooler as the trip blank. The blanks remain sealed from the moment that they are filled in the laboratory until they are extracted upon returning to the laboratory.

Trip blank TB-062518 collected during the June 2018 event detected acetone at 8.5 micrograms per liter (µg/L). Detected results that were within five times the concentration in the trip blank were qualified “B” and should be considered usable as estimated values. The positive associated field sample results that were within five times the blank concentrations were qualified “B” and should be considered usable as estimated values.

3.5.2 Method Blanks

Method blanks are used to monitor contamination of target analytes during the analytical procedure. They are prepared by the laboratory for each analysis batch and are analyzed alongside field samples in that batch and undergo the same treatment as the field samples in the batch during extraction and analysis. Field samples are considered to be associated with method blanks only if they were prepared and analyzed in the same quality control batch. A detection in the method blank indicates that contamination is present in the laboratory and was introduced to the blank in the same spatial and temporal setting as the field samples. If positive field sample results are associated with method blank detections and are within five times the concentration in the blank they are qualified "B". In instances where positive results in other blanks (trip blanks, field blanks, or equipment blanks) are qualified "B" due to method blank detections, the concentrations in those blanks would be considered false positives. Therefore, the field sample results associated with the other blanks would not be qualified "B" unless the method blanks in their respective analytical batches displayed detections.

Method blanks 2770157 and 2770696, associated with the June sampling event, displayed detections for carbon disulfide at 0.32 µg/L and bromomethane at 0.54 µg/L, respectively. The positive associated field sample results that were within five times the blank concentrations were qualified "B" and should be considered usable as estimated values.

Additionally, method blank 2766541 displayed a detection for 1,4-dioxane at 0.029 µg/L associated with the June sampling event. The positive associated field sample results that were with five times the blank concentration were qualified "B" and should be considered usable as estimated values. If these detections were treated as true positives, no concentration of the associated "B" flagged field sample results would exceed the site-specific risk-based swimming screening levels.

3.5.3 Data Usability

During the June data review, the MS/MSD performed on parent sample MRC-SW17A for 2-chloroethyl vinyl ether displayed percent recoveries less than the lower quality control limits, and less than the rejection limit of 20%. The associated parent sample results were non-detect and were qualified R, m. These anomalies are considered major and the "R" qualified field sample results should be considered unusable. All other data was considered usable and met the

completeness requirement outlined in the Quality Assurance Project Plan section of the work plan and its addenda (AECOM, 2017). The overall completeness of the data reviewed was acceptable at 99%. Except for those flagged “R”, all data are considered usable as qualified, for their intended purpose based on the data reviewed.

Acetone was detected in a majority of surface water sampling locations for all three sampling events, ranging from 3.1 to 21.5 µg/L. Acetone is a common laboratory contaminant used in decontaminating equipment. Many acetone sample detections have an associated “B” flag that was added during data validation, indicating that the detections are possibly due to sample carryover from the laboratory and might be false-positives. The BTAG ecological screening level for acetone is 1,500 µg/L.

3.6 ENERGY, ENVIRONMENT, SAFETY AND HEALTH-GIS DATABASE

AECOM uploaded the surface water sampling locations and validated data into the Lockheed Martin Energy, Environment, Safety and Health (EESH)-GIS database for the April, June, and September surface water sampling events.

3.7 SUSTAINABILITY APPROACH

AECOM incorporated Green and Sustainable Remediation practices into the surface water monitoring program at the MRC to advance Lockheed Martin’s Corporate EESH key objectives to protect, enhance, optimize and simplify, and to highlight the added values that sustainable practices bring.

AECOM implemented sustainable approaches in all aspects of work wherever practical and with prior approval from Lockheed Martin and the Remediation Technical Operations contractor (remediation oversite contractor for Lockheed Martin Corporation). For the MRC monitoring program, AECOM implemented paper-free electronic data collection across all aspects of the surface water sampling program. This data collection approach and the use of rechargeable batteries for field instruments reduced total waste and provided resource efficiency. The utilization of local field staff, carpooling, and the use of locally sourced materials wherever possible contributed to reduced overall mobile emissions.

SECTION 4
ANALYTICAL RESULTS

Validated analytical data from the April, June, and September 2018 surface water sampling were evaluated with respect to ecological and human health screening-level criteria, including:

- Maryland ambient water quality criteria for human health consumption of organisms (*Code of Maryland Regulations* [COMAR] 26.08.02.03)
- United States Environmental Protection Agency (USEPA) Region III Biological Technical Advisory Group (BTAG) freshwater screening levels (USEPA, 2006)
- Site-specific risk-based swimming screening levels. Site-specific swimming screening levels were developed in 2017 for trichloroethene (TCE), *cis*-1,2-dichloroethene (*cis*-1,2-DCE), and 1,4-dioxane for Dark Head Cove and Cow Pen Creek, Middle River Complex (MRC). These risk-based swimming screening values (Table 2) were approved by the Maryland Department of the Environment (MDE) in 2017.

Site contaminants in groundwater at the MRC could potentially be introduced to surface water through groundwater discharge or through groundwater infiltration into storm drains, thereby discharging to surface water through nearby outfalls.

The analytical data suggest that a method of transporting groundwater contaminants of concern to surface water exists, via either of the two pathways described above. Table 2 presents the detected analytes from each sampling location for each sampling event and compares them to the screening levels identified above. Table 2 summarizes detections in 2018. The distribution of detections is shown in Figure 4 and a statistical summary table is provided in Table 4.

As shown in Table 2, the detected volatile organic compound (VOC) and 1,4-dioxane concentrations for both Cow Pen Creek and Dark Head Cove are well below their various respective screening criteria. To improve readability throughout Section 4, the leading “MRC” prefix before each sample name has been dropped, i.e., MRC-SW17A will henceforth be referred to as SW17A.

4.1 VOLATILE ORGANIC COMPOUNDS

Eleven VOCs were detected in surface water: 1,2,4-trimethylbenzene, 2-butanone, acetone, bromodichloromethane, bromomethane, carbon disulfide, chloroform, chloromethane, *cis*-1,2-DCE, naphthalene, and TCE. These detections are discussed below.

4.1.1 Trichloroethene

Trichloroethene, the primary VOC of concern associated with groundwater at the MRC, was detected in six sampling locations in Dark Head Cove: SW6A-S, SW6B-S, SW8A-S, SW13A-S, SW15A-S, and SW16A-S at concentrations ranging from 0.59 to 2.5 micrograms per liter (µg/L) in 2018. The two highest concentrations of TCE were observed in the June sampling event (2.5 µg/L in SW16A-S and 2.3 µg/L in SW15A-S) where a portion of the southeastern groundwater plume in Blocks E/F discharges to Dark Head Cove. All other TCE detected concentrations were lower, ranging from 0.59 to 1.6 µg/L.

Neither USEPA nor MDE have established acute or chronic freshwater criteria for TCE; however, both entities have established a human health consumption-of-aquatic-organism criterion of 300 µg/L for TCE when adjusted for the MDE risk level of 1×10^{-05} (i.e., a one in 100,000 risk). The BTAG ecological screening level for TCE is 21 µg/L. The maximum TCE concentration (2.5 µg/L) detected in this investigation is more than eight times below the most conservative regulatory screening level of 21 µg/L, and more than 12 times below the MDE-approved risk-based swimming screening level of 30 µg/L for evaluating exposure risks to swimmers (Table 2).

4.1.2 *cis*-1,2-Dichloroethene

cis-1,2-Dichloroethene (*cis*-1,2-DCE), a breakdown product of TCE, was detected in five surface water samples in Dark Head Cove: SW5A2-S, SW6A-S, SW13A-S, SW15A-S, and SW16A-S at concentrations ranging from 0.32 to 0.51 µg/L, in 2018. There are no established USEPA Region III or MDE acute or chronic freshwater criteria protective of aquatic life or human health consumption-of-aquatic-organism criteria for *cis*-1,2-DCE. The BTAG ecological screening level for *cis*-1,2-DCE is 590 µg/L. The maximum *cis*-1,2-DCE concentration (0.51 J µg/L) detected in the 2018 sampling is more than 100 times below the most conservative screening criteria of the MDE-approved site-specific risk-based swimming screening level of 70 µg/L for evaluating exposure risks to swimmers (Table 2).

4.1.3 Additional Volatile Organic Compounds

During the June sampling event, a single detection of 1,2,4-trimethylbenzene was present at an estimated concentration of 0.61 µg/L in SW8A-S in Dark Head Cove and adjacent to the southeastern Blocks E/F TCE plume. In addition, SW8A-S had the only detection of naphthalene at an estimated concentration of 0.53 µg/L. Chloromethane was detected at one location in Dark Head Cove downgradient of the Blocks E/F southwestern chlorobenzene plume: SW5B-S, at an estimated concentration of 0.35 µg/L.

Also, during the June 2018 surface water sampling event, chloroform was detected in one sampling location in Cow Pen Creek, in SW17A at a concentration of 1.1 µg/L. In addition, SW17A had the only detection of bromodichloromethane at an estimated concentration of 0.31 µg/L. 2-Butanone was detected in one Cow Pen Creek sample, SW2A at an estimated concentration of 1.9 µg/L.

Acetone was detected in a majority of surface water sampling locations for all three sampling events, ranging from 3.1 to 21.5 µg/L. The BTAG ecological screening level for acetone is 1,500 µg/L.

Additional VOCs, bromomethane and carbon disulfide, were detected in some Cow Pen Creek samples and Dark Head Cove samples at concentrations ranging from 0.45 to 0.66 µg/L and 0.26 to 0.58 µg/L, respectively. However, all of these detections were qualified as “B” over the course of data validation due to detections of target analytes in the associated trip blanks and laboratory method blanks. All bromomethane and carbon disulfide detection results are below all ecological and human health screening criteria.

4.2 1,4-DIOXANE

As shown in Figure 4, 1,4-dioxane was detected in all three surface water samples from Cow Pen Creek (SW1A, SW2A, and SW17A) and one sample (SW8B-S) in Dark Head Cove with the highest concentration of 0.072 µg/L from SW17A from the three sampling events. All detected sample results are less than the reporting limits and are considered estimated concentrations. Additionally, many 1,4-dioxane sample detections have an associated “B” flag that was added during data validation, indicating that the detections are from blank contamination possibly due to sample carryover from the laboratory. These concentrations are many orders of magnitude

lower when compared to the USEPA ecological screening level of 22,000 µg/L. The concentrations are also below the MDE-approved site-specific risk-based swimming screening level of 30 µg/L.

4.3 POLYCHLORINATED BIPHENYLS

Polychlorinated biphenyls, specifically the total dichlorobiphenyl homolog (the only PCB detected), were detected in all 14 surface-water samples collected in Dark Head Cove in April 2018. Concentrations range from a low of 0.0019 µg/L at SW13A to a high of 0.0066 µg/L at SW7A-S. In 2014-2015, dredging in Dark Head Cove removed PCB-impacted sediment around Outfall 005, and the remaining cove sediment dredging was completed in March 2017 (Tetra Tech, 2017b). PCBs are not chemicals of concern in southwestern groundwater and therefore were not analyzed for in Cow Pen Creek surface water samples. Polychlorinated biphenyls have been detected sporadically in Dark Head Cove samples.

Surface water location SW7A-S, which had the highest PCB concentration during the April 2018 sampling, had not been previously sampled; therefore, historical comparison data are not available. Tetrachlorobiphenyl, the only PCB homolog detected in 2017 Dark Head Cove surface water samples, was detected in only one sample (SW5A2S) at a concentration of 0.014 µg/L. This sample was collected 10 feet from Outfall 005 in September 2017. In 2018, SW5A-S had a concentration of 0.0033 µg/L.

Sediment with the highest concentrations of PCBs was removed from Dark Head Cove near Outfall 005 during the sediment-removal action in 2014–2015, followed by a second removal of sediment with lower concentrations in the cove in 2016-2017. Sediment with the lowest concentrations is undergoing remediation via *in situ* application of a carbon amendment that binds the PCBs, decreasing their bioavailability, and thereby removing them from the food chain (Tetra Tech, 2017).

Note that during the April 2018 groundwater sampling, a field blank prepared by a field chemist had a detection of 0.0090 µg/L for total dichlorobiphenyls. This blank also displayed detections for total monochlorobiphenyls and total trichlorobiphenyls at 0.0045 and 0.0055 µg/L, respectively. The blank was collected by opening the certified laboratory-grade deionized-blank-water in field conditions, and pouring it directly into the laboratory-provided bottle ware. This

blank result was not applied to the surface-water-sample data validation, because it was collected on land in Block E, one week before the surface water sampling.

Although the concentrations detected are significantly less than previously reported, all 14 samples collected exceed the human health consumption-of-organism's screening-level criterion of 0.00064 µg/L set in place by the COMAR 26.08.02.03 for total PCBs. No screening level is associated solely with the dichlorobiphenyl homolog group. All total PCB concentrations reported from the April 2018 sampling event are total dichlorobiphenyl homolog. PCB analytical detections are not associated with high turbidity, and therefore possibly represent surface water detections.

4.4 WATER QUALITY PARAMETERS

Water quality parameters were collected in the field during the April, June, and September 2018 sampling events. Water quality parameter data are presented in Table 3. Field parameters were measured at a depth of approximately one foot below the water surface, prior to sample collection, with the exception of field sample SW17A, which was collected directly from the surface using a dipper or peristaltic tubing.

The slightly basic pH values for all three sampling events, ranging between 7.14 and 9.12, are consistent with natural surface water in this region. Turbidity was consistent in most samples, with the highest turbidity reported from SW17A within Cow Pen Creek at 32.1 nephelometric turbidity units (NTU) during the April 2018 sampling. Overall, higher turbidity was observed during the April sampling event that occurred after the rain event as described in Section 3.1.4. However, most turbidity levels were reported below 10 NTU, with a mean turbidity of 6.7 NTU between all 2018 sampling events. Dissolved oxygen (DO) levels, ranging from 6.49 to 10.32 milligrams per liter (mg/L), were reported during the 2018 sampling events, and are typical values for a healthy estuarine environment. One exception to this is SW8A-S, which had a reported DO value of 0.61 mg/L during the June 2018 sampling. However, this sample had reported DO values of 9.26 mg/L and 8.80 mg/L during the April and September sampling events, respectively. Therefore, the DO value of 0.61 mg/L during the June 2018 sampling event may have been due to the DO probe malfunctioning during sampling and may not be indicative of the actual DO concentration at SW8A-S. Additionally, all oxidation-reduction potential (ORP) values are positive, ranging from 111.6 to 234 millivolts, which is consistent with surface water

containing oxygen. Positive ORP values are representative of an environment conducive to oxidation, which aid in more effective bacterial break down of contaminants, which can lead to a healthier body of water.

SECTION 5
SUMMARY

AECOM Technical Services, Inc., collected surface water samples during the April, June, and September 2018 surface water sampling events from 17 locations throughout Cow Pen Creek and Dark Head Cove on behalf of Lockheed Martin Corporation. The samples were collected, sent to ALS Environmental Laboratories, and chemically analyzed for volatile organic compounds, 1,4-dioxane, and polychlorinated biphenyls. These analyses were carried out to determine if these constituents are in surface water and, if so, to assess whether there are indications of their originating from stormwater outfalls, sediments, or groundwater plumes at the Middle River Complex.

Trichloroethene was detected in six samples in Dark Head Cove and adjacent to the southeastern Blocks E/F trichloroethene plume: SW6A-S, SW6B-S, SW8A-S, SW13A-S, SW15A-S, and SW16A-S at concentrations ranging from 0.59 to 2.5 micrograms per liter (µg/L) from the three 2018 sampling events. The trichloroethene detection in surface water is possibly due to groundwater to surface water discharge of the nearby trichloroethene-impacted groundwater plume, originating in Block E and discharging through Block F. These trichloroethene concentrations are below the United States Environmental Protection Agency screening level value of 21micrograms per liter, well below the human health consumption of organism's level of 300 micrograms per liter per the Code of Maryland Regulations, and below the Maryland Department of Environment-approved risk-based swimming screening level of 30 micrograms per liter.

cis-1,2-dichloroethene, a breakdown product of trichloroethene, was detected in five surface water samples in Dark Head Cove: SW5A2-S, SW6A-S, SW13A-S, SW15A-S, and SW16A-S at concentrations ranging from 0.32 and 0.51 micrograms per liter from the three 2018 sampling events. The maximum *cis*-1,2-dichloroethene concentration (0.51 J micrograms per liter) detected during the June sampling is more than 100 times below the most conservative screening criteria of the Maryland Department of the Environment-approved site-specific risk-based swimming screening level of 70 micrograms per liter for evaluating exposure risks to swimmers.

All additional volatile organic compounds detected: 1,2,4-trimethylbenzene, 2-butanone, acetone, bromodichloromethane, bromomethane, carbon disulfide, chloroform, and naphthalene were below their respective ecological and/or human health screening criteria.

1,4-Dioxane was detected in all three surface water samples from Cow Pen Creek and one sample (SW8B-S) from Dark Head Cove with the highest estimated concentration of 0.072 micrograms per liter at SW17A from the three sampling events. These concentrations are many orders of magnitude lower than the United States Environmental Protection Agency ecological screening level of 22,000 micrograms per liter. The concentrations are also below the Maryland Department of the Environment-approved site-specific risk-based swimming screening level of 30 micrograms per liter.

Polychlorinated biphenyls homologs, specifically total dichlorobiphenyls, were detected in all 14 surface water samples that were analyzed for these constituents. Surface water sampling and analysis for polychlorinated biphenyls was conducted only during the April 2018 sampling event and not during the June 2018 or September 2018 sampling events. Concentrations range from 0.0019 µg/L in sample SW13A to 0.0066 micrograms per liter in sample SW7A, both collected in Dark Head Cove. Although the concentrations detected are significantly less than in previously reported years, all 14 samples collected exceed the human health screening level of 0.00064 micrograms per liter set in place by the Code of Maryland Regulation for total polychlorinated biphenyls based on consumption of organisms. A fish consumption advisory is currently in effect for Middle River, recommending consumption of no more than six meals of blue crab per month for example, due to polychlorinated biphenyl contamination in the area.

Since high turbidity was not measured in the 2018 sampling event, polychlorinated biphenyls analytical detections were not associated with high turbidity, and therefore possibly represent dissolved surface water detections. A field blank was not collected or analyzed in the polychlorinated biphenyl sampling event but polychlorinated biphenyls were also detected in a field blank collected during the April 2018 site groundwater sampling, one week prior to the surface water sampling event.

To further evaluate the 2018 surface water polychlorinated biphenyls detections, Lockheed Martin Corporation proposes two action items:

thorough review of method detection limits, reporting limits, laboratory quality controls, and recoveries to identify any potential laboratory issues contributing to the detections.

2. Conduct an interim limited-scope surface water sampling event in Dark Head Cove. Laboratory split samples will be collected as a set of co-located field samples at eight of the Dark Head Cove locations, which will be analyzed by the two different laboratories (TestAmerica and ALS Environmental), in February 2019, prior to the April 2019 surface water sampling event to determine if procedures used by the different laboratories caused the variability between the 2017 and 2018 results. Laboratory split samples will be collected at a rate of 100% for polychlorinated biphenyl homolog analysis. The results of this study will be submitted to Maryland Department of the Environment once it is available.

The 2019 groundwater and surface water sampling programs will also be modified to include the comparison study and additional Quality Assurance measures upon agreement with Maryland Department of the Environment. In addition, AECOM Technical Services, Inc. plans to revise the *2018-2020 Groundwater and Surface Water Monitoring Work Plan* and its addenda (AECOM, 2017, 2018a, 2018b) to include a minimum of 48 hours of wait time prior to a scheduled surface water sampling event if there is a precipitation event (greater than 0.1 inches) to ensure site-representative sample data-quality and avoid chemicals of concern dilution influenced by rain events.

SECTION 6
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FIGURES

Figure 1 Middle River Complex Location Map

Figure 2 Site Layout and Tax Blocks

Figure 3 2018 Surface Water Sampling Locations

Figure 4 Analytes Detected in Surface Water Samples, 2018

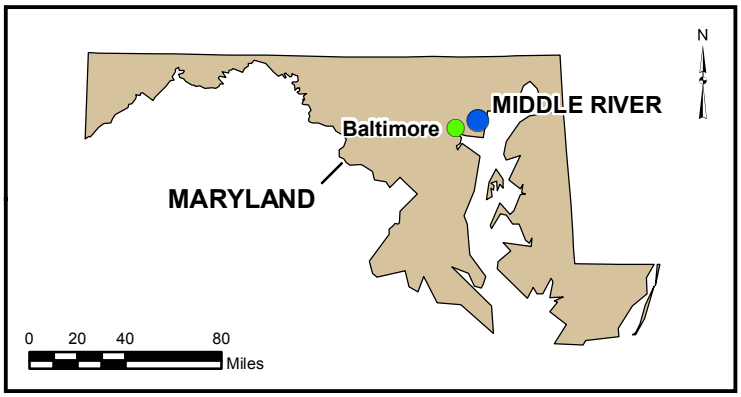

FIGURE 1

MIDDLE RIVER COMPLEX LOCATION MAP

Lockheed Martin Middle River Complex
Middle River, Maryland

DATE MODIFIED: 01/15/19	CREATED BY: JEE

AECOM

Map Document: (Q:\Projects\ENV\GEARS\GEO\Lockheed Martin\Middle River\Middle River FY18-20 GW_SW_Mon\900-CAD-GIS\920-GIS\MXDs\2018 SW Memo\Figure_1_Location_Map.mxd)
CREDITS: Aerial Imagery,ESRI, 2019; Basemap, Tetra Tech, 2017

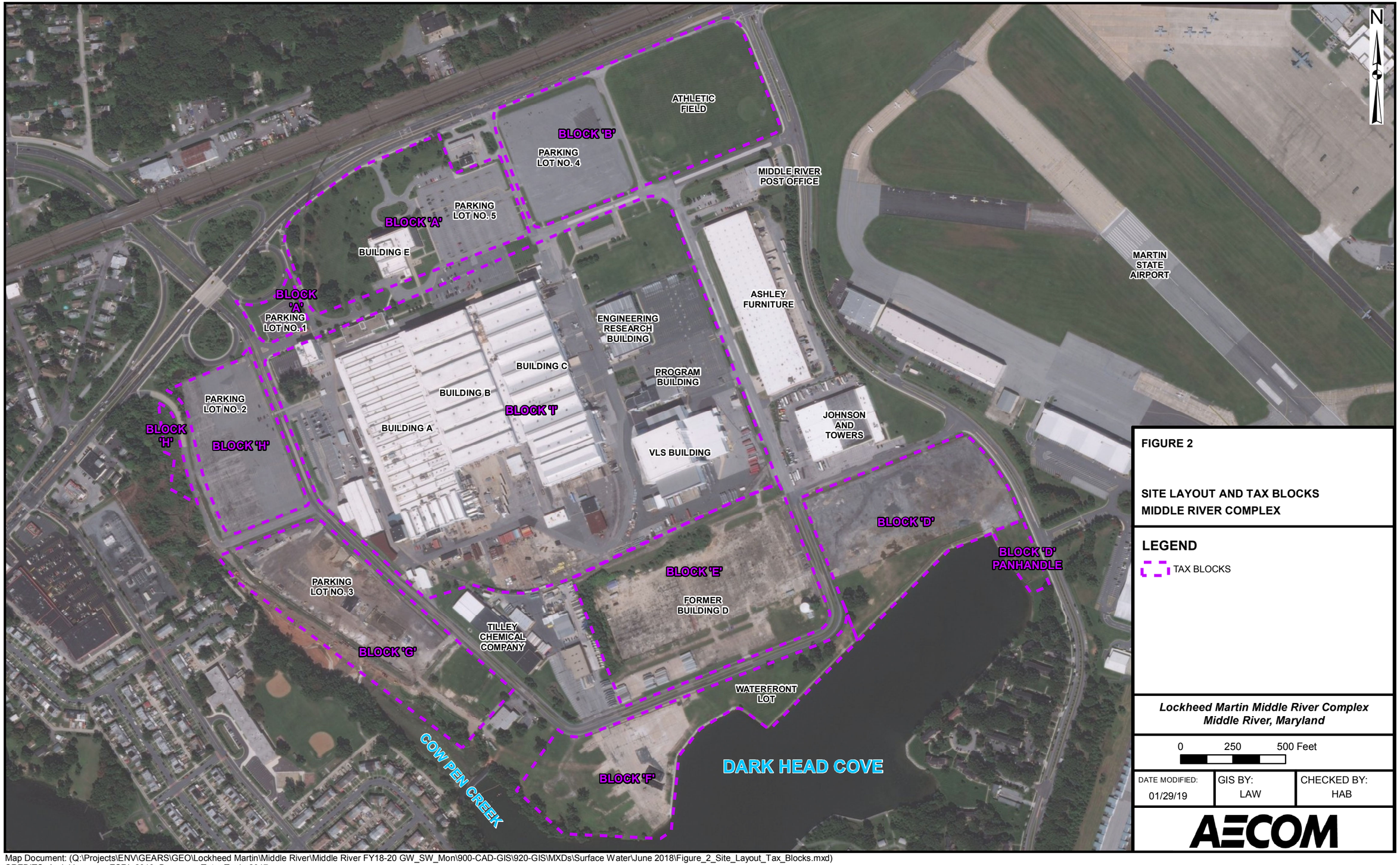

FIGURE 2

SITE LAYOUT AND TAX BLOCKS
MIDDLE RIVER COMPLEX

LEGEND

TAX BLOCKS

Lockheed Martin Middle River Complex
Middle River, Maryland

0 250 500 Feet

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CREDITS: Aerial Imagery, ESRI, 2019; Basemap, Tetra Tech, 2017

FIGURE 3

2018 SURFACE WATER SAMPLING LOCATIONS
COW PEN CREEK AND DARK HEAD COVE

LEGEND

- SURFACE WATER SAMPLE LOCATION
- STORMWATER OUTFALL LOCATION
- STAFF GAUGE
- TAX BLOCKS

Lockheed Martin Middle River Complex
Middle River, Maryland

0 250 500 Feet

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CREDITS: Aerial Imagery, ESRI, 2019; Basemap, Tetra Tech, 2017

MRC-SW8A-S			
Analyte	April	June	Sept
1,2,4-Trimethylbenzene	ND	0.61 J	ND
Acetone	8.3 B, bf	12.3	ND
Naphthalene	ND	0.53 J	ND
TCE	ND	0.6 J	ND
Total PCBs	0.0047 J	NS	NS

MRC-SW9A-S			
Analyte	April	June	Sept
Acetone	12.8 B, bf	7.5 J	ND
Total PCBs	0.0042 J	NS	NS

MRC-SW7A-S			
Analyte	April	June	Sept
Acetone	4.5 B, bf	8.1 J	3.6 J
Total PCBs	0.0066	NS	NS

MRC-SW6A-S			
Analyte	April	June	Sept
Acetone	11.4 B, bf	11.8 J+, s	ND
Carbon Disulfide	ND	0.38 B, bl	ND
cis-1,2-DCE	ND	ND	0.32 J
TCE	ND	1.1 J+, s	ND
Total PCBs	0.0038 J	NS	NS

MRC-SW7B-S			
Analyte	April	June	Sept
Acetone	13.4 B, bf	9.2 J	ND
Total PCBs	0.0038 J	NS	NS

MRC-SW9B-S			
Analyte	April	June	Sept
Acetone	5.5 B, bf	12.6	ND
Total PCBs	0.0028 J	NS	NS

MRC-SW17A			
Analyte	April	June	Sept
Acetone	11.2 B, bf	9.8 J	3.7 J
Bromodichloromethane	ND	0.31 J	ND
Chloroform	ND	1.1	ND
1,4-Dioxane	ND	0.042 B, bl	0.072 J

MRC-SW6B-S			
Analyte	April	June	Sept
Acetone	7.8 B, bf	8.3 J	ND
TCE	ND	0.59 J	ND
Total PCBs	0.0042 J	NS	NS

MRC-SW15A-S			
Analyte	April	June	Sept
Acetone	5.5 B, bf	14.6 B, bf	ND
Bromomethane	ND	0.47 B, bl	ND
Carbon Disulfide	ND	0.26 B, bf	ND
cis-1,2 DCE	ND	0.46 J	ND
TCE	ND	2.3	1.1
Total PCBs	0.0047	NS	NS

MRC-SW1A			
	April	June	Sept
Acetone	13.2 B, bf	11.4 B, bf	ND
Bromomethane	ND	0.49 B, bl	ND
1,4-Dioxane	ND	0.027 B, bl	ND

MRC-SW2A			
Analyte	April	June	September
2-Butanone	ND	1.9 J	ND
Acetone	13.6 B, bf	21.5 B, bf	ND
Bromomethane	ND	0.66 B, bl	0.58 J
1,4-Dioxane	ND	0.021 B, bl	ND

MRC-SW8B-S			
Analyte	April	June	Sept
Acetone	12.6 B, bf	13.3	ND
1,4-Dioxane	0.049 J	ND	ND
Total PCBs	0.0038 J	NS	NS

MRC-SW16A-S			
Analyte	April	June	Sept
Acetone	9.0 B, bf	17.8 B, bf	ND
Bromomethane	ND	0.45 B, bl	ND
cis-1,2 DCE	ND	0.51 J	ND
TCE	ND	2.5	0.85
Total PCBs	0.0042 J	NS	NS

MRC-SW5A1-S			
Analyte	April	June	Sept
Acetone	5.0 B, bf	10.8 B, bf	ND
Bromomethane	ND	0.47 B, bl	ND
Carbon Disulfide	ND	0.58 B, bf	ND
Total PCBs	0.0028 J	NS	NS

MRC-SW5A2-S			
Analyte	April	June	Sept
Acetone	ND	14.1 B, bf	3.6 J
Bromomethane	ND	0.45 B, bl	ND
Carbon Disulfide	ND	0.28 B, bf	ND
cis-1,2-DCE	ND	ND	0.37 J
Total PCBs	0.0033 J	NS	NS

MRC-SW5B-S			
Analyte	April	June	Sept
Acetone	8.3 B, bf	15.3 B, bf	ND
Bromomethane	ND	0.45 B, bl	ND
Chloromethane	ND	0.35 J	ND
Total PCBs	0.0042 J	NS	NS

MRC-SW13A-S			
Analyte	April	June	Sept
Acetone	8.1 B, bf	9.5 J+, s	3.1 J+, s
cis-1,2 DCE	0.37 J	ND	ND
TCE	1.6	ND	ND
Total PCBs	0.0019 J	NS	NS

FIGURE 4

ANALYTES DETECTED IN SURFACE WATER SAMPLES, 2018
COW PEN CREEK AND DARK HEAD COVE

LEGEND

- SURFACE WATER SAMPLE LOCATION
- STORMWATER OUTFALL LOCATION
- STAFF GAUGE
- TAX BLOCKS
- EXCEEDS SCREENING CRITERIA*

*Exceeds Maryland ambient water quality criteria for human health consumption of organisms, Code of Maryland Regulations (26.08.02.03)
B = The associated method blank or field blank displayed a detection greater than the DL. The reported result value is unchanged and did not require further qualification by data reviewers
bf = Field or trip blank contamination
bl = Laboratory blank contamination
DL = Detection limit
cis-1,2 DCE = *cis*-1,2-Dichloroethene
J = Estimated concentration
J+ = Reported value may not be accurate or precise, but the result may be biased high.
ND= Not dectected
NS = Not sampled
PCBs = polychlorinated biphenyls
s = Surrogate percent recovery anomaly
Sept = September
TCE = trichloroethene
Concentrations given in micrograms per liter (µg/L)
For Total PCBs results shown are for the dichlorobiphenyl homolog group. Only dichlorobiphenyls were detected during the April 2018 event.

Lockheed Martin Middle River Complex
Middle River, Maryland

0 250 500 Feet

DATE MODIFIED:	GIS BY:	CHECKED BY:
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AECOM

Map Document: (Q:\Projects\ENV\GEARS\GEO\Lockheed Martin\Middle River\Middle River FY18-20 GW_SW_Mon\900-CAD-GIS\920-GIS\Citrix\MXDs\Surface Water\All 2018\Figure_4_Detections_SW_All2018.mxd)
CREDITS: Aerial Imagery, ESRI, 2018; Basemap, Tetra Tech, 2017

TABLES

Table 1 2018 Surface Water Sampling Locations and Chemical Analyses

Table 2 Detected Analytes and Screening-Level Exceedances in 2018 Surface Water Samples

Table 3 2018 Field Measurements for Surface Water Quality

Table 4 Statistical Summary of Surface Water Sampling Results for Dark Head Cove and Cow Pen Creek

Table 1

2018 Surface Water Sampling Locations and Chemical Analyses
Lockheed Martin Corporation, Middle River Complex, Middle River, Maryland

Sample location	Sample number	Distance from shore (in feet)	Samples per round	Analytical parameters (all samples)
Dark Head Cove				
Outfalls 0055E and 005W*	MRC-SW5A1-S MRC-SW5A2-S MRC-SW5B-S	10 10 50	1 1 1	VOCs, PCBs*** field parameters
Outfall 006	MRC-SW6A-S MRC-SW6B-S	10 50	1 1	VOCs, 1,4 Dioxane, PCBs*** field parameters
Outfall 007	MRC-SW7A-S MRC-SW7B-S	10 50	1 1	VOCs, PCBs*** field parameters
Outfall 008	MRC-SW8A-S MRC-SW8B-S	10 50	1 1	VOCs, 1,4 Dioxane, PCBs*** field parameters
Outfall 009	MRC-SW9A-S MRC-SW9B-S	10 50	1 1	VOCs, PCBs*** field parameters
Dark Head Cove	MRC-SW13A-S MRC-SW15A-S MRC-SW16A-S	10 10 50	1 1 1	VOCs, PCBs*** field parameters
Cow Pen Creek				
Outfall 003	MRC-SW17A	downstream**	1	VOCs, 1,4-dioxane field parameters
Near western plume	MRC-SW1A MRC-SW2A	upstream** downstream**	1 1	

Notes:

Samples were collected in April, June and September each year

* Two near-shore samples (10-feet) were collected only at Outfall 5; at the remaining outfalls, one near-shore (10-feet) sample were collecte

** Samples were collected from the creek's centerline, 10 feet upstream (northwest) and 10 feet downstream (southeast) from the estimated groundwater plume boundaries.

*** PCB samples were collected only in the April round

All samples were collected one foot below the water surface.

VOCs – volatile organic compounds by USEPA SW-846 Method 8260C

PCBs – polychlorinated biphenyl homologs by USEPA SW-846 Method 680

1,4-Dioxane by USEPA SW-848270D Selected Ion Monitoring

USEPA – United States Environmental Protection Agency

Field parameters include pH, temperature, specific conductance, dissolved oxygen (DO), hardness, turbidity, oxidation-reduction potential (ORI and salinity using calibrated portable field instruments (Horiba U-10 or equivalent) at the time of sampling.

Hardness analyses required use of a field test kit (Hach 145201 Total Hardness Test Kit, Model HA-71A)

Blanks and Quality Control/Assurance Samples

Trip Blank - One per shipment to the laboratory, VOCs only

Field Duplicate Frequency - 10% frequency, all analyses

Table 2
Detected Analytes and Screening Level Exceedances in 2018 Surface Water Samples
Lockheed Martin Corporation, Middle River Complex, Middle River, Maryland

Analyte	CAS Number	National Recommended Water Quality		Ecological Surface Water Screening Level (2)	Human Health Consumption (Organism Only) (1) (3)	Swimming Screening Levels (4)	Sample Event	MRC-SW1A Field Sample			MRC-SW2A Field Sample			MRC-SW5A1-S Field Sample			MRC-SW5A2-S Field Sample			MRC-SW5B-S Field Duplicate			MRC-SW6A-S Field Sample			MRC-SW6B-S Field Sample			MRC-SW7A-S Field Sample			MRC-SW7B-S Field Sample		
		Acute	Chronic					Result	FQ	RC	Result	FQ	RC	Result	FQ	RC	Result	FQ	RC	Result	FQ	RC	Result	FQ	RC	Result	FQ	RC	Result	FQ	RC	Result	FQ	RC
VOLATILES (µg/L)																																		
1,2,4-Trimethylbenzene	95-63-6	NE	NE	33	NE	NE	April 2018	ND	U		ND	U		ND	U		ND	U		ND	U		ND	U		ND	U		ND	U		ND	U	
							June 2018	ND	U		ND	U		ND	U		ND	U		ND	U		ND	U		ND	U		ND	U		ND	U	
							Sept 2018	ND	U		ND	U		ND	U		ND	U		ND	U		ND	U		ND	U		ND	U		ND	U	
2-Butanone	78-93-3	NE	NE	14000	NE	NE	April 2018	ND	U		ND	U		ND	U		ND	U		ND	U		ND	U		ND	U		ND	U		ND	U	
							June 2018	ND	U		**1.9**	J		ND	U		ND	U		ND	U		ND	U		ND	U		ND	U		ND	U	
							Sept 2018	ND	U		ND	U		ND	U		ND	U		ND	U		ND	U		ND	U		ND	U		ND	U	
Acetone	67-64-1	NE	NE	1500	NE	NE	April 2018	**13.2**	B	bf	**13.6**	B	bf	**5**	B	bf	ND	U		**8.3**	B	bf	**11.4**	B	bf	**7.8**	B	bf	**4.5**	B	bf	**13.4**	B	bf
							June 2018	**11.4**	B	bf	**21.5**	B	bf	**10.8**	B	bf	**14.1**	B	bf	**15.3**	B	bf	**11.8**	J+	s	**8.3**	J		**8.1**	J		**9.2**	J	
							Sept 2018	ND	U		ND	U		ND	U		**3.6**	J		ND	U		ND	U		ND	U		**3.6**	J		ND	U	
Bromodichloromethane	75-27-4	NE	NE	NE	170	NE	April 2018	ND	U		ND	U		ND	U		ND	U		ND	U		ND	U		ND	U		ND	U		ND	U	
							June 2018	ND	U		ND	U		ND	U		ND	U		ND	U		ND	U		ND	U		ND	U		ND	U	
							Sept 2018	ND	U		ND	U		ND	U		ND	U		ND	U		ND	U		ND	U		ND	U		ND	U	
Bromomethane	74-83-9	NE	NE	NE	1500	NE	April 2018	ND	U		ND	U		ND	U		ND	U		ND	U		ND	U		ND	U		ND	U		ND	U	
							June 2018	**0.49**	B	bl	**0.66**	B	bl	**0.47**	B	bl	**0.45**	B	bl	**0.45**	B	bl	ND	U		ND	U		ND	U		ND	U	
							Sept 2018	ND	U		**0.58**	J		ND	U		ND	U		ND	U		ND	U		ND	U		ND	U		ND	U	
Carbon Disulfide	75-15-0	NE	NE	0.92	NE	NE	April 2018	ND	U		ND	U		ND	U		ND	U		ND	U		ND	U		ND	U		ND	U		ND	U	
							June 2018	ND	U		ND	U		**0.58**	B	bf	**0.28**	B	bf	ND	U		**0.38**	B	bl	ND	U		ND	U		ND	U	
							Sept 2018	ND	U		ND	U		ND	U		ND	U		ND	U		ND	U		ND	U		ND	U		ND	U	
Chloroform	67-66-3	NE	NE	1.8	4700	NE	April 2018	ND	U		ND	U		ND	U		ND	U		ND	U		ND	U		ND	U		ND	U		ND	U	
							June 2018	ND	U		ND	U		ND	U		ND	U		ND	U		ND	U		ND	U		ND	U		ND	U	
							Sept 2018	ND	U		ND	U		ND	U		ND	U		ND	U		ND	U		ND	U		ND	U		ND	U	
Chloromethane	74-87-3	NE	NE	NE	NE	NE	April 2018	ND	U		ND	U		ND	U		ND	U		ND	U		ND	U		ND	U		ND	U		ND	U	
							June 2018	ND	U		ND	U		ND	U		ND	U		**0.35**	J		ND	U		ND	U		ND	U		ND	U	
							Sept 2018	ND	U		ND	U		ND	U		ND	U		ND	U		ND	U		ND	U		ND	U		ND	U	
cis -1,2-Dichloroethene	156-59-2	NE	NE	590	NE	70	April 2018	ND	U		ND	U		ND	U		ND	U		ND	U		ND	U		ND	U		ND	U		ND	U	
							June 2018	ND	U		ND	U		ND	U		ND	U		ND	U		ND	U		ND	U		ND	U		ND	U	
							Sept 2018	ND	U		ND	U		ND	U		**0.37**	J		ND	U		**0.32**	J		ND	U		ND	U		ND	U	
Naphthalene	91-20-3	NE	NE	1.1	NE	NE	April 2018	ND	U		ND	U		ND	U		ND	U		ND	U		ND	U		ND	U		ND	U		ND	U	
							June 2018	ND	U		ND	U		ND	U		ND	U		ND	U		ND	U		ND	U		ND	U		ND	U	
							Sept 2018	ND	UJ	l	ND	UJ	l	ND	U		ND	U		ND	U		ND	U		ND	U		ND	U		ND	U	
Trichloroethene	79-01-6	NE	NE	21	300	30	April 2018	ND	U		ND	U		ND	U		ND	U		ND	U		ND	U		ND	U		ND	U		ND	U	
							June 2018	ND	U		ND	U		ND	U		ND	U		ND	U		**1.1**	J+	s	**0.59**	J		ND	U		ND	U	
							Sept 2018	ND	U		ND	U		ND	U		ND	U		ND	U		ND	U		ND	U		ND	U		ND	U	
1,4-DIOXANE (analyzed as a Semivolatile Organic; µg/L)																																		
1,4-Dioxane	123-91-1	NE	NE	22000	NE	30	April 2018	ND	U		ND	U		NS			NS			NS			ND	U		ND	U		NS			NS		
							June 2018	**0.027**	B	bl	**0.021**	B	bl	NS			NS			NS			ND	U		ND	U		ND	U		ND	U	
							Sept 2018	ND	U		ND	U		NS			NS			NS			ND	U		ND	U		NS			NS		
POLYCHLORINATED BIPHENYLS (µg/L)																																		
Total PCBs (5)	1336-36-3	NE	0.014	NE	0.00064	10	April 2018	NS			NS			**0.0028**	J		**0.0033**	J		**0.0042**	J		**0.0038**	J		**0.0042**	J		**0.0066**			**0.0038**	J	
							June 2018	NS			NS			NS			NS			NS			NS			NS			NS			NS		
							Sept 2018	NS			NS			NS			NS			NS			NS			NS			NS			NS		

Bold values indicate detections
Yellow shading indicates a results that exceeds a screening criterion

References
1 National Recommended Water Quality Criteria, http://water.epa.gov/scitech/swguidance/standards/current/index.cfm; and Maryland Numerical Criteria for Toxic Substances in Surface Waters, Code of Maryland Regulations (COMAR) 26.08.02.03, http://www.dsd.state.md.us./comar/comarhtml/26/26.08.02.03-2.htm
2 United States Environmental Protection Agency (USEPA) Region 3 Biological Technical Advisory Group (BTAG) Freshwater Screening Benchmarks. Value for 1,4-dioxane is the USEPA Region 5 ecological screening value (USEPA, 2003).
3 For carcinogens, criterion is for incremental cancer risk of $1x10^{-5}$
4 Risk-based swimming screening levels were developed for trichloroethene, *cis* -1,2-dichloroethene, 1,4 dioxane and Total PCBs for Dark Head Cove.
5 The results shown are for the dichlorobiphenyl homolog group. Only dichlorobiphenyls were detected during the April 2018 event.

Definitions
FQ - Final Qualifier
MRC - Middle River Complex
ND - not detected
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µg/L - micrograms per liter

Data Qualifiers and Reason Codes
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Table 2
Detected Analytes and Screening Level Exceedances in 2018 Surface Water Samples
Lockheed Martin Corporation, Middle River Complex, Middle River, Maryland

Analyte	CAS Number	National Recommended Water Quality		Ecological Surface Water Screening Level (2)	Human Health Consumption (Organism Only) (1) (3)	Swimming Screening Levels (4)	Sample Event	MRC-SW8A-S Field Sample			MRC-SW8A-S-DUP Field Duplicate			MRC-SW8B-S Field Sample			MRC-SW9A-S Field Sample			MRC-SW9B-S Field Sample			MRC-SW13A-S Field Sample			MRC-SW15A-S Field Sample			MRC-SW16A-S Field Sample			MRC-SW17A Field Sample			MRC-SW17A DUP Field Duplicate		
		Acute	Chronic					Result	FQ	RC	Result	FQ	RC	Result	FQ	RC	Result	FQ	RC	Result	FQ	RC	Result	FQ	RC	Result	FQ	RC	Result	FQ	RC	Result	FQ	RC	Result	FQ	RC
VOLATILES (µg/L)																																					
1,2,4-Trimethylbenzene	95-63-6	NE	NE	33	NE	NE	April 2018	ND	U		ND	U		ND	U		ND	U		ND	U		ND	U		ND	U		ND	U		ND	U		NS		
							June 2018	**0.61**	J		NS			ND	U		ND	U		ND	U		ND	U		ND	U		ND	U		ND	U		ND	U	
							Sept 2018	ND	U		ND	U		ND	U		ND	U		ND	U		ND	U		ND	U		ND	U		ND	U		NS		
2-Butanone	78-93-3	NE	NE	14000	NE	NE	April 2018	ND	U		ND	U		ND	U		ND	U		ND	U		ND	U		ND	U		ND	U		ND	U		NS		
							June 2018	ND	U		NS			ND	U		ND	U		ND	U		ND	U		ND	U		ND	U		ND	U		ND	U	
							Sept 2018	ND	U		ND	U		ND	U		ND	U		ND	U		ND	U		ND	U		ND	U		ND	U		NS		
Acetone	67-64-1	NE	NE	1500	NE	NE	April 2018	**8**	B	bf	**8.3**	B	bf	**12.6**	B	bf	**12.8**	B	bf	**5.5**	B	bf	**8.1**	B	bf	**5.5**	B	bf	**9**	B	bf	**11.2**	B	bf	NS		
							June 2018	**12.3**			NS			**13.3**			**7.5**	J		**12.6**			**9.5**	J+	s	**14.6**	B	bf	**17.8**	B	bf	**7.4**	J		**9.8**	J	
							Sept 2018	ND	U		ND	U		ND	U		ND	U		ND	U		**3.1**	J+	s	ND	U		ND	U		**3.7**	J		NS		
Bromodichloromethane	75-27-4	NE	NE	NE	170	NE	April 2018	ND	U		ND	U		ND	U		ND	U		ND	U		ND	U		ND	U		ND	U		ND	U		NS		
							June 2018	ND	U		NS			ND	U		ND	U		ND	U		ND	U		ND	U		ND	U		**0.31**	J		**0.3**	J	
							Sept 2018	ND	U		ND	U		ND	U		ND	U		ND	U		ND	U		ND	U		ND	U		ND	U		NS		
Bromomethane	74-83-9	NE	NE	NE	1500	NE	April 2018	ND	U		ND	U		ND	U		ND	U		ND	U		ND	U		ND	U		ND	U		ND	U		NS		
							June 2018	ND	U		NS			ND	U		ND	U		ND	U		ND	U		**0.47**	B	bl	**0.45**	B	bl	ND	U		ND	U	
							Sept 2018	ND	U		ND	U		ND	U		ND	U		ND	U		ND	U		ND	U		ND	U		ND	U		NS		
Carbon Disulfide	75-15-0	NE	NE	0.92	NE	NE	April 2018	ND	U		ND	U		ND	U		ND	U		ND	U		ND	U		ND	U		ND	U		ND	U		NS		
							June 2018	ND	U		NS			ND	U		ND	U		ND	U		ND	U		**0.26**	B	bf	ND	U		ND	U		ND	U	
							Sept 2018	ND	U		ND	U		ND	U		ND	U		ND	U		ND	U		ND	U		ND	U		ND	U		NS		
Chloroform	67-66-3	NE	NE	1.8	4700	NE	April 2018	ND	U		ND	U		ND	U		ND	U		ND	U		ND	U		ND	U		ND	U		ND	U		NS		
							June 2018	ND	U		NS			ND	U		ND	U		ND	U		ND	U		ND	U		ND	U		**1.1**			**1.1**		
							Sept 2018	ND	U		ND	U		ND	U		ND	U		ND	U		ND	U		ND	U		ND	U		ND	U		NS		
Chloromethane	74-87-3	NE	NE	NE	NE	NE	April 2018	ND	U		ND	U		ND	U		ND	U		ND	U		ND	U		ND	U		ND	U		ND	U		NS		
							June 2018	ND	U		NS			ND	U		ND	U		ND	U		ND	U		ND	U		ND	U		ND	U		ND	U	
							Sept 2018	ND	U		ND	U		ND	U		ND	U		ND	U		ND	U		ND	U		ND	U		ND	U		NS		
cis -1,2-Dichloroethene	156-59-2	NE	NE	590	NE	70	April 2018	ND	U		ND	U		ND	U		ND	U		ND	U		**0.37**	J		ND	U		ND	U		ND	U		NS		
							June 2018	ND	U		NS			ND	U		ND	U		ND	U		ND	U		**0.46**	J		**0.51**	J		ND	U		ND	U	
							Sept 2018	ND	U		ND	U		ND	U		ND	U		ND	U		ND	U		ND	U		ND	U		ND	U		NS		
Naphthalene	91-20-3	NE	NE	1.1	NE	NE	April 2018	ND	U		ND	U		ND	U		ND	U		ND	U		ND	U		ND	U		ND	U		ND	U		NS		
							June 2018	**0.53**	J		NS			ND	U		ND	U		ND	U		ND	U		ND	U		ND	U		ND	U		ND	U	
							Sept 2018	ND	U		ND	U		ND	U		ND	U		ND	U		ND	U		ND	U		ND	U		ND	U		NS		
Trichloroethene	79-01-6	NE	NE	21	300	30	April 2018	ND	U		ND	U		ND	U		ND	U		ND	U		**1.6**			ND	U		ND	U		ND	U		NS		
							June 2018	**0.6**	J		NS			ND	U		ND	U		ND	U		ND	U		**2.3**			**2.5**			ND	U		ND	U	
							Sept 2018	ND	U		ND	U		ND	U		ND	U		ND	U		ND	U		**1.1**			**0.85**	J		ND	U		NS		
1,4-DIOXANE (analyzed as a Semivolatile Organic; µg/L)																																					
1,4-Dioxane	123-91-1	NE	NE	22000	NE	30	April 2018	ND	U		ND	U		**0.049**	J		NS			NS			NS			NS			NS			ND	U		NS		
							June 2018	ND	U		NS			ND	U		ND	U		ND	U		ND	U		ND	U		ND	U		**0.042**	B	bl	**0.037**	B	bl
							Sept 2018	ND	U		ND	U		ND	U		NS			NS			NS			NS			NS			**0.072**	J		NS		
POLYCHLORINATED BIPHENYLS (µg/L)																																					
Total PCBs (5)	1336-36-3	NE	0.014	NE	0.00064	10	April 2018	**0.0033**	J		**0.0047**			**0.0038**	J		**0.0042**	J		**0.0028**	J		**0.0019**	J		**0.0047**			**0.0042**	J		NS			NS		
							June 2018	NS			NS			NS			NS			NS			NS			NS			NS			NS			NS		
							Sept 2018	NS			NS			NS			NS			NS			NS			NS			NS			NS			NS		

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Table 3
Field Measurements for Surface Water Quality, 2018
Lockheed Martin Corporation, Middle River Complex, Middle River, Maryland

Location	Date	Time	Temp (°C)	pH (s.u.)	Specific Conductance (mS/cm)	Turb (NTU)	DO (mg/L)	ORP (mV)	Salinity (ppt)	Hardness (mg/L CaCO3)
MRC-SW1A	4/16/2018	1620	13.42	7.37	6.956	14.9	9.17	234	1.4	359.8
	6/25/2018	1542	27.19	8.27	1.814	20.8	10.32	161.5	2.5	402.5
	9/21/2018	1322	22.94	7.7	37.75	8.2	7.87	116.7	25.06	119.7
MRC-SW2A	4/16/2018	1638	13.42	7.93	6.401	13.6	9.06	221.3	1.4	367.5
	6/25/2018	1528	27.35	8.13	1.951	0.6	9.58	170.2	2.5	398.4
	9/21/2018	1251	23.09	7.75	38.12	5.6	7.89	114.1	25.2	119.7
MRC-SW5A1-S	4/17/2018	0912	12.82	9.03	8.074	8	9.18	161.3	1.4	342
	6/25/2018	1505	26.6	7.85	2.029	5.1	7.75	174.1	2.5	397.6
	9/21/2018	1221	23.17	8.09	41.81	2.7	8.32	111.6	27.92	119.7
MRC-SW5A2-S	4/17/2018	0924	12.85	9.02	8.125	8.8	8.99	158.9	1.4	376.2
	6/25/2018	1500	26.49	7.84	2.028	5.1	7.49	171.4	2.5	405.9
	9/21/2018	1215	23.32	8.11	42.11	2.3	8.14	115.2	28.05	119.7
MRC-SW5B-S	4/17/2018	0940	12.84	9.03	8.112	8.7	9.24	167.7	1.4	359.7
	6/25/2018	1513	26.61	7.97	2.031	5.5	8.34	172.8	2.5	403.6
	9/21/2018	1206	23.25	8.23	41.88	2.7	8.44	115.5	27.93	119.7
MRC-SW6A-S	4/17/2018	1002	12.48	9.12	7.543	8.5	9.56	201.1	1.4	359.1
	6/25/2018	1217	26.46	7.74	2.027	5.1	7.56	188.4	2.5	378.4
	9/21/2018	1032	23.45	8.29	42.06	2.7	8.73	154.5	27.94	119.7
MRC-SW6B-S	4/17/2018	1051	12.37	9.12	7.573	7.9	9.68	173.2	1.4	367.5
	6/25/2018	1232	26.51	7.71	2.034	5.4	8.15	192.9	2.5	400.2
	9/21/2018	1046	23.47	8.36	42.09	2.6	8.81	166.1	27.94	119.7
MRC-SW7A-S	4/17/2018	0804	12.69	8.06	7.514	11	9.23	232.7	1.4	376.2
	6/25/2018	1115	26.26	7.64	1.973	5	6.49	176.2	2.6	386.5
	9/21/2018	0953	23.44	8.09	41.88	3.1	8.43	151.2	27.81	119.7
MRC-SW7B-S	4/17/2018	0837	12.65	8.24	7.51	10.2	8.28	226.5	1.4	359.1
	6/25/2018	1129	26.08	7.41	2.014	6.3	7.69	197.1	2.5	410.8
	9/21/2018	1004	23.46	8	42.04	3.1	8.43	162	27.92	119.7
MRC-SW8A-S	4/17/2018	1016	12.73	9.08	7.724	10	9.26	159.8	1.4	359.7
	6/25/2018	1258	26.47	7.88	2.024	6.1	0.61	177.9	2.5	392.3
	9/21/2018	1113	23.47	8.5	42.11	2.7	8.8	129.5	27.96	119.7
MRC-SW8B-S	4/17/2018	1104	12.4	9.11	7.612	7.6	9.67	171.7	1.4	366.6
	6/25/2018	1304	26.43	7.76	2.027	5.5	7.8	173.2	2.5	415.1
	9/21/2018	1101	23.48	8.51	42.12	2.6	8.89	138.38	27.96	119.7
MRC-SW9A-S	4/17/2018	0842	12.66	9.01	7.62	8.5	9.39	187.2	1.4	366.6
	6/25/2018	1150	26.11	7.49	2.027	0.3	6.68	195.1	2.5	409.7
	9/21/2018	1013	23.43	8.08	42.01	2.6	8.5	167	27.92	119.7
MRC-SW9B-S	4/17/2018	0806	12.56	9.05	7.628	8.9	9.58	196.6	1.4	342.5
	6/25/2018	1205	26.28	7.67	2.027	5	7.7	205.1	2.6	389.9
	9/21/2018	1021	23.44	8.2	42.03	2.5	8.68	159.4	27.92	119.7
MRC-SW13A-S	4/17/2018	1144	12.68	9.04	7.838	9.7	9.32	170.4	1.4	342.6
	6/25/2018	1325	26.45	7.76	2.029	5	7.35	168.8	2.5	385.4
	9/21/2018	1156	23.4	8.36	42.15	2.3	8.49	116.1	28.03	119.7
MRC-SW15A-S	4/17/2018	1140	12.58	9.07	7.77	8.1	9.3	171	1.4	343.5
	6/25/2018	1442	26.64	7.92	2.028	0.5	7.82	170.8	2.5	401.5
	9/21/2018	1149	23.42	8.36	42.14	2.6	8.63	117.2	28.01	119.7
MRC-SW16A-S	4/17/2018	1120	12.57	9.1	7.746	15.3	9.32	171.2	1.4	342.5
	6/25/2018	1429	26.56	8.03	2.022	6.7	7.76	172	2.5	405.9
	9/21/2018	1140	23.41	8.34	42.12	2.6	8.65	119.5	28.01	119.7
MRC-SW17A	4/16/2018	1507	12.54	7.88	0.303	32.1	9.09	175.8	1.4	359.1
	6/26/2018	1036	21.42	7.14	0.635	6	8.38	192.7	0.3	402.8
	9/21/2018	1414	20.07	7.58	25.2	5.4	7.54	193.7	17.16	171

Notes:
Temp - Temperature
(°C) - Degrees Celcius
s.u. - Standard units
µs/cm - MicroSiemens per centimeter
Turb - Turbidity
NTU - Nephelometric turbidity unit
DO - Dissolved oxygen
mg/L - milligrams per liter
ORP - Oxidation reduction potential
mV - millivolts
ppt - parts per trillion

Table 4
Statistical Summary of Surface Water Sampling Results for Dark Head Cove and Cow Pen Creek
April, June, and September 2018
Lockheed Martin Corporation, Middle River Complex, Middle River, Maryland

Parameter	Frequency of Detection		Minimum Non-Detect Concentration	Maximum Non-Detect Concentration	Minimum Detected Concentration	Maxmimum Detected Concentration	Location of Maximum Detected Concentration	Average of All Results (1)	Average of Detected Results	Standard Deviation	Sampling Date (2)
	Number	Percent									
VOLATILES (µg/L)											
1,2,4-Trimethylbenzene	1/54	2%	1	1	0.61 J	0.61 J	MRC-SW8A-S	0.61	0.61	N/A	6/25/2018
2-Butanone	1/54	2%	10	10	1.9 J	1.9 J	MRC-SW2A	1.9	1.9	N/A	6/25/2018
Acetone	39/54	72%	10	10	3.1 J+	21.5 B	MRC-SW2A	9.078	9.936	4.12	6/25/2018
Bromodichloromethane	2/54	4%	1	1	0.3 J	0.31 J	MRC-SW17A	0.305	0.305	0.00707	6/26/2018
Bromomethane	8/54	15%	1	1	0.45 B	0.66 B	MRC-SW2A	0.503	0.503	0.0769	6/25/2018
Carbon Disulfide	4/54	7%	1	1	0.26 B	0.58 B	MRC-SW5A1-S	0.375	0.375	0.146	6/25/2018
Chloroform	2/54	4%	1	1	1.1	1.1	MRC-SW17A	1.004	1.1	0	6/26/2018
Chloromethane	1/54	2%	1	1	0.35 J	0.35 J	MRC-SW5B-S	0.35	0.35	N/A	6/25/2018
cis-1,2-Dichloroethene	5/54	9%	1	1	0.32 J	0.51 J	MRC-SW16A-S	0.406	0.406	0.077	6/25/2018
Naphthalene	1/54	2%	2	2	0.53 J	0.53 J	MRC-SW8A-S	0.53	0.53	N/A	6/25/2018
Trichloroethene	8/54	15%	1	1	0.59 J	2.5	MRC-SW16A-S	0.776	1.33	0.737	6/25/2018
1,4-DIOXANE (analyzed as a Semivolatile Organic; µg/L)											
1,4-Dioxane	6/31	19%	0.093	0.099	0.021 B	0.072 J	MRC-SW17A	0.0413	0.0413	0.0181	9/21/2018
POLYCHLORINATED BIPHENYLS (µg/L)											
Total PCBs (3)	15/15	100%	N/A	N/A	0.0019 J	0.0066	MRC-SW7A-S	0.00389	0.00389	0.00107	4/17/2018

1 If the dataset contains non-detects, the average was calculated using the Kaplan Meier method.
2 Date of sample in which maximum concentration was detected.
3 The results shown are for the dichlorobiphenyl homolog group. Only dichlorobiphenyls were detected during the April 2018 event.

B = The associated method blank or field blank displayed a detection greater than the DL. The reported result value is unchanged and did not require further qualification by data reviewers.
J = Estimated concentration
J+ = Reported value may not be accurate or precise, but the result may be biased high.
µg/L = micrograms per liter
MRC = Middle River Complex
N/A = not applicable

APPENDICES

Appendix A—Distribution of 1,4-Dioxane in Groundwater, 2017

Appendix B—Surface Water Sampling Log Sheets

Appendix C—Data Validation Reports

Appendix D—Laboratory Analytical Data Reports

APPENDIX A
DISTRIBUTION OF 1,4-DIOXANE IN GROUNDWATER, 2017

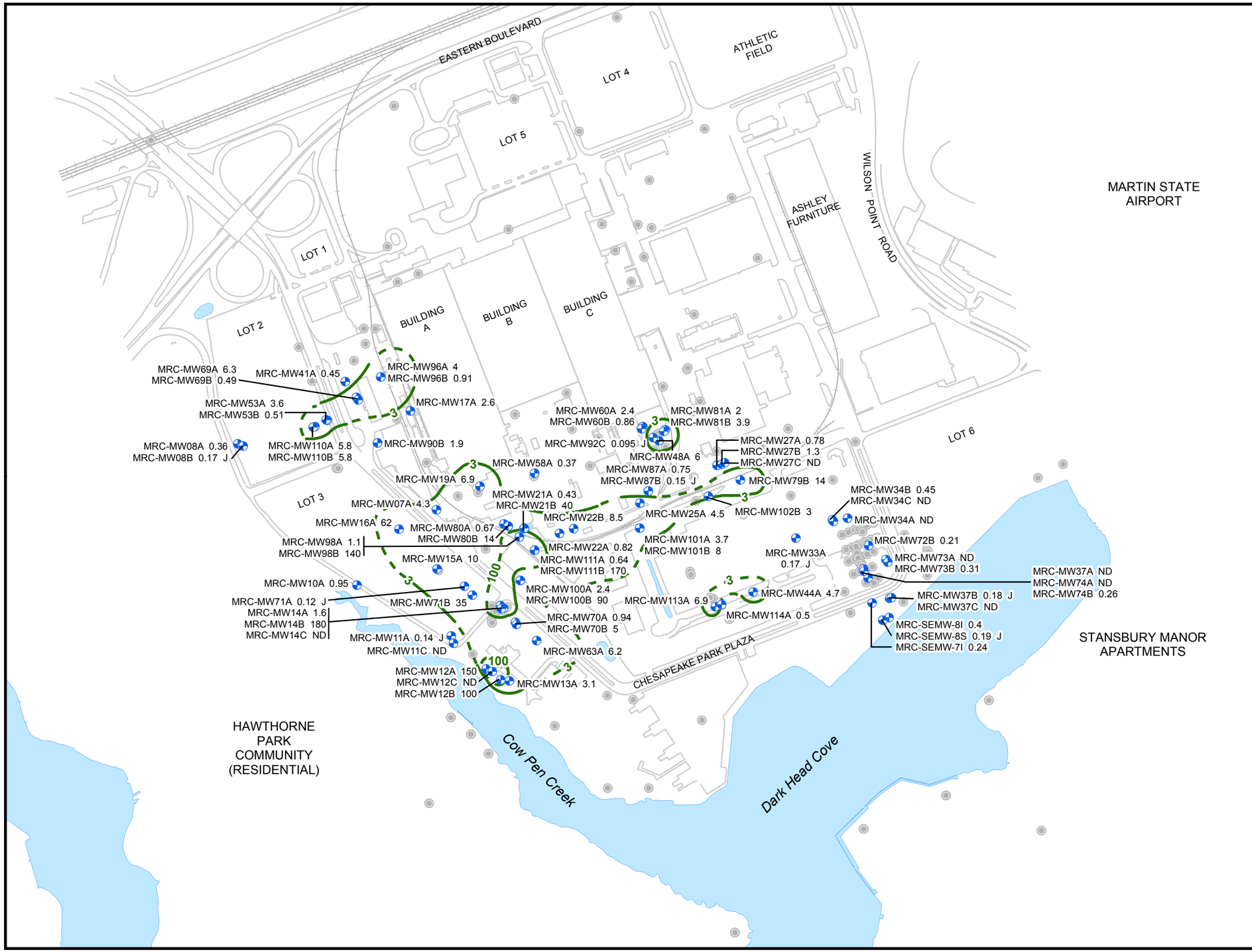


FIGURE 4-5

DISTRIBUTION OF 1,4-DIOXANE IN GROUNDWATER, 2017

LEGEND

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

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

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

Lockheed Martin Middle River Complex
Middle River, Maryland

0 225 450 Feet

N

DATE MODIFIED: 08/23/17

CREATED BY: JEE

TETRA TECH

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

APPENDIX B
Surface Water Sampling Forms

April 2018

AECOM

SURFACE WATER SAMPLE LOG SHEET

Project Site Name: Lockheed Martin Corporation Middle River Complex
Project No.: 60555202

Sample ID No.: MRC-SW1A
Sample Location: MRC-SW1A
Sampled By: Zach Neigh

[] Domestic Well Data
[] Monitoring Well Data
[X] Other: Tidal Creek - Freshwater
[] QA Sample Type: _____

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

SAMPLING DATA:

	Color (Visual)	pH (S.U.)	S.C. (mS/cm)	Temp. (°C)	Turbidity (NTU)	DO (mg/l)	Salinity (ppt)	ORP (mV)
Date: 04/16/2018 Time: 1620 Method: Grab Sample Depth: 1 ft below water surface Static Water Level: Wilson Pt. Park Guage 1500: 2.90 ft 1700: 2.80 ft	clear	7.37	6.956	13.42	14.9	9.17	1.4	234

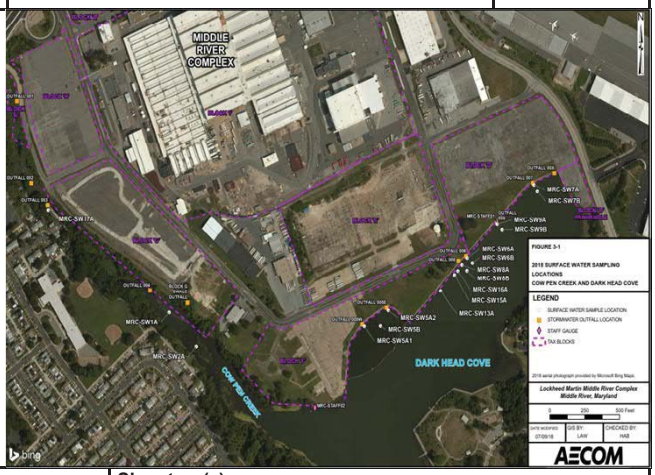
SAMPLE COLLECTION INFORMATION:

Analysis	Preservative	Container Requirements	Collected
VOCs (8260C)	HCl	1 - 40 mL glass vial	Yes
1,4-dioxane (8270D/SIM)	None	1 - 1 L amber	Yes

OBSERVATIONS / NOTES:

Hardness (mg/L CaCO3) = 359.8

MAP:



Circle if Applicable: N/A

MS/MSD

Duplicate ID No.:

Signature(s):

AECOM

SURFACE WATER SAMPLE LOG SHEET

Page 1 of 1

Project Site Name: Lockheed Martin Corporation Middle River Complex
Project No.: 60555202

Sample ID No.: MRC-SW2A
Sample Location: MRC-SW2A
Sampled By: Zach Neigh

[] Domestic Well Data
[] Monitoring Well Data
[X] Other: Tidal Creek - Freshwater
[] QA Sample Type: _____

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

SAMPLING DATA:

Date: 04/16/2018 Time: 1638	Color (Visual)	pH (S.U.)	S.C. (mS/cm)	Temp. (°C)	Turbidity (NTU)	DO (mg/l)	Salinity (ppt)	ORP (mV)
Method: Grab Sample Depth: 1 ft below water surface Static Water Level: Wilson Pt. Park Gauge 1500: 2.90 ft 1700: 2.80 ft	clear	7.93	6.401	13.42	13.6	9.06	1.4	221.3

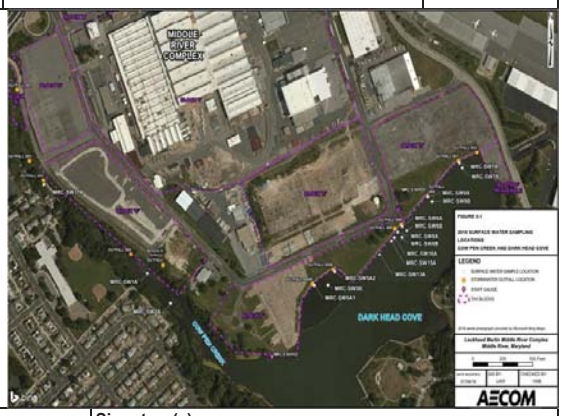
SAMPLE COLLECTION INFORMATION:

Analysis	Preservative	Container Requirements	Collected
VOCs (8260C)	HCl	1 - 40 mL glass vial	Yes
1,4-dioxane (8270D/SIM)	None	1 - 1 L amber	Yes

OBSERVATIONS / NOTES:

Hardness (mg/L CaCO3) = 367.5

MAP:



Circle if Applicable: N/A

MS/MSD

Duplicate ID No.:

Signature(s): Zachary Neigh

AECOM

SURFACE WATER SAMPLE LOG SHEET

Page 1 **of** 1

Project Site Name: Lockheed Martin Corporation Middle River Complex
Project No.: 60555202

Sample ID No.: MRC-SW5A1
Sample Location: MRC-SW5A1
Sampled By: Zach Neigh

[] Domestic Well Data
[] Monitoring Well Data
[X] Other: Tidal Creek - Freshwater
[] QA Sample Type: _____

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

SAMPLING DATA:

Date: 04/17/2018 Time: 0912	Color (Visual)	pH (S.U.)	S.C. (mS/cm)	Temp. (°C)	Turbidity (NTU)	DO (mg/l)	Salinity (ppt)	ORP (mV)
Method: Grab Sample Depth: 1 ft below water surface Static Water Level: Wilson Pt. Park Gauge 0830: 1.80 ft 1230: 1.35 ft	clear	9.03	8.074	12.82	8	9.18	1.4	161.3

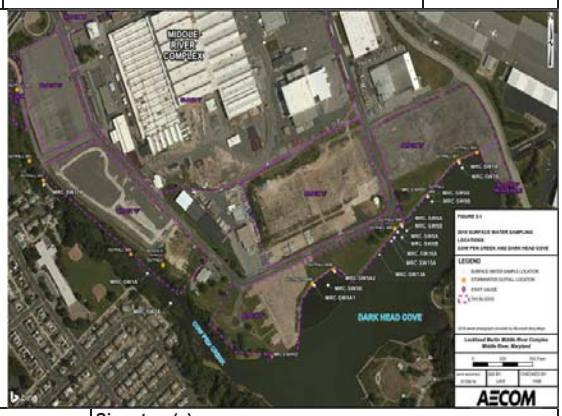
SAMPLE COLLECTION INFORMATION:

Analysis	Preservative	Container Requirements	Collected
VOCs (8260C)	HCl	1 - 40 mL glass vial	Yes
PCB Homologs (680/8260C)	None	1 - 1 L amber	Yes

OBSERVATIONS / NOTES:

Hardness (mg/L CaCO3) = 342

MAP:



Circle if Applicable: N/A

MS/MSD

Duplicate ID No.:

Signature(s): Zachary Neigh

AECOM

SURFACE WATER SAMPLE LOG SHEET

Project Site Name: Lockheed Martin Corporation Middle River Complex
Project No.: 60555202

Sample ID No.: MRC-SW5A2
Sample Location: MRC-SW5A2
Sampled By: Zach Neigh

[] Domestic Well Data
[] Monitoring Well Data
[X] Other: Tidal Creek - Freshwater
[] QA Sample Type: _____

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

SAMPLING DATA:

	Color (Visual)	pH (S.U.)	S.C. (mS/cm)	Temp. (°C)	Turbidity (NTU)	DO (mg/l)	Salinity (ppt)	ORP (mV)
Date: 04/17/2018 Time: 0924 Method: Grab Sample Depth: 1 ft below water surface Static Water Level: Wilson Pt. Park Gauge 0830: 1.80 ft 1230: 1.35 ft	clear	9.02	8.125	12.85	8.8	8.99	1.4	158.9

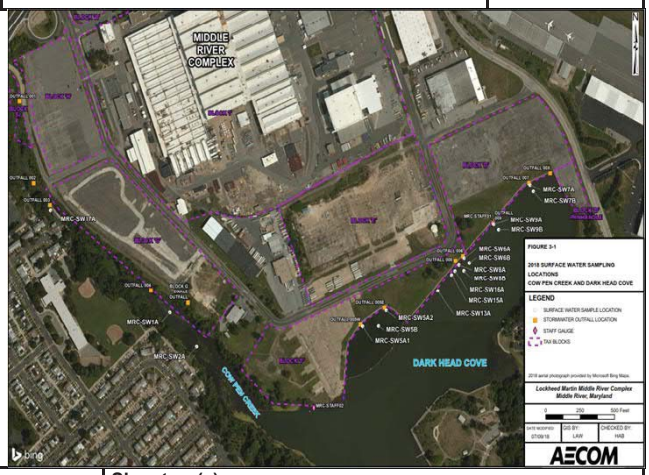
SAMPLE COLLECTION INFORMATION:

Analysis	Preservative	Container Requirements	Collected
VOCs (8260C)	HCl	1 - 40 mL glass vial	Yes
PCB Homologs (680/8260C)	None	1 - 1 L amber	Yes

OBSERVATIONS / NOTES:

Hardness (mg/L CaCO3) = 376.2

MAP:



Circle if Applicable: N/A

MS/MSD

Duplicate ID No.:

Signature(s): Zachary Neigh

AECOM

SURFACE WATER SAMPLE LOG SHEET

Page 1 of 1

Project Site Name: Lockheed Martin Corporation Middle River Complex
Project No.: 60555202

Sample ID No.: MRC-SW5B
Sample Location: MRC-SW5B
Sampled By: Zach Neigh

[] Domestic Well Data
[] Monitoring Well Data
[X] Other: Tidal Creek - Freshwater
[] QA Sample Type: _____

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

SAMPLING DATA:

Date: 04/17/2018 Time: 0940	Color (Visual)	pH (S.U.)	S.C. (mS/cm)	Temp. (°C)	Turbidity (NTU)	DO (mg/l)	Salinity (ppt)	ORP (mV)
Method: Grab Sample Depth: 1 ft below water surface Static Water Level: Wilson Pt. Park Gauge 0830: 1.80 ft 1230: 1.35 ft	clear	9.03	8.112	12.84	8.7	9.24	1.4	167.7

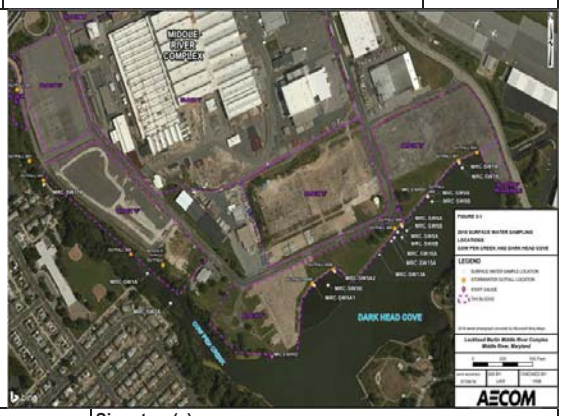
SAMPLE COLLECTION INFORMATION:

Analysis	Preservative	Container Requirements	Collected
VOCs (8260C)	HCl	1 - 40 mL glass vial	Yes
PCB Homologs (680/8260C)	None	1 - 1 L amber	Yes

OBSERVATIONS / NOTES:

Hardness (mg/L CaCO3) = 359.7

MAP:



Circle if Applicable: N/A

MS/MSD

Duplicate ID No.:

Signature(s): Zachary Neigh

AECOM

SURFACE WATER SAMPLE LOG SHEET

Page 1 of 1

Project Site Name: Lockheed Martin Corporation Middle River Complex
Project No.: 60555202

Sample ID No.: MRC-SW6A
Sample Location: MRC-SW6A
Sampled By: Zach Neigh

[] Domestic Well Data
[] Monitoring Well Data
[X] Other: Tidal Creek - Freshwater
[] QA Sample Type: _____

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

SAMPLING DATA:

Date: 04/17/2018 Time: 1002	Color (Visual)	pH (S.U.)	S.C. (mS/cm)	Temp. (°C)	Turbidity (NTU)	DO (mg/l)	Salinity (ppt)	ORP (mV)
Method: Grab Sample Depth: 1 ft below water surface Static Water Level: Wilson Pt. Park Gauge 0830: 1.80 ft 1230: 1.35 ft	clear	9.12	7.543	12.48	8.5	9.56	1.4	201.1

SAMPLE COLLECTION INFORMATION:

Analysis	Preservative	Container Requirements	Collected
VOCs (8260C)	HCl	1 - 40 mL glass vial	Yes
PCB Homologs (680/8260C)	None	1 - 1000 mL amber	Yes
1,4 Dioxane (6020A/7470)	None	1 - 1000 mL amber	Yes

OBSERVATIONS / NOTES:

Hardness (mg/L CaCO3) = 359.1

MAP:

Circle if Applicable: N/A

MS/MSD	Duplicate ID No.:

Signature(s): Zachary Neigh

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SURFACE WATER SAMPLE LOG SHEET

Project Site Name: Lockheed Martin Corporation Middle River Complex
Project No.: 60555202

Sample ID No.: MRC-SW6B
Sample Location: MRC-SW6B
Sampled By: Zach Neigh

[] Domestic Well Data
[] Monitoring Well Data
[X] Other: Tidal Creek - Freshwater
[] QA Sample Type: _____

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

SAMPLING DATA:

Date: 04/17/2018 Time: 1051	Color (Visual)	pH (S.U.)	S.C. (mS/cm)	Temp. (°C)	Turbidity (NTU)	DO (mg/l)	Salinity (ppt)	ORP (mV)
Method: Grab Sample Depth: 1 ft below water surface Static Water Level: Wilson Pt. Park Gauge 0830: 1.80 ft 1230: 1.35 ft	clear	9.12	7.573	12.37	7.9	9.68	1.4	173.2

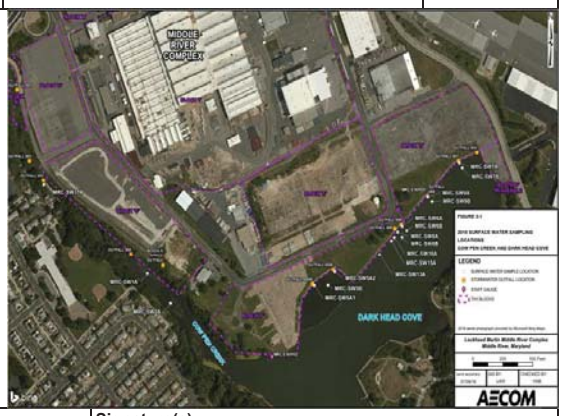
SAMPLE COLLECTION INFORMATION:

Analysis	Preservative	Container Requirements	Collected
VOCs (8260C)	HCl	1 - 40 mL glass vial	Yes
PCB Homologs (680/8260C)	None	1 - 1000 mL amber	Yes
1,4 Dioxane (6020A/7470)	None	1 - 1000 mL amber	Yes

OBSERVATIONS / NOTES:

Hardness (mg/L CaCO3) = 367.5

MAP:



Circle if Applicable: N/A

MS/MSD

Duplicate ID No.:

Signature(s): Zachary Neigh

AECOM

SURFACE WATER SAMPLE LOG SHEET

Page 1 of 1

Project Site Name: Lockheed Martin Corporation Middle River Complex
Project No.: 60555202

Sample ID No.: MRC-SW7A
Sample Location: MRC-SW7A
Sampled By: Zach Neigh

[] Domestic Well Data
[] Monitoring Well Data
[X] Other: Tidal Creek - Freshwater
[] QA Sample Type: _____

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

SAMPLING DATA:

Date: 04/17/2018 Time: 0804	Color (Visual)	pH (S.U.)	S.C. (mS/cm)	Temp. (°C)	Turbidity (NTU)	DO (mg/l)	Salinity (ppt)	ORP (mV)
Method: Grab Sample Depth: 1 ft below water surface Static Water Level: Wilson Pt. Park Gauge 0830: 1.80 ft 1230: 1.35 ft	clear	8.06	7.514	12.69	11	9.23	1.4	232.7

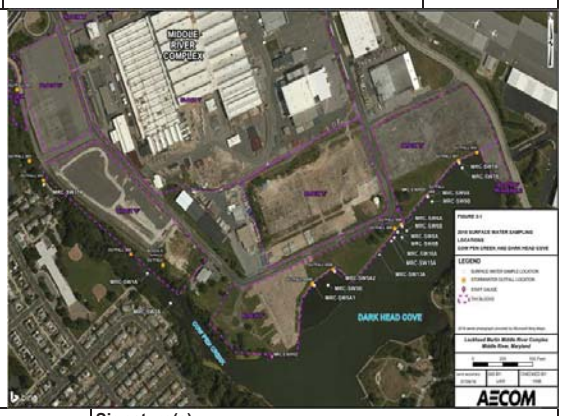
SAMPLE COLLECTION INFORMATION:

Analysis	Preservative	Container Requirements	Collected
VOCs (8260C)	HCl	1 - 40 mL glass vial	Yes
PCB Homologs (680/8260C)	None	1 - 1 L amber	Yes

OBSERVATIONS / NOTES:

Hardness (mg/L CaCO3) = 376.2

MAP:



Circle if Applicable: N/A

MS/MSD

Duplicate ID No.:

Signature(s): Zachary Neigh

AECOM

SURFACE WATER SAMPLE LOG SHEET

Page 1 of 1

Project Site Name: Lockheed Martin Corporation Middle River Complex
Project No.: 60555202

Sample ID No.: MRC-SW7B
Sample Location: MRC-SW7B
Sampled By: Zach Neigh

[] Domestic Well Data
[] Monitoring Well Data
[X] Other: Tidal Creek - Freshwater
[] QA Sample Type: _____

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

SAMPLING DATA:

Date: 04/17/2018 Time: 0837	Color (Visual)	pH (S.U.)	S.C. (mS/cm)	Temp. (°C)	Turbidity (NTU)	DO (mg/l)	Salinity (ppt)	ORP (mV)
Method: Grab Sample Depth: 1 ft below water surface Static Water Level: Wilson Pt. Park Gauge 0830: 1.80 ft 1230: 1.35 ft	clear	8.24	7.51	12.65	10.2	8.28	1.4	226.5

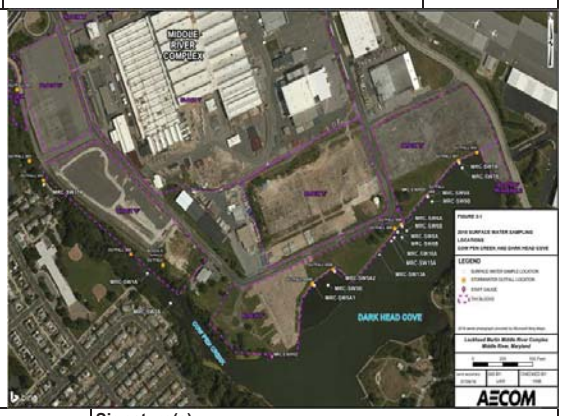
SAMPLE COLLECTION INFORMATION:

Analysis	Preservative	Container Requirements	Collected
VOCs (8260C)	HCl	1 - 40 mL glass vial	Yes
PCB Homologs (680/8260C)	None	1 - 1 L amber	Yes

OBSERVATIONS / NOTES:

Hardness (mg/L CaCO3) = 359.1

MAP:



Circle if Applicable: N/A

MS/MSD

Duplicate ID No.:

Signature(s): Zachary Neigh

AECOM

SURFACE WATER SAMPLE LOG SHEET

Page 1 of 1

Project Site Name: Lockheed Martin Corporation Middle River Complex
Project No.: 60555202

Sample ID No.: MRC-SW8A
Sample Location: MRC-SW8A
Sampled By: Zach Neigh

[] Domestic Well Data
[] Monitoring Well Data
[X] Other: Tidal Creek - Freshwater
[] QA Sample Type: _____

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

SAMPLING DATA:

Date: 04/17/2018 Time: 1016	Color (Visual)	pH (S.U.)	S.C. (mS/cm)	Temp. (°C)	Turbidity (NTU)	DO (mg/l)	Salinity (ppt)	ORP (mV)
Method: Grab Sample Depth: 1 ft below water surface Static Water Level: Wilson Pt. Park Gauge 0830: 1.80 ft 1230: 1.35 ft	clear	9.08	7.724	12.73	10	9.26	1.4	159.8

SAMPLE COLLECTION INFORMATION:

Analysis	Preservative	Container Requirements	Collected
VOCs (8260C)	HCl	1 - 40 mL glass vial	Yes
PCB Homologs (680/8260C)	None	1 - 1000 mL amber	Yes
1,4 Dioxane (6020A/7470)	None	1 - 1000 mL amber	Yes

OBSERVATIONS / NOTES:

Hardness (mg/L CaCO3) = 359.7

MAP:

Circle if Applicable:

MS/MSD	Duplicate ID No.:
	MRC-SW8A-D

Signature(s): Zachary Neigh

AECOM

SURFACE WATER SAMPLE LOG SHEET

Page 1 of 1

Project Site Name: Lockheed Martin Corporation Middle River Complex
Project No.: 60555202

Sample ID No.: MRC-SW8A-D
Sample Location: MRC-SW8A-D
Sampled By: Zach Neigh

[] Domestic Well Data
[] Monitoring Well Data
[X] Other: Tidal Creek - Freshwater
[] QA Sample Type: _____

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

SAMPLING DATA:

Date: 04/17/2018 Time: 1030	Color (Visual)	pH (S.U.)	S.C. (mS/cm)	Temp. (°C)	Turbidity (NTU)	DO (mg/l)	Salinity (ppt)	ORP (mV)
Method: Grab Sample Depth: 1 ft below water surface Static Water Level: Wilson Pt. Park Gauge 0830: 1.80 ft 1230: 1.35 ft	clear	9.08	7.724	12.73	10	9.26	1.4	159.8

SAMPLE COLLECTION INFORMATION:

Analysis	Preservative	Container Requirements	Collected
VOCs (8260C)	HCl	1 - 40 mL glass vial	Yes
PCB Homologs (680/8260C)	None	1 - 1000 mL amber	Yes
1,4 Dioxane (6020A/7470)	None	1 - 1000 mL amber	Yes

OBSERVATIONS / NOTES:

Hardness (mg/L CaCO3) = 359.7

MAP:

Circle if Applicable: N/A

MS/MSD

Duplicate ID No.:

Signature(s): Zachary Neigh

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SURFACE WATER SAMPLE LOG SHEET

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Project Site Name: Lockheed Martin Corporation Middle River Complex
Project No.: 60555202

Sample ID No.: MRC-SW8B
Sample Location: MRC-SW8B
Sampled By: Zach Neigh

[] Domestic Well Data
[] Monitoring Well Data
[X] Other: Tidal Creek - Freshwater
[] QA Sample Type: _____

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

SAMPLING DATA:

Date: 04/17/2018 Time: 1104	Color (Visual)	pH (S.U.)	S.C. (mS/cm)	Temp. (°C)	Turbidity (NTU)	DO (mg/l)	Salinity (ppt)	ORP (mV)
Method: Grab Sample Depth: 1 ft below water surface Static Water Level: Wilson Pt. Park Gauge 0830: 1.80 ft 1230: 1.35 ft	clear	9.11	7.612	12.4	7.6	9.67	1.4	171.7

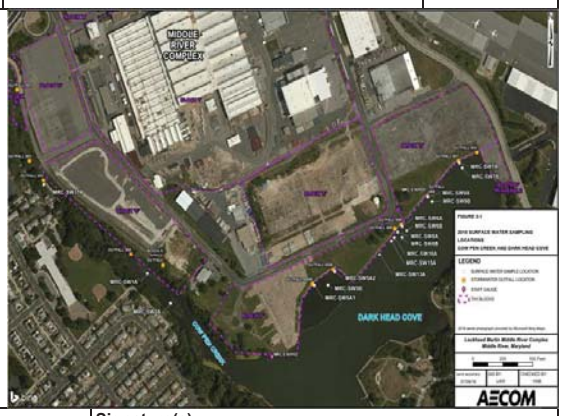
SAMPLE COLLECTION INFORMATION:

Analysis	Preservative	Container Requirements	Collected
VOCs (8260C)	HCl	1 - 40 mL glass vial	Yes
PCB Homologs (680/8260C)	None	1 - 1000 mL amber	Yes
1,4 Dioxane (6020A/7470)	None	1 - 1000 mL amber	Yes

OBSERVATIONS / NOTES:

Hardness (mg/L CaCO3) = 366.6

MAP:



Circle if Applicable: N/A

MS/MSD	Duplicate ID No.:

Signature(s): Zachary Neigh

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SURFACE WATER SAMPLE LOG SHEET

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Project Site Name: Lockheed Martin Corporation Middle River Complex
Project No.: 60555202

Sample ID No.: MRC-SW9A
Sample Location: MRC-SW9A
Sampled By: Zach Neigh

[] Domestic Well Data
[] Monitoring Well Data
[X] Other: Tidal Creek - Freshwater
[] QA Sample Type: _____

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

SAMPLING DATA:

Date: 04/17/2018 Time: 0842	Color (Visual)	pH (S.U.)	S.C. (mS/cm)	Temp. (°C)	Turbidity (NTU)	DO (mg/l)	Salinity (ppt)	ORP (mV)
Method: Grab Sample Depth: 1 ft below water surface Static Water Level: Wilson Pt. Park Gauge 0830: 1.80 ft 1230: 1.35 ft	clear	9.01	7.62	12.66	8.5	9.39	1.4	187.2

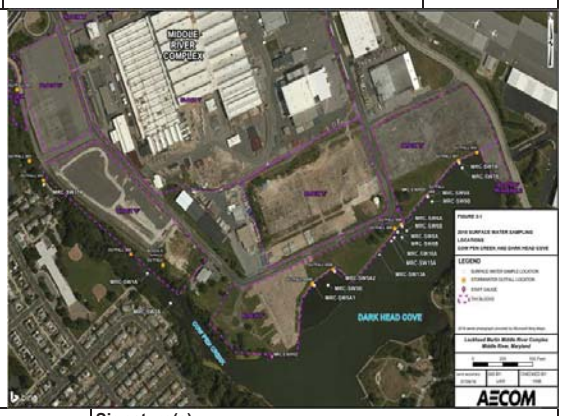
SAMPLE COLLECTION INFORMATION:

Analysis	Preservative	Container Requirements	Collected
VOCs (8260C)	HCl	1 - 40 mL glass vial	Yes
PCB Homologs (680/8260C)	None	1 - 1 L amber	Yes

OBSERVATIONS / NOTES:

Hardness (mg/L CaCO3) = 366.6

MAP:



Circle if Applicable: N/A

MS/MSD

Duplicate ID No.:

Signature(s): Zachary Neigh

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SURFACE WATER SAMPLE LOG SHEET

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Project Site Name: Lockheed Martin Corporation Middle River Complex
Project No.: 60555202

Sample ID No.: MRC-SW9B
Sample Location: MRC-SW9B
Sampled By: Zach Neigh

[] Domestic Well Data
[] Monitoring Well Data
[X] Other: Tidal Creek - Freshwater
[] QA Sample Type: _____

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

SAMPLING DATA:

Date: 04/17/2018 Time: 0806	Color (Visual)	pH (S.U.)	S.C. (mS/cm)	Temp. (°C)	Turbidity (NTU)	DO (mg/l)	Salinity (ppt)	ORP (mV)
Method: Grab Sample Depth: 1 ft below water surface Static Water Level: Wilson Pt. Park Gauge 0830: 1.80 ft 1230: 1.35 ft	clear	9.05	7.628	12.56	8.9	9.58	1.4	196.6

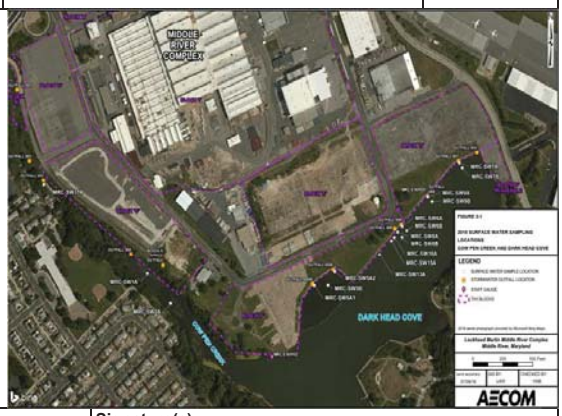
SAMPLE COLLECTION INFORMATION:

Analysis	Preservative	Container Requirements	Collected
VOCs (8260C)	HCl	1 - 40 mL glass vial	Yes
PCB Homologs (680/8260C)	None	1 - 1 L amber	Yes

OBSERVATIONS / NOTES:

Hardness (mg/L CaCO3) = 342.5

MAP:



Circle if Applicable: N/A

MS/MSD

Duplicate ID No.:

Signature(s): Zachary Neigh

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SURFACE WATER SAMPLE LOG SHEET

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Project Site Name: Lockheed Martin Corporation Middle River Complex
Project No.: 60555202

Sample ID No.: MRC-SW13A
Sample Location: MRC-SW13A
Sampled By: Zach Neigh

[] Domestic Well Data
[] Monitoring Well Data
[X] Other: Tidal Creek - Freshwater
[] QA Sample Type: _____

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

SAMPLING DATA:

Date: 04/17/2018 Time: 1144	Color (Visual)	pH (S.U.)	S.C. (mS/cm)	Temp. (°C)	Turbidity (NTU)	DO (mg/l)	Salinity (ppt0	ORP (mV)
Method: Grab Sample Depth: 1 ft below water surface Static Water Level: Wilson Pt. Park Gauge 0830: 1.80 ft 1230: 1.35 ft	clear	9.04	7.838	12.68	9.7	9.32	1.4	170.4

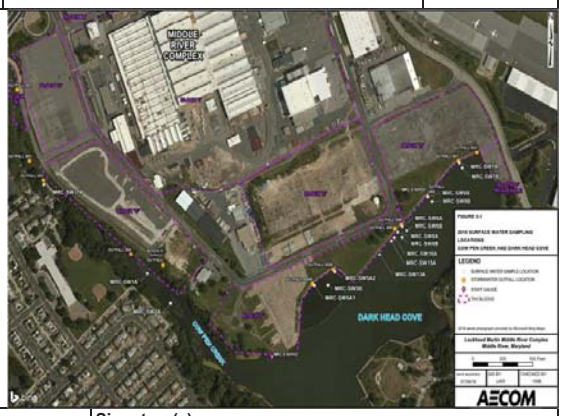
SAMPLE COLLECTION INFORMATION:

Analysis	Preservative	Container Requirements	Collected
VOCs (8260C)	HCl	1 - 40 mL glass vial	Yes
PCB Homologs (680/8260C)	None	1 - 1 L amber	Yes

OBSERVATIONS / NOTES:

Hardness (mg/L CaCO3) = 342.6

MAP:



Circle if Applicable: N/A

MS/MSD

Duplicate ID No.:

Signature(s): Zachary Neigh

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SURFACE WATER SAMPLE LOG SHEET

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Project Site Name: Lockheed Martin Corporation Middle River Complex
Project No.: 60555202

Sample ID No.: MRC-SW15A
Sample Location: MRC-SW15A
Sampled By: Zach Neigh

[] Domestic Well Data
[] Monitoring Well Data
[X] Other: Tidal Creek - Freshwater
[] QA Sample Type: _____

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

SAMPLING DATA:

Date: 04/17/2018 Time: 1140	Color (Visual)	pH (S.U.)	S.C. (mS/cm)	Temp. (°C)	Turbidity (NTU)	DO (mg/l)	Salinity (ppt)	ORP (mV)
Method: Grab Sample Depth: 1 ft below water surface Static Water Level: Wilson Pt. Park Gauge 0830: 1.80 ft 1230: 1.35 ft	clear	9.07	7.77	12.58	8.1	9.3	1.4	171

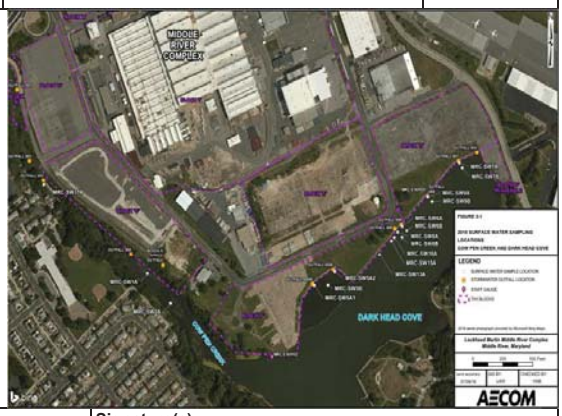
SAMPLE COLLECTION INFORMATION:

Analysis	Preservative	Container Requirements	Collected
VOCs (8260C)	HCl	1 - 40 mL glass vial	Yes
PCB Homologs (680/8260C)	None	1 - 1 L amber	Yes

OBSERVATIONS / NOTES:

Hardness (mg/L CaCO3) = 343.5

MAP:



Circle if Applicable: N/A

MS/MSD

Duplicate ID No.:

Signature(s): Zachary Neigh

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SURFACE WATER SAMPLE LOG SHEET

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Project Site Name: Lockheed Martin Corporation Middle River Complex
Project No.: 60555202

Sample ID No.: MRC-SW16A
Sample Location: MRC-SW16A
Sampled By: Zach Neigh

[] Domestic Well Data
[] Monitoring Well Data
[X] Other: Tidal Creek - Freshwater
[] QA Sample Type: _____

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

SAMPLING DATA:

Date: 04/17/2018 Time: 1120	Color (Visual)	pH (S.U.)	S.C. (mS/cm)	Temp. (°C)	Turbidity (NTU)	DO (mg/l)	Salinity (ppt)	ORP (mV)
Method: Grab Sample Depth: 1 ft below water surface Static Water Level: Wilson Pt. Park Gauge 0830: 1.80 ft 1230: 1.35 ft	clear	9.1	7.746	12.57	15.3	9.32	1.4	171.2

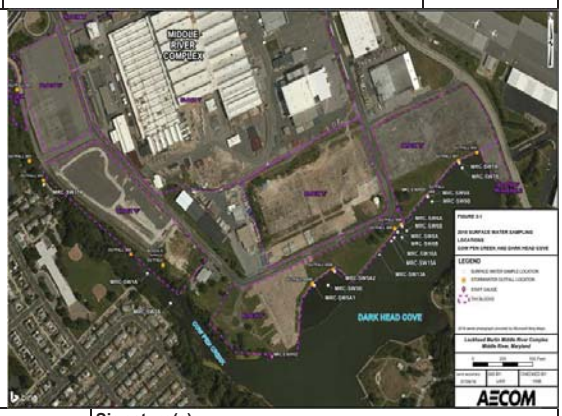
SAMPLE COLLECTION INFORMATION:

Analysis	Preservative	Container Requirements	Collected
VOCs (8260C)	HCl	1 - 40 mL glass vial	Yes
PCB Homologs (680/8260C)	None	1 - 1 L amber	Yes

OBSERVATIONS / NOTES:

Hardness (mg/L CaCO3) = 342.5

MAP:



Circle if Applicable: N/A

MS/MSD

Duplicate ID No.:

Signature(s): Zachary Neigh

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SURFACE WATER SAMPLE LOG SHEET

Page 1 **of** 1

Project Site Name: Lockheed Martin Corporation Middle River Complex
Project No.: 60555202

Sample ID No.: MRC-SW17A
Sample Location: MRC-SW17A
Sampled By: Zach Neigh

[] Domestic Well Data
[] Monitoring Well Data
[X] Other: Tidal Creek - Freshwater
[] QA Sample Type: _____

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

SAMPLING DATA:

Date: 04/16/2018 Time: 1507	Color (Visual)	pH (S.U.)	S.C. (mS/cm)	Temp. (°C)	Turbidity (NTU)	DO (mg/l)	Salinity (ppt)	ORP (mV)
Method: Grab Sample Depth: 1 ft below water surface Static Water Level: Wilson Pt. Park Gauge 1500: 2.90 ft 1700: 2.80 ft	clear	7.88	0.303	12.54	32.1	9.09	1.4	175.8

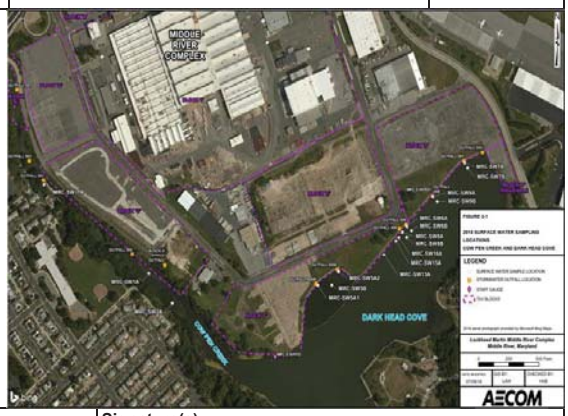
SAMPLE COLLECTION INFORMATION:

Analysis	Preservative	Container Requirements	Collected
VOCs (8260C)	HCl	1 - 40 mL glass vial	Yes
1,4-dioxane (8270D/SIM)	None	1 - 1 L amber	Yes

OBSERVATIONS / NOTES:

Hardness (mg/L CaCO3) = 359.1

MAP:



Circle if Applicable: N/A

MS/MSD

Duplicate ID No.:

Signature(s): Zachary Neigh

June 2018

AECOM

SURFACE WATER SAMPLE LOG SHEET

Project Site Name: Lockheed Martin Corporation Middle River Complex Sample ID No.: MRC-SW1A Project No.: 60555202 Sample Location: MRC-SW1A

Sampled By: Victoria Kirkpatrick

[] Domestic Well Data
[] Monitoring Well Data
[X] Other: Tidal Creek - Freshwater
[] QA Sample Type: _____

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

SAMPLING DATA:

	Color (Visual)	pH (S.U.)	S.C. (mS/cm)	Temp. (°C)	Turbidity (NTU)	DO (mg/l)	Salinity (%)	ORP (mV)
Date: 06/25/2018 Time: 1542 Method: Grab Sample Depth: 1 ft below water surface Static Water Level: MRC-STAFF02 1525: -0.4 feet 1600: -0.4 feet	**clear**	**8.27**	**1.814**	**27.19**	**20.8**	**10.32**	**2.5**	**161.5**

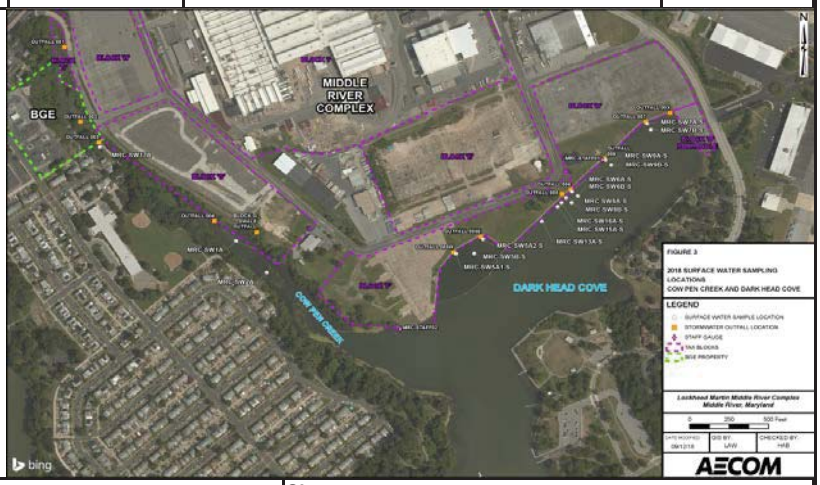
SAMPLE COLLECTION INFORMATION:

Analysis	Preservative	Container Requirements	Collected
VOCs (8260C)	HCl	2 - 40 mL glass vials	Yes
1,4-dioxane (8270D/SIM)	None	2 - 1 L ambers	Yes

OBSERVATIONS / NOTES:

Hardness (mg/L CaCO3) = 402.5

MAP:



Circle if Applicable: N/A

MS/MSD **Duplicate ID:**

Signature:

AECOM

SURFACE WATER SAMPLE LOG SHEET

Project Site Name: Lockheed Martin Corporation Middle River Complex Sample ID No.: MRC-SW2A Project No.: 60555202 Sample Location: MRC-SW2A

Sampled By: Victoria Kirkpatrick

[] Domestic Well Data
[] Monitoring Well Data
[X] Other: Tidal Creek - Freshwater
[] QA Sample Type: _____

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

SAMPLING DATA:

	Color (Visual)	pH (S.U.)	S.C. (mS/cm)	Temp. (°C)	Turbidity (NTU)	DO (mg/l)	Salinity (%)	ORP (mV)
Date: 06/25/2018 Time: 1528 Method: Grab Sample Depth: 1 ft below water surface Static Water Level: MRC-STAFF02 1525: -0.4 feet 1600: -0.4 feet	**clear**	**8.13**	**1.951**	**27.35**	**0.6**	**9.58**	**2.5**	**170.2**

SAMPLE COLLECTION INFORMATION:

Analysis	Preservative	Container Requirements	Collected
VOCs (8260C)	HCl	2 - 40 mL glass vials	Yes
1,4-dioxane (8270D/SIM)	None	2 - 1 L ambers	Yes

OBSERVATIONS / NOTES:

Hardness (mg/L CaCO3) = 398.4

MAP:

Circle if Applicable: N/A

MS/MSD **Duplicate ID:**

Signature:

AECOM

SURFACE WATER SAMPLE LOG SHEET

Project Site Name: Lockheed Martin Corporation Middle River Complex Sample ID No.: MRC-SW5A1-S Project No.: 60555202 Sample Location: MRC-SW5A1-S

Sampled By: Victoria Kirkpatrick

[] Domestic Well Data
[] Monitoring Well Data
[X] Other: Tidal Creek - Freshwater
[] QA Sample Type: _____

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

SAMPLING DATA:

Date: 06/25/2018 Time: 1505	Color (Visual)	pH (S.U.)	S.C. (mS/cm)	Temp. (°C)	Turbidity (NTU)	DO (mg/l)	Salinity (%)	ORP (mV)
Method: Grab Sample Depth: 1 ft below water surface Static Water Level: MRC-STAFF01 1105: 0.0 feet 1500: -0.4 feet	**clear**	**7.85**	**2.029**	**26.6**	**5.1**	**7.75**	**2.5**	**174.1**

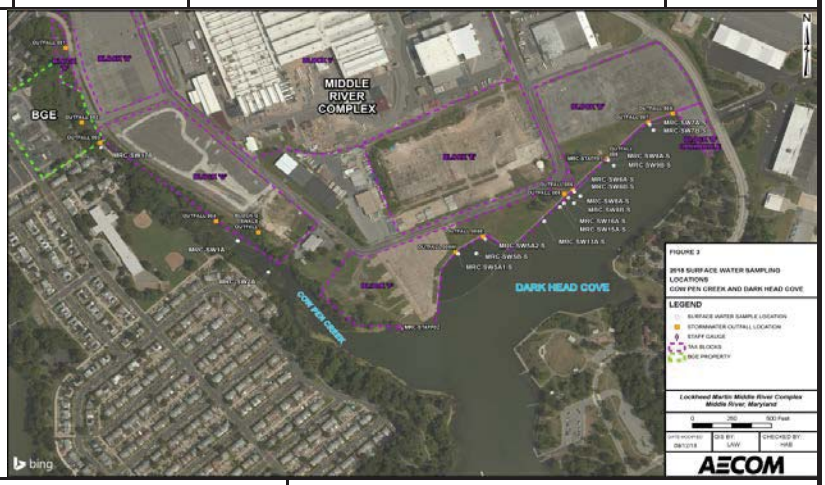
SAMPLE COLLECTION INFORMATION:

Analysis	Preservative	Container Requirements	Collected
VOCs (8260C)	HCl	2 - 40 mL glass vials	Yes

OBSERVATIONS / NOTES:

Hardness (mg/L CaCO3) = 397.6

MAP:



Circle if Applicable: N/A

MS/MSD **Duplicate ID:**

Signature:

AECOM

SURFACE WATER SAMPLE LOG SHEET

Project Site Name: Lockheed Martin Corporation Middle River Complex Sample ID No.: MRC-SW5A2-S Project No.: 60555202 Sample Location: MRC-SW5A2-S

Sampled By: Victoria Kirkpatrick

[] Domestic Well Data
[] Monitoring Well Data
[X] Other: Tidal Creek - Freshwater
[] QA Sample Type: _____

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

SAMPLING DATA:

Date: 06/25/2018 Time:	Color (Visual)	pH (S.U.)	S.C. (mS/cm)	Temp. (°C)	Turbidity (NTU)	DO (mg/l)	Salinity (%)	ORP (mV)
Method: Grab Sample Depth: 1 ft below water surface Static Water Level: MRC-STAFF01 1105: 0.0 feet 1500: -0.4 feet	**clear**	**7.84**	**2.028**	**26.49**	**5.1**	**7.49**	**2.5**	**171.4**

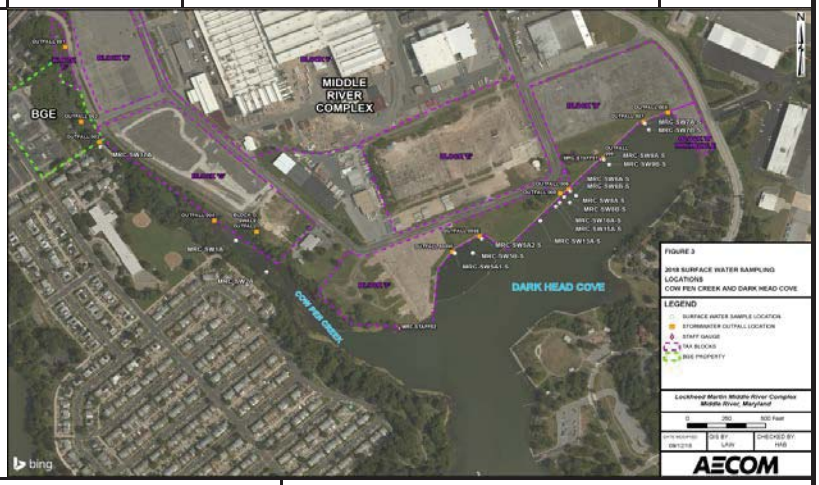
SAMPLE COLLECTION INFORMATION:

Analysis	Preservative	Container Requirements	Collected
VOCs (8260C)	HCl	2 - 40 mL glass vials	Yes

OBSERVATIONS / NOTES:

Hardness (mg/L CaCO3) = 405.9

MAP:



Circle if Applicable: N/A

MS/MSD **Duplicate ID:**

Signature:

AECOM

SURFACE WATER SAMPLE LOG SHEET

Project Site Name: Lockheed Martin Corporation Middle River Complex Sample ID No.: MRC-SW5B-S Project No.: 60555202 Sample Location: MRC-SW5B-S

Sampled By: Victoria Kirkpatrick

[] Domestic Well Data
[] Monitoring Well Data
[X] Other: Tidal Creek - Freshwater
[] QA Sample Type: _____

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

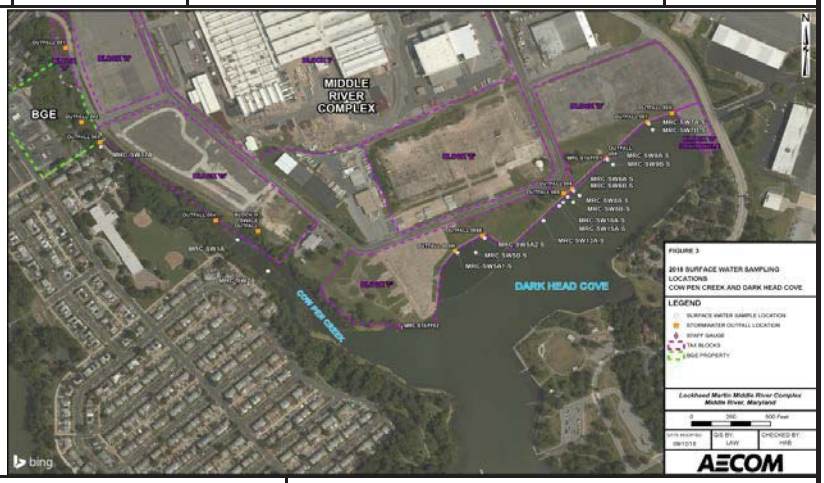
SAMPLING DATA:

Date: 06/25/2018 Time: 1513	Color (Visual)	pH (S.U.)	S.C. (mS/cm)	Temp. (°C)	Turbidity (NTU)	DO (mg/l)	Salinity (%)	ORP (mV)
Method: Grab Sample Depth: 1 ft below water surface Static Water Level: MRC-STAFF01 1105: 0.0 feet 1500: -0.4 feet	**clear**	**7.97**	**2.031**	**26.61**	**5.5**	**8.34**	**2.5**	**172.8**

SAMPLE COLLECTION INFORMATION:

Analysis	Preservative	Container Requirements	Collected
VOCs (8260C)	HCl	2 - 40 mL glass vials	Yes
OBSERVATIONS / NOTES:		**MAP:**	

Hardness (mg/L CaCO3) = 403.6



Circle if Applicable: N/A

MS/MSD **Duplicate ID:**

Signature:

AECOM

SURFACE WATER SAMPLE LOG SHEET

Project Site Name: Lockheed Martin Corporation Middle River Complex Sample ID No.: MRC-SW6A-S Project No.: 60555202 Sample Location: MRC-SW6A-S

Sampled By: Victoria Kirkpatrick

[] Domestic Well Data
[] Monitoring Well Data
[X] Other: Tidal Creek - Freshwater
[] QA Sample Type: _____

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

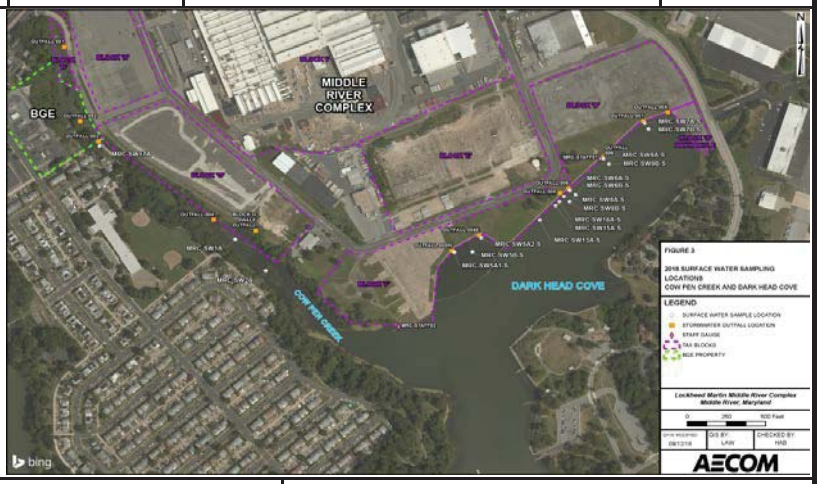
SAMPLING DATA:

Date: 06/25/2018 Time: 1217	Color (Visual)	pH (S.U.)	S.C. (mS/cm)	Temp. (°C)	Turbidity (NTU)	DO (mg/l)	Salinity (%)	ORP (mV)
Method: Grab Sample Depth: 1 ft below water surface Static Water Level: MRC-STAFF01 1105: 0.0 feet 1500: -0.4 feet	**clear**	**7.74**	**2.027**	**26.46**	**5.1**	**7.56**	**2.5**	**188.4**

SAMPLE COLLECTION INFORMATION:

Analysis	Preservative	Container Requirements	Collected
VOCs (8260C)	HCl	2 - 40 mL glass vials	Yes
1,4 Dioxane (6020A/7470)	None	2 - 1000 mL ambers	Yes
OBSERVATIONS / NOTES:		**MAP:**	

Hardness (mg/L CaCO3) = 378.4



Circle if Applicable: N/A

MS/MSD **Duplicate ID:**

Signature:

AECOM

SURFACE WATER SAMPLE LOG SHEET

Project Site Name: Lockheed Martin Corporation Middle River Complex Sample ID No.: MRC-SW6B-S Project No.: 60555202 Sample Location: MRC-SW6B-S

Sampled By: Victoria Kirkpatrick

[] Domestic Well Data
[] Monitoring Well Data
[X] Other: Tidal Creek - Freshwater
[] QA Sample Type: _____

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

SAMPLING DATA:

Date: 06/25/2018 Time: 1232	Color (Visual)	pH (S.U.)	S.C. (mS/cm)	Temp. (°C)	Turbidity (NTU)	DO (mg/l)	Salinity (%)	ORP (mV)
Method: Grab Sample Depth: 1 ft below water surface Static Water Level: MRC-STAFF01 1105: 0.0 feet 1500: -0.4 feet	**clear**	**7.71**	**2.034**	**26.51**	**5.4**	**8.15**	**2.5**	**192.9**

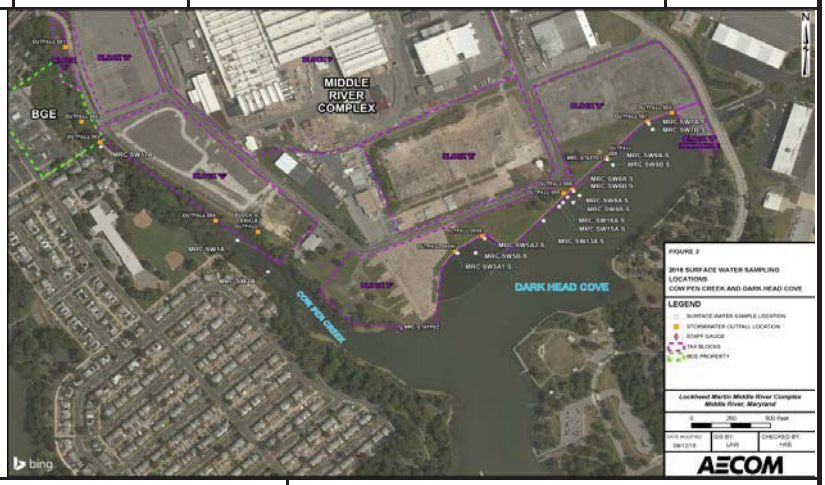
SAMPLE COLLECTION INFORMATION:

Analysis	Preservative	Container Requirements	Collected
VOCs (8260C)	HCl	2 - 40 mL glass vials	Yes
1,4 Dioxane (6020A/7470)	None	2 - 1000 mL ambers	Yes

OBSERVATIONS / NOTES:

Hardness (mg/L CaCO3) = 400.2

MAP:



Circle if Applicable: N/A

MS/MSD **Duplicate ID:**

Signature:

AECOM

SURFACE WATER SAMPLE LOG SHEET

Project Site Name: Lockheed Martin Corporation Middle River Complex Sample ID No.: MRC-SW7A-S Project No.: 60555202 Sample Location: MRC-SW7A-S

Sampled By: Victoria Kirkpatrick

[] Domestic Well Data
[] Monitoring Well Data
[X] Other: Tidal Creek - Freshwater
[] QA Sample Type: _____

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

SAMPLING DATA:

Date: 06/25/2018 Time: 1115 Method: Grab Sample Depth: 1 ft below water surface Static Water Level: MRC-STAFF01 1105: 0.0 feet 1500: -0.4 feet	Color (Visual)	pH (S.U.)	S.C. (mS/cm)	Temp. (°C)	Turbidity (NTU)	DO (mg/l)	Salinity (%)	ORP (mV)
	clear	7.64	1.973	26.26	5	6.49	2.6	176.2

SAMPLE COLLECTION INFORMATION:

Analysis	Preservative	Container Requirements	Collected
VOCs (8260C)	HCl	2 - 40 mL glass vials	Yes

OBSERVATIONS / NOTES:

Hardness (mg/L CaCO3) = 386.5

MAP:

Circle if Applicable: N/A

MS/MSD **Duplicate ID:**

Signature:

AECOM

SURFACE WATER SAMPLE LOG SHEET

Project Site Name: Lockheed Martin Corporation Middle River Complex Sample ID No.: MRC-SW7B-S Project No.: 60555202 Sample Location: MRC-SW7B-S

Sampled By: Victoria Kirkpatrick

[] Domestic Well Data
[] Monitoring Well Data
[X] Other: Tidal Creek - Freshwater
[] QA Sample Type: _____

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

SAMPLING DATA:

Date: 06/25/2018 Time: 1129	Color (Visual)	pH (S.U.)	S.C. (mS/cm)	Temp. (°C)	Turbidity (NTU)	DO (mg/l)	Salinity (%)	ORP (mV)
Method: Grab Sample Depth: 1 ft below water surface Static Water Level: MRC-STAFF01 1105: 0.0 feet 1500: -0.4 feet	**clear**	**7.41**	**2.014**	**26.08**	**6.3**	**7.69**	2.5	**197.1**

SAMPLE COLLECTION INFORMATION:

Analysis	Preservative	Container Requirements	Collected
VOCs (8260C)	HCl	2 - 40 mL glass vials	Yes

OBSERVATIONS / NOTES:

Hardness (mg/L CaCO3) = 410.8

MAP:

Circle if Applicable: N/A

MS/MSD **Duplicate ID:**

Signature:

AECOM

SURFACE WATER SAMPLE LOG SHEET

Project Site Name: Lockheed Martin Corporation Middle River Complex Sample ID No.: MRC-SW8A-S Project No.: 60555202 Sample Location: MRC-SW8A-S

Sampled By: Victoria Kirkpatrick

[] Domestic Well Data
[] Monitoring Well Data
[X] Other: Tidal Creek - Freshwater
[] QA Sample Type: _____

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

SAMPLING DATA:

Date: 06/25/2018 Time: 1258	Color (Visual)	pH (S.U.)	S.C. (mS/cm)	Temp. (°C)	Turbidity (NTU)	DO (mg/l)	Salinity (%)	ORP (mV)
Method: Grab Sample Depth: 1 ft below water surface Static Water Level: MRC-STAFF01 1105: 0.0 feet 1500: -0.4 feet	**clear**	**7.88**	**2.024**	**26.47**	**6.1**	**0.61**	**2.5**	**177.9**

SAMPLE COLLECTION INFORMATION:

Analysis	Preservative	Container Requirements	Collected
VOCs (8260C)	HCl	2 - 40 mL glass vials	Yes
1,4 Dioxane (6020A/7470)	None	2 - 1000 mL ambers	Yes
OBSERVATIONS / NOTES:		**MAP:**	

Hardness (mg/L CaCO3) = 392.3

Circle if Applicable: N/A

MS/MSD **Duplicate ID:**

Signature:

AECOM

SURFACE WATER SAMPLE LOG SHEET

Project Site Name: Lockheed Martin Corporation Middle River Complex Sample ID No.: MRC-SW8B-S Project No.: 60555202 Sample Location: MRC-SW8B-S

Sampled By: Victoria Kirkpatrick

[] Domestic Well Data
[] Monitoring Well Data
[X] Other: Tidal Creek - Freshwater
[] QA Sample Type: _____

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

SAMPLING DATA:

Date: 06/25/2018 Time: 1304	Color (Visual)	pH (S.U.)	S.C. (mS/cm)	Temp. (°C)	Turbidity (NTU)	DO (mg/l)	Salinity (%)	ORP (mV)
Method: Grab Sample Depth: 1 ft below water surface Static Water Level: MRC-STAFF01 1105: 0.0 feet 1500: -0.4 feet	**clear**	**7.76**	**2.027**	**26.43**	**5.5**	**7.8**	**2.5**	**173.2**

SAMPLE COLLECTION INFORMATION:

Analysis	Preservative	Container Requirements	Collected
VOCs (8260C)	HCl	2 - 40 mL glass vials	Yes
1,4 Dioxane (6020A/7470)	None	2 - 1000 mL ambers	Yes
OBSERVATIONS / NOTES:		**MAP:**	

Hardness (mg/L CaCO3) = 415.1

Circle if Applicable: N/A

MS/MSD **Duplicate ID:**

Signature:

AECOM

SURFACE WATER SAMPLE LOG SHEET

Project Site Name: Lockheed Martin Corporation Middle River Complex Sample ID No.: MRC-SW9A-S Project No.: 60555202 Sample Location: MRC-SW9A-S

Sampled By: Victoria Kirkpatrick

[] Domestic Well Data
[] Monitoring Well Data
[X] Other: Tidal Creek - Freshwater
[] QA Sample Type: _____

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

SAMPLING DATA:

Date: 06/25/2018 Time: 1150	Color (Visual)	pH (S.U.)	S.C. (mS/cm)	Temp. (°C)	Turbidity (NTU)	DO (mg/l)	Salinity (%)	ORP (mV)
Method: Grab Sample Depth: 1 ft below water surface Static Water Level: MRC-STAFF01 1105: 0.0 feet 1500: -0.4 feet	**clear**	**7.49**	**2.027**	**26.11**	**0.3**	**6.68**	**2.5**	**195.1**

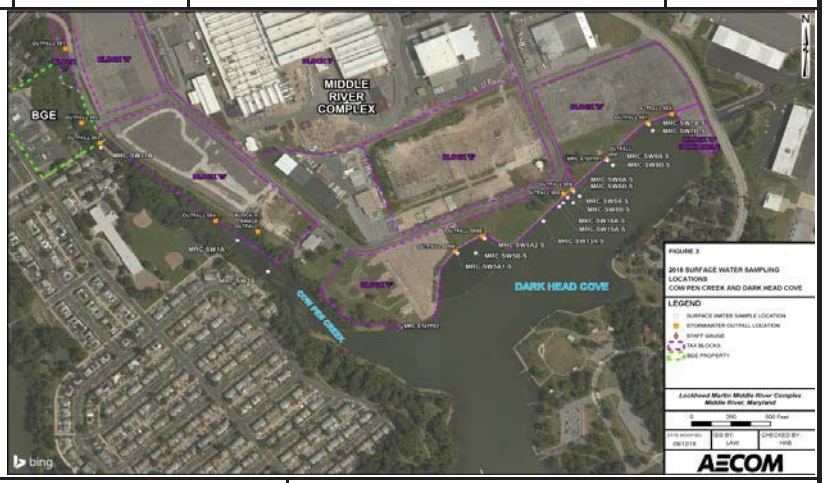
SAMPLE COLLECTION INFORMATION:

Analysis	Preservative	Container Requirements	Collected
VOCs (8260C)	HCl	2 - 40 mL glass vials	Yes

OBSERVATIONS / NOTES:

Hardness (mg/L CaCO3) = 409.7

MAP:



Circle if Applicable:

MS/MSD **Duplicate ID:**

Signature:

AECOM

SURFACE WATER SAMPLE LOG SHEET

Project Site Name: Lockheed Martin Corporation Middle River Complex Sample ID No.: MRC-SW9B-S Project No.: 60555202 Sample Location: MRC-SW9B-S

Sampled By: Victoria Kirkpatrick

[] Domestic Well Data
[] Monitoring Well Data
[X] Other: Tidal Creek - Freshwater
[] QA Sample Type: _____

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

SAMPLING DATA:

Date: 06/25/2018 Time: 1205	Color (Visual)	pH (S.U.)	S.C. (mS/cm)	Temp. (°C)	Turbidity (NTU)	DO (mg/l)	Salinity (%)	ORP (mV)
Method: Grab Sample Depth: 1 ft below water surface Static Water Level: MRC-STAFF01 1105: 0.0 feet 1500: -0.4 feet	**clear**	**7.67**	**2.027**	**26.28**	**5**	**7.7**	**2.6**	**205.1**

SAMPLE COLLECTION INFORMATION:

Analysis	Preservative	Container Requirements	Collected
VOCs (8260C)	HCl	2 - 40 mL glass vials	Yes
OBSERVATIONS / NOTES:		**MAP:**	

Hardness (mg/L CaCO3) = 389.9

Circle if Applicable: N/A

MS/MSD **Duplicate ID:**

Signature:

AECOM

SURFACE WATER SAMPLE LOG SHEET

Project Site Name: Lockheed Martin Corporation Middle River Complex Sample ID No.: MRC-SW13A-S Project No.: 60555202 Sample Location: MRC-SW13A-S

Sampled By: Victoria Kirkpatrick

[] Domestic Well Data
[] Monitoring Well Data
[X] Other: Tidal Creek - Freshwater
[] QA Sample Type: _____

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

SAMPLING DATA:

Date: 06/25/2018 Time: 1325 Method: Grab Sample Depth: 1 ft below water surface Static Water Level: MRC-STAFF01 1105: 0.0 feet 1500: -0.4 feet	Color (Visual)	pH (S.U.)	S.C. (mS/cm)	Temp. (°C)	Turbidity (NTU)	DO (mg/l)	Salinity (%)	ORP (mV)
	clear	7.76	2.029	26.45	5	7.35	2.5	168.8

SAMPLE COLLECTION INFORMATION:

Analysis	Preservative	Container Requirements	Collected
VOCs (8260C)	HCl	2 - 40 mL glass vials	Yes

OBSERVATIONS / NOTES:

Hardness (mg/L CaCO3) = 385.4

MAP:

Circle if Applicable: N/A

MS/MSD **Duplicate ID:**

Signature:

AECOM

SURFACE WATER SAMPLE LOG SHEET

Project Site Name: Lockheed Martin Corporation Middle River Complex Sample ID No.: MRC-SW15A-S Project No.: 60555202 Sample Location: MRC-SW15A-S

Sampled By: Victoria Kirkpatrick

[] Domestic Well Data
[] Monitoring Well Data
[X] Other: Tidal Creek - Freshwater
[] QA Sample Type: _____

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

SAMPLING DATA:

Date: 06/25/2018 Time: 1442	Color (Visual)	pH (S.U.)	S.C. (mS/cm)	Temp. (°C)	Turbidity (NTU)	DO (mg/l)	Salinity (%)	ORP (mV)
Method: Grab Sample Depth: 1 ft below water surface Static Water Level: MRC-STAFF01 1105: 0.0 feet 1500: -0.4 feet	**clear**	**7.92**	**2.028**	**26.64**	**0.5**	**7.82**	**2.5**	**170.8**

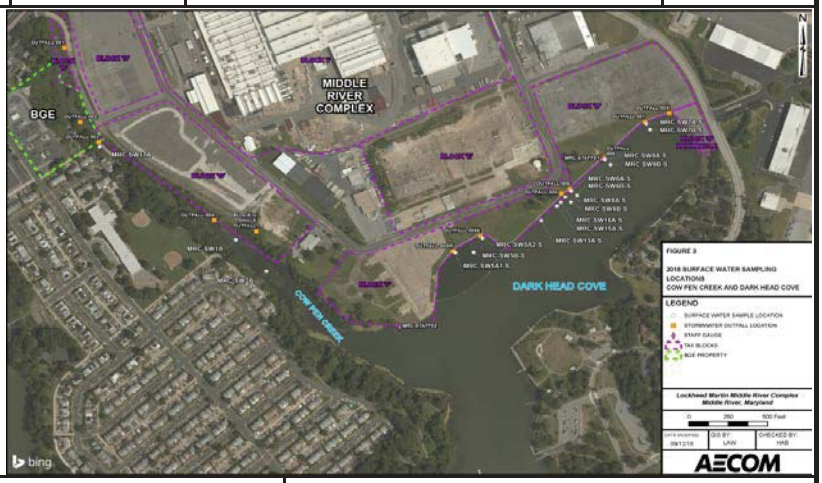
SAMPLE COLLECTION INFORMATION:

Analysis	Preservative	Container Requirements	Collected
VOCs (8260C)	HCl	2 - 40 mL glass vials	Yes

OBSERVATIONS / NOTES:

Hardness (mg/L CaCO3) = 401.5

MAP:



Circle if Applicable: N/A

MS/MSD

Duplicate ID:

Signature:

AECOM

SURFACE WATER SAMPLE LOG SHEET

Project Site Name: Lockheed Martin Corporation Middle River Complex Sample ID No.: MRC-SW16A-S Project No.: 60555202 Sample Location: MRC-SW16A-S

Sampled By: Victoria Kirkpatrick

[] Domestic Well Data
[] Monitoring Well Data
[X] Other: Tidal Creek - Freshwater
[] QA Sample Type: _____

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

SAMPLING DATA:

Date: 06/25/2018 Time: 1429	Color (Visual)	pH (S.U.)	S.C. (mS/cm)	Temp. (°C)	Turbidity (NTU)	DO (mg/l)	Salinity (%)	ORP (mV)
Method: Grab Sample Depth: 1 ft below water surface Static Water Level: MRC-STAFF01 1105: 0.0 feet 1500: -0.4 feet	**clear**	**8.03**	**2.022**	**26.56**	**6.7**	**7.76**	**2.5**	**172**

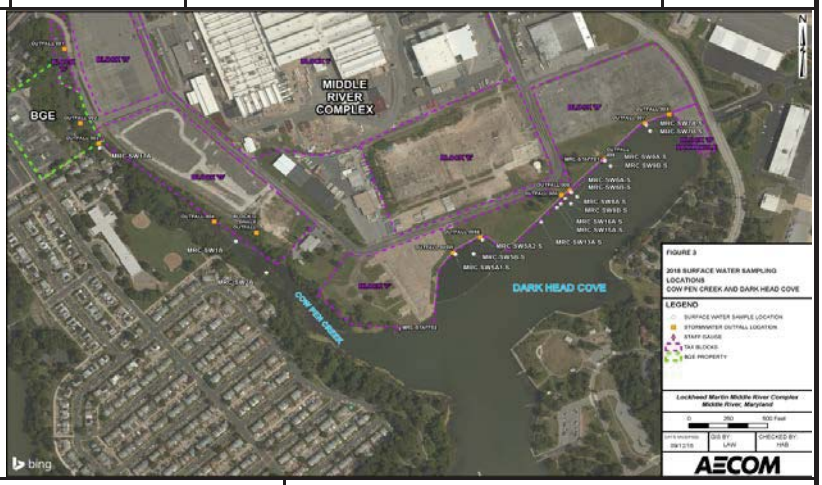
SAMPLE COLLECTION INFORMATION:

Analysis	Preservative	Container Requirements	Collected
VOCs (8260C)	HCl	2 - 40 mL glass vials	Yes

OBSERVATIONS / NOTES:

Hardness (mg/L CaCO3) = 405.9

MAP:



Circle if Applicable: N/A

MS/MSD **Duplicate ID:**

Signature:

AECOM

SURFACE WATER SAMPLE LOG SHEET

Project Site Name: Lockheed Martin Corporation Middle River Complex Sample ID No.: MRC-SW17A Project No.: 60555202 Sample Location: MRC-SW17A

Sampled By: Victoria Kirkpatrick

[] Domestic Well Data
[] Monitoring Well Data
[X] Other: Tidal Creek - Freshwater
[] QA Sample Type: _____

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

SAMPLING DATA:

	Color (Visual)	pH (S.U.)	S.C. (mS/cm)	Temp. (°C)	Turbidity (NTU)	DO (mg/l)	Salinity (%)	ORP (mV)
Date: 06/26/2018 Time: 1036 Method: Grab Sample Depth: 1 ft below water surface Static Water Level: MRC-STAFF02 1525: -0.4 feet 1600: -0.4 feet	**clear**	**7.14**	**0.635**	**21.42**	**6**	**8.38**	**0.3**	**192.7**

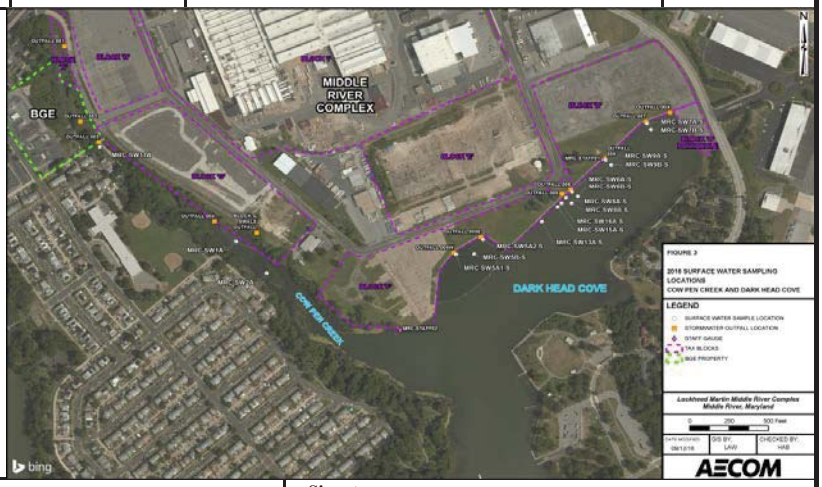
SAMPLE COLLECTION INFORMATION:

Analysis	Preservative	Container Requirements	Collected
VOCs (8260C)	HCl	2 - 40 mL glass vials	Yes
1,4-dioxane (8270D/SIM)	None	2 - 1 L ambers	Yes

OBSERVATIONS / NOTES:

Hardness (mg/L CaCO3) = 402.8

MAP:



Circle if Applicable:

MS/MSD:	Duplicate ID:
Yes	MRC-SW17A-DUP

Signature:

September 2018

AECOM

SURFACE WATER SAMPLE LOG SHEET

Project Site Name: Lockheed Martin Corporation Middle River Complex Sample ID No.: MRC-SW1A Project No.: 60555202 Sample Location: MRC-SW1A

Sampled By: Zach Neigh

[] Domestic Well Data
[] Monitoring Well Data
[X] Other: Tidal Creek - Freshwater
[] QA Sample Type: _____

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

SAMPLING DATA:

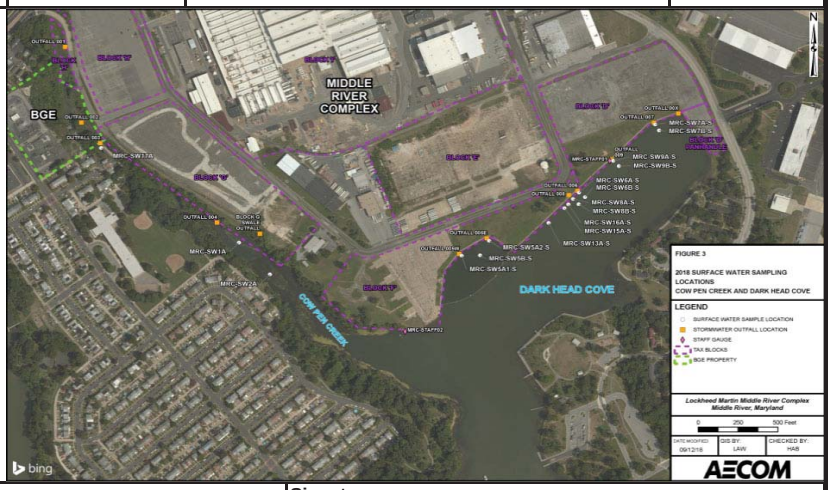
Date: 09/21/2018 Time: 1322	Color (Visual)	pH (S.U.)	S.C. (µS/cm)	Temp. (°C)	Turbidity (NTU)	DO (mg/l)	Salinity (ppt)	ORP (mV)
Method: Grab Sample Depth: 1 ft below water surface Static Water Level: MRC-STAFF02 1246: 1.6 feet 1333: 1.6feet	**clear**	**7.7**	**37.75**	**22.94**	**8.2**	**7.87**	**25.06**	**116.7**

SAMPLE COLLECTION INFORMATION:

Analysis	Preservative	Container Requirements	Collected
VOCs (8260C)	HCl	2 - 40 mL glass vials	Yes
1,4-dioxane (8270D/SIM)	None	2 - 1 L ambers	Yes

OBSERVATIONS / NOTES:

MAP:



Circle if Applicable: N/A

MS/MSD **Duplicate ID:**

Signature: Zachary Neigh

AECOM

SURFACE WATER SAMPLE LOG SHEET

Project Site Name: Lockheed Martin Corporation Middle River Complex Sample ID No.: MRC-SW2A Project No.: 60555202 Sample Location: MRC-SW2A

Sampled By: Zach Neigh

[] Domestic Well Data
[] Monitoring Well Data
[X] Other: Tidal Creek - Freshwater
[] QA Sample Type: _____

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

SAMPLING DATA:

Date: 09/21/2018 Time: 1251	Color (Visual)	pH (S.U.)	S.C. (µS/cm)	Temp. (°C)	Turbidity (NTU)	DO (mg/l)	Salinity (ppt)	ORP (mV)
Method: Grab Sample Depth: 1 ft below water surface Static Water Level: MRC-STAFF02 1246: 1.6 feet 1333: 1.6 feet	**clear**	**7.75**	**38.12**	**23.09**	**5.6**	**7.89**	**25.2**	**114.1**

SAMPLE COLLECTION INFORMATION:

Analysis	Preservative	Container Requirements	Collected
VOCs (8260C)	HCl	2 - 40 mL glass vials	Yes
1,4-dioxane (8270D/SIM)	None	2 - 1 L ambers	Yes

OBSERVATIONS / NOTES:

MAP:

Circle if Applicable: Yes

MS/MSD: Yes

Duplicate ID:

Signature:

AECOM

SURFACE WATER SAMPLE LOG SHEET

Project Site Name: Lockheed Martin Corporation Middle River Complex Sample ID No.: MRC-SW5A1-S Project No.: 60555202 Sample Location: MRC-SW5A1-S

Sampled By: Zach Neigh

[] Domestic Well Data
[] Monitoring Well Data
[X] Other: Tidal Creek - Freshwater
[] QA Sample Type: _____

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

SAMPLING DATA:

Date: 09/21/2018 Time: 1221	Color (Visual)	pH (S.U.)	S.C. (µS/cm)	Temp. (°C)	Turbidity (NTU)	DO (mg/l)	Salinity (ppt)	ORP (mV)
Method: Grab Sample Depth: 1 ft below water surface Static Water Level: MRC-STAFF01 0852: 2.4 feet 1236: 1.6 feet	**clear**	**8.09**	**41.81**	**23.17**	**2.7**	**8.32**	**27.92**	**111.6**

SAMPLE COLLECTION INFORMATION:

Analysis	Preservative	Container Requirements	Collected
VOCs (8260C)	HCl	2 - 40 mL glass vials	Yes

OBSERVATIONS / NOTES:

MAP:

Circle if Applicable: N/A

MS/MSD

Duplicate ID:

Signature: Zachary Neigh

AECOM

SURFACE WATER SAMPLE LOG SHEET

Project Site Name: Lockheed Martin Corporation Middle River Complex Sample ID No.: MRC-SW5A2-S Project No.: 60555202 Sample Location: MRC-SW5A2-S

Sampled By: Zach Neigh

[] Domestic Well Data
[] Monitoring Well Data
[X] Other: Tidal Creek - Freshwater
[] QA Sample Type: _____

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

SAMPLING DATA:

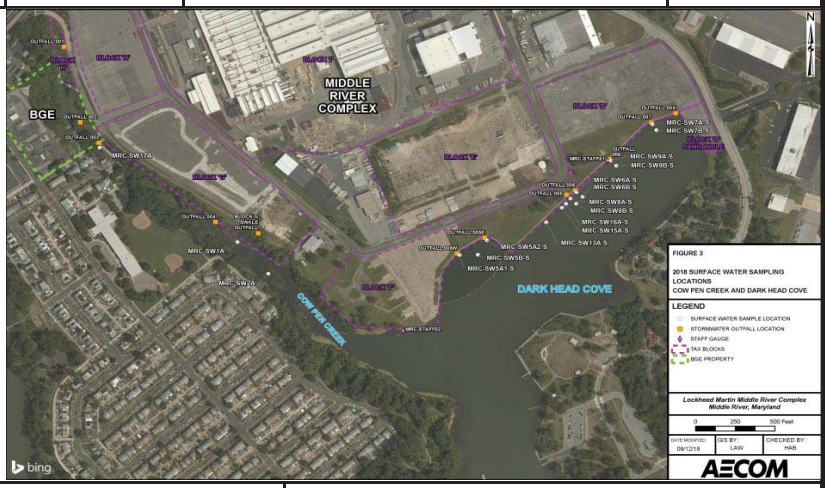
Date: 09/21/2018 Time: 1215	Color (Visual)	pH (S.U.)	S.C. (µS/cm)	Temp. (°C)	Turbidity (NTU)	DO (mg/l)	Salinity (ppt)	ORP (mV)
Method: Grab Sample Depth: 1 ft below water surface Static Water Level: MRC-STAFF01 0852: 2.4 feet 1236: 1.6 feet	**clear**	**8.11**	**42.11**	**23.32**	**2.3**	**8.14**	**28.05**	**115.2**

SAMPLE COLLECTION INFORMATION:

Analysis	Preservative	Container Requirements	Collected
VOCs (8260C)	HCl	2 - 40 mL glass vials	Yes

OBSERVATIONS / NOTES:

MAP:



Circle if Applicable: N/A

MS/MSD **Duplicate ID:**

Signature: Zachary Neigh

AECOM

SURFACE WATER SAMPLE LOG SHEET

Project Site Name: Lockheed Martin Corporation Middle River Complex Sample ID No.: MRC-SW5B-S Project No.: 60555202 Sample Location: MRC-SW5B-S

Sampled By: Zach Neigh

[] Domestic Well Data
[] Monitoring Well Data
[X] Other: Tidal Creek - Freshwater
[] QA Sample Type: _____

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

SAMPLING DATA:

Date: 09/21/2018 Time: 1206	Color (Visual)	pH (S.U.)	S.C. (µS/cm)	Temp. (°C)	Turbidity (NTU)	DO (mg/l)	Salinity (ppt)	ORP (mV)
Method: Grab Sample Depth: 1 ft below water surface Static Water Level: MRC-STAFF01 0852: 2.4 feet 1236: 1.6 feet	**clear**	**8.23**	**41.88**	**23.25**	**2.7**	**8.44**	**27.93**	**115.5**

SAMPLE COLLECTION INFORMATION:

Analysis	Preservative	Container Requirements	Collected
VOCs (8260C)	HCl	2 - 40 mL glass vials	Yes
OBSERVATIONS / NOTES:		**MAP:**	

Circle if Applicable: N/A

MS/MSD **Duplicate ID:**

Signature: Zachary Neigh

AECOM

SURFACE WATER SAMPLE LOG SHEET

Project Site Name: Lockheed Martin Corporation Middle River Complex Sample ID No.: MRC-SW6A-S Project No.: 60555202 Sample Location: MRC-SW6A-S

Sampled By: Zach Neigh

[] Domestic Well Data
[] Monitoring Well Data
[X] Other: Tidal Creek - Freshwater
[] QA Sample Type: _____

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

SAMPLING DATA:

Date: 09/21/2018 Time: 1032	Color (Visual)	pH (S.U.)	S.C. (µS/cm)	Temp. (°C)	Turbidity (NTU)	DO (mg/l)	Salinity (ppt)	ORP (mV)
Method: Grab Sample Depth: 1 ft below water surface Static Water Level: MRC-STAFF01 0852: 2.4 feet 1236: 1.6 feet	**clear**	**8.29**	**42.06**	**23.45**	**2.7**	**8.73**	**27.94**	**119.7**

SAMPLE COLLECTION INFORMATION:

Analysis	Preservative	Container Requirements	Collected
VOCs (8260C)	HCl	2 - 40 mL glass vials	Yes
1,4 Dioxane (6020A/7470)	None	2 - 1000 mL ambers	Yes

OBSERVATIONS / NOTES:

MAP:

Circle if Applicable: N/A

MS/MSD **Duplicate ID:**

Signature: Zachary Neigh

AECOM

SURFACE WATER SAMPLE LOG SHEET

Project Site Name: Lockheed Martin Corporation Middle River Complex Sample ID No.: MRC-SW6B-S Project No.: 60555202 Sample Location: MRC-SW6B-S

Sampled By: Zach Neigh

[] Domestic Well Data
[] Monitoring Well Data
[X] Other: Tidal Creek - Freshwater
[] QA Sample Type: _____

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

SAMPLING DATA:

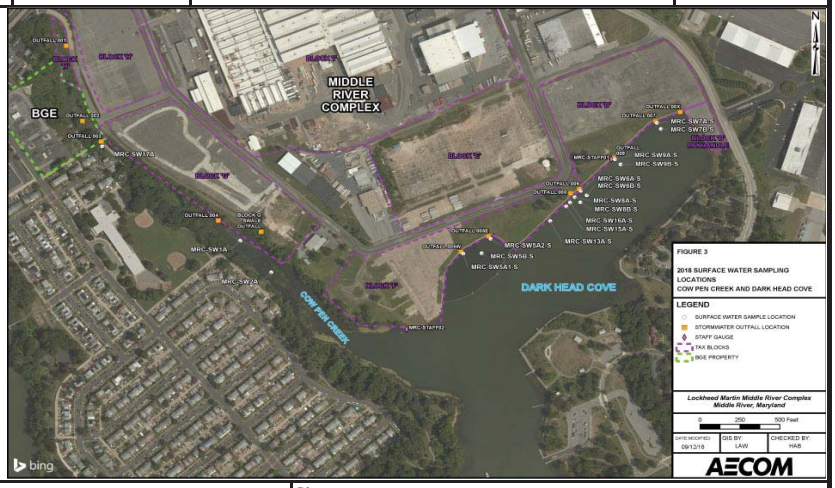
Date: 09/21/2018 Time: 1046	Color (Visual)	pH (S.U.)	S.C. (µS/cm)	Temp. (°C)	Turbidity (NTU)	DO (mg/l)	Salinity (ppt)	ORP (mV)
Method: Grab Sample Depth: 1 ft below water surface Static Water Level: MRC-STAFF01 0852: 2.4 feet 1236: 1.6 feet	**clear**	**8.36**	**42.09**	**23.47**	**2.6**	**8.81**	**27.94**	**166.1**

SAMPLE COLLECTION INFORMATION:

Analysis	Preservative	Container Requirements	Collected
VOCs (8260C)	HCl	2 - 40 mL glass vials	Yes
1,4 Dioxane (6020A/7470)	None	2 - 1000 mL ambers	Yes

OBSERVATIONS / NOTES:

MAP:



Circle if Applicable: N/A

MS/MSD **Duplicate ID:**

Signature: Zachary Neigh

AECOM

SURFACE WATER SAMPLE LOG SHEET

Project Site Name: Lockheed Martin Corporation Middle River Complex Sample ID No.: MRC-SW7A-S Project No.: 60555202 Sample Location: MRC-SW7A-S

Sampled By: Zach Neigh

[] Domestic Well Data
[] Monitoring Well Data
[X] Other: Tidal Creek - Freshwater
[] QA Sample Type: _____

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

SAMPLING DATA:

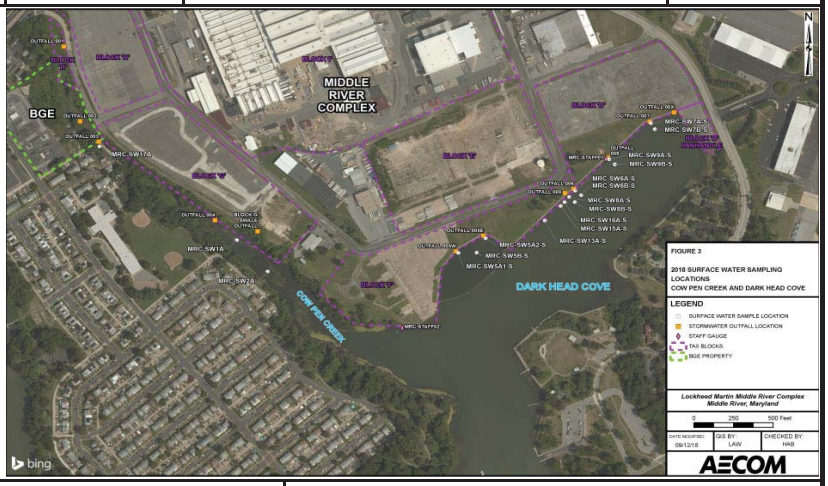
Date: 09/21/2018 Time: 0953	**Color** (Visual)	**pH** (S.U.)	**S.C.** (µS/cm)	**Temp.** (°C)	**Turbidity** (NTU)	**DO** (mg/l)	**Salinity** (ppt)	**ORP** (mV)
Method: Grab Sample Depth: 1 ft below water surface Static Water Level: MRC-STAFF01 0852: 2.4 feet 1236: 1.6 feet	**clear**	**8**	**41.88**	**23.44**	**3.1**	**8.43**	**27.81**	**162**

SAMPLE COLLECTION INFORMATION:

Analysis	**Preservative**	**Container Requirements**	**Collected**
VOCs (8260C)	HCl	2 - 40 mL glass vials	Yes

OBSERVATIONS / NOTES:

MAP:



Circle if Applicable: N/A

MS/MSD

Duplicate ID:

Signature: Zachary Neigh

AECOM

SURFACE WATER SAMPLE LOG SHEET

Project Site Name: Lockheed Martin Corporation Middle River Complex Sample ID No.: MRC-SW7B-S Project No.: 60555202 Sample Location: MRC-SW7B-S

Sampled By: Zach Neigh

[] Domestic Well Data
[] Monitoring Well Data
[X] Other: Tidal Creek - Freshwater
[] QA Sample Type: _____

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

SAMPLING DATA:

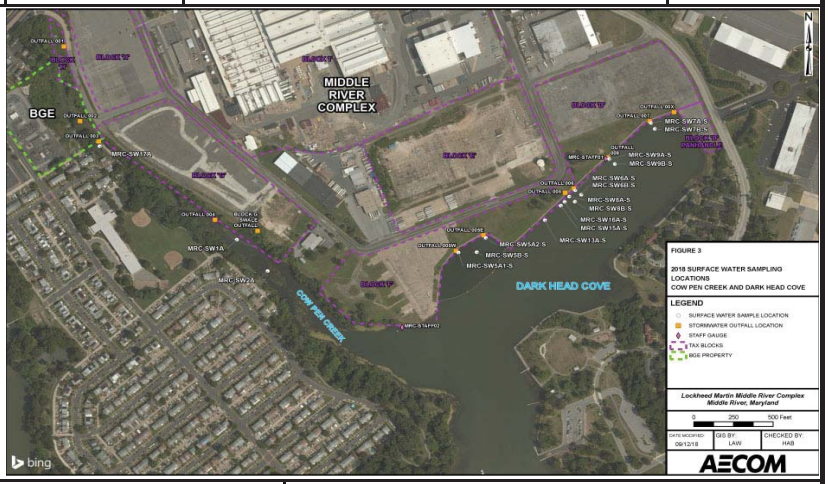
Date: 09/21/2018 Time: 1004	**Color** (Visual)	**pH** (S.U.)	**S.C.** (µS/cm)	**Temp.** (°C)	**Turbidity** (NTU)	**DO** (mg/l)	**Salinity** (ppt)	**ORP** (mV)
Method: Grab Sample Depth: 1 ft below water surface Static Water Level: MRC-STAFF01 0852: 2.4 feet 1236: 1.6 feet	**clear**	**8**	**42.04**	**23.46**	**3.1**	**8.43**	27.92	**162**

SAMPLE COLLECTION INFORMATION:

Analysis	**Preservative**	**Container Requirements**	**Collected**
VOCs (8260C)	HCl	2 - 40 mL glass vials	Yes

OBSERVATIONS / NOTES:

MAP:



Circle if Applicable: N/A

MS/MSD **Duplicate ID:**

Signature: Zachary Neigh

AECOM

SURFACE WATER SAMPLE LOG SHEET

Project Site Name: Lockheed Martin Corporation Middle River Complex Sample ID No.: MRC-SW8A-S Project No.: 60555202 Sample Location: MRC-SW8A-S

Sampled By: Zach Neigh

[] Domestic Well Data
[] Monitoring Well Data
[X] Other: Tidal Creek - Freshwater
[] QA Sample Type: _____

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

SAMPLING DATA:

Date: 09/21/2018 Time: 1113	**Color** (Visual)	**pH** (S.U.)	**S.C.** (µS/cm)	**Temp.** (°C)	**Turbidity** (NTU)	**DO** (mg/l)	**Salinity** (ppt)	**ORP** (mV)
Method: Grab Sample Depth: 1 ft below water surface Static Water Level: MRC-STAFF01 0852: 2.4 feet 1236: 1.6 feet	**clear**	**8.5**	**42.11**	**23.47**	**2.7**	**8.8**	**27.96**	**119.7**

SAMPLE COLLECTION INFORMATION:

Analysis	**Preservative**	**Container Requirements**	**Collected**
VOCs (8260C)	HCl	2 - 40 mL glass vials	Yes
1,4 Dioxane (6020A/7470)	None	2 - 1000 mL ambers	Yes
OBSERVATIONS / NOTES:		**MAP:**	

Circle if Applicable: **Yes**

MS/MSD **Duplicate ID:** **MRC-SW8A-S-DUP**

Signature: Zachary Neigh

AECOM

SURFACE WATER SAMPLE LOG SHEET

Project Site Name: Lockheed Martin Corporation Middle River Complex Sample ID No.: MRC-SW8B-S Project No.: 60555202 Sample Location: MRC-SW8B-S

Sampled By: Zach Neigh

[] Domestic Well Data
[] Monitoring Well Data
[X] Other: Tidal Creek - Freshwater
[] QA Sample Type: _____

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

SAMPLING DATA:

Date: 09/21/2018 Time: 1101	Color (Visual)	pH (S.U.)	S.C. (µS/cm)	Temp. (°C)	Turbidity (NTU)	DO (mg/l)	Salinity (ppt)	ORP (mV)
Method: Grab Sample Depth: 1 ft below water surface Static Water Level: MRC-STAFF01 0852: 2.4 feet 1236: 1.6 feet	**clear**	**8.51**	**42.12**	**23.48**	**2.6**	**8.89**	**27.96**	**138.38**

SAMPLE COLLECTION INFORMATION:

Analysis	Preservative	Container Requirements	Collected
VOCs (8260C)	HCl	2 - 40 mL glass vials	Yes
1,4 Dioxane (6020A/7470)	None	2 - 1000 mL ambers	Yes

OBSERVATIONS / NOTES:

MAP:

Circle if Applicable: N/A

MS/MSD **Duplicate ID:**

Signature: Zachary Neigh

AECOM

SURFACE WATER SAMPLE LOG SHEET

Project Site Name: Lockheed Martin Corporation Middle River Complex Sample ID No.: MRC-SW9A-S Project No.: 60555202 Sample Location: MRC-SW9A-S

Sampled By: Zach Neigh

[] Domestic Well Data
[] Monitoring Well Data
[X] Other: Tidal Creek - Freshwater
[] QA Sample Type: _____

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

SAMPLING DATA:

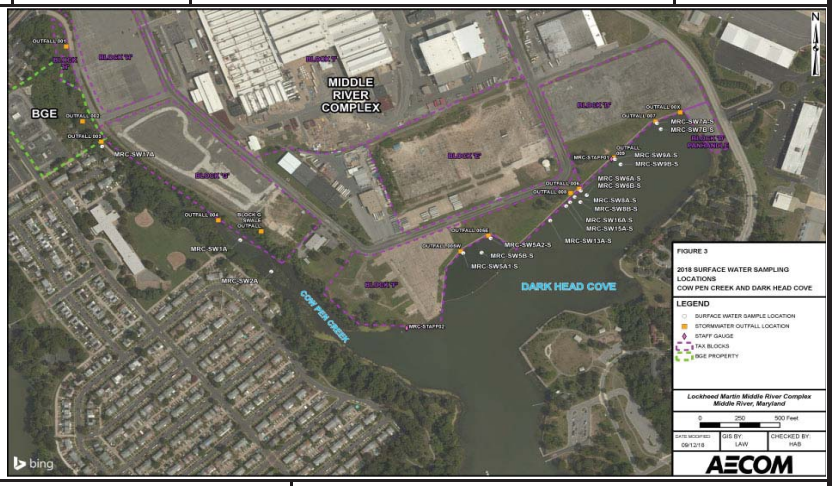
Date: 09/21/2018 Time: 1013	Color (Visual)	pH (S.U.)	S.C. (µS/cm)	Temp. (°C)	Turbidity (NTU)	DO (mg/l)	Salinity (ppt)	ORP (mV)
Method: Grab Sample Depth: 1 ft below water surface Static Water Level: MRC-STAFF01 0852: 2.4 feet 1236: 1.6 feet	**clear**	**8.08**	**42.01**	**23.43**	**2.6**	**8.5**	**27.92**	**167**

SAMPLE COLLECTION INFORMATION:

Analysis	Preservative	Container Requirements	Collected
VOCs (8260C)	HCl	2 - 40 mL glass vials	Yes

OBSERVATIONS / NOTES:

MAP:



Circle if Applicable: N/A

MS/MSD

Duplicate ID:

Signature: Zachary Neigh

AECOM

SURFACE WATER SAMPLE LOG SHEET

Project Site Name: Lockheed Martin Corporation Middle River Complex Sample ID No.: MRC-SW9B-S Project No.: 60555202 Sample Location: MRC-SW9B-S

Sampled By: Zach Neigh

[] Domestic Well Data
[] Monitoring Well Data
[X] Other: Tidal Creek - Freshwater
[] QA Sample Type: _____

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

SAMPLING DATA:

Date: 09/21/2018 Time: 1021	**Color** (Visual)	**pH** (S.U.)	**S.C.** (µS/cm)	**Temp.** (°C)	**Turbidity** (NTU)	**DO** (mg/l)	**Salinity** (ppt)	**ORP** (mV)
Method: Grab Sample Depth: 1 ft below water surface Static Water Level: MRC-STAFF01 0852: 2.4 feet 1236: 1.6 feet	**clear**	**8.2**	**42.03**	**23.44**	**2.5**	**8.68**	**27.92**	**159.4**

SAMPLE COLLECTION INFORMATION:

Analysis	**Preservative**	**Container Requirements**	**Collected**
VOCs (8260C)	HCl	2 - 40 mL glass vials	Yes

OBSERVATIONS / NOTES:

MAP:

Circle if Applicable: N/A

MS/MSD **Duplicate ID:**

Signature: Zachary Neigh

AECOM

SURFACE WATER SAMPLE LOG SHEET

Project Site Name: Lockheed Martin Corporation Middle River Complex Sample ID No.: MRC-SW13A-S Project No.: 60555202 Sample Location: MRC-SW13A-S

Sampled By: Zach Neigh

[] Domestic Well Data
[] Monitoring Well Data
[X] Other: Tidal Creek - Freshwater
[] QA Sample Type: _____

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

SAMPLING DATA:

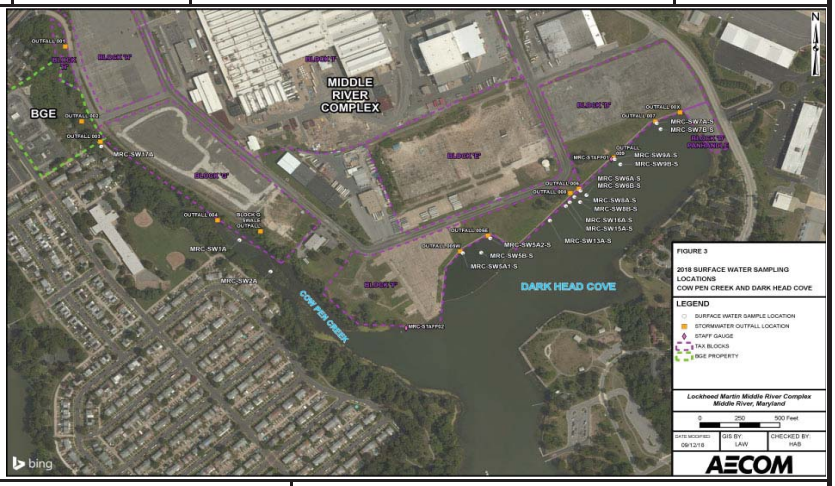
Date: 09/21/2018 Time: 1156	Color (Visual)	pH (S.U.)	S.C. (µS/cm)	Temp. (°C)	Turbidity (NTU)	DO (mg/l)	Salinity (ppt)	ORP (mV)
Method: Grab Sample Depth: 1 ft below water surface Static Water Level: MRC-STAFF01 0852: 2.4 feet 1236: 1.6 feet	**clear**	**8.36**	**42.15**	**23.4**	**2.3**	**8.49**	**28.03**	**116.1**

SAMPLE COLLECTION INFORMATION:

Analysis	Preservative	Container Requirements	Collected
VOCs (8260C)	HCl	2 - 40 mL glass vials	Yes

OBSERVATIONS / NOTES:

MAP:



Circle if Applicable: N/A

MS/MSD **Duplicate ID:**

Signature: Zachary Neigh

AECOM

SURFACE WATER SAMPLE LOG SHEET

Project Site Name: Lockheed Martin Corporation Middle River Complex Sample ID No.: MRC-SW15A-S Project No.: 60555202 Sample Location: MRC-SW15A-S

Sampled By: Zach Neigh

[] Domestic Well Data
[] Monitoring Well Data
[X] Other: Tidal Creek - Freshwater
[] QA Sample Type: _____

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

SAMPLING DATA:

Date: 09/21/2018 Time: 1149	**Color** (Visual)	**pH** (S.U.)	**S.C.** (µS/cm)	**Temp.** (°C)	**Turbidity** (NTU)	**DO** (mg/l)	**Salinity** (ppt)	**ORP** (mV)
Method: Grab Sample Depth: 1 ft below water surface Static Water Level: MRC-STAFF01 0852: 2.4 feet 1236: 1.6 feet	**clear**	**8.36**	**42.14**	**23.42**	**2.6**	**8.63**	**28.01**	**117.2**

SAMPLE COLLECTION INFORMATION:

Analysis	**Preservative**	**Container Requirements**	**Collected**
VOCs (8260C)	HCl	2 - 40 mL glass vials	Yes

OBSERVATIONS / NOTES:

MAP:

Circle if Applicable: N/A

MS/MSD **Duplicate ID:**

Signature: Zachary Neigh

AECOM

SURFACE WATER SAMPLE LOG SHEET

Project Site Name: Lockheed Martin Corporation Middle River Complex Sample ID No.: MRC-SW16A-S Project No.: 60555202 Sample Location: MRC-SW16A-S

Sampled By: Zach Neigh

[] Domestic Well Data
[] Monitoring Well Data
[X] Other: Tidal Creek - Freshwater
[] QA Sample Type: _____

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

SAMPLING DATA:

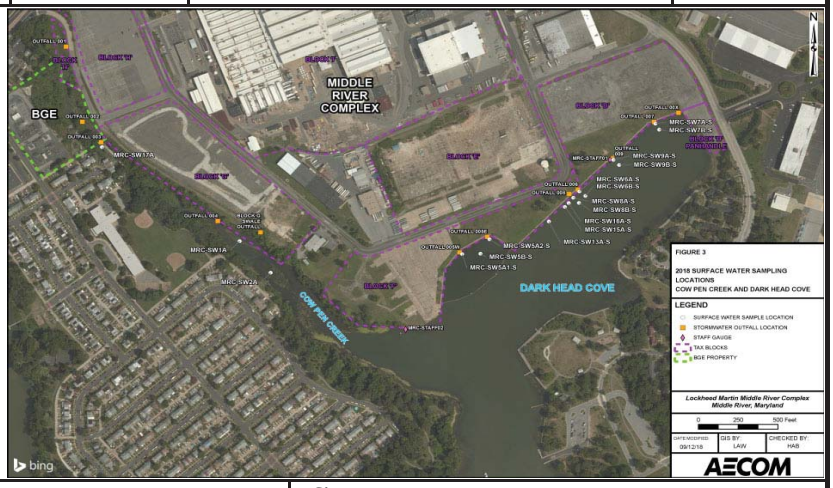
Date: 06921/2018 Time: 1140	**Color** (Visual)	**pH** (S.U.)	**S.C.** (µS/cm)	**Temp.** (°C)	**Turbidity** (NTU)	**DO** (mg/l)	**Salinity** (ppt	**ORP** (mV)
Method: Grab Sample Depth: 1 ft below water surface Static Water Level: MRC-STAFF01 0852: 2.4 feet 1236: 1.6 feet	**clear**	**8.34**	**42.12**	**23.41**	**2.6**	**8.65**	**28.01**	**119.5**

SAMPLE COLLECTION INFORMATION:

Analysis	**Preservative**	**Container Requirements**	**Collected**
VOCs (8260C)	HCl	2 - 40 mL glass vials	Yes

OBSERVATIONS / NOTES:

MAP:



Circle if Applicable: N/A

MS/MSD

Duplicate ID:

Signature: Zachary Neigh

AECOM

SURFACE WATER SAMPLE LOG SHEET

Project Site Name: Lockheed Martin Corporation Middle River Complex Sample ID No.: MRC-SW17A Project No.: 60555202 Sample Location: MRC-SW17A

Sampled By: Zach Neigh

[] Domestic Well Data
[] Monitoring Well Data
[X] Other: Tidal Creek - Freshwater
[] QA Sample Type: _____

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

SAMPLING DATA:

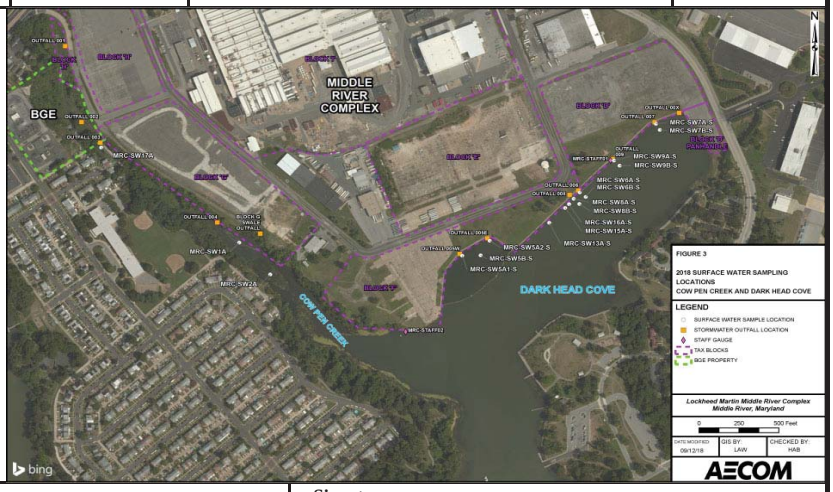
	Color (Visual)	pH (S.U.)	S.C. (µS/cm)	Temp. (°C)	Turbidity (NTU)	DO (mg/l)	Salinity (ppt)	ORP (mV)
Date: 09/21/2018 Time: 1414 Method: Grab Sample Depth: 1 ft below water surface Static Water Level: MRC-STAFF02 0852: 2.4 feet 1236: 1.6 feet	**clear**	**7.58**	**25.2**	**20.07**	**5.4**	**7.54**	**17.16**	**193.7**

SAMPLE COLLECTION INFORMATION:

Analysis	Preservative	Container Requirements	Collected
VOCs (8260C)	HCl	2 - 40 mL glass vials	Yes
1,4-dioxane (8270D/SIM)	None	2 - 1 L ambers	Yes

OBSERVATIONS / NOTES:

MAP:



Circle if Applicable: N/A

MS/MSD:

Duplicate ID:

Signature: Zachary Neigh

APPENDIX C
Data Validation Reports

AECOM

Data Validation and Usability Report

Lockheed Martin
Middle River Complex

April 2018 GW/SW Sampling
Project: 60555202

June 2018

IDENTIFICATION FORM

Data Validation and Data Usability Review

Zachary Neigh
Data Validator
AECOM
June 06, 2018

Naoum Tavantzis
Project Chemist
AECOM
June 06, 2018

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I. Executive Summary

Data validation was performed on 100% of the groundwater and surface water field investigative samples collected from April 4th, 2018 through April 30th, 2018 at the Lockheed Martin Middle River Complex located in Middle River, Maryland. The validation was performed to a United States Environmental Protection Agency (USEPA) Region III Inorganic Level I and Organic Level I based on the specifics of the analytical methods referenced and qualified according to the USEPA Contract Laboratory Program (CLP) National Functional Guidelines for Organic/Inorganic (January 2017) Superfund Data Review, with the exception of blank detections which were qualified according to the USEPA Region III modifications to the National Functional Guidelines defining the use of the "B" flag.

The review was assisted through the use of an electronic data management tool that compiles batch-level quality control (QC) data submitted with the laboratory deliverables and identifies anomalies for verification and qualification by the data reviewer. This information is provided in the form of a structured workbook that includes field sample analytical results, QC sample results, batch associations, and QC criteria. Prior to validation, the quality assurance procedures applied to this process include reviewing the output for data completeness based on laboratory deliverables and chain of custody reports, verification of QC criteria based on the aforementioned data validation guidelines and project-specific Quality Assurance Project Plan (QAPP), as well as strict control of data management permissions. The resulting data validation workbooks were evaluated and validated using the AECOM automated validation assistant (AVA) tool. The specific data elements that were reviewed include:

- Holding times and sample preservation
- Blanks (Method, Trip, Field, and Equipment)
- Matrix spike (MS) and/or matrix spike duplicate (MSD) results
- Laboratory control sample (LCS)/laboratory control sample duplicate (LCSD) results
- Surrogate spike results
- Field duplicates
- Laboratory duplicates
- Sensitivity

Data validation qualifiers were applied to results where a QC nonconformance required qualification per USEPA guidance. All QC anomalies were assessed for their impact on data quality in regards to precision, accuracy, representativeness, completeness, comparability, and sensitivity (PARCCS) as discussed in **II: PARCCS Data Quality**. A detailed list of the QC non-conformances can be found in **III: Data Validation Findings**. The associated field sample results that required qualification are listed in **IV: Qualified Field Sample Results**

II. PARCCS Data Quality

Precision

Precision is the degree of agreement among repeated measurements of the same characteristic on the same sample or on separate samples collected as close as possible in time and place. Field sampling precision is measured with the field duplicate relative percent differences; laboratory precision is measured with laboratory duplicate relative percent differences and/or laboratory control spike and matrix spike duplicate relative percent differences.

During the review, several matrix spike pairs displayed relative percent differences greater than the quality control limits. However, all associated field sample results were either non-detect or previously qualified due to matrix spike percent recovery anomalies; no data qualifying action was taken.

A limited number of field duplicate pairs displayed relative percent differences greater than the quality control limit of 35%. The positive associated field sample results and field duplicate results were qualified J,fd. These anomalies are considered minor and the qualified results should be considered usable as estimated values.

Accuracy

Accuracy is a measure of confidence in a measurement. The smaller the difference between the measurement of a parameter and its "true" or expected value, the more accurate the measurement. Accuracy in the field was monitored through the use of negative controls such as trip blanks, field blanks, and equipment blanks, along with adherence to the standard operating procedures and sampling plans. Analytical accuracy was assessed through the measurement of percent recoveries in the laboratory control spike pairs (LCS/LCSD) and the matrix spike pairs (MS/MSD).

Several method blanks, trip blanks, equipment blanks, and field blanks displayed detections greater than the method detection limit. Per the USEPA Region III guidelines on the qualification of blank detections, associated field sample results that displayed concentrations within five times of the blank detection were qualified “B”. The qualified field sample results should be considered usable as estimated values.

During the review, several MS/MSD displayed percent recoveries outside the quality control limits. The field sample results associated with positive biases were non-detect and did not require data qualifying action. The positive field sample results associated with negative biases were qualified J-,m. Non-detect results associated with percent recoveries less than the lower control limit, but greater than 20%, were qualified UJ,m. All qualified data should be considered usable as estimated values.

Several LCS/LCSD displayed percent recoveries outside the quality control limits. The field sample results associated with positive biases were non-detect and did not require data qualifying

action. The field sample results associated with negative biases were non-detect and were qualified UJ,l. These anomalies are considered minor since all percent recoveries less than the lower QC limits were greater than 10%. The qualified field sample results should be considered usable.

Representativeness

Representativeness qualitatively expresses the degree to which data accurately reflect site conditions. Factors that affect the representativeness of analytical data include appropriate sample population definitions, proper sample collection and preservation techniques, analytical holding times, use of standard analytical methods, and determination of matrix or analyte interferences.

A limited number of analyses and/or extractions were performed outside of the technical holding time but did not exceed twice the holding time (at which point non-detect sample results would have been rejected). These anomalies were considered minor, and the associated non-detect field sample results were qualified UJ,h while positive results were qualified J,h. These anomalies are considered minor and the qualified field sample results should be considered usable as estimated values.

Comparability

Comparability is the extent to which data from one study can be compared directly to either past data from the current project or data from another study. Using standardized sampling and analytical methods, units of reporting, and site selection procedures helps ensure comparability. Standard field sampling methods and current CLP analytical methods by an accredited laboratory were used in this investigation.

Completeness

Completeness is a measure of the amount of valid data obtained from a measurement system compared to the amount of data expected under normal conditions. It is expected that laboratories will provide data meeting system quality control acceptance criteria for all samples tested. Project completeness is determined by evaluating the planned versus actual quantities of usable data. A total of 151 investigative field samples were validated, including 133 groundwater samples and 18 surface water samples. Additionally 14 field/equipment blanks and 2 investigation derived waste (IDW) samples were validated. Due to rejected data points associated with major anomalies, the overall data completeness was less than 100% at 99%.

Sensitivity

Sensitivity reflects the ability of the analytical method to detect analytes of interest below the level of concern. This goal is achieved by identifying the level of concern, choosing a method with appropriate method detection limits, and ensuring that the laboratory analyzes calibration

standards at or below the level of concern. The laboratory was able to achieve the lowest reporting limits based on the analytical methods employed and the variety of matrices encountered. Any analytes detected below the reporting limit and above the method detection limit were reported and qualified “J” as estimated values by the laboratory. The only field sample that displayed non-detect results at an elevated dilution factor (greater than 10 times) was MRC-MW27A, analyzed for Nitrite Nitrogen at a dilution factor of 25. This field sample result did not require qualification by the data reviewer and should be considered usable as reported.

Overall Impact on Data Usability

The bulk of the data was considered usable and met the completeness requirement outlined in the QAPP. During the course of the data validation, several minor anomalies were noted which is to be anticipated based on statistical predictability of standard analytical procedures. Several field sample results were qualified due to these minor anomalies. No major anomalies were identified over the course of data validation; therefore no field sample results were qualified as rejected. All data are considered usable, as qualified, for their intended purpose based on the data reviewed.

III. Data Validation Findings

Volatile Organic Compounds SW846-8260B	Description	Sample ID	Analyte	Value (Control Limit)
Holding Times	*No Anomalies*			
Method Blanks	**Detection > MDL**	2720310	Hexachloro-1,3-Butadiene	1.1 ug/l (1.0 ug/l)
		2721323	Chloroform	0.70 ug/l (0.21 ug/l)
		2721982	Chloroform	0.39 ug/l (0.21 ug/l)
		2722614	Hexachloro-1,3-Butadiene	1.1 ug/l (1.0 ug/l)
		2723836	Chloroform	0.66 ug/l (0.21 ug/l)
		2724316	Chloroform	0.31 ug/l (0.21 ug/l)
		2724316	Hexachloro-1,3-Butadiene	1.1 ug/l (1.0 ug/l)
		2724402	Chloroform	0.66 ug/l (0.21 ug/l)
		2724799	Chloroform	0.61 ug/l (0.21 ug/l)
		2725080	Chloroform	0.26 ug/l (0.21 ug/l)
		2725883	Hexachloro-1,3-Butadiene	1.3 ug/l (1.0 ug/l)
		2726611	Chloroform	0.24 ug/l (0.21 ug/l)
		2726758	Chloroform	0.35 ug/l (0.21 ug/l)
		2726758	TRICHLOROETHENE	0.59 ug/l (0.33 ug/l)
		2727495	Chloroform	0.34 ug/l (0.21 ug/l)
		2727844	Chloroform	0.28 ug/l (0.21 ug/l)
		2727879	Chloroform	0.44 ug/l (0.21 ug/l)
Trip Blanks	**Detection > MDL**	TB-041018-1	Acetone	4.6 ug/l (3.1 ug/l)
		TB-041018-2	Acetone	4.1 ug/l (3.1 ug/l)
		TB-041018-4	Acetone	5.7 ug/l (3.1 ug/l)
		TB-041018-4	Hexachloro-1,3-Butadiene	1.2 ug/l (1.0 ug/l)
		TB-041218-1	Bromoform	0.43 ug/l (0.40 ug/l)
		TB-041218-1	Acetone	9.2 ug/l (3.1 ug/l)
		TB-041718-1	Acetone	13.0 ug/l (3.1 ug/l)
		TB-041718-2	Acetone	15.5 ug/l (3.1 ug/l)
		TB-041718-2	TERT-BUTYL ALCOHOL	2.5 ug/l (2.2 ug/l)
		TB-041718-3	Acetone	11.5 ug/l (3.1 ug/l)
		TB-041718-3	Naphthalene	0.49 ug/l (0.34 ug/l)
		TB-041718-4	Acetone	13.6 ug/l (3.1 ug/l)
		TB-041718-4	TERT-BUTYL ALCOHOL	2.5 ug/l (2.2 ug/l)
		TB-041718-5	Acetone	8.3 ug/l (3.1 ug/l)
		TRIP BLANK	Dibromochloromethane	0.50 ug/l (0.45 ug/l)
		TRIP BLANK	Bromoform	0.97 ug/l (0.40 ug/l)

Volatile Organic Compounds SW846-8260B	Description	Sample ID	Analyte	Value (Control Limit)
		TRIP BLANK 1	Acetone	5.6 ug/l (3.1 ug/l)
		TRIP BLANK 2	Acetone	7.0 ug/l (3.1 ug/l)
		TRIP BLANK 4	Acetone	5.2 ug/l (3.1 ug/l)
		TRIP BLANK 5	Acetone	4.7 ug/l (3.1 ug/l)
		TB-041718-1	Acetone	13.0 ug/l (3.1 ug/l)
		TB-041718-2	Acetone	15.5 ug/l (3.1 ug/l)
		TB-041718-2	TERT-BUTYL ALCOHOL	2.5 ug/l (2.2 ug/l)
Trip Blanks	**Detection > MDL**	TB-041718-3	Acetone	11.5 ug/l (3.1 ug/l)
		TB-041718-3	Naphthalene	0.49 ug/l (0.34 ug/l)
		TB-041718-4	Acetone	13.6 ug/l (3.1 ug/l)
		TB-041718-4	TERT-BUTYL ALCOHOL	2.5 ug/l (2.2 ug/l)
		TB-041718-5	Acetone	8.3 ug/l (3.1 ug/l)
		EB-040618-TK	TRICHLOROETHENE	0.90 ug/l (0.33 ug/l)
		EB-040618-ZN	Hexachloro-1,3-Butadiene	1.2 ug/l (1.0 ug/l)
		EB-041318-AD	Acetone	11.4 ug/l (3.1 ug/l)
		2718917	1,2,3-Trichlorobenzene	60.4 % (61-126 %)
		2719844	Freon TF (Chlorinated fluorocarbon)	132 % (50-130 %)
		2719844	METHYLCYLOHEXANE	132 % (70-130 %)
		2720311	1,2,3-Trichlorobenzene	50.7 % (61-126 %)
		2720311	1,2,4-Trichlorobenzene	57.2 % (67-123 %)
		2720311	Freon TF (Chlorinated fluorocarbon)	131 % (50-130 %)
		2721324	METHYLCYLOHEXANE	140 % (70-130 %)
		2721780	METHYLCYLOHEXANE	133 % (70-130 %)
		2721962	1,1-Dichloroethylene	129 % (63-128 %)
LCS/LCSD	**LCS % Recovery**	2721962	CYCLOHEXANE	135 % (66-130 %)
		2721962	Freon TF (Chlorinated fluorocarbon)	142 % (50-130 %)
		2721983	METHYLCYLOHEXANE	142 % (70-130 %)
		2722321	METHYLCYLOHEXANE	132 % (70-130 %)
		2723837	METHYLCYLOHEXANE	143 % (70-130 %)
		2723837	Naphthalene	55.2 % (56-134 %)
		2724317	1,2,3-Trichlorobenzene	143 % (61-126 %)
		2724317	Hexachloro-1,3-Butadiene	137 % (55-128 %)
		2724317	Methylene Chloride	122 % (76-121 %)
		2724317	Naphthalene	173 % (56-134 %)

Volatile Organic Compounds SW846-8260B	Description	Sample ID	Analyte	Value (Control Limit)
		2724403	2-Hexanone	63.7 % (65-154 %)
		2724403	4-Methyl-2-Pentanone	69.8 % (71-146 %)
		2724403	METHYLCYLOHEXANE	150 % (70-130 %)
		2724403	Methylene Chloride	136 % (76-121 %)
		2724800	1,1-Dichloroethylene	135 % (63-128 %)
		2724800	Carbon Disulfide	148 % (57-131 %)
		2724800	CYCLOHEXANE	133 % (66-130 %)
		2724800	Freon TF (Chlorinated fluorocarbon)	147 % (50-130 %)
		2724800	METHYLCYLOHEXANE	148 % (70-130 %)
		2724800	Methylene Chloride	128 % (76-121 %)
		2725081	1,1-Dichloroethylene	134 % (63-128 %)
		2725081	Carbon Disulfide	133 % (57-131 %)
		2725081	CYCLOHEXANE	141 % (66-130 %)
		2725081	Freon TF (Chlorinated fluorocarbon)	165 % (50-130 %)
		2725884	Naphthalene	158 % (56-134 %)
		2726309	Naphthalene	140 % (56-134 %)
LCS/LCSD	**LCS % Recovery**	2726322	1,1-Dichloroethylene	129 % (63-128 %)
		2726322	CYCLOHEXANE	143 % (66-130 %)
		2726322	Freon TF (Chlorinated fluorocarbon)	157 % (50-130 %)
		2726759	Freon TF (Chlorinated fluorocarbon)	131 % (50-130 %)
		2726759	METHYLCYLOHEXANE	131 % (70-130 %)
		2726961	1,1-Dichloroethylene	130 % (63-128 %)
		2726961	CYCLOHEXANE	141 % (66-130 %)
		2726961	Freon TF (Chlorinated fluorocarbon)	161 % (50-130 %)
		2727496	1,1-Dichloroethylene	136 % (63-128 %)
		2727496	Carbon Disulfide	135 % (57-131 %)
		2727496	CYCLOHEXANE	143 % (66-130 %)
		2727496	Freon TF (Chlorinated fluorocarbon)	165 % (50-130 %)
		2727845	1,1-Dichloroethylene	141 % (63-128 %)
		2727845	2,2-Dichloropropane	130 % (64-129 %)
		2727845	Carbon Disulfide	141 % (57-131 %)
		2727845	CYCLOHEXANE	151 % (66-130 %)

Volatile Organic Compounds SW846-8260B	Description	Sample ID	Analyte	Value (Control Limit)
LCS/LCSD	LCS % Recovery	2727845	Freon TF (Chlorinated fluorocarbon)	169 % (50-130 %)
		2727845	Trans-1,2-Dichloroethene	128 % (71-122 %)
		2728889	Carbon Disulfide	138 % (57-131 %)
		2728889	Freon TF (Chlorinated fluorocarbon)	134 % (50-130 %)
		2728889	Methylene Chloride	126 % (76-121 %)
		2730034	1,2,4-Trichlorobenzene	61.3 % (67-123 %)
		2730034	cis-1,3-Dichloropropene	75.3 % (81-121 %)
MS/MSD	MS % Recovery	2721513	2-Chloroethylvinylether	0 % (1-150 %)
		2721513	Bromomethane	42.6 % (45-148 %)
		2721513	METHYLCYLOHEXANE	138 % (70-130 %)
		2722135	1,1,1-Trichloroethane	141 % (66-130 %)
		2722135	1,1-Dichloroethane	132 % (78-124 %)
		2722135	1,1-Dichloroethylene	134 % (63-128 %)
		2722135	2-Chloroethylvinylether	0.46 % (1-150 %)
		2722135	2-Chlorotoluene	127 % (78-126 %)
		2722135	2-Hexanone	62.7 % (65-154 %)
		2722135	Benzene	129 % (80-124 %)
		2722135	Bromobenzene	124 % (81-119 %)
		2722135	Bromochloromethane	126 % (73-117 %)
		2722135	Carbon Tetrachloride	152 % (62-132 %)
		2722135	Chloroform	128 % (78-122 %)
		2722135	cis-1,3-Dichloropropene	71.2 % (81-121 %)
		2722135	CYCLOHEXANE	156 % (66-130 %)
		2722135	Dichloropropene, 1,3-	76.6 % (80-123 %)
		2722135	Freon TF (Chlorinated fluorocarbon)	145 % (50-130 %)
		2722135	Isopropylbenzene	130 % (73-129 %)
		2722135	Trans-1,2-Dichloroethene	124 % (71-122 %)
		2722664	1,1-Dichloroethane	126 % (78-124 %)
		2722664	1,1-Dichloroethylene	138 % (63-128 %)
		2722664	1,2-Dichloroethylene (total)	127 % (78-125 %)
		2722664	2-Chloroethylvinylether	0.31 % (1-150 %)
		2722664	Bromochloromethane	120 % (73-117 %)
		2722664	Carbon Disulfide	136 % (57-131 %)
		2722664	Carbon Tetrachloride	135 % (62-132 %)

Volatile Organic Compounds SW846-8260B	Description	Sample ID	Analyte	Value (Control Limit)
		2722664	CYCLOHEXANE	136 % (66-130 %)
		2722664	Freon TF (Chlorinated fluorocarbon)	139 % (50-130 %)
		2722664	Trans-1,2-Dichloroethene	132 % (71-122 %)
		2724700	1,1-Dichloroethylene	131 % (63-128 %)
		2724700	2-Chloroethylvinylether	0.81 % (1-150 %)
		2724700	Carbon Disulfide	144 % (57-131 %)
		2724700	CYCLOHEXANE	133 % (66-130 %)
		2724700	Freon TF (Chlorinated fluorocarbon)	140 % (50-130 %)
		2724700	METHYLCYLOHEXANE	141 % (70-130 %)
		2724700	Methylene Chloride	134 % (76-121 %)
		2724700	Trans-1,2-Dichloroethene	126 % (71-122 %)
		2724873	1,1-Dichloroethane	125 % (78-124 %)
		2724873	1,1-Dichloroethylene	130 % (63-128 %)
		2724873	2-Chloroethylvinylether	0.5 % (1-150 %)
		2724873	Bromochloromethane	121 % (73-117 %)
		2724873	Carbon Disulfide	146 % (57-131 %)
MS/MSD	**MS % Recovery**	2724873	CYCLOHEXANE	144 % (66-130 %)
		2724873	Freon TF (Chlorinated fluorocarbon)	144 % (50-130 %)
		2724873	METHYLCYLOHEXANE	158 % (70-130 %)
		2724873	Methylene Chloride	128 % (76-121 %)
		2724873	Naphthalene	55.5 % (56-134 %)
		2726360	1,2-Dichlorobenzene	125 % (82-118 %)
		2726360	2-Chloroethylvinylether	0.36 % (1-150 %)
		2726360	cis-1,2-Dichloroethene	133 % (78-125 %)
		2726360	CYCLOHEXANE	136 % (66-130 %)
		2726360	Freon TF (Chlorinated fluorocarbon)	133 % (50-130 %)
		2726360	METHYLCYLOHEXANE	135 % (70-130 %)
		2726360	Naphthalene	206 % (56-134 %)
		2726445	Carbon Disulfide	141 % (57-131 %)
		2726445	CYCLOHEXANE	152 % (66-130 %)
		2726445	Freon TF (Chlorinated fluorocarbon)	175 % (50-130 %)
		2726445	METHYLCYLOHEXANE	152 % (70-130 %)
		2726445	Trans-1,2-Dichloroethene	129 % (71-122 %)

Volatile Organic Compounds SW846-8260B	Description	Sample ID	Analyte	Value (Control Limit)
		2726827	2-Chloroethylvinylether	0.64 % (1-150 %)
		2726827	CYCLOHEXANE	133 % (66-130 %)
		2726827	Freon TF (Chlorinated fluorocarbon)	144 % (50-130 %)
		2726827	METHYLCYLOHEXANE	154 % (70-130 %)
		2726968	1,1-Dichloroethylene	135 % (63-128 %)
		2726968	1,3-Dichlorobenzene	119 % (81-118 %)
		2726968	2-Chlorotoluene	127 % (78-126 %)
		2726968	4-Chlorotoluene	126 % (78-125 %)
		2726968	Bromobenzene	121 % (81-119 %)
		2726968	CYCLOHEXANE	142 % (66-130 %)
		2726968	Freon TF (Chlorinated fluorocarbon)	146 % (50-130 %)
		2726968	Isopropylbenzene	132 % (73-129 %)
		2726968	METHYLCYLOHEXANE	140 % (70-130 %)
		2726968	Toluene	128 % (80-125 %)
		2726968	Trans-1,2-Dichloroethene	124 % (71-122 %)
		2726968	TRICHLOROETHENE	224 % (77-124 %)
MS/MSD	**MS % Recovery**	2727622	1,1-Dichloroethylene	133 % (63-128 %)
		2727622	2-Chloroethylvinylether	0.6 % (1-150 %)
		2727622	cis-1,3-Dichloropropene	80.6 % (81-121 %)
		2727622	CYCLOHEXANE	131 % (66-130 %)
		2727622	Freon TF (Chlorinated fluorocarbon)	136 % (50-130 %)
		2727622	Methyl acetate	61.4 % (70-130 %)
		2727622	METHYLCYLOHEXANE	146 % (70-130 %)
		2727622	o-Xylene	53.2 % (79-124 %)
		2727622	VINYL ACETATE	48.4 % (58-136 %)
		2727753	1,1-Dichloroethylene	139 % (63-128 %)
		2727753	2-Chloroethylvinylether	0.31 % (1-150 %)
		2727753	Carbon Disulfide	145 % (57-131 %)
		2727753	CYCLOHEXANE	148 % (66-130 %)
		2727753	Freon TF (Chlorinated fluorocarbon)	166 % (50-130 %)
		2727753	Trans-1,2-Dichloroethene	124 % (71-122 %)
		2728501	2-Chloroethylvinylether	0.56 % (1-150 %)
		2728501	CYCLOHEXANE	134 % (66-130 %)

Volatile Organic Compounds SW846-8260B	Description	Sample ID	Analyte	Value (Control Limit)
MS/MSD	**MS % Recovery**	2728501	Freon TF (Chlorinated fluorocarbon)	135 % (50-130 %)
		2728501	TRICHLOROETHENE	71.5 % (77-124 %)
		2728934	1,1-Dichloroethylene	129 % (63-128 %)
		2728934	2-Chloroethylvinylether	0.61 % (1-150 %)
		2728934	CYCLOHEXANE	134 % (66-130 %)
		2728934	Freon TF (Chlorinated fluorocarbon)	134 % (50-130 %)
		2728934	METHYLCYLOHEXANE	131 % (70-130 %)
		2728934	Trans-1,2-Dichloroethene	123 % (71-122 %)
		2728943	2-Chloroethylvinylether	0.63 % (1-150 %)
Surrogate Spike	**% Recovery**	MRC-MW123A	Toluene-d8	72.9 % (76-127 %)
		MRC-MW114A	Toluene-d8	73 % (76-127 %)
		MRC-MW96A	4-Bromofluorobenzene	115 % (79-114 %)
		MRC-MW74B	4-Bromofluorobenzene	116 % (79-114 %)
		MRC-MW74B	Toluene-d8	74.9 % (76-127 %)
		MRC-SEMW-7I	4-Bromofluorobenzene	115 % (79-114 %)
		MRC-MW72B	4-Bromofluorobenzene	115 % (79-114 %)
		MRC-SEMW-8I	4-Bromofluorobenzene	115 % (79-114 %)
		MRC-SEMW-9S	4-Bromofluorobenzene	116 % (79-114 %)
Laboratory Duplicates	No Anomalies			
Field Duplicates	**RPD > 35%**	MRC-MW98B-DUP	cis-1,2-Dichloroethene	42% (35%)
		MRC-MW98B-DUP	1,2-Dichloroethylene (total)	42% (35%)

1,4-Dioxane SW846-8270D-SIM	Description	Sample ID	Analyte	Value (Control Limit)
Holding Times	*No Anomalies*			
Method Blanks	**Detection > MDL**	2725743	1,4-Dioxane	0.021 ug/l (0.019 ug/l)
Field/Equipment Blanks	*No Anomalies*			
LCS/LCSD	*No Anomalies*			
MS/MSD	**MS % Recovery**	2721364	1,4-Dioxane	19% (22-75%)
Surrogate Spike	*No Anomalies*			
Laboratory Duplicates	*No Anomalies*			
Field Duplicates	**RPD > 35%**	MRC-MW111B-DUP	1,4-Dioxane	80% (35%)

PCB Homologs

USEPA 680	Description	Sample ID	Analyte	Value (Control Limit)
Holding Times	**Collection to Extraction**	2308120 017	Method List	8 Days (7 Days)
		2308280 001	Method List	8 Days (7 Days)
		2308280 019	Method List	8 Days (7 Days)
		2308280 021	Method List	8 Days (7 Days)
Method Blanks	*No Anomalies*			
Field/Equipment Blanks	**Detection > MDL**	2308280 002	Dichlorobiphenyls, Total	0.0090 ug/l (0.0016 ug/l)
		2308280 002	Dichlorobiphenyls, Total	0.0090 ug/l (0.0016 ug/l)
		2308280 002	Monochlorobiphenyls, Total	0.0045 ug/l (0.00059 ug/l)
		2308280 002	Monochlorobiphenyls, Total	0.0045 ug/l (0.00059 ug/l)
		2308280 002	Trichlorobiphenyls, Total	0.0055 ug/l (0.0022 ug/l)
		2308280 002	Trichlorobiphenyls, Total	0.0055 ug/l (0.0022 ug/l)
LCS/LCSD	**LCS % Recovery**	312299-BS	Heptachlorobiphenyls, Total	42% (53-120%)
		312299-BS	Octachlorobiphenyls, Total	38% (57%-125)
MS/MSD	N/A			
Surrogate Spike	*No Anomalies*			
Laboratory Duplicates	*No Anomalies*			
Field Duplicates	*No Anomalies*			

Metals

SW846-6010C, 6020A, 7470A	Description	Sample ID	Analyte	Value (Control Limit)
Holding Times	*No Anomalies*			
Method Blanks	**Detection > MDL**	2720287	Antimony	0.0011 mg/l (0.00074 mg/l)
		2720287	BERYLLIUM	0.0011 mg/l (0.00037 mg/l)
		2720287	Chromium	0.0018 mg/l (0.00074 mg/l)
		2720287	LEAD	0.0013 mg/l (0.00074 mg/l)
		2720928	ZINC	0.0035 mg/l (0.0019 mg/l)
		2728307	Calcium	0.040 mg/l (0.036 mg/l)
Field/Equipment Blanks	**Detection > MDL**	EB-040618-TK	Chromium	0.0027 mg/l (0.00074 mg/l)
		EB-040618-TK	COPPER	0.0028 mg/l (0.0019 mg/l)
		EB-040618-TK	ZINC	0.014 mg/l (0.0019 mg/l)
		EB-040618-ZN	Calcium	0.26 mg/l (0.036 mg/l)
		EB-040618-ZN	Chromium	0.0012 mg/l (0.00074 mg/l)
		EB-040618-ZN	COPPER	0.0038 mg/l (0.0019 mg/l)
		EB-040618-ZN	Manganese	0.0021 mg/l (0.0020 mg/l)
		EB-040618-ZN	NICKEL	0.0029 mg/l (0.0019 mg/l)
		EB-040618-ZN	Sodium	0.25 mg/l (0.18 mg/l)
		EB-040618-ZN	ZINC	0.0037 mg/l (0.0019 mg/l)
		EB-041318-AD	Chromium	0.0015 mg/l (0.00074 mg/l)

Metals

SW846-6010C, 6020A, 7470A	Description	Sample ID	Analyte	Value (Control Limit)
Field/Equipment Blanks	**Detection > MDL**	EB-041318-AD	ZINC	0.0033 mg/l (0.0019 mg/l)
LCS/LCSD	*No Anomalies*			
MS/MSD	*No Anomalies*			
Laboratory Duplicates	*No Anomalies*			
Field Duplicates	*No Anomalies*			

Hexavalent Chromium

USEPA Method 218.6	Description	Sample ID	Analyte	Result (Control Limit)
Holding Times	*No Anomalies*			
Method Blanks	*No Anomalies*			
Equipment/Field Blanks	**Detections > MDL**	EB-040618-AZ	Hexavalent Chromium	0.087 ug/l (0.047 ug/l)
LCS/LCSD	*No Anomalies*			
MS/MSD	*No Anomalies*			
Surrogate Spike	*No Anomalies*			

General Chemistry - MNA

Various Analytical Methods	Description	Sample ID	Analyte	Result (Control Limit)
Holding Times	**Collection to Analysis**	MRC-MW60B	Orthophosphate	5 days (2 days)
		MRC-MW21B	Orthophosphate	4 days (2 days)
		EB-040618-ZN	Orthophosphate	5 days (2 days)
Method Blanks	**Detection > MDL**	2719558	ALKALINITY, TOTAL (AS CACO3)	4 mg/l (0.8 mg/l)
		2719566	ALKALINITY, TOTAL (AS CACO3)	3 mg/l (0.8 mg/l)
		2719570	ALKALINITY, TOTAL (AS CACO3)	3 mg/l (0.8 mg/l)
		2719574	ALKALINITY, TOTAL (AS CACO3)	3 mg/l (0.8 mg/l)
		2719578	ALKALINITY, TOTAL (AS CACO3)	2 mg/l (0.8 mg/l)
		2719582	ALKALINITY, TOTAL (AS CACO3)	3 mg/l (0.8 mg/l)
		2719586	ALKALINITY, TOTAL (AS CACO3)	3 mg/l (0.8 mg/l)
		2719590	ALKALINITY, TOTAL (AS CACO3)	3 mg/l (0.8 mg/l)
		2719594	ALKALINITY, TOTAL (AS CACO3)	3 mg/l (0.8 mg/l)
		2719794	ALKALINITY, TOTAL (AS CACO3)	1 mg/l (0.8 mg/l)
		2720414	ALKALINITY, TOTAL (AS CACO3)	4 mg/l (0.8 mg/l)
		2720422	ALKALINITY, TOTAL (AS CACO3)	2 mg/l (0.8 mg/l)
		2720426	ALKALINITY, TOTAL (AS CACO3)	2 mg/l (0.8 mg/l)
		2720430	ALKALINITY, TOTAL (AS CACO3)	2 mg/l (0.8 mg/l)
		2720434	ALKALINITY, TOTAL (AS CACO3)	2 mg/l (0.8 mg/l)

General Chemistry - MNA

Various Analytical Methods	Description	Sample ID	Analyte	Result (Control Limit)
		2720438	ALKALINITY, TOTAL (AS CACO3)	2 mg/l (0.8 mg/l)
		2720442	ALKALINITY, TOTAL (AS CACO3)	2 mg/l (0.8 mg/l)
		2720446	ALKALINITY, TOTAL (AS CACO3)	2 mg/l (0.8 mg/l)
		2720454	ALKALINITY, TOTAL (AS CACO3)	2 mg/l (0.8 mg/l)
		2720877	ALKALINITY, TOTAL (AS CACO3)	1 mg/l (0.8 mg/l)
		2721359	NITROGEN, AMMONIA (AS N)	0.014 mg/l (0.003 mg/l)
		2721997	ALKALINITY, TOTAL (AS CACO3)	5 mg/l (0.8 mg/l)
		2722005	ALKALINITY, TOTAL (AS CACO3)	3 mg/l (0.8 mg/l)
		2722009	ALKALINITY, TOTAL (AS CACO3)	3 mg/l (0.8 mg/l)
		2722013	ALKALINITY, TOTAL (AS CACO3)	3 mg/l (0.8 mg/l)
		2722017	ALKALINITY, TOTAL (AS CACO3)	3 mg/l (0.8 mg/l)
		2722021	ALKALINITY, TOTAL (AS CACO3)	2 mg/l (0.8 mg/l)
		2722025	ALKALINITY, TOTAL (AS CACO3)	2 mg/l (0.8 mg/l)
		2722029	ALKALINITY, TOTAL (AS CACO3)	2 mg/l (0.8 mg/l)
		2722372	ALKALINITY, TOTAL (AS CACO3)	1 mg/l (0.8 mg/l)
		2722828	ALKALINITY, TOTAL (AS CACO3)	2 mg/l (0.8 mg/l)
		2722837	ALKALINITY, TOTAL (AS CACO3)	4 mg/l (0.8 mg/l)
		2722841	ALKALINITY, TOTAL (AS CACO3)	2 mg/l (0.8 mg/l)
Method Blanks	**Detection > MDL**	2722845	ALKALINITY, TOTAL (AS CACO3)	3 mg/l (0.8 mg/l)
		2722849	ALKALINITY, TOTAL (AS CACO3)	3 mg/l (0.8 mg/l)
		2722853	ALKALINITY, TOTAL (AS CACO3)	2 mg/l (0.8 mg/l)
		2722885	ALKALINITY, TOTAL (AS CACO3)	1 mg/l (0.8 mg/l)
		2723200	NITROGEN, AMMONIA (AS N)	0.006 mg/l (0.003 mg/l)
		2723202	NITROGEN, AMMONIA (AS N)	0.004 mg/l (0.003 mg/l)
		2724157	ALKALINITY, TOTAL (AS CACO3)	4 mg/l (0.8 mg/l)
		2724165	ALKALINITY, TOTAL (AS CACO3)	4 mg/l (0.8 mg/l)
		2724169	ALKALINITY, TOTAL (AS CACO3)	3 mg/l (0.8 mg/l)
		2724173	ALKALINITY, TOTAL (AS CACO3)	3 mg/l (0.8 mg/l)
		2724177	ALKALINITY, TOTAL (AS CACO3)	4 mg/l (0.8 mg/l)
		2724181	ALKALINITY, TOTAL (AS CACO3)	4 mg/l (0.8 mg/l)
		2724185	ALKALINITY, TOTAL (AS CACO3)	3 mg/l (0.8 mg/l)
		2724189	ALKALINITY, TOTAL (AS CACO3)	3 mg/l (0.8 mg/l)
		2724193	ALKALINITY, TOTAL (AS CACO3)	4 mg/l (0.8 mg/l)
		2724197	ALKALINITY, TOTAL (AS CACO3)	3 mg/l (0.8 mg/l)
		2724201	ALKALINITY, TOTAL (AS CACO3)	3 mg/l (0.8 mg/l)
		2724205	ALKALINITY, TOTAL (AS CACO3)	1 mg/l (0.8 mg/l)

General Chemistry - MNA

Various Analytical Methods	Description	Sample ID	Analyte	Result (Control Limit)
Method Blanks	**Detection > MDL**	2728584	NITROGEN, AMMONIA (AS N)	0.006 mg/l (0.003 mg/l)
		2728586	NITROGEN, AMMONIA (AS N)	0.004 mg/l (0.003 mg/l)
Equipment/Field Blanks	**Detections > MDL**	EB-040618-ZN	NITROGEN, AMMONIA (AS N)	0.477 mg/l (0.03 mg/l)
		EB-040618-ZN	Phosphorus	0.040 mg/l (0.017 mg/l)
		EB-040618-ZN	TDS	20 mg/l (5 mg/l)
		EB-040618-ZN	Total Organic Carbon	0.19 mg/l (0.18 mg/l)
LCS/LCSD	*No Anomalies*			
MS/MSD	**MS % Recovery**	2722241	Orthophosphate	89.8% (90-110%)
Laboratory Duplicates	**RPD > Control Limit**	MRC-MW34B	Methane	26.5% (20%)
		MRC-MW21B	TDS	8.5% (5%)
Field Duplicates	*No Anomalies*			

IV. Qualified Field Sample Results

Field Sample ID	Analytical Method	Analyte	Result	Units	Qualifier	Reason Code
EB-040618-ZN	A4500E	Orthophosphate	0.020	mg/l	**UJ**	**h**
FB-041018-ZN	A2320	ALKALINITY, TOTAL (AS CACO3)	2	mg/l	**B**	**bl**
FB-041018-ZN	E300.0	Chloride	0.18	mg/l	**B**	**bl**
MRC-MW111B	SW8270D-SIM	1,4-Dioxane	88.5	ug/l	**J**	**fd**
MRC-MW111B-DUP	SW8270D-SIM	1,4-Dioxane	37.9	ug/l	**J**	**fd**
MRC-MW124B-D	SW6020	Chromium	0.00084	mg/l	**B**	**be**
MRC-MW126A	SW6020	ZINC	0.015	mg/l	**B**	**bl**
MRC-MW127A	SW6020	Chromium	0.00082	mg/l	**B**	**be**
MRC-MW127A	SW6020	COPPER	0.0025	mg/l	**B**	**be**
MRC-MW127A	SW6020	ZINC	0.026	mg/l	**B**	**be**
MRC-MW127B	SW6020	Chromium	0.00086	mg/l	**B**	**be**
MRC-MW128A	SW6020	Chromium	0.0010	mg/l	**B**	**be**
MRC-MW128A	SW6020	COPPER	0.0038	mg/l	**B**	**be**
MRC-MW128B	SW6020	Chromium	0.0073	mg/l	**B**	**be**
MRC-MW128B	SW6020	ZINC	0.011	mg/l	**B**	**be**
MRC-MW12A	D6919-09	NITROGEN, AMMONIA (AS N)	0.230	mg/l	**B**	**be**
MRC-MW12A	E365.1	Phosphorus	0.056	mg/l	**B**	**be**
MRC-MW12A	SW6020	Chromium	0.0030	mg/l	**B**	**be**
MRC-MW12A	SW6020	COPPER	0.0031	mg/l	**B**	**be**
MRC-MW12A	SW6020	NICKEL	0.0038	mg/l	**B**	**be**
MRC-MW12A	SW6020	ZINC	0.0078	mg/l	**B**	**be**
MRC-MW12B	D6919-09	NITROGEN, AMMONIA (AS N)	0.237	mg/l	**B**	**be**
MRC-MW12B	E365.1	Phosphorus	0.032	mg/l	**B**	**be**
MRC-MW12B	SW6020	Chromium	0.0019	mg/l	**B**	**be**
MRC-MW12B	SW6020	ZINC	0.030	mg/l	**B**	**be**
MRC-MW12C	SW6020	COPPER	0.015	mg/l	**B**	**be**
MRC-MW21B	A4500E	Orthophosphate	0.020	mg/l	**UJ**	**h**
MRC-MW21B	SM2540C	TDS	296	mg/l	**J**	**ld**
MRC-MW25A	A4500E	Orthophosphate	0.020	mg/l	**UJ**	**m**
MRC-MW25A	D6919-09	NITROGEN, AMMONIA (AS N)	0.219	mg/l	**B**	**be**
MRC-MW25A	E365.1	Phosphorus	0.026	mg/l	**B**	**be**
MRC-MW27B	A2320	ALKALINITY, TOTAL (AS CACO3)	11	mg/l	**B**	**bl**
MRC-MW34B	A2320	ALKALINITY, TOTAL (AS CACO3)	5	mg/l	**B**	**bl**
MRC-MW34B	RSK175	Methane	37.0	ug/l	**J**	**ld**

Field Sample ID	Analytical Method	Analyte	Result	Units	Qualifier	Reason Code
MRC-MW37A	D6919-09	NITROGEN, AMMONIA (AS N)	0.289	mg/l	**B**	**bl**
MRC-MW37A	SW6020	Chromium	0.0068	mg/l	**B**	**be**
MRC-MW37B	A2320	ALKALINITY, TOTAL (AS CACO3)	14	mg/l	**B**	**bl**
MRC-MW48A	D6919-09	NITROGEN, AMMONIA (AS N)	0.029	mg/l	**B**	**bl**
MRC-MW48A	SW8270D-SIM	1,4-Dioxane	0.49	ug/l	**J-**	**m**
MRC-MW60B	A4500E	Orthophosphate	0.0030	mg/l	**J**	**h**
MRC-MW60B	D6919-09	NITROGEN, AMMONIA (AS N)	0.158	mg/l	**B**	**bl**
MRC-MW72B	A2320	ALKALINITY, TOTAL (AS CACO3)	8	mg/l	**B**	**bl**
MRC-MW72B	SW6020	Chromium	0.0020	mg/l	**B**	**be**
MRC-MW73A	SW6020	Chromium	0.0012	mg/l	**B**	**be**
MRC-MW73A	SW6020	ZINC	0.015	mg/l	**B**	**be**
MRC-MW73B	SW6020	Chromium	0.00091	mg/l	**B**	**be**
MRC-MW74A	SW6020	Chromium	0.0012	mg/l	**B**	**be**
MRC-MW74A	SW6020	ZINC	0.012	mg/l	**B**	**be**
MRC-MW74B	SW6020	Chromium	0.0013	mg/l	**B**	**be**
MRC-MW81A	SW6020	ZINC	0.016	mg/l	**B**	**bl**
MRC-MW98B	SW8260B	1,2-Dichloroethylene (total)	23.7	ug/l	**J**	**fd**
MRC-MW98B	SW8260B	cis-1,2-Dichloroethene	23.7	ug/l	**J**	**fd**
MRC-MW98B-DUP	SW8260B	1,2-Dichloroethylene (total)	36.3	ug/l	**J**	**fd**
MRC-MW98B-DUP	SW8260B	cis-1,2-Dichloroethene	36.3	ug/l	**J**	**fd**
2308120 017	E680	Decachlorobiphenyl	0.012	ug/l	**UJ**	**h**
2308120 017	E680	Dichlorobiphenyls, Total	0.0070	ug/l	**B**	**be**
2308120 017	E680	Heptachlorobiphenyls, Total	0.0090	ug/l	**UJ**	**h**
2308120 017	E680	Hexachlorobiphenyls, Total	0.0047	ug/l	**UJ**	**h**
2308120 017	E680	Monochlorobiphenyls, Total	0.019	ug/l	**B**	**be**
2308120 017	E680	Nonachlorobiphenyls, Total	0.0088	ug/l	**UJ**	**h**
2308120 017	E680	Octachlorobiphenyls, Total	0.0099	ug/l	**UJ**	**h**
2308120 017	E680	Pentachlorobiphenyls, Total	0.0043	ug/l	**UJ**	**h**
2308120 017	E680	Tetrachlorobiphenyls, Total	0.0023	ug/l	**UJ**	**h**
2308120 017	E680	Total Polychlorinated biphenyls (PCBs)	0.026	ug/l	**J**	**h**
2308120 017	E680	Trichlorobiphenyls, Total	0.0022	ug/l	**UJ**	**h**
2308120 023	E680	Dichlorobiphenyls, Total	0.0050	ug/l	**B**	**be**
2308120 023	E680	Monochlorobiphenyls, Total	0.0035	ug/l	**B**	**be**
2308120 026	E680	Dichlorobiphenyls, Total	0.016	ug/l	**B**	**be**
2308120 026	E680	Monochlorobiphenyls, Total	0.017	ug/l	**B**	**be**
2308120 031	E680	Dichlorobiphenyls, Total	0.031	ug/l	**B**	**be**
2308120 031	E680	Trichlorobiphenyls, Total	0.019	ug/l	**B**	**be**
2308280 001	E680	Decachlorobiphenyl	0.012	ug/l	**UJ**	**h**

Field Sample ID	Analytical Method	Analyte	Result	Units	Qualifier	Reason Code
2308280 001	E680	Dichlorobiphenyls, Total	0.010	ug/l	**J**	**h**
2308280 001	E680	Heptachlorobiphenyls, Total	0.0090	ug/l	**UJ**	**h**
2308280 001	E680	Hexachlorobiphenyls, Total	0.0047	ug/l	**UJ**	**h**
2308280 001	E680	Monochlorobiphenyls, Total	0.0085	ug/l	**J**	**h**
2308280 001	E680	Nonachlorobiphenyls, Total	0.0088	ug/l	**UJ**	**h**
2308280 001	E680	Octachlorobiphenyls, Total	0.0099	ug/l	**UJ**	**h**
2308280 001	E680	Pentachlorobiphenyls, Total	0.0043	ug/l	**UJ**	**h**
2308280 001	E680	Tetrachlorobiphenyls, Total	0.0023	ug/l	**UJ**	**h**
2308280 001	E680	Total Polychlorinated biphenyls (PCBs)	0.025	ug/l	**UJ**	**h**
2308280 001	E680	Trichlorobiphenyls, Total	0.0022	ug/l	**UJ**	**h**
2308280 019	E680	Decachlorobiphenyl	0.012	ug/l	**UJ**	**h**
2308280 019	E680	Dichlorobiphenyls, Total	0.0065	ug/l	**J**	**h**
2308280 019	E680	Heptachlorobiphenyls, Total	0.0090	ug/l	**UJ**	**h**
2308280 019	E680	Hexachlorobiphenyls, Total	0.0047	ug/l	**UJ**	**h**
2308280 019	E680	Monochlorobiphenyls, Total	0.0050	ug/l	**J**	**h**
2308280 019	E680	Nonachlorobiphenyls, Total	0.0088	ug/l	**UJ**	**h**
2308280 019	E680	Octachlorobiphenyls, Total	0.0099	ug/l	**UJ**	**h**
2308280 019	E680	Pentachlorobiphenyls, Total	0.0043	ug/l	**UJ**	**h**
2308280 019	E680	Tetrachlorobiphenyls, Total	0.0023	ug/l	**UJ**	**h**
2308280 019	E680	Total Polychlorinated biphenyls (PCBs)	0.025	ug/l	**UJ**	**h**
2308280 019	E680	Trichlorobiphenyls, Total	0.0022	ug/l	**UJ**	**h**
2308280 021	E680	Decachlorobiphenyl	0.012	ug/l	**UJ**	**h**
2308280 021	E680	Dichlorobiphenyls, Total	0.0016	ug/l	**UJ**	**h**
2308280 021	E680	Heptachlorobiphenyls, Total	0.0090	ug/l	**UJ**	**h**
2308280 021	E680	Hexachlorobiphenyls, Total	0.0047	ug/l	**UJ**	**h**
2308280 021	E680	Monochlorobiphenyls, Total	0.0020	ug/l	**J**	**h**
2308280 021	E680	Nonachlorobiphenyls, Total	0.0088	ug/l	**UJ**	**h**
2308280 021	E680	Octachlorobiphenyls, Total	0.0099	ug/l	**UJ**	**h**
2308280 021	E680	Pentachlorobiphenyls, Total	0.0043	ug/l	**UJ**	**h**
2308280 021	E680	Tetrachlorobiphenyls, Total	0.0023	ug/l	**UJ**	**h**
2308280 021	E680	Total Polychlorinated biphenyls (PCBs)	0.025	ug/l	**UJ**	**h**
2308280 021	E680	Trichlorobiphenyls, Total	0.0022	ug/l	**UJ**	**h**
2308629 001	E680	Dichlorobiphenyls, Total	0.0080	ug/l	**B**	**be**
2308629 001	E680	Monochlorobiphenyls, Total	0.011	ug/l	**B**	**be**
2308629 002	E680	Dichlorobiphenyls, Total	0.0040	ug/l	**B**	**be**
2308629 002	E680	Monochlorobiphenyls, Total	0.010	ug/l	**B**	**be**
2308629 004	E680	Monochlorobiphenyls, Total	0.011	ug/l	**B**	**be**
2308943 001	E680	Dichlorobiphenyls, Total	0.0050	ug/l	**B**	**be**
2308943 001	E680	Monochlorobiphenyls, Total	0.0040	ug/l	**B**	**be**

Field Sample ID	Analytical Method	Analyte	Result	Units	Qualifier	Reason Code
2308943 004	E680	Dichlorobiphenyls, Total	0.026	ug/l	**B**	**be**
2308943 016	E680	Dichlorobiphenyls, Total	0.0020	ug/l	**B**	**be**
2308943 028	E680	Trichlorobiphenyls, Total	0.0065	ug/l	**B**	**be**
2308943 029	E680	Dichlorobiphenyls, Total	0.0038	ug/l	**B**	**be**
2308943 029	E680	Trichlorobiphenyls, Total	0.013	ug/l	**B**	**be**
2308943 030	E680	Dichlorobiphenyls, Total	0.0020	ug/l	**B**	**be**
2308943 031	E680	Dichlorobiphenyls, Total	0.0024	ug/l	**B**	**be**
2308943 032	E680	Dichlorobiphenyls, Total	0.0020	ug/l	**B**	**be**
2308943 034	E680	Dichlorobiphenyls, Total	0.0019	ug/l	**B**	**be**
2308943 035	E680	Dichlorobiphenyls, Total	0.0045	ug/l	**B**	**be**
2309395 004	E680	Heptachlorobiphenyls, Total	0.0090	ug/l	**UJ**	**I**
2309395 004	E680	Octachlorobiphenyls, Total	0.0099	ug/l	**UJ**	**I**
2309395 006	E680	Heptachlorobiphenyls, Total	0.0090	ug/l	**UJ**	**I**
2309395 006	E680	Octachlorobiphenyls, Total	0.0099	ug/l	**UJ**	**I**
2309395 007	E680	Heptachlorobiphenyls, Total	0.0090	ug/l	**UJ**	**I**
2309395 007	E680	Octachlorobiphenyls, Total	0.0099	ug/l	**UJ**	**I**
2309395 008	E680	Heptachlorobiphenyls, Total	0.0090	ug/l	**UJ**	**I**
2309395 008	E680	Octachlorobiphenyls, Total	0.0099	ug/l	**UJ**	**I**
2309395 009	E680	Heptachlorobiphenyls, Total	0.0090	ug/l	**UJ**	**I**
2309395 009	E680	Octachlorobiphenyls, Total	0.0099	ug/l	**UJ**	**I**
2309395 011	E680	Heptachlorobiphenyls, Total	0.0090	ug/l	**UJ**	**I**
2309395 011	E680	Octachlorobiphenyls, Total	0.0099	ug/l	**UJ**	**I**
2309395 012	E680	Heptachlorobiphenyls, Total	0.0090	ug/l	**UJ**	**I**
2309395 012	E680	Octachlorobiphenyls, Total	0.0099	ug/l	**UJ**	**I**
2309395 013	E680	Heptachlorobiphenyls, Total	0.0090	ug/l	**UJ**	**I**
2309395 013	E680	Octachlorobiphenyls, Total	0.0099	ug/l	**UJ**	**I**
2309395 014	E680	Heptachlorobiphenyls, Total	0.0090	ug/l	**UJ**	**I**
2309395 014	E680	Octachlorobiphenyls, Total	0.0099	ug/l	**UJ**	**I**
2309395 016	E680	Heptachlorobiphenyls, Total	0.0090	ug/l	**UJ**	**I**
2309395 016	E680	Octachlorobiphenyls, Total	0.0099	ug/l	**UJ**	**I**
2309395 017	E680	Heptachlorobiphenyls, Total	0.0090	ug/l	**UJ**	**I**
2309395 017	E680	Octachlorobiphenyls, Total	0.0099	ug/l	**UJ**	**I**
2309395 018	E680	Heptachlorobiphenyls, Total	0.0090	ug/l	**UJ**	**I**
2309395 018	E680	Octachlorobiphenyls, Total	0.0099	ug/l	**UJ**	**I**
2309395 020	E680	Heptachlorobiphenyls, Total	0.0090	ug/l	**UJ**	**I**
2309395 020	E680	Octachlorobiphenyls, Total	0.0099	ug/l	**UJ**	**I**
2309395 021	E680	Heptachlorobiphenyls, Total	0.0090	ug/l	**UJ**	**I**
2309395 021	E680	Octachlorobiphenyls, Total	0.0099	ug/l	**UJ**	**I**
2309395 023	E680	Heptachlorobiphenyls, Total	0.0090	ug/l	**UJ**	**I**
2309395 023	E680	Octachlorobiphenyls, Total	0.0099	ug/l	**UJ**	**I**
MRC-SW17A	SW8260B	Acetone	11.2	ug/l	B	bf

Field Sample ID	Analytical Method	Analyte	Result	Units	Qualifier	Reason Code
MRC-SW2A	SW8260B	Acetone	13.6	ug/l	B	bf
MRC-SW1A	SW8260B	Acetone	13.2	ug/l	B	bf
MRC-SW9A	SW8260B	Acetone	12.8	ug/l	B	bf
MRC-SW5B	SW8260B	Acetone	8.3	ug/l	B	bf
MRC-SW7A	SW8260B	Acetone	4.5	ug/l	B	bf
MRC-SW7B	SW8260B	Acetone	13.4	ug/l	B	bf
MRC-SW5A1	SW8260B	Acetone	5.0	ug/l	B	bf
MRC-SW9B	SW8260B	Acetone	5.5	ug/l	B	bf
MRC-SW15A	SW8260B	Acetone	5.5	ug/l	B	bf
MRC-SW16A	SW8260B	Acetone	9.0	ug/l	B	bf
MRC-SW13A	SW8260B	Acetone	8.1	ug/l	B	bf
MRC-SW6B	SW8260B	Acetone	7.8	ug/l	B	bf
MRC-SW8B	SW8260B	Acetone	12.6	ug/l	B	bf
MRC-SW8A-D	SW8260B	Acetone	8.3	ug/l	B	bf
MRC-SW6A	SW8260B	Acetone	11.4	ug/l	B	bf
MRC-SW8A	SW8260B	Acetone	8.0	ug/l	B	bf
2309395 004	E680	Heptachlorobiphenyls, Total	0.0090	ug/l	UJ	I
2309395 004	E680	Octachlorobiphenyls, Total	0.0099	ug/l	UJ	I
2309395 006	E680	Heptachlorobiphenyls, Total	0.0090	ug/l	UJ	I
2309395 006	E680	Octachlorobiphenyls, Total	0.0099	ug/l	UJ	I
2309395 007	E680	Heptachlorobiphenyls, Total	0.0090	ug/l	UJ	I
2309395 007	E680	Octachlorobiphenyls, Total	0.0099	ug/l	UJ	I
2309395 008	E680	Heptachlorobiphenyls, Total	0.0090	ug/l	UJ	I
2309395 008	E680	Octachlorobiphenyls, Total	0.0099	ug/l	UJ	I
2309395 009	E680	Heptachlorobiphenyls, Total	0.0090	ug/l	UJ	I
2309395 009	E680	Octachlorobiphenyls, Total	0.0099	ug/l	UJ	I
2309395 011	E680	Heptachlorobiphenyls, Total	0.0090	ug/l	UJ	I
2309395 011	E680	Octachlorobiphenyls, Total	0.0099	ug/l	UJ	I
2309395 012	E680	Heptachlorobiphenyls, Total	0.0090	ug/l	UJ	I
2309395 012	E680	Octachlorobiphenyls, Total	0.0099	ug/l	UJ	I
2309395 013	E680	Heptachlorobiphenyls, Total	0.0090	ug/l	UJ	I
2309395 013	E680	Octachlorobiphenyls, Total	0.0099	ug/l	UJ	I
2309395 014	E680	Heptachlorobiphenyls, Total	0.0090	ug/l	UJ	I
2309395 014	E680	Octachlorobiphenyls, Total	0.0099	ug/l	UJ	I
2309395 016	E680	Heptachlorobiphenyls, Total	0.0090	ug/l	UJ	I
2309395 016	E680	Octachlorobiphenyls, Total	0.0099	ug/l	UJ	I
2309395 017	E680	Heptachlorobiphenyls, Total	0.0090	ug/l	UJ	I
2309395 017	E680	Octachlorobiphenyls, Total	0.0099	ug/l	UJ	I
2309395 018	E680	Heptachlorobiphenyls, Total	0.0090	ug/l	UJ	I
2309395 018	E680	Octachlorobiphenyls, Total	0.0099	ug/l	UJ	I
2309395 020	E680	Heptachlorobiphenyls, Total	0.0090	ug/l	UJ	I

Field Sample ID	Analytical Method	Analyte	Result	Units	Qualifier	Reason Code
2309395 020	E680	Octachlorobiphenyls, Total	0.0099	ug/l	UJ	l
2309395 021	E680	Heptachlorobiphenyls, Total	0.0090	ug/l	UJ	l
2309395 021	E680	Octachlorobiphenyls, Total	0.0099	ug/l	UJ	l
2309395 023	E680	Heptachlorobiphenyls, Total	0.0090	ug/l	UJ	l
2309395 023	E680	Octachlorobiphenyls, Total	0.0099	ug/l	UJ	l
2308120 017	E680	Decachlorobiphenyl		ug/l	UJ	h
2308120 017	E680	Dichlorobiphenyls, Total	0.0070	ug/l	B	be
2308120 017	E680	Heptachlorobiphenyls, Total		ug/l	UJ	h
2308120 017	E680	Hexachlorobiphenyls, Total		ug/l	UJ	h
2308120 017	E680	Monochlorobiphenyls, Total	0.019	ug/l	B	be
2308120 017	E680	Nonachlorobiphenyls, Total		ug/l	UJ	h
2308120 017	E680	Octachlorobiphenyls, Total		ug/l	UJ	h
2308120 017	E680	Pentachlorobiphenyls, Total		ug/l	UJ	h
2308120 017	E680	Tetrachlorobiphenyls, Total		ug/l	UJ	h
2308120 017	E680	Total Polychlorinated biphenyls (PCBs)	0.026	ug/l	J	h
2308120 017	E680	Trichlorobiphenyls, Total		ug/l	UJ	h
2308120 023	E680	Dichlorobiphenyls, Total	0.0050	ug/l	B	be
2308120 023	E680	Monochlorobiphenyls, Total	0.0035	ug/l	B	be
2308120 026	E680	Dichlorobiphenyls, Total	0.016	ug/l	B	be
2308120 026	E680	Monochlorobiphenyls, Total	0.017	ug/l	B	be
2308120 031	E680	Dichlorobiphenyls, Total	0.031	ug/l	B	be
2308120 031	E680	Trichlorobiphenyls, Total	0.019	ug/l	B	be
2308280 001	E680	Decachlorobiphenyl		ug/l	UJ	h
2308280 001	E680	Dichlorobiphenyls, Total	0.010	ug/l	J	h
2308280 001	E680	Heptachlorobiphenyls, Total		ug/l	UJ	h
2308280 001	E680	Hexachlorobiphenyls, Total		ug/l	UJ	h
2308280 001	E680	Monochlorobiphenyls, Total	0.0085	ug/l	J	h
2308280 001	E680	Nonachlorobiphenyls, Total		ug/l	UJ	h
2308280 001	E680	Octachlorobiphenyls, Total		ug/l	UJ	h
2308280 001	E680	Pentachlorobiphenyls, Total		ug/l	UJ	h
2308280 001	E680	Tetrachlorobiphenyls, Total		ug/l	UJ	h
2308280 001	E680	Total Polychlorinated biphenyls (PCBs)		ug/l	UJ	h
2308280 001	E680	Trichlorobiphenyls, Total		ug/l	UJ	h
2308280 019	E680	Decachlorobiphenyl		ug/l	UJ	h
2308280 019	E680	Dichlorobiphenyls, Total	0.0065	ug/l	J	h
2308280 019	E680	Heptachlorobiphenyls, Total		ug/l	UJ	h
2308280 019	E680	Hexachlorobiphenyls, Total		ug/l	UJ	h
2308280 019	E680	Monochlorobiphenyls, Total	0.0050	ug/l	J	h
2308280 019	E680	Nonachlorobiphenyls, Total		ug/l	UJ	h
2308280 019	E680	Octachlorobiphenyls, Total		ug/l	UJ	h

Field Sample ID	Analytical Method	Analyte	Result	Units	Qualifier	Reason Code
2308280 019	E680	Pentachlorobiphenyls, Total		ug/l	UJ	h
2308280 019	E680	Tetrachlorobiphenyls, Total		ug/l	UJ	h
2308280 019	E680	Total Polychlorinated biphenyls (PCBs)		ug/l	UJ	h
2308280 019	E680	Trichlorobiphenyls, Total		ug/l	UJ	h
2308280 021	E680	Decachlorobiphenyl		ug/l	UJ	h
2308280 021	E680	Dichlorobiphenyls, Total		ug/l	UJ	h
2308280 021	E680	Heptachlorobiphenyls, Total		ug/l	UJ	h
2308280 021	E680	Hexachlorobiphenyls, Total		ug/l	UJ	h
2308280 021	E680	Monochlorobiphenyls, Total	0.0020	ug/l	J	h
2308280 021	E680	Nonachlorobiphenyls, Total		ug/l	UJ	h
2308280 021	E680	Octachlorobiphenyls, Total		ug/l	UJ	h
2308280 021	E680	Pentachlorobiphenyls, Total		ug/l	UJ	h
2308280 021	E680	Tetrachlorobiphenyls, Total		ug/l	UJ	h
2308280 021	E680	Total Polychlorinated biphenyls (PCBs)		ug/l	UJ	h
2308280 021	E680	Trichlorobiphenyls, Total		ug/l	UJ	h
MRC-MW121A	SW8260B	1,2,3-Trichlorobenzene		ug/l	UJ	l
MRC-MW121B	SW8260B	1,2,3-Trichlorobenzene		ug/l	UJ	l
MRC-MW123A	SW6020	BERYLLIUM	0.0013	mg/l	B	bl
MRC-MW123A	SW6020	Chromium	0.0014	mg/l	B	bl
MRC-MW123A	SW8260B	1,2,3-Trichlorobenzene	98.7	ug/l	J	l
MRC-MW14B	SW8260B	1,2,3-Trichlorobenzene		ug/l	UJ	l
MRC-MW14B	SW8260B	1,2,4-Trichlorobenzene		ug/l	UJ	l
MRC-MW14B	SW8260B	Acetone	7.2	ug/l	B	bf
MRC-MW48A	SW8260B	1,2,3-Trichlorobenzene		ug/l	UJ	l
MRC-MW48A	SW8270D-SIM	1,4-Dioxane	0.49	ug/l	J-	m
MRC-MW71B	SW8260B	1,2,3-Trichlorobenzene		ug/l	UJ	l
MRC-SW13A	SW8260B	Acetone	8.1	ug/l	B	bf
MRC-SW15A	SW8260B	Acetone	5.5	ug/l	B	bf
MRC-SW16A	SW8260B	Acetone	9.0	ug/l	B	bf
MRC-SW17A	SW8260B	Acetone	11.2	ug/l	B	bf
MRC-SW1A	SW8260B	Acetone	13.2	ug/l	B	bf
MRC-SW2A	SW8260B	Acetone	13.6	ug/l	B	bf
MRC-SW5A1	SW8260B	Acetone	5.0	ug/l	B	bf
MRC-SW5B	SW8260B	Acetone	8.3	ug/l	B	bf
MRC-SW6A	SW8260B	Acetone	11.4	ug/l	B	bf
MRC-SW6B	SW8260B	Acetone	7.8	ug/l	B	bf
MRC-SW7A	SW8260B	Acetone	4.5	ug/l	B	bf
MRC-SW7B	SW8260B	Acetone	13.4	ug/l	B	bf
MRC-SW8A	SW8260B	Acetone	8.0	ug/l	B	bf
MRC-SW8A-D	SW8260B	Acetone	8.3	ug/l	B	bf

Field Sample ID	Analytical Method	Analyte	Result	Units	Qualifier	Reason Code
MRC-SW8B	SW8260B	Acetone	12.6	ug/l	B	bf
MRC-SW9A	SW8260B	Acetone	12.8	ug/l	B	bf
MRC-SW9B	SW8260B	Acetone	5.5	ug/l	B	bf

Appendix A
Data Validation Qualifiers and Reason Codes

Data Qualifying Codes

Two types of data qualifying codes or flags are applied in the course of the data review. The data validation flags indicate data that are not usable for decision-making, more than normally biased and/or variable, or not representative of field conditions. These codes and their definitions are presented below in the hierarchy stipulated in the USEPA Contract Laboratory Program National Functional Guidelines for Organic (August 2014) Data Review and the USEPA Region III Guidelines for Organic (September 1994) for blank qualifications only.

Data Validation Flags

Flag	Interpretation
R	The sample results are 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.
B	The analyte was analyzed for, but not detected at a level greater than or equal to the level of the adjusted Detection Limit (DL) for sample and method.
J+	Reported value may not be accurate or precise, but the result may be biased high.
J-	Reported value may not be accurate or precise, but the result may be biased low.
J	The analyte was positively identified and 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 Limit of Detection (LOD).
NJ	The analysis indicates the presence of an analyte that has been “tentatively identified” and the associated numerical value represents its approximate concentration.
UJ	The analyte was not detected at a level greater than or equal to the adjusted DL. However, the reported adjusted DL is approximate and may be inaccurate or imprecise.
C	This qualifier applies to pesticide and Aroclor results when the identification has been confirmed by gas Chromatograph/Mass Spectrometer (GC/MS)
X	This qualifier applies to pesticide and Aroclor results when GC/MS analysis was attempted but was unsuccessful.

The other type of code used by AECOM is a “Reason Code”. The reason code indicates the type of quality control failure that led to the application of the data validation flag.

Reason Codes

Code	*Description*
a	Tracer recovery (radiochemical data only)
be	Equipment blank contamination
bf	Field blank contamination
bl	Laboratory blank contamination
bm	Missing Blank Information
c	Calibration issue
cl	Clean-up standard recovery
cp	Insufficient in growth (radiochemical data only)
cr	Chromatographic resolution
d	Reporting limit raised due to chromatographic interference
e	Ether interference
fd	Field duplicate RPDs
g	Chromatographic pattern match issue
h	Holding times
i	Internal standard areas
ii	Injection internal standard area or retention time exceedance
k	Estimated Maximum Possible Concentrations
l	LCS recoveries
lc	Labeled compound recovery
ld	Laboratory duplicate RPDs (matrix duplicate, MSD, LCSD)
m	Matrix spike recovery
nb	Negative laboratory blank contamination
p	Chemical preservation issue
pe	Post Extraction Spike
q	Quantitation issue
r	Dual column RPD
rp	Re-extraction precision issue [PAHs only]

AECOM

Data Validation and Usability Report

June 2018 – Triannual Surface Water Sampling

Lockheed Martin
Middle River Complex

Project: 60555202.8
August 2018

I D E N T I F I C A T I O N F O R M

Data Validation and Data Usability Review

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I. Executive Summary

Data validation was performed on 100% of the surface water field investigative samples collected on April 25th, 2018 and April 26th, 2018 at the Lockheed Martin Middle River Complex located in Middle River, Maryland. The validation was performed to a United States Environmental Protection Agency (USEPA) Region III Inorganic and Organic Level I based on the specifics of the analytical methods referenced and qualified according to the USEPA Contract Laboratory Program (CLP) National Functional Guidelines for Organic/Inorganic (January 2017) Superfund Data Review, with the exception of blank detections which were qualified according to the USEPA Region III modifications to the National Functional Guidelines defining the use of the "B" flag.

The review was assisted through the use of an electronic data management tool that compiles batch-level quality control (QC) data submitted with the laboratory deliverables and identifies anomalies for verification and qualification by the data reviewer. This information is provided in the form of a structured workbook that includes field sample analytical results, QC sample results, batch associations, and QC criteria. Prior to validation, the quality assurance procedures applied to this process include reviewing the output for data completeness based on laboratory deliverables and chain of custody reports, verification of QC criteria based on the aforementioned data validation guidelines and project-specific Quality Assurance Project Plan (QAPP), as well as strict control of data management permissions. The resulting data validation workbooks were evaluated and validated using the AECOM Automated Validation Assistant (AVA) tool. The specific data elements that were reviewed include:

- Holding times and sample preservation
- Blanks (Method, Trip, Field, and Equipment)
- Matrix spike (MS) and/or matrix spike duplicate (MSD) results
- Laboratory control sample (LCS)/laboratory control sample duplicate (LCSD) results
- Surrogate spike results
- Field duplicates
- Laboratory duplicates
- Sensitivity

Data validation qualifiers were applied to results where a QC nonconformance required qualification per USEPA guidance. All QC anomalies were assessed for their impact on data quality in regards to precision, accuracy, representativeness, completeness, comparability, and sensitivity (PARCCS) as discussed in **II: PARCCS Data Quality**. A detailed list of the QC non-conformances can be found in **III: Data Validation Findings**. The associated field sample results that required qualification are listed in **IV: Qualified Field Sample Results**

II. PARCCS Data Quality

Precision

Precision is the degree of agreement among repeated measurements of the same characteristic on the same sample or on separate samples collected as close as possible in time and place. Field sampling precision is measured with the field duplicate relative percent differences; laboratory precision is measured with laboratory duplicate relative percent differences and/or laboratory control spike and matrix spike duplicate relative percent differences. All quality control criteria impacting precision were met for the data reviewed.

Accuracy

Accuracy is a measure of confidence in a measurement. The smaller the difference between the measurement of a parameter and its "true" or expected value, the more accurate the measurement. Accuracy in the field was monitored through the use of negative controls such as trip blanks, field blanks, and equipment blanks, along with adherence to the standard operating procedures and sampling plans. Analytical accuracy was assessed through the measurement of percent recoveries in the surrogate spikes, laboratory control spike pairs (LCS/LCSD) and the matrix spike pairs (MS/MSD).

Several method blanks, trip blanks, equipment blanks, and field blanks displayed detections greater than the method detection limit. Per the USEPA Region III guidelines on the qualification of blank detections, associated field sample results that displayed concentrations within five times of the blank detection were qualified “B”. The qualified field sample results should be considered usable as estimated values.

During the review, the MS/MSD performed on parent sample MRC-SW17A displayed percent recoveries less than the lower quality control limits, and less than the rejection limit of 20%. The associated parent sample results were non-detect and were qualified R,m. These anomalies are considered major and the “R” qualified field sample results should be considered unusable.

Several LCS/LCSD displayed percent recoveries greater than the quality control limits. The positive associated field sample results were qualified J,l. These anomalies are considered minor and the qualified field sample results should be considered usable as estimated values.

The surrogate spikes performed on samples MRC-SW13A, MRC-SW6B, and TB-062518 displayed percent recoveries greater than the upper QC limits for 4-bromoflurobenzene. The positive associated field sample results were qualified J+,s unless previously qualified due to a LCS percent recovery anomaly. These surrogate anomalies are considered minor and the qualified field sample results should be considered usable as estimated values with a positive bias.

Representativeness

Representativeness qualitatively expresses the degree to which data accurately reflect site conditions. Factors that affect the representativeness of analytical data include appropriate sample population definitions, proper sample collection and preservation techniques, analytical holding times, use of standard analytical methods, and determination of matrix or analyte interferences. All quality control criteria impacting representativeness were met for the data reviewed.

Comparability

Comparability is the extent to which data from one study can be compared directly to either past data from the current project or data from another study. Using standardized sampling and analytical methods, units of reporting, and site selection procedures helps ensure comparability. Standard field sampling methods and current CLP analytical methods by an accredited laboratory were used in this investigation.

Completeness

Completeness is a measure of the amount of valid data obtained from a measurement system compared to the amount of data expected under normal conditions. It is expected that laboratories will provide data meeting system quality control acceptance criteria for all samples tested. Project completeness is determined by evaluating the planned versus actual quantities of usable data. A total of 19 samples were validated, including 17 surface water samples and two trip blanks. Due to rejected data points associated with major anomalies, the overall data completeness was less than 100% at 99%.

Sensitivity

Sensitivity reflects the ability of the analytical method to detect analytes of interest below the level of concern. This goal is achieved by identifying the level of concern, choosing a method with appropriate method detection limits, and ensuring that the laboratory analyzes calibration standards at or below the level of concern. The laboratory was able to achieve the lowest reporting limits based on the analytical methods employed and the variety of matrices encountered. No field sample results were reported from dilutions. Any analytes detected below the reporting limit and above the method detection limit were reported and qualified “J” as estimated values by the laboratory.

Overall Impact on Data Usability

The bulk of the data was considered usable and met the completeness requirement outlined in the QAPP. During the course of the data validation, several minor anomalies were noted which is to be anticipated based on statistical predictability of standard analytical procedures. Several field sample results were qualified due to these minor anomalies. A limited number of major

anomalies were identified over the course of data validation with minimal impact on overall data quality. The overall completeness of the data reviewed was acceptable at 99%. Except for those flagged “R”, all data are considered usable as qualified, for their intended purpose based on the data reviewed.

III. Data Validation Findings

Volatile Organic Compounds SW846-8260B	Description	Sample ID	Analyte	Value (Control Limit)
Holding Times	*No Anomalies*			
Method Blanks	**Detection > MDL**	2769175	Chloroform	0.42 ug/L (0.21 ug/L)
		2769175	Hexachloro-1,3-Butadiene	4.4 ug/L (1.0 ug/L)
		2770157	Carbon Disulfide	0.32 ug/L (0.23 ug/L)
		2770858	Hexachloro-1,3-Butadiene	2.3 ug/L (1.0 ug/L)
		2770696	Bromomethane	0.46 ug/L (0.39 ug/L)
Trip Blanks	**Detection > MDL**	TB-062618	1,4-Dichlorobenzene	0.45 ug/L (0.27 ug/L)
		TB-062619	Chlorobenzene	0.24 ug/L (0.19 ug/L)
		TB-062620	1,3-Dichlorobenzene	0.37 ug/L (0.25 ug/L)
		TB-062621	Acetone	8.5 ug/L (3.1 ug/L)
		TB-062622	Bromomethane	0.54 ug/L (0.39 ug/L)
		TB-062623	Carbon Disulfide	0.58 ug/L (0.23 ug/L)
		TB-062624	Naphthalene	0.66 ug/L (0.34 ug/L)
LCS/LCSD	**LCS % Recovery**	2769176	Hexachloro-1,3-Butadiene	146 % (55-128 %)
		2770697	CYCLOHEXANE	132 % (66-130 %)
		2770697	Tetrachloroethene	127 % (72-124 %)
		2770697	1,2-Dichloroethylene (total)	126 % (78-125 %)
		2770697	1,1-Dichloroethylene	147 % (63-128 %)
		2724403	Methylene Chloride	136 % (76-121 %)
		2724800	1,1-Dichloroethylene	135 % (63-128 %)
		2724800	Carbon Disulfide	148 % (57-131 %)
		2724800	CYCLOHEXANE	133 % (66-130 %)
MS/MSD	**MS % Recovery**	MRC-SW17A	2-Chloroethylvinylether	0.5 % (1-150%)
MS/MSD	**RPD**	MRC-SW17A	Methyl acetate	22 % (20 %)
Surrogate Spike	**% Recovery**	MRC-SW13A	4-Bromofluorobenzene	117 % (79-114 %)
		MRC-SW6B	4-Bromofluorobenzene	129 % (79-114 %)
Laboratory Duplicates	No Anomalies			
Field Duplicates	No Anomalies			

1,4-Dioxane SW846-8270D-SIM	Description	Sample ID	Analyte	Value (Control Limit)
Holding Times	*No Anomalies*			
Method Blanks	**Detection > MDL**	2766541	1,4-Dioxane	0.029 ug/L (0.019 ug/L)
Field/Equipment Blanks	*No Anomalies*			
LCS/LCSD	*No Anomalies*			

1,4-Dioxane SW846-8270D-SIM	Description	Sample ID	Analyte	Value (Control Limit)
MS/MSD	*No Anomalies*			
Surrogate Spike	*No Anomalies*			
Laboratory Duplicates	*No Anomalies*			
Field Duplicates	*No Anomalies*			

IV. Qualified Field Sample Results

Field Sample ID	Analytical Method	Analyte	Result	Units	Qualifier	Reason Code
MRC-SW17A	SW8260B	2-Chloroethylvinylether	2	ug/l	**R**	**m**
MRC-SW17A	SW8260B	2-Chloroethylvinylether	2	ug/l	**R**	**m**
MRC-SW17A	SW8270D-SIM	1,4-Dioxane	0.042	ug/l	**B**	**bl**
MRC-SW17A	SW8270D-SIM	1,4-Dioxane	0.037	ug/l	**B**	**bl**
MRC-SW13A	SW8260B	Acetone	9.5	ug/l	**J+**	**s**
MRC-SW15A	SW8260B	1,2-Dichloroethylene (total)	0.46	ug/l	**J**	**l**
MRC-SW15A	SW8260B	Acetone	14.6	ug/l	**B**	**bf**
MRC-SW15A	SW8260B	Bromomethane	0.47	ug/l	**B**	**bl**
MRC-SW15A	SW8260B	Carbon Disulfide	0.26	ug/l	**B**	**bf**
MRC-SW16A	SW8260B	1,2-Dichloroethylene (total)	0.51	ug/l	**J**	**l**
MRC-SW16A	SW8260B	Acetone	17.8	ug/l	**B**	**bf**
MRC-SW16A	SW8260B	Bromomethane	0.45	ug/l	**B**	**bl**
MRC-SW1A	SW8260B	Acetone	11.4	ug/l	**B**	**bf**
MRC-SW1A	SW8260B	Bromomethane	0.49	ug/l	**B**	**bl**
MRC-SW1A	SW8270D-SIM	1,4-Dioxane	0.027	ug/l	**B**	**bl**
MRC-SW2A	SW8260B	Acetone	21.5	ug/l	**B**	**bf**
MRC-SW2A	SW8260B	Bromomethane	0.66	ug/l	**B**	**bl**
MRC-SW2A	SW8270D-SIM	1,4-Dioxane	0.021	ug/l	**B**	**bl**
MRC-SW5A1	SW8260B	Acetone	10.8	ug/l	**B**	**bf**
MRC-SW5A1	SW8260B	Bromomethane	0.47	ug/l	**B**	**bl**
MRC-SW5A1	SW8260B	Carbon Disulfide	0.58	ug/l	**B**	**bf**
MRC-SW5A2	SW8260B	Acetone	14.1	ug/l	**B**	**bf**
MRC-SW5A2	SW8260B	Bromomethane	0.45	ug/l	**B**	**bl**
MRC-SW5A2	SW8260B	Carbon Disulfide	0.28	ug/l	**B**	**bf**
MRC-SW5B	SW8260B	Acetone	15.3	ug/l	**B**	**bf**
MRC-SW5B	SW8260B	Bromomethane	0.45	ug/l	**B**	**bl**
MRC-SW6A	SW8260B	Acetone	11.8	ug/l	**J+**	**s**
MRC-SW6A	SW8260B	Carbon Disulfide	0.38	ug/l	**B**	**bl**
MRC-SW6A	SW8260B	TRICHLOROETHENE	1.1	ug/l	**J+**	**s**
TB-062518	SW8260B	Hexachloro-1,3-Butadiene	1.7	ug/l	**J**	**l**
TB-062518	SW8260B	Carbon Disulfide	0.31	ug/L	**J+**	**s**
TB-062518	SW8260B	Acetone	9.0	ug/L	**J+**	**s**
TB-062618	SW8260B	Bromomethane	0.54	ug/l	**B**	**bl**

Appendix A
Data Validation Qualifiers and Reason Codes

Data Qualifying Codes

Two types of data qualifying codes or flags are applied in the course of the data review. The data validation flags indicate data that are not usable for decision-making, more than normally biased and/or variable, or not representative of field conditions. These codes and their definitions are presented below in the hierarchy stipulated in the USEPA Contract Laboratory Program National Functional Guidelines for Organic (August 2014) Data Review and the USEPA Region III Guidelines for Organic (September 1994) for blank qualifications only.

Data Validation Flags

Flag	Interpretation
R	The sample results are 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.
B	The analyte was analyzed for, but not detected at a level greater than or equal to the level of the adjusted Detection Limit (DL) for sample and method.
J+	Reported value may not be accurate or precise, but the result may be biased high.
J-	Reported value may not be accurate or precise, but the result may be biased low.
J	The analyte was positively identified and 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 Limit of Detection (LOD).
NJ	The analysis indicates the presence of an analyte that has been “tentatively identified” and the associated numerical value represents its approximate concentration.
UJ	The analyte was not detected at a level greater than or equal to the adjusted DL. However, the reported adjusted DL is approximate and may be inaccurate or imprecise.
C	This qualifier applies to pesticide and Aroclor results when the identification has been confirmed by gas Chromatograph/Mass Spectrometer (GC/MS)
X	This qualifier applies to pesticide and Aroclor results when GC/MS analysis was attempted but was unsuccessful.

The other type of code used by AECOM is a “Reason Code”. The reason code indicates the type of quality control failure that led to the application of the data validation flag.

Reason Codes

Code	*Description*
a	Tracer recovery (radiochemical data only)
be	Equipment blank contamination
bf	Field blank contamination
bl	Laboratory blank contamination
bm	Missing Blank Information
c	Calibration issue
cl	Clean-up standard recovery
cp	Insufficient in growth (radiochemical data only)
cr	Chromatographic resolution
d	Reporting limit raised due to chromatographic interference
e	Ether interference
fd	Field duplicate RPDs
g	Chromatographic pattern match issue
h	Holding times
i	Internal standard areas
ii	Injection internal standard area or retention time exceedance
k	Estimated Maximum Possible Concentrations
l	LCS recoveries
lc	Labeled compound recovery
ld	Laboratory duplicate RPDs (matrix duplicate, MSD, LCSD)
m	Matrix spike recovery
nb	Negative laboratory blank contamination
p	Chemical preservation issue
pe	Post Extraction Spike
q	Quantitation issue
r	Dual column RPD
rp	Re-extraction precision issue [PAHs only]

AECOM

Data Validation and Usability Report

Sept**ember** 2018 – **Triannual** Surface Water Sampling

Lockheed Martin Corporation
Middle River Complex
Middle River, Maryland

November 2018

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I. Executive Summary

AECOM performed data validation on 100% of the surface water field investigative samples collected on September 21st, 2018 at the Lockheed Martin Middle River Complex located in Middle River, Maryland. The validation was performed to a United States Environmental Protection Agency (USEPA) Region III Inorganic Level I and Organic Level I based on the specifics of the analytical methods referenced and qualified according to the USEPA Contract Laboratory Program (CLP) National Functional Guidelines for Organic/Inorganic (January 2017) Superfund Data Review, with the exception of blank detections which were qualified according to the USEPA Region III modifications to the National Functional Guidelines defining the use of the "B" flag.

The review was assisted through the use of an electronic data management tool that compiles batch-level quality control (QC) data submitted with the laboratory deliverables and identifies anomalies for verification and qualification by the data reviewer. This information is provided in the form of a structured workbook that includes field sample analytical results, QC sample results, batch associations, and QC criteria. Prior to validation, the quality assurance procedures applied to the process itself consist of reviewing the output for data completeness based on laboratory deliverables and chain of custody reports; verification of QC criteria based on the aforementioned data validation guidelines and project-specific Quality Assurance Project Plan (QAPP); and strict control of data management permissions. The resulting data validation workbooks were evaluated and validated using the AECOM automated validation assistant (AVA) tool. The specific data elements that were reviewed include:

- Holding times and sample preservation
- Blanks (Method, Trip, Field, and Equipment)
- Matrix spike (MS) and/or matrix spike duplicate (MSD) results
- Laboratory control sample (LCS)/laboratory control sample duplicate (LCSD) results
- Surrogate spike results
- Field duplicates
- Laboratory duplicates
- Sensitivity

Data validation qualifiers were applied to results where a QC nonconformance required qualification per USEPA guidance. All QC anomalies were assessed for their impact on data quality in regards to precision, accuracy, representativeness, completeness, comparability, and sensitivity (PARCCS) as discussed in **II: PARCCS Data Quality**. A detailed list of the QC non-conformances can be found in **III: Data Validation Findings**. The associated field sample results that required qualification are listed in **IV: Qualified Field Sample Results**.

II. PARCCS Data Quality

Precision

Precision is the degree of agreement among repeated measurements of the same characteristic on the same sample or on separate samples collected as close as possible in time and place. Field sampling precision is measured using the field duplicate relative percent differences; laboratory precision is measured using laboratory duplicate relative percent differences and/or laboratory control spike and matrix spike duplicate relative percent differences. All quality control criteria impacting precision were met for the data reviewed.

Accuracy

Accuracy is a measure of confidence in a measurement. The smaller the difference between the measurement of a parameter and its "true" or expected value, the more accurate the measurement. Accuracy in the field was monitored through the use of negative controls such as trip blanks, field blanks, and equipment blanks, along with adherence to the standard operating procedures and sampling plans. Analytical accuracy was assessed through the measurement of percent recoveries in the surrogate spikes, laboratory control spike pairs (LCS/LCSD) and the matrix spike pairs (MS/MSD).

One trip blank and three method blanks were assessed for their effect on data usability. One method blank displayed detections greater than the method detection limit for chloroform and hexachloro-1,3-butadiene. The associated field sample results were non-detect and did not require qualification by the reviewer.

Several LCS/LCSD displayed percent recoveries outside the quality control limits. The field sample results associated with positive biases were non-detect and did not require qualification by the data reviewer. The field sample results associated with negative biases were non-detect and were qualified UJ,l. These anomalies are considered minor and the qualified field sample results should be considered usable as estimated values with a negative bias.

The MS/MSD performed on parent samples MRC-SW2A and MRC-SW5B-S displayed percent recoveries outside the quality control limits for several analytes. The parent sample results associated with positive biases were non-detect and did not require qualification by the data reviewer. The parent sample results associated with negative biases were non-detect and were qualified UJ,m, unless previously qualified due to LCS/LCSD percent recovery anomalies. These anomalies are considered minor and the qualified field sample results should be considered usable as estimated values with a negative bias.

The surrogate spikes performed on samples MRC-SW13A-S and MRC-SW9B-S displayed percent recoveries greater than the upper QC limits. The positive associated field sample results were qualified J+,s. These surrogate anomalies are considered minor and the qualified field sample results should be considered usable as estimated values with a positive bias.

Representativeness

Representativeness qualitatively expresses the degree to which data accurately reflect site conditions. Factors that affect the representativeness of analytical data include appropriate sample population definitions, proper sample collection and preservation techniques, analytical holding times, use of standard analytical methods, and determination of matrix or analyte interferences. All quality control criteria impacting representativeness were met for the data reviewed.

Comparability

Comparability is the extent to which data from one study can be compared directly to either past data from the current project or data from another study. Using standardized sampling and analytical methods, units of reporting, and site selection procedures helps ensure comparability. Standard field sampling methods and current CLP analytical methods by an accredited laboratory were used in this investigation.

Completeness

Completeness is a measure of the amount of valid data obtained from a measurement system compared to the amount of data expected under normal conditions. It is expected that laboratories will provide data meeting system quality control acceptance criteria for all samples tested. Project completeness is determined by evaluating the planned versus actual quantities of usable data. A total of 19 field samples were validated, including 17 investigative surface water samples, one field duplicate, and one trip blank. All data are usable, as qualified, for their intended purpose based on the data reviewed.

Sensitivity

Sensitivity reflects the ability of the analytical method to detect analytes of interest below the level of concern. This goal is achieved by identifying the level of concern, choosing a method with appropriate method detection limits, and ensuring that the laboratory analyzes calibration standards at or below the level of concern. The laboratory was able to achieve the lowest reporting limits based on the analytical methods employed and the variety of matrices encountered. No field sample results were reported from dilutions. Any analytes detected below the reporting limit and above the method detection limit were reported and qualified “J” as estimated values by the laboratory.

Overall Impact on Data Usability

Overall data usability met the completeness requirement outlined in the QAPP at 100%. During the course of the data validation, several minor anomalies were noted which is to be anticipated based on statistical predictability of standard analytical procedures. Several field sample results

were qualified due to these minor anomalies. All data are considered usable as qualified, for their intended purpose based on the data reviewed.

III. Data Validation Findings

Volatile Organic Compounds

SW846-8260B	Description	Sample ID	Analyte	Value (Control Limit)
Holding Times	No Anomalies			
Method Blanks	Detection > MDL	2816952	Chloroform	0.53 ug/L (0.21 ug/L)
			Hexachloro-1,3-Butadiene	1.3 ug/L (1.0 ug/L)
Trip Blanks	No Anomalies			
LCS/LCSD	LCS % Recovery	2816953	Naphthalene	52% (56-134%)
		2817432	Hexachloro-1,3-Butadiene	130% (55-128%)
			Methylcyclohexane	143% (70-130%)
MS/MSD	MS % Recovery	MRC-SW2A	Bromochloromethane	122% (73-117%)
			Bromoform	66 % (70-123%)
			Naphthalene	38% (56-134%)
		MRC-SW5B-S	Cyclohexane	135% (66-130%)
			Freon TF	134% (50-130%)
			Methylcyclohexane	144% (70-130%)
Surrogate Spike	% Recovery	MRC-SW13A-S	Dibromofluoromethane	117 % (78-116%)
		MRC-SW9B-S	4-Bromofluorobenzene	123 % (79-114 %)
Laboratory Duplicates	No Anomalies			
Field Duplicates	No Anomalies			

1,4-Dioxane

SW846-8270D-SIM	Description	Sample ID	Analyte	Value (Control Limit)
Holding Times	No Anomalies			
Method Blanks	No Anomalies			
Field/Equipment Blanks	No Anomalies			
LCS/LCSD	No Anomalies			
MS/MSD	No Anomalies			
Surrogate Spike	No Anomalies			
Laboratory Duplicates	No Anomalies			
Field Duplicates	No Anomalies			

IV. Qualified Field Sample Results

Field Sample ID	Analytical Method	Analyte	Result	Units	Qualifier	Reason Code
MRC-SW1A	SW8260B	Naphthalene	2.0 U	ug/L	J+	s
MRC-SW2A	SW8260B	Naphthalene	2.0 U	ug/L	UJ	l
MRC-SW2A	SW8260B	Bromoform	1.0 U	ug/L	UJ	l
MRC-SW13A-S	SW8260B	Acetone	3.1	ug/L	UJ	m

Appendix A
Data Validation Qualifiers and Reason Codes

Data Qualifying Codes

Two types of data qualifying codes or flags are applied in the course of the data review. The data validation flags indicate data that are not usable for decision-making, more than normally biased and/or variable, or not representative of field conditions. These codes and their definitions are presented below in the hierarchy stipulated in the USEPA Contract Laboratory Program National Functional Guidelines for Organic (August 2014) Data Review and the USEPA Region III Guidelines for Organic (September 1994) for blank qualifications only.

Data Validation Flags

Flag	Interpretation
R	The sample results are 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.
B	The analyte was analyzed for, but not detected at a level greater than or equal to the level of the adjusted Detection Limit (DL) for sample and method.
J+	Reported value may not be accurate or precise, but the result may be biased high.
J-	Reported value may not be accurate or precise, but the result may be biased low.
J	The analyte was positively identified and 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 Limit of Detection (LOD).
NJ	The analysis indicates the presence of an analyte that has been “tentatively identified” and the associated numerical value represents its approximate concentration.
UJ	The analyte was not detected at a level greater than or equal to the adjusted DL. However, the reported adjusted DL is approximate and may be inaccurate or imprecise.
C	This qualifier applies to pesticide and Aroclor results when the identification has been confirmed by gas Chromatograph/Mass Spectrometer (GC/MS)
X	This qualifier applies to pesticide and Aroclor results when GC/MS analysis was attempted but was unsuccessful.

The other type of code used by AECOM is a “Reason Code”. The reason code indicates the type of quality control failure that led to the application of the data validation flag.

Reason Codes

Code	*Description*
a	Tracer recovery (radiochemical data only)
be	Equipment blank contamination
bf	Field blank contamination
bl	Laboratory blank contamination
bm	Missing Blank Information
c	Calibration issue
cl	Clean-up standard recovery
cp	Insufficient in growth (radiochemical data only)
cr	Chromatographic resolution
d	Reporting limit raised due to chromatographic interference
e	Ether interference
fd	Field duplicate RPDs
g	Chromatographic pattern match issue
h	Holding times
i	Internal standard areas
ii	Injection internal standard area or retention time exceedance
k	Estimated Maximum Possible Concentrations
l	LCS recoveries
lc	Labeled compound recovery
ld	Laboratory duplicate RPDs (matrix duplicate, MSD, LCSD)
m	Matrix spike recovery
nb	Negative laboratory blank contamination
p	Chemical preservation issue
pe	Post Extraction Spike
q	Quantitation issue
r	Dual column RPD
rp	Re-extraction precision issue [PAHs only]

APPENDIX D

Laboratory Analytical Reports

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

May 1, 2018

Ms. Holly Brown
AECOM (fka URS) - Germantown MD
12420 Milestone Center Drive
Suite 150
Germantown, MD 20876

Certificate of Analysis

Project Name:	**2018-MIDDLE RIVER COMPLEX**	Workorder:	**2309395**
Purchase Order:	**95840ACM**	Workorder ID:	**LMC MRC 4/17/18**

Dear Ms. Brown:

Enclosed are the analytical results for samples received by the laboratory on Tuesday, April 17, 2018.

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. Ravi Damera , Ms. Victoria Kirkpatrick , Mr. Naoum Tavantzis

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

ALS Environmental

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SAMPLE SUMMARY

Workorder: 2309395 LMC MRC 4/17/18

Lab ID	Sample ID	Matrix	Date Collected	Date Received	Collected By
2309395001	MRC-SW17A	Water	4/16/2018 15:07	4/17/2018 22:00	Collected by Client
2309395002	MRC-SW2A	Water	4/16/2018 16:38	4/17/2018 22:00	Collected by Client
2309395003	MRC-SW1A	Water	4/16/2018 16:20	4/17/2018 22:00	Collected by Client
2309395004	MRC-SW9A	Water	4/17/2018 08:42	4/17/2018 22:00	Collected by Client
2309395005	TB-041718-1	Water	4/17/2018 22:00	4/17/2018 22:00	Collected by Client
2309395006	MRC-SW5A2	Water	4/17/2018 09:24	4/17/2018 22:00	Collected by Client
2309395007	MRC-SW5B	Water	4/17/2018 09:40	4/17/2018 22:00	Collected by Client
2309395008	MRC-SW7A	Water	4/17/2018 08:04	4/17/2018 22:00	Collected by Client
2309395009	MRC-SW7B	Water	4/17/2018 08:37	4/17/2018 22:00	Collected by Client
2309395010	TB-041718-2	Water	4/17/2018 22:00	4/17/2018 22:00	Collected by Client
2309395011	MRC-SW5A1	Water	4/17/2018 09:12	4/17/2018 22:00	Collected by Client
2309395012	MRC-SW9B	Water	4/17/2018 08:06	4/17/2018 22:00	Collected by Client
2309395013	MRC-SW15A	Water	4/17/2018 11:40	4/17/2018 22:00	Collected by Client
2309395014	MRC-SW16A	Water	4/17/2018 11:20	4/17/2018 22:00	Collected by Client
2309395015	TB-041718-3	Water	4/17/2018 22:00	4/17/2018 22:00	Collected by Client
2309395016	MRC-SW13A	Water	4/17/2018 11:44	4/17/2018 22:00	Collected by Client
2309395017	MRC-SW6B	Water	4/17/2018 10:51	4/17/2018 22:00	Collected by Client
2309395018	MRC-SW8B	Water	4/17/2018 11:04	4/17/2018 22:00	Collected by Client
2309395019	TB-041718-4	Water	4/17/2018 22:00	4/17/2018 22:00	Collected by Client
2309395020	MRC-SW8A-D	Water	4/17/2018 10:30	4/17/2018 22:00	Collected by Client
2309395021	MRC-SW6A	Water	4/17/2018 10:02	4/17/2018 22:00	Collected by Client
2309395022	TB-041718-5	Water	4/17/2018 22:00	4/17/2018 22:00	Collected by Client
2309395023	MRC-SW8A	Water	4/17/2018 10:16	4/17/2018 22:00	Collected by Client
2309395024	DM-1-4	Water	4/17/2018 13:20	4/17/2018 22:00	Collected by Client
2309395025	DM-5-8	Water	4/17/2018 13:35	4/17/2018 22:00	Collected by Client

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SAMPLE SUMMARY

Workorder: 2309395 LMC MRC 4/17/18

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 incurbator and the "Analyzed" value is the date/time out the incubator.

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

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PROJECT SUMMARY

Workorder: 2309395 LMC MRC 4/17/18

Workorder Comments

Please see attached subcontracting report from ALS Rochester. VNB 4/30/18

Sample Comments

Lab ID: 2309395024 **Sample ID:** DM-1-4 **Sample Type:** SAMPLE

The percent dry solid per the EPA leaching procedure was less than 0.5%. The sample was filtered to form the leachate.

Lab ID: 2309395025 **Sample ID:** DM-5-8 **Sample Type:** SAMPLE

The percent dry solid per the EPA leaching procedure was less than 0.5%. The sample was filtered to form the leachate.

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ANALYTICAL RESULTS

Workorder: 2309395 LMC MRC 4/17/18

Lab ID: **2309395001** Date Collected: 4/16/2018 15:07 Matrix: Water
Sample ID: **MRC-SW17A** Date Received: 4/17/2018 22:00

Parameters	Results	Flag	Units	RDL	MDL	Method	Prepared By	Analyzed	By	*Cntr*
VOLATILE ORGANICS										
1,1,1,2-Tetrachloroethane	ND		ug/L	1.0	0.35	SW846 8260B		4/24/18 22:29	CJG	B
1,1,1-Trichloroethane	ND		ug/L	1.0	0.22	SW846 8260B		4/24/18 22:29	CJG	B
1,1,2,2-Tetrachloroethane	ND		ug/L	1.0	0.34	SW846 8260B		4/24/18 22:29	CJG	B
1,1,2-Trichloroethane	ND		ug/L	1.0	0.33	SW846 8260B		4/24/18 22:29	CJG	B
1,1-Dichloroethane	ND		ug/L	1.0	0.28	SW846 8260B		4/24/18 22:29	CJG	B
1,1-Dichloroethene	ND		ug/L	1.0	0.29	SW846 8260B		4/24/18 22:29	CJG	B
1,2,3-Trichlorobenzene	ND		ug/L	2.0	0.93	SW846 8260B		4/24/18 22:29	CJG	B
1,2,3-Trichloropropane	ND		ug/L	2.0	0.60	SW846 8260B		4/24/18 22:29	CJG	B
1,2,4-Trichlorobenzene	ND		ug/L	2.0	0.82	SW846 8260B		4/24/18 22:29	CJG	B
1,2,4-Trimethylbenzene	ND		ug/L	1.0	0.25	SW846 8260B		4/24/18 22:29	CJG	B
1,2-Dibromo-3-chloropropane	ND		ug/L	7.0	1.5	SW846 8260B		4/24/18 22:29	CJG	B
1,2-Dibromoethane	ND		ug/L	1.0	0.28	SW846 8260B		4/24/18 22:29	CJG	B
1,2-Dichlorobenzene	ND		ug/L	1.0	0.38	SW846 8260B		4/24/18 22:29	CJG	B
1,2-Dichloroethane	ND		ug/L	1.0	0.32	SW846 8260B		4/24/18 22:29	CJG	B
1,2-Dichloroethene, Total	ND		ug/L	2.0	0.45	SW846 8260B		4/24/18 22:29	CJG	B
1,2-Dichloropropane	ND		ug/L	1.0	0.24	SW846 8260B		4/24/18 22:29	CJG	B
1,3-Dichlorobenzene	ND		ug/L	1.0	0.25	SW846 8260B		4/24/18 22:29	CJG	B
1,3-Dichloropropane	ND		ug/L	1.0	0.27	SW846 8260B		4/24/18 22:29	CJG	B
1,3-Dichloropropene, Total	ND		ug/L	2.0	0.47	SW846 8260B		4/24/18 22:29	CJG	B
1,4-Dichlorobenzene	ND		ug/L	1.0	0.27	SW846 8260B		4/24/18 22:29	CJG	B
2,2-Dichloropropane	ND		ug/L	1.0	0.32	SW846 8260B		4/24/18 22:29	CJG	B
2-Butanone	ND		ug/L	10.0	1.8	SW846 8260B		4/24/18 22:29	CJG	B
2-Chloroethylvinyl ether	ND		ug/L	2.0	0.38	SW846 8260B		4/24/18 22:29	CJG	B
2-Hexanone	ND		ug/L	5.0	1.3	SW846 8260B		4/24/18 22:29	CJG	B
4-Methyl-2-Pentanone(MIBK)	ND		ug/L	5.0	1.5	SW846 8260B		4/24/18 22:29	CJG	B
Acetone	11.2		ug/L	10.0	3.1	SW846 8260B		4/24/18 22:29	CJG	B
Benzene	ND		ug/L	1.0	0.23	SW846 8260B		4/24/18 22:29	CJG	B
Bromobenzene	ND		ug/L	1.0	0.32	SW846 8260B		4/24/18 22:29	CJG	B
Bromochloromethane	ND		ug/L	1.0	0.32	SW846 8260B		4/24/18 22:29	CJG	B
Bromodichloromethane	ND		ug/L	1.0	0.27	SW846 8260B		4/24/18 22:29	CJG	B
Bromoform	ND		ug/L	1.0	0.40	SW846 8260B		4/24/18 22:29	CJG	B
Bromomethane	ND		ug/L	1.0	0.39	SW846 8260B		4/24/18 22:29	CJG	B
Carbon Disulfide	ND		ug/L	1.0	0.23	SW846 8260B		4/24/18 22:29	CJG	B
Carbon Tetrachloride	ND		ug/L	1.0	0.31	SW846 8260B		4/24/18 22:29	CJG	B
Chlorobenzene	ND		ug/L	1.0	0.19	SW846 8260B		4/24/18 22:29	CJG	B
Chlorodibromomethane	ND		ug/L	1.0	0.45	SW846 8260B		4/24/18 22:29	CJG	B

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ANALYTICAL RESULTS

Workorder: 2309395 LMC MRC 4/17/18

Lab ID: **2309395001** Date Collected: 4/16/2018 15:07 Matrix: Water
Sample ID: **MRC-SW17A** Date Received: 4/17/2018 22:00

Parameters	Results	Flag	Units	RDL	MDL	Method	Prepared By	Analyzed	By	*Cntr*
Chloroethane	ND		ug/L	1.0	0.33	SW846 8260B		4/24/18 22:29	CJG	B
Chloroform	ND		ug/L	1.0	0.21	SW846 8260B		4/24/18 22:29	CJG	B
Chloromethane	ND		ug/L	1.0	0.31	SW846 8260B		4/24/18 22:29	CJG	B
Cyclohexane	ND		ug/L	1.0	0.29	SW846 8260B		4/24/18 22:29	CJG	B
Dibromomethane	ND		ug/L	1.0	0.31	SW846 8260B		4/24/18 22:29	CJG	B
Dichlorodifluoromethane	ND		ug/L	1.0	0.33	SW846 8260B		4/24/18 22:29	CJG	B
Diisopropyl ether	ND		ug/L	1.0	0.25	SW846 8260B		4/24/18 22:29	CJG	B
Ethyl tert-butyl ether	ND		ug/L	1.0	0.19	SW846 8260B		4/24/18 22:29	CJG	B
Ethylbenzene	ND		ug/L	1.0	0.34	SW846 8260B		4/24/18 22:29	CJG	B
Freon 113	ND		ug/L	1.0	0.26	SW846 8260B		4/24/18 22:29	CJG	B
Hexachlorobutadiene	ND		ug/L	5.0	1.0	SW846 8260B		4/24/18 22:29	CJG	B
Isopropylbenzene	ND		ug/L	1.0	0.22	SW846 8260B		4/24/18 22:29	CJG	B
Methyl acetate	ND		ug/L	2.0	0.32	SW846 8260B		4/24/18 22:29	CJG	B
Methyl cyclohexane	ND		ug/L	1.0	0.30	SW846 8260B		4/24/18 22:29	CJG	B
Methyl t-Butyl Ether	ND		ug/L	1.0	0.33	SW846 8260B		4/24/18 22:29	CJG	B
Methylene Chloride	ND		ug/L	1.0	0.45	SW846 8260B		4/24/18 22:29	CJG	B
Naphthalene	ND		ug/L	2.0	0.34	SW846 8260B		4/24/18 22:29	CJG	B
Styrene	ND		ug/L	1.0	0.24	SW846 8260B		4/24/18 22:29	CJG	B
Tetrachloroethene	ND		ug/L	1.0	0.35	SW846 8260B		4/24/18 22:29	CJG	B
Toluene	ND		ug/L	1.0	0.23	SW846 8260B		4/24/18 22:29	CJG	B
Total Xylenes	ND		ug/L	3.0	0.66	SW846 8260B		4/24/18 22:29	CJG	B
Trichloroethene	ND		ug/L	1.0	0.33	SW846 8260B		4/24/18 22:29	CJG	B
Trichlorofluoromethane	ND		ug/L	1.0	0.24	SW846 8260B		4/24/18 22:29	CJG	B
Vinyl Acetate	ND		ug/L	5.0	1.6	SW846 8260B		4/24/18 22:29	CJG	B
Vinyl Chloride	ND		ug/L	1.0	0.30	SW846 8260B		4/24/18 22:29	CJG	B
cis-1,2-Dichloroethene	ND		ug/L	1.0	0.32	SW846 8260B		4/24/18 22:29	CJG	B
cis-1,3-Dichloropropene	ND		ug/L	1.0	0.31	SW846 8260B		4/24/18 22:29	CJG	B
mp-Xylene	ND		ug/L	2.0	0.52	SW846 8260B		4/24/18 22:29	CJG	B
n-Butylbenzene	ND		ug/L	2.0	0.60	SW846 8260B		4/24/18 22:29	CJG	B
n-Propylbenzene	ND		ug/L	1.0	0.33	SW846 8260B		4/24/18 22:29	CJG	B
o-Chlorotoluene	ND		ug/L	1.0	0.26	SW846 8260B		4/24/18 22:29	CJG	B
o-Xylene	ND		ug/L	1.0	0.33	SW846 8260B		4/24/18 22:29	CJG	B
p-Chlorotoluene	ND		ug/L	1.0	0.33	SW846 8260B		4/24/18 22:29	CJG	B
p-Isopropyltoluene	ND		ug/L	1.0	0.32	SW846 8260B		4/24/18 22:29	CJG	B
sec-Butylbenzene	ND		ug/L	1.0	0.31	SW846 8260B		4/24/18 22:29	CJG	B
tert-Amyl methyl ether	ND		ug/L	1.0	0.20	SW846 8260B		4/24/18 22:29	CJG	B
tert-Butyl Alcohol	ND		ug/L	10.0	2.2	SW846 8260B		4/24/18 22:29	CJG	B
tert-Butylbenzene	ND		ug/L	2.0	0.44	SW846 8260B		4/24/18 22:29	CJG	B

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ANALYTICAL RESULTS

Workorder: 2309395 LMC MRC 4/17/18

Lab ID: **2309395001** Date Collected: 4/16/2018 15:07 Matrix: Water
Sample ID: **MRC-SW17A** Date Received: 4/17/2018 22:00

Parameters	Results	Flag	Units	RDL	MDL	Method	Prepared	By	Analyzed	By	Cntr
trans-1,2-Dichloroethene	ND		ug/L	1.0	0.26	SW846 8260B			4/24/18 22:29	CJG	B
trans-1,3-Dichloropropene	ND		ug/L	1.0	0.29	SW846 8260B			4/24/18 22:29	CJG	B
Surrogate Recoveries	*Results*	*Flag*	*Units*	*Limits*		*Method*	*Prepared*	*By*	*Analyzed*	*By*	*Cntr*
1,2-Dichloroethane-d4 (S)	118		%	62 - 133		SW846 8260B			4/24/18 22:29	CJG	B
4-Bromofluorobenzene (S)	93.6		%	79 - 114		SW846 8260B			4/24/18 22:29	CJG	B
Dibromofluoromethane (S)	98.6		%	78 - 116		SW846 8260B			4/24/18 22:29	CJG	B
Toluene-d8 (S)	98.1		%	76 - 127		SW846 8260B			4/24/18 22:29	CJG	B
SEMIVOLATILE SIM											
1,4-Dioxane	ND		ug/L	0.094	0.018	8270 SIM	4/20/18 09:35	MXL	4/23/18 22:31	GEC	C
IS_Naphthalene-d8	0.0		ug/L			8270 SIM	4/20/18 09:35	MXL	4/23/18 22:31	GEC	C
IS_Perylene-d12	0.0		ug/L			8270 SIM	4/20/18 09:35	MXL	4/23/18 22:31	GEC	C
Acenaphthene-d10	0.0		ug/L			8270 SIM	4/20/18 09:35	MXL	4/23/18 22:31	GEC	C
Phenanthrene-d10	0.0		ug/L			8270 SIM	4/20/18 09:35	MXL	4/23/18 22:31	GEC	C
Chrysene-d12	0.0		ug/L			8270 SIM	4/20/18 09:35	MXL	4/23/18 22:31	GEC	C
Surrogate Recoveries	*Results*	*Flag*	*Units*	*Limits*		*Method*	*Prepared*	*By*	*Analyzed*	*By*	*Cntr*
2-Methylnapthalene-d10 (S)	83.2		%	29 - 112		8270 SIM	4/20/18 09:35	MXL	4/23/18 22:31	GEC	C
Fluoranthene-d10 (S)	118		%	45 - 130		8270 SIM	4/20/18 09:35	MXL	4/23/18 22:31	GEC	C

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ANALYTICAL RESULTS

Workorder: 2309395 LMC MRC 4/17/18

Lab ID: **2309395002** Date Collected: 4/16/2018 16:38 Matrix: Water
Sample ID: **MRC-SW2A** Date Received: 4/17/2018 22:00

Parameters	Results	Flag	Units	RDL	MDL	Method	Prepared By	Analyzed	By	*Cntr*
VOLATILE ORGANICS										
1,1,1,2-Tetrachloroethane	ND		ug/L	1.0	0.35	SW846 8260B		4/24/18 22:52	CJG	B
1,1,1-Trichloroethane	ND		ug/L	1.0	0.22	SW846 8260B		4/24/18 22:52	CJG	B
1,1,2,2-Tetrachloroethane	ND		ug/L	1.0	0.34	SW846 8260B		4/24/18 22:52	CJG	B
1,1,2-Trichloroethane	ND		ug/L	1.0	0.33	SW846 8260B		4/24/18 22:52	CJG	B
1,1-Dichloroethane	ND		ug/L	1.0	0.28	SW846 8260B		4/24/18 22:52	CJG	B
1,1-Dichloroethene	ND		ug/L	1.0	0.29	SW846 8260B		4/24/18 22:52	CJG	B
1,2,3-Trichlorobenzene	ND		ug/L	2.0	0.93	SW846 8260B		4/24/18 22:52	CJG	B
1,2,3-Trichloropropane	ND		ug/L	2.0	0.60	SW846 8260B		4/24/18 22:52	CJG	B
1,2,4-Trichlorobenzene	ND		ug/L	2.0	0.82	SW846 8260B		4/24/18 22:52	CJG	B
1,2,4-Trimethylbenzene	ND		ug/L	1.0	0.25	SW846 8260B		4/24/18 22:52	CJG	B
1,2-Dibromo-3-chloropropane	ND		ug/L	7.0	1.5	SW846 8260B		4/24/18 22:52	CJG	B
1,2-Dibromoethane	ND		ug/L	1.0	0.28	SW846 8260B		4/24/18 22:52	CJG	B
1,2-Dichlorobenzene	ND		ug/L	1.0	0.38	SW846 8260B		4/24/18 22:52	CJG	B
1,2-Dichloroethane	ND		ug/L	1.0	0.32	SW846 8260B		4/24/18 22:52	CJG	B
1,2-Dichloroethene, Total	ND		ug/L	2.0	0.45	SW846 8260B		4/24/18 22:52	CJG	B
1,2-Dichloropropane	ND		ug/L	1.0	0.24	SW846 8260B		4/24/18 22:52	CJG	B
1,3-Dichlorobenzene	ND		ug/L	1.0	0.25	SW846 8260B		4/24/18 22:52	CJG	B
1,3-Dichloropropane	ND		ug/L	1.0	0.27	SW846 8260B		4/24/18 22:52	CJG	B
1,3-Dichloropropene, Total	ND		ug/L	2.0	0.47	SW846 8260B		4/24/18 22:52	CJG	B
1,4-Dichlorobenzene	ND		ug/L	1.0	0.27	SW846 8260B		4/24/18 22:52	CJG	B
2,2-Dichloropropane	ND		ug/L	1.0	0.32	SW846 8260B		4/24/18 22:52	CJG	B
2-Butanone	ND		ug/L	10.0	1.8	SW846 8260B		4/24/18 22:52	CJG	B
2-Chloroethylvinyl ether	ND		ug/L	2.0	0.38	SW846 8260B		4/24/18 22:52	CJG	B
2-Hexanone	ND		ug/L	5.0	1.3	SW846 8260B		4/24/18 22:52	CJG	B
4-Methyl-2-Pentanone(MIBK)	ND		ug/L	5.0	1.5	SW846 8260B		4/24/18 22:52	CJG	B
Acetone	13.6		ug/L	10.0	3.1	SW846 8260B		4/24/18 22:52	CJG	B
Benzene	ND		ug/L	1.0	0.23	SW846 8260B		4/24/18 22:52	CJG	B
Bromobenzene	ND		ug/L	1.0	0.32	SW846 8260B		4/24/18 22:52	CJG	B
Bromochloromethane	ND		ug/L	1.0	0.32	SW846 8260B		4/24/18 22:52	CJG	B
Bromodichloromethane	ND		ug/L	1.0	0.27	SW846 8260B		4/24/18 22:52	CJG	B
Bromoform	ND		ug/L	1.0	0.40	SW846 8260B		4/24/18 22:52	CJG	B
Bromomethane	ND		ug/L	1.0	0.39	SW846 8260B		4/24/18 22:52	CJG	B
Carbon Disulfide	ND		ug/L	1.0	0.23	SW846 8260B		4/24/18 22:52	CJG	B
Carbon Tetrachloride	ND		ug/L	1.0	0.31	SW846 8260B		4/24/18 22:52	CJG	B
Chlorobenzene	ND		ug/L	1.0	0.19	SW846 8260B		4/24/18 22:52	CJG	B
Chlorodibromomethane	ND		ug/L	1.0	0.45	SW846 8260B		4/24/18 22:52	CJG	B

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ANALYTICAL RESULTS

Workorder: 2309395 LMC MRC 4/17/18

Lab ID: **2309395002** Date Collected: 4/16/2018 16:38 Matrix: Water
Sample ID: **MRC-SW2A** Date Received: 4/17/2018 22:00

Parameters	Results	Flag	Units	RDL	MDL	Method	Prepared By	Analyzed	By	*Cntr*
Chloroethane	ND		ug/L	1.0	0.33	SW846 8260B		4/24/18 22:52	CJG	B
Chloroform	ND		ug/L	1.0	0.21	SW846 8260B		4/24/18 22:52	CJG	B
Chloromethane	ND		ug/L	1.0	0.31	SW846 8260B		4/24/18 22:52	CJG	B
Cyclohexane	ND		ug/L	1.0	0.29	SW846 8260B		4/24/18 22:52	CJG	B
Dibromomethane	ND		ug/L	1.0	0.31	SW846 8260B		4/24/18 22:52	CJG	B
Dichlorodifluoromethane	ND		ug/L	1.0	0.33	SW846 8260B		4/24/18 22:52	CJG	B
Diisopropyl ether	ND		ug/L	1.0	0.25	SW846 8260B		4/24/18 22:52	CJG	B
Ethyl tert-butyl ether	ND		ug/L	1.0	0.19	SW846 8260B		4/24/18 22:52	CJG	B
Ethylbenzene	ND		ug/L	1.0	0.34	SW846 8260B		4/24/18 22:52	CJG	B
Freon 113	ND		ug/L	1.0	0.26	SW846 8260B		4/24/18 22:52	CJG	B
Hexachlorobutadiene	ND		ug/L	5.0	1.0	SW846 8260B		4/24/18 22:52	CJG	B
Isopropylbenzene	ND		ug/L	1.0	0.22	SW846 8260B		4/24/18 22:52	CJG	B
Methyl acetate	ND		ug/L	2.0	0.32	SW846 8260B		4/24/18 22:52	CJG	B
Methyl cyclohexane	ND		ug/L	1.0	0.30	SW846 8260B		4/24/18 22:52	CJG	B
Methyl t-Butyl Ether	ND		ug/L	1.0	0.33	SW846 8260B		4/24/18 22:52	CJG	B
Methylene Chloride	ND		ug/L	1.0	0.45	SW846 8260B		4/24/18 22:52	CJG	B
Naphthalene	ND		ug/L	2.0	0.34	SW846 8260B		4/24/18 22:52	CJG	B
Styrene	ND		ug/L	1.0	0.24	SW846 8260B		4/24/18 22:52	CJG	B
Tetrachloroethene	ND		ug/L	1.0	0.35	SW846 8260B		4/24/18 22:52	CJG	B
Toluene	ND		ug/L	1.0	0.23	SW846 8260B		4/24/18 22:52	CJG	B
Total Xylenes	ND		ug/L	3.0	0.66	SW846 8260B		4/24/18 22:52	CJG	B
Trichloroethene	ND		ug/L	1.0	0.33	SW846 8260B		4/24/18 22:52	CJG	B
Trichlorofluoromethane	ND		ug/L	1.0	0.24	SW846 8260B		4/24/18 22:52	CJG	B
Vinyl Acetate	ND		ug/L	5.0	1.6	SW846 8260B		4/24/18 22:52	CJG	B
Vinyl Chloride	ND		ug/L	1.0	0.30	SW846 8260B		4/24/18 22:52	CJG	B
cis-1,2-Dichloroethene	ND		ug/L	1.0	0.32	SW846 8260B		4/24/18 22:52	CJG	B
cis-1,3-Dichloropropene	ND		ug/L	1.0	0.31	SW846 8260B		4/24/18 22:52	CJG	B
mp-Xylene	ND		ug/L	2.0	0.52	SW846 8260B		4/24/18 22:52	CJG	B
n-Butylbenzene	ND		ug/L	2.0	0.60	SW846 8260B		4/24/18 22:52	CJG	B
n-Propylbenzene	ND		ug/L	1.0	0.33	SW846 8260B		4/24/18 22:52	CJG	B
o-Chlorotoluene	ND		ug/L	1.0	0.26	SW846 8260B		4/24/18 22:52	CJG	B
o-Xylene	ND		ug/L	1.0	0.33	SW846 8260B		4/24/18 22:52	CJG	B
p-Chlorotoluene	ND		ug/L	1.0	0.33	SW846 8260B		4/24/18 22:52	CJG	B
p-Isopropyltoluene	ND		ug/L	1.0	0.32	SW846 8260B		4/24/18 22:52	CJG	B
sec-Butylbenzene	ND		ug/L	1.0	0.31	SW846 8260B		4/24/18 22:52	CJG	B
tert-Amyl methyl ether	ND		ug/L	1.0	0.20	SW846 8260B		4/24/18 22:52	CJG	B
tert-Butyl Alcohol	ND		ug/L	10.0	2.2	SW846 8260B		4/24/18 22:52	CJG	B
tert-Butylbenzene	ND		ug/L	2.0	0.44	SW846 8260B		4/24/18 22:52	CJG	B

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ANALYTICAL RESULTS

Workorder: 2309395 LMC MRC 4/17/18

Lab ID: **2309395002** Date Collected: 4/16/2018 16:38 Matrix: Water
Sample ID: **MRC-SW2A** Date Received: 4/17/2018 22:00

Parameters	Results	Flag	Units	RDL	MDL	Method	Prepared	By	Analyzed	By	Cntr
trans-1,2-Dichloroethene	ND		ug/L	1.0	0.26	SW846 8260B			4/24/18 22:52	CJG	B
trans-1,3-Dichloropropene	ND		ug/L	1.0	0.29	SW846 8260B			4/24/18 22:52	CJG	B
Surrogate Recoveries	*Results*	*Flag*	*Units*	*Limits*		*Method*	*Prepared*	*By*	*Analyzed*	*By*	*Cntr*
1,2-Dichloroethane-d4 (S)	116		%	62 - 133		SW846 8260B			4/24/18 22:52	CJG	B
4-Bromofluorobenzene (S)	94.5		%	79 - 114		SW846 8260B			4/24/18 22:52	CJG	B
Dibromofluoromethane (S)	96.6		%	78 - 116		SW846 8260B			4/24/18 22:52	CJG	B
Toluene-d8 (S)	96.6		%	76 - 127		SW846 8260B			4/24/18 22:52	CJG	B
SEMIVOLATILE SIM											
1,4-Dioxane	ND		ug/L	0.093	0.018	8270 SIM	4/20/18 09:35	MXL	4/23/18 23:25	GEC	C
IS_Naphthalene-d8	0.0		ug/L			8270 SIM	4/20/18 09:35	MXL	4/23/18 23:25	GEC	C
IS_Perylene-d12	0.0		ug/L			8270 SIM	4/20/18 09:35	MXL	4/23/18 23:25	GEC	C
Acenaphthene-d10	0.0		ug/L			8270 SIM	4/20/18 09:35	MXL	4/23/18 23:25	GEC	C
Phenanthrene-d10	0.0		ug/L			8270 SIM	4/20/18 09:35	MXL	4/23/18 23:25	GEC	C
Chrysene-d12	0.0		ug/L			8270 SIM	4/20/18 09:35	MXL	4/23/18 23:25	GEC	C
Surrogate Recoveries	*Results*	*Flag*	*Units*	*Limits*		*Method*	*Prepared*	*By*	*Analyzed*	*By*	*Cntr*
2-Methylnapthalene-d10 (S)	66.4		%	29 - 112		8270 SIM	4/20/18 09:35	MXL	4/23/18 23:25	GEC	C
Fluoranthene-d10 (S)	124		%	45 - 130		8270 SIM	4/20/18 09:35	MXL	4/23/18 23:25	GEC	C

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ANALYTICAL RESULTS

Workorder: 2309395 LMC MRC 4/17/18

Lab ID: **2309395003** Date Collected: 4/16/2018 16:20 Matrix: Water
Sample ID: **MRC-SW1A** Date Received: 4/17/2018 22:00

Parameters	Results	Flag	Units	RDL	MDL	Method	Prepared By	Analyzed	By	*Cntr*
VOLATILE ORGANICS										
1,1,1,2-Tetrachloroethane	ND		ug/L	1.0	0.35	SW846 8260B		4/24/18 23:15	CJG	B
1,1,1-Trichloroethane	ND		ug/L	1.0	0.22	SW846 8260B		4/24/18 23:15	CJG	B
1,1,2,2-Tetrachloroethane	ND		ug/L	1.0	0.34	SW846 8260B		4/24/18 23:15	CJG	B
1,1,2-Trichloroethane	ND		ug/L	1.0	0.33	SW846 8260B		4/24/18 23:15	CJG	B
1,1-Dichloroethane	ND		ug/L	1.0	0.28	SW846 8260B		4/24/18 23:15	CJG	B
1,1-Dichloroethene	ND		ug/L	1.0	0.29	SW846 8260B		4/24/18 23:15	CJG	B
1,2,3-Trichlorobenzene	ND		ug/L	2.0	0.93	SW846 8260B		4/24/18 23:15	CJG	B
1,2,3-Trichloropropane	ND		ug/L	2.0	0.60	SW846 8260B		4/24/18 23:15	CJG	B
1,2,4-Trichlorobenzene	ND		ug/L	2.0	0.82	SW846 8260B		4/24/18 23:15	CJG	B
1,2,4-Trimethylbenzene	ND		ug/L	1.0	0.25	SW846 8260B		4/24/18 23:15	CJG	B
1,2-Dibromo-3-chloropropane	ND		ug/L	7.0	1.5	SW846 8260B		4/24/18 23:15	CJG	B
1,2-Dibromoethane	ND		ug/L	1.0	0.28	SW846 8260B		4/24/18 23:15	CJG	B
1,2-Dichlorobenzene	ND		ug/L	1.0	0.38	SW846 8260B		4/24/18 23:15	CJG	B
1,2-Dichloroethane	ND		ug/L	1.0	0.32	SW846 8260B		4/24/18 23:15	CJG	B
1,2-Dichloroethene, Total	ND		ug/L	2.0	0.45	SW846 8260B		4/24/18 23:15	CJG	B
1,2-Dichloropropane	ND		ug/L	1.0	0.24	SW846 8260B		4/24/18 23:15	CJG	B
1,3-Dichlorobenzene	ND		ug/L	1.0	0.25	SW846 8260B		4/24/18 23:15	CJG	B
1,3-Dichloropropane	ND		ug/L	1.0	0.27	SW846 8260B		4/24/18 23:15	CJG	B
1,3-Dichloropropene, Total	ND		ug/L	2.0	0.47	SW846 8260B		4/24/18 23:15	CJG	B
1,4-Dichlorobenzene	ND		ug/L	1.0	0.27	SW846 8260B		4/24/18 23:15	CJG	B
2,2-Dichloropropane	ND		ug/L	1.0	0.32	SW846 8260B		4/24/18 23:15	CJG	B
2-Butanone	ND		ug/L	10.0	1.8	SW846 8260B		4/24/18 23:15	CJG	B
2-Chloroethylvinyl ether	ND		ug/L	2.0	0.38	SW846 8260B		4/24/18 23:15	CJG	B
2-Hexanone	ND		ug/L	5.0	1.3	SW846 8260B		4/24/18 23:15	CJG	B
4-Methyl-2-Pentanone(MIBK)	ND		ug/L	5.0	1.5	SW846 8260B		4/24/18 23:15	CJG	B
Acetone	13.2		ug/L	10.0	3.1	SW846 8260B		4/24/18 23:15	CJG	B
Benzene	ND		ug/L	1.0	0.23	SW846 8260B		4/24/18 23:15	CJG	B
Bromobenzene	ND		ug/L	1.0	0.32	SW846 8260B		4/24/18 23:15	CJG	B
Bromochloromethane	ND		ug/L	1.0	0.32	SW846 8260B		4/24/18 23:15	CJG	B
Bromodichloromethane	ND		ug/L	1.0	0.27	SW846 8260B		4/24/18 23:15	CJG	B
Bromoform	ND		ug/L	1.0	0.40	SW846 8260B		4/24/18 23:15	CJG	B
Bromomethane	ND		ug/L	1.0	0.39	SW846 8260B		4/24/18 23:15	CJG	B
Carbon Disulfide	ND		ug/L	1.0	0.23	SW846 8260B		4/24/18 23:15	CJG	B
Carbon Tetrachloride	ND		ug/L	1.0	0.31	SW846 8260B		4/24/18 23:15	CJG	B
Chlorobenzene	ND		ug/L	1.0	0.19	SW846 8260B		4/24/18 23:15	CJG	B
Chlorodibromomethane	ND		ug/L	1.0	0.45	SW846 8260B		4/24/18 23:15	CJG	B

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ANALYTICAL RESULTS

Workorder: 2309395 LMC MRC 4/17/18

Lab ID: **2309395003** Date Collected: 4/16/2018 16:20 Matrix: Water
Sample ID: **MRC-SW1A** Date Received: 4/17/2018 22:00

Parameters	Results	Flag	Units	RDL	MDL	Method	Prepared By	Analyzed	By	*Cntr*
Chloroethane	ND		ug/L	1.0	0.33	SW846 8260B		4/24/18 23:15	CJG	B
Chloroform	ND		ug/L	1.0	0.21	SW846 8260B		4/24/18 23:15	CJG	B
Chloromethane	ND		ug/L	1.0	0.31	SW846 8260B		4/24/18 23:15	CJG	B
Cyclohexane	ND		ug/L	1.0	0.29	SW846 8260B		4/24/18 23:15	CJG	B
Dibromomethane	ND		ug/L	1.0	0.31	SW846 8260B		4/24/18 23:15	CJG	B
Dichlorodifluoromethane	ND		ug/L	1.0	0.33	SW846 8260B		4/24/18 23:15	CJG	B
Diisopropyl ether	ND		ug/L	1.0	0.25	SW846 8260B		4/24/18 23:15	CJG	B
Ethyl tert-butyl ether	ND		ug/L	1.0	0.19	SW846 8260B		4/24/18 23:15	CJG	B
Ethylbenzene	ND		ug/L	1.0	0.34	SW846 8260B		4/24/18 23:15	CJG	B
Freon 113	ND		ug/L	1.0	0.26	SW846 8260B		4/24/18 23:15	CJG	B
Hexachlorobutadiene	ND		ug/L	5.0	1.0	SW846 8260B		4/24/18 23:15	CJG	B
Isopropylbenzene	ND		ug/L	1.0	0.22	SW846 8260B		4/24/18 23:15	CJG	B
Methyl acetate	ND		ug/L	2.0	0.32	SW846 8260B		4/24/18 23:15	CJG	B
Methyl cyclohexane	ND		ug/L	1.0	0.30	SW846 8260B		4/24/18 23:15	CJG	B
Methyl t-Butyl Ether	ND		ug/L	1.0	0.33	SW846 8260B		4/24/18 23:15	CJG	B
Methylene Chloride	ND		ug/L	1.0	0.45	SW846 8260B		4/24/18 23:15	CJG	B
Naphthalene	ND		ug/L	2.0	0.34	SW846 8260B		4/24/18 23:15	CJG	B
Styrene	ND		ug/L	1.0	0.24	SW846 8260B		4/24/18 23:15	CJG	B
Tetrachloroethene	ND		ug/L	1.0	0.35	SW846 8260B		4/24/18 23:15	CJG	B
Toluene	ND		ug/L	1.0	0.23	SW846 8260B		4/24/18 23:15	CJG	B
Total Xylenes	ND		ug/L	3.0	0.66	SW846 8260B		4/24/18 23:15	CJG	B
Trichloroethene	ND		ug/L	1.0	0.33	SW846 8260B		4/24/18 23:15	CJG	B
Trichlorofluoromethane	ND		ug/L	1.0	0.24	SW846 8260B		4/24/18 23:15	CJG	B
Vinyl Acetate	ND		ug/L	5.0	1.6	SW846 8260B		4/24/18 23:15	CJG	B
Vinyl Chloride	ND		ug/L	1.0	0.30	SW846 8260B		4/24/18 23:15	CJG	B
cis-1,2-Dichloroethene	ND		ug/L	1.0	0.32	SW846 8260B		4/24/18 23:15	CJG	B
cis-1,3-Dichloropropene	ND		ug/L	1.0	0.31	SW846 8260B		4/24/18 23:15	CJG	B
mp-Xylene	ND		ug/L	2.0	0.52	SW846 8260B		4/24/18 23:15	CJG	B
n-Butylbenzene	ND		ug/L	2.0	0.60	SW846 8260B		4/24/18 23:15	CJG	B
n-Propylbenzene	ND		ug/L	1.0	0.33	SW846 8260B		4/24/18 23:15	CJG	B
o-Chlorotoluene	ND		ug/L	1.0	0.26	SW846 8260B		4/24/18 23:15	CJG	B
o-Xylene	ND		ug/L	1.0	0.33	SW846 8260B		4/24/18 23:15	CJG	B
p-Chlorotoluene	ND		ug/L	1.0	0.33	SW846 8260B		4/24/18 23:15	CJG	B
p-Isopropyltoluene	ND		ug/L	1.0	0.32	SW846 8260B		4/24/18 23:15	CJG	B
sec-Butylbenzene	ND		ug/L	1.0	0.31	SW846 8260B		4/24/18 23:15	CJG	B
tert-Amyl methyl ether	ND		ug/L	1.0	0.20	SW846 8260B		4/24/18 23:15	CJG	B
tert-Butyl Alcohol	ND		ug/L	10.0	2.2	SW846 8260B		4/24/18 23:15	CJG	B
tert-Butylbenzene	ND		ug/L	2.0	0.44	SW846 8260B		4/24/18 23:15	CJG	B

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State Certifications: DE ID 11 , MA PA0102 , MD 128 , VA 460157 , WV 343

ANALYTICAL RESULTS

Workorder: 2309395 LMC MRC 4/17/18

Lab ID: **2309395003** Date Collected: 4/16/2018 16:20 Matrix: Water
Sample ID: **MRC-SW1A** Date Received: 4/17/2018 22:00

Parameters	Results	Flag	Units	RDL	MDL	Method	Prepared	By	Analyzed	By	Cntr
trans-1,2-Dichloroethene	ND		ug/L	1.0	0.26	SW846 8260B			4/24/18 23:15	CJG	B
trans-1,3-Dichloropropene	ND		ug/L	1.0	0.29	SW846 8260B			4/24/18 23:15	CJG	B
Surrogate Recoveries	*Results*	*Flag*	*Units*	*Limits*		*Method*	*Prepared*	*By*	*Analyzed*	*By*	*Cntr*
1,2-Dichloroethane-d4 (S)	114		%	62 - 133		SW846 8260B			4/24/18 23:15	CJG	B
4-Bromofluorobenzene (S)	93.3		%	79 - 114		SW846 8260B			4/24/18 23:15	CJG	B
Dibromofluoromethane (S)	94.7		%	78 - 116		SW846 8260B			4/24/18 23:15	CJG	B
Toluene-d8 (S)	95.5		%	76 - 127		SW846 8260B			4/24/18 23:15	CJG	B
SEMIVOLATILE SIM											
1,4-Dioxane	ND		ug/L	0.099	0.019	8270 SIM	4/20/18 09:35	MXL	4/23/18 22:58	GEC	C
IS_Naphthalene-d8	0.0		ug/L			8270 SIM	4/20/18 09:35	MXL	4/23/18 22:58	GEC	C
IS_Perylene-d12	0.0		ug/L			8270 SIM	4/20/18 09:35	MXL	4/23/18 22:58	GEC	C
Acenaphthene-d10	0.0		ug/L			8270 SIM	4/20/18 09:35	MXL	4/23/18 22:58	GEC	C
Phenanthrene-d10	0.0		ug/L			8270 SIM	4/20/18 09:35	MXL	4/23/18 22:58	GEC	C
Chrysene-d12	0.0		ug/L			8270 SIM	4/20/18 09:35	MXL	4/23/18 22:58	GEC	C
Surrogate Recoveries	*Results*	*Flag*	*Units*	*Limits*		*Method*	*Prepared*	*By*	*Analyzed*	*By*	*Cntr*
2-Methylnapthalene-d10 (S)	86.2		%	29 - 112		8270 SIM	4/20/18 09:35	MXL	4/23/18 22:58	GEC	C
Fluoranthene-d10 (S)	113		%	45 - 130		8270 SIM	4/20/18 09:35	MXL	4/23/18 22:58	GEC	C

Vanessa N. Badman
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Project Coordinator

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ANALYTICAL RESULTS

Workorder: 2309395 LMC MRC 4/17/18

Lab ID: **2309395004** Date Collected: 4/17/2018 08:42 Matrix: Water
Sample ID: **MRC-SW9A** Date Received: 4/17/2018 22:00

Parameters	Results	Flag	Units	RDL	MDL	Method	Prepared By	Analyzed	By	*Cntr*
VOLATILE ORGANICS										
1,1,1,2-Tetrachloroethane	ND		ug/L	1.0	0.35	SW846 8260B		4/24/18 23:37	CJG	B
1,1,1-Trichloroethane	ND		ug/L	1.0	0.22	SW846 8260B		4/24/18 23:37	CJG	B
1,1,2,2-Tetrachloroethane	ND		ug/L	1.0	0.34	SW846 8260B		4/24/18 23:37	CJG	B
1,1,2-Trichloroethane	ND		ug/L	1.0	0.33	SW846 8260B		4/24/18 23:37	CJG	B
1,1-Dichloroethane	ND		ug/L	1.0	0.28	SW846 8260B		4/24/18 23:37	CJG	B
1,1-Dichloroethene	ND		ug/L	1.0	0.29	SW846 8260B		4/24/18 23:37	CJG	B
1,2,3-Trichlorobenzene	ND		ug/L	2.0	0.93	SW846 8260B		4/24/18 23:37	CJG	B
1,2,3-Trichloropropane	ND		ug/L	2.0	0.60	SW846 8260B		4/24/18 23:37	CJG	B
1,2,4-Trichlorobenzene	ND		ug/L	2.0	0.82	SW846 8260B		4/24/18 23:37	CJG	B
1,2,4-Trimethylbenzene	ND		ug/L	1.0	0.25	SW846 8260B		4/24/18 23:37	CJG	B
1,2-Dibromo-3-chloropropane	ND		ug/L	7.0	1.5	SW846 8260B		4/24/18 23:37	CJG	B
1,2-Dibromoethane	ND		ug/L	1.0	0.28	SW846 8260B		4/24/18 23:37	CJG	B
1,2-Dichlorobenzene	ND		ug/L	1.0	0.38	SW846 8260B		4/24/18 23:37	CJG	B
1,2-Dichloroethane	ND		ug/L	1.0	0.32	SW846 8260B		4/24/18 23:37	CJG	B
1,2-Dichloroethene, Total	ND		ug/L	2.0	0.45	SW846 8260B		4/24/18 23:37	CJG	B
1,2-Dichloropropane	ND		ug/L	1.0	0.24	SW846 8260B		4/24/18 23:37	CJG	B
1,3-Dichlorobenzene	ND		ug/L	1.0	0.25	SW846 8260B		4/24/18 23:37	CJG	B
1,3-Dichloropropane	ND		ug/L	1.0	0.27	SW846 8260B		4/24/18 23:37	CJG	B
1,3-Dichloropropene, Total	ND		ug/L	2.0	0.47	SW846 8260B		4/24/18 23:37	CJG	B
1,4-Dichlorobenzene	ND		ug/L	1.0	0.27	SW846 8260B		4/24/18 23:37	CJG	B
2,2-Dichloropropane	ND		ug/L	1.0	0.32	SW846 8260B		4/24/18 23:37	CJG	B
2-Butanone	ND		ug/L	10.0	1.8	SW846 8260B		4/24/18 23:37	CJG	B
2-Chloroethylvinyl ether	ND		ug/L	2.0	0.38	SW846 8260B		4/24/18 23:37	CJG	B
2-Hexanone	ND		ug/L	5.0	1.3	SW846 8260B		4/24/18 23:37	CJG	B
4-Methyl-2-Pentanone(MIBK)	ND		ug/L	5.0	1.5	SW846 8260B		4/24/18 23:37	CJG	B
Acetone	12.8		ug/L	10.0	3.1	SW846 8260B		4/24/18 23:37	CJG	B
Benzene	ND		ug/L	1.0	0.23	SW846 8260B		4/24/18 23:37	CJG	B
Bromobenzene	ND		ug/L	1.0	0.32	SW846 8260B		4/24/18 23:37	CJG	B
Bromochloromethane	ND		ug/L	1.0	0.32	SW846 8260B		4/24/18 23:37	CJG	B
Bromodichloromethane	ND		ug/L	1.0	0.27	SW846 8260B		4/24/18 23:37	CJG	B
Bromoform	ND		ug/L	1.0	0.40	SW846 8260B		4/24/18 23:37	CJG	B
Bromomethane	ND		ug/L	1.0	0.39	SW846 8260B		4/24/18 23:37	CJG	B
Carbon Disulfide	ND		ug/L	1.0	0.23	SW846 8260B		4/24/18 23:37	CJG	B
Carbon Tetrachloride	ND		ug/L	1.0	0.31	SW846 8260B		4/24/18 23:37	CJG	B
Chlorobenzene	ND		ug/L	1.0	0.19	SW846 8260B		4/24/18 23:37	CJG	B
Chlorodibromomethane	ND		ug/L	1.0	0.45	SW846 8260B		4/24/18 23:37	CJG	B

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ANALYTICAL RESULTS

Workorder: 2309395 LMC MRC 4/17/18

Lab ID: **2309395004** Date Collected: 4/17/2018 08:42 Matrix: Water
Sample ID: **MRC-SW9A** Date Received: 4/17/2018 22:00

Parameters	Results	Flag	Units	RDL	MDL	Method	Prepared By	Analyzed	By	*Cntr*
Chloroethane	ND		ug/L	1.0	0.33	SW846 8260B		4/24/18 23:37	CJG	B
Chloroform	ND		ug/L	1.0	0.21	SW846 8260B		4/24/18 23:37	CJG	B
Chloromethane	ND		ug/L	1.0	0.31	SW846 8260B		4/24/18 23:37	CJG	B
Cyclohexane	ND		ug/L	1.0	0.29	SW846 8260B		4/24/18 23:37	CJG	B
Dibromomethane	ND		ug/L	1.0	0.31	SW846 8260B		4/24/18 23:37	CJG	B
Dichlorodifluoromethane	ND		ug/L	1.0	0.33	SW846 8260B		4/24/18 23:37	CJG	B
Diisopropyl ether	ND		ug/L	1.0	0.25	SW846 8260B		4/24/18 23:37	CJG	B
Ethyl tert-butyl ether	ND		ug/L	1.0	0.19	SW846 8260B		4/24/18 23:37	CJG	B
Ethylbenzene	ND		ug/L	1.0	0.34	SW846 8260B		4/24/18 23:37	CJG	B
Freon 113	ND		ug/L	1.0	0.26	SW846 8260B		4/24/18 23:37	CJG	B
Hexachlorobutadiene	ND		ug/L	5.0	1.0	SW846 8260B		4/24/18 23:37	CJG	B
Isopropylbenzene	ND		ug/L	1.0	0.22	SW846 8260B		4/24/18 23:37	CJG	B
Methyl acetate	ND		ug/L	2.0	0.32	SW846 8260B		4/24/18 23:37	CJG	B
Methyl cyclohexane	ND		ug/L	1.0	0.30	SW846 8260B		4/24/18 23:37	CJG	B
Methyl t-Butyl Ether	ND		ug/L	1.0	0.33	SW846 8260B		4/24/18 23:37	CJG	B
Methylene Chloride	ND		ug/L	1.0	0.45	SW846 8260B		4/24/18 23:37	CJG	B
Naphthalene	ND		ug/L	2.0	0.34	SW846 8260B		4/24/18 23:37	CJG	B
Styrene	ND		ug/L	1.0	0.24	SW846 8260B		4/24/18 23:37	CJG	B
Tetrachloroethene	ND		ug/L	1.0	0.35	SW846 8260B		4/24/18 23:37	CJG	B
Toluene	ND		ug/L	1.0	0.23	SW846 8260B		4/24/18 23:37	CJG	B
Total Xylenes	ND		ug/L	3.0	0.66	SW846 8260B		4/24/18 23:37	CJG	B
Trichloroethene	ND		ug/L	1.0	0.33	SW846 8260B		4/24/18 23:37	CJG	B
Trichlorofluoromethane	ND		ug/L	1.0	0.24	SW846 8260B		4/24/18 23:37	CJG	B
Vinyl Acetate	ND		ug/L	5.0	1.6	SW846 8260B		4/24/18 23:37	CJG	B
Vinyl Chloride	ND		ug/L	1.0	0.30	SW846 8260B		4/24/18 23:37	CJG	B
cis-1,2-Dichloroethene	ND		ug/L	1.0	0.32	SW846 8260B		4/24/18 23:37	CJG	B
cis-1,3-Dichloropropene	ND		ug/L	1.0	0.31	SW846 8260B		4/24/18 23:37	CJG	B
mp-Xylene	ND		ug/L	2.0	0.52	SW846 8260B		4/24/18 23:37	CJG	B
n-Butylbenzene	ND		ug/L	2.0	0.60	SW846 8260B		4/24/18 23:37	CJG	B
n-Propylbenzene	ND		ug/L	1.0	0.33	SW846 8260B		4/24/18 23:37	CJG	B
o-Chlorotoluene	ND		ug/L	1.0	0.26	SW846 8260B		4/24/18 23:37	CJG	B
o-Xylene	ND		ug/L	1.0	0.33	SW846 8260B		4/24/18 23:37	CJG	B
p-Chlorotoluene	ND		ug/L	1.0	0.33	SW846 8260B		4/24/18 23:37	CJG	B
p-Isopropyltoluene	ND		ug/L	1.0	0.32	SW846 8260B		4/24/18 23:37	CJG	B
sec-Butylbenzene	ND		ug/L	1.0	0.31	SW846 8260B		4/24/18 23:37	CJG	B
tert-Amyl methyl ether	ND		ug/L	1.0	0.20	SW846 8260B		4/24/18 23:37	CJG	B
tert-Butyl Alcohol	ND		ug/L	10.0	2.2	SW846 8260B		4/24/18 23:37	CJG	B
tert-Butylbenzene	ND		ug/L	2.0	0.44	SW846 8260B		4/24/18 23:37	CJG	B

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ANALYTICAL RESULTS

Workorder: 2309395 LMC MRC 4/17/18

Lab ID: **2309395004** Date Collected: 4/17/2018 08:42 Matrix: Water
Sample ID: **MRC-SW9A** Date Received: 4/17/2018 22:00

Parameters	Results	Flag	Units	RDL	MDL	Method	Prepared	By	Analyzed	By	Cntr
trans-1,2-Dichloroethene	ND		ug/L	1.0	0.26	SW846 8260B			4/24/18 23:37	CJG	B
trans-1,3-Dichloropropene	ND		ug/L	1.0	0.29	SW846 8260B			4/24/18 23:37	CJG	B
Surrogate Recoveries	*Results*	*Flag*	*Units*	*Limits*		*Method*	*Prepared*	*By*	*Analyzed*	*By*	*Cntr*
1,2-Dichloroethane-d4 (S)	117		%	62 - 133		SW846 8260B			4/24/18 23:37	CJG	B
4-Bromofluorobenzene (S)	92.5		%	79 - 114		SW846 8260B			4/24/18 23:37	CJG	B
Dibromofluoromethane (S)	97.2		%	78 - 116		SW846 8260B			4/24/18 23:37	CJG	B
Toluene-d8 (S)	95.7		%	76 - 127		SW846 8260B			4/24/18 23:37	CJG	B
SUBCONTRACTED ANALYSIS											
Subcontracted Analysis	See attached.					Subcontract			4/26/18 23:08	SUB	C

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ANALYTICAL RESULTS

Workorder: 2309395 LMC MRC 4/17/18

Lab ID: **2309395005** Date Collected: 4/17/2018 22:00 Matrix: Water
Sample ID: **TB-041718-1** Date Received: 4/17/2018 22:00

Parameters	Results	Flag	Units	RDL	MDL	Method	Prepared By	Analyzed	By	*Cntr*
VOLATILE ORGANICS										
1,1,1,2-Tetrachloroethane	ND		ug/L	1.0	0.35	SW846 8260B		4/25/18 00:00	CJG	B
1,1,1-Trichloroethane	ND		ug/L	1.0	0.22	SW846 8260B		4/25/18 00:00	CJG	B
1,1,2,2-Tetrachloroethane	ND		ug/L	1.0	0.34	SW846 8260B		4/25/18 00:00	CJG	B
1,1,2-Trichloroethane	ND		ug/L	1.0	0.33	SW846 8260B		4/25/18 00:00	CJG	B
1,1-Dichloroethane	ND		ug/L	1.0	0.28	SW846 8260B		4/25/18 00:00	CJG	B
1,1-Dichloroethene	ND		ug/L	1.0	0.29	SW846 8260B		4/25/18 00:00	CJG	B
1,2,3-Trichlorobenzene	ND		ug/L	2.0	0.93	SW846 8260B		4/25/18 00:00	CJG	B
1,2,3-Trichloropropane	ND		ug/L	2.0	0.60	SW846 8260B		4/25/18 00:00	CJG	B
1,2,4-Trichlorobenzene	ND		ug/L	2.0	0.82	SW846 8260B		4/25/18 00:00	CJG	B
1,2,4-Trimethylbenzene	ND		ug/L	1.0	0.25	SW846 8260B		4/25/18 00:00	CJG	B
1,2-Dibromo-3-chloropropane	ND		ug/L	7.0	1.5	SW846 8260B		4/25/18 00:00	CJG	B
1,2-Dibromoethane	ND		ug/L	1.0	0.28	SW846 8260B		4/25/18 00:00	CJG	B
1,2-Dichlorobenzene	ND		ug/L	1.0	0.38	SW846 8260B		4/25/18 00:00	CJG	B
1,2-Dichloroethane	ND		ug/L	1.0	0.32	SW846 8260B		4/25/18 00:00	CJG	B
1,2-Dichloroethene, Total	ND		ug/L	2.0	0.45	SW846 8260B		4/25/18 00:00	CJG	B
1,2-Dichloropropane	ND		ug/L	1.0	0.24	SW846 8260B		4/25/18 00:00	CJG	B
1,3-Dichlorobenzene	ND		ug/L	1.0	0.25	SW846 8260B		4/25/18 00:00	CJG	B
1,3-Dichloropropane	ND		ug/L	1.0	0.27	SW846 8260B		4/25/18 00:00	CJG	B
1,3-Dichloropropene, Total	ND		ug/L	2.0	0.47	SW846 8260B		4/25/18 00:00	CJG	B
1,4-Dichlorobenzene	ND		ug/L	1.0	0.27	SW846 8260B		4/25/18 00:00	CJG	B
2,2-Dichloropropane	ND		ug/L	1.0	0.32	SW846 8260B		4/25/18 00:00	CJG	B
2-Butanone	ND		ug/L	10.0	1.8	SW846 8260B		4/25/18 00:00	CJG	B
2-Chloroethylvinyl ether	ND		ug/L	2.0	0.38	SW846 8260B		4/25/18 00:00	CJG	B
2-Hexanone	ND		ug/L	5.0	1.3	SW846 8260B		4/25/18 00:00	CJG	B
4-Methyl-2-Pentanone(MIBK)	ND		ug/L	5.0	1.5	SW846 8260B		4/25/18 00:00	CJG	B
Acetone	13.0		ug/L	10.0	3.1	SW846 8260B		4/25/18 00:00	CJG	B
Benzene	ND		ug/L	1.0	0.23	SW846 8260B		4/25/18 00:00	CJG	B
Bromobenzene	ND		ug/L	1.0	0.32	SW846 8260B		4/25/18 00:00	CJG	B
Bromochloromethane	ND		ug/L	1.0	0.32	SW846 8260B		4/25/18 00:00	CJG	B
Bromodichloromethane	ND		ug/L	1.0	0.27	SW846 8260B		4/25/18 00:00	CJG	B
Bromoform	ND		ug/L	1.0	0.40	SW846 8260B		4/25/18 00:00	CJG	B
Bromomethane	ND		ug/L	1.0	0.39	SW846 8260B		4/25/18 00:00	CJG	B
Carbon Disulfide	ND		ug/L	1.0	0.23	SW846 8260B		4/25/18 00:00	CJG	B
Carbon Tetrachloride	ND		ug/L	1.0	0.31	SW846 8260B		4/25/18 00:00	CJG	B
Chlorobenzene	ND		ug/L	1.0	0.19	SW846 8260B		4/25/18 00:00	CJG	B
Chlorodibromomethane	ND		ug/L	1.0	0.45	SW846 8260B		4/25/18 00:00	CJG	B

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State Certifications: DE ID 11 , MA PA0102 , MD 128 , VA 460157 , WV 343

ANALYTICAL RESULTS

Workorder: 2309395 LMC MRC 4/17/18

Lab ID: **2309395005** Date Collected: 4/17/2018 22:00 Matrix: Water
Sample ID: **TB-041718-1** Date Received: 4/17/2018 22:00

Parameters	Results	Flag	Units	RDL	MDL	Method	Prepared By	Analyzed	By	*Cntr*
Chloroethane	ND		ug/L	1.0	0.33	SW846 8260B		4/25/18 00:00	CJG	B
Chloroform	ND		ug/L	1.0	0.21	SW846 8260B		4/25/18 00:00	CJG	B
Chloromethane	ND		ug/L	1.0	0.31	SW846 8260B		4/25/18 00:00	CJG	B
Cyclohexane	ND		ug/L	1.0	0.29	SW846 8260B		4/25/18 00:00	CJG	B
Dibromomethane	ND		ug/L	1.0	0.31	SW846 8260B		4/25/18 00:00	CJG	B
Dichlorodifluoromethane	ND		ug/L	1.0	0.33	SW846 8260B		4/25/18 00:00	CJG	B
Diisopropyl ether	ND		ug/L	1.0	0.25	SW846 8260B		4/25/18 00:00	CJG	B
Ethyl tert-butyl ether	ND		ug/L	1.0	0.19	SW846 8260B		4/25/18 00:00	CJG	B
Ethylbenzene	ND		ug/L	1.0	0.34	SW846 8260B		4/25/18 00:00	CJG	B
Freon 113	ND		ug/L	1.0	0.26	SW846 8260B		4/25/18 00:00	CJG	B
Hexachlorobutadiene	ND		ug/L	5.0	1.0	SW846 8260B		4/25/18 00:00	CJG	B
Isopropylbenzene	ND		ug/L	1.0	0.22	SW846 8260B		4/25/18 00:00	CJG	B
Methyl acetate	ND		ug/L	2.0	0.32	SW846 8260B		4/25/18 00:00	CJG	B
Methyl cyclohexane	ND		ug/L	1.0	0.30	SW846 8260B		4/25/18 00:00	CJG	B
Methyl t-Butyl Ether	ND		ug/L	1.0	0.33	SW846 8260B		4/25/18 00:00	CJG	B
Methylene Chloride	ND		ug/L	1.0	0.45	SW846 8260B		4/25/18 00:00	CJG	B
Naphthalene	ND		ug/L	2.0	0.34	SW846 8260B		4/25/18 00:00	CJG	B
Styrene	ND		ug/L	1.0	0.24	SW846 8260B		4/25/18 00:00	CJG	B
Tetrachloroethene	ND		ug/L	1.0	0.35	SW846 8260B		4/25/18 00:00	CJG	B
Toluene	ND		ug/L	1.0	0.23	SW846 8260B		4/25/18 00:00	CJG	B
Total Xylenes	ND		ug/L	3.0	0.66	SW846 8260B		4/25/18 00:00	CJG	B
Trichloroethene	ND		ug/L	1.0	0.33	SW846 8260B		4/25/18 00:00	CJG	B
Trichlorofluoromethane	ND		ug/L	1.0	0.24	SW846 8260B		4/25/18 00:00	CJG	B
Vinyl Acetate	ND		ug/L	5.0	1.6	SW846 8260B		4/25/18 00:00	CJG	B
Vinyl Chloride	ND		ug/L	1.0	0.30	SW846 8260B		4/25/18 00:00	CJG	B
cis-1,2-Dichloroethene	ND		ug/L	1.0	0.32	SW846 8260B		4/25/18 00:00	CJG	B
cis-1,3-Dichloropropene	ND		ug/L	1.0	0.31	SW846 8260B		4/25/18 00:00	CJG	B
mp-Xylene	ND		ug/L	2.0	0.52	SW846 8260B		4/25/18 00:00	CJG	B
n-Butylbenzene	ND		ug/L	2.0	0.60	SW846 8260B		4/25/18 00:00	CJG	B
n-Propylbenzene	ND		ug/L	1.0	0.33	SW846 8260B		4/25/18 00:00	CJG	B
o-Chlorotoluene	ND		ug/L	1.0	0.26	SW846 8260B		4/25/18 00:00	CJG	B
o-Xylene	ND		ug/L	1.0	0.33	SW846 8260B		4/25/18 00:00	CJG	B
p-Chlorotoluene	ND		ug/L	1.0	0.33	SW846 8260B		4/25/18 00:00	CJG	B
p-Isopropyltoluene	ND		ug/L	1.0	0.32	SW846 8260B		4/25/18 00:00	CJG	B
sec-Butylbenzene	ND		ug/L	1.0	0.31	SW846 8260B		4/25/18 00:00	CJG	B
tert-Amyl methyl ether	ND		ug/L	1.0	0.20	SW846 8260B		4/25/18 00:00	CJG	B
tert-Butyl Alcohol	ND		ug/L	10.0	2.2	SW846 8260B		4/25/18 00:00	CJG	B
tert-Butylbenzene	ND		ug/L	2.0	0.44	SW846 8260B		4/25/18 00:00	CJG	B

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State Certifications: DE ID 11 , MA PA0102 , MD 128 , VA 460157 , WV 343

ANALYTICAL RESULTS

Workorder: 2309395 LMC MRC 4/17/18

Lab ID: **2309395005** Date Collected: 4/17/2018 22:00 Matrix: Water
Sample ID: **TB-041718-1** Date Received: 4/17/2018 22:00

Parameters	Results	Flag	Units	RDL	MDL	Method	Prepared	By	Analyzed	By	*Cntr*
trans-1,2-Dichloroethene	ND		ug/L	1.0	0.26	SW846 8260B			4/25/18 00:00	CJG	B
trans-1,3-Dichloropropene	ND		ug/L	1.0	0.29	SW846 8260B			4/25/18 00:00	CJG	B
Surrogate Recoveries	*Results*	*Flag*	*Units*	*Limits*		*Method*	*Prepared*	*By*	*Analyzed*	*By*	*Cntr*
1,2-Dichloroethane-d4 (S)	117		%	62 - 133		SW846 8260B			4/25/18 00:00	CJG	B
4-Bromofluorobenzene (S)	93.2		%	79 - 114		SW846 8260B			4/25/18 00:00	CJG	B
Dibromofluoromethane (S)	98.4		%	78 - 116		SW846 8260B			4/25/18 00:00	CJG	B
Toluene-d8 (S)	94.1		%	76 - 127		SW846 8260B			4/25/18 00:00	CJG	B

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ANALYTICAL RESULTS

Workorder: 2309395 LMC MRC 4/17/18

Lab ID: **2309395006** Date Collected: 4/17/2018 09:24 Matrix: Water
Sample ID: **MRC-SW5A2** Date Received: 4/17/2018 22:00

Parameters	Results	Flag	Units	RDL	MDL	Method	Prepared By	Analyzed	By	*Cntr*
VOLATILE ORGANICS										
1,1,1,2-Tetrachloroethane	ND		ug/L	1.0	0.35	SW846 8260B		4/25/18 00:23	CJG	
1,1,1-Trichloroethane	ND		ug/L	1.0	0.22	SW846 8260B		4/25/18 00:23	CJG	
1,1,2,2-Tetrachloroethane	ND		ug/L	1.0	0.34	SW846 8260B		4/25/18 00:23	CJG	
1,1,2-Trichloroethane	ND		ug/L	1.0	0.33	SW846 8260B		4/25/18 00:23	CJG	
1,1-Dichloroethane	ND		ug/L	1.0	0.28	SW846 8260B		4/25/18 00:23	CJG	
1,1-Dichloroethene	ND		ug/L	1.0	0.29	SW846 8260B		4/25/18 00:23	CJG	
1,2,3-Trichlorobenzene	ND		ug/L	2.0	0.93	SW846 8260B		4/25/18 00:23	CJG	
1,2,3-Trichloropropane	ND		ug/L	2.0	0.60	SW846 8260B		4/25/18 00:23	CJG	
1,2,4-Trichlorobenzene	ND		ug/L	2.0	0.82	SW846 8260B		4/25/18 00:23	CJG	
1,2,4-Trimethylbenzene	ND		ug/L	1.0	0.25	SW846 8260B		4/25/18 00:23	CJG	
1,2-Dibromo-3-chloropropane	ND		ug/L	7.0	1.5	SW846 8260B		4/25/18 00:23	CJG	
1,2-Dibromoethane	ND		ug/L	1.0	0.28	SW846 8260B		4/25/18 00:23	CJG	
1,2-Dichlorobenzene	ND		ug/L	1.0	0.38	SW846 8260B		4/25/18 00:23	CJG	
1,2-Dichloroethane	ND		ug/L	1.0	0.32	SW846 8260B		4/25/18 00:23	CJG	
1,2-Dichloroethene, Total	ND		ug/L	2.0	0.45	SW846 8260B		4/25/18 00:23	CJG	
1,2-Dichloropropane	ND		ug/L	1.0	0.24	SW846 8260B		4/25/18 00:23	CJG	
1,3-Dichlorobenzene	ND		ug/L	1.0	0.25	SW846 8260B		4/25/18 00:23	CJG	
1,3-Dichloropropane	ND		ug/L	1.0	0.27	SW846 8260B		4/25/18 00:23	CJG	
1,3-Dichloropropene, Total	ND		ug/L	2.0	0.47	SW846 8260B		4/25/18 00:23	CJG	
1,4-Dichlorobenzene	ND		ug/L	1.0	0.27	SW846 8260B		4/25/18 00:23	CJG	
2,2-Dichloropropane	ND		ug/L	1.0	0.32	SW846 8260B		4/25/18 00:23	CJG	
2-Butanone	ND		ug/L	10.0	1.8	SW846 8260B		4/25/18 00:23	CJG	
2-Chloroethylvinyl ether	ND		ug/L	2.0	0.38	SW846 8260B		4/25/18 00:23	CJG	
2-Hexanone	ND		ug/L	5.0	1.3	SW846 8260B		4/25/18 00:23	CJG	
4-Methyl-2-Pentanone(MIBK)	ND		ug/L	5.0	1.5	SW846 8260B		4/25/18 00:23	CJG	
Acetone	ND		ug/L	10.0	3.1	SW846 8260B		4/25/18 00:23	CJG	
Benzene	ND		ug/L	1.0	0.23	SW846 8260B		4/25/18 00:23	CJG	
Bromobenzene	ND		ug/L	1.0	0.32	SW846 8260B		4/25/18 00:23	CJG	
Bromochloromethane	ND		ug/L	1.0	0.32	SW846 8260B		4/25/18 00:23	CJG	
Bromodichloromethane	ND		ug/L	1.0	0.27	SW846 8260B		4/25/18 00:23	CJG	
Bromoform	ND		ug/L	1.0	0.40	SW846 8260B		4/25/18 00:23	CJG	
Bromomethane	ND		ug/L	1.0	0.39	SW846 8260B		4/25/18 00:23	CJG	
Carbon Disulfide	ND		ug/L	1.0	0.23	SW846 8260B		4/25/18 00:23	CJG	
Carbon Tetrachloride	ND		ug/L	1.0	0.31	SW846 8260B		4/25/18 00:23	CJG	
Chlorobenzene	ND		ug/L	1.0	0.19	SW846 8260B		4/25/18 00:23	CJG	
Chlorodibromomethane	ND		ug/L	1.0	0.45	SW846 8260B		4/25/18 00:23	CJG	

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ANALYTICAL RESULTS

Workorder: 2309395 LMC MRC 4/17/18

Lab ID: **2309395006** Date Collected: 4/17/2018 09:24 Matrix: Water
Sample ID: **MRC-SW5A2** Date Received: 4/17/2018 22:00

Parameters	Results	Flag	Units	RDL	MDL	Method	Prepared By	Analyzed	By	*Cntr*
Chloroethane	ND		ug/L	1.0	0.33	SW846 8260B		4/25/18 00:23	CJG	
Chloroform	ND		ug/L	1.0	0.21	SW846 8260B		4/25/18 00:23	CJG	
Chloromethane	ND		ug/L	1.0	0.31	SW846 8260B		4/25/18 00:23	CJG	
Cyclohexane	ND		ug/L	1.0	0.29	SW846 8260B		4/25/18 00:23	CJG	
Dibromomethane	ND		ug/L	1.0	0.31	SW846 8260B		4/25/18 00:23	CJG	
Dichlorodifluoromethane	ND		ug/L	1.0	0.33	SW846 8260B		4/25/18 00:23	CJG	
Diisopropyl ether	ND		ug/L	1.0	0.25	SW846 8260B		4/25/18 00:23	CJG	
Ethyl tert-butyl ether	ND		ug/L	1.0	0.19	SW846 8260B		4/25/18 00:23	CJG	
Ethylbenzene	ND		ug/L	1.0	0.34	SW846 8260B		4/25/18 00:23	CJG	
Freon 113	ND		ug/L	1.0	0.26	SW846 8260B		4/25/18 00:23	CJG	
Hexachlorobutadiene	ND		ug/L	5.0	1.0	SW846 8260B		4/25/18 00:23	CJG	
Isopropylbenzene	ND		ug/L	1.0	0.22	SW846 8260B		4/25/18 00:23	CJG	
Methyl acetate	ND		ug/L	2.0	0.32	SW846 8260B		4/25/18 00:23	CJG	
Methyl cyclohexane	ND		ug/L	1.0	0.30	SW846 8260B		4/25/18 00:23	CJG	
Methyl t-Butyl Ether	ND		ug/L	1.0	0.33	SW846 8260B		4/25/18 00:23	CJG	
Methylene Chloride	ND		ug/L	1.0	0.45	SW846 8260B		4/25/18 00:23	CJG	
Naphthalene	ND		ug/L	2.0	0.34	SW846 8260B		4/25/18 00:23	CJG	
Styrene	ND		ug/L	1.0	0.24	SW846 8260B		4/25/18 00:23	CJG	
Tetrachloroethene	ND		ug/L	1.0	0.35	SW846 8260B		4/25/18 00:23	CJG	
Toluene	ND		ug/L	1.0	0.23	SW846 8260B		4/25/18 00:23	CJG	
Total Xylenes	ND		ug/L	3.0	0.66	SW846 8260B		4/25/18 00:23	CJG	
Trichloroethene	ND		ug/L	1.0	0.33	SW846 8260B		4/25/18 00:23	CJG	
Trichlorofluoromethane	ND		ug/L	1.0	0.24	SW846 8260B		4/25/18 00:23	CJG	
Vinyl Acetate	ND		ug/L	5.0	1.6	SW846 8260B		4/25/18 00:23	CJG	
Vinyl Chloride	ND		ug/L	1.0	0.30	SW846 8260B		4/25/18 00:23	CJG	
cis-1,2-Dichloroethene	ND		ug/L	1.0	0.32	SW846 8260B		4/25/18 00:23	CJG	
cis-1,3-Dichloropropene	ND		ug/L	1.0	0.31	SW846 8260B		4/25/18 00:23	CJG	
mp-Xylene	ND		ug/L	2.0	0.52	SW846 8260B		4/25/18 00:23	CJG	
n-Butylbenzene	ND		ug/L	2.0	0.60	SW846 8260B		4/25/18 00:23	CJG	
n-Propylbenzene	ND		ug/L	1.0	0.33	SW846 8260B		4/25/18 00:23	CJG	
o-Chlorotoluene	ND		ug/L	1.0	0.26	SW846 8260B		4/25/18 00:23	CJG	
o-Xylene	ND		ug/L	1.0	0.33	SW846 8260B		4/25/18 00:23	CJG	
p-Chlorotoluene	ND		ug/L	1.0	0.33	SW846 8260B		4/25/18 00:23	CJG	
p-Isopropyltoluene	ND		ug/L	1.0	0.32	SW846 8260B		4/25/18 00:23	CJG	
sec-Butylbenzene	ND		ug/L	1.0	0.31	SW846 8260B		4/25/18 00:23	CJG	
tert-Amyl methyl ether	ND		ug/L	1.0	0.20	SW846 8260B		4/25/18 00:23	CJG	
tert-Butyl Alcohol	ND		ug/L	10.0	2.2	SW846 8260B		4/25/18 00:23	CJG	
tert-Butylbenzene	ND		ug/L	2.0	0.44	SW846 8260B		4/25/18 00:23	CJG	

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ANALYTICAL RESULTS

Workorder: 2309395 LMC MRC 4/17/18

Lab ID: **2309395006** Date Collected: 4/17/2018 09:24 Matrix: Water
Sample ID: **MRC-SW5A2** Date Received: 4/17/2018 22:00

Parameters	Results	Flag	Units	RDL	MDL	Method	Prepared	By	Analyzed	By	*Cntr*
trans-1,2-Dichloroethene	ND		ug/L	1.0	0.26	SW846 8260B			4/25/18 00:23	CJG	
trans-1,3-Dichloropropene	ND		ug/L	1.0	0.29	SW846 8260B			4/25/18 00:23	CJG	
Surrogate Recoveries	*Results*	*Flag*	*Units*	*Limits*		*Method*	*Prepared*	*By*	*Analyzed*	*By*	*Cntr*
1,2-Dichloroethane-d4 (S)	118		%	62 - 133		SW846 8260B			4/25/18 00:23	CJG	
4-Bromofluorobenzene (S)	95		%	79 - 114		SW846 8260B			4/25/18 00:23	CJG	
Dibromofluoromethane (S)	98.8		%	78 - 116		SW846 8260B			4/25/18 00:23	CJG	
Toluene-d8 (S)	98		%	76 - 127		SW846 8260B			4/25/18 00:23	CJG	
SUBCONTRACTED ANALYSIS											
Subcontracted Analysis	See attached.					Subcontract			4/30/18 11:06	SUB	C

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ANALYTICAL RESULTS

Workorder: 2309395 LMC MRC 4/17/18

Lab ID: **2309395007** Date Collected: 4/17/2018 09:40 Matrix: Water
Sample ID: **MRC-SW5B** Date Received: 4/17/2018 22:00

Parameters	Results	Flag	Units	RDL	MDL	Method	Prepared By	Analyzed	By	*Cntr*
VOLATILE ORGANICS										
1,1,1,2-Tetrachloroethane	ND		ug/L	1.0	0.35	SW846 8260B		4/25/18 00:46	CJG	B
1,1,1-Trichloroethane	ND		ug/L	1.0	0.22	SW846 8260B		4/25/18 00:46	CJG	B
1,1,2,2-Tetrachloroethane	ND		ug/L	1.0	0.34	SW846 8260B		4/25/18 00:46	CJG	B
1,1,2-Trichloroethane	ND		ug/L	1.0	0.33	SW846 8260B		4/25/18 00:46	CJG	B
1,1-Dichloroethane	ND		ug/L	1.0	0.28	SW846 8260B		4/25/18 00:46	CJG	B
1,1-Dichloroethene	ND		ug/L	1.0	0.29	SW846 8260B		4/25/18 00:46	CJG	B
1,2,3-Trichlorobenzene	ND		ug/L	2.0	0.93	SW846 8260B		4/25/18 00:46	CJG	B
1,2,3-Trichloropropane	ND		ug/L	2.0	0.60	SW846 8260B		4/25/18 00:46	CJG	B
1,2,4-Trichlorobenzene	ND		ug/L	2.0	0.82	SW846 8260B		4/25/18 00:46	CJG	B
1,2,4-Trimethylbenzene	ND		ug/L	1.0	0.25	SW846 8260B		4/25/18 00:46	CJG	B
1,2-Dibromo-3-chloropropane	ND		ug/L	7.0	1.5	SW846 8260B		4/25/18 00:46	CJG	B
1,2-Dibromoethane	ND		ug/L	1.0	0.28	SW846 8260B		4/25/18 00:46	CJG	B
1,2-Dichlorobenzene	ND		ug/L	1.0	0.38	SW846 8260B		4/25/18 00:46	CJG	B
1,2-Dichloroethane	ND		ug/L	1.0	0.32	SW846 8260B		4/25/18 00:46	CJG	B
1,2-Dichloroethene, Total	ND		ug/L	2.0	0.45	SW846 8260B		4/25/18 00:46	CJG	B
1,2-Dichloropropane	ND		ug/L	1.0	0.24	SW846 8260B		4/25/18 00:46	CJG	B
1,3-Dichlorobenzene	ND		ug/L	1.0	0.25	SW846 8260B		4/25/18 00:46	CJG	B
1,3-Dichloropropane	ND		ug/L	1.0	0.27	SW846 8260B		4/25/18 00:46	CJG	B
1,3-Dichloropropene, Total	ND		ug/L	2.0	0.47	SW846 8260B		4/25/18 00:46	CJG	B
1,4-Dichlorobenzene	ND		ug/L	1.0	0.27	SW846 8260B		4/25/18 00:46	CJG	B
2,2-Dichloropropane	ND		ug/L	1.0	0.32	SW846 8260B		4/25/18 00:46	CJG	B
2-Butanone	ND		ug/L	10.0	1.8	SW846 8260B		4/25/18 00:46	CJG	B
2-Chloroethylvinyl ether	ND		ug/L	2.0	0.38	SW846 8260B		4/25/18 00:46	CJG	B
2-Hexanone	ND		ug/L	5.0	1.3	SW846 8260B		4/25/18 00:46	CJG	B
4-Methyl-2-Pentanone(MIBK)	ND		ug/L	5.0	1.5	SW846 8260B		4/25/18 00:46	CJG	B
Acetone	8.3J	J	ug/L	10.0	3.1	SW846 8260B		4/25/18 00:46	CJG	B
Benzene	ND		ug/L	1.0	0.23	SW846 8260B		4/25/18 00:46	CJG	B
Bromobenzene	ND		ug/L	1.0	0.32	SW846 8260B		4/25/18 00:46	CJG	B
Bromochloromethane	ND		ug/L	1.0	0.32	SW846 8260B		4/25/18 00:46	CJG	B
Bromodichloromethane	ND		ug/L	1.0	0.27	SW846 8260B		4/25/18 00:46	CJG	B
Bromoform	ND		ug/L	1.0	0.40	SW846 8260B		4/25/18 00:46	CJG	B
Bromomethane	ND		ug/L	1.0	0.39	SW846 8260B		4/25/18 00:46	CJG	B
Carbon Disulfide	ND		ug/L	1.0	0.23	SW846 8260B		4/25/18 00:46	CJG	B
Carbon Tetrachloride	ND		ug/L	1.0	0.31	SW846 8260B		4/25/18 00:46	CJG	B
Chlorobenzene	ND		ug/L	1.0	0.19	SW846 8260B		4/25/18 00:46	CJG	B
Chlorodibromomethane	ND		ug/L	1.0	0.45	SW846 8260B		4/25/18 00:46	CJG	B

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State Certifications: DE ID 11 , MA PA0102 , MD 128 , VA 460157 , WV 343

ANALYTICAL RESULTS

Workorder: 2309395 LMC MRC 4/17/18

Lab ID: **2309395007** Date Collected: 4/17/2018 09:40 Matrix: Water
Sample ID: **MRC-SW5B** Date Received: 4/17/2018 22:00

Parameters	Results	Flag	Units	RDL	MDL	Method	Prepared By	Analyzed	By	*Cntr*
Chloroethane	ND		ug/L	1.0	0.33	SW846 8260B		4/25/18 00:46	CJG	B
Chloroform	ND		ug/L	1.0	0.21	SW846 8260B		4/25/18 00:46	CJG	B
Chloromethane	ND		ug/L	1.0	0.31	SW846 8260B		4/25/18 00:46	CJG	B
Cyclohexane	ND		ug/L	1.0	0.29	SW846 8260B		4/25/18 00:46	CJG	B
Dibromomethane	ND		ug/L	1.0	0.31	SW846 8260B		4/25/18 00:46	CJG	B
Dichlorodifluoromethane	ND		ug/L	1.0	0.33	SW846 8260B		4/25/18 00:46	CJG	B
Diisopropyl ether	ND		ug/L	1.0	0.25	SW846 8260B		4/25/18 00:46	CJG	B
Ethyl tert-butyl ether	ND		ug/L	1.0	0.19	SW846 8260B		4/25/18 00:46	CJG	B
Ethylbenzene	ND		ug/L	1.0	0.34	SW846 8260B		4/25/18 00:46	CJG	B
Freon 113	ND		ug/L	1.0	0.26	SW846 8260B		4/25/18 00:46	CJG	B
Hexachlorobutadiene	ND		ug/L	5.0	1.0	SW846 8260B		4/25/18 00:46	CJG	B
Isopropylbenzene	ND		ug/L	1.0	0.22	SW846 8260B		4/25/18 00:46	CJG	B
Methyl acetate	ND		ug/L	2.0	0.32	SW846 8260B		4/25/18 00:46	CJG	B
Methyl cyclohexane	ND		ug/L	1.0	0.30	SW846 8260B		4/25/18 00:46	CJG	B
Methyl t-Butyl Ether	ND		ug/L	1.0	0.33	SW846 8260B		4/25/18 00:46	CJG	B
Methylene Chloride	ND		ug/L	1.0	0.45	SW846 8260B		4/25/18 00:46	CJG	B
Naphthalene	ND		ug/L	2.0	0.34	SW846 8260B		4/25/18 00:46	CJG	B
Styrene	ND		ug/L	1.0	0.24	SW846 8260B		4/25/18 00:46	CJG	B
Tetrachloroethene	ND		ug/L	1.0	0.35	SW846 8260B		4/25/18 00:46	CJG	B
Toluene	ND		ug/L	1.0	0.23	SW846 8260B		4/25/18 00:46	CJG	B
Total Xylenes	ND		ug/L	3.0	0.66	SW846 8260B		4/25/18 00:46	CJG	B
Trichloroethene	ND		ug/L	1.0	0.33	SW846 8260B		4/25/18 00:46	CJG	B
Trichlorofluoromethane	ND		ug/L	1.0	0.24	SW846 8260B		4/25/18 00:46	CJG	B
Vinyl Acetate	ND		ug/L	5.0	1.6	SW846 8260B		4/25/18 00:46	CJG	B
Vinyl Chloride	ND		ug/L	1.0	0.30	SW846 8260B		4/25/18 00:46	CJG	B
cis-1,2-Dichloroethene	ND		ug/L	1.0	0.32	SW846 8260B		4/25/18 00:46	CJG	B
cis-1,3-Dichloropropene	ND		ug/L	1.0	0.31	SW846 8260B		4/25/18 00:46	CJG	B
mp-Xylene	ND		ug/L	2.0	0.52	SW846 8260B		4/25/18 00:46	CJG	B
n-Butylbenzene	ND		ug/L	2.0	0.60	SW846 8260B		4/25/18 00:46	CJG	B
n-Propylbenzene	ND		ug/L	1.0	0.33	SW846 8260B		4/25/18 00:46	CJG	B
o-Chlorotoluene	ND		ug/L	1.0	0.26	SW846 8260B		4/25/18 00:46	CJG	B
o-Xylene	ND		ug/L	1.0	0.33	SW846 8260B		4/25/18 00:46	CJG	B
p-Chlorotoluene	ND		ug/L	1.0	0.33	SW846 8260B		4/25/18 00:46	CJG	B
p-Isopropyltoluene	ND		ug/L	1.0	0.32	SW846 8260B		4/25/18 00:46	CJG	B
sec-Butylbenzene	ND		ug/L	1.0	0.31	SW846 8260B		4/25/18 00:46	CJG	B
tert-Amyl methyl ether	ND		ug/L	1.0	0.20	SW846 8260B		4/25/18 00:46	CJG	B
tert-Butyl Alcohol	ND		ug/L	10.0	2.2	SW846 8260B		4/25/18 00:46	CJG	B
tert-Butylbenzene	ND		ug/L	2.0	0.44	SW846 8260B		4/25/18 00:46	CJG	B

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State Certifications: DE ID 11 , MA PA0102 , MD 128 , VA 460157 , WV 343

ANALYTICAL RESULTS

Workorder: 2309395 LMC MRC 4/17/18

Lab ID: **2309395007** Date Collected: 4/17/2018 09:40 Matrix: Water
Sample ID: **MRC-SW5B** Date Received: 4/17/2018 22:00

Parameters	Results	Flag	Units	RDL	MDL	Method	Prepared	By	Analyzed	By	Cntr
trans-1,2-Dichloroethene	ND		ug/L	1.0	0.26	SW846 8260B			4/25/18 00:46	CJG	B
trans-1,3-Dichloropropene	ND		ug/L	1.0	0.29	SW846 8260B			4/25/18 00:46	CJG	B
Surrogate Recoveries	*Results*	*Flag*	*Units*	*Limits*		*Method*	*Prepared*	*By*	*Analyzed*	*By*	*Cntr*
1,2-Dichloroethane-d4 (S)	115		%	62 - 133		SW846 8260B			4/25/18 00:46	CJG	B
4-Bromofluorobenzene (S)	92		%	79 - 114		SW846 8260B			4/25/18 00:46	CJG	B
Dibromofluoromethane (S)	96		%	78 - 116		SW846 8260B			4/25/18 00:46	CJG	B
Toluene-d8 (S)	95.3		%	76 - 127		SW846 8260B			4/25/18 00:46	CJG	B
SUBCONTRACTED ANALYSIS											
Subcontracted Analysis	See attached.					Subcontract			4/27/18 00:06	SUB	E

Vanessa N. Badman
Mrs. Vanessa N Badman
Project Coordinator

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ANALYTICAL RESULTS

Workorder: 2309395 LMC MRC 4/17/18

Lab ID: **2309395008** Date Collected: 4/17/2018 08:04 Matrix: Water
Sample ID: **MRC-SW7A** Date Received: 4/17/2018 22:00

Parameters	Results	Flag	Units	RDL	MDL	Method	Prepared By	Analyzed	By	Cntr
VOLATILE ORGANICS										
1,1,1,2-Tetrachloroethane	ND		ug/L	1.0	0.35	SW846 8260B		4/25/18 01:09	CJG	B
1,1,1-Trichloroethane	ND		ug/L	1.0	0.22	SW846 8260B		4/25/18 01:09	CJG	B
1,1,2,2-Tetrachloroethane	ND		ug/L	1.0	0.34	SW846 8260B		4/25/18 01:09	CJG	B
1,1,2-Trichloroethane	ND		ug/L	1.0	0.33	SW846 8260B		4/25/18 01:09	CJG	B
1,1-Dichloroethane	ND		ug/L	1.0	0.28	SW846 8260B		4/25/18 01:09	CJG	B
1,1-Dichloroethene	ND		ug/L	1.0	0.29	SW846 8260B		4/25/18 01:09	CJG	B
1,2,3-Trichlorobenzene	ND		ug/L	2.0	0.93	SW846 8260B		4/25/18 01:09	CJG	B
1,2,3-Trichloropropane	ND		ug/L	2.0	0.60	SW846 8260B		4/25/18 01:09	CJG	B
1,2,4-Trichlorobenzene	ND		ug/L	2.0	0.82	SW846 8260B		4/25/18 01:09	CJG	B
1,2,4-Trimethylbenzene	ND		ug/L	1.0	0.25	SW846 8260B		4/25/18 01:09	CJG	B
1,2-Dibromo-3-chloropropane	ND		ug/L	7.0	1.5	SW846 8260B		4/25/18 01:09	CJG	B
1,2-Dibromoethane	ND		ug/L	1.0	0.28	SW846 8260B		4/25/18 01:09	CJG	B
1,2-Dichlorobenzene	ND		ug/L	1.0	0.38	SW846 8260B		4/25/18 01:09	CJG	B
1,2-Dichloroethane	ND		ug/L	1.0	0.32	SW846 8260B		4/25/18 01:09	CJG	B
1,2-Dichloroethene, Total	ND		ug/L	2.0	0.45	SW846 8260B		4/25/18 01:09	CJG	B
1,2-Dichloropropane	ND		ug/L	1.0	0.24	SW846 8260B		4/25/18 01:09	CJG	B
1,3-Dichlorobenzene	ND		ug/L	1.0	0.25	SW846 8260B		4/25/18 01:09	CJG	B
1,3-Dichloropropane	ND		ug/L	1.0	0.27	SW846 8260B		4/25/18 01:09	CJG	B
1,3-Dichloropropene, Total	ND		ug/L	2.0	0.47	SW846 8260B		4/25/18 01:09	CJG	B
1,4-Dichlorobenzene	ND		ug/L	1.0	0.27	SW846 8260B		4/25/18 01:09	CJG	B
2,2-Dichloropropane	ND		ug/L	1.0	0.32	SW846 8260B		4/25/18 01:09	CJG	B
2-Butanone	ND		ug/L	10.0	1.8	SW846 8260B		4/25/18 01:09	CJG	B
2-Chloroethylvinyl ether	ND		ug/L	2.0	0.38	SW846 8260B		4/25/18 01:09	CJG	B
2-Hexanone	ND		ug/L	5.0	1.3	SW846 8260B		4/25/18 01:09	CJG	B
4-Methyl-2-Pentanone(MIBK)	ND		ug/L	5.0	1.5	SW846 8260B		4/25/18 01:09	CJG	B
Acetone	4.5J	J	ug/L	10.0	3.1	SW846 8260B		4/25/18 01:09	CJG	B
Benzene	ND		ug/L	1.0	0.23	SW846 8260B		4/25/18 01:09	CJG	B
Bromobenzene	ND		ug/L	1.0	0.32	SW846 8260B		4/25/18 01:09	CJG	B
Bromochloromethane	ND		ug/L	1.0	0.32	SW846 8260B		4/25/18 01:09	CJG	B
Bromodichloromethane	ND		ug/L	1.0	0.27	SW846 8260B		4/25/18 01:09	CJG	B
Bromoform	ND		ug/L	1.0	0.40	SW846 8260B		4/25/18 01:09	CJG	B
Bromomethane	ND		ug/L	1.0	0.39	SW846 8260B		4/25/18 01:09	CJG	B
Carbon Disulfide	ND		ug/L	1.0	0.23	SW846 8260B		4/25/18 01:09	CJG	B
Carbon Tetrachloride	ND		ug/L	1.0	0.31	SW846 8260B		4/25/18 01:09	CJG	B
Chlorobenzene	ND		ug/L	1.0	0.19	SW846 8260B		4/25/18 01:09	CJG	B
Chlorodibromomethane	ND		ug/L	1.0	0.45	SW846 8260B		4/25/18 01:09	CJG	B

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ANALYTICAL RESULTS

Workorder: 2309395 LMC MRC 4/17/18

Lab ID: **2309395008** Date Collected: 4/17/2018 08:04 Matrix: Water
Sample ID: **MRC-SW7A** Date Received: 4/17/2018 22:00

Parameters	Results	Flag	Units	RDL	MDL	Method	Prepared By	Analyzed	By	*Cntr*
Chloroethane	ND		ug/L	1.0	0.33	SW846 8260B		4/25/18 01:09	CJG	B
Chloroform	ND		ug/L	1.0	0.21	SW846 8260B		4/25/18 01:09	CJG	B
Chloromethane	ND		ug/L	1.0	0.31	SW846 8260B		4/25/18 01:09	CJG	B
Cyclohexane	ND		ug/L	1.0	0.29	SW846 8260B		4/25/18 01:09	CJG	B
Dibromomethane	ND		ug/L	1.0	0.31	SW846 8260B		4/25/18 01:09	CJG	B
Dichlorodifluoromethane	ND		ug/L	1.0	0.33	SW846 8260B		4/25/18 01:09	CJG	B
Diisopropyl ether	ND		ug/L	1.0	0.25	SW846 8260B		4/25/18 01:09	CJG	B
Ethyl tert-butyl ether	ND		ug/L	1.0	0.19	SW846 8260B		4/25/18 01:09	CJG	B
Ethylbenzene	ND		ug/L	1.0	0.34	SW846 8260B		4/25/18 01:09	CJG	B
Freon 113	ND		ug/L	1.0	0.26	SW846 8260B		4/25/18 01:09	CJG	B
Hexachlorobutadiene	ND		ug/L	5.0	1.0	SW846 8260B		4/25/18 01:09	CJG	B
Isopropylbenzene	ND		ug/L	1.0	0.22	SW846 8260B		4/25/18 01:09	CJG	B
Methyl acetate	ND		ug/L	2.0	0.32	SW846 8260B		4/25/18 01:09	CJG	B
Methyl cyclohexane	ND		ug/L	1.0	0.30	SW846 8260B		4/25/18 01:09	CJG	B
Methyl t-Butyl Ether	ND		ug/L	1.0	0.33	SW846 8260B		4/25/18 01:09	CJG	B
Methylene Chloride	ND		ug/L	1.0	0.45	SW846 8260B		4/25/18 01:09	CJG	B
Naphthalene	ND		ug/L	2.0	0.34	SW846 8260B		4/25/18 01:09	CJG	B
Styrene	ND		ug/L	1.0	0.24	SW846 8260B		4/25/18 01:09	CJG	B
Tetrachloroethene	ND		ug/L	1.0	0.35	SW846 8260B		4/25/18 01:09	CJG	B
Toluene	ND		ug/L	1.0	0.23	SW846 8260B		4/25/18 01:09	CJG	B
Total Xylenes	ND		ug/L	3.0	0.66	SW846 8260B		4/25/18 01:09	CJG	B
Trichloroethene	ND		ug/L	1.0	0.33	SW846 8260B		4/25/18 01:09	CJG	B
Trichlorofluoromethane	ND		ug/L	1.0	0.24	SW846 8260B		4/25/18 01:09	CJG	B
Vinyl Acetate	ND		ug/L	5.0	1.6	SW846 8260B		4/25/18 01:09	CJG	B
Vinyl Chloride	ND		ug/L	1.0	0.30	SW846 8260B		4/25/18 01:09	CJG	B
cis-1,2-Dichloroethene	ND		ug/L	1.0	0.32	SW846 8260B		4/25/18 01:09	CJG	B
cis-1,3-Dichloropropene	ND		ug/L	1.0	0.31	SW846 8260B		4/25/18 01:09	CJG	B
mp-Xylene	ND		ug/L	2.0	0.52	SW846 8260B		4/25/18 01:09	CJG	B
n-Butylbenzene	ND		ug/L	2.0	0.60	SW846 8260B		4/25/18 01:09	CJG	B
n-Propylbenzene	ND		ug/L	1.0	0.33	SW846 8260B		4/25/18 01:09	CJG	B
o-Chlorotoluene	ND		ug/L	1.0	0.26	SW846 8260B		4/25/18 01:09	CJG	B
o-Xylene	ND		ug/L	1.0	0.33	SW846 8260B		4/25/18 01:09	CJG	B
p-Chlorotoluene	ND		ug/L	1.0	0.33	SW846 8260B		4/25/18 01:09	CJG	B
p-Isopropyltoluene	ND		ug/L	1.0	0.32	SW846 8260B		4/25/18 01:09	CJG	B
sec-Butylbenzene	ND		ug/L	1.0	0.31	SW846 8260B		4/25/18 01:09	CJG	B
tert-Amyl methyl ether	ND		ug/L	1.0	0.20	SW846 8260B		4/25/18 01:09	CJG	B
tert-Butyl Alcohol	ND		ug/L	10.0	2.2	SW846 8260B		4/25/18 01:09	CJG	B
tert-Butylbenzene	ND		ug/L	2.0	0.44	SW846 8260B		4/25/18 01:09	CJG	B

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State Certifications: DE ID 11 , MA PA0102 , MD 128 , VA 460157 , WV 343

ANALYTICAL RESULTS

Workorder: 2309395 LMC MRC 4/17/18

Lab ID: **2309395008** Date Collected: 4/17/2018 08:04 Matrix: Water
Sample ID: **MRC-SW7A** Date Received: 4/17/2018 22:00

Parameters	Results	Flag	Units	RDL	MDL	Method	Prepared	By	Analyzed	By	Cntr
trans-1,2-Dichloroethene	ND		ug/L	1.0	0.26	SW846 8260B			4/25/18 01:09	CJG	B
trans-1,3-Dichloropropene	ND		ug/L	1.0	0.29	SW846 8260B			4/25/18 01:09	CJG	B
Surrogate Recoveries	*Results*	*Flag*	*Units*	*Limits*		*Method*	*Prepared*	*By*	*Analyzed*	*By*	*Cntr*
1,2-Dichloroethane-d4 (S)	115		%	62 - 133		SW846 8260B			4/25/18 01:09	CJG	B
4-Bromofluorobenzene (S)	92.8		%	79 - 114		SW846 8260B			4/25/18 01:09	CJG	B
Dibromofluoromethane (S)	97.5		%	78 - 116		SW846 8260B			4/25/18 01:09	CJG	B
Toluene-d8 (S)	95.3		%	76 - 127		SW846 8260B			4/25/18 01:09	CJG	B
SUBCONTRACTED ANALYSIS											
Subcontracted Analysis	See attached.					Subcontract			4/27/18 00:35	SUB	C

Vanessa N. Badman
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ANALYTICAL RESULTS

Workorder: 2309395 LMC MRC 4/17/18

Lab ID: **2309395009** Date Collected: 4/17/2018 08:37 Matrix: Water
Sample ID: **MRC-SW7B** Date Received: 4/17/2018 22:00

Parameters	Results	Flag	Units	RDL	MDL	Method	Prepared By	Analyzed	By	*Cntr*
VOLATILE ORGANICS										
1,1,1,2-Tetrachloroethane	ND		ug/L	1.0	0.35	SW846 8260B		4/25/18 01:32	CJG	B
1,1,1-Trichloroethane	ND		ug/L	1.0	0.22	SW846 8260B		4/25/18 01:32	CJG	B
1,1,2,2-Tetrachloroethane	ND		ug/L	1.0	0.34	SW846 8260B		4/25/18 01:32	CJG	B
1,1,2-Trichloroethane	ND		ug/L	1.0	0.33	SW846 8260B		4/25/18 01:32	CJG	B
1,1-Dichloroethane	ND		ug/L	1.0	0.28	SW846 8260B		4/25/18 01:32	CJG	B
1,1-Dichloroethene	ND		ug/L	1.0	0.29	SW846 8260B		4/25/18 01:32	CJG	B
1,2,3-Trichlorobenzene	ND		ug/L	2.0	0.93	SW846 8260B		4/25/18 01:32	CJG	B
1,2,3-Trichloropropane	ND		ug/L	2.0	0.60	SW846 8260B		4/25/18 01:32	CJG	B
1,2,4-Trichlorobenzene	ND		ug/L	2.0	0.82	SW846 8260B		4/25/18 01:32	CJG	B
1,2,4-Trimethylbenzene	ND		ug/L	1.0	0.25	SW846 8260B		4/25/18 01:32	CJG	B
1,2-Dibromo-3-chloropropane	ND		ug/L	7.0	1.5	SW846 8260B		4/25/18 01:32	CJG	B
1,2-Dibromoethane	ND		ug/L	1.0	0.28	SW846 8260B		4/25/18 01:32	CJG	B
1,2-Dichlorobenzene	ND		ug/L	1.0	0.38	SW846 8260B		4/25/18 01:32	CJG	B
1,2-Dichloroethane	ND		ug/L	1.0	0.32	SW846 8260B		4/25/18 01:32	CJG	B
1,2-Dichloroethene, Total	ND		ug/L	2.0	0.45	SW846 8260B		4/25/18 01:32	CJG	B
1,2-Dichloropropane	ND		ug/L	1.0	0.24	SW846 8260B		4/25/18 01:32	CJG	B
1,3-Dichlorobenzene	ND		ug/L	1.0	0.25	SW846 8260B		4/25/18 01:32	CJG	B
1,3-Dichloropropane	ND		ug/L	1.0	0.27	SW846 8260B		4/25/18 01:32	CJG	B
1,3-Dichloropropene, Total	ND		ug/L	2.0	0.47	SW846 8260B		4/25/18 01:32	CJG	B
1,4-Dichlorobenzene	ND		ug/L	1.0	0.27	SW846 8260B		4/25/18 01:32	CJG	B
2,2-Dichloropropane	ND		ug/L	1.0	0.32	SW846 8260B		4/25/18 01:32	CJG	B
2-Butanone	ND		ug/L	10.0	1.8	SW846 8260B		4/25/18 01:32	CJG	B
2-Chloroethylvinyl ether	ND		ug/L	2.0	0.38	SW846 8260B		4/25/18 01:32	CJG	B
2-Hexanone	ND		ug/L	5.0	1.3	SW846 8260B		4/25/18 01:32	CJG	B
4-Methyl-2-Pentanone(MIBK)	ND		ug/L	5.0	1.5	SW846 8260B		4/25/18 01:32	CJG	B
Acetone	13.4		ug/L	10.0	3.1	SW846 8260B		4/25/18 01:32	CJG	B
Benzene	ND		ug/L	1.0	0.23	SW846 8260B		4/25/18 01:32	CJG	B
Bromobenzene	ND		ug/L	1.0	0.32	SW846 8260B		4/25/18 01:32	CJG	B
Bromochloromethane	ND		ug/L	1.0	0.32	SW846 8260B		4/25/18 01:32	CJG	B
Bromodichloromethane	ND		ug/L	1.0	0.27	SW846 8260B		4/25/18 01:32	CJG	B
Bromoform	ND		ug/L	1.0	0.40	SW846 8260B		4/25/18 01:32	CJG	B
Bromomethane	ND		ug/L	1.0	0.39	SW846 8260B		4/25/18 01:32	CJG	B
Carbon Disulfide	ND		ug/L	1.0	0.23	SW846 8260B		4/25/18 01:32	CJG	B
Carbon Tetrachloride	ND		ug/L	1.0	0.31	SW846 8260B		4/25/18 01:32	CJG	B
Chlorobenzene	ND		ug/L	1.0	0.19	SW846 8260B		4/25/18 01:32	CJG	B
Chlorodibromomethane	ND		ug/L	1.0	0.45	SW846 8260B		4/25/18 01:32	CJG	B

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ANALYTICAL RESULTS

Workorder: 2309395 LMC MRC 4/17/18

Lab ID: **2309395009** Date Collected: 4/17/2018 08:37 Matrix: Water
Sample ID: **MRC-SW7B** Date Received: 4/17/2018 22:00

Parameters	Results	Flag	Units	RDL	MDL	Method	Prepared By	Analyzed	By	*Cntr*
Chloroethane	ND		ug/L	1.0	0.33	SW846 8260B		4/25/18 01:32	CJG	B
Chloroform	ND		ug/L	1.0	0.21	SW846 8260B		4/25/18 01:32	CJG	B
Chloromethane	ND		ug/L	1.0	0.31	SW846 8260B		4/25/18 01:32	CJG	B
Cyclohexane	ND		ug/L	1.0	0.29	SW846 8260B		4/25/18 01:32	CJG	B
Dibromomethane	ND		ug/L	1.0	0.31	SW846 8260B		4/25/18 01:32	CJG	B
Dichlorodifluoromethane	ND		ug/L	1.0	0.33	SW846 8260B		4/25/18 01:32	CJG	B
Diisopropyl ether	ND		ug/L	1.0	0.25	SW846 8260B		4/25/18 01:32	CJG	B
Ethyl tert-butyl ether	ND		ug/L	1.0	0.19	SW846 8260B		4/25/18 01:32	CJG	B
Ethylbenzene	ND		ug/L	1.0	0.34	SW846 8260B		4/25/18 01:32	CJG	B
Freon 113	ND		ug/L	1.0	0.26	SW846 8260B		4/25/18 01:32	CJG	B
Hexachlorobutadiene	ND		ug/L	5.0	1.0	SW846 8260B		4/25/18 01:32	CJG	B
Isopropylbenzene	ND		ug/L	1.0	0.22	SW846 8260B		4/25/18 01:32	CJG	B
Methyl acetate	ND		ug/L	2.0	0.32	SW846 8260B		4/25/18 01:32	CJG	B
Methyl cyclohexane	ND		ug/L	1.0	0.30	SW846 8260B		4/25/18 01:32	CJG	B
Methyl t-Butyl Ether	ND		ug/L	1.0	0.33	SW846 8260B		4/25/18 01:32	CJG	B
Methylene Chloride	ND		ug/L	1.0	0.45	SW846 8260B		4/25/18 01:32	CJG	B
Naphthalene	ND		ug/L	2.0	0.34	SW846 8260B		4/25/18 01:32	CJG	B
Styrene	ND		ug/L	1.0	0.24	SW846 8260B		4/25/18 01:32	CJG	B
Tetrachloroethene	ND		ug/L	1.0	0.35	SW846 8260B		4/25/18 01:32	CJG	B
Toluene	ND		ug/L	1.0	0.23	SW846 8260B		4/25/18 01:32	CJG	B
Total Xylenes	ND		ug/L	3.0	0.66	SW846 8260B		4/25/18 01:32	CJG	B
Trichloroethene	ND		ug/L	1.0	0.33	SW846 8260B		4/25/18 01:32	CJG	B
Trichlorofluoromethane	ND		ug/L	1.0	0.24	SW846 8260B		4/25/18 01:32	CJG	B
Vinyl Acetate	ND		ug/L	5.0	1.6	SW846 8260B		4/25/18 01:32	CJG	B
Vinyl Chloride	ND		ug/L	1.0	0.30	SW846 8260B		4/25/18 01:32	CJG	B
cis-1,2-Dichloroethene	ND		ug/L	1.0	0.32	SW846 8260B		4/25/18 01:32	CJG	B
cis-1,3-Dichloropropene	ND		ug/L	1.0	0.31	SW846 8260B		4/25/18 01:32	CJG	B
mp-Xylene	ND		ug/L	2.0	0.52	SW846 8260B		4/25/18 01:32	CJG	B
n-Butylbenzene	ND		ug/L	2.0	0.60	SW846 8260B		4/25/18 01:32	CJG	B
n-Propylbenzene	ND		ug/L	1.0	0.33	SW846 8260B		4/25/18 01:32	CJG	B
o-Chlorotoluene	ND		ug/L	1.0	0.26	SW846 8260B		4/25/18 01:32	CJG	B
o-Xylene	ND		ug/L	1.0	0.33	SW846 8260B		4/25/18 01:32	CJG	B
p-Chlorotoluene	ND		ug/L	1.0	0.33	SW846 8260B		4/25/18 01:32	CJG	B
p-Isopropyltoluene	ND		ug/L	1.0	0.32	SW846 8260B		4/25/18 01:32	CJG	B
sec-Butylbenzene	ND		ug/L	1.0	0.31	SW846 8260B		4/25/18 01:32	CJG	B
tert-Amyl methyl ether	ND		ug/L	1.0	0.20	SW846 8260B		4/25/18 01:32	CJG	B
tert-Butyl Alcohol	ND		ug/L	10.0	2.2	SW846 8260B		4/25/18 01:32	CJG	B
tert-Butylbenzene	ND		ug/L	2.0	0.44	SW846 8260B		4/25/18 01:32	CJG	B

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ANALYTICAL RESULTS

Workorder: 2309395 LMC MRC 4/17/18

Lab ID: **2309395009** Date Collected: 4/17/2018 08:37 Matrix: Water
Sample ID: **MRC-SW7B** Date Received: 4/17/2018 22:00

Parameters	Results	Flag	Units	RDL	MDL	Method	Prepared	By	Analyzed	By	Cntr
trans-1,2-Dichloroethene	ND		ug/L	1.0	0.26	SW846 8260B			4/25/18 01:32	CJG	B
trans-1,3-Dichloropropene	ND		ug/L	1.0	0.29	SW846 8260B			4/25/18 01:32	CJG	B
Surrogate Recoveries	*Results*	*Flag*	*Units*	*Limits*		*Method*	*Prepared*	*By*	*Analyzed*	*By*	*Cntr*
1,2-Dichloroethane-d4 (S)	119		%	62 - 133		SW846 8260B			4/25/18 01:32	CJG	B
4-Bromofluorobenzene (S)	93.2		%	79 - 114		SW846 8260B			4/25/18 01:32	CJG	B
Dibromofluoromethane (S)	99.4		%	78 - 116		SW846 8260B			4/25/18 01:32	CJG	B
Toluene-d8 (S)	95.6		%	76 - 127		SW846 8260B			4/25/18 01:32	CJG	B
SUBCONTRACTED ANALYSIS											
Subcontracted Analysis	See attached.					Subcontract			4/27/18 01:03	SUB	C

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ANALYTICAL RESULTS

Workorder: 2309395 LMC MRC 4/17/18

Lab ID: **2309395010** Date Collected: 4/17/2018 22:00 Matrix: Water
Sample ID: **TB-041718-2** Date Received: 4/17/2018 22:00

Parameters	Results	Flag	Units	RDL	MDL	Method	Prepared By	Analyzed	By	*Cntr*
VOLATILE ORGANICS										
1,1,1,2-Tetrachloroethane	ND		ug/L	1.0	0.35	SW846 8260B		4/24/18 16:38	DD	A
1,1,1-Trichloroethane	ND		ug/L	1.0	0.22	SW846 8260B		4/24/18 16:38	DD	A
1,1,2,2-Tetrachloroethane	ND		ug/L	1.0	0.34	SW846 8260B		4/24/18 16:38	DD	A
1,1,2-Trichloroethane	ND		ug/L	1.0	0.33	SW846 8260B		4/24/18 16:38	DD	A
1,1-Dichloroethane	ND		ug/L	1.0	0.28	SW846 8260B		4/24/18 16:38	DD	A
1,1-Dichloroethene	ND		ug/L	1.0	0.29	SW846 8260B		4/24/18 16:38	DD	A
1,2,3-Trichlorobenzene	ND		ug/L	2.0	0.93	SW846 8260B		4/24/18 16:38	DD	A
1,2,3-Trichloropropane	ND		ug/L	2.0	0.60	SW846 8260B		4/24/18 16:38	DD	A
1,2,4-Trichlorobenzene	ND		ug/L	2.0	0.82	SW846 8260B		4/24/18 16:38	DD	A
1,2,4-Trimethylbenzene	ND		ug/L	1.0	0.25	SW846 8260B		4/24/18 16:38	DD	A
1,2-Dibromo-3-chloropropane	ND		ug/L	7.0	1.5	SW846 8260B		4/24/18 16:38	DD	A
1,2-Dibromoethane	ND		ug/L	1.0	0.28	SW846 8260B		4/24/18 16:38	DD	A
1,2-Dichlorobenzene	ND		ug/L	1.0	0.38	SW846 8260B		4/24/18 16:38	DD	A
1,2-Dichloroethane	ND		ug/L	1.0	0.32	SW846 8260B		4/24/18 16:38	DD	A
1,2-Dichloroethene, Total	ND		ug/L	2.0	0.45	SW846 8260B		4/24/18 16:38	DD	A
1,2-Dichloropropane	ND		ug/L	1.0	0.24	SW846 8260B		4/24/18 16:38	DD	A
1,3-Dichlorobenzene	ND		ug/L	1.0	0.25	SW846 8260B		4/24/18 16:38	DD	A
1,3-Dichloropropane	ND		ug/L	1.0	0.27	SW846 8260B		4/24/18 16:38	DD	A
1,3-Dichloropropene, Total	ND		ug/L	2.0	0.47	SW846 8260B		4/24/18 16:38	DD	A
1,4-Dichlorobenzene	ND		ug/L	1.0	0.27	SW846 8260B		4/24/18 16:38	DD	A
2,2-Dichloropropane	ND		ug/L	1.0	0.32	SW846 8260B		4/24/18 16:38	DD	A
2-Butanone	ND		ug/L	10.0	1.8	SW846 8260B		4/24/18 16:38	DD	A
2-Chloroethylvinyl ether	ND		ug/L	2.0	0.38	SW846 8260B		4/24/18 16:38	DD	A
2-Hexanone	ND		ug/L	5.0	1.3	SW846 8260B		4/24/18 16:38	DD	A
4-Methyl-2-Pentanone(MIBK)	ND		ug/L	5.0	1.5	SW846 8260B		4/24/18 16:38	DD	A
Acetone	15.5		ug/L	10.0	3.1	SW846 8260B		4/24/18 16:38	DD	A
Benzene	ND		ug/L	1.0	0.23	SW846 8260B		4/24/18 16:38	DD	A
Bromobenzene	ND		ug/L	1.0	0.32	SW846 8260B		4/24/18 16:38	DD	A
Bromochloromethane	ND		ug/L	1.0	0.32	SW846 8260B		4/24/18 16:38	DD	A
Bromodichloromethane	ND		ug/L	1.0	0.27	SW846 8260B		4/24/18 16:38	DD	A
Bromoform	ND		ug/L	1.0	0.40	SW846 8260B		4/24/18 16:38	DD	A
Bromomethane	ND		ug/L	1.0	0.39	SW846 8260B		4/24/18 16:38	DD	A
Carbon Disulfide	ND		ug/L	1.0	0.23	SW846 8260B		4/24/18 16:38	DD	A
Carbon Tetrachloride	ND		ug/L	1.0	0.31	SW846 8260B		4/24/18 16:38	DD	A
Chlorobenzene	ND		ug/L	1.0	0.19	SW846 8260B		4/24/18 16:38	DD	A
Chlorodibromomethane	ND		ug/L	1.0	0.45	SW846 8260B		4/24/18 16:38	DD	A

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ANALYTICAL RESULTS

Workorder: 2309395 LMC MRC 4/17/18

Lab ID: **2309395010** Date Collected: 4/17/2018 22:00 Matrix: Water
Sample ID: **TB-041718-2** Date Received: 4/17/2018 22:00

Parameters	Results	Flag	Units	RDL	MDL	Method	Prepared By	Analyzed	By	*Cntr*
Chloroethane	ND		ug/L	1.0	0.33	SW846 8260B		4/24/18 16:38	DD	A
Chloroform	ND		ug/L	1.0	0.21	SW846 8260B		4/24/18 16:38	DD	A
Chloromethane	ND		ug/L	1.0	0.31	SW846 8260B		4/24/18 16:38	DD	A
Cyclohexane	ND		ug/L	1.0	0.29	SW846 8260B		4/24/18 16:38	DD	A
Dibromomethane	ND		ug/L	1.0	0.31	SW846 8260B		4/24/18 16:38	DD	A
Dichlorodifluoromethane	ND		ug/L	1.0	0.33	SW846 8260B		4/24/18 16:38	DD	A
Diisopropyl ether	ND		ug/L	1.0	0.25	SW846 8260B		4/24/18 16:38	DD	A
Ethyl tert-butyl ether	ND		ug/L	1.0	0.19	SW846 8260B		4/24/18 16:38	DD	A
Ethylbenzene	ND		ug/L	1.0	0.34	SW846 8260B		4/24/18 16:38	DD	A
Freon 113	ND		ug/L	1.0	0.26	SW846 8260B		4/24/18 16:38	DD	A
Hexachlorobutadiene	ND		ug/L	5.0	1.0	SW846 8260B		4/24/18 16:38	DD	A
Isopropylbenzene	ND		ug/L	1.0	0.22	SW846 8260B		4/24/18 16:38	DD	A
Methyl acetate	ND		ug/L	2.0	0.32	SW846 8260B		4/24/18 16:38	DD	A
Methyl cyclohexane	ND		ug/L	1.0	0.30	SW846 8260B		4/24/18 16:38	DD	A
Methyl t-Butyl Ether	ND		ug/L	1.0	0.33	SW846 8260B		4/24/18 16:38	DD	A
Methylene Chloride	ND		ug/L	1.0	0.45	SW846 8260B		4/24/18 16:38	DD	A
Naphthalene	ND		ug/L	2.0	0.34	SW846 8260B		4/24/18 16:38	DD	A
Styrene	ND		ug/L	1.0	0.24	SW846 8260B		4/24/18 16:38	DD	A
Tetrachloroethene	ND		ug/L	1.0	0.35	SW846 8260B		4/24/18 16:38	DD	A
Toluene	ND		ug/L	1.0	0.23	SW846 8260B		4/24/18 16:38	DD	A
Total Xylenes	ND		ug/L	3.0	0.66	SW846 8260B		4/24/18 16:38	DD	A
Trichloroethene	ND		ug/L	1.0	0.33	SW846 8260B		4/24/18 16:38	DD	A
Trichlorofluoromethane	ND		ug/L	1.0	0.24	SW846 8260B		4/24/18 16:38	DD	A
Vinyl Acetate	ND		ug/L	5.0	1.6	SW846 8260B		4/24/18 16:38	DD	A
Vinyl Chloride	ND		ug/L	1.0	0.30	SW846 8260B		4/24/18 16:38	DD	A
cis-1,2-Dichloroethene	ND		ug/L	1.0	0.32	SW846 8260B		4/24/18 16:38	DD	A
cis-1,3-Dichloropropene	ND		ug/L	1.0	0.31	SW846 8260B		4/24/18 16:38	DD	A
mp-Xylene	ND		ug/L	2.0	0.52	SW846 8260B		4/24/18 16:38	DD	A
n-Butylbenzene	ND		ug/L	2.0	0.60	SW846 8260B		4/24/18 16:38	DD	A
n-Propylbenzene	ND		ug/L	1.0	0.33	SW846 8260B		4/24/18 16:38	DD	A
o-Chlorotoluene	ND		ug/L	1.0	0.26	SW846 8260B		4/24/18 16:38	DD	A
o-Xylene	ND		ug/L	1.0	0.33	SW846 8260B		4/24/18 16:38	DD	A
p-Chlorotoluene	ND		ug/L	1.0	0.33	SW846 8260B		4/24/18 16:38	DD	A
p-Isopropyltoluene	ND		ug/L	1.0	0.32	SW846 8260B		4/24/18 16:38	DD	A
sec-Butylbenzene	ND		ug/L	1.0	0.31	SW846 8260B		4/24/18 16:38	DD	A
tert-Amyl methyl ether	ND		ug/L	1.0	0.20	SW846 8260B		4/24/18 16:38	DD	A
tert-Butyl Alcohol	2.5J	J	ug/L	10.0	2.2	SW846 8260B		4/24/18 16:38	DD	A
tert-Butylbenzene	ND		ug/L	2.0	0.44	SW846 8260B		4/24/18 16:38	DD	A

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State Certifications: DE ID 11 , MA PA0102 , MD 128 , VA 460157 , WV 343

ANALYTICAL RESULTS

Workorder: 2309395 LMC MRC 4/17/18

Lab ID: **2309395010** Date Collected: 4/17/2018 22:00 Matrix: Water
Sample ID: **TB-041718-2** Date Received: 4/17/2018 22:00

Parameters	Results	Flag	Units	RDL	MDL	Method	Prepared	By	Analyzed	By	Cntr
trans-1,2-Dichloroethene	ND		ug/L	1.0	0.26	SW846 8260B			4/24/18 16:38	DD	A
trans-1,3-Dichloropropene	ND		ug/L	1.0	0.29	SW846 8260B			4/24/18 16:38	DD	A
Surrogate Recoveries	*Results*	*Flag*	*Units*	*Limits*		*Method*	*Prepared*	*By*	*Analyzed*	*By*	*Cntr*
1,2-Dichloroethane-d4 (S)	92.1		%	62 - 133		SW846 8260B			4/24/18 16:38	DD	A
4-Bromofluorobenzene (S)	98.7		%	79 - 114		SW846 8260B			4/24/18 16:38	DD	A
Dibromofluoromethane (S)	91.6		%	78 - 116		SW846 8260B			4/24/18 16:38	DD	A
Toluene-d8 (S)	82.9		%	76 - 127		SW846 8260B			4/24/18 16:38	DD	A

Vanessa N. Badman
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ANALYTICAL RESULTS

Workorder: 2309395 LMC MRC 4/17/18

Lab ID: **2309395011** Date Collected: 4/17/2018 09:12 Matrix: Water
Sample ID: **MRC-SW5A1** Date Received: 4/17/2018 22:00

Parameters	Results	Flag	Units	RDL	MDL	Method	Prepared By	Analyzed	By	Cntr
VOLATILE ORGANICS										
1,1,1,2-Tetrachloroethane	ND		ug/L	1.0	0.35	SW846 8260B		4/24/18 17:43	DD	A
1,1,1-Trichloroethane	ND		ug/L	1.0	0.22	SW846 8260B		4/24/18 17:43	DD	A
1,1,2,2-Tetrachloroethane	ND		ug/L	1.0	0.34	SW846 8260B		4/24/18 17:43	DD	A
1,1,2-Trichloroethane	ND		ug/L	1.0	0.33	SW846 8260B		4/24/18 17:43	DD	A
1,1-Dichloroethane	ND		ug/L	1.0	0.28	SW846 8260B		4/24/18 17:43	DD	A
1,1-Dichloroethene	ND		ug/L	1.0	0.29	SW846 8260B		4/24/18 17:43	DD	A
1,2,3-Trichlorobenzene	ND		ug/L	2.0	0.93	SW846 8260B		4/24/18 17:43	DD	A
1,2,3-Trichloropropane	ND		ug/L	2.0	0.60	SW846 8260B		4/24/18 17:43	DD	A
1,2,4-Trichlorobenzene	ND		ug/L	2.0	0.82	SW846 8260B		4/24/18 17:43	DD	A
1,2,4-Trimethylbenzene	ND		ug/L	1.0	0.25	SW846 8260B		4/24/18 17:43	DD	A
1,2-Dibromo-3-chloropropane	ND		ug/L	7.0	1.5	SW846 8260B		4/24/18 17:43	DD	A
1,2-Dibromoethane	ND		ug/L	1.0	0.28	SW846 8260B		4/24/18 17:43	DD	A
1,2-Dichlorobenzene	ND		ug/L	1.0	0.38	SW846 8260B		4/24/18 17:43	DD	A
1,2-Dichloroethane	ND		ug/L	1.0	0.32	SW846 8260B		4/24/18 17:43	DD	A
1,2-Dichloroethene, Total	ND		ug/L	2.0	0.45	SW846 8260B		4/24/18 17:43	DD	A
1,2-Dichloropropane	ND		ug/L	1.0	0.24	SW846 8260B		4/24/18 17:43	DD	A
1,3-Dichlorobenzene	ND		ug/L	1.0	0.25	SW846 8260B		4/24/18 17:43	DD	A
1,3-Dichloropropane	ND		ug/L	1.0	0.27	SW846 8260B		4/24/18 17:43	DD	A
1,3-Dichloropropene, Total	ND		ug/L	2.0	0.47	SW846 8260B		4/24/18 17:43	DD	A
1,4-Dichlorobenzene	ND		ug/L	1.0	0.27	SW846 8260B		4/24/18 17:43	DD	A
2,2-Dichloropropane	ND		ug/L	1.0	0.32	SW846 8260B		4/24/18 17:43	DD	A
2-Butanone	ND		ug/L	10.0	1.8	SW846 8260B		4/24/18 17:43	DD	A
2-Chloroethylvinyl ether	ND		ug/L	2.0	0.38	SW846 8260B		4/24/18 17:43	DD	A
2-Hexanone	ND		ug/L	5.0	1.3	SW846 8260B		4/24/18 17:43	DD	A
4-Methyl-2-Pentanone(MIBK)	ND		ug/L	5.0	1.5	SW846 8260B		4/24/18 17:43	DD	A
Acetone	5.0J	J	ug/L	10.0	3.1	SW846 8260B		4/24/18 17:43	DD	A
Benzene	ND		ug/L	1.0	0.23	SW846 8260B		4/24/18 17:43	DD	A
Bromobenzene	ND		ug/L	1.0	0.32	SW846 8260B		4/24/18 17:43	DD	A
Bromochloromethane	ND		ug/L	1.0	0.32	SW846 8260B		4/24/18 17:43	DD	A
Bromodichloromethane	ND		ug/L	1.0	0.27	SW846 8260B		4/24/18 17:43	DD	A
Bromoform	ND		ug/L	1.0	0.40	SW846 8260B		4/24/18 17:43	DD	A
Bromomethane	ND		ug/L	1.0	0.39	SW846 8260B		4/24/18 17:43	DD	A
Carbon Disulfide	ND		ug/L	1.0	0.23	SW846 8260B		4/24/18 17:43	DD	A
Carbon Tetrachloride	ND		ug/L	1.0	0.31	SW846 8260B		4/24/18 17:43	DD	A
Chlorobenzene	ND		ug/L	1.0	0.19	SW846 8260B		4/24/18 17:43	DD	A
Chlorodibromomethane	ND		ug/L	1.0	0.45	SW846 8260B		4/24/18 17:43	DD	A

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ANALYTICAL RESULTS

Workorder: 2309395 LMC MRC 4/17/18

Lab ID: **2309395011** Date Collected: 4/17/2018 09:12 Matrix: Water
Sample ID: **MRC-SW5A1** Date Received: 4/17/2018 22:00

Parameters	Results	Flag	Units	RDL	MDL	Method	Prepared By	Analyzed	By	*Cntr*
Chloroethane	ND		ug/L	1.0	0.33	SW846 8260B		4/24/18 17:43	DD	A
Chloroform	ND		ug/L	1.0	0.21	SW846 8260B		4/24/18 17:43	DD	A
Chloromethane	ND		ug/L	1.0	0.31	SW846 8260B		4/24/18 17:43	DD	A
Cyclohexane	ND		ug/L	1.0	0.29	SW846 8260B		4/24/18 17:43	DD	A
Dibromomethane	ND		ug/L	1.0	0.31	SW846 8260B		4/24/18 17:43	DD	A
Dichlorodifluoromethane	ND		ug/L	1.0	0.33	SW846 8260B		4/24/18 17:43	DD	A
Diisopropyl ether	ND		ug/L	1.0	0.25	SW846 8260B		4/24/18 17:43	DD	A
Ethyl tert-butyl ether	ND		ug/L	1.0	0.19	SW846 8260B		4/24/18 17:43	DD	A
Ethylbenzene	ND		ug/L	1.0	0.34	SW846 8260B		4/24/18 17:43	DD	A
Freon 113	ND		ug/L	1.0	0.26	SW846 8260B		4/24/18 17:43	DD	A
Hexachlorobutadiene	ND		ug/L	5.0	1.0	SW846 8260B		4/24/18 17:43	DD	A
Isopropylbenzene	ND		ug/L	1.0	0.22	SW846 8260B		4/24/18 17:43	DD	A
Methyl acetate	ND		ug/L	2.0	0.32	SW846 8260B		4/24/18 17:43	DD	A
Methyl cyclohexane	ND		ug/L	1.0	0.30	SW846 8260B		4/24/18 17:43	DD	A
Methyl t-Butyl Ether	ND		ug/L	1.0	0.33	SW846 8260B		4/24/18 17:43	DD	A
Methylene Chloride	ND		ug/L	1.0	0.45	SW846 8260B		4/24/18 17:43	DD	A
Naphthalene	ND		ug/L	2.0	0.34	SW846 8260B		4/24/18 17:43	DD	A
Styrene	ND		ug/L	1.0	0.24	SW846 8260B		4/24/18 17:43	DD	A
Tetrachloroethene	ND		ug/L	1.0	0.35	SW846 8260B		4/24/18 17:43	DD	A
Toluene	ND		ug/L	1.0	0.23	SW846 8260B		4/24/18 17:43	DD	A
Total Xylenes	ND		ug/L	3.0	0.66	SW846 8260B		4/24/18 17:43	DD	A
Trichloroethene	ND		ug/L	1.0	0.33	SW846 8260B		4/24/18 17:43	DD	A
Trichlorofluoromethane	ND		ug/L	1.0	0.24	SW846 8260B		4/24/18 17:43	DD	A
Vinyl Acetate	ND		ug/L	5.0	1.6	SW846 8260B		4/24/18 17:43	DD	A
Vinyl Chloride	ND		ug/L	1.0	0.30	SW846 8260B		4/24/18 17:43	DD	A
cis-1,2-Dichloroethene	ND		ug/L	1.0	0.32	SW846 8260B		4/24/18 17:43	DD	A
cis-1,3-Dichloropropene	ND		ug/L	1.0	0.31	SW846 8260B		4/24/18 17:43	DD	A
mp-Xylene	ND		ug/L	2.0	0.52	SW846 8260B		4/24/18 17:43	DD	A
n-Butylbenzene	ND		ug/L	2.0	0.60	SW846 8260B		4/24/18 17:43	DD	A
n-Propylbenzene	ND		ug/L	1.0	0.33	SW846 8260B		4/24/18 17:43	DD	A
o-Chlorotoluene	ND		ug/L	1.0	0.26	SW846 8260B		4/24/18 17:43	DD	A
o-Xylene	ND		ug/L	1.0	0.33	SW846 8260B		4/24/18 17:43	DD	A
p-Chlorotoluene	ND		ug/L	1.0	0.33	SW846 8260B		4/24/18 17:43	DD	A
p-Isopropyltoluene	ND		ug/L	1.0	0.32	SW846 8260B		4/24/18 17:43	DD	A
sec-Butylbenzene	ND		ug/L	1.0	0.31	SW846 8260B		4/24/18 17:43	DD	A
tert-Amyl methyl ether	ND		ug/L	1.0	0.20	SW846 8260B		4/24/18 17:43	DD	A
tert-Butyl Alcohol	ND		ug/L	10.0	2.2	SW846 8260B		4/24/18 17:43	DD	A
tert-Butylbenzene	ND		ug/L	2.0	0.44	SW846 8260B		4/24/18 17:43	DD	A

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ANALYTICAL RESULTS

Workorder: 2309395 LMC MRC 4/17/18

Lab ID: **2309395011** Date Collected: 4/17/2018 09:12 Matrix: Water
Sample ID: **MRC-SW5A1** Date Received: 4/17/2018 22:00

Parameters	Results	Flag	Units	RDL	MDL	Method	Prepared	By	Analyzed	By	Cntr
trans-1,2-Dichloroethene	ND		ug/L	1.0	0.26	SW846 8260B			4/24/18 17:43	DD	A
trans-1,3-Dichloropropene	ND		ug/L	1.0	0.29	SW846 8260B			4/24/18 17:43	DD	A
Surrogate Recoveries	*Results*	*Flag*	*Units*	*Limits*		*Method*	*Prepared*	*By*	*Analyzed*	*By*	*Cntr*
1,2-Dichloroethane-d4 (S)	92.7		%	62 - 133		SW846 8260B			4/24/18 17:43	DD	A
4-Bromofluorobenzene (S)	94.1		%	79 - 114		SW846 8260B			4/24/18 17:43	DD	A
Dibromofluoromethane (S)	90.9		%	78 - 116		SW846 8260B			4/24/18 17:43	DD	A
Toluene-d8 (S)	80.7		%	76 - 127		SW846 8260B			4/24/18 17:43	DD	A
SUBCONTRACTED ANALYSIS											
Subcontracted Analysis	See attached.					Subcontract			4/30/18 11:35	SUB	C

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ANALYTICAL RESULTS

Workorder: 2309395 LMC MRC 4/17/18

Lab ID: **2309395012** Date Collected: 4/17/2018 08:06 Matrix: Water
Sample ID: **MRC-SW9B** Date Received: 4/17/2018 22:00

Parameters	Results	Flag	Units	RDL	MDL	Method	Prepared By	Analyzed	By	*Cntr*
VOLATILE ORGANICS										
1,1,1,2-Tetrachloroethane	ND		ug/L	1.0	0.35	SW846 8260B		4/24/18 18:05	DD	A
1,1,1-Trichloroethane	ND		ug/L	1.0	0.22	SW846 8260B		4/24/18 18:05	DD	A
1,1,2,2-Tetrachloroethane	ND		ug/L	1.0	0.34	SW846 8260B		4/24/18 18:05	DD	A
1,1,2-Trichloroethane	ND		ug/L	1.0	0.33	SW846 8260B		4/24/18 18:05	DD	A
1,1-Dichloroethane	ND		ug/L	1.0	0.28	SW846 8260B		4/24/18 18:05	DD	A
1,1-Dichloroethene	ND		ug/L	1.0	0.29	SW846 8260B		4/24/18 18:05	DD	A
1,2,3-Trichlorobenzene	ND		ug/L	2.0	0.93	SW846 8260B		4/24/18 18:05	DD	A
1,2,3-Trichloropropane	ND		ug/L	2.0	0.60	SW846 8260B		4/24/18 18:05	DD	A
1,2,4-Trichlorobenzene	ND		ug/L	2.0	0.82	SW846 8260B		4/24/18 18:05	DD	A
1,2,4-Trimethylbenzene	ND		ug/L	1.0	0.25	SW846 8260B		4/24/18 18:05	DD	A
1,2-Dibromo-3-chloropropane	ND		ug/L	7.0	1.5	SW846 8260B		4/24/18 18:05	DD	A
1,2-Dibromoethane	ND		ug/L	1.0	0.28	SW846 8260B		4/24/18 18:05	DD	A
1,2-Dichlorobenzene	ND		ug/L	1.0	0.38	SW846 8260B		4/24/18 18:05	DD	A
1,2-Dichloroethane	ND		ug/L	1.0	0.32	SW846 8260B		4/24/18 18:05	DD	A
1,2-Dichloroethene, Total	ND		ug/L	2.0	0.45	SW846 8260B		4/24/18 18:05	DD	A
1,2-Dichloropropane	ND		ug/L	1.0	0.24	SW846 8260B		4/24/18 18:05	DD	A
1,3-Dichlorobenzene	ND		ug/L	1.0	0.25	SW846 8260B		4/24/18 18:05	DD	A
1,3-Dichloropropane	ND		ug/L	1.0	0.27	SW846 8260B		4/24/18 18:05	DD	A
1,3-Dichloropropene, Total	ND		ug/L	2.0	0.47	SW846 8260B		4/24/18 18:05	DD	A
1,4-Dichlorobenzene	ND		ug/L	1.0	0.27	SW846 8260B		4/24/18 18:05	DD	A
2,2-Dichloropropane	ND		ug/L	1.0	0.32	SW846 8260B		4/24/18 18:05	DD	A
2-Butanone	ND		ug/L	10.0	1.8	SW846 8260B		4/24/18 18:05	DD	A
2-Chloroethylvinyl ether	ND		ug/L	2.0	0.38	SW846 8260B		4/24/18 18:05	DD	A
2-Hexanone	ND		ug/L	5.0	1.3	SW846 8260B		4/24/18 18:05	DD	A
4-Methyl-2-Pentanone(MIBK)	ND		ug/L	5.0	1.5	SW846 8260B		4/24/18 18:05	DD	A
Acetone	5.5J	J	ug/L	10.0	3.1	SW846 8260B		4/24/18 18:05	DD	A
Benzene	ND		ug/L	1.0	0.23	SW846 8260B		4/24/18 18:05	DD	A
Bromobenzene	ND		ug/L	1.0	0.32	SW846 8260B		4/24/18 18:05	DD	A
Bromochloromethane	ND		ug/L	1.0	0.32	SW846 8260B		4/24/18 18:05	DD	A
Bromodichloromethane	ND		ug/L	1.0	0.27	SW846 8260B		4/24/18 18:05	DD	A
Bromoform	ND		ug/L	1.0	0.40	SW846 8260B		4/24/18 18:05	DD	A
Bromomethane	ND		ug/L	1.0	0.39	SW846 8260B		4/24/18 18:05	DD	A
Carbon Disulfide	ND		ug/L	1.0	0.23	SW846 8260B		4/24/18 18:05	DD	A
Carbon Tetrachloride	ND		ug/L	1.0	0.31	SW846 8260B		4/24/18 18:05	DD	A
Chlorobenzene	ND		ug/L	1.0	0.19	SW846 8260B		4/24/18 18:05	DD	A
Chlorodibromomethane	ND		ug/L	1.0	0.45	SW846 8260B		4/24/18 18:05	DD	A

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ANALYTICAL RESULTS

Workorder: 2309395 LMC MRC 4/17/18

Lab ID: **2309395012** Date Collected: 4/17/2018 08:06 Matrix: Water
Sample ID: **MRC-SW9B** Date Received: 4/17/2018 22:00

Parameters	Results	Flag	Units	RDL	MDL	Method	Prepared By	Analyzed	By	*Cntr*
Chloroethane	ND		ug/L	1.0	0.33	SW846 8260B		4/24/18 18:05	DD	A
Chloroform	ND		ug/L	1.0	0.21	SW846 8260B		4/24/18 18:05	DD	A
Chloromethane	ND		ug/L	1.0	0.31	SW846 8260B		4/24/18 18:05	DD	A
Cyclohexane	ND		ug/L	1.0	0.29	SW846 8260B		4/24/18 18:05	DD	A
Dibromomethane	ND		ug/L	1.0	0.31	SW846 8260B		4/24/18 18:05	DD	A
Dichlorodifluoromethane	ND		ug/L	1.0	0.33	SW846 8260B		4/24/18 18:05	DD	A
Diisopropyl ether	ND		ug/L	1.0	0.25	SW846 8260B		4/24/18 18:05	DD	A
Ethyl tert-butyl ether	ND		ug/L	1.0	0.19	SW846 8260B		4/24/18 18:05	DD	A
Ethylbenzene	ND		ug/L	1.0	0.34	SW846 8260B		4/24/18 18:05	DD	A
Freon 113	ND		ug/L	1.0	0.26	SW846 8260B		4/24/18 18:05	DD	A
Hexachlorobutadiene	ND		ug/L	5.0	1.0	SW846 8260B		4/24/18 18:05	DD	A
Isopropylbenzene	ND		ug/L	1.0	0.22	SW846 8260B		4/24/18 18:05	DD	A
Methyl acetate	ND		ug/L	2.0	0.32	SW846 8260B		4/24/18 18:05	DD	A
Methyl cyclohexane	ND		ug/L	1.0	0.30	SW846 8260B		4/24/18 18:05	DD	A
Methyl t-Butyl Ether	ND		ug/L	1.0	0.33	SW846 8260B		4/24/18 18:05	DD	A
Methylene Chloride	ND		ug/L	1.0	0.45	SW846 8260B		4/24/18 18:05	DD	A
Naphthalene	ND		ug/L	2.0	0.34	SW846 8260B		4/24/18 18:05	DD	A
Styrene	ND		ug/L	1.0	0.24	SW846 8260B		4/24/18 18:05	DD	A
Tetrachloroethene	ND		ug/L	1.0	0.35	SW846 8260B		4/24/18 18:05	DD	A
Toluene	ND		ug/L	1.0	0.23	SW846 8260B		4/24/18 18:05	DD	A
Total Xylenes	ND		ug/L	3.0	0.66	SW846 8260B		4/24/18 18:05	DD	A
Trichloroethene	ND		ug/L	1.0	0.33	SW846 8260B		4/24/18 18:05	DD	A
Trichlorofluoromethane	ND		ug/L	1.0	0.24	SW846 8260B		4/24/18 18:05	DD	A
Vinyl Acetate	ND		ug/L	5.0	1.6	SW846 8260B		4/24/18 18:05	DD	A
Vinyl Chloride	ND		ug/L	1.0	0.30	SW846 8260B		4/24/18 18:05	DD	A
cis-1,2-Dichloroethene	ND		ug/L	1.0	0.32	SW846 8260B		4/24/18 18:05	DD	A
cis-1,3-Dichloropropene	ND		ug/L	1.0	0.31	SW846 8260B		4/24/18 18:05	DD	A
mp-Xylene	ND		ug/L	2.0	0.52	SW846 8260B		4/24/18 18:05	DD	A
n-Butylbenzene	ND		ug/L	2.0	0.60	SW846 8260B		4/24/18 18:05	DD	A
n-Propylbenzene	ND		ug/L	1.0	0.33	SW846 8260B		4/24/18 18:05	DD	A
o-Chlorotoluene	ND		ug/L	1.0	0.26	SW846 8260B		4/24/18 18:05	DD	A
o-Xylene	ND		ug/L	1.0	0.33	SW846 8260B		4/24/18 18:05	DD	A
p-Chlorotoluene	ND		ug/L	1.0	0.33	SW846 8260B		4/24/18 18:05	DD	A
p-Isopropyltoluene	ND		ug/L	1.0	0.32	SW846 8260B		4/24/18 18:05	DD	A
sec-Butylbenzene	ND		ug/L	1.0	0.31	SW846 8260B		4/24/18 18:05	DD	A
tert-Amyl methyl ether	ND		ug/L	1.0	0.20	SW846 8260B		4/24/18 18:05	DD	A
tert-Butyl Alcohol	ND		ug/L	10.0	2.2	SW846 8260B		4/24/18 18:05	DD	A
tert-Butylbenzene	ND		ug/L	2.0	0.44	SW846 8260B		4/24/18 18:05	DD	A

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State Certifications: DE ID 11 , MA PA0102 , MD 128 , VA 460157 , WV 343

ANALYTICAL RESULTS

Workorder: 2309395 LMC MRC 4/17/18

Lab ID: **2309395012** Date Collected: 4/17/2018 08:06 Matrix: Water
Sample ID: **MRC-SW9B** Date Received: 4/17/2018 22:00

Parameters	Results	Flag	Units	RDL	MDL	Method	Prepared	By	Analyzed	By	Cntr
trans-1,2-Dichloroethene	ND		ug/L	1.0	0.26	SW846 8260B			4/24/18 18:05	DD	A
trans-1,3-Dichloropropene	ND		ug/L	1.0	0.29	SW846 8260B			4/24/18 18:05	DD	A
Surrogate Recoveries	*Results*	*Flag*	*Units*	*Limits*		*Method*	*Prepared*	*By*	*Analyzed*	*By*	*Cntr*
1,2-Dichloroethane-d4 (S)	93		%	62 - 133		SW846 8260B			4/24/18 18:05	DD	A
4-Bromofluorobenzene (S)	94.5		%	79 - 114		SW846 8260B			4/24/18 18:05	DD	A
Dibromofluoromethane (S)	95.3		%	78 - 116		SW846 8260B			4/24/18 18:05	DD	A
Toluene-d8 (S)	81.4		%	76 - 127		SW846 8260B			4/24/18 18:05	DD	A
SUBCONTRACTED ANALYSIS											
Subcontracted Analysis	See attached.					Subcontract			4/27/18 02:01	SUB	C

Vanessa N. Badman
Mrs. Vanessa N Badman
Project Coordinator

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ANALYTICAL RESULTS

Workorder: 2309395 LMC MRC 4/17/18

Lab ID: **2309395013** Date Collected: 4/17/2018 11:40 Matrix: Water
Sample ID: **MRC-SW15A** Date Received: 4/17/2018 22:00

Parameters	Results	Flag	Units	RDL	MDL	Method	Prepared By	Analyzed	By	*Cntr*
VOLATILE ORGANICS										
1,1,1,2-Tetrachloroethane	ND		ug/L	1.0	0.35	SW846 8260B		4/24/18 18:27	DD	A
1,1,1-Trichloroethane	ND		ug/L	1.0	0.22	SW846 8260B		4/24/18 18:27	DD	A
1,1,2,2-Tetrachloroethane	ND		ug/L	1.0	0.34	SW846 8260B		4/24/18 18:27	DD	A
1,1,2-Trichloroethane	ND		ug/L	1.0	0.33	SW846 8260B		4/24/18 18:27	DD	A
1,1-Dichloroethane	ND		ug/L	1.0	0.28	SW846 8260B		4/24/18 18:27	DD	A
1,1-Dichloroethene	ND		ug/L	1.0	0.29	SW846 8260B		4/24/18 18:27	DD	A
1,2,3-Trichlorobenzene	ND		ug/L	2.0	0.93	SW846 8260B		4/24/18 18:27	DD	A
1,2,3-Trichloropropane	ND		ug/L	2.0	0.60	SW846 8260B		4/24/18 18:27	DD	A
1,2,4-Trichlorobenzene	ND		ug/L	2.0	0.82	SW846 8260B		4/24/18 18:27	DD	A
1,2,4-Trimethylbenzene	ND		ug/L	1.0	0.25	SW846 8260B		4/24/18 18:27	DD	A
1,2-Dibromo-3-chloropropane	ND		ug/L	7.0	1.5	SW846 8260B		4/24/18 18:27	DD	A
1,2-Dibromoethane	ND		ug/L	1.0	0.28	SW846 8260B		4/24/18 18:27	DD	A
1,2-Dichlorobenzene	ND		ug/L	1.0	0.38	SW846 8260B		4/24/18 18:27	DD	A
1,2-Dichloroethane	ND		ug/L	1.0	0.32	SW846 8260B		4/24/18 18:27	DD	A
1,2-Dichloroethene, Total	ND		ug/L	2.0	0.45	SW846 8260B		4/24/18 18:27	DD	A
1,2-Dichloropropane	ND		ug/L	1.0	0.24	SW846 8260B		4/24/18 18:27	DD	A
1,3-Dichlorobenzene	ND		ug/L	1.0	0.25	SW846 8260B		4/24/18 18:27	DD	A
1,3-Dichloropropane	ND		ug/L	1.0	0.27	SW846 8260B		4/24/18 18:27	DD	A
1,3-Dichloropropene, Total	ND		ug/L	2.0	0.47	SW846 8260B		4/24/18 18:27	DD	A
1,4-Dichlorobenzene	ND		ug/L	1.0	0.27	SW846 8260B		4/24/18 18:27	DD	A
2,2-Dichloropropane	ND		ug/L	1.0	0.32	SW846 8260B		4/24/18 18:27	DD	A
2-Butanone	ND		ug/L	10.0	1.8	SW846 8260B		4/24/18 18:27	DD	A
2-Chloroethylvinyl ether	ND		ug/L	2.0	0.38	SW846 8260B		4/24/18 18:27	DD	A
2-Hexanone	ND		ug/L	5.0	1.3	SW846 8260B		4/24/18 18:27	DD	A
4-Methyl-2-Pentanone(MIBK)	ND		ug/L	5.0	1.5	SW846 8260B		4/24/18 18:27	DD	A
Acetone	5.5J	J	ug/L	10.0	3.1	SW846 8260B		4/24/18 18:27	DD	A
Benzene	ND		ug/L	1.0	0.23	SW846 8260B		4/24/18 18:27	DD	A
Bromobenzene	ND		ug/L	1.0	0.32	SW846 8260B		4/24/18 18:27	DD	A
Bromochloromethane	ND		ug/L	1.0	0.32	SW846 8260B		4/24/18 18:27	DD	A
Bromodichloromethane	ND		ug/L	1.0	0.27	SW846 8260B		4/24/18 18:27	DD	A
Bromoform	ND		ug/L	1.0	0.40	SW846 8260B		4/24/18 18:27	DD	A
Bromomethane	ND		ug/L	1.0	0.39	SW846 8260B		4/24/18 18:27	DD	A
Carbon Disulfide	ND		ug/L	1.0	0.23	SW846 8260B		4/24/18 18:27	DD	A
Carbon Tetrachloride	ND		ug/L	1.0	0.31	SW846 8260B		4/24/18 18:27	DD	A
Chlorobenzene	ND		ug/L	1.0	0.19	SW846 8260B		4/24/18 18:27	DD	A
Chlorodibromomethane	ND		ug/L	1.0	0.45	SW846 8260B		4/24/18 18:27	DD	A

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ANALYTICAL RESULTS

Workorder: 2309395 LMC MRC 4/17/18

Lab ID: **2309395013** Date Collected: 4/17/2018 11:40 Matrix: Water
Sample ID: **MRC-SW15A** Date Received: 4/17/2018 22:00

Parameters	Results	Flag	Units	RDL	MDL	Method	Prepared By	Analyzed	By	*Cntr*
Chloroethane	ND		ug/L	1.0	0.33	SW846 8260B		4/24/18 18:27	DD	A
Chloroform	ND		ug/L	1.0	0.21	SW846 8260B		4/24/18 18:27	DD	A
Chloromethane	ND		ug/L	1.0	0.31	SW846 8260B		4/24/18 18:27	DD	A
Cyclohexane	ND		ug/L	1.0	0.29	SW846 8260B		4/24/18 18:27	DD	A
Dibromomethane	ND		ug/L	1.0	0.31	SW846 8260B		4/24/18 18:27	DD	A
Dichlorodifluoromethane	ND		ug/L	1.0	0.33	SW846 8260B		4/24/18 18:27	DD	A
Diisopropyl ether	ND		ug/L	1.0	0.25	SW846 8260B		4/24/18 18:27	DD	A
Ethyl tert-butyl ether	ND		ug/L	1.0	0.19	SW846 8260B		4/24/18 18:27	DD	A
Ethylbenzene	ND		ug/L	1.0	0.34	SW846 8260B		4/24/18 18:27	DD	A
Freon 113	ND		ug/L	1.0	0.26	SW846 8260B		4/24/18 18:27	DD	A
Hexachlorobutadiene	ND		ug/L	5.0	1.0	SW846 8260B		4/24/18 18:27	DD	A
Isopropylbenzene	ND		ug/L	1.0	0.22	SW846 8260B		4/24/18 18:27	DD	A
Methyl acetate	ND		ug/L	2.0	0.32	SW846 8260B		4/24/18 18:27	DD	A
Methyl cyclohexane	ND		ug/L	1.0	0.30	SW846 8260B		4/24/18 18:27	DD	A
Methyl t-Butyl Ether	ND		ug/L	1.0	0.33	SW846 8260B		4/24/18 18:27	DD	A
Methylene Chloride	ND		ug/L	1.0	0.45	SW846 8260B		4/24/18 18:27	DD	A
Naphthalene	ND		ug/L	2.0	0.34	SW846 8260B		4/24/18 18:27	DD	A
Styrene	ND		ug/L	1.0	0.24	SW846 8260B		4/24/18 18:27	DD	A
Tetrachloroethene	ND		ug/L	1.0	0.35	SW846 8260B		4/24/18 18:27	DD	A
Toluene	ND		ug/L	1.0	0.23	SW846 8260B		4/24/18 18:27	DD	A
Total Xylenes	ND		ug/L	3.0	0.66	SW846 8260B		4/24/18 18:27	DD	A
Trichloroethene	ND		ug/L	1.0	0.33	SW846 8260B		4/24/18 18:27	DD	A
Trichlorofluoromethane	ND		ug/L	1.0	0.24	SW846 8260B		4/24/18 18:27	DD	A
Vinyl Acetate	ND		ug/L	5.0	1.6	SW846 8260B		4/24/18 18:27	DD	A
Vinyl Chloride	ND		ug/L	1.0	0.30	SW846 8260B		4/24/18 18:27	DD	A
cis-1,2-Dichloroethene	ND		ug/L	1.0	0.32	SW846 8260B		4/24/18 18:27	DD	A
cis-1,3-Dichloropropene	ND		ug/L	1.0	0.31	SW846 8260B		4/24/18 18:27	DD	A
mp-Xylene	ND		ug/L	2.0	0.52	SW846 8260B		4/24/18 18:27	DD	A
n-Butylbenzene	ND		ug/L	2.0	0.60	SW846 8260B		4/24/18 18:27	DD	A
n-Propylbenzene	ND		ug/L	1.0	0.33	SW846 8260B		4/24/18 18:27	DD	A
o-Chlorotoluene	ND		ug/L	1.0	0.26	SW846 8260B		4/24/18 18:27	DD	A
o-Xylene	ND		ug/L	1.0	0.33	SW846 8260B		4/24/18 18:27	DD	A
p-Chlorotoluene	ND		ug/L	1.0	0.33	SW846 8260B		4/24/18 18:27	DD	A
p-Isopropyltoluene	ND		ug/L	1.0	0.32	SW846 8260B		4/24/18 18:27	DD	A
sec-Butylbenzene	ND		ug/L	1.0	0.31	SW846 8260B		4/24/18 18:27	DD	A
tert-Amyl methyl ether	ND		ug/L	1.0	0.20	SW846 8260B		4/24/18 18:27	DD	A
tert-Butyl Alcohol	ND		ug/L	10.0	2.2	SW846 8260B		4/24/18 18:27	DD	A
tert-Butylbenzene	ND		ug/L	2.0	0.44	SW846 8260B		4/24/18 18:27	DD	A

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ANALYTICAL RESULTS

Workorder: 2309395 LMC MRC 4/17/18

Lab ID: **2309395013** Date Collected: 4/17/2018 11:40 Matrix: Water
Sample ID: **MRC-SW15A** Date Received: 4/17/2018 22:00

Parameters	Results	Flag	Units	RDL	MDL	Method	Prepared	By	Analyzed	By	*Cntr*
trans-1,2-Dichloroethene	ND		ug/L	1.0	0.26	SW846 8260B			4/24/18 18:27	DD	A
trans-1,3-Dichloropropene	ND		ug/L	1.0	0.29	SW846 8260B			4/24/18 18:27	DD	A
Surrogate Recoveries	*Results*	*Flag*	*Units*	*Limits*		*Method*	*Prepared*	*By*	*Analyzed*	*By*	*Cntr*
1,2-Dichloroethane-d4 (S)	94.7		%	62 - 133		SW846 8260B			4/24/18 18:27	DD	A
4-Bromofluorobenzene (S)	93.8		%	79 - 114		SW846 8260B			4/24/18 18:27	DD	A
Dibromofluoromethane (S)	94.2		%	78 - 116		SW846 8260B			4/24/18 18:27	DD	A
Toluene-d8 (S)	81.5		%	76 - 127		SW846 8260B			4/24/18 18:27	DD	A
SUBCONTRACTED ANALYSIS											
Subcontracted Analysis	See attached.					Subcontract			4/27/18 02:30	SUB	C

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ANALYTICAL RESULTS

Workorder: 2309395 LMC MRC 4/17/18

Lab ID: **2309395014** Date Collected: 4/17/2018 11:20 Matrix: Water
Sample ID: **MRC-SW16A** Date Received: 4/17/2018 22:00

Parameters	Results	Flag	Units	RDL	MDL	Method	Prepared By	Analyzed	By	*Cntr*
VOLATILE ORGANICS										
1,1,1,2-Tetrachloroethane	ND		ug/L	1.0	0.35	SW846 8260B		4/24/18 18:48	DD	A
1,1,1-Trichloroethane	ND		ug/L	1.0	0.22	SW846 8260B		4/24/18 18:48	DD	A
1,1,2,2-Tetrachloroethane	ND		ug/L	1.0	0.34	SW846 8260B		4/24/18 18:48	DD	A
1,1,2-Trichloroethane	ND		ug/L	1.0	0.33	SW846 8260B		4/24/18 18:48	DD	A
1,1-Dichloroethane	ND		ug/L	1.0	0.28	SW846 8260B		4/24/18 18:48	DD	A
1,1-Dichloroethene	ND		ug/L	1.0	0.29	SW846 8260B		4/24/18 18:48	DD	A
1,2,3-Trichlorobenzene	ND		ug/L	2.0	0.93	SW846 8260B		4/24/18 18:48	DD	A
1,2,3-Trichloropropane	ND		ug/L	2.0	0.60	SW846 8260B		4/24/18 18:48	DD	A
1,2,4-Trichlorobenzene	ND		ug/L	2.0	0.82	SW846 8260B		4/24/18 18:48	DD	A
1,2,4-Trimethylbenzene	ND		ug/L	1.0	0.25	SW846 8260B		4/24/18 18:48	DD	A
1,2-Dibromo-3-chloropropane	ND		ug/L	7.0	1.5	SW846 8260B		4/24/18 18:48	DD	A
1,2-Dibromoethane	ND		ug/L	1.0	0.28	SW846 8260B		4/24/18 18:48	DD	A
1,2-Dichlorobenzene	ND		ug/L	1.0	0.38	SW846 8260B		4/24/18 18:48	DD	A
1,2-Dichloroethane	ND		ug/L	1.0	0.32	SW846 8260B		4/24/18 18:48	DD	A
1,2-Dichloroethene, Total	ND		ug/L	2.0	0.45	SW846 8260B		4/24/18 18:48	DD	A
1,2-Dichloropropane	ND		ug/L	1.0	0.24	SW846 8260B		4/24/18 18:48	DD	A
1,3-Dichlorobenzene	ND		ug/L	1.0	0.25	SW846 8260B		4/24/18 18:48	DD	A
1,3-Dichloropropane	ND		ug/L	1.0	0.27	SW846 8260B		4/24/18 18:48	DD	A
1,3-Dichloropropene, Total	ND		ug/L	2.0	0.47	SW846 8260B		4/24/18 18:48	DD	A
1,4-Dichlorobenzene	ND		ug/L	1.0	0.27	SW846 8260B		4/24/18 18:48	DD	A
2,2-Dichloropropane	ND		ug/L	1.0	0.32	SW846 8260B		4/24/18 18:48	DD	A
2-Butanone	ND		ug/L	10.0	1.8	SW846 8260B		4/24/18 18:48	DD	A
2-Chloroethylvinyl ether	ND		ug/L	2.0	0.38	SW846 8260B		4/24/18 18:48	DD	A
2-Hexanone	ND		ug/L	5.0	1.3	SW846 8260B		4/24/18 18:48	DD	A
4-Methyl-2-Pentanone(MIBK)	ND		ug/L	5.0	1.5	SW846 8260B		4/24/18 18:48	DD	A
Acetone	9.0J	J	ug/L	10.0	3.1	SW846 8260B		4/24/18 18:48	DD	A
Benzene	ND		ug/L	1.0	0.23	SW846 8260B		4/24/18 18:48	DD	A
Bromobenzene	ND		ug/L	1.0	0.32	SW846 8260B		4/24/18 18:48	DD	A
Bromochloromethane	ND		ug/L	1.0	0.32	SW846 8260B		4/24/18 18:48	DD	A
Bromodichloromethane	ND		ug/L	1.0	0.27	SW846 8260B		4/24/18 18:48	DD	A
Bromoform	ND		ug/L	1.0	0.40	SW846 8260B		4/24/18 18:48	DD	A
Bromomethane	ND		ug/L	1.0	0.39	SW846 8260B		4/24/18 18:48	DD	A
Carbon Disulfide	ND		ug/L	1.0	0.23	SW846 8260B		4/24/18 18:48	DD	A
Carbon Tetrachloride	ND		ug/L	1.0	0.31	SW846 8260B		4/24/18 18:48	DD	A
Chlorobenzene	ND		ug/L	1.0	0.19	SW846 8260B		4/24/18 18:48	DD	A
Chlorodibromomethane	ND		ug/L	1.0	0.45	SW846 8260B		4/24/18 18:48	DD	A

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ANALYTICAL RESULTS

Workorder: 2309395 LMC MRC 4/17/18

Lab ID: **2309395014** Date Collected: 4/17/2018 11:20 Matrix: Water
Sample ID: **MRC-SW16A** Date Received: 4/17/2018 22:00

Parameters	Results	Flag	Units	RDL	MDL	Method	Prepared By	Analyzed	By	*Cntr*
Chloroethane	ND		ug/L	1.0	0.33	SW846 8260B		4/24/18 18:48	DD	A
Chloroform	ND		ug/L	1.0	0.21	SW846 8260B		4/24/18 18:48	DD	A
Chloromethane	ND		ug/L	1.0	0.31	SW846 8260B		4/24/18 18:48	DD	A
Cyclohexane	ND		ug/L	1.0	0.29	SW846 8260B		4/24/18 18:48	DD	A
Dibromomethane	ND		ug/L	1.0	0.31	SW846 8260B		4/24/18 18:48	DD	A
Dichlorodifluoromethane	ND		ug/L	1.0	0.33	SW846 8260B		4/24/18 18:48	DD	A
Diisopropyl ether	ND		ug/L	1.0	0.25	SW846 8260B		4/24/18 18:48	DD	A
Ethyl tert-butyl ether	ND		ug/L	1.0	0.19	SW846 8260B		4/24/18 18:48	DD	A
Ethylbenzene	ND		ug/L	1.0	0.34	SW846 8260B		4/24/18 18:48	DD	A
Freon 113	ND		ug/L	1.0	0.26	SW846 8260B		4/24/18 18:48	DD	A
Hexachlorobutadiene	ND		ug/L	5.0	1.0	SW846 8260B		4/24/18 18:48	DD	A
Isopropylbenzene	ND		ug/L	1.0	0.22	SW846 8260B		4/24/18 18:48	DD	A
Methyl acetate	ND		ug/L	2.0	0.32	SW846 8260B		4/24/18 18:48	DD	A
Methyl cyclohexane	ND		ug/L	1.0	0.30	SW846 8260B		4/24/18 18:48	DD	A
Methyl t-Butyl Ether	ND		ug/L	1.0	0.33	SW846 8260B		4/24/18 18:48	DD	A
Methylene Chloride	ND		ug/L	1.0	0.45	SW846 8260B		4/24/18 18:48	DD	A
Naphthalene	ND		ug/L	2.0	0.34	SW846 8260B		4/24/18 18:48	DD	A
Styrene	ND		ug/L	1.0	0.24	SW846 8260B		4/24/18 18:48	DD	A
Tetrachloroethene	ND		ug/L	1.0	0.35	SW846 8260B		4/24/18 18:48	DD	A
Toluene	ND		ug/L	1.0	0.23	SW846 8260B		4/24/18 18:48	DD	A
Total Xylenes	ND		ug/L	3.0	0.66	SW846 8260B		4/24/18 18:48	DD	A
Trichloroethene	ND		ug/L	1.0	0.33	SW846 8260B		4/24/18 18:48	DD	A
Trichlorofluoromethane	ND		ug/L	1.0	0.24	SW846 8260B		4/24/18 18:48	DD	A
Vinyl Acetate	ND		ug/L	5.0	1.6	SW846 8260B		4/24/18 18:48	DD	A
Vinyl Chloride	ND		ug/L	1.0	0.30	SW846 8260B		4/24/18 18:48	DD	A
cis-1,2-Dichloroethene	ND		ug/L	1.0	0.32	SW846 8260B		4/24/18 18:48	DD	A
cis-1,3-Dichloropropene	ND		ug/L	1.0	0.31	SW846 8260B		4/24/18 18:48	DD	A
mp-Xylene	ND		ug/L	2.0	0.52	SW846 8260B		4/24/18 18:48	DD	A
n-Butylbenzene	ND		ug/L	2.0	0.60	SW846 8260B		4/24/18 18:48	DD	A
n-Propylbenzene	ND		ug/L	1.0	0.33	SW846 8260B		4/24/18 18:48	DD	A
o-Chlorotoluene	ND		ug/L	1.0	0.26	SW846 8260B		4/24/18 18:48	DD	A
o-Xylene	ND		ug/L	1.0	0.33	SW846 8260B		4/24/18 18:48	DD	A
p-Chlorotoluene	ND		ug/L	1.0	0.33	SW846 8260B		4/24/18 18:48	DD	A
p-Isopropyltoluene	ND		ug/L	1.0	0.32	SW846 8260B		4/24/18 18:48	DD	A
sec-Butylbenzene	ND		ug/L	1.0	0.31	SW846 8260B		4/24/18 18:48	DD	A
tert-Amyl methyl ether	ND		ug/L	1.0	0.20	SW846 8260B		4/24/18 18:48	DD	A
tert-Butyl Alcohol	ND		ug/L	10.0	2.2	SW846 8260B		4/24/18 18:48	DD	A
tert-Butylbenzene	ND		ug/L	2.0	0.44	SW846 8260B		4/24/18 18:48	DD	A

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ANALYTICAL RESULTS

Workorder: 2309395 LMC MRC 4/17/18

Lab ID: **2309395014** Date Collected: 4/17/2018 11:20 Matrix: Water
Sample ID: **MRC-SW16A** Date Received: 4/17/2018 22:00

Parameters	Results	Flag	Units	RDL	MDL	Method	Prepared	By	Analyzed	By	Cntr
trans-1,2-Dichloroethene	ND		ug/L	1.0	0.26	SW846 8260B			4/24/18 18:48	DD	A
trans-1,3-Dichloropropene	ND		ug/L	1.0	0.29	SW846 8260B			4/24/18 18:48	DD	A
Surrogate Recoveries	*Results*	*Flag*	*Units*	*Limits*		*Method*	*Prepared*	*By*	*Analyzed*	*By*	*Cntr*
1,2-Dichloroethane-d4 (S)	94.7		%	62 - 133		SW846 8260B			4/24/18 18:48	DD	A
4-Bromofluorobenzene (S)	92.9		%	79 - 114		SW846 8260B			4/24/18 18:48	DD	A
Dibromofluoromethane (S)	93.8		%	78 - 116		SW846 8260B			4/24/18 18:48	DD	A
Toluene-d8 (S)	80.4		%	76 - 127		SW846 8260B			4/24/18 18:48	DD	A
SUBCONTRACTED ANALYSIS											
Subcontracted Analysis	See attached.					Subcontract			4/27/18 02:58	SUB	C

Vanessa N. Badman
Mrs. Vanessa N Badman
Project Coordinator

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ANALYTICAL RESULTS

Workorder: 2309395 LMC MRC 4/17/18

Lab ID: **2309395015** Date Collected: 4/17/2018 22:00 Matrix: Water
Sample ID: **TB-041718-3** Date Received: 4/17/2018 22:00

Parameters	Results	Flag	Units	RDL	MDL	Method	Prepared By	Analyzed	By	*Cntr*
VOLATILE ORGANICS										
1,1,1,2-Tetrachloroethane	ND		ug/L	1.0	0.35	SW846 8260B		4/24/18 15:50	TMP	A
1,1,1-Trichloroethane	ND		ug/L	1.0	0.22	SW846 8260B		4/24/18 15:50	TMP	A
1,1,2,2-Tetrachloroethane	ND		ug/L	1.0	0.34	SW846 8260B		4/24/18 15:50	TMP	A
1,1,2-Trichloroethane	ND		ug/L	1.0	0.33	SW846 8260B		4/24/18 15:50	TMP	A
1,1-Dichloroethane	ND		ug/L	1.0	0.28	SW846 8260B		4/24/18 15:50	TMP	A
1,1-Dichloroethene	ND		ug/L	1.0	0.29	SW846 8260B		4/24/18 15:50	TMP	A
1,2,3-Trichlorobenzene	ND		ug/L	2.0	0.93	SW846 8260B		4/24/18 15:50	TMP	A
1,2,3-Trichloropropane	ND		ug/L	2.0	0.60	SW846 8260B		4/24/18 15:50	TMP	A
1,2,4-Trichlorobenzene	ND		ug/L	2.0	0.82	SW846 8260B		4/24/18 15:50	TMP	A
1,2,4-Trimethylbenzene	ND		ug/L	1.0	0.25	SW846 8260B		4/24/18 15:50	TMP	A
1,2-Dibromo-3-chloropropane	ND		ug/L	7.0	1.5	SW846 8260B		4/24/18 15:50	TMP	A
1,2-Dibromoethane	ND		ug/L	1.0	0.28	SW846 8260B		4/24/18 15:50	TMP	A
1,2-Dichlorobenzene	ND		ug/L	1.0	0.38	SW846 8260B		4/24/18 15:50	TMP	A
1,2-Dichloroethane	ND		ug/L	1.0	0.32	SW846 8260B		4/24/18 15:50	TMP	A
1,2-Dichloroethene, Total	ND		ug/L	2.0	0.45	SW846 8260B		4/24/18 15:50	TMP	A
1,2-Dichloropropane	ND		ug/L	1.0	0.24	SW846 8260B		4/24/18 15:50	TMP	A
1,3-Dichlorobenzene	ND		ug/L	1.0	0.25	SW846 8260B		4/24/18 15:50	TMP	A
1,3-Dichloropropane	ND		ug/L	1.0	0.27	SW846 8260B		4/24/18 15:50	TMP	A
1,3-Dichloropropene, Total	ND		ug/L	2.0	0.47	SW846 8260B		4/24/18 15:50	TMP	A
1,4-Dichlorobenzene	ND		ug/L	1.0	0.27	SW846 8260B		4/24/18 15:50	TMP	A
2,2-Dichloropropane	ND		ug/L	1.0	0.32	SW846 8260B		4/24/18 15:50	TMP	A
2-Butanone	ND		ug/L	10.0	1.8	SW846 8260B		4/24/18 15:50	TMP	A
2-Chloroethylvinyl ether	ND		ug/L	2.0	0.38	SW846 8260B		4/24/18 15:50	TMP	A
2-Hexanone	ND		ug/L	5.0	1.3	SW846 8260B		4/24/18 15:50	TMP	A
4-Methyl-2-Pentanone(MIBK)	ND		ug/L	5.0	1.5	SW846 8260B		4/24/18 15:50	TMP	A
Acetone	11.5		ug/L	10.0	3.1	SW846 8260B		4/24/18 15:50	TMP	A
Benzene	ND		ug/L	1.0	0.23	SW846 8260B		4/24/18 15:50	TMP	A
Bromobenzene	ND		ug/L	1.0	0.32	SW846 8260B		4/24/18 15:50	TMP	A
Bromochloromethane	ND		ug/L	1.0	0.32	SW846 8260B		4/24/18 15:50	TMP	A
Bromodichloromethane	ND		ug/L	1.0	0.27	SW846 8260B		4/24/18 15:50	TMP	A
Bromoform	ND		ug/L	1.0	0.40	SW846 8260B		4/24/18 15:50	TMP	A
Bromomethane	ND		ug/L	1.0	0.39	SW846 8260B		4/24/18 15:50	TMP	A
Carbon Disulfide	ND		ug/L	1.0	0.23	SW846 8260B		4/24/18 15:50	TMP	A
Carbon Tetrachloride	ND		ug/L	1.0	0.31	SW846 8260B		4/24/18 15:50	TMP	A
Chlorobenzene	ND		ug/L	1.0	0.19	SW846 8260B		4/24/18 15:50	TMP	A
Chlorodibromomethane	ND		ug/L	1.0	0.45	SW846 8260B		4/24/18 15:50	TMP	A

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ANALYTICAL RESULTS

Workorder: 2309395 LMC MRC 4/17/18

Lab ID: **2309395015** Date Collected: 4/17/2018 22:00 Matrix: Water
Sample ID: **TB-041718-3** Date Received: 4/17/2018 22:00

Parameters	Results	Flag	Units	RDL	MDL	Method	Prepared By	Analyzed	By	Cntr
Chloroethane	ND		ug/L	1.0	0.33	SW846 8260B		4/24/18 15:50	TMP	A
Chloroform	ND		ug/L	1.0	0.21	SW846 8260B		4/24/18 15:50	TMP	A
Chloromethane	ND		ug/L	1.0	0.31	SW846 8260B		4/24/18 15:50	TMP	A
Cyclohexane	ND		ug/L	1.0	0.29	SW846 8260B		4/24/18 15:50	TMP	A
Dibromomethane	ND		ug/L	1.0	0.31	SW846 8260B		4/24/18 15:50	TMP	A
Dichlorodifluoromethane	ND		ug/L	1.0	0.33	SW846 8260B		4/24/18 15:50	TMP	A
Diisopropyl ether	ND		ug/L	1.0	0.25	SW846 8260B		4/24/18 15:50	TMP	A
Ethyl tert-butyl ether	ND		ug/L	1.0	0.19	SW846 8260B		4/24/18 15:50	TMP	A
Ethylbenzene	ND		ug/L	1.0	0.34	SW846 8260B		4/24/18 15:50	TMP	A
Freon 113	ND		ug/L	1.0	0.26	SW846 8260B		4/24/18 15:50	TMP	A
Hexachlorobutadiene	ND		ug/L	5.0	1.0	SW846 8260B		4/24/18 15:50	TMP	A
Isopropylbenzene	ND		ug/L	1.0	0.22	SW846 8260B		4/24/18 15:50	TMP	A
Methyl acetate	ND		ug/L	2.0	0.32	SW846 8260B		4/24/18 15:50	TMP	A
Methyl cyclohexane	ND		ug/L	1.0	0.30	SW846 8260B		4/24/18 15:50	TMP	A
Methyl t-Butyl Ether	ND		ug/L	1.0	0.33	SW846 8260B		4/24/18 15:50	TMP	A
Methylene Chloride	ND		ug/L	1.0	0.45	SW846 8260B		4/24/18 15:50	TMP	A
Naphthalene	0.49J	J	ug/L	2.0	0.34	SW846 8260B		4/24/18 15:50	TMP	A
Styrene	ND		ug/L	1.0	0.24	SW846 8260B		4/24/18 15:50	TMP	A
Tetrachloroethene	ND		ug/L	1.0	0.35	SW846 8260B		4/24/18 15:50	TMP	A
Toluene	ND		ug/L	1.0	0.23	SW846 8260B		4/24/18 15:50	TMP	A
Total Xylenes	ND		ug/L	3.0	0.66	SW846 8260B		4/24/18 15:50	TMP	A
Trichloroethene	ND		ug/L	1.0	0.33	SW846 8260B		4/24/18 15:50	TMP	A
Trichlorofluoromethane	ND		ug/L	1.0	0.24	SW846 8260B		4/24/18 15:50	TMP	A
Vinyl Acetate	ND		ug/L	5.0	1.6	SW846 8260B		4/24/18 15:50	TMP	A
Vinyl Chloride	ND		ug/L	1.0	0.30	SW846 8260B		4/24/18 15:50	TMP	A
cis-1,2-Dichloroethene	ND		ug/L	1.0	0.32	SW846 8260B		4/24/18 15:50	TMP	A
cis-1,3-Dichloropropene	ND		ug/L	1.0	0.31	SW846 8260B		4/24/18 15:50	TMP	A
mp-Xylene	ND		ug/L	2.0	0.52	SW846 8260B		4/24/18 15:50	TMP	A
n-Butylbenzene	ND		ug/L	2.0	0.60	SW846 8260B		4/24/18 15:50	TMP	A
n-Propylbenzene	ND		ug/L	1.0	0.33	SW846 8260B		4/24/18 15:50	TMP	A
o-Chlorotoluene	ND		ug/L	1.0	0.26	SW846 8260B		4/24/18 15:50	TMP	A
o-Xylene	ND		ug/L	1.0	0.33	SW846 8260B		4/24/18 15:50	TMP	A
p-Chlorotoluene	ND		ug/L	1.0	0.33	SW846 8260B		4/24/18 15:50	TMP	A
p-Isopropyltoluene	ND		ug/L	1.0	0.32	SW846 8260B		4/24/18 15:50	TMP	A
sec-Butylbenzene	ND		ug/L	1.0	0.31	SW846 8260B		4/24/18 15:50	TMP	A
tert-Amyl methyl ether	ND		ug/L	1.0	0.20	SW846 8260B		4/24/18 15:50	TMP	A
tert-Butyl Alcohol	ND		ug/L	10.0	2.2	SW846 8260B		4/24/18 15:50	TMP	A
tert-Butylbenzene	ND		ug/L	2.0	0.44	SW846 8260B		4/24/18 15:50	TMP	A

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ANALYTICAL RESULTS

Workorder: 2309395 LMC MRC 4/17/18

Lab ID: **2309395015** Date Collected: 4/17/2018 22:00 Matrix: Water
Sample ID: **TB-041718-3** Date Received: 4/17/2018 22:00

Parameters	Results	Flag	Units	RDL	MDL	Method	Prepared	By	Analyzed	By	Cntr
trans-1,2-Dichloroethene	ND		ug/L	1.0	0.26	SW846 8260B			4/24/18 15:50	TMP	A
trans-1,3-Dichloropropene	ND		ug/L	1.0	0.29	SW846 8260B			4/24/18 15:50	TMP	A
Surrogate Recoveries	*Results*	*Flag*	*Units*	*Limits*		*Method*	*Prepared*	*By*	*Analyzed*	*By*	*Cntr*
1,2-Dichloroethane-d4 (S)	114		%	62 - 133		SW846 8260B			4/24/18 15:50	TMP	A
4-Bromofluorobenzene (S)	96.5		%	79 - 114		SW846 8260B			4/24/18 15:50	TMP	A
Dibromofluoromethane (S)	96.7		%	78 - 116		SW846 8260B			4/24/18 15:50	TMP	A
Toluene-d8 (S)	99.6		%	76 - 127		SW846 8260B			4/24/18 15:50	TMP	A

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ANALYTICAL RESULTS

Workorder: 2309395 LMC MRC 4/17/18

Lab ID: **2309395016** Date Collected: 4/17/2018 11:44 Matrix: Water
Sample ID: **MRC-SW13A** Date Received: 4/17/2018 22:00

Parameters	Results	Flag	Units	RDL	MDL	Method	Prepared By	Analyzed	By	*Cntr*
VOLATILE ORGANICS										
1,1,1,2-Tetrachloroethane	ND		ug/L	1.0	0.35	SW846 8260B		4/24/18 16:58	TMP	A
1,1,1-Trichloroethane	ND		ug/L	1.0	0.22	SW846 8260B		4/24/18 16:58	TMP	A
1,1,2,2-Tetrachloroethane	ND		ug/L	1.0	0.34	SW846 8260B		4/24/18 16:58	TMP	A
1,1,2-Trichloroethane	ND		ug/L	1.0	0.33	SW846 8260B		4/24/18 16:58	TMP	A
1,1-Dichloroethane	ND		ug/L	1.0	0.28	SW846 8260B		4/24/18 16:58	TMP	A
1,1-Dichloroethene	ND		ug/L	1.0	0.29	SW846 8260B		4/24/18 16:58	TMP	A
1,2,3-Trichlorobenzene	ND		ug/L	2.0	0.93	SW846 8260B		4/24/18 16:58	TMP	A
1,2,3-Trichloropropane	ND		ug/L	2.0	0.60	SW846 8260B		4/24/18 16:58	TMP	A
1,2,4-Trichlorobenzene	ND		ug/L	2.0	0.82	SW846 8260B		4/24/18 16:58	TMP	A
1,2,4-Trimethylbenzene	ND		ug/L	1.0	0.25	SW846 8260B		4/24/18 16:58	TMP	A
1,2-Dibromo-3-chloropropane	ND		ug/L	7.0	1.5	SW846 8260B		4/24/18 16:58	TMP	A
1,2-Dibromoethane	ND		ug/L	1.0	0.28	SW846 8260B		4/24/18 16:58	TMP	A
1,2-Dichlorobenzene	ND		ug/L	1.0	0.38	SW846 8260B		4/24/18 16:58	TMP	A
1,2-Dichloroethane	ND		ug/L	1.0	0.32	SW846 8260B		4/24/18 16:58	TMP	A
1,2-Dichloroethene, Total	ND		ug/L	2.0	0.45	SW846 8260B		4/24/18 16:58	TMP	A
1,2-Dichloropropane	ND		ug/L	1.0	0.24	SW846 8260B		4/24/18 16:58	TMP	A
1,3-Dichlorobenzene	ND		ug/L	1.0	0.25	SW846 8260B		4/24/18 16:58	TMP	A
1,3-Dichloropropane	ND		ug/L	1.0	0.27	SW846 8260B		4/24/18 16:58	TMP	A
1,3-Dichloropropene, Total	ND		ug/L	2.0	0.47	SW846 8260B		4/24/18 16:58	TMP	A
1,4-Dichlorobenzene	ND		ug/L	1.0	0.27	SW846 8260B		4/24/18 16:58	TMP	A
2,2-Dichloropropane	ND		ug/L	1.0	0.32	SW846 8260B		4/24/18 16:58	TMP	A
2-Butanone	ND		ug/L	10.0	1.8	SW846 8260B		4/24/18 16:58	TMP	A
2-Chloroethylvinyl ether	ND		ug/L	2.0	0.38	SW846 8260B		4/24/18 16:58	TMP	A
2-Hexanone	ND		ug/L	5.0	1.3	SW846 8260B		4/24/18 16:58	TMP	A
4-Methyl-2-Pentanone(MIBK)	ND		ug/L	5.0	1.5	SW846 8260B		4/24/18 16:58	TMP	A
Acetone	8.1J	J	ug/L	10.0	3.1	SW846 8260B		4/24/18 16:58	TMP	A
Benzene	ND		ug/L	1.0	0.23	SW846 8260B		4/24/18 16:58	TMP	A
Bromobenzene	ND		ug/L	1.0	0.32	SW846 8260B		4/24/18 16:58	TMP	A
Bromochloromethane	ND		ug/L	1.0	0.32	SW846 8260B		4/24/18 16:58	TMP	A
Bromodichloromethane	ND		ug/L	1.0	0.27	SW846 8260B		4/24/18 16:58	TMP	A
Bromoform	ND		ug/L	1.0	0.40	SW846 8260B		4/24/18 16:58	TMP	A
Bromomethane	ND		ug/L	1.0	0.39	SW846 8260B		4/24/18 16:58	TMP	A
Carbon Disulfide	ND		ug/L	1.0	0.23	SW846 8260B		4/24/18 16:58	TMP	A
Carbon Tetrachloride	ND		ug/L	1.0	0.31	SW846 8260B		4/24/18 16:58	TMP	A
Chlorobenzene	ND		ug/L	1.0	0.19	SW846 8260B		4/24/18 16:58	TMP	A
Chlorodibromomethane	ND		ug/L	1.0	0.45	SW846 8260B		4/24/18 16:58	TMP	A

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State Certifications: DE ID 11 , MA PA0102 , MD 128 , VA 460157 , WV 343

ANALYTICAL RESULTS

Workorder: 2309395 LMC MRC 4/17/18

Lab ID: **2309395016** Date Collected: 4/17/2018 11:44 Matrix: Water
Sample ID: **MRC-SW13A** Date Received: 4/17/2018 22:00

Parameters	Results	Flag	Units	RDL	MDL	Method	Prepared By	Analyzed	By	*Cntr*
Chloroethane	ND		ug/L	1.0	0.33	SW846 8260B		4/24/18 16:58	TMP	A
Chloroform	ND		ug/L	1.0	0.21	SW846 8260B		4/24/18 16:58	TMP	A
Chloromethane	ND		ug/L	1.0	0.31	SW846 8260B		4/24/18 16:58	TMP	A
Cyclohexane	ND		ug/L	1.0	0.29	SW846 8260B		4/24/18 16:58	TMP	A
Dibromomethane	ND		ug/L	1.0	0.31	SW846 8260B		4/24/18 16:58	TMP	A
Dichlorodifluoromethane	ND		ug/L	1.0	0.33	SW846 8260B		4/24/18 16:58	TMP	A
Diisopropyl ether	ND		ug/L	1.0	0.25	SW846 8260B		4/24/18 16:58	TMP	A
Ethyl tert-butyl ether	ND		ug/L	1.0	0.19	SW846 8260B		4/24/18 16:58	TMP	A
Ethylbenzene	ND		ug/L	1.0	0.34	SW846 8260B		4/24/18 16:58	TMP	A
Freon 113	ND		ug/L	1.0	0.26	SW846 8260B		4/24/18 16:58	TMP	A
Hexachlorobutadiene	ND		ug/L	5.0	1.0	SW846 8260B		4/24/18 16:58	TMP	A
Isopropylbenzene	ND		ug/L	1.0	0.22	SW846 8260B		4/24/18 16:58	TMP	A
Methyl acetate	ND		ug/L	2.0	0.32	SW846 8260B		4/24/18 16:58	TMP	A
Methyl cyclohexane	ND		ug/L	1.0	0.30	SW846 8260B		4/24/18 16:58	TMP	A
Methyl t-Butyl Ether	ND		ug/L	1.0	0.33	SW846 8260B		4/24/18 16:58	TMP	A
Methylene Chloride	ND		ug/L	1.0	0.45	SW846 8260B		4/24/18 16:58	TMP	A
Naphthalene	ND		ug/L	2.0	0.34	SW846 8260B		4/24/18 16:58	TMP	A
Styrene	ND		ug/L	1.0	0.24	SW846 8260B		4/24/18 16:58	TMP	A
Tetrachloroethene	ND		ug/L	1.0	0.35	SW846 8260B		4/24/18 16:58	TMP	A
Toluene	ND		ug/L	1.0	0.23	SW846 8260B		4/24/18 16:58	TMP	A
Total Xylenes	ND		ug/L	3.0	0.66	SW846 8260B		4/24/18 16:58	TMP	A
Trichloroethene	1.6		ug/L	1.0	0.33	SW846 8260B		4/24/18 16:58	TMP	A
Trichlorofluoromethane	ND		ug/L	1.0	0.24	SW846 8260B		4/24/18 16:58	TMP	A
Vinyl Acetate	ND		ug/L	5.0	1.6	SW846 8260B		4/24/18 16:58	TMP	A
Vinyl Chloride	ND		ug/L	1.0	0.30	SW846 8260B		4/24/18 16:58	TMP	A
cis-1,2-Dichloroethene	0.37J	J	ug/L	1.0	0.32	SW846 8260B		4/24/18 16:58	TMP	A
cis-1,3-Dichloropropene	ND		ug/L	1.0	0.31	SW846 8260B		4/24/18 16:58	TMP	A
mp-Xylene	ND		ug/L	2.0	0.52	SW846 8260B		4/24/18 16:58	TMP	A
n-Butylbenzene	ND		ug/L	2.0	0.60	SW846 8260B		4/24/18 16:58	TMP	A
n-Propylbenzene	ND		ug/L	1.0	0.33	SW846 8260B		4/24/18 16:58	TMP	A
o-Chlorotoluene	ND		ug/L	1.0	0.26	SW846 8260B		4/24/18 16:58	TMP	A
o-Xylene	ND		ug/L	1.0	0.33	SW846 8260B		4/24/18 16:58	TMP	A
p-Chlorotoluene	ND		ug/L	1.0	0.33	SW846 8260B		4/24/18 16:58	TMP	A
p-Isopropyltoluene	ND		ug/L	1.0	0.32	SW846 8260B		4/24/18 16:58	TMP	A
sec-Butylbenzene	ND		ug/L	1.0	0.31	SW846 8260B		4/24/18 16:58	TMP	A
tert-Amyl methyl ether	ND		ug/L	1.0	0.20	SW846 8260B		4/24/18 16:58	TMP	A
tert-Butyl Alcohol	ND		ug/L	10.0	2.2	SW846 8260B		4/24/18 16:58	TMP	A
tert-Butylbenzene	ND		ug/L	2.0	0.44	SW846 8260B		4/24/18 16:58	TMP	A

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State Certifications: DE ID 11 , MA PA0102 , MD 128 , VA 460157 , WV 343

ANALYTICAL RESULTS

Workorder: 2309395 LMC MRC 4/17/18

Lab ID: **2309395016** Date Collected: 4/17/2018 11:44 Matrix: Water
Sample ID: **MRC-SW13A** Date Received: 4/17/2018 22:00

Parameters	Results	Flag	Units	RDL	MDL	Method	Prepared	By	Analyzed	By	Cntr
trans-1,2-Dichloroethene	ND		ug/L	1.0	0.26	SW846 8260B			4/24/18 16:58	TMP	A
trans-1,3-Dichloropropene	ND		ug/L	1.0	0.29	SW846 8260B			4/24/18 16:58	TMP	A
Surrogate Recoveries	*Results*	*Flag*	*Units*	*Limits*		*Method*	*Prepared*	*By*	*Analyzed*	*By*	*Cntr*
1,2-Dichloroethane-d4 (S)	117		%	62 - 133		SW846 8260B			4/24/18 16:58	TMP	A
4-Bromofluorobenzene (S)	91.4		%	79 - 114		SW846 8260B			4/24/18 16:58	TMP	A
Dibromofluoromethane (S)	95.1		%	78 - 116		SW846 8260B			4/24/18 16:58	TMP	A
Toluene-d8 (S)	93.9		%	76 - 127		SW846 8260B			4/24/18 16:58	TMP	A
SUBCONTRACTED ANALYSIS											
Subcontracted Analysis	See attached.					Subcontract			4/27/18 03:27	SUB	C

Vanessa N. Badman
Mrs. Vanessa N Badman
Project Coordinator

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ANALYTICAL RESULTS

Workorder: 2309395 LMC MRC 4/17/18

Lab ID: **2309395017** Date Collected: 4/17/2018 10:51 Matrix: Water
Sample ID: **MRC-SW6B** Date Received: 4/17/2018 22:00

Parameters	Results	Flag	Units	RDL	MDL	Method	Prepared By	Analyzed	By	Cntr
VOLATILE ORGANICS										
1,1,1,2-Tetrachloroethane	ND		ug/L	1.0	0.35	SW846 8260B		4/24/18 17:21	TMP	A
1,1,1-Trichloroethane	ND		ug/L	1.0	0.22	SW846 8260B		4/24/18 17:21	TMP	A
1,1,2,2-Tetrachloroethane	ND		ug/L	1.0	0.34	SW846 8260B		4/24/18 17:21	TMP	A
1,1,2-Trichloroethane	ND		ug/L	1.0	0.33	SW846 8260B		4/24/18 17:21	TMP	A
1,1-Dichloroethane	ND		ug/L	1.0	0.28	SW846 8260B		4/24/18 17:21	TMP	A
1,1-Dichloroethene	ND		ug/L	1.0	0.29	SW846 8260B		4/24/18 17:21	TMP	A
1,2,3-Trichlorobenzene	ND		ug/L	2.0	0.93	SW846 8260B		4/24/18 17:21	TMP	A
1,2,3-Trichloropropane	ND		ug/L	2.0	0.60	SW846 8260B		4/24/18 17:21	TMP	A
1,2,4-Trichlorobenzene	ND		ug/L	2.0	0.82	SW846 8260B		4/24/18 17:21	TMP	A
1,2,4-Trimethylbenzene	ND		ug/L	1.0	0.25	SW846 8260B		4/24/18 17:21	TMP	A
1,2-Dibromo-3-chloropropane	ND		ug/L	7.0	1.5	SW846 8260B		4/24/18 17:21	TMP	A
1,2-Dibromoethane	ND		ug/L	1.0	0.28	SW846 8260B		4/24/18 17:21	TMP	A
1,2-Dichlorobenzene	ND		ug/L	1.0	0.38	SW846 8260B		4/24/18 17:21	TMP	A
1,2-Dichloroethane	ND		ug/L	1.0	0.32	SW846 8260B		4/24/18 17:21	TMP	A
1,2-Dichloroethene, Total	ND		ug/L	2.0	0.45	SW846 8260B		4/24/18 17:21	TMP	A
1,2-Dichloropropane	ND		ug/L	1.0	0.24	SW846 8260B		4/24/18 17:21	TMP	A
1,3-Dichlorobenzene	ND		ug/L	1.0	0.25	SW846 8260B		4/24/18 17:21	TMP	A
1,3-Dichloropropane	ND		ug/L	1.0	0.27	SW846 8260B		4/24/18 17:21	TMP	A
1,3-Dichloropropene, Total	ND		ug/L	2.0	0.47	SW846 8260B		4/24/18 17:21	TMP	A
1,4-Dichlorobenzene	ND		ug/L	1.0	0.27	SW846 8260B		4/24/18 17:21	TMP	A
2,2-Dichloropropane	ND		ug/L	1.0	0.32	SW846 8260B		4/24/18 17:21	TMP	A
2-Butanone	ND		ug/L	10.0	1.8	SW846 8260B		4/24/18 17:21	TMP	A
2-Chloroethylvinyl ether	ND		ug/L	2.0	0.38	SW846 8260B		4/24/18 17:21	TMP	A
2-Hexanone	ND		ug/L	5.0	1.3	SW846 8260B		4/24/18 17:21	TMP	A
4-Methyl-2-Pentanone(MIBK)	ND		ug/L	5.0	1.5	SW846 8260B		4/24/18 17:21	TMP	A
Acetone	7.8J	J	ug/L	10.0	3.1	SW846 8260B		4/24/18 17:21	TMP	A
Benzene	ND		ug/L	1.0	0.23	SW846 8260B		4/24/18 17:21	TMP	A
Bromobenzene	ND		ug/L	1.0	0.32	SW846 8260B		4/24/18 17:21	TMP	A
Bromochloromethane	ND		ug/L	1.0	0.32	SW846 8260B		4/24/18 17:21	TMP	A
Bromodichloromethane	ND		ug/L	1.0	0.27	SW846 8260B		4/24/18 17:21	TMP	A
Bromoform	ND		ug/L	1.0	0.40	SW846 8260B		4/24/18 17:21	TMP	A
Bromomethane	ND		ug/L	1.0	0.39	SW846 8260B		4/24/18 17:21	TMP	A
Carbon Disulfide	ND		ug/L	1.0	0.23	SW846 8260B		4/24/18 17:21	TMP	A
Carbon Tetrachloride	ND		ug/L	1.0	0.31	SW846 8260B		4/24/18 17:21	TMP	A
Chlorobenzene	ND		ug/L	1.0	0.19	SW846 8260B		4/24/18 17:21	TMP	A
Chlorodibromomethane	ND		ug/L	1.0	0.45	SW846 8260B		4/24/18 17:21	TMP	A

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ANALYTICAL RESULTS

Workorder: 2309395 LMC MRC 4/17/18

Lab ID: **2309395017** Date Collected: 4/17/2018 10:51 Matrix: Water
Sample ID: **MRC-SW6B** Date Received: 4/17/2018 22:00

Parameters	Results	Flag	Units	RDL	MDL	Method	Prepared By	Analyzed	By	*Cntr*
Chloroethane	ND		ug/L	1.0	0.33	SW846 8260B		4/24/18 17:21	TMP	A
Chloroform	ND		ug/L	1.0	0.21	SW846 8260B		4/24/18 17:21	TMP	A
Chloromethane	ND		ug/L	1.0	0.31	SW846 8260B		4/24/18 17:21	TMP	A
Cyclohexane	ND		ug/L	1.0	0.29	SW846 8260B		4/24/18 17:21	TMP	A
Dibromomethane	ND		ug/L	1.0	0.31	SW846 8260B		4/24/18 17:21	TMP	A
Dichlorodifluoromethane	ND		ug/L	1.0	0.33	SW846 8260B		4/24/18 17:21	TMP	A
Diisopropyl ether	ND		ug/L	1.0	0.25	SW846 8260B		4/24/18 17:21	TMP	A
Ethyl tert-butyl ether	ND		ug/L	1.0	0.19	SW846 8260B		4/24/18 17:21	TMP	A
Ethylbenzene	ND		ug/L	1.0	0.34	SW846 8260B		4/24/18 17:21	TMP	A
Freon 113	ND		ug/L	1.0	0.26	SW846 8260B		4/24/18 17:21	TMP	A
Hexachlorobutadiene	ND		ug/L	5.0	1.0	SW846 8260B		4/24/18 17:21	TMP	A
Isopropylbenzene	ND		ug/L	1.0	0.22	SW846 8260B		4/24/18 17:21	TMP	A
Methyl acetate	ND		ug/L	2.0	0.32	SW846 8260B		4/24/18 17:21	TMP	A
Methyl cyclohexane	ND		ug/L	1.0	0.30	SW846 8260B		4/24/18 17:21	TMP	A
Methyl t-Butyl Ether	ND		ug/L	1.0	0.33	SW846 8260B		4/24/18 17:21	TMP	A
Methylene Chloride	ND		ug/L	1.0	0.45	SW846 8260B		4/24/18 17:21	TMP	A
Naphthalene	ND		ug/L	2.0	0.34	SW846 8260B		4/24/18 17:21	TMP	A
Styrene	ND		ug/L	1.0	0.24	SW846 8260B		4/24/18 17:21	TMP	A
Tetrachloroethene	ND		ug/L	1.0	0.35	SW846 8260B		4/24/18 17:21	TMP	A
Toluene	ND		ug/L	1.0	0.23	SW846 8260B		4/24/18 17:21	TMP	A
Total Xylenes	ND		ug/L	3.0	0.66	SW846 8260B		4/24/18 17:21	TMP	A
Trichloroethene	ND		ug/L	1.0	0.33	SW846 8260B		4/24/18 17:21	TMP	A
Trichlorofluoromethane	ND		ug/L	1.0	0.24	SW846 8260B		4/24/18 17:21	TMP	A
Vinyl Acetate	ND		ug/L	5.0	1.6	SW846 8260B		4/24/18 17:21	TMP	A
Vinyl Chloride	ND		ug/L	1.0	0.30	SW846 8260B		4/24/18 17:21	TMP	A
cis-1,2-Dichloroethene	ND		ug/L	1.0	0.32	SW846 8260B		4/24/18 17:21	TMP	A
cis-1,3-Dichloropropene	ND		ug/L	1.0	0.31	SW846 8260B		4/24/18 17:21	TMP	A
mp-Xylene	ND		ug/L	2.0	0.52	SW846 8260B		4/24/18 17:21	TMP	A
n-Butylbenzene	ND		ug/L	2.0	0.60	SW846 8260B		4/24/18 17:21	TMP	A
n-Propylbenzene	ND		ug/L	1.0	0.33	SW846 8260B		4/24/18 17:21	TMP	A
o-Chlorotoluene	ND		ug/L	1.0	0.26	SW846 8260B		4/24/18 17:21	TMP	A
o-Xylene	ND		ug/L	1.0	0.33	SW846 8260B		4/24/18 17:21	TMP	A
p-Chlorotoluene	ND		ug/L	1.0	0.33	SW846 8260B		4/24/18 17:21	TMP	A
p-Isopropyltoluene	ND		ug/L	1.0	0.32	SW846 8260B		4/24/18 17:21	TMP	A
sec-Butylbenzene	ND		ug/L	1.0	0.31	SW846 8260B		4/24/18 17:21	TMP	A
tert-Amyl methyl ether	ND		ug/L	1.0	0.20	SW846 8260B		4/24/18 17:21	TMP	A
tert-Butyl Alcohol	ND		ug/L	10.0	2.2	SW846 8260B		4/24/18 17:21	TMP	A
tert-Butylbenzene	ND		ug/L	2.0	0.44	SW846 8260B		4/24/18 17:21	TMP	A

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ANALYTICAL RESULTS

Workorder: 2309395 LMC MRC 4/17/18

Lab ID: **2309395017** Date Collected: 4/17/2018 10:51 Matrix: Water
Sample ID: **MRC-SW6B** Date Received: 4/17/2018 22:00

Parameters	Results	Flag	Units	RDL	MDL	Method	Prepared	By	Analyzed	By	Cntr
trans-1,2-Dichloroethene	ND		ug/L	1.0	0.26	SW846 8260B			4/24/18 17:21	TMP	A
trans-1,3-Dichloropropene	ND		ug/L	1.0	0.29	SW846 8260B			4/24/18 17:21	TMP	A
Surrogate Recoveries	*Results*	*Flag*	*Units*	*Limits*		*Method*	*Prepared*	*By*	*Analyzed*	*By*	*Cntr*
1,2-Dichloroethane-d4 (S)	116		%	62 - 133		SW846 8260B			4/24/18 17:21	TMP	A
4-Bromofluorobenzene (S)	93		%	79 - 114		SW846 8260B			4/24/18 17:21	TMP	A
Dibromofluoromethane (S)	95.4		%	78 - 116		SW846 8260B			4/24/18 17:21	TMP	A
Toluene-d8 (S)	94.4		%	76 - 127		SW846 8260B			4/24/18 17:21	TMP	A
SEMIVOLATILE SIM											
1,4-Dioxane	ND		ug/L	0.093	0.018	8270 SIM	4/20/18 09:35	MXL	4/23/18 23:53	GEC	C
IS_Naphthalene-d8	0.0		ug/L			8270 SIM	4/20/18 09:35	MXL	4/23/18 23:53	GEC	C
IS_Perylene-d12	0.0		ug/L			8270 SIM	4/20/18 09:35	MXL	4/23/18 23:53	GEC	C
Acenaphthene-d10	0.0		ug/L			8270 SIM	4/20/18 09:35	MXL	4/23/18 23:53	GEC	C
Phenanthrene-d10	0.0		ug/L			8270 SIM	4/20/18 09:35	MXL	4/23/18 23:53	GEC	C
Chrysene-d12	0.0		ug/L			8270 SIM	4/20/18 09:35	MXL	4/23/18 23:53	GEC	C
Surrogate Recoveries	*Results*	*Flag*	*Units*	*Limits*		*Method*	*Prepared*	*By*	*Analyzed*	*By*	*Cntr*
2-Methylnapthalene-d10 (S)	85.1		%	29 - 112		8270 SIM	4/20/18 09:35	MXL	4/23/18 23:53	GEC	C
Fluoranthene-d10 (S)	128		%	45 - 130		8270 SIM	4/20/18 09:35	MXL	4/23/18 23:53	GEC	C
SUBCONTRACTED ANALYSIS											
Subcontracted Analysis	See attached.					Subcontract			4/27/18 03:56	SUB	E

Vanessa N. Badman
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ANALYTICAL RESULTS

Workorder: 2309395 LMC MRC 4/17/18

Lab ID: **2309395018** Date Collected: 4/17/2018 11:04 Matrix: Water
Sample ID: **MRC-SW8B** Date Received: 4/17/2018 22:00

Parameters	Results	Flag	Units	RDL	MDL	Method	Prepared By	Analyzed	By	Cntr
VOLATILE ORGANICS										
1,1,1,2-Tetrachloroethane	ND		ug/L	1.0	0.35	SW846 8260B		4/24/18 17:44	TMP	A
1,1,1-Trichloroethane	ND		ug/L	1.0	0.22	SW846 8260B		4/24/18 17:44	TMP	A
1,1,2,2-Tetrachloroethane	ND		ug/L	1.0	0.34	SW846 8260B		4/24/18 17:44	TMP	A
1,1,2-Trichloroethane	ND		ug/L	1.0	0.33	SW846 8260B		4/24/18 17:44	TMP	A
1,1-Dichloroethane	ND		ug/L	1.0	0.28	SW846 8260B		4/24/18 17:44	TMP	A
1,1-Dichloroethene	ND		ug/L	1.0	0.29	SW846 8260B		4/24/18 17:44	TMP	A
1,2,3-Trichlorobenzene	ND		ug/L	2.0	0.93	SW846 8260B		4/24/18 17:44	TMP	A
1,2,3-Trichloropropane	ND		ug/L	2.0	0.60	SW846 8260B		4/24/18 17:44	TMP	A
1,2,4-Trichlorobenzene	ND		ug/L	2.0	0.82	SW846 8260B		4/24/18 17:44	TMP	A
1,2,4-Trimethylbenzene	ND		ug/L	1.0	0.25	SW846 8260B		4/24/18 17:44	TMP	A
1,2-Dibromo-3-chloropropane	ND		ug/L	7.0	1.5	SW846 8260B		4/24/18 17:44	TMP	A
1,2-Dibromoethane	ND		ug/L	1.0	0.28	SW846 8260B		4/24/18 17:44	TMP	A
1,2-Dichlorobenzene	ND		ug/L	1.0	0.38	SW846 8260B		4/24/18 17:44	TMP	A
1,2-Dichloroethane	ND		ug/L	1.0	0.32	SW846 8260B		4/24/18 17:44	TMP	A
1,2-Dichloroethene, Total	ND		ug/L	2.0	0.45	SW846 8260B		4/24/18 17:44	TMP	A
1,2-Dichloropropane	ND		ug/L	1.0	0.24	SW846 8260B		4/24/18 17:44	TMP	A
1,3-Dichlorobenzene	ND		ug/L	1.0	0.25	SW846 8260B		4/24/18 17:44	TMP	A
1,3-Dichloropropane	ND		ug/L	1.0	0.27	SW846 8260B		4/24/18 17:44	TMP	A
1,3-Dichloropropene, Total	ND		ug/L	2.0	0.47	SW846 8260B		4/24/18 17:44	TMP	A
1,4-Dichlorobenzene	ND		ug/L	1.0	0.27	SW846 8260B		4/24/18 17:44	TMP	A
2,2-Dichloropropane	ND		ug/L	1.0	0.32	SW846 8260B		4/24/18 17:44	TMP	A
2-Butanone	ND		ug/L	10.0	1.8	SW846 8260B		4/24/18 17:44	TMP	A
2-Chloroethylvinyl ether	ND		ug/L	2.0	0.38	SW846 8260B		4/24/18 17:44	TMP	A
2-Hexanone	ND		ug/L	5.0	1.3	SW846 8260B		4/24/18 17:44	TMP	A
4-Methyl-2-Pentanone(MIBK)	ND		ug/L	5.0	1.5	SW846 8260B		4/24/18 17:44	TMP	A
Acetone	12.6		ug/L	10.0	3.1	SW846 8260B		4/24/18 17:44	TMP	A
Benzene	ND		ug/L	1.0	0.23	SW846 8260B		4/24/18 17:44	TMP	A
Bromobenzene	ND		ug/L	1.0	0.32	SW846 8260B		4/24/18 17:44	TMP	A
Bromochloromethane	ND		ug/L	1.0	0.32	SW846 8260B		4/24/18 17:44	TMP	A
Bromodichloromethane	ND		ug/L	1.0	0.27	SW846 8260B		4/24/18 17:44	TMP	A
Bromoform	ND		ug/L	1.0	0.40	SW846 8260B		4/24/18 17:44	TMP	A
Bromomethane	ND		ug/L	1.0	0.39	SW846 8260B		4/24/18 17:44	TMP	A
Carbon Disulfide	ND		ug/L	1.0	0.23	SW846 8260B		4/24/18 17:44	TMP	A
Carbon Tetrachloride	ND		ug/L	1.0	0.31	SW846 8260B		4/24/18 17:44	TMP	A
Chlorobenzene	ND		ug/L	1.0	0.19	SW846 8260B		4/24/18 17:44	TMP	A
Chlorodibromomethane	ND		ug/L	1.0	0.45	SW846 8260B		4/24/18 17:44	TMP	A

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State Certifications: DE ID 11 , MA PA0102 , MD 128 , VA 460157 , WV 343

ANALYTICAL RESULTS

Workorder: 2309395 LMC MRC 4/17/18

Lab ID: **2309395018** Date Collected: 4/17/2018 11:04 Matrix: Water
Sample ID: **MRC-SW8B** Date Received: 4/17/2018 22:00

Parameters	Results	Flag	Units	RDL	MDL	Method	Prepared By	Analyzed	By	*Cntr*
Chloroethane	ND		ug/L	1.0	0.33	SW846 8260B		4/24/18 17:44	TMP	A
Chloroform	ND		ug/L	1.0	0.21	SW846 8260B		4/24/18 17:44	TMP	A
Chloromethane	ND		ug/L	1.0	0.31	SW846 8260B		4/24/18 17:44	TMP	A
Cyclohexane	ND		ug/L	1.0	0.29	SW846 8260B		4/24/18 17:44	TMP	A
Dibromomethane	ND		ug/L	1.0	0.31	SW846 8260B		4/24/18 17:44	TMP	A
Dichlorodifluoromethane	ND		ug/L	1.0	0.33	SW846 8260B		4/24/18 17:44	TMP	A
Diisopropyl ether	ND		ug/L	1.0	0.25	SW846 8260B		4/24/18 17:44	TMP	A
Ethyl tert-butyl ether	ND		ug/L	1.0	0.19	SW846 8260B		4/24/18 17:44	TMP	A
Ethylbenzene	ND		ug/L	1.0	0.34	SW846 8260B		4/24/18 17:44	TMP	A
Freon 113	ND		ug/L	1.0	0.26	SW846 8260B		4/24/18 17:44	TMP	A
Hexachlorobutadiene	ND		ug/L	5.0	1.0	SW846 8260B		4/24/18 17:44	TMP	A
Isopropylbenzene	ND		ug/L	1.0	0.22	SW846 8260B		4/24/18 17:44	TMP	A
Methyl acetate	ND		ug/L	2.0	0.32	SW846 8260B		4/24/18 17:44	TMP	A
Methyl cyclohexane	ND		ug/L	1.0	0.30	SW846 8260B		4/24/18 17:44	TMP	A
Methyl t-Butyl Ether	ND		ug/L	1.0	0.33	SW846 8260B		4/24/18 17:44	TMP	A
Methylene Chloride	ND		ug/L	1.0	0.45	SW846 8260B		4/24/18 17:44	TMP	A
Naphthalene	ND		ug/L	2.0	0.34	SW846 8260B		4/24/18 17:44	TMP	A
Styrene	ND		ug/L	1.0	0.24	SW846 8260B		4/24/18 17:44	TMP	A
Tetrachloroethene	ND		ug/L	1.0	0.35	SW846 8260B		4/24/18 17:44	TMP	A
Toluene	ND		ug/L	1.0	0.23	SW846 8260B		4/24/18 17:44	TMP	A
Total Xylenes	ND		ug/L	3.0	0.66	SW846 8260B		4/24/18 17:44	TMP	A
Trichloroethene	ND		ug/L	1.0	0.33	SW846 8260B		4/24/18 17:44	TMP	A
Trichlorofluoromethane	ND		ug/L	1.0	0.24	SW846 8260B		4/24/18 17:44	TMP	A
Vinyl Acetate	ND		ug/L	5.0	1.6	SW846 8260B		4/24/18 17:44	TMP	A
Vinyl Chloride	ND		ug/L	1.0	0.30	SW846 8260B		4/24/18 17:44	TMP	A
cis-1,2-Dichloroethene	ND		ug/L	1.0	0.32	SW846 8260B		4/24/18 17:44	TMP	A
cis-1,3-Dichloropropene	ND		ug/L	1.0	0.31	SW846 8260B		4/24/18 17:44	TMP	A
mp-Xylene	ND		ug/L	2.0	0.52	SW846 8260B		4/24/18 17:44	TMP	A
n-Butylbenzene	ND		ug/L	2.0	0.60	SW846 8260B		4/24/18 17:44	TMP	A
n-Propylbenzene	ND		ug/L	1.0	0.33	SW846 8260B		4/24/18 17:44	TMP	A
o-Chlorotoluene	ND		ug/L	1.0	0.26	SW846 8260B		4/24/18 17:44	TMP	A
o-Xylene	ND		ug/L	1.0	0.33	SW846 8260B		4/24/18 17:44	TMP	A
p-Chlorotoluene	ND		ug/L	1.0	0.33	SW846 8260B		4/24/18 17:44	TMP	A
p-Isopropyltoluene	ND		ug/L	1.0	0.32	SW846 8260B		4/24/18 17:44	TMP	A
sec-Butylbenzene	ND		ug/L	1.0	0.31	SW846 8260B		4/24/18 17:44	TMP	A
tert-Amyl methyl ether	ND		ug/L	1.0	0.20	SW846 8260B		4/24/18 17:44	TMP	A
tert-Butyl Alcohol	ND		ug/L	10.0	2.2	SW846 8260B		4/24/18 17:44	TMP	A
tert-Butylbenzene	ND		ug/L	2.0	0.44	SW846 8260B		4/24/18 17:44	TMP	A

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ANALYTICAL RESULTS

Workorder: 2309395 LMC MRC 4/17/18

Lab ID: **2309395018** Date Collected: 4/17/2018 11:04 Matrix: Water
Sample ID: **MRC-SW8B** Date Received: 4/17/2018 22:00

Parameters	Results	Flag	Units	RDL	MDL	Method	Prepared	By	Analyzed	By	Cntr
trans-1,2-Dichloroethene	ND		ug/L	1.0	0.26	SW846 8260B			4/24/18 17:44	TMP	A
trans-1,3-Dichloropropene	ND		ug/L	1.0	0.29	SW846 8260B			4/24/18 17:44	TMP	A
Surrogate Recoveries	*Results*	*Flag*	*Units*	*Limits*		*Method*	*Prepared*	*By*	*Analyzed*	*By*	*Cntr*
1,2-Dichloroethane-d4 (S)	118		%	62 - 133		SW846 8260B			4/24/18 17:44	TMP	A
4-Bromofluorobenzene (S)	93		%	79 - 114		SW846 8260B			4/24/18 17:44	TMP	A
Dibromofluoromethane (S)	99.2		%	78 - 116		SW846 8260B			4/24/18 17:44	TMP	A
Toluene-d8 (S)	94.9		%	76 - 127		SW846 8260B			4/24/18 17:44	TMP	A
SEMIVOLATILE SIM											
1,4-Dioxane	0.049J	J	ug/L	0.093	0.018	8270 SIM	4/20/18 09:35	MXL	4/24/18 00:19	GEC	C
IS_Naphthalene-d8	0.0		ug/L			8270 SIM	4/20/18 09:35	MXL	4/24/18 00:19	GEC	C
IS_Perylene-d12	0.0		ug/L			8270 SIM	4/20/18 09:35	MXL	4/24/18 00:19	GEC	C
Acenaphthene-d10	0.0		ug/L			8270 SIM	4/20/18 09:35	MXL	4/24/18 00:19	GEC	C
Phenanthrene-d10	0.0		ug/L			8270 SIM	4/20/18 09:35	MXL	4/24/18 00:19	GEC	C
Chrysene-d12	0.0		ug/L			8270 SIM	4/20/18 09:35	MXL	4/24/18 00:19	GEC	C
Surrogate Recoveries	*Results*	*Flag*	*Units*	*Limits*		*Method*	*Prepared*	*By*	*Analyzed*	*By*	*Cntr*
2-Methylnapthalene-d10 (S)	86.2		%	29 - 112		8270 SIM	4/20/18 09:35	MXL	4/24/18 00:19	GEC	C
Fluoranthene-d10 (S)	117		%	45 - 130		8270 SIM	4/20/18 09:35	MXL	4/24/18 00:19	GEC	C
SUBCONTRACTED ANALYSIS											
Subcontracted Analysis	See attached.					Subcontract			4/27/18 04:25	SUB	E

Vanessa N. Badman
Mrs. Vanessa N Badman
Project Coordinator

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ANALYTICAL RESULTS

Workorder: 2309395 LMC MRC 4/17/18

Lab ID: **2309395019** Date Collected: 4/17/2018 22:00 Matrix: Water
Sample ID: **TB-041718-4** Date Received: 4/17/2018 22:00

Parameters	Results	Flag	Units	RDL	MDL	Method	Prepared By	Analyzed	By	*Cntr*
VOLATILE ORGANICS										
1,1,1,2-Tetrachloroethane	ND		ug/L	1.0	0.35	SW846 8260B		4/24/18 16:13	TMP	A
1,1,1-Trichloroethane	ND		ug/L	1.0	0.22	SW846 8260B		4/24/18 16:13	TMP	A
1,1,2,2-Tetrachloroethane	ND		ug/L	1.0	0.34	SW846 8260B		4/24/18 16:13	TMP	A
1,1,2-Trichloroethane	ND		ug/L	1.0	0.33	SW846 8260B		4/24/18 16:13	TMP	A
1,1-Dichloroethane	ND		ug/L	1.0	0.28	SW846 8260B		4/24/18 16:13	TMP	A
1,1-Dichloroethene	ND		ug/L	1.0	0.29	SW846 8260B		4/24/18 16:13	TMP	A
1,2,3-Trichlorobenzene	ND		ug/L	2.0	0.93	SW846 8260B		4/24/18 16:13	TMP	A
1,2,3-Trichloropropane	ND		ug/L	2.0	0.60	SW846 8260B		4/24/18 16:13	TMP	A
1,2,4-Trichlorobenzene	ND		ug/L	2.0	0.82	SW846 8260B		4/24/18 16:13	TMP	A
1,2,4-Trimethylbenzene	ND		ug/L	1.0	0.25	SW846 8260B		4/24/18 16:13	TMP	A
1,2-Dibromo-3-chloropropane	ND		ug/L	7.0	1.5	SW846 8260B		4/24/18 16:13	TMP	A
1,2-Dibromoethane	ND		ug/L	1.0	0.28	SW846 8260B		4/24/18 16:13	TMP	A
1,2-Dichlorobenzene	ND		ug/L	1.0	0.38	SW846 8260B		4/24/18 16:13	TMP	A
1,2-Dichloroethane	ND		ug/L	1.0	0.32	SW846 8260B		4/24/18 16:13	TMP	A
1,2-Dichloroethene, Total	ND		ug/L	2.0	0.45	SW846 8260B		4/24/18 16:13	TMP	A
1,2-Dichloropropane	ND		ug/L	1.0	0.24	SW846 8260B		4/24/18 16:13	TMP	A
1,3-Dichlorobenzene	ND		ug/L	1.0	0.25	SW846 8260B		4/24/18 16:13	TMP	A
1,3-Dichloropropane	ND		ug/L	1.0	0.27	SW846 8260B		4/24/18 16:13	TMP	A
1,3-Dichloropropene, Total	ND		ug/L	2.0	0.47	SW846 8260B		4/24/18 16:13	TMP	A
1,4-Dichlorobenzene	ND		ug/L	1.0	0.27	SW846 8260B		4/24/18 16:13	TMP	A
2,2-Dichloropropane	ND		ug/L	1.0	0.32	SW846 8260B		4/24/18 16:13	TMP	A
2-Butanone	ND		ug/L	10.0	1.8	SW846 8260B		4/24/18 16:13	TMP	A
2-Chloroethylvinyl ether	ND		ug/L	2.0	0.38	SW846 8260B		4/24/18 16:13	TMP	A
2-Hexanone	ND		ug/L	5.0	1.3	SW846 8260B		4/24/18 16:13	TMP	A
4-Methyl-2-Pentanone(MIBK)	ND		ug/L	5.0	1.5	SW846 8260B		4/24/18 16:13	TMP	A
Acetone	13.6		ug/L	10.0	3.1	SW846 8260B		4/24/18 16:13	TMP	A
Benzene	ND		ug/L	1.0	0.23	SW846 8260B		4/24/18 16:13	TMP	A
Bromobenzene	ND		ug/L	1.0	0.32	SW846 8260B		4/24/18 16:13	TMP	A
Bromochloromethane	ND		ug/L	1.0	0.32	SW846 8260B		4/24/18 16:13	TMP	A
Bromodichloromethane	ND		ug/L	1.0	0.27	SW846 8260B		4/24/18 16:13	TMP	A
Bromoform	ND		ug/L	1.0	0.40	SW846 8260B		4/24/18 16:13	TMP	A
Bromomethane	ND		ug/L	1.0	0.39	SW846 8260B		4/24/18 16:13	TMP	A
Carbon Disulfide	ND		ug/L	1.0	0.23	SW846 8260B		4/24/18 16:13	TMP	A
Carbon Tetrachloride	ND		ug/L	1.0	0.31	SW846 8260B		4/24/18 16:13	TMP	A
Chlorobenzene	ND		ug/L	1.0	0.19	SW846 8260B		4/24/18 16:13	TMP	A
Chlorodibromomethane	ND		ug/L	1.0	0.45	SW846 8260B		4/24/18 16:13	TMP	A

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ANALYTICAL RESULTS

Workorder: 2309395 LMC MRC 4/17/18

Lab ID: **2309395019** Date Collected: 4/17/2018 22:00 Matrix: Water
Sample ID: **TB-041718-4** Date Received: 4/17/2018 22:00

Parameters	Results	Flag	Units	RDL	MDL	Method	Prepared By	Analyzed	By	Cntr
Chloroethane	ND		ug/L	1.0	0.33	SW846 8260B		4/24/18 16:13	TMP	A
Chloroform	ND		ug/L	1.0	0.21	SW846 8260B		4/24/18 16:13	TMP	A
Chloromethane	ND		ug/L	1.0	0.31	SW846 8260B		4/24/18 16:13	TMP	A
Cyclohexane	ND		ug/L	1.0	0.29	SW846 8260B		4/24/18 16:13	TMP	A
Dibromomethane	ND		ug/L	1.0	0.31	SW846 8260B		4/24/18 16:13	TMP	A
Dichlorodifluoromethane	ND		ug/L	1.0	0.33	SW846 8260B		4/24/18 16:13	TMP	A
Diisopropyl ether	ND		ug/L	1.0	0.25	SW846 8260B		4/24/18 16:13	TMP	A
Ethyl tert-butyl ether	ND		ug/L	1.0	0.19	SW846 8260B		4/24/18 16:13	TMP	A
Ethylbenzene	ND		ug/L	1.0	0.34	SW846 8260B		4/24/18 16:13	TMP	A
Freon 113	ND		ug/L	1.0	0.26	SW846 8260B		4/24/18 16:13	TMP	A
Hexachlorobutadiene	ND		ug/L	5.0	1.0	SW846 8260B		4/24/18 16:13	TMP	A
Isopropylbenzene	ND		ug/L	1.0	0.22	SW846 8260B		4/24/18 16:13	TMP	A
Methyl acetate	ND		ug/L	2.0	0.32	SW846 8260B		4/24/18 16:13	TMP	A
Methyl cyclohexane	ND		ug/L	1.0	0.30	SW846 8260B		4/24/18 16:13	TMP	A
Methyl t-Butyl Ether	ND		ug/L	1.0	0.33	SW846 8260B		4/24/18 16:13	TMP	A
Methylene Chloride	ND		ug/L	1.0	0.45	SW846 8260B		4/24/18 16:13	TMP	A
Naphthalene	ND		ug/L	2.0	0.34	SW846 8260B		4/24/18 16:13	TMP	A
Styrene	ND		ug/L	1.0	0.24	SW846 8260B		4/24/18 16:13	TMP	A
Tetrachloroethene	ND		ug/L	1.0	0.35	SW846 8260B		4/24/18 16:13	TMP	A
Toluene	ND		ug/L	1.0	0.23	SW846 8260B		4/24/18 16:13	TMP	A
Total Xylenes	ND		ug/L	3.0	0.66	SW846 8260B		4/24/18 16:13	TMP	A
Trichloroethene	ND		ug/L	1.0	0.33	SW846 8260B		4/24/18 16:13	TMP	A
Trichlorofluoromethane	ND		ug/L	1.0	0.24	SW846 8260B		4/24/18 16:13	TMP	A
Vinyl Acetate	ND		ug/L	5.0	1.6	SW846 8260B		4/24/18 16:13	TMP	A
Vinyl Chloride	ND		ug/L	1.0	0.30	SW846 8260B		4/24/18 16:13	TMP	A
cis-1,2-Dichloroethene	ND		ug/L	1.0	0.32	SW846 8260B		4/24/18 16:13	TMP	A
cis-1,3-Dichloropropene	ND		ug/L	1.0	0.31	SW846 8260B		4/24/18 16:13	TMP	A
mp-Xylene	ND		ug/L	2.0	0.52	SW846 8260B		4/24/18 16:13	TMP	A
n-Butylbenzene	ND		ug/L	2.0	0.60	SW846 8260B		4/24/18 16:13	TMP	A
n-Propylbenzene	ND		ug/L	1.0	0.33	SW846 8260B		4/24/18 16:13	TMP	A
o-Chlorotoluene	ND		ug/L	1.0	0.26	SW846 8260B		4/24/18 16:13	TMP	A
o-Xylene	ND		ug/L	1.0	0.33	SW846 8260B		4/24/18 16:13	TMP	A
p-Chlorotoluene	ND		ug/L	1.0	0.33	SW846 8260B		4/24/18 16:13	TMP	A
p-Isopropyltoluene	ND		ug/L	1.0	0.32	SW846 8260B		4/24/18 16:13	TMP	A
sec-Butylbenzene	ND		ug/L	1.0	0.31	SW846 8260B		4/24/18 16:13	TMP	A
tert-Amyl methyl ether	ND		ug/L	1.0	0.20	SW846 8260B		4/24/18 16:13	TMP	A
tert-Butyl Alcohol	2.5J	J	ug/L	10.0	2.2	SW846 8260B		4/24/18 16:13	TMP	A
tert-Butylbenzene	ND		ug/L	2.0	0.44	SW846 8260B		4/24/18 16:13	TMP	A

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State Certifications: DE ID 11 , MA PA0102 , MD 128 , VA 460157 , WV 343

ANALYTICAL RESULTS

Workorder: 2309395 LMC MRC 4/17/18

Lab ID: **2309395019** Date Collected: 4/17/2018 22:00 Matrix: Water
Sample ID: **TB-041718-4** Date Received: 4/17/2018 22:00

Parameters	Results	Flag	Units	RDL	MDL	Method	Prepared	By	Analyzed	By	Cntr
trans-1,2-Dichloroethene	ND		ug/L	1.0	0.26	SW846 8260B			4/24/18 16:13	TMP	A
trans-1,3-Dichloropropene	ND		ug/L	1.0	0.29	SW846 8260B			4/24/18 16:13	TMP	A
Surrogate Recoveries	*Results*	*Flag*	*Units*	*Limits*		*Method*	*Prepared*	*By*	*Analyzed*	*By*	*Cntr*
1,2-Dichloroethane-d4 (S)	111		%	62 - 133		SW846 8260B			4/24/18 16:13	TMP	A
4-Bromofluorobenzene (S)	91.9		%	79 - 114		SW846 8260B			4/24/18 16:13	TMP	A
Dibromofluoromethane (S)	93.8		%	78 - 116		SW846 8260B			4/24/18 16:13	TMP	A
Toluene-d8 (S)	97.5		%	76 - 127		SW846 8260B			4/24/18 16:13	TMP	A

Vanessa N. Badman
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ANALYTICAL RESULTS

Workorder: 2309395 LMC MRC 4/17/18

Lab ID: **2309395020** Date Collected: 4/17/2018 10:30 Matrix: Water
Sample ID: **MRC-SW8A-D** Date Received: 4/17/2018 22:00

Parameters	Results	Flag	Units	RDL	MDL	Method	Prepared By	Analyzed	By	Cntr
VOLATILE ORGANICS										
1,1,1,2-Tetrachloroethane	ND		ug/L	1.0	0.35	SW846 8260B		4/24/18 18:07	TMP	A
1,1,1-Trichloroethane	ND		ug/L	1.0	0.22	SW846 8260B		4/24/18 18:07	TMP	A
1,1,2,2-Tetrachloroethane	ND		ug/L	1.0	0.34	SW846 8260B		4/24/18 18:07	TMP	A
1,1,2-Trichloroethane	ND		ug/L	1.0	0.33	SW846 8260B		4/24/18 18:07	TMP	A
1,1-Dichloroethane	ND		ug/L	1.0	0.28	SW846 8260B		4/24/18 18:07	TMP	A
1,1-Dichloroethene	ND		ug/L	1.0	0.29	SW846 8260B		4/24/18 18:07	TMP	A
1,2,3-Trichlorobenzene	ND		ug/L	2.0	0.93	SW846 8260B		4/24/18 18:07	TMP	A
1,2,3-Trichloropropane	ND		ug/L	2.0	0.60	SW846 8260B		4/24/18 18:07	TMP	A
1,2,4-Trichlorobenzene	ND		ug/L	2.0	0.82	SW846 8260B		4/24/18 18:07	TMP	A
1,2,4-Trimethylbenzene	ND		ug/L	1.0	0.25	SW846 8260B		4/24/18 18:07	TMP	A
1,2-Dibromo-3-chloropropane	ND		ug/L	7.0	1.5	SW846 8260B		4/24/18 18:07	TMP	A
1,2-Dibromoethane	ND		ug/L	1.0	0.28	SW846 8260B		4/24/18 18:07	TMP	A
1,2-Dichlorobenzene	ND		ug/L	1.0	0.38	SW846 8260B		4/24/18 18:07	TMP	A
1,2-Dichloroethane	ND		ug/L	1.0	0.32	SW846 8260B		4/24/18 18:07	TMP	A
1,2-Dichloroethene, Total	ND		ug/L	2.0	0.45	SW846 8260B		4/24/18 18:07	TMP	A
1,2-Dichloropropane	ND		ug/L	1.0	0.24	SW846 8260B		4/24/18 18:07	TMP	A
1,3-Dichlorobenzene	ND		ug/L	1.0	0.25	SW846 8260B		4/24/18 18:07	TMP	A
1,3-Dichloropropane	ND		ug/L	1.0	0.27	SW846 8260B		4/24/18 18:07	TMP	A
1,3-Dichloropropene, Total	ND		ug/L	2.0	0.47	SW846 8260B		4/24/18 18:07	TMP	A
1,4-Dichlorobenzene	ND		ug/L	1.0	0.27	SW846 8260B		4/24/18 18:07	TMP	A
2,2-Dichloropropane	ND		ug/L	1.0	0.32	SW846 8260B		4/24/18 18:07	TMP	A
2-Butanone	ND		ug/L	10.0	1.8	SW846 8260B		4/24/18 18:07	TMP	A
2-Chloroethylvinyl ether	ND		ug/L	2.0	0.38	SW846 8260B		4/24/18 18:07	TMP	A
2-Hexanone	ND		ug/L	5.0	1.3	SW846 8260B		4/24/18 18:07	TMP	A
4-Methyl-2-Pentanone(MIBK)	ND		ug/L	5.0	1.5	SW846 8260B		4/24/18 18:07	TMP	A
Acetone	8.3J	J	ug/L	10.0	3.1	SW846 8260B		4/24/18 18:07	TMP	A
Benzene	ND		ug/L	1.0	0.23	SW846 8260B		4/24/18 18:07	TMP	A
Bromobenzene	ND		ug/L	1.0	0.32	SW846 8260B		4/24/18 18:07	TMP	A
Bromochloromethane	ND		ug/L	1.0	0.32	SW846 8260B		4/24/18 18:07	TMP	A
Bromodichloromethane	ND		ug/L	1.0	0.27	SW846 8260B		4/24/18 18:07	TMP	A
Bromoform	ND		ug/L	1.0	0.40	SW846 8260B		4/24/18 18:07	TMP	A
Bromomethane	ND		ug/L	1.0	0.39	SW846 8260B		4/24/18 18:07	TMP	A
Carbon Disulfide	ND		ug/L	1.0	0.23	SW846 8260B		4/24/18 18:07	TMP	A
Carbon Tetrachloride	ND		ug/L	1.0	0.31	SW846 8260B		4/24/18 18:07	TMP	A
Chlorobenzene	ND		ug/L	1.0	0.19	SW846 8260B		4/24/18 18:07	TMP	A
Chlorodibromomethane	ND		ug/L	1.0	0.45	SW846 8260B		4/24/18 18:07	TMP	A

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ANALYTICAL RESULTS

Workorder: 2309395 LMC MRC 4/17/18

Lab ID: **2309395020** Date Collected: 4/17/2018 10:30 Matrix: Water
Sample ID: **MRC-SW8A-D** Date Received: 4/17/2018 22:00

Parameters	Results	Flag	Units	RDL	MDL	Method	Prepared By	Analyzed	By	Cntr
Chloroethane	ND		ug/L	1.0	0.33	SW846 8260B		4/24/18 18:07	TMP	A
Chloroform	ND		ug/L	1.0	0.21	SW846 8260B		4/24/18 18:07	TMP	A
Chloromethane	ND		ug/L	1.0	0.31	SW846 8260B		4/24/18 18:07	TMP	A
Cyclohexane	ND		ug/L	1.0	0.29	SW846 8260B		4/24/18 18:07	TMP	A
Dibromomethane	ND		ug/L	1.0	0.31	SW846 8260B		4/24/18 18:07	TMP	A
Dichlorodifluoromethane	ND		ug/L	1.0	0.33	SW846 8260B		4/24/18 18:07	TMP	A
Diisopropyl ether	ND		ug/L	1.0	0.25	SW846 8260B		4/24/18 18:07	TMP	A
Ethyl tert-butyl ether	ND		ug/L	1.0	0.19	SW846 8260B		4/24/18 18:07	TMP	A
Ethylbenzene	ND		ug/L	1.0	0.34	SW846 8260B		4/24/18 18:07	TMP	A
Freon 113	ND		ug/L	1.0	0.26	SW846 8260B		4/24/18 18:07	TMP	A
Hexachlorobutadiene	ND		ug/L	5.0	1.0	SW846 8260B		4/24/18 18:07	TMP	A
Isopropylbenzene	ND		ug/L	1.0	0.22	SW846 8260B		4/24/18 18:07	TMP	A
Methyl acetate	ND		ug/L	2.0	0.32	SW846 8260B		4/24/18 18:07	TMP	A
Methyl cyclohexane	ND		ug/L	1.0	0.30	SW846 8260B		4/24/18 18:07	TMP	A
Methyl t-Butyl Ether	ND		ug/L	1.0	0.33	SW846 8260B		4/24/18 18:07	TMP	A
Methylene Chloride	ND		ug/L	1.0	0.45	SW846 8260B		4/24/18 18:07	TMP	A
Naphthalene	ND		ug/L	2.0	0.34	SW846 8260B		4/24/18 18:07	TMP	A
Styrene	ND		ug/L	1.0	0.24	SW846 8260B		4/24/18 18:07	TMP	A
Tetrachloroethene	ND		ug/L	1.0	0.35	SW846 8260B		4/24/18 18:07	TMP	A
Toluene	ND		ug/L	1.0	0.23	SW846 8260B		4/24/18 18:07	TMP	A
Total Xylenes	ND		ug/L	3.0	0.66	SW846 8260B		4/24/18 18:07	TMP	A
Trichloroethene	ND		ug/L	1.0	0.33	SW846 8260B		4/24/18 18:07	TMP	A
Trichlorofluoromethane	ND		ug/L	1.0	0.24	SW846 8260B		4/24/18 18:07	TMP	A
Vinyl Acetate	ND		ug/L	5.0	1.6	SW846 8260B		4/24/18 18:07	TMP	A
Vinyl Chloride	ND		ug/L	1.0	0.30	SW846 8260B		4/24/18 18:07	TMP	A
cis-1,2-Dichloroethene	ND		ug/L	1.0	0.32	SW846 8260B		4/24/18 18:07	TMP	A
cis-1,3-Dichloropropene	ND		ug/L	1.0	0.31	SW846 8260B		4/24/18 18:07	TMP	A
mp-Xylene	ND		ug/L	2.0	0.52	SW846 8260B		4/24/18 18:07	TMP	A
n-Butylbenzene	ND		ug/L	2.0	0.60	SW846 8260B		4/24/18 18:07	TMP	A
n-Propylbenzene	ND		ug/L	1.0	0.33	SW846 8260B		4/24/18 18:07	TMP	A
o-Chlorotoluene	ND		ug/L	1.0	0.26	SW846 8260B		4/24/18 18:07	TMP	A
o-Xylene	ND		ug/L	1.0	0.33	SW846 8260B		4/24/18 18:07	TMP	A
p-Chlorotoluene	ND		ug/L	1.0	0.33	SW846 8260B		4/24/18 18:07	TMP	A
p-Isopropyltoluene	ND		ug/L	1.0	0.32	SW846 8260B		4/24/18 18:07	TMP	A
sec-Butylbenzene	ND		ug/L	1.0	0.31	SW846 8260B		4/24/18 18:07	TMP	A
tert-Amyl methyl ether	ND		ug/L	1.0	0.20	SW846 8260B		4/24/18 18:07	TMP	A
tert-Butyl Alcohol	ND		ug/L	10.0	2.2	SW846 8260B		4/24/18 18:07	TMP	A
tert-Butylbenzene	ND		ug/L	2.0	0.44	SW846 8260B		4/24/18 18:07	TMP	A

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ANALYTICAL RESULTS

Workorder: 2309395 LMC MRC 4/17/18

Lab ID: **2309395020** Date Collected: 4/17/2018 10:30 Matrix: Water
Sample ID: **MRC-SW8A-D** Date Received: 4/17/2018 22:00

Parameters	Results	Flag	Units	RDL	MDL	Method	Prepared	By	Analyzed	By	Cntr
trans-1,2-Dichloroethene	ND		ug/L	1.0	0.26	SW846 8260B			4/24/18 18:07	TMP	A
trans-1,3-Dichloropropene	ND		ug/L	1.0	0.29	SW846 8260B			4/24/18 18:07	TMP	A
Surrogate Recoveries	*Results*	*Flag*	*Units*	*Limits*		*Method*	*Prepared*	*By*	*Analyzed*	*By*	*Cntr*
1,2-Dichloroethane-d4 (S)	114		%	62 - 133		SW846 8260B			4/24/18 18:07	TMP	A
4-Bromofluorobenzene (S)	91.9		%	79 - 114		SW846 8260B			4/24/18 18:07	TMP	A
Dibromofluoromethane (S)	94.8		%	78 - 116		SW846 8260B			4/24/18 18:07	TMP	A
Toluene-d8 (S)	95.2		%	76 - 127		SW846 8260B			4/24/18 18:07	TMP	A
SEMIVOLATILE SIM											
1,4-Dioxane	ND		ug/L	0.093	0.018	8270 SIM	4/20/18 09:35	MXL	4/24/18 00:48	GEC	C
IS_Naphthalene-d8	0.0		ug/L			8270 SIM	4/20/18 09:35	MXL	4/24/18 00:48	GEC	C
IS_Perylene-d12	0.0		ug/L			8270 SIM	4/20/18 09:35	MXL	4/24/18 00:48	GEC	C
Acenaphthene-d10	0.0		ug/L			8270 SIM	4/20/18 09:35	MXL	4/24/18 00:48	GEC	C
Phenanthrene-d10	0.0		ug/L			8270 SIM	4/20/18 09:35	MXL	4/24/18 00:48	GEC	C
Chrysene-d12	0.0		ug/L			8270 SIM	4/20/18 09:35	MXL	4/24/18 00:48	GEC	C
Surrogate Recoveries	*Results*	*Flag*	*Units*	*Limits*		*Method*	*Prepared*	*By*	*Analyzed*	*By*	*Cntr*
2-Methylnapthalene-d10 (S)	78.3		%	29 - 112		8270 SIM	4/20/18 09:35	MXL	4/24/18 00:48	GEC	C
Fluoranthene-d10 (S)	113		%	45 - 130		8270 SIM	4/20/18 09:35	MXL	4/24/18 00:48	GEC	C
SUBCONTRACTED ANALYSIS											
Subcontracted Analysis	See attached.					Subcontract			4/27/18 04:53	SUB	E

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ANALYTICAL RESULTS

Workorder: 2309395 LMC MRC 4/17/18

Lab ID: **2309395021** Date Collected: 4/17/2018 10:02 Matrix: Water
Sample ID: **MRC-SW6A** Date Received: 4/17/2018 22:00

Parameters	Results	Flag	Units	RDL	MDL	Method	Prepared By	Analyzed	By	Cntr
VOLATILE ORGANICS										
1,1,1,2-Tetrachloroethane	ND		ug/L	1.0	0.35	SW846 8260B		4/24/18 18:30	TMP	A
1,1,1-Trichloroethane	ND		ug/L	1.0	0.22	SW846 8260B		4/24/18 18:30	TMP	A
1,1,2,2-Tetrachloroethane	ND		ug/L	1.0	0.34	SW846 8260B		4/24/18 18:30	TMP	A
1,1,2-Trichloroethane	ND		ug/L	1.0	0.33	SW846 8260B		4/24/18 18:30	TMP	A
1,1-Dichloroethane	ND		ug/L	1.0	0.28	SW846 8260B		4/24/18 18:30	TMP	A
1,1-Dichloroethene	ND		ug/L	1.0	0.29	SW846 8260B		4/24/18 18:30	TMP	A
1,2,3-Trichlorobenzene	ND		ug/L	2.0	0.93	SW846 8260B		4/24/18 18:30	TMP	A
1,2,3-Trichloropropane	ND		ug/L	2.0	0.60	SW846 8260B		4/24/18 18:30	TMP	A
1,2,4-Trichlorobenzene	ND		ug/L	2.0	0.82	SW846 8260B		4/24/18 18:30	TMP	A
1,2,4-Trimethylbenzene	ND		ug/L	1.0	0.25	SW846 8260B		4/24/18 18:30	TMP	A
1,2-Dibromo-3-chloropropane	ND		ug/L	7.0	1.5	SW846 8260B		4/24/18 18:30	TMP	A
1,2-Dibromoethane	ND		ug/L	1.0	0.28	SW846 8260B		4/24/18 18:30	TMP	A
1,2-Dichlorobenzene	ND		ug/L	1.0	0.38	SW846 8260B		4/24/18 18:30	TMP	A
1,2-Dichloroethane	ND		ug/L	1.0	0.32	SW846 8260B		4/24/18 18:30	TMP	A
1,2-Dichloroethene, Total	ND		ug/L	2.0	0.45	SW846 8260B		4/24/18 18:30	TMP	A
1,2-Dichloropropane	ND		ug/L	1.0	0.24	SW846 8260B		4/24/18 18:30	TMP	A
1,3-Dichlorobenzene	ND		ug/L	1.0	0.25	SW846 8260B		4/24/18 18:30	TMP	A
1,3-Dichloropropane	ND		ug/L	1.0	0.27	SW846 8260B		4/24/18 18:30	TMP	A
1,3-Dichloropropene, Total	ND		ug/L	2.0	0.47	SW846 8260B		4/24/18 18:30	TMP	A
1,4-Dichlorobenzene	ND		ug/L	1.0	0.27	SW846 8260B		4/24/18 18:30	TMP	A
2,2-Dichloropropane	ND		ug/L	1.0	0.32	SW846 8260B		4/24/18 18:30	TMP	A
2-Butanone	ND		ug/L	10.0	1.8	SW846 8260B		4/24/18 18:30	TMP	A
2-Chloroethylvinyl ether	ND		ug/L	2.0	0.38	SW846 8260B		4/24/18 18:30	TMP	A
2-Hexanone	ND		ug/L	5.0	1.3	SW846 8260B		4/24/18 18:30	TMP	A
4-Methyl-2-Pentanone(MIBK)	ND		ug/L	5.0	1.5	SW846 8260B		4/24/18 18:30	TMP	A
Acetone	11.4		ug/L	10.0	3.1	SW846 8260B		4/24/18 18:30	TMP	A
Benzene	ND		ug/L	1.0	0.23	SW846 8260B		4/24/18 18:30	TMP	A
Bromobenzene	ND		ug/L	1.0	0.32	SW846 8260B		4/24/18 18:30	TMP	A
Bromochloromethane	ND		ug/L	1.0	0.32	SW846 8260B		4/24/18 18:30	TMP	A
Bromodichloromethane	ND		ug/L	1.0	0.27	SW846 8260B		4/24/18 18:30	TMP	A
Bromoform	ND		ug/L	1.0	0.40	SW846 8260B		4/24/18 18:30	TMP	A
Bromomethane	ND		ug/L	1.0	0.39	SW846 8260B		4/24/18 18:30	TMP	A
Carbon Disulfide	ND		ug/L	1.0	0.23	SW846 8260B		4/24/18 18:30	TMP	A
Carbon Tetrachloride	ND		ug/L	1.0	0.31	SW846 8260B		4/24/18 18:30	TMP	A
Chlorobenzene	ND		ug/L	1.0	0.19	SW846 8260B		4/24/18 18:30	TMP	A
Chlorodibromomethane	ND		ug/L	1.0	0.45	SW846 8260B		4/24/18 18:30	TMP	A

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ANALYTICAL RESULTS

Workorder: 2309395 LMC MRC 4/17/18

Lab ID: **2309395021** Date Collected: 4/17/2018 10:02 Matrix: Water
Sample ID: **MRC-SW6A** Date Received: 4/17/2018 22:00

Parameters	Results	Flag	Units	RDL	MDL	Method	Prepared By	Analyzed	By	*Cntr*
Chloroethane	ND		ug/L	1.0	0.33	SW846 8260B		4/24/18 18:30	TMP	A
Chloroform	ND		ug/L	1.0	0.21	SW846 8260B		4/24/18 18:30	TMP	A
Chloromethane	ND		ug/L	1.0	0.31	SW846 8260B		4/24/18 18:30	TMP	A
Cyclohexane	ND		ug/L	1.0	0.29	SW846 8260B		4/24/18 18:30	TMP	A
Dibromomethane	ND		ug/L	1.0	0.31	SW846 8260B		4/24/18 18:30	TMP	A
Dichlorodifluoromethane	ND		ug/L	1.0	0.33	SW846 8260B		4/24/18 18:30	TMP	A
Diisopropyl ether	ND		ug/L	1.0	0.25	SW846 8260B		4/24/18 18:30	TMP	A
Ethyl tert-butyl ether	ND		ug/L	1.0	0.19	SW846 8260B		4/24/18 18:30	TMP	A
Ethylbenzene	ND		ug/L	1.0	0.34	SW846 8260B		4/24/18 18:30	TMP	A
Freon 113	ND		ug/L	1.0	0.26	SW846 8260B		4/24/18 18:30	TMP	A
Hexachlorobutadiene	ND		ug/L	5.0	1.0	SW846 8260B		4/24/18 18:30	TMP	A
Isopropylbenzene	ND		ug/L	1.0	0.22	SW846 8260B		4/24/18 18:30	TMP	A
Methyl acetate	ND		ug/L	2.0	0.32	SW846 8260B		4/24/18 18:30	TMP	A
Methyl cyclohexane	ND		ug/L	1.0	0.30	SW846 8260B		4/24/18 18:30	TMP	A
Methyl t-Butyl Ether	ND		ug/L	1.0	0.33	SW846 8260B		4/24/18 18:30	TMP	A
Methylene Chloride	ND		ug/L	1.0	0.45	SW846 8260B		4/24/18 18:30	TMP	A
Naphthalene	ND		ug/L	2.0	0.34	SW846 8260B		4/24/18 18:30	TMP	A
Styrene	ND		ug/L	1.0	0.24	SW846 8260B		4/24/18 18:30	TMP	A
Tetrachloroethene	ND		ug/L	1.0	0.35	SW846 8260B		4/24/18 18:30	TMP	A
Toluene	ND		ug/L	1.0	0.23	SW846 8260B		4/24/18 18:30	TMP	A
Total Xylenes	ND		ug/L	3.0	0.66	SW846 8260B		4/24/18 18:30	TMP	A
Trichloroethene	ND		ug/L	1.0	0.33	SW846 8260B		4/24/18 18:30	TMP	A
Trichlorofluoromethane	ND		ug/L	1.0	0.24	SW846 8260B		4/24/18 18:30	TMP	A
Vinyl Acetate	ND		ug/L	5.0	1.6	SW846 8260B		4/24/18 18:30	TMP	A
Vinyl Chloride	ND		ug/L	1.0	0.30	SW846 8260B		4/24/18 18:30	TMP	A
cis-1,2-Dichloroethene	ND		ug/L	1.0	0.32	SW846 8260B		4/24/18 18:30	TMP	A
cis-1,3-Dichloropropene	ND		ug/L	1.0	0.31	SW846 8260B		4/24/18 18:30	TMP	A
mp-Xylene	ND		ug/L	2.0	0.52	SW846 8260B		4/24/18 18:30	TMP	A
n-Butylbenzene	ND		ug/L	2.0	0.60	SW846 8260B		4/24/18 18:30	TMP	A
n-Propylbenzene	ND		ug/L	1.0	0.33	SW846 8260B		4/24/18 18:30	TMP	A
o-Chlorotoluene	ND		ug/L	1.0	0.26	SW846 8260B		4/24/18 18:30	TMP	A
o-Xylene	ND		ug/L	1.0	0.33	SW846 8260B		4/24/18 18:30	TMP	A
p-Chlorotoluene	ND		ug/L	1.0	0.33	SW846 8260B		4/24/18 18:30	TMP	A
p-Isopropyltoluene	ND		ug/L	1.0	0.32	SW846 8260B		4/24/18 18:30	TMP	A
sec-Butylbenzene	ND		ug/L	1.0	0.31	SW846 8260B		4/24/18 18:30	TMP	A
tert-Amyl methyl ether	ND		ug/L	1.0	0.20	SW846 8260B		4/24/18 18:30	TMP	A
tert-Butyl Alcohol	ND		ug/L	10.0	2.2	SW846 8260B		4/24/18 18:30	TMP	A
tert-Butylbenzene	ND		ug/L	2.0	0.44	SW846 8260B		4/24/18 18:30	TMP	A

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ANALYTICAL RESULTS

Workorder: 2309395 LMC MRC 4/17/18

Lab ID: **2309395021** Date Collected: 4/17/2018 10:02 Matrix: Water
Sample ID: **MRC-SW6A** Date Received: 4/17/2018 22:00

Parameters	Results	Flag	Units	RDL	MDL	Method	Prepared	By	Analyzed	By	Cntr
trans-1,2-Dichloroethene	ND		ug/L	1.0	0.26	SW846 8260B			4/24/18 18:30	TMP	A
trans-1,3-Dichloropropene	ND		ug/L	1.0	0.29	SW846 8260B			4/24/18 18:30	TMP	A
Surrogate Recoveries	*Results*	*Flag*	*Units*	*Limits*		*Method*	*Prepared*	*By*	*Analyzed*	*By*	*Cntr*
1,2-Dichloroethane-d4 (S)	114		%	62 - 133		SW846 8260B			4/24/18 18:30	TMP	A
4-Bromofluorobenzene (S)	92.3		%	79 - 114		SW846 8260B			4/24/18 18:30	TMP	A
Dibromofluoromethane (S)	96		%	78 - 116		SW846 8260B			4/24/18 18:30	TMP	A
Toluene-d8 (S)	94.5		%	76 - 127		SW846 8260B			4/24/18 18:30	TMP	A
SEMIVOLATILE SIM											
1,4-Dioxane	ND		ug/L	0.094	0.018	8270 SIM	4/20/18 09:35	MXL	4/24/18 01:15	GEC	C
IS_Naphthalene-d8	0.0		ug/L			8270 SIM	4/20/18 09:35	MXL	4/24/18 01:15	GEC	C
IS_Perylene-d12	0.0		ug/L			8270 SIM	4/20/18 09:35	MXL	4/24/18 01:15	GEC	C
Acenaphthene-d10	0.0		ug/L			8270 SIM	4/20/18 09:35	MXL	4/24/18 01:15	GEC	C
Phenanthrene-d10	0.0		ug/L			8270 SIM	4/20/18 09:35	MXL	4/24/18 01:15	GEC	C
Chrysene-d12	0.0		ug/L			8270 SIM	4/20/18 09:35	MXL	4/24/18 01:15	GEC	C
Surrogate Recoveries	*Results*	*Flag*	*Units*	*Limits*		*Method*	*Prepared*	*By*	*Analyzed*	*By*	*Cntr*
2-Methylnapthalene-d10 (S)	71.1		%	29 - 112		8270 SIM	4/20/18 09:35	MXL	4/24/18 01:15	GEC	C
Fluoranthene-d10 (S)	116		%	45 - 130		8270 SIM	4/20/18 09:35	MXL	4/24/18 01:15	GEC	C
SUBCONTRACTED ANALYSIS											
Subcontracted Analysis	See attached.					Subcontract			4/27/18 05:22	SUB	E

Vanessa N. Badman
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ANALYTICAL RESULTS

Workorder: 2309395 LMC MRC 4/17/18

Lab ID: **2309395022** Date Collected: 4/17/2018 22:00 Matrix: Water
Sample ID: **TB-041718-5** Date Received: 4/17/2018 22:00

Parameters	Results	Flag	Units	RDL	MDL	Method	Prepared By	Analyzed	By	Cntr
VOLATILE ORGANICS										
1,1,1,2-Tetrachloroethane	ND		ug/L	1.0	0.35	SW846 8260B		4/24/18 16:36	TMP	A
1,1,1-Trichloroethane	ND		ug/L	1.0	0.22	SW846 8260B		4/24/18 16:36	TMP	A
1,1,2,2-Tetrachloroethane	ND		ug/L	1.0	0.34	SW846 8260B		4/24/18 16:36	TMP	A
1,1,2-Trichloroethane	ND		ug/L	1.0	0.33	SW846 8260B		4/24/18 16:36	TMP	A
1,1-Dichloroethane	ND		ug/L	1.0	0.28	SW846 8260B		4/24/18 16:36	TMP	A
1,1-Dichloroethene	ND		ug/L	1.0	0.29	SW846 8260B		4/24/18 16:36	TMP	A
1,2,3-Trichlorobenzene	ND		ug/L	2.0	0.93	SW846 8260B		4/24/18 16:36	TMP	A
1,2,3-Trichloropropane	ND		ug/L	2.0	0.60	SW846 8260B		4/24/18 16:36	TMP	A
1,2,4-Trichlorobenzene	ND		ug/L	2.0	0.82	SW846 8260B		4/24/18 16:36	TMP	A
1,2,4-Trimethylbenzene	ND		ug/L	1.0	0.25	SW846 8260B		4/24/18 16:36	TMP	A
1,2-Dibromo-3-chloropropane	ND		ug/L	7.0	1.5	SW846 8260B		4/24/18 16:36	TMP	A
1,2-Dibromoethane	ND		ug/L	1.0	0.28	SW846 8260B		4/24/18 16:36	TMP	A
1,2-Dichlorobenzene	ND		ug/L	1.0	0.38	SW846 8260B		4/24/18 16:36	TMP	A
1,2-Dichloroethane	ND		ug/L	1.0	0.32	SW846 8260B		4/24/18 16:36	TMP	A
1,2-Dichloroethene, Total	ND		ug/L	2.0	0.45	SW846 8260B		4/24/18 16:36	TMP	A
1,2-Dichloropropane	ND		ug/L	1.0	0.24	SW846 8260B		4/24/18 16:36	TMP	A
1,3-Dichlorobenzene	ND		ug/L	1.0	0.25	SW846 8260B		4/24/18 16:36	TMP	A
1,3-Dichloropropane	ND		ug/L	1.0	0.27	SW846 8260B		4/24/18 16:36	TMP	A
1,3-Dichloropropene, Total	ND		ug/L	2.0	0.47	SW846 8260B		4/24/18 16:36	TMP	A
1,4-Dichlorobenzene	ND		ug/L	1.0	0.27	SW846 8260B		4/24/18 16:36	TMP	A
2,2-Dichloropropane	ND		ug/L	1.0	0.32	SW846 8260B		4/24/18 16:36	TMP	A
2-Butanone	ND		ug/L	10.0	1.8	SW846 8260B		4/24/18 16:36	TMP	A
2-Chloroethylvinyl ether	ND		ug/L	2.0	0.38	SW846 8260B		4/24/18 16:36	TMP	A
2-Hexanone	ND		ug/L	5.0	1.3	SW846 8260B		4/24/18 16:36	TMP	A
4-Methyl-2-Pentanone(MIBK)	ND		ug/L	5.0	1.5	SW846 8260B		4/24/18 16:36	TMP	A
Acetone	8.3J	J	ug/L	10.0	3.1	SW846 8260B		4/24/18 16:36	TMP	A
Benzene	ND		ug/L	1.0	0.23	SW846 8260B		4/24/18 16:36	TMP	A
Bromobenzene	ND		ug/L	1.0	0.32	SW846 8260B		4/24/18 16:36	TMP	A
Bromochloromethane	ND		ug/L	1.0	0.32	SW846 8260B		4/24/18 16:36	TMP	A
Bromodichloromethane	ND		ug/L	1.0	0.27	SW846 8260B		4/24/18 16:36	TMP	A
Bromoform	ND		ug/L	1.0	0.40	SW846 8260B		4/24/18 16:36	TMP	A
Bromomethane	ND		ug/L	1.0	0.39	SW846 8260B		4/24/18 16:36	TMP	A
Carbon Disulfide	ND		ug/L	1.0	0.23	SW846 8260B		4/24/18 16:36	TMP	A
Carbon Tetrachloride	ND		ug/L	1.0	0.31	SW846 8260B		4/24/18 16:36	TMP	A
Chlorobenzene	ND		ug/L	1.0	0.19	SW846 8260B		4/24/18 16:36	TMP	A
Chlorodibromomethane	ND		ug/L	1.0	0.45	SW846 8260B		4/24/18 16:36	TMP	A

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ANALYTICAL RESULTS

Workorder: 2309395 LMC MRC 4/17/18

Lab ID: **2309395022** Date Collected: 4/17/2018 22:00 Matrix: Water
Sample ID: **TB-041718-5** Date Received: 4/17/2018 22:00

Parameters	Results	Flag	Units	RDL	MDL	Method	Prepared By	Analyzed	By	Cntr
Chloroethane	ND		ug/L	1.0	0.33	SW846 8260B		4/24/18 16:36	TMP	A
Chloroform	ND		ug/L	1.0	0.21	SW846 8260B		4/24/18 16:36	TMP	A
Chloromethane	ND		ug/L	1.0	0.31	SW846 8260B		4/24/18 16:36	TMP	A
Cyclohexane	ND		ug/L	1.0	0.29	SW846 8260B		4/24/18 16:36	TMP	A
Dibromomethane	ND		ug/L	1.0	0.31	SW846 8260B		4/24/18 16:36	TMP	A
Dichlorodifluoromethane	ND		ug/L	1.0	0.33	SW846 8260B		4/24/18 16:36	TMP	A
Diisopropyl ether	ND		ug/L	1.0	0.25	SW846 8260B		4/24/18 16:36	TMP	A
Ethyl tert-butyl ether	ND		ug/L	1.0	0.19	SW846 8260B		4/24/18 16:36	TMP	A
Ethylbenzene	ND		ug/L	1.0	0.34	SW846 8260B		4/24/18 16:36	TMP	A
Freon 113	ND		ug/L	1.0	0.26	SW846 8260B		4/24/18 16:36	TMP	A
Hexachlorobutadiene	ND		ug/L	5.0	1.0	SW846 8260B		4/24/18 16:36	TMP	A
Isopropylbenzene	ND		ug/L	1.0	0.22	SW846 8260B		4/24/18 16:36	TMP	A
Methyl acetate	ND		ug/L	2.0	0.32	SW846 8260B		4/24/18 16:36	TMP	A
Methyl cyclohexane	ND		ug/L	1.0	0.30	SW846 8260B		4/24/18 16:36	TMP	A
Methyl t-Butyl Ether	ND		ug/L	1.0	0.33	SW846 8260B		4/24/18 16:36	TMP	A
Methylene Chloride	ND		ug/L	1.0	0.45	SW846 8260B		4/24/18 16:36	TMP	A
Naphthalene	ND		ug/L	2.0	0.34	SW846 8260B		4/24/18 16:36	TMP	A
Styrene	ND		ug/L	1.0	0.24	SW846 8260B		4/24/18 16:36	TMP	A
Tetrachloroethene	ND		ug/L	1.0	0.35	SW846 8260B		4/24/18 16:36	TMP	A
Toluene	ND		ug/L	1.0	0.23	SW846 8260B		4/24/18 16:36	TMP	A
Total Xylenes	ND		ug/L	3.0	0.66	SW846 8260B		4/24/18 16:36	TMP	A
Trichloroethene	ND		ug/L	1.0	0.33	SW846 8260B		4/24/18 16:36	TMP	A
Trichlorofluoromethane	ND		ug/L	1.0	0.24	SW846 8260B		4/24/18 16:36	TMP	A
Vinyl Acetate	ND		ug/L	5.0	1.6	SW846 8260B		4/24/18 16:36	TMP	A
Vinyl Chloride	ND		ug/L	1.0	0.30	SW846 8260B		4/24/18 16:36	TMP	A
cis-1,2-Dichloroethene	ND		ug/L	1.0	0.32	SW846 8260B		4/24/18 16:36	TMP	A
cis-1,3-Dichloropropene	ND		ug/L	1.0	0.31	SW846 8260B		4/24/18 16:36	TMP	A
mp-Xylene	ND		ug/L	2.0	0.52	SW846 8260B		4/24/18 16:36	TMP	A
n-Butylbenzene	ND		ug/L	2.0	0.60	SW846 8260B		4/24/18 16:36	TMP	A
n-Propylbenzene	ND		ug/L	1.0	0.33	SW846 8260B		4/24/18 16:36	TMP	A
o-Chlorotoluene	ND		ug/L	1.0	0.26	SW846 8260B		4/24/18 16:36	TMP	A
o-Xylene	ND		ug/L	1.0	0.33	SW846 8260B		4/24/18 16:36	TMP	A
p-Chlorotoluene	ND		ug/L	1.0	0.33	SW846 8260B		4/24/18 16:36	TMP	A
p-Isopropyltoluene	ND		ug/L	1.0	0.32	SW846 8260B		4/24/18 16:36	TMP	A
sec-Butylbenzene	ND		ug/L	1.0	0.31	SW846 8260B		4/24/18 16:36	TMP	A
tert-Amyl methyl ether	ND		ug/L	1.0	0.20	SW846 8260B		4/24/18 16:36	TMP	A
tert-Butyl Alcohol	ND		ug/L	10.0	2.2	SW846 8260B		4/24/18 16:36	TMP	A
tert-Butylbenzene	ND		ug/L	2.0	0.44	SW846 8260B		4/24/18 16:36	TMP	A

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ANALYTICAL RESULTS

Workorder: 2309395 LMC MRC 4/17/18

Lab ID: **2309395022** Date Collected: 4/17/2018 22:00 Matrix: Water
Sample ID: **TB-041718-5** Date Received: 4/17/2018 22:00

Parameters	Results	Flag	Units	RDL	MDL	Method	Prepared	By	Analyzed	By	Cntr
trans-1,2-Dichloroethene	ND		ug/L	1.0	0.26	SW846 8260B			4/24/18 16:36	TMP	A
trans-1,3-Dichloropropene	ND		ug/L	1.0	0.29	SW846 8260B			4/24/18 16:36	TMP	A
Surrogate Recoveries	*Results*	*Flag*	*Units*	*Limits*		*Method*	*Prepared*	*By*	*Analyzed*	*By*	*Cntr*
1,2-Dichloroethane-d4 (S)	114		%	62 - 133		SW846 8260B			4/24/18 16:36	TMP	A
4-Bromofluorobenzene (S)	93		%	79 - 114		SW846 8260B			4/24/18 16:36	TMP	A
Dibromofluoromethane (S)	96.4		%	78 - 116		SW846 8260B			4/24/18 16:36	TMP	A
Toluene-d8 (S)	97.4		%	76 - 127		SW846 8260B			4/24/18 16:36	TMP	A

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ANALYTICAL RESULTS

Workorder: 2309395 LMC MRC 4/17/18

Lab ID: **2309395023** Date Collected: 4/17/2018 10:16 Matrix: Water
Sample ID: **MRC-SW8A** Date Received: 4/17/2018 22:00

Parameters	Results	Flag	Units	RDL	MDL	Method	Prepared By	Analyzed	By	Cntr
VOLATILE ORGANICS										
1,1,1,2-Tetrachloroethane	ND		ug/L	1.0	0.35	SW846 8260B		4/24/18 18:53	TMP	A
1,1,1-Trichloroethane	ND		ug/L	1.0	0.22	SW846 8260B		4/24/18 18:53	TMP	A
1,1,2,2-Tetrachloroethane	ND		ug/L	1.0	0.34	SW846 8260B		4/24/18 18:53	TMP	A
1,1,2-Trichloroethane	ND		ug/L	1.0	0.33	SW846 8260B		4/24/18 18:53	TMP	A
1,1-Dichloroethane	ND		ug/L	1.0	0.28	SW846 8260B		4/24/18 18:53	TMP	A
1,1-Dichloroethene	ND		ug/L	1.0	0.29	SW846 8260B		4/24/18 18:53	TMP	A
1,2,3-Trichlorobenzene	ND		ug/L	2.0	0.93	SW846 8260B		4/24/18 18:53	TMP	A
1,2,3-Trichloropropane	ND		ug/L	2.0	0.60	SW846 8260B		4/24/18 18:53	TMP	A
1,2,4-Trichlorobenzene	ND		ug/L	2.0	0.82	SW846 8260B		4/24/18 18:53	TMP	A
1,2,4-Trimethylbenzene	ND		ug/L	1.0	0.25	SW846 8260B		4/24/18 18:53	TMP	A
1,2-Dibromo-3-chloropropane	ND		ug/L	7.0	1.5	SW846 8260B		4/24/18 18:53	TMP	A
1,2-Dibromoethane	ND		ug/L	1.0	0.28	SW846 8260B		4/24/18 18:53	TMP	A
1,2-Dichlorobenzene	ND		ug/L	1.0	0.38	SW846 8260B		4/24/18 18:53	TMP	A
1,2-Dichloroethane	ND		ug/L	1.0	0.32	SW846 8260B		4/24/18 18:53	TMP	A
1,2-Dichloroethene, Total	ND		ug/L	2.0	0.45	SW846 8260B		4/24/18 18:53	TMP	A
1,2-Dichloropropane	ND		ug/L	1.0	0.24	SW846 8260B		4/24/18 18:53	TMP	A
1,3-Dichlorobenzene	ND		ug/L	1.0	0.25	SW846 8260B		4/24/18 18:53	TMP	A
1,3-Dichloropropane	ND		ug/L	1.0	0.27	SW846 8260B		4/24/18 18:53	TMP	A
1,3-Dichloropropene, Total	ND		ug/L	2.0	0.47	SW846 8260B		4/24/18 18:53	TMP	A
1,4-Dichlorobenzene	ND		ug/L	1.0	0.27	SW846 8260B		4/24/18 18:53	TMP	A
2,2-Dichloropropane	ND		ug/L	1.0	0.32	SW846 8260B		4/24/18 18:53	TMP	A
2-Butanone	ND		ug/L	10.0	1.8	SW846 8260B		4/24/18 18:53	TMP	A
2-Chloroethylvinyl ether	ND		ug/L	2.0	0.38	SW846 8260B		4/24/18 18:53	TMP	A
2-Hexanone	ND		ug/L	5.0	1.3	SW846 8260B		4/24/18 18:53	TMP	A
4-Methyl-2-Pentanone(MIBK)	ND		ug/L	5.0	1.5	SW846 8260B		4/24/18 18:53	TMP	A
Acetone	8.0J	J	ug/L	10.0	3.1	SW846 8260B		4/24/18 18:53	TMP	A
Benzene	ND		ug/L	1.0	0.23	SW846 8260B		4/24/18 18:53	TMP	A
Bromobenzene	ND		ug/L	1.0	0.32	SW846 8260B		4/24/18 18:53	TMP	A
Bromochloromethane	ND		ug/L	1.0	0.32	SW846 8260B		4/24/18 18:53	TMP	A
Bromodichloromethane	ND		ug/L	1.0	0.27	SW846 8260B		4/24/18 18:53	TMP	A
Bromoform	ND		ug/L	1.0	0.40	SW846 8260B		4/24/18 18:53	TMP	A
Bromomethane	ND		ug/L	1.0	0.39	SW846 8260B		4/24/18 18:53	TMP	A
Carbon Disulfide	ND		ug/L	1.0	0.23	SW846 8260B		4/24/18 18:53	TMP	A
Carbon Tetrachloride	ND		ug/L	1.0	0.31	SW846 8260B		4/24/18 18:53	TMP	A
Chlorobenzene	ND		ug/L	1.0	0.19	SW846 8260B		4/24/18 18:53	TMP	A
Chlorodibromomethane	ND		ug/L	1.0	0.45	SW846 8260B		4/24/18 18:53	TMP	A

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ANALYTICAL RESULTS

Workorder: 2309395 LMC MRC 4/17/18

Lab ID: **2309395023** Date Collected: 4/17/2018 10:16 Matrix: Water
Sample ID: **MRC-SW8A** Date Received: 4/17/2018 22:00

Parameters	Results	Flag	Units	RDL	MDL	Method	Prepared By	Analyzed	By	*Cntr*
Chloroethane	ND		ug/L	1.0	0.33	SW846 8260B		4/24/18 18:53	TMP	A
Chloroform	ND		ug/L	1.0	0.21	SW846 8260B		4/24/18 18:53	TMP	A
Chloromethane	ND		ug/L	1.0	0.31	SW846 8260B		4/24/18 18:53	TMP	A
Cyclohexane	ND		ug/L	1.0	0.29	SW846 8260B		4/24/18 18:53	TMP	A
Dibromomethane	ND		ug/L	1.0	0.31	SW846 8260B		4/24/18 18:53	TMP	A
Dichlorodifluoromethane	ND		ug/L	1.0	0.33	SW846 8260B		4/24/18 18:53	TMP	A
Diisopropyl ether	ND		ug/L	1.0	0.25	SW846 8260B		4/24/18 18:53	TMP	A
Ethyl tert-butyl ether	ND		ug/L	1.0	0.19	SW846 8260B		4/24/18 18:53	TMP	A
Ethylbenzene	ND		ug/L	1.0	0.34	SW846 8260B		4/24/18 18:53	TMP	A
Freon 113	ND		ug/L	1.0	0.26	SW846 8260B		4/24/18 18:53	TMP	A
Hexachlorobutadiene	ND		ug/L	5.0	1.0	SW846 8260B		4/24/18 18:53	TMP	A
Isopropylbenzene	ND		ug/L	1.0	0.22	SW846 8260B		4/24/18 18:53	TMP	A
Methyl acetate	ND		ug/L	2.0	0.32	SW846 8260B		4/24/18 18:53	TMP	A
Methyl cyclohexane	ND		ug/L	1.0	0.30	SW846 8260B		4/24/18 18:53	TMP	A
Methyl t-Butyl Ether	ND		ug/L	1.0	0.33	SW846 8260B		4/24/18 18:53	TMP	A
Methylene Chloride	ND		ug/L	1.0	0.45	SW846 8260B		4/24/18 18:53	TMP	A
Naphthalene	ND		ug/L	2.0	0.34	SW846 8260B		4/24/18 18:53	TMP	A
Styrene	ND		ug/L	1.0	0.24	SW846 8260B		4/24/18 18:53	TMP	A
Tetrachloroethene	ND		ug/L	1.0	0.35	SW846 8260B		4/24/18 18:53	TMP	A
Toluene	ND		ug/L	1.0	0.23	SW846 8260B		4/24/18 18:53	TMP	A
Total Xylenes	ND		ug/L	3.0	0.66	SW846 8260B		4/24/18 18:53	TMP	A
Trichloroethene	ND		ug/L	1.0	0.33	SW846 8260B		4/24/18 18:53	TMP	A
Trichlorofluoromethane	ND		ug/L	1.0	0.24	SW846 8260B		4/24/18 18:53	TMP	A
Vinyl Acetate	ND		ug/L	5.0	1.6	SW846 8260B		4/24/18 18:53	TMP	A
Vinyl Chloride	ND		ug/L	1.0	0.30	SW846 8260B		4/24/18 18:53	TMP	A
cis-1,2-Dichloroethene	ND		ug/L	1.0	0.32	SW846 8260B		4/24/18 18:53	TMP	A
cis-1,3-Dichloropropene	ND		ug/L	1.0	0.31	SW846 8260B		4/24/18 18:53	TMP	A
mp-Xylene	ND		ug/L	2.0	0.52	SW846 8260B		4/24/18 18:53	TMP	A
n-Butylbenzene	ND		ug/L	2.0	0.60	SW846 8260B		4/24/18 18:53	TMP	A
n-Propylbenzene	ND		ug/L	1.0	0.33	SW846 8260B		4/24/18 18:53	TMP	A
o-Chlorotoluene	ND		ug/L	1.0	0.26	SW846 8260B		4/24/18 18:53	TMP	A
o-Xylene	ND		ug/L	1.0	0.33	SW846 8260B		4/24/18 18:53	TMP	A
p-Chlorotoluene	ND		ug/L	1.0	0.33	SW846 8260B		4/24/18 18:53	TMP	A
p-Isopropyltoluene	ND		ug/L	1.0	0.32	SW846 8260B		4/24/18 18:53	TMP	A
sec-Butylbenzene	ND		ug/L	1.0	0.31	SW846 8260B		4/24/18 18:53	TMP	A
tert-Amyl methyl ether	ND		ug/L	1.0	0.20	SW846 8260B		4/24/18 18:53	TMP	A
tert-Butyl Alcohol	ND		ug/L	10.0	2.2	SW846 8260B		4/24/18 18:53	TMP	A
tert-Butylbenzene	ND		ug/L	2.0	0.44	SW846 8260B		4/24/18 18:53	TMP	A

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ANALYTICAL RESULTS

Workorder: 2309395 LMC MRC 4/17/18

Lab ID: **2309395023** Date Collected: 4/17/2018 10:16 Matrix: Water
Sample ID: **MRC-SW8A** Date Received: 4/17/2018 22:00

Parameters	Results	Flag	Units	RDL	MDL	Method	Prepared	By	Analyzed	By	Cntr
trans-1,2-Dichloroethene	ND		ug/L	1.0	0.26	SW846 8260B			4/24/18 18:53	TMP	A
trans-1,3-Dichloropropene	ND		ug/L	1.0	0.29	SW846 8260B			4/24/18 18:53	TMP	A
Surrogate Recoveries	*Results*	*Flag*	*Units*	*Limits*		*Method*	*Prepared*	*By*	*Analyzed*	*By*	*Cntr*
1,2-Dichloroethane-d4 (S)	116		%	62 - 133		SW846 8260B			4/24/18 18:53	TMP	A
4-Bromofluorobenzene (S)	92.9		%	79 - 114		SW846 8260B			4/24/18 18:53	TMP	A
Dibromofluoromethane (S)	97.1		%	78 - 116		SW846 8260B			4/24/18 18:53	TMP	A
Toluene-d8 (S)	94.1		%	76 - 127		SW846 8260B			4/24/18 18:53	TMP	A
SEMIVOLATILE SIM											
1,4-Dioxane	ND		ug/L	0.093	0.018	8270 SIM	4/20/18 09:35	MXL	4/24/18 01:42	GEC	C
IS_Naphthalene-d8	0.0		ug/L			8270 SIM	4/20/18 09:35	MXL	4/24/18 01:42	GEC	C
IS_Perylene-d12	0.0		ug/L			8270 SIM	4/20/18 09:35	MXL	4/24/18 01:42	GEC	C
Acenaphthene-d10	0.0		ug/L			8270 SIM	4/20/18 09:35	MXL	4/24/18 01:42	GEC	C
Phenanthrene-d10	0.0		ug/L			8270 SIM	4/20/18 09:35	MXL	4/24/18 01:42	GEC	C
Chrysene-d12	0.0		ug/L			8270 SIM	4/20/18 09:35	MXL	4/24/18 01:42	GEC	C
Surrogate Recoveries	*Results*	*Flag*	*Units*	*Limits*		*Method*	*Prepared*	*By*	*Analyzed*	*By*	*Cntr*
2-Methylnapthalene-d10 (S)	81.5		%	29 - 112		8270 SIM	4/20/18 09:35	MXL	4/24/18 01:42	GEC	C
Fluoranthene-d10 (S)	129		%	45 - 130		8270 SIM	4/20/18 09:35	MXL	4/24/18 01:42	GEC	C
SUBCONTRACTED ANALYSIS											
Subcontracted Analysis	See attached.					Subcontract			4/27/18 05:51	SUB	E

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ANALYTICAL RESULTS

Workorder: 2309395 LMC MRC 4/17/18

Lab ID: **2309395024** Date Collected: 4/17/2018 13:20 Matrix: Water
Sample ID: **DM-1-4** Date Received: 4/17/2018 22:00

Parameters	Results	Flag	Units	RDL	MDL	Method	Prepared	By	Analyzed	By	Cntr
Total Polychlorinated Biphenyl	ND		ug/L	1.8	1.8	SW846 8082A	4/23/18 20:50	AXS	4/24/18 17:43	EGO	A
TCLP VOLATILE ORGANICS											
Benzene	ND		ug/L	100	40.0	SW846 8260B			4/23/18 10:26	DD	A
2-Butanone	ND		ug/L	1000	300	SW846 8260B			4/23/18 10:26	DD	A
Carbon Tetrachloride	ND		ug/L	100	20.0	SW846 8260B			4/23/18 10:26	DD	A
Chlorobenzene	ND		ug/L	100	20.0	SW846 8260B			4/23/18 10:26	DD	A
Chloroform	38.7J	J	ug/L	100	20.0	SW846 8260B			4/23/18 10:26	DD	A
1,2-Dichloroethane	ND		ug/L	100	20.0	SW846 8260B			4/23/18 10:26	DD	A
1,1-Dichloroethene	ND		ug/L	100	20.0	SW846 8260B			4/23/18 10:26	DD	A
Tetrachloroethene	ND		ug/L	100	40.0	SW846 8260B			4/23/18 10:26	DD	A
Trichloroethene	136		ug/L	100	20.0	SW846 8260B			4/23/18 10:26	DD	A
Vinyl Chloride	ND		ug/L	100	20.0	SW846 8260B			4/23/18 10:26	DD	A
Surrogate Recoveries	*Results*	*Flag*	*Units*	*Limits*		*Method*	*Prepared*	*By*	*Analyzed*	*By*	*Cntr*
1,2-Dichloroethane-d4 (S)	79.4		%	62 - 133		SW846 8260B			4/23/18 10:26	DD	A
4-Bromofluorobenzene (S)	114		%	79 - 114		SW846 8260B			4/23/18 10:26	DD	A
Dibromofluoromethane (S)	76.5	1	%	78 - 116		SW846 8260B			4/23/18 10:26	DD	A
Toluene-d8 (S)	82.2		%	76 - 127		SW846 8260B			4/23/18 10:26	DD	A
PCBs											
Aroclor-1016	ND		ug/L	1.8	0.21	SW846 8082A	4/23/18 20:50	AXS	4/24/18 17:43	EGO	A
Aroclor-1221	ND		ug/L	1.8	0.25	SW846 8082A	4/23/18 20:50	AXS	4/24/18 17:43	EGO	A
Aroclor-1232	ND		ug/L	1.8	0.67	SW846 8082A	4/23/18 20:50	AXS	4/24/18 17:43	EGO	A
Aroclor-1242	ND		ug/L	1.8	0.84	SW846 8082A	4/23/18 20:50	AXS	4/24/18 17:43	EGO	A
Aroclor-1248	ND		ug/L	1.8	0.49	SW846 8082A	4/23/18 20:50	AXS	4/24/18 17:43	EGO	A
Aroclor-1254	ND		ug/L	1.8	0.35	SW846 8082A	4/23/18 20:50	AXS	4/24/18 17:43	EGO	A
Aroclor-1260	ND		ug/L	1.8	0.25	SW846 8082A	4/23/18 20:50	AXS	4/24/18 17:43	EGO	A
Aroclor-1262	ND		ug/L	1.8	0.35	SW846 8082A	4/23/18 20:50	AXS	4/24/18 17:43	EGO	A
Aroclor-1268	ND		ug/L	1.8	0.60	SW846 8082A	4/23/18 20:50	AXS	4/24/18 17:43	EGO	A
Surrogate Recoveries	*Results*	*Flag*	*Units*	*Limits*		*Method*	*Prepared*	*By*	*Analyzed*	*By*	*Cntr*
Decachlorobiphenyls (S)	50.1		%	30 - 140		SW846 8082A	4/23/18 20:50	AXS	4/24/18 17:43	EGO	A
Tetrachloro-m-xylene (S)	62.1		%	30 - 133		SW846 8082A	4/23/18 20:50	AXS	4/24/18 17:43	EGO	A
WET CHEMISTRY											
Corrosivity as pH	7.33	4	pH_Units			SW846 9040C			4/19/18 14:17	MSA	A
Cyanide, Reactive	ND		ppm	10	0.011	SW-846 7.3CN	4/25/18 14:10	VXF	4/26/18 09:26	MNP	A
Flashpoint/Ignitability	See comment	2,3	Deg. F			SW-846 1010A			4/28/18 06:00	SDL	A

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ANALYTICAL RESULTS

Workorder: 2309395 LMC MRC 4/17/18

Lab ID: **2309395024** Date Collected: 4/17/2018 13:20 Matrix: Water
Sample ID: **DM-1-4** Date Received: 4/17/2018 22:00

Parameters	Results	Flag	Units	RDL	MDL	Method	Prepared	By	Analyzed	By	Cntr
Sulfide, Reactive	3.2J	J	ppm	6.2	1.2	SW846 7.3	4/25/18 14:10	VXF	4/25/18 20:15	VXF	A
TCLP METALS											
Arsenic, Total	ND		mg/L	0.14	0.046	SW846 6010C	4/24/18 22:14	DAG	4/25/18 03:11	SRT	A2
Barium, Total	ND		mg/L	2.8	0.94	SW846 6010C	4/24/18 22:14	DAG	4/25/18 03:11	SRT	A2
Cadmium, Total	ND		mg/L	0.011	0.0037	SW846 6010C	4/24/18 22:14	DAG	4/25/18 03:11	SRT	A2
Chromium, Total	ND		mg/L	0.028	0.010	SW846 6010C	4/24/18 22:14	DAG	4/25/18 03:11	SRT	A2
Lead, Total	ND		mg/L	0.033	0.011	SW846 6010C	4/24/18 22:14	DAG	4/25/18 03:11	SRT	A2
Mercury, Total	ND		mg/L	0.0020	0.00066	SW846 7470A	4/24/18 11:15	AXC	4/24/18 16:19	AXC	A1
Selenium, Total	ND		mg/L	0.11	0.037	SW846 6010C	4/24/18 22:14	DAG	4/25/18 03:11	SRT	A2
Silver, Total	ND		mg/L	0.022	0.0070	SW846 6010C	4/24/18 22:14	DAG	4/25/18 03:11	SRT	A2
TCLP SEMI-VOLATILES											
mp-Cresol	ND		ug/L	60.0	3.2	SW846 8270D	4/23/18 14:25	TXC	4/25/18 16:42	DHF	A
o-Cresol	ND		ug/L	60.0	5.0	SW846 8270D	4/23/18 14:25	TXC	4/25/18 16:42	DHF	A
1,4-Dichlorobenzene	ND		ug/L	60.0	3.6	SW846 8270D	4/23/18 14:25	TXC	4/25/18 16:42	DHF	A
2,4-Dinitrotoluene	ND		ug/L	60.0	2.6	SW846 8270D	4/23/18 14:25	TXC	4/25/18 16:42	DHF	A
Hexachlorobenzene	ND		ug/L	60.0	4.6	SW846 8270D	4/23/18 14:25	TXC	4/25/18 16:42	DHF	A
Hexachlorobutadiene	ND		ug/L	60.0	3.8	SW846 8270D	4/23/18 14:25	TXC	4/25/18 16:42	DHF	A
Hexachloroethane	ND		ug/L	60.0	6.0	SW846 8270D	4/23/18 14:25	TXC	4/25/18 16:42	DHF	A
Nitrobenzene	ND		ug/L	60.0	5.6	SW846 8270D	4/23/18 14:25	TXC	4/25/18 16:42	DHF	A
Pentachlorophenol	ND		ug/L	120	24.0	SW846 8270D	4/23/18 14:25	TXC	4/25/18 16:42	DHF	A
Pyridine	ND		ug/L	60.0	14.0	SW846 8270D	4/23/18 14:25	TXC	4/25/18 16:42	DHF	A
2,4,5-Trichlorophenol	ND		ug/L	60.0	11.0	SW846 8270D	4/23/18 14:25	TXC	4/25/18 16:42	DHF	A
2,4,6-Trichlorophenol	ND		ug/L	60.0	11.4	SW846 8270D	4/23/18 14:25	TXC	4/25/18 16:42	DHF	A

Surrogate Recoveries	*Results*	*Flag*	*Units*	*Limits*	*Method*	*Prepared*	*By*	*Analyzed*	*By*	*Cntr*
2,4,6-Tribromophenol (S)	85.5		%	47 - 128	SW846 8270D	4/23/18 14:25	TXC	4/25/18 16:42	DHF	A
2-Fluorobiphenyl (S)	80.7		%	52 - 118	SW846 8270D	4/23/18 14:25	TXC	4/25/18 16:42	DHF	A
2-Fluorophenol (S)	49.5		%	20 - 87	SW846 8270D	4/23/18 14:25	TXC	4/25/18 16:42	DHF	A
Nitrobenzene-d5 (S)	78.4		%	27 - 139	SW846 8270D	4/23/18 14:25	TXC	4/25/18 16:42	DHF	A
Phenol-d5 (S)	31.2		%	10 - 81	SW846 8270D	4/23/18 14:25	TXC	4/25/18 16:42	DHF	A
Terphenyl-d14 (S)	95.5		%	46 - 133	SW846 8270D	4/23/18 14:25	TXC	4/25/18 16:42	DHF	A

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ANALYTICAL RESULTS

Workorder: 2309395 LMC MRC 4/17/18

Lab ID: **2309395025** Date Collected: 4/17/2018 13:35 Matrix: Water
Sample ID: **DM-5-8** Date Received: 4/17/2018 22:00

Parameters	Results	Flag	Units	RDL	MDL	Method	Prepared	By	Analyzed	By	Cntr
Total Polychlorinated Biphenyl	ND		ug/L	1.7	1.7	SW846 8082A	4/23/18 20:50	AXS	4/24/18 17:55	EGO	A
TCLP VOLATILE ORGANICS											
Benzene	ND		ug/L	100	40.0	SW846 8260B			4/23/18 10:48	DD	A
2-Butanone	ND		ug/L	1000	300	SW846 8260B			4/23/18 10:48	DD	A
Carbon Tetrachloride	ND		ug/L	100	20.0	SW846 8260B			4/23/18 10:48	DD	A
Chlorobenzene	ND		ug/L	100	20.0	SW846 8260B			4/23/18 10:48	DD	A
Chloroform	47.6J	J	ug/L	100	20.0	SW846 8260B			4/23/18 10:48	DD	A
1,2-Dichloroethane	ND		ug/L	100	20.0	SW846 8260B			4/23/18 10:48	DD	A
1,1-Dichloroethene	ND		ug/L	100	20.0	SW846 8260B			4/23/18 10:48	DD	A
Tetrachloroethene	ND		ug/L	100	40.0	SW846 8260B			4/23/18 10:48	DD	A
Trichloroethene	268		ug/L	100	20.0	SW846 8260B			4/23/18 10:48	DD	A
Vinyl Chloride	ND		ug/L	100	20.0	SW846 8260B			4/23/18 10:48	DD	A
Surrogate Recoveries	*Results*	*Flag*	*Units*	*Limits*		*Method*	*Prepared*	*By*	*Analyzed*	*By*	*Cntr*
1,2-Dichloroethane-d4 (S)	81		%	62 - 133		SW846 8260B			4/23/18 10:48	DD	A
4-Bromofluorobenzene (S)	104		%	79 - 114		SW846 8260B			4/23/18 10:48	DD	A
Dibromofluoromethane (S)	85.7		%	78 - 116		SW846 8260B			4/23/18 10:48	DD	A
Toluene-d8 (S)	78		%	76 - 127		SW846 8260B			4/23/18 10:48	DD	A
PCBs											
Aroclor-1016	ND		ug/L	1.7	0.21	SW846 8082A	4/23/18 20:50	AXS	4/24/18 17:55	EGO	A
Aroclor-1221	ND		ug/L	1.7	0.24	SW846 8082A	4/23/18 20:50	AXS	4/24/18 17:55	EGO	A
Aroclor-1232	ND		ug/L	1.7	0.66	SW846 8082A	4/23/18 20:50	AXS	4/24/18 17:55	EGO	A
Aroclor-1242	ND		ug/L	1.7	0.83	SW846 8082A	4/23/18 20:50	AXS	4/24/18 17:55	EGO	A
Aroclor-1248	ND		ug/L	1.7	0.48	SW846 8082A	4/23/18 20:50	AXS	4/24/18 17:55	EGO	A
Aroclor-1254	ND		ug/L	1.7	0.34	SW846 8082A	4/23/18 20:50	AXS	4/24/18 17:55	EGO	A
Aroclor-1260	ND		ug/L	1.7	0.24	SW846 8082A	4/23/18 20:50	AXS	4/24/18 17:55	EGO	A
Aroclor-1262	ND		ug/L	1.7	0.34	SW846 8082A	4/23/18 20:50	AXS	4/24/18 17:55	EGO	A
Aroclor-1268	ND		ug/L	1.7	0.59	SW846 8082A	4/23/18 20:50	AXS	4/24/18 17:55	EGO	A
Surrogate Recoveries	*Results*	*Flag*	*Units*	*Limits*		*Method*	*Prepared*	*By*	*Analyzed*	*By*	*Cntr*
Decachlorobiphenyls (S)	73.5		%	30 - 140		SW846 8082A	4/23/18 20:50	AXS	4/24/18 17:55	EGO	A
Tetrachloro-m-xylene (S)	57.7		%	30 - 133		SW846 8082A	4/23/18 20:50	AXS	4/24/18 17:55	EGO	A
WET CHEMISTRY											
Corrosivity as pH	7.15	3	pH_Units			SW846 9040C			4/19/18 14:17	MSA	A
Cyanide, Reactive	ND		ppm	10	0.011	SW-846 7.3CN	4/25/18 14:10	VXF	4/26/18 09:26	MNP	A
Flashpoint/Ignitability	See comment	1,2	Deg. F			SW-846 1010A			4/28/18 06:00	SDL	A

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ANALYTICAL RESULTS

Workorder: 2309395 LMC MRC 4/17/18

Lab ID: **2309395025** Date Collected: 4/17/2018 13:35 Matrix: Water
Sample ID: **DM-5-8** Date Received: 4/17/2018 22:00

Parameters	Results	Flag	Units	RDL	MDL	Method	Prepared	By	Analyzed	By	Cntr
Sulfide, Reactive	4.4J	J	ppm	6.2	1.2	SW846 7.3	4/25/18 14:10	VXF	4/25/18 20:15	VXF	A
TCLP METALS											
Arsenic, Total	ND		mg/L	0.14	0.046	SW846 6010C	4/24/18 22:14	DAG	4/25/18 03:15	SRT	A2
Barium, Total	ND		mg/L	2.8	0.94	SW846 6010C	4/24/18 22:14	DAG	4/25/18 03:15	SRT	A2
Cadmium, Total	ND		mg/L	0.011	0.0037	SW846 6010C	4/24/18 22:14	DAG	4/25/18 03:15	SRT	A2
Chromium, Total	ND		mg/L	0.028	0.010	SW846 6010C	4/24/18 22:14	DAG	4/25/18 03:15	SRT	A2
Lead, Total	ND		mg/L	0.033	0.011	SW846 6010C	4/24/18 22:14	DAG	4/25/18 03:15	SRT	A2
Mercury, Total	ND		mg/L	0.0020	0.00066	SW846 7470A	4/24/18 11:15	AXC	4/24/18 16:20	AXC	A1
Selenium, Total	ND		mg/L	0.11	0.037	SW846 6010C	4/24/18 22:14	DAG	4/25/18 03:15	SRT	A2
Silver, Total	ND		mg/L	0.022	0.0070	SW846 6010C	4/24/18 22:14	DAG	4/25/18 03:15	SRT	A2
TCLP SEMI-VOLATILES											
mp-Cresol	ND		ug/L	60.0	3.2	SW846 8270D	4/23/18 14:25	TXC	4/25/18 17:09	DHF	A
o-Cresol	ND		ug/L	60.0	5.0	SW846 8270D	4/23/18 14:25	TXC	4/25/18 17:09	DHF	A
1,4-Dichlorobenzene	ND		ug/L	60.0	3.6	SW846 8270D	4/23/18 14:25	TXC	4/25/18 17:09	DHF	A
2,4-Dinitrotoluene	ND		ug/L	60.0	2.6	SW846 8270D	4/23/18 14:25	TXC	4/25/18 17:09	DHF	A
Hexachlorobenzene	ND		ug/L	60.0	4.6	SW846 8270D	4/23/18 14:25	TXC	4/25/18 17:09	DHF	A
Hexachlorobutadiene	ND		ug/L	60.0	3.8	SW846 8270D	4/23/18 14:25	TXC	4/25/18 17:09	DHF	A
Hexachloroethane	ND		ug/L	60.0	6.0	SW846 8270D	4/23/18 14:25	TXC	4/25/18 17:09	DHF	A
Nitrobenzene	ND		ug/L	60.0	5.6	SW846 8270D	4/23/18 14:25	TXC	4/25/18 17:09	DHF	A
Pentachlorophenol	ND		ug/L	120	24.0	SW846 8270D	4/23/18 14:25	TXC	4/25/18 17:09	DHF	A
Pyridine	ND		ug/L	60.0	14.0	SW846 8270D	4/23/18 14:25	TXC	4/25/18 17:09	DHF	A
2,4,5-Trichlorophenol	ND		ug/L	60.0	11.0	SW846 8270D	4/23/18 14:25	TXC	4/25/18 17:09	DHF	A
2,4,6-Trichlorophenol	ND		ug/L	60.0	11.4	SW846 8270D	4/23/18 14:25	TXC	4/25/18 17:09	DHF	A

Surrogate Recoveries	*Results*	*Flag*	*Units*	*Limits*	*Method*	*Prepared*	*By*	*Analyzed*	*By*	*Cntr*
2,4,6-Tribromophenol (S)	70		%	47 - 128	SW846 8270D	4/23/18 14:25	TXC	4/25/18 17:09	DHF	A
2-Fluorobiphenyl (S)	79.9		%	52 - 118	SW846 8270D	4/23/18 14:25	TXC	4/25/18 17:09	DHF	A
2-Fluorophenol (S)	48.9		%	20 - 87	SW846 8270D	4/23/18 14:25	TXC	4/25/18 17:09	DHF	A
Nitrobenzene-d5 (S)	81.6		%	27 - 139	SW846 8270D	4/23/18 14:25	TXC	4/25/18 17:09	DHF	A
Phenol-d5 (S)	35.5		%	10 - 81	SW846 8270D	4/23/18 14:25	TXC	4/25/18 17:09	DHF	A
Terphenyl-d14 (S)	102		%	46 - 133	SW846 8270D	4/23/18 14:25	TXC	4/25/18 17:09	DHF	A

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Project Coordinator

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ANALYTICAL RESULTS

Workorder: 2309395 LMC MRC 4/17/18

PARAMETER QUALIFIERS

Lab ID	#	Sample ID	Analytical Method	Analyte
2309395024	1	DM-1-4	SW846 8260B	Dibromofluoromethane
The surrogate Dibromofluoromethane for method SW846 8260B was outside of control limits. The % Recovery was reported as 76.5 and the control limits were 78 to 116. This result was reported at a dilution of 100.				
2309395024	2	DM-1-4	SW-846 1010A	Flashpoint/Ignitability
According to Pa/USEPA regulations, this sample is not considered to be ignitable. (Ref 40 CFR 261.21)				
2309395024	3	DM-1-4	SW-846 1010A	Flashpoint/Ignitability
Sample did not flash up to 200 degrees F				
2309395024	4	DM-1-4	SW846 9040C	Corrosivity as pH
The corrosivity analysis is an "analyze immediately" analysis. Parameters identified as "analyze immediately" require analysis within 15 minutes of collection, and are therefore analyzed outside of the method holding time when analyzed in the laboratory.				
2309395025	1	DM-5-8	SW-846 1010A	Flashpoint/Ignitability
According to Pa/USEPA regulations, this sample is not considered to be ignitable. (Ref 40 CFR 261.21)				
2309395025	2	DM-5-8	SW-846 1010A	Flashpoint/Ignitability
Sample did not flash up to 200 degrees F				
2309395025	3	DM-5-8	SW846 9040C	Corrosivity as pH
The corrosivity analysis is an "analyze immediately" analysis. Parameters identified as "analyze immediately" require analysis within 15 minutes of collection, and are therefore analyzed outside of the method holding time when analyzed in the laboratory.				

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QUALITY CONTROL DATA

Workorder: 2309395 LMC MRC 4/17/18

QC Batch: EXTR/51837 **Analysis Method:** 8270 SIM

QC Batch Method: SW846 3510C

Associated Lab Samples: 2309395001, 2309395002, 2309395003, 2309395017, 2309395018, 2309395020, 2309395021, 2309395023

METHOD BLANK: 2726699

Parameter	Blank Result	Units	Reporting Limit
1,4-Dioxane	ND	ug/L	0.10
2-Methylnapthalene-d10 (S)	82.6	%	29 - 112
Fluoranthene-d10 (S)	123	%	45 - 130

LABORATORY CONTROL SAMPLE: 2726700

Parameter	LCS % Rec	Units	Spike Conc.	LCS Result	% Rec Limit
1,4-Dioxane	57.3	ug/L	1	0.57	22 - 75
2-Methylnapthalene-d10 (S)	96	%			29 - 112
Fluoranthene-d10 (S)	127	%			45 - 130

MATRIX SPIKE SAMPLE: 2726701 ORIGINAL: 2308943035

****NOTE - The Original Result shown below is a raw result and is only used for the purpose of calculating Matrix Spike percent recoveries. This result is not a final value and cannot be used as such.

Parameter	Original Result	Units	Spike Conc.	MS Result	MS % Rec	% Rec Limit
1,4-Dioxane	.13783	ug/L	1	.59422	44.7	22 - 75
2-Methylnapthalene-d10 (S)	78.6	%				29 - 112
Fluoranthene-d10 (S)	113	%				45 - 130

SAMPLE DUPLICATE: 2726702 ORIGINAL: 2308943036

Parameter	Original Result	Units	DUP Result	RPD	Max RPD
1,4-Dioxane	.17347	ug/L	.15205	13.2	

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QUALITY CONTROL DATA

Workorder: 2309395 LMC MRC 4/17/18

QC Batch: EXTR/51862 **Analysis Method:** SW846 8270D

QC Batch Method: SW846 3510C

Associated Lab Samples: 2309395024, 2309395025

METHOD BLANK: 2727634

Parameter	Blank Result	Units	Reporting Limit
mp-Cresol	ND	ug/L	3.0
o-Cresol	ND	ug/L	3.0
1,4-Dichlorobenzene	ND	ug/L	3.0
2,4-Dinitrotoluene	ND	ug/L	3.0
Hexachlorobenzene	ND	ug/L	3.0
Hexachlorobutadiene	ND	ug/L	3.0
Hexachloroethane	ND	ug/L	3.0
Nitrobenzene	ND	ug/L	3.0
Pentachlorophenol	ND	ug/L	6.0
Pyridine	ND	ug/L	3.0
2,4,5-Trichlorophenol	ND	ug/L	3.0
2,4,6-Trichlorophenol	ND	ug/L	3.0
2,4,6-Tribromophenol (S)	77.3	%	47 - 128
2-Fluorobiphenyl (S)	76.8	%	52 - 118
2-Fluorophenol (S)	51.4	%	20 - 87
Nitrobenzene-d5 (S)	84.9	%	27 - 139
Phenol-d5 (S)	37.8	%	10 - 81
Terphenyl-d14 (S)	96.2	%	46 - 133

LABORATORY CONTROL SAMPLE: 2727635

Parameter	LCS % Rec	Units	Spike Conc.	LCS Result	% Rec Limit
mp-Cresol	84.2	ug/L	100	84.2	28 - 128
o-Cresol	89.6	ug/L	100	89.6	34 - 136
1,4-Dichlorobenzene	63.6	ug/L	50	31.8	5 - 116
2,4-Dinitrotoluene	107	ug/L	50	53.5	49 - 138
Hexachlorobenzene	99.5	ug/L	50	49.7	59 - 109
Hexachlorobutadiene	55.6	ug/L	50	27.8	5 - 126
Hexachloroethane	50.4	ug/L	50	25.2	5 - 111
Nitrobenzene	92.3	ug/L	50	46.1	41 - 128
Pentachlorophenol	93.4	ug/L	100	93.4	41 - 149
Pyridine	65.3	ug/L	50	32.7	5 - 115
2,4,5-Trichlorophenol	98.5	ug/L	100	98.5	44 - 148
2,4,6-Trichlorophenol	98.7	ug/L	100	98.7	41 - 148
2,4,6-Tribromophenol (S)	101	%			47 - 128

QUALITY CONTROL DATA

Workorder: 2309395 LMC MRC 4/17/18

2-Fluorobiphenyl (S)	80	%	52 - 118
2-Fluorophenol (S)	64.1	%	20 - 87
Nitrobenzene-d5 (S)	89.2	%	27 - 139
Phenol-d5 (S)	42.6	%	10 - 81
Terphenyl-d14 (S)	98.9	%	46 - 133

MATRIX SPIKE: 2727637 DUPLICATE: 2727636 ORIGINAL: 2309329002

****NOTE - The Original Result shown below is a raw result and is only used for the purpose of calculating Matrix Spike percent recoveries. This result is not a final value and cannot be used as such.

Parameter	Original Result	Units	Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limit	RPD	Max RPD
mp-Cresol	0	ug/L	2000	1427.48	1563.2	71.4	78.2	28 - 128	9.08	20
o-Cresol	0	ug/L	2000	1536.46	1656.41	76.8	82.8	34 - 136	7.51	23
1,4-Dichlorobenzene	0	ug/L	1000	525.676	523.574	52.6	52.4	5 - 116	.4	30
2,4-Dinitrotoluene	0	ug/L	1000	967.011	1023.28	96.7	102	49 - 138	5.65	22
Hexachlorobenzene	0	ug/L	1000	930.028	959.56	93	96	59 - 109	3.13	21
Hexachlorobutadiene	0	ug/L	1000	468.304	482.438	46.8	48.2	5 - 126	2.97	30
Hexachloroethane	0	ug/L	1000	455.339	453.769	45.5	45.4	5 - 111	.35	30
Nitrobenzene	0	ug/L	1000	809.428	842.543	80.9	84.3	41 - 128	4.01	19
Pentachlorophenol	0	ug/L	2000	1382.13	1092.69	69.1	54.6	41 - 149	23.4	28
Pyridine	0	ug/L	1000	535.289	628.219	53.5	62.8	5 - 115	16	30
2,4,5-Trichlorophenol	0	ug/L	2000	1732.39	1573.64	86.6	78.7	44 - 148	9.6	23
2,4,6-Trichlorophenol	0	ug/L	2000	1616.51	1334.12	80.8	66.7	41 - 148	19.1	23
2,4,6-Tribromophenol (S)	88.7	%				88.7	83	47 - 128		
2-Fluorobiphenyl (S)	50.6	%				50.6*	64.8	52 - 118		
2-Fluorophenol (S)	46.2	%				46.2	50	20 - 87		
Nitrobenzene-d5 (S)	71.6	%				71.6	81.6	27 - 139		
Phenol-d5 (S)	30	%				30	39.2	10 - 81		
Terphenyl-d14 (S)	96.4	%				96.4	101	46 - 133		

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QUALITY CONTROL DATA

Workorder: 2309395 LMC MRC 4/17/18

QC Batch: EXTR/51866 **Analysis Method:** SW846 8082A

QC Batch Method: SW846 3510C

Associated Lab Samples: 2309395024, 2309395025

METHOD BLANK: 2727803

Parameter	Blank Result	Units	Reporting Limit
Aroclor-1016	ND	ug/L	0.50
Aroclor-1221	ND	ug/L	0.50
Aroclor-1232	ND	ug/L	0.50
Aroclor-1242	ND	ug/L	0.50
Aroclor-1248	ND	ug/L	0.50
Aroclor-1254	ND	ug/L	0.50
Aroclor-1260	ND	ug/L	0.50
Aroclor-1262	ND	ug/L	0.50
Aroclor-1268	ND	ug/L	0.50
Decachlorobiphenyls (S)	75.6	%	30 - 140
Tetrachloro-m-xylene (S)	68.5	%	30 - 133

LABORATORY CONTROL SAMPLE: 2727804

Parameter	LCS % Rec	Units	Spike Conc.	LCS Result	% Rec Limit
Aroclor-1016	86.3	ug/L	5	4.3	43 - 132
Aroclor-1260	78.8	ug/L	5	3.9	49 - 130
Decachlorobiphenyls (S)	71	%			30 - 140
Tetrachloro-m-xylene (S)	81.9	%			30 - 133

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QUALITY CONTROL DATA

Workorder: 2309395 LMC MRC 4/17/18

QC Batch: MDIG/71348 **Analysis Method:** SW846 7470A

QC Batch Method: SW846 7470A

Associated Lab Samples: 2309395024, 2309395025

METHOD BLANK: 2728349

Parameter	Blank Result	Units	Reporting Limit
Mercury, Total	ND	mg/L	0.0020

LABORATORY CONTROL SAMPLE: 2728350

Parameter	LCS % Rec	Units	Spike Conc.	LCS Result	% Rec Limit
Mercury, Total	97.5	mg/L	.002	0.0020J	85 - 115

MATRIX SPIKE: 2728353 DUPLICATE: 2728354 ORIGINAL: 2308943040

****NOTE - The Original Result shown below is a raw result and is only used for the purpose of calculating Matrix Spike percent recoveries. This result is not a final value and cannot be used as such.

Parameter	Original Result	Units	Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limit	RPD	Max RPD
Mercury, Total	0	mg/L	.005	.00492	.00496	98.4	99.2	70 - 130	.81	20

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QUALITY CONTROL DATA

Workorder: 2309395 LMC MRC 4/17/18

QC Batch: MDIG/71363 **Analysis Method:** SW846 6010C

QC Batch Method: SW846 3015

Associated Lab Samples: 2309395024, 2309395025

METHOD BLANK: 2728713

Parameter	Blank Result	Units	Reporting Limit
Arsenic, Total	ND	mg/L	0.028
Barium, Total	ND	mg/L	0.56
Cadmium, Total	ND	mg/L	0.0022
Chromium, Total	ND	mg/L	0.0056
Lead, Total	ND	mg/L	0.0067
Selenium, Total	ND	mg/L	0.022
Silver, Total	ND	mg/L	0.0044

LABORATORY CONTROL SAMPLE: 2728714

Parameter	LCS % Rec	Units	Spike Conc.	LCS Result	% Rec Limit
Arsenic, Total	104	mg/L	.11	0.12	80 - 120
Barium, Total	104	mg/L	1.1	1.2	80 - 120
Cadmium, Total	105	mg/L	.11	0.12	80 - 120
Chromium, Total	107	mg/L	.11	0.12	80 - 120
Lead, Total	106	mg/L	.11	0.12	80 - 120
Selenium, Total	102	mg/L	1.1	1.1	80 - 120
Silver, Total	98.8	mg/L	.11	0.11	80 - 120

MATRIX SPIKE: 2728715 DUPLICATE: 2728716 ORIGINAL: 2310174028

****NOTE - The Original Result shown below is a raw result and is only used for the purpose of calculating Matrix Spike percent recoveries. This result is not a final value and cannot be used as such.

Parameter	Original Result	Units	Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limit	RPD	Max RPD
Arsenic, Total	.00833	mg/L	5	5.12495	5.09495	102	102	50 - 150	.59	20
Barium, Total	.92666	mg/L	10	10.73878	10.81656	98.1	98.9	50 - 150	.72	20
Cadmium, Total	.01	mg/L	1	.99055	.98777	98.1	97.8	50 - 150	.28	20
Chromium, Total	.00056	mg/L	5	4.89717	4.91606	97.9	98.3	50 - 150	.38	20
Lead, Total	.24111	mg/L	5	5.24606	5.22495	100	99.7	50 - 150	.4	20
Selenium, Total	.00444	mg/L	1	1.0561	1.03888	105	103	50 - 150	1.64	20
Silver, Total	0	mg/L	1	1.01499	1.00777	101	101	50 - 150	.71	20

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QUALITY CONTROL DATA

Workorder: 2309395 LMC MRC 4/17/18

QC Batch: VOMS/46598 **Analysis Method:** SW846 8260B

QC Batch Method: SW846 8260B

Associated Lab Samples: 2309395024, 2309395025

METHOD BLANK: 2727340

Parameter	Blank Result	Units	Reporting Limit
Benzene	ND	ug/L	1.0
2-Butanone	ND	ug/L	10.0
Carbon Tetrachloride	ND	ug/L	1.0
Chlorobenzene	ND	ug/L	1.0
Chloroform	ND	ug/L	1.0
1,2-Dichloroethane	ND	ug/L	1.0
1,1-Dichloroethene	ND	ug/L	1.0
Tetrachloroethene	ND	ug/L	1.0
Trichloroethene	ND	ug/L	1.0
Vinyl Chloride	ND	ug/L	1.0
1,2-Dichloroethane-d4 (S)	82.3	%	62 - 133
4-Bromofluorobenzene (S)	114	%	79 - 114
Dibromofluoromethane (S)	88.2	%	78 - 116
Toluene-d8 (S)	84.5	%	76 - 127

LABORATORY CONTROL SAMPLE: 2727341

Parameter	LCS % Rec	Units	Spike Conc.	LCS Result	% Rec Limit
Benzene	104	ug/L	20	20.7	80 - 124
2-Butanone	102	ug/L	100	102	50 - 152
Carbon Tetrachloride	117	ug/L	20	23.4	62 - 132
Chlorobenzene	102	ug/L	20	20.5	85 - 117
Chloroform	102	ug/L	20	20.3	78 - 122
1,2-Dichloroethane	98.9	ug/L	20	19.8	70 - 133
1,1-Dichloroethene	116	ug/L	20	23.3	63 - 128
Tetrachloroethene	107	ug/L	20	21.4	72 - 124
Trichloroethene	101	ug/L	20	20.2	77 - 124
Vinyl Chloride	69.4	ug/L	20	13.9	27 - 138
1,2-Dichloroethane-d4 (S)	76	%			62 - 133
4-Bromofluorobenzene (S)	109	%			79 - 114
Dibromofluoromethane (S)	89.7	%			78 - 116
Toluene-d8 (S)	82.8	%			76 - 127

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State Certifications: DE ID 11 , MA PA0102 , MD 128 , VA 460157 , WV 343

QUALITY CONTROL DATA

Workorder: 2309395 LMC MRC 4/17/18

MATRIX SPIKE: 2728501 DUPLICATE: 2728502 ORIGINAL: 2308943013

****NOTE - The Original Result shown below is a raw result and is only used for the purpose of calculating Matrix Spike percent recoveries. This result is not a final value and cannot be used as such.

Parameter	Original Result	Units	Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limit	RPD	Max RPD
Benzene	0	ug/L	200	220.47	218.41	110	109	80 - 124	.94	26
2-Butanone	0	ug/L	1000	944.779	1046.68	94.5	105	50 - 152	10.2	16
Carbon Tetrachloride	0	ug/L	200	253.151	247.17	127	124	62 - 132	2.39	17
Chlorobenzene	0	ug/L	200	209.225	212.238	105	106	85 - 117	1.43	15
Chloroform	4.38989	ug/L	200	221.107	216.182	108	106	78 - 122	2.25	16
1,2-Dichloroethane	0	ug/L	200	203.508	207.901	102	104	70 - 133	2.14	19
1,1-Dichloroethene	195.054	ug/L	200	411.567	407.195	108	106	63 - 128	1.07	21
Tetrachloroethene	4.28829	ug/L	200	223.391	222.226	110	109	72 - 124	.52	38
Trichloroethene	413.674	ug/L	200	556.643	538.511	71.5*	62.4*	77 - 124	3.31	18
Vinyl Chloride	0	ug/L	200	148.678	151.645	74.3	75.8	27 - 138	1.98	40
1,2-Dichloroethane-d4 (S)	82.2	%				82.2	81.5	62 - 133		
4-Bromofluorobenzene (S)	85.7	%				85.7	87.5	79 - 114		
Dibromofluoromethane (S)	88.6	%				88.6	86.8	78 - 116		
Toluene-d8 (S)	73.4	%				73.4*	75.3*	76 - 127		

QUALITY CONTROL DATA

Workorder: 2309395 LMC MRC 4/17/18

QC Batch: VOMS/46615 **Analysis Method:** SW846 8260B

QC Batch Method: SW846 8260B

Associated Lab Samples: 2309395015, 2309395016, 2309395017, 2309395018, 2309395019, 2309395020, 2309395021, 2309395022, 2309395023

METHOD BLANK: 2728332

Parameter	Blank Result	Units	Reporting Limit
1,1,1,2-Tetrachloroethane	ND	ug/L	1.0
1,1,1-Trichloroethane	ND	ug/L	1.0
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0
1,1,2-Trichloroethane	ND	ug/L	1.0
1,1-Dichloroethane	ND	ug/L	1.0
1,1-Dichloroethene	ND	ug/L	1.0
1,2,3-Trichlorobenzene	ND	ug/L	2.0
1,2,3-Trichloropropane	ND	ug/L	2.0
1,2,4-Trichlorobenzene	ND	ug/L	2.0
1,2,4-Trimethylbenzene	ND	ug/L	1.0
1,2-Dibromo-3-chloropropane	ND	ug/L	7.0
1,2-Dibromoethane	ND	ug/L	1.0
1,2-Dichlorobenzene	ND	ug/L	1.0
1,2-Dichloroethane	ND	ug/L	1.0
1,2-Dichloroethene, Total	ND	ug/L	2.0
1,2-Dichloropropane	ND	ug/L	1.0
1,3-Dichlorobenzene	ND	ug/L	1.0
1,3-Dichloropropane	ND	ug/L	1.0
1,3-Dichloropropene, Total	ND	ug/L	2.0
1,4-Dichlorobenzene	ND	ug/L	1.0
2,2-Dichloropropane	ND	ug/L	1.0
2-Butanone	ND	ug/L	10.0
2-Chloroethylvinyl ether	ND	ug/L	2.0
2-Hexanone	ND	ug/L	5.0
4-Methyl-2-Pentanone(MIBK)	ND	ug/L	5.0
Acetone	ND	ug/L	10.0
Benzene	ND	ug/L	1.0
Bromobenzene	ND	ug/L	1.0
Bromochloromethane	ND	ug/L	1.0
Bromodichloromethane	ND	ug/L	1.0
Bromoform	ND	ug/L	1.0
Bromomethane	ND	ug/L	1.0
Carbon Disulfide	ND	ug/L	1.0
Carbon Tetrachloride	ND	ug/L	1.0
Chlorobenzene	ND	ug/L	1.0
Chlorodibromomethane	ND	ug/L	1.0

QUALITY CONTROL DATA

Workorder: 2309395 LMC MRC 4/17/18

Chloroethane	ND	ug/L	1.0
Chloroform	ND	ug/L	1.0
Chloromethane	ND	ug/L	1.0
Cyclohexane	ND	ug/L	1.0
Dibromomethane	ND	ug/L	1.0
Dichlorodifluoromethane	ND	ug/L	1.0
Diisopropyl ether	ND	ug/L	1.0
Ethyl tert-butyl ether	ND	ug/L	1.0
Ethylbenzene	ND	ug/L	1.0
Freon 113	ND	ug/L	1.0
Hexachlorobutadiene	ND	ug/L	5.0
Isopropylbenzene	ND	ug/L	1.0
Methyl acetate	ND	ug/L	2.0
Methyl cyclohexane	ND	ug/L	1.0
Methyl t-Butyl Ether	ND	ug/L	1.0
Methylene Chloride	ND	ug/L	1.0
Naphthalene	ND	ug/L	2.0
Styrene	ND	ug/L	1.0
Tetrachloroethene	ND	ug/L	1.0
Toluene	ND	ug/L	1.0
Total Xylenes	ND	ug/L	3.0
Trichloroethene	ND	ug/L	1.0
Trichlorofluoromethane	ND	ug/L	1.0
Vinyl Acetate	ND	ug/L	5.0
Vinyl Chloride	ND	ug/L	1.0
cis-1,2-Dichloroethene	ND	ug/L	1.0
cis-1,3-Dichloropropene	ND	ug/L	1.0
mp-Xylene	ND	ug/L	2.0
n-Butylbenzene	ND	ug/L	2.0
n-Propylbenzene	ND	ug/L	1.0
o-Chlorotoluene	ND	ug/L	1.0
o-Xylene	ND	ug/L	1.0
p-Chlorotoluene	ND	ug/L	1.0
p-Isopropyltoluene	ND	ug/L	1.0
sec-Butylbenzene	ND	ug/L	1.0
tert-Amyl methyl ether	ND	ug/L	1.0
tert-Butyl Alcohol	ND	ug/L	10.0
tert-Butylbenzene	ND	ug/L	2.0
trans-1,2-Dichloroethene	ND	ug/L	1.0
trans-1,3-Dichloropropene	ND	ug/L	1.0
1,2-Dichloroethane-d4 (S)	112	%	62 - 133
4-Bromofluorobenzene (S)	94.6	%	79 - 114
Dibromofluoromethane (S)	96.2	%	78 - 116
Toluene-d8 (S)	97.1	%	76 - 127

QUALITY CONTROL DATA

Workorder: 2309395 LMC MRC 4/17/18

LABORATORY CONTROL SAMPLE: 2728333

Parameter	LCS % Rec	Units	Spike Conc.	LCS Result	% Rec Limit
1,1,1,2-Tetrachloroethane	99	ug/L	20	19.8	78 - 121
1,1,1-Trichloroethane	106	ug/L	20	21.2	66 - 130
1,1,2,2-Tetrachloroethane	95	ug/L	20	19.0	74 - 135
1,1,2-Trichloroethane	95.8	ug/L	20	19.2	82 - 126
1,1-Dichloroethane	107	ug/L	20	21.3	78 - 124
1,1-Dichloroethene	119	ug/L	20	23.7	63 - 128
1,2,3-Trichlorobenzene	91	ug/L	20	18.2	61 - 126
1,2,3-Trichloropropane	96	ug/L	20	19.2	75 - 132
1,2,4-Trichlorobenzene	94.5	ug/L	20	18.9	67 - 123
1,2,4-Trimethylbenzene	99.5	ug/L	20	19.9	76 - 125
1,2-Dibromo-3-chloropropane	98.9	ug/L	20	19.8	59 - 133
1,2-Dibromoethane	97.6	ug/L	20	19.5	80 - 124
1,2-Dichlorobenzene	96.4	ug/L	20	19.3	82 - 118
1,2-Dichloroethane	100	ug/L	20	20.0	70 - 133
1,2-Dichloroethene, Total	108	ug/L	40	43.3	78 - 125
1,2-Dichloropropane	102	ug/L	20	20.5	81 - 127
1,3-Dichlorobenzene	97.9	ug/L	20	19.6	81 - 118
1,3-Dichloropropane	97.9	ug/L	20	19.6	82 - 126
1,3-Dichloropropene, Total	103	ug/L	40	41.3	80 - 123
1,4-Dichlorobenzene	93.8	ug/L	20	18.8	81 - 116
2,2-Dichloropropane	96.4	ug/L	20	19.3	64 - 129
2-Butanone	108	ug/L	100	108	50 - 152
2-Chloroethylvinyl ether	93.7	ug/L	20	18.7	1 - 150
2-Hexanone	95.8	ug/L	100	95.8	65 - 154
4-Methyl-2-Pentanone(MIBK)	110	ug/L	100	110	71 - 146
Acetone	116	ug/L	100	116	40 - 151
Benzene	102	ug/L	20	20.4	80 - 124
Bromobenzene	99.3	ug/L	20	19.9	81 - 119
Bromochloromethane	96.8	ug/L	20	19.4	73 - 117
Bromodichloromethane	96.6	ug/L	20	19.3	79 - 126
Bromoform	99.2	ug/L	20	19.8	70 - 123
Bromomethane	101	ug/L	20	20.3	45 - 148
Carbon Disulfide	126	ug/L	20	25.1	57 - 131
Carbon Tetrachloride	110	ug/L	20	22.1	62 - 132
Chlorobenzene	99.2	ug/L	20	19.8	85 - 117
Chlorodibromomethane	98.9	ug/L	20	19.8	77 - 122
Chloroethane	99.8	ug/L	20	20.0	51 - 142
Chloroform	108	ug/L	20	21.5	78 - 122
Chloromethane	81.2	ug/L	20	16.2	38 - 156
Cyclohexane	120	ug/L	20	23.9	66 - 130
Dibromomethane	93.6	ug/L	20	18.7	81 - 125

QUALITY CONTROL DATA

Workorder: 2309395 LMC MRC 4/17/18

Dichlorodifluoromethane	69.4	ug/L	20	13.9	17 - 166
Diisopropyl ether	115	ug/L	20	23.0	74 - 131
Ethyl tert-butyl ether	112	ug/L	20	22.4	75 - 123
Ethylbenzene	100	ug/L	20	20.0	80 - 124
Freon 113	118	ug/L	20	23.6	50 - 130
Hexachlorobutadiene	94.6	ug/L	20	18.9	55 - 128
Isopropylbenzene	110	ug/L	20	22.1	73 - 129
Methyl acetate	112	ug/L	20	22.3	70 - 130
Methyl cyclohexane	110	ug/L	20	22.1	70 - 130
Methyl t-Butyl Ether	105	ug/L	20	21.1	69 - 115
Methylene Chloride	113	ug/L	20	22.5	76 - 121
Naphthalene	92.6	ug/L	20	18.5	56 - 134
Styrene	106	ug/L	20	21.2	79 - 123
Tetrachloroethene	101	ug/L	20	20.2	72 - 124
Toluene	106	ug/L	20	21.2	80 - 125
Total Xylenes	105	ug/L	60	62.8	79 - 125
Trichloroethene	108	ug/L	20	21.7	77 - 124
Trichlorofluoromethane	93.6	ug/L	20	18.7	38 - 123
Vinyl Acetate	104	ug/L	20	20.8	58 - 136
Vinyl Chloride	86.9	ug/L	20	17.4	27 - 138
cis-1,2-Dichloroethene	103	ug/L	20	20.6	78 - 125
cis-1,3-Dichloropropene	101	ug/L	20	20.1	81 - 121
mp-Xylene	104	ug/L	40	41.6	79 - 125
n-Butylbenzene	89.9	ug/L	20	18.0	71 - 130
n-Propylbenzene	106	ug/L	20	21.1	74 - 122
o-Chlorotoluene	104	ug/L	20	20.8	78 - 126
o-Xylene	106	ug/L	20	21.2	79 - 124
p-Chlorotoluene	104	ug/L	20	20.8	78 - 125
p-Isopropyltoluene	94.9	ug/L	20	19.0	72 - 123
sec-Butylbenzene	105	ug/L	20	21.1	72 - 127
tert-Amyl methyl ether	94.6	ug/L	20	18.9	75 - 121
tert-Butyl Alcohol	114	ug/L	100	114	17 - 168
tert-Butylbenzene	95.3	ug/L	20	19.1	72 - 124
trans-1,2-Dichloroethene	113	ug/L	20	22.6	71 - 122
trans-1,3-Dichloropropene	106	ug/L	20	21.2	78 - 126
1,2-Dichloroethane-d4 (S)	114	%			62 - 133
4-Bromofluorobenzene (S)	92.5	%			79 - 114
Dibromofluoromethane (S)	91.3	%			78 - 116
Toluene-d8 (S)	94.7	%			76 - 127

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QUALITY CONTROL DATA

Workorder: 2309395 LMC MRC 4/17/18

QC Batch: VOMS/46617 **Analysis Method:** SW846 8260B

QC Batch Method: SW846 8260B

Associated Lab Samples: 2309395010, 2309395011, 2309395012, 2309395013, 2309395014

METHOD BLANK: 2728421

Parameter	Blank Result	Units	Reporting Limit
1,1,1,2-Tetrachloroethane	ND	ug/L	1.0
1,1,1-Trichloroethane	ND	ug/L	1.0
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0
1,1,2-Trichloroethane	ND	ug/L	1.0
1,1-Dichloroethane	ND	ug/L	1.0
1,1-Dichloroethene	ND	ug/L	1.0
1,2,3-Trichlorobenzene	ND	ug/L	2.0
1,2,3-Trichloropropane	ND	ug/L	2.0
1,2,4-Trichlorobenzene	ND	ug/L	2.0
1,2,4-Trimethylbenzene	ND	ug/L	1.0
1,2-Dibromo-3-chloropropane	ND	ug/L	7.0
1,2-Dibromoethane	ND	ug/L	1.0
1,2-Dichlorobenzene	ND	ug/L	1.0
1,2-Dichloroethane	ND	ug/L	1.0
1,2-Dichloroethene, Total	ND	ug/L	2.0
1,2-Dichloropropane	ND	ug/L	1.0
1,3-Dichlorobenzene	ND	ug/L	1.0
1,3-Dichloropropane	ND	ug/L	1.0
1,3-Dichloropropene, Total	ND	ug/L	2.0
1,4-Dichlorobenzene	ND	ug/L	1.0
2,2-Dichloropropane	ND	ug/L	1.0
2-Butanone	ND	ug/L	10.0
2-Chloroethylvinyl ether	ND	ug/L	2.0
2-Hexanone	ND	ug/L	5.0
4-Methyl-2-Pentanone(MIBK)	ND	ug/L	5.0
Acetone	ND	ug/L	10.0
Benzene	ND	ug/L	1.0
Bromobenzene	ND	ug/L	1.0
Bromochloromethane	ND	ug/L	1.0
Bromodichloromethane	ND	ug/L	1.0
Bromoform	ND	ug/L	1.0
Bromomethane	ND	ug/L	1.0
Carbon Disulfide	ND	ug/L	1.0
Carbon Tetrachloride	ND	ug/L	1.0
Chlorobenzene	ND	ug/L	1.0
Chlorodibromomethane	ND	ug/L	1.0
Chloroethane	ND	ug/L	1.0

QUALITY CONTROL DATA

Workorder: 2309395 LMC MRC 4/17/18

Chloroform	ND	ug/L	1.0
Chloromethane	ND	ug/L	1.0
Cyclohexane	ND	ug/L	1.0
Dibromomethane	ND	ug/L	1.0
Dichlorodifluoromethane	ND	ug/L	1.0
Diisopropyl ether	ND	ug/L	1.0
Ethyl tert-butyl ether	ND	ug/L	1.0
Ethylbenzene	ND	ug/L	1.0
Freon 113	ND	ug/L	1.0
Hexachlorobutadiene	ND	ug/L	5.0
Isopropylbenzene	ND	ug/L	1.0
Methyl acetate	ND	ug/L	2.0
Methyl cyclohexane	ND	ug/L	1.0
Methyl t-Butyl Ether	ND	ug/L	1.0
Methylene Chloride	ND	ug/L	1.0
Naphthalene	ND	ug/L	2.0
Styrene	ND	ug/L	1.0
Tetrachloroethene	ND	ug/L	1.0
Toluene	ND	ug/L	1.0
Total Xylenes	ND	ug/L	3.0
Trichloroethene	ND	ug/L	1.0
Trichlorofluoromethane	ND	ug/L	1.0
Vinyl Acetate	ND	ug/L	5.0
Vinyl Chloride	ND	ug/L	1.0
cis-1,2-Dichloroethene	ND	ug/L	1.0
cis-1,3-Dichloropropene	ND	ug/L	1.0
mp-Xylene	ND	ug/L	2.0
n-Butylbenzene	ND	ug/L	2.0
n-Propylbenzene	ND	ug/L	1.0
o-Chlorotoluene	ND	ug/L	1.0
o-Xylene	ND	ug/L	1.0
p-Chlorotoluene	ND	ug/L	1.0
p-Isopropyltoluene	ND	ug/L	1.0
sec-Butylbenzene	ND	ug/L	1.0
tert-Amyl methyl ether	ND	ug/L	1.0
tert-Butyl Alcohol	ND	ug/L	10.0
tert-Butylbenzene	ND	ug/L	2.0
trans-1,2-Dichloroethene	ND	ug/L	1.0
trans-1,3-Dichloropropene	ND	ug/L	1.0
1,2-Dichloroethane-d4 (S)	90.3	%	62 - 133
4-Bromofluorobenzene (S)	93.7	%	79 - 114
Dibromofluoromethane (S)	90.4	%	78 - 116
Toluene-d8 (S)	80.3	%	76 - 127

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QUALITY CONTROL DATA

Workorder: 2309395 LMC MRC 4/17/18

LABORATORY CONTROL SAMPLE: 2728422

Parameter	LCS % Rec	Units	Spike Conc.	LCS Result	% Rec Limit
1,1,1,2-Tetrachloroethane	110	ug/L	20	22.0	78 - 121
1,1,1-Trichloroethane	115	ug/L	20	23.0	66 - 130
1,1,2,2-Tetrachloroethane	105	ug/L	20	21.1	74 - 135
1,1,2-Trichloroethane	108	ug/L	20	21.6	82 - 126
1,1-Dichloroethane	112	ug/L	20	22.4	78 - 124
1,1-Dichloroethene	124	ug/L	20	24.8	63 - 128
1,2,3-Trichlorobenzene	87.7	ug/L	20	17.5	61 - 126
1,2,3-Trichloropropane	105	ug/L	20	21.0	75 - 132
1,2,4-Trichlorobenzene	74.7	ug/L	20	14.9	67 - 123
1,2,4-Trimethylbenzene	102	ug/L	20	20.5	76 - 125
1,2-Dibromo-3-chloropropane	74.6	ug/L	20	14.9	59 - 133
1,2-Dibromoethane	107	ug/L	20	21.5	80 - 124
1,2-Dichlorobenzene	106	ug/L	20	21.2	82 - 118
1,2-Dichloroethane	104	ug/L	20	20.7	70 - 133
1,2-Dichloroethene, Total	113	ug/L	40	45.2	78 - 125
1,2-Dichloropropane	113	ug/L	20	22.6	81 - 127
1,3-Dichlorobenzene	107	ug/L	20	21.3	81 - 118
1,3-Dichloropropane	107	ug/L	20	21.3	82 - 126
1,3-Dichloropropene, Total	88.7	ug/L	40	35.5	80 - 123
1,4-Dichlorobenzene	103	ug/L	20	20.5	81 - 116
2,2-Dichloropropane	83.3	ug/L	20	16.7	64 - 129
2-Butanone	98.5	ug/L	100	98.5	50 - 152
2-Chloroethylvinyl ether	61	ug/L	20	12.2	1 - 150
2-Hexanone	78.4	ug/L	100	78.4	65 - 154
4-Methyl-2-Pentanone(MIBK)	87.3	ug/L	100	87.3	71 - 146
Acetone	87.9	ug/L	100	87.9	40 - 151
Benzene	106	ug/L	20	21.2	80 - 124
Bromobenzene	114	ug/L	20	22.8	81 - 119
Bromochloromethane	106	ug/L	20	21.2	73 - 117
Bromodichloromethane	105	ug/L	20	21.1	79 - 126
Bromoform	87.9	ug/L	20	17.6	70 - 123
Bromomethane	70.6	ug/L	20	14.1	45 - 148
Carbon Disulfide	109	ug/L	20	21.8	57 - 131
Carbon Tetrachloride	120	ug/L	20	24.0	62 - 132
Chlorobenzene	103	ug/L	20	20.7	85 - 117
Chlorodibromomethane	95.8	ug/L	20	19.2	77 - 122
Chloroethane	69.7	ug/L	20	13.9	51 - 142
Chloroform	109	ug/L	20	21.8	78 - 122
Chloromethane	91.4	ug/L	20	18.3	38 - 156
Cyclohexane	130	ug/L	20	25.9	66 - 130
Dibromomethane	101	ug/L	20	20.3	81 - 125

QUALITY CONTROL DATA

Workorder: 2309395 LMC MRC 4/17/18

Dichlorodifluoromethane	68.6	ug/L	20	13.7	17 - 166
Diisopropyl ether	101	ug/L	20	20.3	74 - 131
Ethyl tert-butyl ether	91.3	ug/L	20	18.3	75 - 123
Ethylbenzene	110	ug/L	20	22.0	80 - 124
Freon 113	129	ug/L	20	25.9	50 - 130
Hexachlorobutadiene	100	ug/L	20	20.0	55 - 128
Isopropylbenzene	122	ug/L	20	24.3	73 - 129
Methyl acetate	94.8	ug/L	20	19.0	70 - 130
Methyl cyclohexane	120	ug/L	20	24.1	70 - 130
Methyl t-Butyl Ether	102	ug/L	20	20.4	69 - 115
Methylene Chloride	106	ug/L	20	21.2	76 - 121
Naphthalene	104	ug/L	20	20.8	56 - 134
Styrene	104	ug/L	20	20.8	79 - 123
Tetrachloroethene	112	ug/L	20	22.4	72 - 124
Toluene	118	ug/L	20	23.5	80 - 125
Total Xylenes	106	ug/L	60	63.7	79 - 125
Trichloroethene	103	ug/L	20	20.6	77 - 124
Trichlorofluoromethane	72.7	ug/L	20	14.5	38 - 123
Vinyl Acetate	78.9	ug/L	20	15.8	58 - 136
Vinyl Chloride	71.3	ug/L	20	14.3	27 - 138
cis-1,2-Dichloroethene	108	ug/L	20	21.6	78 - 125
cis-1,3-Dichloropropene	85.2	ug/L	20	17.0	81 - 121
mp-Xylene	113	ug/L	40	45.0	79 - 125
n-Butylbenzene	86.4	ug/L	20	17.3	71 - 130
n-Propylbenzene	105	ug/L	20	21.0	74 - 122
o-Chlorotoluene	118	ug/L	20	23.7	78 - 126
o-Xylene	93.4	ug/L	20	18.7	79 - 124
p-Chlorotoluene	118	ug/L	20	23.5	78 - 125
p-Isopropyltoluene	96.9	ug/L	20	19.4	72 - 123
sec-Butylbenzene	102	ug/L	20	20.3	72 - 127
tert-Amyl methyl ether	87.4	ug/L	20	17.5	75 - 121
tert-Butyl Alcohol	47.6	ug/L	100	47.6	17 - 168
tert-Butylbenzene	102	ug/L	20	20.5	72 - 124
trans-1,2-Dichloroethene	118	ug/L	20	23.6	71 - 122
trans-1,3-Dichloropropene	92.2	ug/L	20	18.4	78 - 126
1,2-Dichloroethane-d4 (S)	82.9	%			62 - 133
4-Bromofluorobenzene (S)	92.7	%			79 - 114
Dibromofluoromethane (S)	93.7	%			78 - 116
Toluene-d8 (S)	80.4	%			76 - 127

MATRIX SPIKE: 2728934 DUPLICATE: 2728935 ORIGINAL: 2308629006

****NOTE - The Original Result shown below is a raw result and is only used for the purpose of calculating Matrix Spike percent recoveries. This result is not a final value and cannot be used as such.

Parameter	Original Result	Units	Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limit	RPD	Max RPD

QUALITY CONTROL DATA

Workorder: 2309395 LMC MRC 4/17/18

1,1,1,2-Tetrachloroethane	0	ug/L	200	227.214	227.236	114	114	78 - 121	.01	16
1,1,1-Trichloroethane	0	ug/L	200	242.924	240.61	121	120	66 - 130	.96	20
1,1,2,2-Tetrachloroethane	0	ug/L	200	215.429	213.171	108	107	74 - 135	1.05	16
1,1,2-Trichloroethane	0	ug/L	200	217.44	218.916	109	109	82 - 126	.68	15
1,1-Dichloroethane	0	ug/L	200	231.837	229.585	116	115	78 - 124	.98	15
1,1-Dichloroethene	0	ug/L	200	258.616	254.213	129*	127	63 - 128	1.72	21
1,2,3-Trichlorobenzene	0	ug/L	200	196.48	212.093	98.2	106	61 - 126	7.64	36
1,2,3-Trichloropropane	0	ug/L	200	220.249	210.987	110	105	75 - 132	4.3	19
1,2,4-Trichlorobenzene	0	ug/L	200	162.396	181.906	81.2	91	67 - 123	11.3	22
1,2,4-Trimethylbenzene	8.30985	ug/L	200	228.199	240.462	110	116	76 - 125	5.23	24
1,2-Dibromo-3-chloropropane	0	ug/L	200	160.199	163.526	80.1	81.8	59 - 133	2.06	26
1,2-Dibromoethane	0	ug/L	200	214.091	215.077	107	108	80 - 124	.46	19
1,2-Dichlorobenzene	0	ug/L	200	214.611	222.493	107	111	82 - 118	3.61	15
1,2-Dichloroethane	0	ug/L	200	206.828	202.804	103	101	70 - 133	1.96	19
1,2-Dichloroethene, Total	11.0077	ug/L	400	486.346	480.68	119	117	78 - 125	1.17	40
1,2-Dichloropropane	0	ug/L	200	225.074	233.185	113	117	81 - 127	3.54	15
1,3-Dichlorobenzene	0	ug/L	200	222.346	228.485	111	114	81 - 118	2.72	16
1,3-Dichloropropane	0	ug/L	200	210.032	213.18	105	107	82 - 126	1.49	15
1,3-Dichloropropene, Total	0	ug/L	400	362.809	369.596	90.7	92.4	80 - 123	1.85	16
1,4-Dichlorobenzene	0	ug/L	200	213.457	220.415	107	110	81 - 116	3.21	15
2,2-Dichloropropane	0	ug/L	200	213.384	212.184	107	106	64 - 129	.56	18
2-Butanone	0	ug/L	1000	1013.77	958.345	101	95.8	50 - 152	5.62	16
2-Chloroethylvinyl ether	0	ug/L	200	1.22314	.86182	.61*	.43*	1 - 150	34.7	40
2-Hexanone	0	ug/L	1000	787.665	776.266	78.8	77.6	65 - 154	1.46	17
4-Methyl-2-Pentanone(MIBK)	0	ug/L	1000	875.069	864.491	87.5	86.4	71 - 146	1.22	16
Acetone	0	ug/L	1000	900.501	849.055	90.1	84.9	40 - 151	5.88	40
Benzene	526.573	ug/L	200	751.484	745.801	112	110	80 - 124	.76	26
Bromobenzene	0	ug/L	200	232.154	234.346	116	117	81 - 119	.94	17
Bromochloromethane	0	ug/L	200	208.37	204.364	104	102	73 - 117	1.94	19
Bromodichloromethane	0	ug/L	200	215.345	213.491	108	107	79 - 126	.86	16
Bromoform	0	ug/L	200	171.995	173.56	86	86.8	70 - 123	.91	16
Bromomethane	0	ug/L	200	139.041	136.539	69.5	68.3	45 - 148	1.82	26
Carbon Disulfide	0	ug/L	200	226.82	218.34	113	109	57 - 131	3.81	28
Carbon Tetrachloride	0	ug/L	200	253.045	253.625	127	127	62 - 132	.23	17
Chlorobenzene	0	ug/L	200	211.484	215.408	106	108	85 - 117	1.84	15
Chlorodibromomethane	0	ug/L	200	184.507	192.981	92.3	96.5	77 - 122	4.49	15
Chloroethane	0	ug/L	200	153.658	151.074	76.8	75.5	51 - 142	1.7	24
Chloroform	4.36504	ug/L	200	221.843	223.206	109	109	78 - 122	.61	16
Chloromethane	0	ug/L	200	210.817	207.81	105	104	38 - 156	1.44	27
Cyclohexane	6.92514	ug/L	200	275.874	281.448	134*	137*	66 - 130	2	20
Dibromomethane	0	ug/L	200	204.557	203.09	102	102	81 - 125	.72	16
Dichlorodifluoromethane	0	ug/L	200	166.091	165.2	83	82.6	17 - 166	.54	24
Diisopropyl ether	0	ug/L	200	200.587	201.359	100	101	74 - 131	.38	15
Ethyl tert-butyl ether	0	ug/L	200	178.742	179.56	89.4	89.8	75 - 123	.46	16
Ethylbenzene	4.90095	ug/L	200	231.96	241.086	114	118	80 - 124	3.86	19
Freon 113	0	ug/L	200	267.536	268.063	134*	134*	50 - 130	.2	26

QUALITY CONTROL DATA

Workorder: 2309395 LMC MRC 4/17/18

Hexachlorobutadiene	0	ug/L	200	227.952	225.087	114	113	55 - 128	1.26	35
Isopropylbenzene	7.8548	ug/L	200	265.349	276.009	129	134*	73 - 129	3.94	18
Methyl acetate	0	ug/L	200	184.323	177.989	92.2	89	70 - 130	3.5	18
Methyl cyclohexane	0	ug/L	200	262.023	275.72	131*	138*	70 - 130	5.09	18
Methyl t-Butyl Ether	24.9342	ug/L	200	226.37	227.109	101	101	69 - 115	.33	20
Methylene Chloride	0	ug/L	200	215.417	211.711	108	106	76 - 121	1.74	17
Naphthalene	0	ug/L	200	249.004	262.176	125	131	56 - 134	5.15	40
Styrene	0	ug/L	200	216.868	218.222	108	109	79 - 123	.62	16
Tetrachloroethene	0	ug/L	200	223.019	229.641	112	115	72 - 124	2.93	38
Toluene	0	ug/L	200	240.535	244.727	120	122	80 - 125	1.73	20
Total Xylenes	74.6573	ug/L	600	744.727	769.777	112	116	79 - 125	3.31	35
Trichloroethene	14.7491	ug/L	200	229.05	224.567	107	105	77 - 124	1.98	18
Trichlorofluoromethane	0	ug/L	200	167.007	165.226	83.5	82.6	38 - 123	1.07	23
Vinyl Acetate	0	ug/L	200	165.038	162.618	82.5	81.3	58 - 136	1.48	17
Vinyl Chloride	0	ug/L	200	163.096	163.185	81.5	81.6	27 - 138	.05	40
cis-1,2-Dichloroethene	11.0077	ug/L	200	240.345	236.848	115	113	78 - 125	1.47	21
cis-1,3-Dichloropropene	0	ug/L	200	171.664	175.712	85.8	87.9	81 - 121	2.33	16
mp-Xylene	23.2991	ug/L	400	491.393	505.957	117	121	79 - 125	2.92	21
n-Butylbenzene	0	ug/L	200	197.128	208.904	98.6	104	71 - 130	5.8	20
n-Propylbenzene	0	ug/L	200	226.673	242.556	113	121	74 - 122	6.77	20
o-Chlorotoluene	0	ug/L	200	247.008	254.613	124	127*	78 - 126	3.03	17
o-Xylene	51.3581	ug/L	200	253.334	263.821	101	106	79 - 124	4.06	19
p-Chlorotoluene	0	ug/L	200	244.327	248.621	122	124	78 - 125	1.74	16
p-Isopropyltoluene	0	ug/L	200	207.307	219.636	104	110	72 - 123	5.78	17
sec-Butylbenzene	0	ug/L	200	222.009	231.639	111	116	72 - 127	4.25	17
tert-Amyl methyl ether	0	ug/L	200	176.85	179.059	88.4	89.5	75 - 121	1.24	40
tert-Butyl Alcohol	0	ug/L	1000	549.856	491.124	55	49.1	17 - 168	11.3	40
tert-Butylbenzene	0	ug/L	200	218.449	233.33	109	117	72 - 124	6.59	17
trans-1,2-Dichloroethene	0	ug/L	200	246.001	243.832	123*	122	71 - 122	.89	22
trans-1,3-Dichloropropene	0	ug/L	200	191.145	193.884	95.6	96.9	78 - 126	1.42	18
1,2-Dichloroethane-d4 (S)	91.3	%				91.3	90.9	62 - 133		
4-Bromofluorobenzene (S)	92	%				92	92.9	79 - 114		
Dibromofluoromethane (S)	95.3	%				95.3	94.4	78 - 116		
Toluene-d8 (S)	79.9	%				79.9	81	76 - 127		

QUALITY CONTROL DATA

Workorder: 2309395 LMC MRC 4/17/18

QC Batch: VOMS/46623 **Analysis Method:** SW846 8260B

QC Batch Method: SW846 8260B

Associated Lab Samples: 2309395001, 2309395002, 2309395003, 2309395004, 2309395005, 2309395006, 2309395007, 2309395008, 2309395009

METHOD BLANK: 2728888

Parameter	Blank Result	Units	Reporting Limit
1,1,1,2-Tetrachloroethane	ND	ug/L	1.0
1,1,1-Trichloroethane	ND	ug/L	1.0
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0
1,1,2-Trichloroethane	ND	ug/L	1.0
1,1-Dichloroethane	ND	ug/L	1.0
1,1-Dichloroethene	ND	ug/L	1.0
1,2,3-Trichlorobenzene	ND	ug/L	2.0
1,2,3-Trichloropropane	ND	ug/L	2.0
1,2,4-Trichlorobenzene	ND	ug/L	2.0
1,2,4-Trimethylbenzene	ND	ug/L	1.0
1,2-Dibromo-3-chloropropane	ND	ug/L	7.0
1,2-Dibromoethane	ND	ug/L	1.0
1,2-Dichlorobenzene	ND	ug/L	1.0
1,2-Dichloroethane	ND	ug/L	1.0
1,2-Dichloroethene, Total	ND	ug/L	2.0
1,2-Dichloropropane	ND	ug/L	1.0
1,3-Dichlorobenzene	ND	ug/L	1.0
1,3-Dichloropropane	ND	ug/L	1.0
1,3-Dichloropropene, Total	ND	ug/L	2.0
1,4-Dichlorobenzene	ND	ug/L	1.0
2,2-Dichloropropane	ND	ug/L	1.0
2-Butanone	ND	ug/L	10.0
2-Chloroethylvinyl ether	ND	ug/L	2.0
2-Hexanone	ND	ug/L	5.0
4-Methyl-2-Pentanone(MIBK)	ND	ug/L	5.0
Acetone	ND	ug/L	10.0
Benzene	ND	ug/L	1.0
Bromobenzene	ND	ug/L	1.0
Bromochloromethane	ND	ug/L	1.0
Bromodichloromethane	ND	ug/L	1.0
Bromoform	ND	ug/L	1.0
Bromomethane	ND	ug/L	1.0
Carbon Disulfide	ND	ug/L	1.0
Carbon Tetrachloride	ND	ug/L	1.0
Chlorobenzene	ND	ug/L	1.0
Chlorodibromomethane	ND	ug/L	1.0

QUALITY CONTROL DATA

Workorder: 2309395 LMC MRC 4/17/18

Chloroethane	ND	ug/L	1.0
Chloroform	ND	ug/L	1.0
Chloromethane	ND	ug/L	1.0
Cyclohexane	ND	ug/L	1.0
Dibromomethane	ND	ug/L	1.0
Dichlorodifluoromethane	ND	ug/L	1.0
Diisopropyl ether	ND	ug/L	1.0
Ethyl tert-butyl ether	ND	ug/L	1.0
Ethylbenzene	ND	ug/L	1.0
Freon 113	ND	ug/L	1.0
Hexachlorobutadiene	ND	ug/L	5.0
Isopropylbenzene	ND	ug/L	1.0
Methyl acetate	ND	ug/L	2.0
Methyl cyclohexane	ND	ug/L	1.0
Methyl t-Butyl Ether	ND	ug/L	1.0
Methylene Chloride	ND	ug/L	1.0
Naphthalene	ND	ug/L	2.0
Styrene	ND	ug/L	1.0
Tetrachloroethene	ND	ug/L	1.0
Toluene	ND	ug/L	1.0
Total Xylenes	ND	ug/L	3.0
Trichloroethene	ND	ug/L	1.0
Trichlorofluoromethane	ND	ug/L	1.0
Vinyl Acetate	ND	ug/L	5.0
Vinyl Chloride	ND	ug/L	1.0
cis-1,2-Dichloroethene	ND	ug/L	1.0
cis-1,3-Dichloropropene	ND	ug/L	1.0
mp-Xylene	ND	ug/L	2.0
n-Butylbenzene	ND	ug/L	2.0
n-Propylbenzene	ND	ug/L	1.0
o-Chlorotoluene	ND	ug/L	1.0
o-Xylene	ND	ug/L	1.0
p-Chlorotoluene	ND	ug/L	1.0
p-Isopropyltoluene	ND	ug/L	1.0
sec-Butylbenzene	ND	ug/L	1.0
tert-Amyl methyl ether	ND	ug/L	1.0
tert-Butyl Alcohol	ND	ug/L	10.0
tert-Butylbenzene	ND	ug/L	2.0
trans-1,2-Dichloroethene	ND	ug/L	1.0
trans-1,3-Dichloropropene	ND	ug/L	1.0
1,2-Dichloroethane-d4 (S)	113	%	62 - 133
4-Bromofluorobenzene (S)	92.1	%	79 - 114
Dibromofluoromethane (S)	97.4	%	78 - 116
Toluene-d8 (S)	95.4	%	76 - 127

QUALITY CONTROL DATA

Workorder: 2309395 LMC MRC 4/17/18

LABORATORY CONTROL SAMPLE: 2728889

Parameter	LCS % Rec	Units	Spike Conc.	LCS Result	% Rec Limit
1,1,1,2-Tetrachloroethane	95.6	ug/L	20	19.1	78 - 121
1,1,1-Trichloroethane	99.3	ug/L	20	19.9	66 - 130
1,1,2,2-Tetrachloroethane	91.2	ug/L	20	18.2	74 - 135
1,1,2-Trichloroethane	92.1	ug/L	20	18.4	82 - 126
1,1-Dichloroethane	98.6	ug/L	20	19.7	78 - 124
1,1-Dichloroethene	128	ug/L	20	25.6	63 - 128
1,2,3-Trichlorobenzene	82.6	ug/L	20	16.5	61 - 126
1,2,3-Trichloropropane	90.5	ug/L	20	18.1	75 - 132
1,2,4-Trichlorobenzene	88.6	ug/L	20	17.7	67 - 123
1,2,4-Trimethylbenzene	96.2	ug/L	20	19.2	76 - 125
1,2-Dibromo-3-chloropropane	89.5	ug/L	20	17.9	59 - 133
1,2-Dibromoethane	91.7	ug/L	20	18.3	80 - 124
1,2-Dichlorobenzene	93.3	ug/L	20	18.7	82 - 118
1,2-Dichloroethane	97.1	ug/L	20	19.4	70 - 133
1,2-Dichloroethene, Total	100	ug/L	40	40.1	78 - 125
1,2-Dichloropropane	96.9	ug/L	20	19.4	81 - 127
1,3-Dichlorobenzene	94.9	ug/L	20	19.0	81 - 118
1,3-Dichloropropane	92.3	ug/L	20	18.5	82 - 126
1,3-Dichloropropene, Total	100	ug/L	40	40.1	80 - 123
1,4-Dichlorobenzene	91.5	ug/L	20	18.3	81 - 116
2,2-Dichloropropane	105	ug/L	20	21.0	64 - 129
2-Butanone	101	ug/L	100	101	50 - 152
2-Chloroethylvinyl ether	88.2	ug/L	20	17.6	1 - 150
2-Hexanone	89.3	ug/L	100	89.3	65 - 154
4-Methyl-2-Pentanone(MIBK)	94.5	ug/L	100	94.5	71 - 146
Acetone	139	ug/L	100	139	40 - 151
Benzene	99.5	ug/L	20	19.9	80 - 124
Bromobenzene	97.2	ug/L	20	19.4	81 - 119
Bromochloromethane	93.9	ug/L	20	18.8	73 - 117
Bromodichloromethane	96.5	ug/L	20	19.3	79 - 126
Bromoform	90.4	ug/L	20	18.1	70 - 123
Bromomethane	83.3	ug/L	20	16.7	45 - 148
Carbon Disulfide	138*	ug/L	20	27.7	57 - 131
Carbon Tetrachloride	106	ug/L	20	21.3	62 - 132
Chlorobenzene	94.7	ug/L	20	18.9	85 - 117
Chlorodibromomethane	96.8	ug/L	20	19.4	77 - 122
Chloroethane	88.3	ug/L	20	17.7	51 - 142
Chloroform	103	ug/L	20	20.5	78 - 122
Chloromethane	78.5	ug/L	20	15.7	38 - 156
Cyclohexane	117	ug/L	20	23.3	66 - 130
Dibromomethane	90.4	ug/L	20	18.1	81 - 125

QUALITY CONTROL DATA

Workorder: 2309395 LMC MRC 4/17/18

Dichlorodifluoromethane	69.7	ug/L	20	13.9	17 - 166
Diisopropyl ether	106	ug/L	20	21.2	74 - 131
Ethyl tert-butyl ether	103	ug/L	20	20.6	75 - 123
Ethylbenzene	95.8	ug/L	20	19.2	80 - 124
Freon 113	134*	ug/L	20	26.7	50 - 130
Hexachlorobutadiene	95	ug/L	20	19.0	55 - 128
Isopropylbenzene	105	ug/L	20	21.0	73 - 129
Methyl acetate	94	ug/L	20	18.8	70 - 130
Methyl cyclohexane	109	ug/L	20	21.7	70 - 130
Methyl t-Butyl Ether	96.2	ug/L	20	19.2	69 - 115
Methylene Chloride	126*	ug/L	20	25.2	76 - 121
Naphthalene	82.4	ug/L	20	16.5	56 - 134
Styrene	101	ug/L	20	20.2	79 - 123
Tetrachloroethene	97.3	ug/L	20	19.5	72 - 124
Toluene	101	ug/L	20	20.2	80 - 125
Total Xylenes	99.6	ug/L	60	59.7	79 - 125
Trichloroethene	103	ug/L	20	20.5	77 - 124
Trichlorofluoromethane	85.8	ug/L	20	17.2	38 - 123
Vinyl Acetate	93.1	ug/L	20	18.6	58 - 136
Vinyl Chloride	76.8	ug/L	20	15.4	27 - 138
cis-1,2-Dichloroethene	95.4	ug/L	20	19.1	78 - 125
cis-1,3-Dichloropropene	98	ug/L	20	19.6	81 - 121
mp-Xylene	99.6	ug/L	40	39.9	79 - 125
n-Butylbenzene	88.3	ug/L	20	17.7	71 - 130
n-Propylbenzene	102	ug/L	20	20.5	74 - 122
o-Chlorotoluene	99.9	ug/L	20	20.0	78 - 126
o-Xylene	99.5	ug/L	20	19.9	79 - 124
p-Chlorotoluene	99.7	ug/L	20	19.9	78 - 125
p-Isopropyltoluene	90.7	ug/L	20	18.1	72 - 123
sec-Butylbenzene	101	ug/L	20	20.3	72 - 127
tert-Amyl methyl ether	88.7	ug/L	20	17.7	75 - 121
tert-Butyl Alcohol	87.2	ug/L	100	87.2	17 - 168
tert-Butylbenzene	91.2	ug/L	20	18.2	72 - 124
trans-1,2-Dichloroethene	105	ug/L	20	21.1	71 - 122
trans-1,3-Dichloropropene	102	ug/L	20	20.4	78 - 126
1,2-Dichloroethane-d4 (S)	108	%			62 - 133
4-Bromofluorobenzene (S)	90.6	%			79 - 114
Dibromofluoromethane (S)	94	%			78 - 116
Toluene-d8 (S)	93.7	%			76 - 127

MATRIX SPIKE: 2728943 DUPLICATE: 2728944 ORIGINAL: 2308943020

****NOTE - The Original Result shown below is a raw result and is only used for the purpose of calculating Matrix Spike percent recoveries. This result is not a final value and cannot be used as such.

Parameter	Original Result	Units	Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limit	RPD	Max RPD

QUALITY CONTROL DATA

Workorder: 2309395 LMC MRC 4/17/18

1,1,1,2-Tetrachloroethane	0	ug/L	20	19.804	19.8791	99	99.4	78 - 121	.38	16
1,1,1-Trichloroethane	0	ug/L	20	20.4502	20.1874	102	101	66 - 130	1.29	20
1,1,2,2-Tetrachloroethane	0	ug/L	20	19.7645	19.4404	98.8	97.2	74 - 135	1.65	16
1,1,2-Trichloroethane	0	ug/L	20	19.3824	19.1417	96.9	95.7	82 - 126	1.25	15
1,1-Dichloroethane	1.11124	ug/L	20	21.679	21.1496	103	100	78 - 124	2.47	15
1,1-Dichloroethene	.38634	ug/L	20	21.2526	19.8649	104	97.4	63 - 128	6.75	21
1,2,3-Trichlorobenzene	0	ug/L	20	17.8009	20.0233	89	100	61 - 126	11.8	36
1,2,3-Trichloropropane	0	ug/L	20	19.9673	19.6925	99.8	98.5	75 - 132	1.39	19
1,2,4-Trichlorobenzene	0	ug/L	20	18.3545	20.0129	91.8	100	67 - 123	8.64	22
1,2,4-Trimethylbenzene	0	ug/L	20	19.5649	19.8268	97.8	99.1	76 - 125	1.33	24
1,2-Dibromo-3-chloropropane	0	ug/L	20	19.2486	19.2299	96.2	96.1	59 - 133	.1	26
1,2-Dibromoethane	0	ug/L	20	19.5969	19.1475	98	95.7	80 - 124	2.32	19
1,2-Dichlorobenzene	0	ug/L	20	19.5548	19.5729	97.8	97.9	82 - 118	.09	15
1,2-Dichloroethane	0	ug/L	20	20.2115	19.874	101	99.4	70 - 133	1.68	19
1,2-Dichloroethene, Total	1.04477	ug/L	40	42.5345	42.0757	104	103	78 - 125	1.08	40
1,2-Dichloropropane	0	ug/L	20	20.6019	21.0575	103	105	81 - 127	2.19	15
1,3-Dichlorobenzene	0	ug/L	20	19.6525	19.8578	98.3	99.3	81 - 118	1.04	16
1,3-Dichloropropane	0	ug/L	20	19.4544	19.1872	97.3	95.9	82 - 126	1.38	15
1,3-Dichloropropene, Total	0	ug/L	40	40.7372	40.4682	102	101	80 - 123	.66	16
1,4-Dichlorobenzene	0	ug/L	20	19.118	19.3154	95.6	96.6	81 - 116	1.03	15
2,2-Dichloropropane	0	ug/L	20	19.5027	18.716	97.5	93.6	64 - 129	4.12	18
2-Butanone	0	ug/L	100	106.054	108.454	106	108	50 - 152	2.24	16
2-Chloroethylvinyl ether	0	ug/L	20	.12582	.08564	.63*	.43*	1 - 150	38	40
2-Hexanone	0	ug/L	100	99.5593	104.13	99.6	104	65 - 154	4.49	17
4-Methyl-2-Pentanone(MIBK)	0	ug/L	100	108.428	109.46	108	109	71 - 146	.95	16
Acetone	7.23321	ug/L	100	110.633	117.314	103	110	40 - 151	5.86	40
Benzene	0	ug/L	20	20.1779	20.047	101	100	80 - 124	.65	26
Bromobenzene	0	ug/L	20	19.7594	20.0698	98.8	100	81 - 119	1.56	17
Bromochloromethane	0	ug/L	20	19.8437	19.472	99.2	97.4	73 - 117	1.89	19
Bromodichloromethane	0	ug/L	20	20.2158	20.1284	101	101	79 - 126	.43	16
Bromoform	0	ug/L	20	19.5272	19.2934	97.6	96.5	70 - 123	1.2	16
Bromomethane	0	ug/L	20	17.309	11.743	86.5	58.7	45 - 148	38.3	26
Carbon Disulfide	0	ug/L	20	22.1844	20.2877	111	101	57 - 131	8.93	28
Carbon Tetrachloride	0	ug/L	20	21.5385	21.4685	108	107	62 - 132	.33	17
Chlorobenzene	0	ug/L	20	20.0955	19.6495	100	98.2	85 - 117	2.24	15
Chlorodibromomethane	0	ug/L	20	20.3144	19.7982	102	99	77 - 122	2.57	15
Chloroethane	0	ug/L	20	19.4635	14.0781	97.3	70.4	51 - 142	32.1	24
Chloroform	0	ug/L	20	21.0431	20.4965	105	102	78 - 122	2.63	16
Chloromethane	0	ug/L	20	16.935	14.3097	84.7	71.5	38 - 156	16.8	27
Cyclohexane	0	ug/L	20	21.4571	21.3828	107	107	66 - 130	.35	20
Dibromomethane	0	ug/L	20	19.4894	18.6052	97.4	93	81 - 125	4.64	16
Dichlorodifluoromethane	0	ug/L	20	13.7824	12.5034	68.9	62.5	17 - 166	9.73	24
Diisopropyl ether	0	ug/L	20	21.2732	21.5216	106	108	74 - 131	1.16	15
Ethyl tert-butyl ether	0	ug/L	20	21.2419	21.3919	106	107	75 - 123	.7	16
Ethylbenzene	0	ug/L	20	19.8015	19.6274	99	98.1	80 - 124	.88	19
Freon 113	0	ug/L	20	20.0899	19.5474	100	97.7	50 - 130	2.74	26

QUALITY CONTROL DATA

Workorder: 2309395 LMC MRC 4/17/18

Hexachlorobutadiene	0	ug/L	20	19.1198	19.0328	95.6	95.2	55 - 128	.46	35
Isopropylbenzene	0	ug/L	20	21.6226	21.644	108	108	73 - 129	.1	18
Methyl acetate	0	ug/L	20	16.8128	17.1224	84.1	85.6	70 - 130	1.82	18
Methyl cyclohexane	0	ug/L	20	20.091	23.6507	100	118	70 - 130	16.3	18
Methyl t-Butyl Ether	0	ug/L	20	19.5665	19.9155	97.8	99.6	69 - 115	1.77	20
Methylene Chloride	0	ug/L	20	20.6345	20.9205	103	105	76 - 121	1.38	17
Naphthalene	0	ug/L	20	17.9386	19.9877	89.7	99.9	56 - 134	10.8	40
Styrene	0	ug/L	20	21.1336	21.0213	106	105	79 - 123	.53	16
Tetrachloroethene	0	ug/L	20	19.7349	18.6285	98.7	93.1	72 - 124	5.77	38
Toluene	0	ug/L	20	20.8713	19.9655	104	99.8	80 - 125	4.44	20
Total Xylenes	0	ug/L	60	62.2308	61.4417	104	102	79 - 125	1.28	35
Trichloroethene	1.06609	ug/L	20	22.7875	21.6578	109	103	77 - 124	5.08	18
Trichlorofluoromethane	0	ug/L	20	17.4876	14.1272	87.4	70.6	38 - 123	21.3	23
Vinyl Acetate	0	ug/L	20	17.9898	16.9383	89.9	84.7	58 - 136	6.02	17
Vinyl Chloride	.37244	ug/L	20	16.7986	13.3553	82.1	64.9	27 - 138	22.8	40
cis-1,2-Dichloroethene	1.04477	ug/L	20	21.0542	20.7318	100	98.4	78 - 125	1.54	21
cis-1,3-Dichloropropene	0	ug/L	20	19.4878	19.3168	97.4	96.6	81 - 121	.88	16
mp-Xylene	0	ug/L	40	41.6616	40.9489	104	102	79 - 125	1.73	21
n-Butylbenzene	0	ug/L	20	17.8233	18.8399	89.1	94.2	71 - 130	5.55	20
n-Propylbenzene	0	ug/L	20	21.0389	21.4096	105	107	74 - 122	1.75	20
o-Chlorotoluene	0	ug/L	20	20.4998	20.6855	102	103	78 - 126	.9	17
o-Xylene	0	ug/L	20	20.5693	20.4928	103	102	79 - 124	.37	19
p-Chlorotoluene	0	ug/L	20	20.533	20.6703	103	103	78 - 125	.67	16
p-Isopropyltoluene	0	ug/L	20	18.2645	19.5715	91.3	97.9	72 - 123	6.91	17
sec-Butylbenzene	0	ug/L	20	20.4519	21.592	102	108	72 - 127	5.42	17
tert-Amyl methyl ether	0	ug/L	20	18.2452	18.2839	91.2	91.4	75 - 121	.21	40
tert-Butyl Alcohol	5.64563	ug/L	100	128.453	144.122	123	138	17 - 168	11.5	40
tert-Butylbenzene	0	ug/L	20	18.4525	19.3618	92.3	96.8	72 - 124	4.81	17
trans-1,2-Dichloroethene	0	ug/L	20	21.4803	21.3439	107	107	71 - 122	.64	22
trans-1,3-Dichloropropene	0	ug/L	20	21.2493	21.1515	106	106	78 - 126	.46	18
1,2-Dichloroethane-d4 (S)	110	%				110	107	62 - 133		
4-Bromofluorobenzene (S)	88.5	%				88.5	90.3	79 - 114		
Dibromofluoromethane (S)	93.4	%				93.4	92.4	78 - 116		
Toluene-d8 (S)	93.2	%				93.2	92.5	76 - 127		

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State Certifications: DE ID 11 , MA PA0102 , MD 128 , VA 460157 , WV 343

QUALITY CONTROL DATA

Workorder: 2309395 LMC MRC 4/17/18

QC Batch: WCPR/43365 **Analysis Method:** SW-846 7.3CN

QC Batch Method: SW-846 7.3CN

Associated Lab Samples: 2309395024, 2309395025

METHOD BLANK: 2729578

Parameter	Blank Result	Units	Reporting Limit
Cyanide, Reactive	ND	ppm	10

LABORATORY CONTROL SAMPLE: 2729579

Parameter	LCS % Rec	Units	Spike Conc.	LCS Result	% Rec Limit
Cyanide, Reactive	12.3	ppm	10	1.2J	0 - 92

SAMPLE DUPLICATE: 2729580 ORIGINAL: 2310442001

Parameter	Original Result	Units	DUP Result	RPD	Max RPD
Cyanide, Reactive	.01493	ppm	.01497	.25	20

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QUALITY CONTROL DATA

Workorder: 2309395 LMC MRC 4/17/18

QC Batch: WCPR/43366 **Analysis Method:** SW846 7.3

QC Batch Method: SW846 7.3

Associated Lab Samples: 2309395024, 2309395025

METHOD BLANK: 2729581

Parameter	Blank Result	Units	Reporting Limit
Sulfide, Reactive	4.0J	ppm	6.2

LABORATORY CONTROL SAMPLE: 2729582

Parameter	LCS % Rec	Units	Spike Conc.	LCS Result	% Rec Limit
Sulfide, Reactive	81.5	ppm	568	463	49 - 148

SAMPLE DUPLICATE: 2729583 ORIGINAL: 2310442001

Parameter	Original Result	Units	DUP Result	RPD	Max RPD
Sulfide, Reactive	1.99104	ppm	3.19361	46.4*	20

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QUALITY CONTROL DATA

Workorder: 2309395 LMC MRC 4/17/18

QC Batch: WETC/203549 **Analysis Method:** SW846 7.3

QC Batch Method: SW846 7.3

Associated Lab Samples:

METHOD BLANK: 2729677

Parameter	Blank Result	Units	Reporting Limit
Sulfide, Reactive	ND	ppm	6.3

METHOD BLANK: 2729679

Parameter	Blank Result	Units	Reporting Limit
Sulfide, Reactive	ND	ppm	6.3

METHOD BLANK: 2729681

Parameter	Blank Result	Units	Reporting Limit
Sulfide, Reactive	ND	ppm	6.3

METHOD BLANK: 2729683

Parameter	Blank Result	Units	Reporting Limit
Sulfide, Reactive	ND	ppm	6.3

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QUALITY CONTROL DATA

Workorder: 2309395 LMC MRC 4/17/18

QC Batch: WETC/203584 **Analysis Method:** SW-846 7.3CN

QC Batch Method: SW-846 7.3CN

Associated Lab Samples:

METHOD BLANK: 2730127

Parameter	Blank Result	Units	Reporting Limit
Cyanide, Reactive	0.0010	mg/L	0.00010

METHOD BLANK: 2730129

Parameter	Blank Result	Units	Reporting Limit
Cyanide, Reactive	0.0040	mg/L	0.00010

METHOD BLANK: 2730131

Parameter	Blank Result	Units	Reporting Limit
Cyanide, Reactive	0.0030	mg/L	0.00010

METHOD BLANK: 2730133

Parameter	Blank Result	Units	Reporting Limit
Cyanide, Reactive	0.0030	mg/L	0.00010

METHOD BLANK: 2730135

Parameter	Blank Result	Units	Reporting Limit
Cyanide, Reactive	0.0020	mg/L	0.00010

METHOD BLANK: 2730137

Parameter	Blank Result	Units	Reporting Limit

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QUALITY CONTROL DATA

Workorder: 2309395 LMC MRC 4/17/18

Cyanide, Reactive	0.0040	mg/L	0.00010

METHOD BLANK: 2730139

Parameter	Blank Result	Units	Reporting Limit
Cyanide, Reactive	0.0010	mg/L	0.00010

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QUALITY CONTROL DATA QUALIFIERS

Workorder: 2309395 LMC MRC 4/17/18

QUALITY CONTROL PARAMETER QUALIFIERS

Lab ID	#	Sample Type	Analytical Method	Analyte
2728889	1	Lab Control Standard	SW846 8260B	Methylene Chloride
The QC sample type LCS for method SW846 8260B was outside the control limits for the analyte Methylene Chloride. The % Recovery was reported as 126 and the control limits were 76 to 121.				
2728889	2	Lab Control Standard	SW846 8260B	Carbon Disulfide
The QC sample type LCS for method SW846 8260B was outside the control limits for the analyte Carbon Disulfide. The % Recovery was reported as 138 and the control limits were 57 to 131.				
2728889	3	Lab Control Standard	SW846 8260B	Freon 113
The QC sample type LCS for method SW846 8260B was outside the control limits for the analyte Freon 113. The % Recovery was reported as 134 and the control limits were 50 to 130.				
2731434	4	Duplicate	SW-846 1010A	Flashpoint/Ignitability
According to Pa/USEPA regulations, this sample is not considered to be ignitable. (Ref 40 CFR 261.21)				
2731434	5	Duplicate	SW-846 1010A	Flashpoint/Ignitability
Sample did not flash up to 200 degrees F				

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QUALITY CONTROL DATA CROSS REFERENCE TABLE

Workorder: 2309395 LMC MRC 4/17/18

Lab ID	Sample ID	Prep Method	Prep Batch	Analysis Method	Analysis Batch
2309395024	DM-1-4			SW846 9040C	WETC/203183
2309395025	DM-5-8			SW846 9040C	WETC/203183
2309395001	MRC-SW17A	SW846 3510C	EXTR/51837	8270 SIM	SVMS/30492
2309395002	MRC-SW2A	SW846 3510C	EXTR/51837	8270 SIM	SVMS/30492
2309395003	MRC-SW1A	SW846 3510C	EXTR/51837	8270 SIM	SVMS/30492
2309395017	MRC-SW6B	SW846 3510C	EXTR/51837	8270 SIM	SVMS/30492
2309395018	MRC-SW8B	SW846 3510C	EXTR/51837	8270 SIM	SVMS/30492
2309395020	MRC-SW8A-D	SW846 3510C	EXTR/51837	8270 SIM	SVMS/30492
2309395021	MRC-SW6A	SW846 3510C	EXTR/51837	8270 SIM	SVMS/30492
2309395023	MRC-SW8A	SW846 3510C	EXTR/51837	8270 SIM	SVMS/30492
2309395024	DM-1-4			SW846 8260B	VOMS/46598
2309395025	DM-5-8			SW846 8260B	VOMS/46598
2309395024	DM-1-4	SW846 3510C	EXTR/51862	SW846 8270D	SVMS/30490
2309395025	DM-5-8	SW846 3510C	EXTR/51862	SW846 8270D	SVMS/30490
2309395024	DM-1-4	SW846 3510C	EXTR/51866	SW846 8082A	SVGC/48950
2309395025	DM-5-8	SW846 3510C	EXTR/51866	SW846 8082A	SVGC/48950
2309395015	TB-041718-3			SW846 8260B	VOMS/46615
2309395016	MRC-SW13A			SW846 8260B	VOMS/46615
2309395017	MRC-SW6B			SW846 8260B	VOMS/46615
2309395018	MRC-SW8B			SW846 8260B	VOMS/46615
2309395019	TB-041718-4			SW846 8260B	VOMS/46615
2309395020	MRC-SW8A-D			SW846 8260B	VOMS/46615
2309395021	MRC-SW6A			SW846 8260B	VOMS/46615
2309395022	TB-041718-5			SW846 8260B	VOMS/46615
2309395023	MRC-SW8A			SW846 8260B	VOMS/46615

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QUALITY CONTROL DATA CROSS REFERENCE TABLE

Workorder: 2309395 LMC MRC 4/17/18

Lab ID	Sample ID	Prep Method	Prep Batch	Analysis Method	Analysis Batch
2309395024	DM-1-4	SW846 7470A	MDIG/71348	SW846 7470A	META/61764
2309395025	DM-5-8	SW846 7470A	MDIG/71348	SW846 7470A	META/61764
2309395010	TB-041718-2			SW846 8260B	VOMS/46617
2309395011	MRC-SW5A1			SW846 8260B	VOMS/46617
2309395012	MRC-SW9B			SW846 8260B	VOMS/46617
2309395013	MRC-SW15A			SW846 8260B	VOMS/46617
2309395014	MRC-SW16A			SW846 8260B	VOMS/46617
2309395024	DM-1-4	SW846 3015	MDIG/71363	SW846 6010C	META/61765
2309395025	DM-5-8	SW846 3015	MDIG/71363	SW846 6010C	META/61765
2309395001	MRC-SW17A			SW846 8260B	VOMS/46623
2309395002	MRC-SW2A			SW846 8260B	VOMS/46623
2309395003	MRC-SW1A			SW846 8260B	VOMS/46623
2309395004	MRC-SW9A			SW846 8260B	VOMS/46623
2309395005	TB-041718-1			SW846 8260B	VOMS/46623
2309395006	MRC-SW5A2			SW846 8260B	VOMS/46623
2309395007	MRC-SW5B			SW846 8260B	VOMS/46623
2309395008	MRC-SW7A			SW846 8260B	VOMS/46623
2309395009	MRC-SW7B			SW846 8260B	VOMS/46623
2309395024	DM-1-4	SW-846 7.3CN	WCPR/43365	SW-846 7.3CN	WETC/203584
2309395025	DM-5-8	SW-846 7.3CN	WCPR/43365	SW-846 7.3CN	WETC/203584
2309395024	DM-1-4	SW846 7.3	WCPR/43366	SW846 7.3	WETC/203549
2309395025	DM-5-8	SW846 7.3	WCPR/43366	SW846 7.3	WETC/203549

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CHAIN OF CUSTODY/ REQUEST FOR ANALYSIS

ALL SHADED AREAS MUST BE COMPLETED BY THE CLIENT / SAMPLER. INSTRUCTIONS ON THE BACK.

Page 1 of 4

Courier:

Tracking #:

2309395

Co. Name: AECOM

Contact (Report to): Ravi Damera & Holly Brown Phone: 301-674-3199

Address: 12420 Milestone Center Drive, Suite 150 Germantown, MD 20876

Bill to (if different than Report to): Ravi Damera PO#: 95840AECM

Project Name/#: LMC MRC ALS Quote #:

TAT: [X] Normal-Standard TAT is 10-12 business days. Date Required:
[ ] Rush-Subject to ALS approval and surcharges. Approved By:

Email? [X] Y ravi.damera@aecom.com
Fax? [ ] Y No.:

Sample Description/Location (as it will appear on the lab report)	COC Comments	Sample Date	Military Time	*G or C	**Matrix	VOCs (8260C)	1,4-Dioxane	PCB Homologs									Correct containers?	Correct sample volume?	Correct preservation?	Headspace/Volatiles?	Circle appropriate Y or N.
***Container Type				G	A	A															
***Container Size				40mL	1L	1L															
*** Preservative				HCL																	
1 MRC-SW17A		4-16-18	1507	G		2	2										Y	Y	Y	N	
2 MRC-SW2A		4/16/18	1638	G		2	2										Y	Y	N	N	N
3 MRC-SW1A		4/16/18	1620	G		2	2										Y	Y	Y	Y	Y
4 MRC-SW9A		4/17/18	0842	G		2		2													
5 TB-041718-1	trip blank	NA	NA	G		2															
6 MRC-SW5A2		4/17/18	0824	G		2		2													
7 MRC-SW5B		4/17/18	0940	G		2		2	DNN 4/17/18												
8 MRC-SW17A		4/17/18	0904	G		2		2													

Enter Number of Containers Per Analysis

ANALYSES/METHOD REQUESTED

(completed by Sample Receiving)
Performed by: DNN
Cooler Temp: 1°C
Therm. ID: 318
No. of Coolers:
Notes:

Circle appropriate Y or N.: Custody seals Present? Y; (if present) Seals intact? Y; Received on ice? Y; COC/Labels complete/accurate? Y; Container in good condition? Y

SAMPLED BY (Please Print): Zach Neiah

Project Comments: email naam.fuentes@aecom.com & holly.brown@aecom.com

Relinquished By / Company Name	Date	Time	Received By / Company Name	Date	Time
1 AECOM	4/17/18	1400	2 ALS	4/17	1400
3			4		
5		2200	6	4/17/18	2200
7			8		
9			10		

Data Deliverables: [X] Standard; [ ] CLP-like; [ ] NJ-Reduced; [ ] NJ-Full; [ ] other

EDDs Required? [X] If yes, format type: EQuIS & ACS/EDD EXCEL

DOD Criteria Required?

SDWA forms? yes / yes / yes / yes

State Samples Collected In? MD / NJ / NY / PA

Other

ALS FIELD SERVICES: [ ] Pickup; [ ] Labor; [ ] Composite Sampling; [ ] Rental Equipment; [ ] Other:

* G=Grab; C=Composite **Matrix: AI=Air; DW=Drinking Water; GW=Groundwater; OI=Oil; OL=Other Liquid; SL=Sludge; SO=Soil; WP=Wipe; WW=Wastewater

Copies: WHITE - ORIGINAL CANARY - CUSTOMER COPY ***Container Type: AG-Amber Glass; CG-Clear Glass, PL-Plastic. Container Size: 250ml, 500ml, 1L, 8oz., etc. Preservative: HCl, HNO3, NaOH, etc.

Rev 01-2013

ALS Environmental

34 Dogwood Lane
Middletown, PA 17057
P. 717-944-5541
F.717-944-1430

CHAIN OF CUSTODY/ REQUEST FOR ANALYSIS

ALL SHADED AREAS MUST BE COMPLETED BY THE CLIENT / SAMPLER. INSTRUCTIONS ON THE BACK.

Courier:
Tracking #:

COC# 2909 395

Co. Name: AECOM
Contact (Report to): Ravi Ramesa & Holly Brown Phone: 301-674-3497
Address: 12420 Milestone Center Drive, Suite 150 Germantown, MD 20876

Bill to (if different than Report to): Ravi Ramesa PO#: 95840 ACM

Project Name/#: LMC MRC ALS Quote #:

TAT: [X] Normal-Standard TAT is 10-12 business days. Date Required:
[ ] Rush-Subject to ALS approval and surcharges. Approved By:

Email? [X] -Y ravi.ramesa@aecom.com
Fax? [ ] -Y No.:

Sample Description/Location (as it will appear on the lab report)	COC Comments	Sample Date	Military Time	*G or C	**Matrix	VOCs 8260C	1,4-Dioxane	PCB Homologs								Correct containers?	Correct sample volume?	Correct preservation?	Headspace/Volatiles?	Circle appropriate Y or N.
***Container Type				G	A	A														
***Container Size				40mL	1L	1L														
*** Preservative				HCL																
1 MRC-SW7B		4/17/18	0837	G	SW	2		2								N	N	N	N	
2 TB-041718-2	trip blank	NA	NA	G	W	2										Y	Y	N	N	N
3 MRC-SW5A1		4/17/18	0912	G	SW	2		2								Y	Y	Y	Y	Y
4 MRC-SW9B		4/17/18	0956	G	SW	2		2												
5 MRC-SW15A		4/17/18	1140	G	SW	2		2												
6 MRC-SW16A		4/17/18	1120	G	SW	2		2												
7 TB-041718-3 Head Space	trip blank	NA	NA	G	W	2														
8 MRC-SW13A DMM 4/18/18		4-17-18	1144	G	SW	2		2												

Custody seals Present? (if present) Seals intact? Received on ice? COC/Labels complete/accurate? Container in good condition?

Receipt Information (completed by Sample Receiving)
Performed by: INITIAL HERE
Cooler Temp: 1°C
Therm. ID: 318
No. of Coolers:
Notes:

SAMPLED BY (Please Print): Zach Leigh

Project Comments: email: holly.brown@aecom.com & naam.tavantzis@aecom.com

Relinquished By / Company Name	Date	Time	Received By / Company Name	Date	Time
1 AECOM	4-17-18	1400	2	4/17	1400
3			4		1800
5		2200	6	4/17/18	2200
7			8		
9			10		

Data Deliverables: [X] Standard [ ] CLP-like [ ] NJ-Reduced [ ] NJ-Full [ ] other
EDDs Required? [X] If yes, format type: EQuIS & .CSV
DOD Criteria Required?

SDWA Forms? ⇒ yes [ ] yes [ ] yes [ ] yes [ ]
State Samples Collected In? MD [ ] NJ [ ] NY [ ] PA [ ]
Other

ALS FIELD SERVICES
[ ] Pickup
[ ] Labor
[ ] Composite Sampling
[ ] Rental Equipment
[ ] Other:

* G=Grab; C=Composite
**Matrix: Al=Air; DW=Drinking Water; GW=Groundwater; Ol=Oil; OL=Other Liquid; SL=Sludge; SO=Soil; WP=Wipe; WW=Wastewater
***Container Type: AG-Amber Glass; CG-Clear Glass, PL-Plastic. Container Size: 250ml, 500ml, 1L, 8oz., etc. Preservative: HCl, HNO3, NaOH, etc.

Copies: WHITE - ORIGINAL CANARY - CUSTOMER COPY

Rev 01-2013

ALS Environmental

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Middletown, PA 17057
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F.717-944-1430

CHAIN OF CUSTODY/ REQUEST FOR ANALYSIS

ALL SHADED AREAS MUST BE COMPLETED BY THE CLIENT / SAMPLER. INSTRUCTIONS ON THE BACK.

Page 3 of 4

Courier:

Tracking #:

COC# 2309395

Co. Name: AECOM

Contact (Report to): Ravi Dameera & Holly Brown Phone: 301-674-3199

Address: 12420 Milestone Center Drive, Suite 150 Germantown, MD 20876

Bill to (if different than Report to): Ravi Dameera PO#: 95840AECM

Project Name/#: LMC MRC ALS Quote #:

TAT: [X] Normal-Standard TAT is 10-12 business days. [ ] Rush-Subject to ALS approval and surcharges. Date Required: Approved By:

Email? [X] -Y ravi.dameera@aecom.com

Fax? [ ] -Y No.:

	Sample Description/Location (as it will appear on the lab report)	COC Comments	Sample Date	Military Time	*G or C	**Matrix	VOCs	1,4-Dioxane	8270 Hardcopy	TCLP-RCI Analyses							Correct containers?	Correct sample volume?	Correct preservation?	Headspace/Volatiles?	Circle appropriate Y or N.
	***Container Type				G		A	A	G												
	***Container Size				4/GrnL		1L	1L	32oz												
	*** Preservative				HCL																
1	MRC-SW6B		4/17/18	1051	G	SW	2	2	2								Y	Y	Y	Y	
2	MRC-SW8B		4/17/18	1104	G	SW	2	2	2								N	N	N	N	N
3	TB-041718-4 Head Space DNN 4/18/18	trip blank	NA	NA	G	WQ	2										Y	Y	Y	Y	Y
4	MRC-SW8A-D	dup.	4/17/18	1030	G	SW	2	2	2								Y	Y	Y	Y	Y
5	MRC-SW6A		4/17/18	1002	G	SW	2	2	2												
6	TB-041718-5 Head Space DNN 4/18/18	trip blank	NA ~~4/17/18~~	NA	G	WQ	2														
7	MRC-SW8A		4/17/18	1016	G	SW	2	2	2												
8	DM-1-4	drums	4/17/18	1320	C	SW				10											

Enter Number of Containers Per Analysis

Custody seals Present? (if present) Seals intact? Received on Ice? COC/Labels complete/accurate? Container in good condition?

SAMPLED BY (Please Print): Zach Nash

Project Comments: email naomi.tacentis@aecom.com & holly.brown@aecom.com

Relinquished By / Company Name	Date	Time	Received By / Company Name	Date	Time
1 AECOM	4/17/18	1400	2	4/17	1400
3			4		1530
5			6	4/17/18	2200
7			8		
9			10		

Data Deliverables: [X] Standard [ ] CLP-like [ ] NJ-Reduced [ ] NJ-Full [ ] other

SDWA Forms? yes

State Samples Collected In? MD NJ NY PA

EDDs Required? [X] If yes, format type: Other: Results .csv

DOD Criteria Required?

Receipt Information (completed by Sample Receiving): Performed by: INITIAL HERE

Cooler Temp: 1°C

Therm. ID: 318

No. of Coolers:

Notes:

ALS FIELD SERVICES: [ ] Pickup [ ] Labor [ ] Composite Sampling [ ] Rental Equipment [ ] Other:

* G=Grab; C=Composite

**Matrix: AI=Air; DW=Drinking Water; GW=Groundwater; OI=Oil; OL=Other Liquid; SL=Sludge; SO=Soil; WP=Wipe; WW=Wastewater

Copies: WHITE - ORIGINAL CANARY - CUSTOMER COPY

***Container Type: AG-Amber Glass; CG-Clear Glass, PL-Plastic. Container Size: 250ml, 500ml, 1L, 8oz., etc. Preservative: HCl, HNO3, NaOH, etc.

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ALS Environmental

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Middletown, PA 17057
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F.717-944-1430

CHAIN OF CUSTODY/ REQUEST FOR ANALYSIS

ALL SHADED AREAS MUST BE COMPLETED BY THE CLIENT / SAMPLER. INSTRUCTIONS ON THE BACK.

Page 4 of 4
Courier:
Tracking #:

COC# 2309395

Co. Name: AECOM
Contact (Report to): Ravi Panera & Holly Braun Phone: 301-674-3199
Address: 12420 Milestone Center Drive, Suite 150 Germantown, MD 20876

Bill to (if different than Report to): Ravi Panera PO#: 95846AECM

Project Name/#: LMC MRC ALS Quote #:

TAT: [X] Normal-Standard TAT is 10-12 business days. Date Required:
[ ] Rush-Subject to ALS approval and surcharges. Approved By:

Email? [X] Y Ravi.Panera@aecom.com
Fax? Y No.:

	Sample Description/Location (as it will appear on the lab report)	COC Comments	Sample Date	Military Time	*G or C	**Matrix	TCLP + RIC Analyses									
	***Container Type						G									
	***Container Size						32oz									
	*** Preservative															
1	BM-5-8	drums	4-17-18	1335	C	GW	10									
2																
3																
4																
5																
6																
7																
8																

ANALYSES/METHOD REQUESTED — Enter Number of Containers Per Analysis

Receipt Information (completed by Sample Receiving)
Performed by: [illegible]
Cooler Temp: 1°C
Therm. ID: 318
No. of Coolers:
Notes:

Circle appropriate Y or N.				
Correct containers?	Y	N		
Correct sample volume?	Y	N		
Correct preservation?	Y	N		
Headspace/Volatiles?		N		
Custody seals Present?	Y	N		
(If present) Seals intact?	Y	N		
Received on Ice?	Y	N		
COC/Labels complete/accurate?	Y	N		
Container in good condition?	Y	N		

SAMPLED BY (Please Print): Zach Neigh

Project Comments: Also email data to holly.braun@aecom.com & adam.tarantzis@aecom.com

	Relinquished By / Company Name	Date	Time		Received By / Company Name	Date	Time
1	AECOM	4-17-18	1400	2	[illegible]	4/17/18	1400
3	[illegible]			4	[illegible]		1820
5			2200	6	[illegible]	4/17/18	2200
7				8			
9				10			

Data Deliverables: [X] Standard; [ ] CLP-like; [ ] NJ-Reduced; [ ] NJ-Full; [ ] other
EDDs Required? [X] If yes, format type: ELIS & CSV
SDWA Forms? ⇨ yes [ ] yes [ ] yes [ ] yes [ ]
State Samples Collected In? MD [ ] NJ [ ] NY [ ] PA [ ] Other
DOD Criteria Required?

ALS FIELD SERVICES: [ ] Pickup [ ] Labor [ ] Composite Sampling [ ] Rental Equipment [ ] Other

* G=Grab; C=Composite
**Matrix: Al=Air; DW=Drinking Water; GW=Groundwater; Ol=Oil; OL=Other Liquid; SL=Sludge; SO=Soil; WP=Wipe; WW=Wastewater
***Container Type: AG-Amber Glass; CG-Clear Glass, PL-Plastic. Container Size: 250ml, 500ml, 1L, 8oz., etc. Preservative: HCl, HNO3, NaOH, etc.

Copies: WHITE - ORIGINAL CANARY - CUSTOMER COPY

Rev 01-2013

April 30, 2018

Service Request No:R1803542

Vanessa Badman
ALS Environmental
34 Dogwood Lane
Middletown, PA 17057

Laboratory Results for: UR115: 2309395

Dear Vanessa,

Enclosed are the results of the sample(s) submitted to our laboratory April 19, 2018
For your reference, these analyses have been assigned our service request number **R1803542.**

All analyses were performed according to our laboratory's quality assurance program. The test results meet requirements of the NELAP standards except as noted in the case narrative report. All results are intended to be considered in their entirety, and ALS Environmental is not responsible for use of less than the complete report. Results apply only to the items submitted to the laboratory for analysis and individual items (samples) analyzed, as listed in the report. The measurement uncertainty of the results included in this report is within that expected when using the prescribed method(s) for analysis of these samples, and represented by Laboratory Control Sample control limits. Any events, such as QC failures, which may add to the uncertainty are explained in the report narrative.

Please contact me if you have any questions. My extension is 7472. You may also contact me via email at Janice.Jaeger@alsglobal.com.

Respectfully submitted,

ALS Group USA, Corp. dba ALS Environmental

Janice Jaeger
Project Manager

ADDRESS 1565 Jefferson Road, Building 300, Suite 360, Rochester, NY 14623
PHONE +1 585 288 5380 | FAX +1 585 288 8475
ALS Group USA, Corp.
dba ALS Environmental

Narrative Documents

ALS Environmental Rochester Laboratory
1565 Jefferson Road, Building 300, Suite 360, Rochester, NY 14623
Phone (585) 288-5380 Fax (585) 288-8475
www.alsglobal.com

ALS Environmental

Client: ALS Environmental - US
Project: UR115: 2309395
Sample Matrix: Water

Service Request: R1803542
Date Received: 04/19/2018

CASE NARRATIVE

All analyses were performed consistent with the quality assurance program of ALS Environmental. This report contains analytical results for samples designated for Tier II data deliverables, including results of QC samples analyzed from this delivery group. Analytical procedures performed by the lab are validated in accordance with NELAC standards. Any parameters that are not included in the lab's NELAC accreditation are identified on a "Non-Certified Analytes" report in the Miscellaneous Forms Section of this report. Individual analytical results requiring further explanation are flagged with qualifiers and/or discussed below. The flags are explained in the Report Qualifiers and Definitions page in the Miscellaneous Forms section of this report.

Sample Receipt:

Fifteen water samples were received for analysis at ALS Environmental on 04/19/2018. Any discrepancies noted upon initial sample inspection are noted on the cooler receipt and preservation form included in this data package. The samples were received in good condition and consistent with the accompanying chain of custody form. Samples are refrigerated at 6°C upon receipt at the lab except for aqueous samples designated for metals analyses, which are stored at room temperature.

Semivolatiles by GC/MS:

Method 680, 04/27/2018: The control limit was exceeded for one or more surrogates in the Continuing Calibration Verification (CCV). The surrogates were within acceptance limits for the associated field samples. The data quality was not significantly affected and no further corrective action was taken.

Method 680, 04/27/2018: The lower control limit for the spike recovery of the Laboratory Control Sample (LCS) was exceeded for one or more analyte. There were no detections of the analyte(s) in the associated field samples. The discrepancy associated with reduced recovery equates to a potential low bias. The analytes affected are flagged in the LCS Summary.

Method 680, 04/27/2018: The control limits were exceeded for analytes in the closing Continuing Calibration Verification (CCV). The QC failure was most likely due to the composition of the sample(s) immediately preceding the failing CCV. Samples run multiple times with the same result.

Approved by _____ Date 04/30/2018

SAMPLE DETECTION SUMMARY

CLIENT ID: 2309395 004	Lab ID: R1803542-001					
Analyte	**Results**	**Flag**	**MDL**	**PQL**	**Units**	**Method**
Dichlorobiphenyls, Total	0.0042	J	0.0016	0.0047	ug/L	680

CLIENT ID: 2309395 006	Lab ID: R1803542-002					
Analyte	**Results**	**Flag**	**MDL**	**PQL**	**Units**	**Method**
Dichlorobiphenyls, Total	0.0033	J	0.0016	0.0047	ug/L	680

CLIENT ID: 2309395 007	Lab ID: R1803542-003					
Analyte	**Results**	**Flag**	**MDL**	**PQL**	**Units**	**Method**
Dichlorobiphenyls, Total	0.0042	J	0.0016	0.0047	ug/L	680

CLIENT ID: 2309395 008	Lab ID: R1803542-004					
Analyte	**Results**	**Flag**	**MDL**	**PQL**	**Units**	**Method**
Dichlorobiphenyls, Total	0.0066		0.0016	0.0047	ug/L	680

CLIENT ID: 2309395 009	Lab ID: R1803542-005					
Analyte	**Results**	**Flag**	**MDL**	**PQL**	**Units**	**Method**
Dichlorobiphenyls, Total	0.0038	J	0.0016	0.0047	ug/L	680

CLIENT ID: 2309395 011	Lab ID: R1803542-006					
Analyte	**Results**	**Flag**	**MDL**	**PQL**	**Units**	**Method**
Dichlorobiphenyls, Total	0.0028	J	0.0016	0.0047	ug/L	680

CLIENT ID: 2309395 012	Lab ID: R1803542-007					
Analyte	**Results**	**Flag**	**MDL**	**PQL**	**Units**	**Method**
Dichlorobiphenyls, Total	0.0028	J	0.0016	0.0047	ug/L	680

CLIENT ID: 2309395 013	Lab ID: R1803542-008					
Analyte	**Results**	**Flag**	**MDL**	**PQL**	**Units**	**Method**
Dichlorobiphenyls, Total	0.0047		0.0016	0.0047	ug/L	680

CLIENT ID: 2309395 014	Lab ID: R1803542-009					
Analyte	**Results**	**Flag**	**MDL**	**PQL**	**Units**	**Method**
Dichlorobiphenyls, Total	0.0042	J	0.0016	0.0047	ug/L	680

CLIENT ID: 2309395 016	Lab ID: R1803542-010					
Analyte	**Results**	**Flag**	**MDL**	**PQL**	**Units**	**Method**
Dichlorobiphenyls, Total	0.0019	J	0.0016	0.0047	ug/L	680

CLIENT ID: 2309395 017	Lab ID: R1803542-011					
Analyte	**Results**	**Flag**	**MDL**	**PQL**	**Units**	**Method**
Dichlorobiphenyls, Total	0.0042	J	0.0016	0.0047	ug/L	680

CLIENT ID: 2309395 018	Lab ID: R1803542-012					
Analyte	**Results**	**Flag**	**MDL**	**PQL**	**Units**	**Method**
Dichlorobiphenyls, Total	0.0038	J	0.0016	0.0047	ug/L	680

SAMPLE DETECTION SUMMARY

CLIENT ID: 2309395 020			Lab ID: R1803542-013			
Analyte	**Results**	**Flag**	**MDL**	**PQL**	**Units**	**Method**
Dichlorobiphenyls, Total	0.0047		0.0016	0.0047	ug/L	680

CLIENT ID: 2309395 021			Lab ID: R1803542-014			
Analyte	**Results**	**Flag**	**MDL**	**PQL**	**Units**	**Method**
Dichlorobiphenyls, Total	0.0038	J	0.0016	0.0047	ug/L	680

CLIENT ID: 2309395 023			Lab ID: R1803542-015			
Analyte	**Results**	**Flag**	**MDL**	**PQL**	**Units**	**Method**
Dichlorobiphenyls, Total	0.0033	J	0.0016	0.0047	ug/L	680

Sample Receipt Information

ALS Environmental Rochester Laboratory
1565 Jefferson Road, Building 300, Suite 360, Rochester, NY 14623
Phone (585) 288-5380 Fax (585) 288-8475
www.alsglobal.com

SAMPLE CROSS-REFERENCE

SAMPLE #	CLIENT SAMPLE ID	DATE	TIME
R1803542-001	2309395 004	4/17/2018	0842
R1803542-002	2309395 006	4/17/2018	0924
R1803542-003	2309395 007	4/17/2018	0940
R1803542-004	2309395 008	4/17/2018	0804
R1803542-005	2309395 009	4/17/2018	0837
R1803542-006	2309395 011	4/17/2018	2200
R1803542-007	2309395 012	4/17/2018	0912
R1803542-008	2309395 013	4/17/2018	1140
R1803542-009	2309395 014	4/17/2018	1120
R1803542-010	2309395 016	4/17/2018	1144
R1803542-011	2309395 017	4/17/2018	1051
R1803542-012	2309395 018	4/17/2018	1104
R1803542-013	2309395 020	4/17/2018	1030
R1803542-014	2309395 021	4/17/2018	1002
R1803542-015	2309395 023	4/17/2018	1016

ALS Environmental

34 Dogwood Lane • Middletown, PA 17057 • 717.944.5541 • Fax: 717.944.1430

CHAIN OF CUSTODY/ REQUEST FOR ANALYSIS

Generated by ALS

ALL SHADED AREAS MUST BE COMPLETED BY THE CLIENT / SAMPLER. INSTRUCTIONS ON THE BACK.

COC #:	1 of 2
ALS Quote #:	

Client Name: ALS Environmental

Address: 34 Dogwood Lane
Middletown, PA 17057

Contact: Vanessa Badman

Phone#: (717) 944-5541

Project Name/#: UR115: 2309395

Bill To: ALS Environmental

TAT [ ] Normal-Standard TAT is 10-12 business days.
[X] Rush-Subject to ALS approval and surcharges.

Date Required: 4/30/2018 Approved By: _____

Email? [ ] -Y

Fax? [ ] -Y No.: _____

ANALYSES/METHOD REQUESTED

		Container Type	AN											
		Container Size	1 L											
		Preservative	None											
Sample Description/Location (as it will appear on the lab report)	Sample Date	Time	*G or C	**Matrix	680 (PCB Homologs)	*Report to the MDL, QC lab report needed, EQUIS EDD.								
					Enter Number of Containers Per Sample or Field Results Below.									
1 2309395 004	4/17/18	0842	G	WT	2	*								
2 2309395 006	4/17/18	0924	G	WT	2	*								
3 2309395 007	4/17/18	0940	G	WT	2	*								
4 2309395 008	4/17/18	0804	G	WT	6	*								
5 2309395 009	4/17/18	0837	G	WT	2	*								
6 2309395 011	4/17/18	2200	G	WT	2	*								
7 2309395 012	4/17/18	0912	G	WT	2	*								
8 2309395 013	4/17/18	1140	G	WT	2	*								
9 2309395 014	4/17/18	1120	G	WT	2	*								
10 2309395 016	4/17/18	1144	G	WT	2	*								

Receipt Information (completed by Receiving Lab)

Cooler Temp: ____ Therm ID: _____

No. of Coolers: _____

	Y	N	Initial
Custody Seals Present?			
(if present) Seals Intact?			
Received on Ice?			
COC/Labels Complete/Accurate?			
Cont. In Good Cond.?			
Correct Containers?			
Correct Sample Volumes?			
Correct Preservation?			
Headspace/Volatiles?			

Courier/Tracking #:

Sample/COC Comments

Sub to ALS Rochester

ALS Field Services: [ ] Pickup [ ] Labor [ ] Composite_Sampling [ ] Rental_Equipment [ ] Other: _____

Project Comments:

LOGGED BY(signature): DATE TIME

REVIEWED BY(signature): DATE TIME

Relinquished By / Company Name	Date	Time	Received By / Company Name	Date	Time
1 [illegible]	4/18/18	1630	2 [illegible]	4/18/18	1900
3			4		
5			6		
7			8		
9			10		

Data Deliverables: [X] Standard [ ] CLP-like [ ] USACE [ ]

Special Processing: USACE [ ] Navy [ ] [ ]

State Samples Collected In: [ ] NY [ ] NJ [ ] PA [ ] NC [X] MD

Reportable to PADEP? Yes [ ]

PWSID # _____

Sample Disposal: Lab [X] Special [ ]

EDDS: Format Type- [illegible]

R1803542 5
ALS Environmental
US115: 2309395

* G=Grab; C=Composite **Matrix - Al=Air; DW=Drinking Water; GW=Groundwater; OI=Oil; OL=Other Liquid; SL=Sludge; SO=Soil; WP=Wipe; WW=

ALS ENVIRONMENTAL SHIPPING ADDRESS: 34 DOGWOOD LANE, MIDDLETOWN, PA 17057

ALS Environmental

34 Dogwood Lane • Middletown, PA 17057 • 717.944.5541 • Fax: 717.944.1430

CHAIN OF CUSTODY/ REQUEST FOR ANALYSIS

Generated by ALS

ALL SHADED AREAS MUST BE COMPLETED BY THE CLIENT / SAMPLER. INSTRUCTIONS ON THE BACK.

COC #:	2 of 2
ALS Quote #:	

Client Name: ALS Environmental

Address: 34 Dogwood Lane
Middletown, PA 17057

Contact: Vanessa Badman

Phone#: (717) 944-5541

Project Name/#: UR115: 2309395

Bill To: ALS Environmental

TAT [ ] Normal-Standard TAT is 10-12 business days.
[X] Rush-Subject to ALS approval and surcharges.

Date Required: 4/30/2018 Approved By: _____

Email? [ ] Y

Fax? [ ] Y No.:

Receipt Information (completed by Receiving Lab)

Cooler Temp: ____ Therm ID: ____

No. of Coolers: ____

	Y	N	Initial
Custody Seals Present?			
(if present) Seals Intact?			
Received on Ice?			
COC/Labels Complete/Accurate?			
Cont. in Good Cond.?			
Correct Containers?			
Correct Sample Volumes?			
Correct Preservation?			
Headspace/Volatiles?			

Courier/Tracking #:

ANALYSES/METHOD REQUESTED

Container Type	AN									
Container Size	1 L									
Preservative	None									
*G or C	**Matrix	680 (PCB Homologs)	*Report to the MDL, QC lab report needed, EQUIS EDD.							

Enter Number of Containers Per Sample or Field Results Below.

Sample Description/Location (as it will appear on the lab report)	Sample Date	Time	*G or C	**Matrix	680 (PCB Homologs)	*Report to the MDL, QC lab report needed, EQUIS EDD.	Sample/COC Comments
11 2309395 017	4/17/18	1051	G	WT	2	*	
12 2309395 018	4/17/18	1104	G	WT	2	*	Sub to ALS Rochester
13 2309395 020	4/17/18	1030	G	WT	2	*	
14 2309395 021	4/17/18	1002	G	WT	2	*	
15 2309395 023	4/17/18	1016	G	WT	2	*	
16							
17							
18							
19							
20							

ALS Field Services: [ ] Pickup [ ] Labor [ ] Composite_Sampling [ ] Rental_Equipment [ ] Other: _____

Project Comments:

LOGGED BY(signature): DATE TIME

REVIEWED BY(signature): DATE TIME

Relinquished By / Company Name	Date	Time	Received By / Company Name	Date	Time
1 [signature]	4/18/18	1630	2 [signature]	4/18/18	0900
3			4		
5			6		
7			8		
9			10		

Data Deliverables: [X] Standard [ ] CLP-like [ ] USACE [ ]

Special Processing: USACE [ ] Navy [ ]

State Samples Collected In: [ ] NY [ ] NJ [ ] PA [ ] NC [X] MD

Reportable to PADEP? Yes [ ]

PWSID # _____

Sample Disposal: Lab [X] Special [ ]

EDDS: Format Type- EQUIS EDD

* G=Grab; C=Composite **Matrix - Al=Air; DW=Drinking Water; GW=Groundwater; Ol=Oil; OL=Other Liquid; SL=Sludge; SO=Soil; WP=Wipe; WW=Waste

R1803542 5

ALS Environmental
UR115: 2309395

ALS ENVIRONMENTAL SHIPPING ADDRESS: 34 DOGWOOD LANE, MIDDLETOWN, PA 17057

Miscellaneous Forms

ALS Environmental Rochester Laboratory
1565 Jefferson Road, Building 300, Suite 360, Rochester, NY 14623
Phone (585) 288-5380 Fax (585) 288-8475
www.alsglobal.com

REPORT QUALIFIERS AND DEFINITIONS

U	Analyte was analyzed for but not detected. The sample quantitation limit has been corrected for dilution and for percent moisture, unless otherwise noted in the case narrative.
J	Estimated value due to either being a Tentatively Identified Compound (TIC) or that the concentration is between the MRL and the MDL. Concentrations are not verified within the linear range of the calibration. For DoD: concentration >40% difference between two GC columns (pesticides/Arclors).
B	Analyte was also detected in the associated method blank at a concentration that may have contributed to the sample result.
E	Inorganics- Concentration is estimated due to the serial dilution was outside control limits.
E	Organics- Concentration has exceeded the calibration range for that specific analysis.
D	Concentration is a result of a dilution, typically a secondary analysis of the sample due to exceeding the calibration range or that a surrogate has been diluted out of the sample and cannot be assessed.
*	Indicates that a quality control parameter has exceeded laboratory limits. Under the "Notes" column of the Form I, this qualifier denotes analysis was performed out of Holding Time.
H	Analysis was performed out of hold time for tests that have an "immediate" hold time criteria.
#	Spike was diluted out.
+	Correlation coefficient for MSA is <0.995.
N	Inorganics- Matrix spike recovery was outside laboratory limits.
N	Organics- Presumptive evidence of a compound (reported as a TIC) based on the MS library search.
S	Concentration has been determined using Method of Standard Additions (MSA).
W	Post-Digestion Spike recovery is outside control limits and the sample absorbance is <50% of the spike absorbance.
P	Concentration >40% difference between the two GC columns.
C	Confirmed by GC/MS
Q	DoD reports: indicates a pesticide/Aroclor is not confirmed (≥100% Difference between two GC columns).
X	See Case Narrative for discussion.
MRL LOQ	Method Reporting Limit. Also known as: Limit of Quantitation (LOQ) The lowest concentration at which the method analyte may be reliably quantified under the method conditions.
MDL	Method Detection Limit. A statistical value derived from a study designed to provide the lowest concentration that will be detected 99% of the time. Values between the MDL and MRL are estimated (see J qualifier).
LOD	Limit of Detection. A value at or above the MDL which has been verified to be detectable.
ND	Non-Detect. Analyte was not detected at the concentration listed. Same as U qualifier.

Rochester Lab ID # for State Certifications[1]

Connecticut ID # PH0556	Maine ID #NY0032	New Hampshire ID # 294100 A/B
Delaware Approved	New Jersey ID # NY004	
DoD ELAP #65817	New York ID # 10145	Pennsylvania ID# 68-786
Florida ID # E87674	North Carolina #676	Rhode Island ID # 158
		Virginia #460167

[1] Analyses were performed according to our laboratory's NELAP-approved quality assurance program and any applicable state or agency requirements. The test results meet requirements of the current NELAP/TNI standards or state or agency requirements, where applicable, except as noted in the case narrative. Since not all analyte/method/matrix combinations are offered for state/NELAC accreditation, this report may contain results which are not accredited. For a specific list of accredited analytes, contact the laboratory or go to https://www.alsglobal.com/locations/americas/north-america/usa/new-york/rochester-environmental

Acronyms

ASTM	American Society for Testing and Materials
A2LA	American Association for Laboratory Accreditation
CARB	California Air Resources Board
CAS Number	Chemical Abstract Service registry Number
CFC	Chlorofluorocarbon
CFU	Colony-Forming Unit
DEC	Department of Environmental Conservation
DEQ	Department of Environmental Quality
DHS	Department of Health Services
DOE	Department of Ecology
DOH	Department of Health
EPA	U. S. Environmental Protection Agency
ELAP	Environmental Laboratory Accreditation Program
GC	Gas Chromatography
GC/MS	Gas Chromatography/Mass Spectrometry
LUFT	Leaking Underground Fuel Tank
M	Modified
MCL	Maximum Contaminant Level is the highest permissible concentration of a substance allowed in drinking water as established by the USEPA.
MDL	Method Detection Limit
MPN	Most Probable Number
MRL	Method Reporting Limit
NA	Not Applicable
NC	Not Calculated
NCASI	National Council of the Paper Industry for Air and Stream Improvement
ND	Not Detected
NIOSH	National Institute for Occupational Safety and Health
PQL	Practical Quantitation Limit
RCRA	Resource Conservation and Recovery Act
SIM	Selected Ion Monitoring
TPH	Total Petroleum Hydrocarbons
tr	Trace level is the concentration of an analyte that is less than the PQL but greater than or equal to the MDL.

Client: ALS Environmental - US
Project: UR115: 2309395
Service Request: R1803542

Sample Name: 2309395 004
Lab Code: R1803542-001
Sample Matrix: Water
Date Collected: 04/17/18
Date Received: 04/19/18

Analysis Method	Extracted/Digested By	Analyzed By
680	MPEDRO	JMISIUREWICZ

Sample Name: 2309395 006
Lab Code: R1803542-002
Sample Matrix: Water
Date Collected: 04/17/18
Date Received: 04/19/18

Analysis Method	Extracted/Digested By	Analyzed By
680	MPEDRO	JMISIUREWICZ

Sample Name: 2309395 007
Lab Code: R1803542-003
Sample Matrix: Water
Date Collected: 04/17/18
Date Received: 04/19/18

Analysis Method	Extracted/Digested By	Analyzed By
680	MPEDRO	JMISIUREWICZ

Sample Name: 2309395 008
Lab Code: R1803542-004
Sample Matrix: Water
Date Collected: 04/17/18
Date Received: 04/19/18

Analysis Method	Extracted/Digested By	Analyzed By
680	MPEDRO	JMISIUREWICZ

Sample Name: 2309395 009
Lab Code: R1803542-005
Sample Matrix: Water
Date Collected: 04/17/18
Date Received: 04/19/18

Analysis Method	Extracted/Digested By	Analyzed By
680	MPEDRO	JMISIUREWICZ

Client: ALS Environmental - US
Project: UR115: 2309395
Service Request: R1803542

Sample Name: 2309395 011
Lab Code: R1803542-006
Sample Matrix: Water
Date Collected: 04/17/18
Date Received: 04/19/18

Analysis Method	Extracted/Digested By	Analyzed By
680	MPEDRO	JMISIUREWICZ

Sample Name: 2309395 012
Lab Code: R1803542-007
Sample Matrix: Water
Date Collected: 04/17/18
Date Received: 04/19/18

Analysis Method	Extracted/Digested By	Analyzed By
680	MPEDRO	JMISIUREWICZ

Sample Name: 2309395 013
Lab Code: R1803542-008
Sample Matrix: Water
Date Collected: 04/17/18
Date Received: 04/19/18

Analysis Method	Extracted/Digested By	Analyzed By
680	MPEDRO	JMISIUREWICZ

Sample Name: 2309395 014
Lab Code: R1803542-009
Sample Matrix: Water
Date Collected: 04/17/18
Date Received: 04/19/18

Analysis Method	Extracted/Digested By	Analyzed By
680	MPEDRO	JMISIUREWICZ

Sample Name: 2309395 016
Lab Code: R1803542-010
Sample Matrix: Water
Date Collected: 04/17/18
Date Received: 04/19/18

Analysis Method	Extracted/Digested By	Analyzed By
680	MPEDRO	JMISIUREWICZ

Client: ALS Environmental - US
Project: UR115: 2309395
Service Request: R1803542

Sample Name: 2309395 017
Lab Code: R1803542-011
Sample Matrix: Water
Date Collected: 04/17/18
Date Received: 04/19/18

Analysis Method	Extracted/Digested By	Analyzed By
680	MPEDRO	JMISIUREWICZ

Sample Name: 2309395 018
Lab Code: R1803542-012
Sample Matrix: Water
Date Collected: 04/17/18
Date Received: 04/19/18

Analysis Method	Extracted/Digested By	Analyzed By
680	MPEDRO	JMISIUREWICZ

Sample Name: 2309395 020
Lab Code: R1803542-013
Sample Matrix: Water
Date Collected: 04/17/18
Date Received: 04/19/18

Analysis Method	Extracted/Digested By	Analyzed By
680	MPEDRO	JMISIUREWICZ

Sample Name: 2309395 021
Lab Code: R1803542-014
Sample Matrix: Water
Date Collected: 04/17/18
Date Received: 04/19/18

Analysis Method	Extracted/Digested By	Analyzed By
680	MPEDRO	JMISIUREWICZ

Sample Name: 2309395 023
Lab Code: R1803542-015
Sample Matrix: Water
Date Collected: 04/17/18
Date Received: 04/19/18

Analysis Method	Extracted/Digested By	Analyzed By
680	MPEDRO	JMISIUREWICZ

INORGANIC PREPARATION METHODS

The preparation methods associated with this report are found in these tables unless discussed in the case narrative.

Water/Liquid Matrix

Analytical Method	Preparation Method
200.7	200.2
200.8	200.2
6010C	3005A/3010A
6020A	ILM05.3
9014 Cyanide Reactivity	SW846 Ch7, 7.3.4.2
9034 Sulfide Reactivity	SW846 Ch7, 7.3.4.2
9034 Sulfide Acid Soluble	9030B
9056A Bomb (Halogens)	5050A
9066 Manual Distillation	9065
SM 4500-CN-E Residual Cyanide	SM 4500-CN-G
SM 4500-CN-E WAD Cyanide	SM 4500-CN-I

Solid/Soil/Non-Aqueous Matrix

Analytical Method	Preparation Method
6010C	3050B
6020A	3050B
6010C TCLP (1311) extract	3005A/3010A
6010 SPLP (1312) extract	3005A/3010A
7196A	3060A
7199	3060A
9056A Halogens/Halides	5050
300.0 Anions/ 350.1/ 353.2/ SM 2320B/ SM 5210B/ 9056A Anions	DI extraction

For analytical methods not listed, the preparation method is the same as the analytical method reference.

Sample Results

ALS Environmental Rochester Laboratory
1565 Jefferson Road, Building 300, Suite 360, Rochester, NY 14623
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Semivolatile Organic Compounds by GC/MS

ALS Environmental Rochester Laboratory
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Phone (585) 288-5380 Fax (585) 288-8475
www.alsglobal.com

Client:	ALS Environmental - US	**Service Request:**	R1803542
Project:	UR115: 2309395	**Date Collected:**	04/17/18 08:42
Sample Matrix:	Water	**Date Received:**	04/19/18 09:00
Sample Name:	2309395 004	**Units:**	ug/L
Lab Code:	R1803542-001	**Basis:**	NA

PCB Homologs in Water and Soil/Sediment by Gas Chromatography/Mass Spectrometry

Analysis Method: 680
Prep Method: EPA 3510C

Analyte Name	Result		MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Decachlorobiphenyl	ND	U	0.024	0.012	1	04/26/18 23:08	4/20/18	
Dichlorobiphenyls, Total	**0.0042**	**J**	0.0047	0.0016	1	04/26/18 23:08	4/20/18	
Heptachlorobiphenyls, Total	ND	U	0.014	0.0090	1	04/26/18 23:08	4/20/18	
Hexachlorobiphenyls, Total	ND	U	0.0094	0.0047	1	04/26/18 23:08	4/20/18	
Monochlorobiphenyls, Total	ND	U	0.0047	0.00059	1	04/26/18 23:08	4/20/18	
Nonachlorobiphenyls, Total	ND	U	0.019	0.0088	1	04/26/18 23:08	4/20/18	
Octachlorobiphenyls, Total	ND	U	0.014	0.0099	1	04/26/18 23:08	4/20/18	
Pentachlorobiphenyls, Total	ND	U	0.0094	0.0043	1	04/26/18 23:08	4/20/18	
Tetrachlorobiphenyls, Total	ND	U	0.0094	0.0023	1	04/26/18 23:08	4/20/18	
Trichlorobiphenyls, Total	ND	U	0.0047	0.0022	1	04/26/18 23:08	4/20/18	
Total PCBs as Sum of Homologs	ND	U	0.024	-	1	04/26/18 23:08	4/20/18	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
gamma-BHC (Lindane)	80	58 - 125	04/26/18 23:08	
4,4'-DDT	86	37 - 166	04/26/18 23:08	

Client:	ALS Environmental - US	**Service Request:**	R1803542
Project:	UR115: 2309395	**Date Collected:**	04/17/18 09:24
Sample Matrix:	Water	**Date Received:**	04/19/18 09:00
Sample Name:	2309395 006	**Units:**	ug/L
Lab Code:	R1803542-002	**Basis:**	NA

PCB Homologs in Water and Soil/Sediment by Gas Chromatography/Mass Spectrometry

Analysis Method: 680
Prep Method: EPA 3510C

Analyte Name	Result		MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Decachlorobiphenyl	ND	U	0.024	0.012	1	04/30/18 11:06	4/20/18	
Dichlorobiphenyls, Total	**0.0033**	**J**	0.0047	0.0016	1	04/30/18 11:06	4/20/18	
Heptachlorobiphenyls, Total	ND	U	0.014	0.0090	1	04/30/18 11:06	4/20/18	
Hexachlorobiphenyls, Total	ND	U	0.0094	0.0047	1	04/30/18 11:06	4/20/18	
Monochlorobiphenyls, Total	ND	U	0.0047	0.00059	1	04/30/18 11:06	4/20/18	
Nonachlorobiphenyls, Total	ND	U	0.019	0.0088	1	04/30/18 11:06	4/20/18	
Octachlorobiphenyls, Total	ND	U	0.014	0.0099	1	04/30/18 11:06	4/20/18	
Pentachlorobiphenyls, Total	ND	U	0.0094	0.0043	1	04/30/18 11:06	4/20/18	
Tetrachlorobiphenyls, Total	ND	U	0.0094	0.0023	1	04/30/18 11:06	4/20/18	
Trichlorobiphenyls, Total	ND	U	0.0047	0.0022	1	04/30/18 11:06	4/20/18	
Total PCBs as Sum of Homologs	ND	U	0.024	-	1	04/30/18 11:06	4/20/18	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
gamma-BHC (Lindane)	63	58 - 125	04/30/18 11:06	
4,4'-DDT	56	37 - 166	04/30/18 11:06	

Client:	ALS Environmental - US	**Service Request:**	R1803542
Project:	UR115: 2309395	**Date Collected:**	04/17/18 09:40
Sample Matrix:	Water	**Date Received:**	04/19/18 09:00
Sample Name:	2309395 007	**Units:**	ug/L
Lab Code:	R1803542-003	**Basis:**	NA

PCB Homologs in Water and Soil/Sediment by Gas Chromatography/Mass Spectrometry

Analysis Method: 680
Prep Method: EPA 3510C

Analyte Name	Result		MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Decachlorobiphenyl	ND	U	0.024	0.012	1	04/27/18 00:06	4/20/18	
Dichlorobiphenyls, Total	**0.0042**	**J**	0.0047	0.0016	1	04/27/18 00:06	4/20/18	
Heptachlorobiphenyls, Total	ND	U	0.014	0.0090	1	04/27/18 00:06	4/20/18	
Hexachlorobiphenyls, Total	ND	U	0.0094	0.0047	1	04/27/18 00:06	4/20/18	
Monochlorobiphenyls, Total	ND	U	0.0047	0.00059	1	04/27/18 00:06	4/20/18	
Nonachlorobiphenyls, Total	ND	U	0.019	0.0088	1	04/27/18 00:06	4/20/18	
Octachlorobiphenyls, Total	ND	U	0.014	0.0099	1	04/27/18 00:06	4/20/18	
Pentachlorobiphenyls, Total	ND	U	0.0094	0.0043	1	04/27/18 00:06	4/20/18	
Tetrachlorobiphenyls, Total	ND	U	0.0094	0.0023	1	04/27/18 00:06	4/20/18	
Trichlorobiphenyls, Total	ND	U	0.0047	0.0022	1	04/27/18 00:06	4/20/18	
Total PCBs as Sum of Homologs	ND	U	0.024	-	1	04/27/18 00:06	4/20/18	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
gamma-BHC (Lindane)	73	58 - 125	04/27/18 00:06	
4,4'-DDT	77	37 - 166	04/27/18 00:06	

Client:	ALS Environmental - US	**Service Request:**	R1803542
Project:	UR115: 2309395	**Date Collected:**	04/17/18 08:04
Sample Matrix:	Water	**Date Received:**	04/19/18 09:00
Sample Name:	2309395 008	**Units:**	ug/L
Lab Code:	R1803542-004	**Basis:**	NA

PCB Homologs in Water and Soil/Sediment by Gas Chromatography/Mass Spectrometry

Analysis Method: 680
Prep Method: EPA 3510C

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Decachlorobiphenyl	ND U	0.024	0.012	1	04/27/18 00:35	4/20/18	
Dichlorobiphenyls, Total	**0.0066**	0.0047	0.0016	1	04/27/18 00:35	4/20/18	
Heptachlorobiphenyls, Total	ND U	0.014	0.0090	1	04/27/18 00:35	4/20/18	
Hexachlorobiphenyls, Total	ND U	0.0094	0.0047	1	04/27/18 00:35	4/20/18	
Monochlorobiphenyls, Total	ND U	0.0047	0.00059	1	04/27/18 00:35	4/20/18	
Nonachlorobiphenyls, Total	ND U	0.019	0.0088	1	04/27/18 00:35	4/20/18	
Octachlorobiphenyls, Total	ND U	0.014	0.0099	1	04/27/18 00:35	4/20/18	
Pentachlorobiphenyls, Total	ND U	0.0094	0.0043	1	04/27/18 00:35	4/20/18	
Tetrachlorobiphenyls, Total	ND U	0.0094	0.0023	1	04/27/18 00:35	4/20/18	
Trichlorobiphenyls, Total	ND U	0.0047	0.0022	1	04/27/18 00:35	4/20/18	
Total PCBs as Sum of Homologs	ND U	0.024	-	1	04/27/18 00:35	4/20/18	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
gamma-BHC (Lindane)	70	58 - 125	04/27/18 00:35	
4,4'-DDT	61	37 - 166	04/27/18 00:35	

Client:	ALS Environmental - US	**Service Request:**	R1803542
Project:	UR115: 2309395	**Date Collected:**	04/17/18 08:37
Sample Matrix:	Water	**Date Received:**	04/19/18 09:00
Sample Name:	2309395 009	**Units:**	ug/L
Lab Code:	R1803542-005	**Basis:**	NA

PCB Homologs in Water and Soil/Sediment by Gas Chromatography/Mass Spectrometry

Analysis Method: 680
Prep Method: EPA 3510C

Analyte Name	Result		MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Decachlorobiphenyl	ND	U	0.024	0.012	1	04/27/18 01:03	4/20/18	
Dichlorobiphenyls, Total	**0.0038**	**J**	0.0047	0.0016	1	04/27/18 01:03	4/20/18	
Heptachlorobiphenyls, Total	ND	U	0.014	0.0090	1	04/27/18 01:03	4/20/18	
Hexachlorobiphenyls, Total	ND	U	0.0094	0.0047	1	04/27/18 01:03	4/20/18	
Monochlorobiphenyls, Total	ND	U	0.0047	0.00059	1	04/27/18 01:03	4/20/18	
Nonachlorobiphenyls, Total	ND	U	0.019	0.0088	1	04/27/18 01:03	4/20/18	
Octachlorobiphenyls, Total	ND	U	0.014	0.0099	1	04/27/18 01:03	4/20/18	
Pentachlorobiphenyls, Total	ND	U	0.0094	0.0043	1	04/27/18 01:03	4/20/18	
Tetrachlorobiphenyls, Total	ND	U	0.0094	0.0023	1	04/27/18 01:03	4/20/18	
Trichlorobiphenyls, Total	ND	U	0.0047	0.0022	1	04/27/18 01:03	4/20/18	
Total PCBs as Sum of Homologs	ND	U	0.024	-	1	04/27/18 01:03	4/20/18	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
gamma-BHC (Lindane)	62	58 - 125	04/27/18 01:03	
4,4'-DDT	57	37 - 166	04/27/18 01:03	

Client:	ALS Environmental - US	**Service Request:**	R1803542
Project:	UR115: 2309395	**Date Collected:**	04/17/18 22:00
Sample Matrix:	Water	**Date Received:**	04/19/18 09:00
Sample Name:	2309395 011	**Units:**	ug/L
Lab Code:	R1803542-006	**Basis:**	NA

PCB Homologs in Water and Soil/Sediment by Gas Chromatography/Mass Spectrometry

Analysis Method: 680
Prep Method: EPA 3510C

Analyte Name	Result		MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Decachlorobiphenyl	ND	U	0.024	0.012	1	04/30/18 11:35	4/20/18	
Dichlorobiphenyls, Total	**0.0028**	**J**	0.0047	0.0016	1	04/30/18 11:35	4/20/18	
Heptachlorobiphenyls, Total	ND	U	0.014	0.0090	1	04/30/18 11:35	4/20/18	
Hexachlorobiphenyls, Total	ND	U	0.0094	0.0047	1	04/30/18 11:35	4/20/18	
Monochlorobiphenyls, Total	ND	U	0.0047	0.00059	1	04/30/18 11:35	4/20/18	
Nonachlorobiphenyls, Total	ND	U	0.019	0.0088	1	04/30/18 11:35	4/20/18	
Octachlorobiphenyls, Total	ND	U	0.014	0.0099	1	04/30/18 11:35	4/20/18	
Pentachlorobiphenyls, Total	ND	U	0.0094	0.0043	1	04/30/18 11:35	4/20/18	
Tetrachlorobiphenyls, Total	ND	U	0.0094	0.0023	1	04/30/18 11:35	4/20/18	
Trichlorobiphenyls, Total	ND	U	0.0047	0.0022	1	04/30/18 11:35	4/20/18	
Total PCBs as Sum of Homologs	ND	U	0.024	-	1	04/30/18 11:35	4/20/18	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
gamma-BHC (Lindane)	77	58 - 125	04/30/18 11:35	
4,4'-DDT	66	37 - 166	04/30/18 11:35	

Client:	ALS Environmental - US	**Service Request:**	R1803542
Project:	UR115: 2309395	**Date Collected:**	04/17/18 09:12
Sample Matrix:	Water	**Date Received:**	04/19/18 09:00
Sample Name:	2309395 012	**Units:**	ug/L
Lab Code:	R1803542-007	**Basis:**	NA

PCB Homologs in Water and Soil/Sediment by Gas Chromatography/Mass Spectrometry

Analysis Method: 680
Prep Method: EPA 3510C

Analyte Name	Result		MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Decachlorobiphenyl	ND	U	0.024	0.012	1	04/27/18 02:01	4/20/18	
Dichlorobiphenyls, Total	**0.0028**	**J**	0.0047	0.0016	1	04/27/18 02:01	4/20/18	
Heptachlorobiphenyls, Total	ND	U	0.014	0.0090	1	04/27/18 02:01	4/20/18	
Hexachlorobiphenyls, Total	ND	U	0.0094	0.0047	1	04/27/18 02:01	4/20/18	
Monochlorobiphenyls, Total	ND	U	0.0047	0.00059	1	04/27/18 02:01	4/20/18	
Nonachlorobiphenyls, Total	ND	U	0.019	0.0088	1	04/27/18 02:01	4/20/18	
Octachlorobiphenyls, Total	ND	U	0.014	0.0099	1	04/27/18 02:01	4/20/18	
Pentachlorobiphenyls, Total	ND	U	0.0094	0.0043	1	04/27/18 02:01	4/20/18	
Tetrachlorobiphenyls, Total	ND	U	0.0094	0.0023	1	04/27/18 02:01	4/20/18	
Trichlorobiphenyls, Total	ND	U	0.0047	0.0022	1	04/27/18 02:01	4/20/18	
Total PCBs as Sum of Homologs	ND	U	0.024	-	1	04/27/18 02:01	4/20/18	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
gamma-BHC (Lindane)	59	58 - 125	04/27/18 02:01	
4,4'-DDT	48	37 - 166	04/27/18 02:01	

Client:	ALS Environmental - US	**Service Request:**	R1803542
Project:	UR115: 2309395	**Date Collected:**	04/17/18 11:40
Sample Matrix:	Water	**Date Received:**	04/19/18 09:00
Sample Name:	2309395 013	**Units:**	ug/L
Lab Code:	R1803542-008	**Basis:**	NA

PCB Homologs in Water and Soil/Sediment by Gas Chromatography/Mass Spectrometry

Analysis Method: 680
Prep Method: EPA 3510C

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Decachlorobiphenyl	ND U	0.024	0.012	1	04/27/18 02:30	4/20/18	
Dichlorobiphenyls, Total	**0.0047**	0.0047	0.0016	1	04/27/18 02:30	4/20/18	
Heptachlorobiphenyls, Total	ND U	0.014	0.0090	1	04/27/18 02:30	4/20/18	
Hexachlorobiphenyls, Total	ND U	0.0094	0.0047	1	04/27/18 02:30	4/20/18	
Monochlorobiphenyls, Total	ND U	0.0047	0.00059	1	04/27/18 02:30	4/20/18	
Nonachlorobiphenyls, Total	ND U	0.019	0.0088	1	04/27/18 02:30	4/20/18	
Octachlorobiphenyls, Total	ND U	0.014	0.0099	1	04/27/18 02:30	4/20/18	
Pentachlorobiphenyls, Total	ND U	0.0094	0.0043	1	04/27/18 02:30	4/20/18	
Tetrachlorobiphenyls, Total	ND U	0.0094	0.0023	1	04/27/18 02:30	4/20/18	
Trichlorobiphenyls, Total	ND U	0.0047	0.0022	1	04/27/18 02:30	4/20/18	
Total PCBs as Sum of Homologs	ND U	0.024	-	1	04/27/18 02:30	4/20/18	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
gamma-BHC (Lindane)	58	58 - 125	04/27/18 02:30	
4,4'-DDT	50	37 - 166	04/27/18 02:30	

Client:	ALS Environmental - US	**Service Request:**	R1803542
Project:	UR115: 2309395	**Date Collected:**	04/17/18 11:20
Sample Matrix:	Water	**Date Received:**	04/19/18 09:00
Sample Name:	2309395 014	**Units:**	ug/L
Lab Code:	R1803542-009	**Basis:**	NA

PCB Homologs in Water and Soil/Sediment by Gas Chromatography/Mass Spectrometry

Analysis Method: 680
Prep Method: EPA 3510C

Analyte Name	Result		MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Decachlorobiphenyl	ND	U	0.024	0.012	1	04/27/18 02:58	4/20/18	
Dichlorobiphenyls, Total	**0.0042**	**J**	0.0047	0.0016	1	04/27/18 02:58	4/20/18	
Heptachlorobiphenyls, Total	ND	U	0.014	0.0090	1	04/27/18 02:58	4/20/18	
Hexachlorobiphenyls, Total	ND	U	0.0094	0.0047	1	04/27/18 02:58	4/20/18	
Monochlorobiphenyls, Total	ND	U	0.0047	0.00059	1	04/27/18 02:58	4/20/18	
Nonachlorobiphenyls, Total	ND	U	0.019	0.0088	1	04/27/18 02:58	4/20/18	
Octachlorobiphenyls, Total	ND	U	0.014	0.0099	1	04/27/18 02:58	4/20/18	
Pentachlorobiphenyls, Total	ND	U	0.0094	0.0043	1	04/27/18 02:58	4/20/18	
Tetrachlorobiphenyls, Total	ND	U	0.0094	0.0023	1	04/27/18 02:58	4/20/18	
Trichlorobiphenyls, Total	ND	U	0.0047	0.0022	1	04/27/18 02:58	4/20/18	
Total PCBs as Sum of Homologs	ND	U	0.024	-	1	04/27/18 02:58	4/20/18	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
gamma-BHC (Lindane)	61	58 - 125	04/27/18 02:58	
4,4'-DDT	38	37 - 166	04/27/18 02:58	

Client:	ALS Environmental - US	**Service Request:**	R1803542
Project:	UR115: 2309395	**Date Collected:**	04/17/18 11:44
Sample Matrix:	Water	**Date Received:**	04/19/18 09:00
Sample Name:	2309395 016	**Units:**	ug/L
Lab Code:	R1803542-010	**Basis:**	NA

PCB Homologs in Water and Soil/Sediment by Gas Chromatography/Mass Spectrometry

Analysis Method: 680
Prep Method: EPA 3510C

Analyte Name	Result		MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Decachlorobiphenyl	ND	U	0.024	0.012	1	04/27/18 03:27	4/20/18	
Dichlorobiphenyls, Total	**0.0019**	**J**	0.0047	0.0016	1	04/27/18 03:27	4/20/18	
Heptachlorobiphenyls, Total	ND	U	0.014	0.0090	1	04/27/18 03:27	4/20/18	
Hexachlorobiphenyls, Total	ND	U	0.0094	0.0047	1	04/27/18 03:27	4/20/18	
Monochlorobiphenyls, Total	ND	U	0.0047	0.00059	1	04/27/18 03:27	4/20/18	
Nonachlorobiphenyls, Total	ND	U	0.019	0.0088	1	04/27/18 03:27	4/20/18	
Octachlorobiphenyls, Total	ND	U	0.014	0.0099	1	04/27/18 03:27	4/20/18	
Pentachlorobiphenyls, Total	ND	U	0.0094	0.0043	1	04/27/18 03:27	4/20/18	
Tetrachlorobiphenyls, Total	ND	U	0.0094	0.0023	1	04/27/18 03:27	4/20/18	
Trichlorobiphenyls, Total	ND	U	0.0047	0.0022	1	04/27/18 03:27	4/20/18	
Total PCBs as Sum of Homologs	ND	U	0.024	-	1	04/27/18 03:27	4/20/18	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
gamma-BHC (Lindane)	58	58 - 125	04/27/18 03:27	
4,4'-DDT	47	37 - 166	04/27/18 03:27	

Client:	ALS Environmental - US	**Service Request:**	R1803542
Project:	UR115: 2309395	**Date Collected:**	04/17/18 10:51
Sample Matrix:	Water	**Date Received:**	04/19/18 09:00
Sample Name:	2309395 017	**Units:**	ug/L
Lab Code:	R1803542-011	**Basis:**	NA

PCB Homologs in Water and Soil/Sediment by Gas Chromatography/Mass Spectrometry

Analysis Method: 680
Prep Method: EPA 3510C

Analyte Name	Result		MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Decachlorobiphenyl	ND	U	0.024	0.012	1	04/27/18 03:56	4/20/18	
Dichlorobiphenyls, Total	**0.0042**	**J**	0.0047	0.0016	1	04/27/18 03:56	4/20/18	
Heptachlorobiphenyls, Total	ND	U	0.014	0.0090	1	04/27/18 03:56	4/20/18	
Hexachlorobiphenyls, Total	ND	U	0.0094	0.0047	1	04/27/18 03:56	4/20/18	
Monochlorobiphenyls, Total	ND	U	0.0047	0.00059	1	04/27/18 03:56	4/20/18	
Nonachlorobiphenyls, Total	ND	U	0.019	0.0088	1	04/27/18 03:56	4/20/18	
Octachlorobiphenyls, Total	ND	U	0.014	0.0099	1	04/27/18 03:56	4/20/18	
Pentachlorobiphenyls, Total	ND	U	0.0094	0.0043	1	04/27/18 03:56	4/20/18	
Tetrachlorobiphenyls, Total	ND	U	0.0094	0.0023	1	04/27/18 03:56	4/20/18	
Trichlorobiphenyls, Total	ND	U	0.0047	0.0022	1	04/27/18 03:56	4/20/18	
Total PCBs as Sum of Homologs	ND	U	0.024	-	1	04/27/18 03:56	4/20/18	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
gamma-BHC (Lindane)	64	58 - 125	04/27/18 03:56	
4,4'-DDT	66	37 - 166	04/27/18 03:56	

Client:	ALS Environmental - US	**Service Request:**	R1803542
Project:	UR115: 2309395	**Date Collected:**	04/17/18 11:04
Sample Matrix:	Water	**Date Received:**	04/19/18 09:00
Sample Name:	2309395 018	**Units:**	ug/L
Lab Code:	R1803542-012	**Basis:**	NA

PCB Homologs in Water and Soil/Sediment by Gas Chromatography/Mass Spectrometry

Analysis Method: 680
Prep Method: EPA 3510C

Analyte Name	Result		MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Decachlorobiphenyl	ND	U	0.024	0.012	1	04/27/18 04:25	4/20/18	
Dichlorobiphenyls, Total	**0.0038**	**J**	0.0047	0.0016	1	04/27/18 04:25	4/20/18	
Heptachlorobiphenyls, Total	ND	U	0.014	0.0090	1	04/27/18 04:25	4/20/18	
Hexachlorobiphenyls, Total	ND	U	0.0094	0.0047	1	04/27/18 04:25	4/20/18	
Monochlorobiphenyls, Total	ND	U	0.0047	0.00059	1	04/27/18 04:25	4/20/18	
Nonachlorobiphenyls, Total	ND	U	0.019	0.0088	1	04/27/18 04:25	4/20/18	
Octachlorobiphenyls, Total	ND	U	0.014	0.0099	1	04/27/18 04:25	4/20/18	
Pentachlorobiphenyls, Total	ND	U	0.0094	0.0043	1	04/27/18 04:25	4/20/18	
Tetrachlorobiphenyls, Total	ND	U	0.0094	0.0023	1	04/27/18 04:25	4/20/18	
Trichlorobiphenyls, Total	ND	U	0.0047	0.0022	1	04/27/18 04:25	4/20/18	
Total PCBs as Sum of Homologs	ND	U	0.024	-	1	04/27/18 04:25	4/20/18	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
gamma-BHC (Lindane)	63	58 - 125	04/27/18 04:25	
4,4'-DDT	51	37 - 166	04/27/18 04:25	

Client:	ALS Environmental - US	**Service Request:**	R1803542
Project:	UR115: 2309395	**Date Collected:**	04/17/18 10:30
Sample Matrix:	Water	**Date Received:**	04/19/18 09:00
Sample Name:	2309395 020	**Units:**	ug/L
Lab Code:	R1803542-013	**Basis:**	NA

PCB Homologs in Water and Soil/Sediment by Gas Chromatography/Mass Spectrometry

Analysis Method: 680
Prep Method: EPA 3510C

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Decachlorobiphenyl	ND U	0.024	0.012	1	04/27/18 04:53	4/20/18	
Dichlorobiphenyls, Total	**0.0047**	0.0047	0.0016	1	04/27/18 04:53	4/20/18	
Heptachlorobiphenyls, Total	ND U	0.014	0.0090	1	04/27/18 04:53	4/20/18	
Hexachlorobiphenyls, Total	ND U	0.0094	0.0047	1	04/27/18 04:53	4/20/18	
Monochlorobiphenyls, Total	ND U	0.0047	0.00059	1	04/27/18 04:53	4/20/18	
Nonachlorobiphenyls, Total	ND U	0.019	0.0088	1	04/27/18 04:53	4/20/18	
Octachlorobiphenyls, Total	ND U	0.014	0.0099	1	04/27/18 04:53	4/20/18	
Pentachlorobiphenyls, Total	ND U	0.0094	0.0043	1	04/27/18 04:53	4/20/18	
Tetrachlorobiphenyls, Total	ND U	0.0094	0.0023	1	04/27/18 04:53	4/20/18	
Trichlorobiphenyls, Total	ND U	0.0047	0.0022	1	04/27/18 04:53	4/20/18	
Total PCBs as Sum of Homologs	ND U	0.024	-	1	04/27/18 04:53	4/20/18	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
gamma-BHC (Lindane)	63	58 - 125	04/27/18 04:53	
4,4'-DDT	41	37 - 166	04/27/18 04:53	

Client:	ALS Environmental - US	**Service Request:**	R1803542
Project:	UR115: 2309395	**Date Collected:**	04/17/18 10:02
Sample Matrix:	Water	**Date Received:**	04/19/18 09:00
Sample Name:	2309395 021	**Units:**	ug/L
Lab Code:	R1803542-014	**Basis:**	NA

PCB Homologs in Water and Soil/Sediment by Gas Chromatography/Mass Spectrometry

Analysis Method: 680
Prep Method: EPA 3510C

Analyte Name	Result		MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Decachlorobiphenyl	ND	U	0.024	0.012	1	04/27/18 05:22	4/20/18	
Dichlorobiphenyls, Total	**0.0038**	**J**	0.0047	0.0016	1	04/27/18 05:22	4/20/18	
Heptachlorobiphenyls, Total	ND	U	0.014	0.0090	1	04/27/18 05:22	4/20/18	
Hexachlorobiphenyls, Total	ND	U	0.0094	0.0047	1	04/27/18 05:22	4/20/18	
Monochlorobiphenyls, Total	ND	U	0.0047	0.00059	1	04/27/18 05:22	4/20/18	
Nonachlorobiphenyls, Total	ND	U	0.019	0.0088	1	04/27/18 05:22	4/20/18	
Octachlorobiphenyls, Total	ND	U	0.014	0.0099	1	04/27/18 05:22	4/20/18	
Pentachlorobiphenyls, Total	ND	U	0.0094	0.0043	1	04/27/18 05:22	4/20/18	
Tetrachlorobiphenyls, Total	ND	U	0.0094	0.0023	1	04/27/18 05:22	4/20/18	
Trichlorobiphenyls, Total	ND	U	0.0047	0.0022	1	04/27/18 05:22	4/20/18	
Total PCBs as Sum of Homologs	ND	U	0.024	-	1	04/27/18 05:22	4/20/18	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
gamma-BHC (Lindane)	70	58 - 125	04/27/18 05:22	
4,4'-DDT	43	37 - 166	04/27/18 05:22	

Client:	ALS Environmental - US	**Service Request:**	R1803542
Project:	UR115: 2309395	**Date Collected:**	04/17/18 10:16
Sample Matrix:	Water	**Date Received:**	04/19/18 09:00
Sample Name:	2309395 023	**Units:**	ug/L
Lab Code:	R1803542-015	**Basis:**	NA

PCB Homologs in Water and Soil/Sediment by Gas Chromatography/Mass Spectrometry

Analysis Method: 680
Prep Method: EPA 3510C

Analyte Name	Result		MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Decachlorobiphenyl	ND	U	0.024	0.012	1	04/27/18 05:51	4/20/18	
Dichlorobiphenyls, Total	**0.0033**	**J**	0.0047	0.0016	1	04/27/18 05:51	4/20/18	
Heptachlorobiphenyls, Total	ND	U	0.014	0.0090	1	04/27/18 05:51	4/20/18	
Hexachlorobiphenyls, Total	ND	U	0.0094	0.0047	1	04/27/18 05:51	4/20/18	
Monochlorobiphenyls, Total	ND	U	0.0047	0.00059	1	04/27/18 05:51	4/20/18	
Nonachlorobiphenyls, Total	ND	U	0.019	0.0088	1	04/27/18 05:51	4/20/18	
Octachlorobiphenyls, Total	ND	U	0.014	0.0099	1	04/27/18 05:51	4/20/18	
Pentachlorobiphenyls, Total	ND	U	0.0094	0.0043	1	04/27/18 05:51	4/20/18	
Tetrachlorobiphenyls, Total	ND	U	0.0094	0.0023	1	04/27/18 05:51	4/20/18	
Trichlorobiphenyls, Total	ND	U	0.0047	0.0022	1	04/27/18 05:51	4/20/18	
Total PCBs as Sum of Homologs	ND	U	0.024	-	1	04/27/18 05:51	4/20/18	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
gamma-BHC (Lindane)	59	58 - 125	04/27/18 05:51	
4,4'-DDT	46	37 - 166	04/27/18 05:51	

QC Summary Forms

ALS Environmental Rochester Laboratory
1565 Jefferson Road, Building 300, Suite 360, Rochester, NY 14623
Phone (585) 288-5380 Fax (585) 288-8475
www.alsglobal.com

Semivolatile Organic Compounds by GC/MS

ALS Environmental Rochester Laboratory
1565 Jefferson Road, Building 300, Suite 360, Rochester, NY 14623
Phone (585) 288-5380 Fax (585) 288-8475
www.alsglobal.com

Client: ALS Environmental - US **Service Request:** R1803542

Project: UR115: 2309395

Sample Matrix: Water

SURROGATE RECOVERY SUMMARY

PCB Homologs in Water and Soil/Sediment by Gas Chromatography/Mass Spectrometry

Analysis Method: 680

Extraction Method: EPA 3510C

Sample Name	Lab Code	4,4'-DDT 37 - 166	gamma-BHC (Lindane) 58 - 125
2309395 004	R1803542-001	86	80
2309395 006	R1803542-002	56	63
2309395 007	R1803542-003	77	73
2309395 008	R1803542-004	61	70
2309395 009	R1803542-005	57	62
2309395 011	R1803542-006	66	77
2309395 012	R1803542-007	48	59
2309395 013	R1803542-008	50	58
2309395 014	R1803542-009	38	61
2309395 016	R1803542-010	47	58
2309395 017	R1803542-011	66	64
2309395 018	R1803542-012	51	63
2309395 020	R1803542-013	41	63
2309395 021	R1803542-014	43	70
2309395 023	R1803542-015	46	59
Method Blank	RQ1803678-01	112	85
Lab Control Sample	RQ1803678-02	96	75
Duplicate Lab Control Sample	RQ1803678-03	103	82

Client:	ALS Environmental - US	**Service Request:**	R1803542
Project:	UR115: 2309395	**Date Collected:**	NA
Sample Matrix:	Water	**Date Received:**	NA
Sample Name:	Method Blank	**Units:**	ug/L
Lab Code:	RQ1803678-01	**Basis:**	NA

PCB Homologs in Water and Soil/Sediment by Gas Chromatography/Mass Spectrometry

Analysis Method: 680
Prep Method: EPA 3510C

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Decachlorobiphenyl	ND U	0.025	0.012	1	04/30/18 09:22	4/20/18	
Dichlorobiphenyls, Total	ND U	0.0050	0.0016	1	04/30/18 09:22	4/20/18	
Heptachlorobiphenyls, Total	ND U	0.015	0.0090	1	04/30/18 09:22	4/20/18	
Hexachlorobiphenyls, Total	ND U	0.010	0.0047	1	04/30/18 09:22	4/20/18	
Monochlorobiphenyls, Total	ND U	0.0050	0.00059	1	04/30/18 09:22	4/20/18	
Nonachlorobiphenyls, Total	ND U	0.020	0.0088	1	04/30/18 09:22	4/20/18	
Octachlorobiphenyls, Total	ND U	0.015	0.0099	1	04/30/18 09:22	4/20/18	
Pentachlorobiphenyls, Total	ND U	0.010	0.0043	1	04/30/18 09:22	4/20/18	
Tetrachlorobiphenyls, Total	ND U	0.010	0.0023	1	04/30/18 09:22	4/20/18	
Trichlorobiphenyls, Total	ND U	0.0050	0.0022	1	04/30/18 09:22	4/20/18	
Total PCBs as Sum of Homologs	ND U	0.025	-	1	04/30/18 09:22	4/20/18	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
gamma-BHC (Lindane)	85	58 - 125	04/30/18 09:22	
4,4'-DDT	112	37 - 166	04/30/18 09:22	

Client: ALS Environmental - US
Project: UR115: 2309395
Sample Matrix: Water

Service Request: R1803542
Date Analyzed: 04/30/18

Duplicate Lab Control Sample Summary
PCB Homologs in Water and Soil/Sediment by Gas Chromatography/Mass Spectrometry

Units: ug/L
Basis: NA

		Lab Control Sample RQ1803678-02			Duplicate Lab Control Sample RQ1803678-03					
Analyte Name	**Analytical Method**	**Result**	**Spike Amount**	**% Rec**	**Result**	**Spike Amount**	**% Rec**	**% Rec Limits**	**RPD**	**RPD Limit**
Decachlorobiphenyl	680	0.361	1.25	29	0.383	1.25	31	29-162	6	30
Dichlorobiphenyls, Total	680	0.159	0.250	64	0.187	0.250	75	37-139	16	30
Heptachlorobiphenyls, Total	680	0.317	0.750	42 *	0.397	0.750	53	53-120	23	30
Hexachlorobiphenyls, Total	680	0.247	0.500	49	0.312	0.500	62	11-160	23	30
Monochlorobiphenyls, Total	680	0.152	0.250	61	0.177	0.250	71	34-137	15	30
Octachlorobiphenyls, Total	680	0.288	0.750	38 *	0.345	0.750	46 *	57-125	18	30
Pentachlorobiphenyls, Total	680	0.293	0.500	59	0.354	0.500	71	10-180	19	30
Tetrachlorobiphenyls, Total	680	0.288	0.500	58	0.339	0.500	68	14-153	16	30
Trichlorobiphenyls, Total	680	0.159	0.250	63	0.185	0.250	74	10-173	15	30

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

July 9, 2018

Ms. Holly Brown
AECOM (fka URS) - Germantown MD
12420 Milestone Center Drive
Suite 150
Germantown, MD 20876

Certificate of Analysis

Project Name:	**2018-MIDDLE RIVER COMPLEX**	Workorder:	**2322628**
Purchase Order:	**95840ACM**	Workorder ID:	**ALG001|LMC MRC 06/25/18**

Dear Ms. Brown:

Enclosed are the analytical results for samples received by the laboratory on Monday, June 25, 2018.

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.

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ALS Spring City: 10 Riverside Drive, Spring City, PA 19475 610-948-4903

CC: Mr. Ravi Damera , Ms. Victoria Kirkpatrick , Mr. Naoum Tavantzis

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

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

SAMPLE SUMMARY

Workorder: 2322628 ALG001|LMC MRC 06/25/18

Lab ID	Sample ID	Matrix	Date Collected	Date Received	Collected By
2322628002	MRC-SW6B	Water	6/25/2018 12:35	6/25/2018 22:40	Ms. Victoria
2322628003	MRC-SW13A	Water	6/25/2018 13:25	6/25/2018 22:40	Ms. Victoria
2322628004	MRC-SW8A	Water	6/25/2018 12:50	6/25/2018 22:40	Ms. Victoria
2322628005	MRC-SW8B	Water	6/25/2018 13:05	6/25/2018 22:40	Ms. Victoria
2322628006	MRC-SW7B	Water	6/25/2018 11:35	6/25/2018 22:40	Ms. Victoria
2322628007	MRC-SW9B	Water	6/25/2018 12:05	6/25/2018 22:40	Ms. Victoria
2322628008	MRC-SW7A	Water	6/25/2018 11:20	6/25/2018 22:40	Ms. Victoria
2322628009	MRC-SW9A	Water	6/25/2018 11:50	6/25/2018 22:40	Ms. Victoria
2322628010	MRC-SW6A	Water	6/25/2018 12:20	6/25/2018 22:40	Ms. Victoria
2322628012	TB-062518	Water	6/25/2018 22:40	6/25/2018 22:40	Ms. Victoria

SAMPLE SUMMARY

Workorder: 2322628 ALG001|LMC MRC 06/25/18

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 incurbator and the "Analyzed" value is the date/time out the incubator.

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

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ANALYTICAL RESULTS

Workorder: 2322628 ALG001|LMC MRC 06/25/18

Lab ID: **2322628002** Date Collected: 6/25/2018 12:35 Matrix: Water
Sample ID: **MRC-SW6B** Date Received: 6/25/2018 22:40

Parameters	Results	Flag	Units	RDL	MDL	Method	Prepared By	Analyzed	By	*Cntr*
VOLATILE ORGANICS										
1,1,1,2-Tetrachloroethane	ND		ug/L	1.0	0.35	SW846 8260B		7/4/18 07:11	PDK	A
1,1,1-Trichloroethane	ND		ug/L	1.0	0.22	SW846 8260B		7/4/18 07:11	PDK	A
1,1,2,2-Tetrachloroethane	ND		ug/L	1.0	0.34	SW846 8260B		7/4/18 07:11	PDK	A
1,1,2-Trichloroethane	ND		ug/L	1.0	0.33	SW846 8260B		7/4/18 07:11	PDK	A
1,1-Dichloroethane	ND		ug/L	1.0	0.28	SW846 8260B		7/4/18 07:11	PDK	A
1,1-Dichloroethene	ND		ug/L	1.0	0.29	SW846 8260B		7/4/18 07:11	PDK	A
1,2,3-Trichlorobenzene	ND		ug/L	2.0	0.93	SW846 8260B		7/4/18 07:11	PDK	A
1,2,3-Trichloropropane	ND		ug/L	2.0	0.60	SW846 8260B		7/4/18 07:11	PDK	A
1,2,4-Trichlorobenzene	ND		ug/L	2.0	0.82	SW846 8260B		7/4/18 07:11	PDK	A
1,2,4-Trimethylbenzene	ND		ug/L	1.0	0.25	SW846 8260B		7/4/18 07:11	PDK	A
1,2-Dibromo-3-chloropropane	ND		ug/L	7.0	1.5	SW846 8260B		7/4/18 07:11	PDK	A
1,2-Dibromoethane	ND		ug/L	1.0	0.28	SW846 8260B		7/4/18 07:11	PDK	A
1,2-Dichlorobenzene	ND		ug/L	1.0	0.38	SW846 8260B		7/4/18 07:11	PDK	A
1,2-Dichloroethane	ND		ug/L	1.0	0.32	SW846 8260B		7/4/18 07:11	PDK	A
1,2-Dichloroethene, Total	ND		ug/L	2.0	0.45	SW846 8260B		7/4/18 07:11	PDK	A
1,2-Dichloropropane	ND		ug/L	1.0	0.24	SW846 8260B		7/4/18 07:11	PDK	A
1,3-Dichlorobenzene	ND		ug/L	1.0	0.25	SW846 8260B		7/4/18 07:11	PDK	A
1,3-Dichloropropane	ND		ug/L	1.0	0.27	SW846 8260B		7/4/18 07:11	PDK	A
1,3-Dichloropropene, Total	ND		ug/L	2.0	0.47	SW846 8260B		7/4/18 07:11	PDK	A
1,4-Dichlorobenzene	ND		ug/L	1.0	0.27	SW846 8260B		7/4/18 07:11	PDK	A
2,2-Dichloropropane	ND		ug/L	1.0	0.32	SW846 8260B		7/4/18 07:11	PDK	A
2-Butanone	ND		ug/L	10.0	1.8	SW846 8260B		7/4/18 07:11	PDK	A
2-Chloroethylvinyl ether	ND		ug/L	2.0	0.38	SW846 8260B		7/4/18 07:11	PDK	A
2-Hexanone	ND		ug/L	5.0	1.3	SW846 8260B		7/4/18 07:11	PDK	A
4-Methyl-2-Pentanone(MIBK)	ND		ug/L	5.0	1.5	SW846 8260B		7/4/18 07:11	PDK	A
Acetone	8.3J	J	ug/L	10.0	3.1	SW846 8260B		7/4/18 07:11	PDK	A
Benzene	ND		ug/L	1.0	0.23	SW846 8260B		7/4/18 07:11	PDK	A
Bromobenzene	ND		ug/L	1.0	0.32	SW846 8260B		7/4/18 07:11	PDK	A
Bromochloromethane	ND		ug/L	1.0	0.32	SW846 8260B		7/4/18 07:11	PDK	A
Bromodichloromethane	ND		ug/L	1.0	0.27	SW846 8260B		7/4/18 07:11	PDK	A
Bromoform	ND		ug/L	1.0	0.40	SW846 8260B		7/4/18 07:11	PDK	A
Bromomethane	ND		ug/L	1.0	0.39	SW846 8260B		7/4/18 07:11	PDK	A
Carbon Disulfide	ND		ug/L	1.0	0.23	SW846 8260B		7/4/18 07:11	PDK	A
Carbon Tetrachloride	ND		ug/L	1.0	0.31	SW846 8260B		7/4/18 07:11	PDK	A
Chlorobenzene	ND		ug/L	1.0	0.19	SW846 8260B		7/4/18 07:11	PDK	A
Chlorodibromomethane	ND		ug/L	1.0	0.45	SW846 8260B		7/4/18 07:11	PDK	A

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State Certifications: DE ID 11 , MA PA0102 , MD 128 , VA 460157 , WV 343

ANALYTICAL RESULTS

Workorder: 2322628 ALG001|LMC MRC 06/25/18

Lab ID: **2322628002** Date Collected: 6/25/2018 12:35 Matrix: Water
Sample ID: **MRC-SW6B** Date Received: 6/25/2018 22:40

Parameters	Results	Flag	Units	RDL	MDL	Method	Prepared By	Analyzed	By	*Cntr*
Chloroethane	ND		ug/L	1.0	0.33	SW846 8260B		7/4/18 07:11	PDK	A
Chloroform	ND		ug/L	1.0	0.21	SW846 8260B		7/4/18 07:11	PDK	A
Chloromethane	ND		ug/L	1.0	0.31	SW846 8260B		7/4/18 07:11	PDK	A
Cyclohexane	ND		ug/L	1.0	0.29	SW846 8260B		7/4/18 07:11	PDK	A
Dibromomethane	ND		ug/L	1.0	0.31	SW846 8260B		7/4/18 07:11	PDK	A
Dichlorodifluoromethane	ND		ug/L	1.0	0.33	SW846 8260B		7/4/18 07:11	PDK	A
Diisopropyl ether	ND		ug/L	1.0	0.25	SW846 8260B		7/4/18 07:11	PDK	A
Ethyl tert-butyl ether	ND		ug/L	1.0	0.19	SW846 8260B		7/4/18 07:11	PDK	A
Ethylbenzene	ND		ug/L	1.0	0.34	SW846 8260B		7/4/18 07:11	PDK	A
Freon 113	ND		ug/L	1.0	0.26	SW846 8260B		7/4/18 07:11	PDK	A
Hexachlorobutadiene	ND		ug/L	5.0	1.0	SW846 8260B		7/4/18 07:11	PDK	A
Isopropylbenzene	ND		ug/L	1.0	0.22	SW846 8260B		7/4/18 07:11	PDK	A
Methyl acetate	ND		ug/L	2.0	0.32	SW846 8260B		7/4/18 07:11	PDK	A
Methyl cyclohexane	ND		ug/L	1.0	0.30	SW846 8260B		7/4/18 07:11	PDK	A
Methyl t-Butyl Ether	ND		ug/L	1.0	0.33	SW846 8260B		7/4/18 07:11	PDK	A
Methylene Chloride	ND		ug/L	1.0	0.45	SW846 8260B		7/4/18 07:11	PDK	A
Naphthalene	ND		ug/L	2.0	0.34	SW846 8260B		7/4/18 07:11	PDK	A
Styrene	ND		ug/L	1.0	0.24	SW846 8260B		7/4/18 07:11	PDK	A
Tetrachloroethene	ND		ug/L	1.0	0.35	SW846 8260B		7/4/18 07:11	PDK	A
Toluene	ND		ug/L	1.0	0.23	SW846 8260B		7/4/18 07:11	PDK	A
Total Xylenes	ND		ug/L	3.0	0.66	SW846 8260B		7/4/18 07:11	PDK	A
Trichloroethene	0.59J	J	ug/L	1.0	0.33	SW846 8260B		7/4/18 07:11	PDK	A
Trichlorofluoromethane	ND		ug/L	1.0	0.24	SW846 8260B		7/4/18 07:11	PDK	A
Vinyl Acetate	ND		ug/L	5.0	1.6	SW846 8260B		7/4/18 07:11	PDK	A
Vinyl Chloride	ND		ug/L	1.0	0.30	SW846 8260B		7/4/18 07:11	PDK	A
cis-1,2-Dichloroethene	ND		ug/L	1.0	0.32	SW846 8260B		7/4/18 07:11	PDK	A
cis-1,3-Dichloropropene	ND		ug/L	1.0	0.31	SW846 8260B		7/4/18 07:11	PDK	A
mp-Xylene	ND		ug/L	2.0	0.52	SW846 8260B		7/4/18 07:11	PDK	A
n-Butylbenzene	ND		ug/L	2.0	0.60	SW846 8260B		7/4/18 07:11	PDK	A
n-Propylbenzene	ND		ug/L	1.0	0.33	SW846 8260B		7/4/18 07:11	PDK	A
o-Chlorotoluene	ND		ug/L	1.0	0.26	SW846 8260B		7/4/18 07:11	PDK	A
o-Xylene	ND		ug/L	1.0	0.33	SW846 8260B		7/4/18 07:11	PDK	A
p-Chlorotoluene	ND		ug/L	1.0	0.33	SW846 8260B		7/4/18 07:11	PDK	A
p-Isopropyltoluene	ND		ug/L	1.0	0.32	SW846 8260B		7/4/18 07:11	PDK	A
sec-Butylbenzene	ND		ug/L	1.0	0.31	SW846 8260B		7/4/18 07:11	PDK	A
tert-Amyl methyl ether	ND		ug/L	1.0	0.20	SW846 8260B		7/4/18 07:11	PDK	A
tert-Butyl Alcohol	ND		ug/L	10.0	2.2	SW846 8260B		7/4/18 07:11	PDK	A
tert-Butylbenzene	ND		ug/L	2.0	0.44	SW846 8260B		7/4/18 07:11	PDK	A

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ANALYTICAL RESULTS

Workorder: 2322628 ALG001|LMC MRC 06/25/18

Lab ID: **2322628002** Date Collected: 6/25/2018 12:35 Matrix: Water
Sample ID: **MRC-SW6B** Date Received: 6/25/2018 22:40

Parameters	Results	Flag	Units	RDL	MDL	Method	Prepared	By	Analyzed	By	Cntr
trans-1,2-Dichloroethene	ND		ug/L	1.0	0.26	SW846 8260B			7/4/18 07:11	PDK	A
trans-1,3-Dichloropropene	ND		ug/L	1.0	0.29	SW846 8260B			7/4/18 07:11	PDK	A
Surrogate Recoveries	*Results*	*Flag*	*Units*	*Limits*		*Method*	*Prepared*	*By*	*Analyzed*	*By*	*Cntr*
1,2-Dichloroethane-d4 (S)	121		%	62 - 133		SW846 8260B			7/4/18 07:11	PDK	A
4-Bromofluorobenzene (S)	129	1	%	79 - 114		SW846 8260B			7/4/18 07:11	PDK	A
Dibromofluoromethane (S)	97.1		%	78 - 116		SW846 8260B			7/4/18 07:11	PDK	A
Toluene-d8 (S)	96.4		%	76 - 127		SW846 8260B			7/4/18 07:11	PDK	A
SEMIVOLATILE SIM											
1,4-Dioxane	ND		ug/L	0.093	0.018	8270 SIM	6/26/18 15:00	MXL	6/27/18 11:51	CGS	G
IS_Naphthalene-d8	0.0		ug/L			8270 SIM	6/26/18 15:00	MXL	6/27/18 11:51	CGS	G
IS_Perylene-d12	0.0		ug/L			8270 SIM	6/26/18 15:00	MXL	6/27/18 11:51	CGS	G
Acenaphthene-d10	0.0		ug/L			8270 SIM	6/26/18 15:00	MXL	6/27/18 11:51	CGS	G
Phenanthrene-d10	0.0		ug/L			8270 SIM	6/26/18 15:00	MXL	6/27/18 11:51	CGS	G
Chrysene-d12	0.0		ug/L			8270 SIM	6/26/18 15:00	MXL	6/27/18 11:51	CGS	G
Surrogate Recoveries	*Results*	*Flag*	*Units*	*Limits*		*Method*	*Prepared*	*By*	*Analyzed*	*By*	*Cntr*
2-Methylnapthalene-d10 (S)	38.8		%	29 - 112		8270 SIM	6/26/18 15:00	MXL	6/27/18 11:51	CGS	G
Fluoranthene-d10 (S)	96.3		%	45 - 130		8270 SIM	6/26/18 15:00	MXL	6/27/18 11:51	CGS	G

Vanessa N. Badman
Mrs. Vanessa N Badman
Project Coordinator

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ANALYTICAL RESULTS

Workorder: 2322628 ALG001|LMC MRC 06/25/18

Lab ID: **2322628003** Date Collected: 6/25/2018 13:25 Matrix: Water
Sample ID: **MRC-SW13A** Date Received: 6/25/2018 22:40

Parameters	Results	Flag	Units	RDL	MDL	Method	Prepared By	Analyzed	By	*Cntr*
VOLATILE ORGANICS										
1,1,1,2-Tetrachloroethane	ND		ug/L	1.0	0.35	SW846 8260B		7/4/18 07:33	PDK	A
1,1,1-Trichloroethane	ND		ug/L	1.0	0.22	SW846 8260B		7/4/18 07:33	PDK	A
1,1,2,2-Tetrachloroethane	ND		ug/L	1.0	0.34	SW846 8260B		7/4/18 07:33	PDK	A
1,1,2-Trichloroethane	ND		ug/L	1.0	0.33	SW846 8260B		7/4/18 07:33	PDK	A
1,1-Dichloroethane	ND		ug/L	1.0	0.28	SW846 8260B		7/4/18 07:33	PDK	A
1,1-Dichloroethene	ND		ug/L	1.0	0.29	SW846 8260B		7/4/18 07:33	PDK	A
1,2,3-Trichlorobenzene	ND		ug/L	2.0	0.93	SW846 8260B		7/4/18 07:33	PDK	A
1,2,3-Trichloropropane	ND		ug/L	2.0	0.60	SW846 8260B		7/4/18 07:33	PDK	A
1,2,4-Trichlorobenzene	ND		ug/L	2.0	0.82	SW846 8260B		7/4/18 07:33	PDK	A
1,2,4-Trimethylbenzene	ND		ug/L	1.0	0.25	SW846 8260B		7/4/18 07:33	PDK	A
1,2-Dibromo-3-chloropropane	ND		ug/L	7.0	1.5	SW846 8260B		7/4/18 07:33	PDK	A
1,2-Dibromoethane	ND		ug/L	1.0	0.28	SW846 8260B		7/4/18 07:33	PDK	A
1,2-Dichlorobenzene	ND		ug/L	1.0	0.38	SW846 8260B		7/4/18 07:33	PDK	A
1,2-Dichloroethane	ND		ug/L	1.0	0.32	SW846 8260B		7/4/18 07:33	PDK	A
1,2-Dichloroethene, Total	ND		ug/L	2.0	0.45	SW846 8260B		7/4/18 07:33	PDK	A
1,2-Dichloropropane	ND		ug/L	1.0	0.24	SW846 8260B		7/4/18 07:33	PDK	A
1,3-Dichlorobenzene	ND		ug/L	1.0	0.25	SW846 8260B		7/4/18 07:33	PDK	A
1,3-Dichloropropane	ND		ug/L	1.0	0.27	SW846 8260B		7/4/18 07:33	PDK	A
1,3-Dichloropropene, Total	ND		ug/L	2.0	0.47	SW846 8260B		7/4/18 07:33	PDK	A
1,4-Dichlorobenzene	ND		ug/L	1.0	0.27	SW846 8260B		7/4/18 07:33	PDK	A
2,2-Dichloropropane	ND		ug/L	1.0	0.32	SW846 8260B		7/4/18 07:33	PDK	A
2-Butanone	ND		ug/L	10.0	1.8	SW846 8260B		7/4/18 07:33	PDK	A
2-Chloroethylvinyl ether	ND		ug/L	2.0	0.38	SW846 8260B		7/4/18 07:33	PDK	A
2-Hexanone	ND		ug/L	5.0	1.3	SW846 8260B		7/4/18 07:33	PDK	A
4-Methyl-2-Pentanone(MIBK)	ND		ug/L	5.0	1.5	SW846 8260B		7/4/18 07:33	PDK	A
Acetone	9.5J	J	ug/L	10.0	3.1	SW846 8260B		7/4/18 07:33	PDK	A
Benzene	ND		ug/L	1.0	0.23	SW846 8260B		7/4/18 07:33	PDK	A
Bromobenzene	ND		ug/L	1.0	0.32	SW846 8260B		7/4/18 07:33	PDK	A
Bromochloromethane	ND		ug/L	1.0	0.32	SW846 8260B		7/4/18 07:33	PDK	A
Bromodichloromethane	ND		ug/L	1.0	0.27	SW846 8260B		7/4/18 07:33	PDK	A
Bromoform	ND		ug/L	1.0	0.40	SW846 8260B		7/4/18 07:33	PDK	A
Bromomethane	ND		ug/L	1.0	0.39	SW846 8260B		7/4/18 07:33	PDK	A
Carbon Disulfide	ND		ug/L	1.0	0.23	SW846 8260B		7/4/18 07:33	PDK	A
Carbon Tetrachloride	ND		ug/L	1.0	0.31	SW846 8260B		7/4/18 07:33	PDK	A
Chlorobenzene	ND		ug/L	1.0	0.19	SW846 8260B		7/4/18 07:33	PDK	A
Chlorodibromomethane	ND		ug/L	1.0	0.45	SW846 8260B		7/4/18 07:33	PDK	A

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ANALYTICAL RESULTS

Workorder: 2322628 ALG001|LMC MRC 06/25/18

Lab ID: **2322628003** Date Collected: 6/25/2018 13:25 Matrix: Water
Sample ID: **MRC-SW13A** Date Received: 6/25/2018 22:40

Parameters	Results	Flag	Units	RDL	MDL	Method	Prepared By	Analyzed	By	Cntr
Chloroethane	ND		ug/L	1.0	0.33	SW846 8260B		7/4/18 07:33	PDK	A
Chloroform	ND		ug/L	1.0	0.21	SW846 8260B		7/4/18 07:33	PDK	A
Chloromethane	ND		ug/L	1.0	0.31	SW846 8260B		7/4/18 07:33	PDK	A
Cyclohexane	ND		ug/L	1.0	0.29	SW846 8260B		7/4/18 07:33	PDK	A
Dibromomethane	ND		ug/L	1.0	0.31	SW846 8260B		7/4/18 07:33	PDK	A
Dichlorodifluoromethane	ND		ug/L	1.0	0.33	SW846 8260B		7/4/18 07:33	PDK	A
Diisopropyl ether	ND		ug/L	1.0	0.25	SW846 8260B		7/4/18 07:33	PDK	A
Ethyl tert-butyl ether	ND		ug/L	1.0	0.19	SW846 8260B		7/4/18 07:33	PDK	A
Ethylbenzene	ND		ug/L	1.0	0.34	SW846 8260B		7/4/18 07:33	PDK	A
Freon 113	ND		ug/L	1.0	0.26	SW846 8260B		7/4/18 07:33	PDK	A
Hexachlorobutadiene	ND		ug/L	5.0	1.0	SW846 8260B		7/4/18 07:33	PDK	A
Isopropylbenzene	ND		ug/L	1.0	0.22	SW846 8260B		7/4/18 07:33	PDK	A
Methyl acetate	ND		ug/L	2.0	0.32	SW846 8260B		7/4/18 07:33	PDK	A
Methyl cyclohexane	ND		ug/L	1.0	0.30	SW846 8260B		7/4/18 07:33	PDK	A
Methyl t-Butyl Ether	ND		ug/L	1.0	0.33	SW846 8260B		7/4/18 07:33	PDK	A
Methylene Chloride	ND		ug/L	1.0	0.45	SW846 8260B		7/4/18 07:33	PDK	A
Naphthalene	ND		ug/L	2.0	0.34	SW846 8260B		7/4/18 07:33	PDK	A
Styrene	ND		ug/L	1.0	0.24	SW846 8260B		7/4/18 07:33	PDK	A
Tetrachloroethene	ND		ug/L	1.0	0.35	SW846 8260B		7/4/18 07:33	PDK	A
Toluene	ND		ug/L	1.0	0.23	SW846 8260B		7/4/18 07:33	PDK	A
Total Xylenes	ND		ug/L	3.0	0.66	SW846 8260B		7/4/18 07:33	PDK	A
Trichloroethene	ND		ug/L	1.0	0.33	SW846 8260B		7/4/18 07:33	PDK	A
Trichlorofluoromethane	ND		ug/L	1.0	0.24	SW846 8260B		7/4/18 07:33	PDK	A
Vinyl Acetate	ND		ug/L	5.0	1.6	SW846 8260B		7/4/18 07:33	PDK	A
Vinyl Chloride	ND		ug/L	1.0	0.30	SW846 8260B		7/4/18 07:33	PDK	A
cis-1,2-Dichloroethene	ND		ug/L	1.0	0.32	SW846 8260B		7/4/18 07:33	PDK	A
cis-1,3-Dichloropropene	ND		ug/L	1.0	0.31	SW846 8260B		7/4/18 07:33	PDK	A
mp-Xylene	ND		ug/L	2.0	0.52	SW846 8260B		7/4/18 07:33	PDK	A
n-Butylbenzene	ND		ug/L	2.0	0.60	SW846 8260B		7/4/18 07:33	PDK	A
n-Propylbenzene	ND		ug/L	1.0	0.33	SW846 8260B		7/4/18 07:33	PDK	A
o-Chlorotoluene	ND		ug/L	1.0	0.26	SW846 8260B		7/4/18 07:33	PDK	A
o-Xylene	ND		ug/L	1.0	0.33	SW846 8260B		7/4/18 07:33	PDK	A
p-Chlorotoluene	ND		ug/L	1.0	0.33	SW846 8260B		7/4/18 07:33	PDK	A
p-Isopropyltoluene	ND		ug/L	1.0	0.32	SW846 8260B		7/4/18 07:33	PDK	A
sec-Butylbenzene	ND		ug/L	1.0	0.31	SW846 8260B		7/4/18 07:33	PDK	A
tert-Amyl methyl ether	ND		ug/L	1.0	0.20	SW846 8260B		7/4/18 07:33	PDK	A
tert-Butyl Alcohol	ND		ug/L	10.0	2.2	SW846 8260B		7/4/18 07:33	PDK	A
tert-Butylbenzene	ND		ug/L	2.0	0.44	SW846 8260B		7/4/18 07:33	PDK	A

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ANALYTICAL RESULTS

Workorder: 2322628 ALG001|LMC MRC 06/25/18

Lab ID: **2322628003** Date Collected: 6/25/2018 13:25 Matrix: Water
Sample ID: **MRC-SW13A** Date Received: 6/25/2018 22:40

Parameters	Results	Flag	Units	RDL	MDL	Method	Prepared	By	Analyzed	By	Cntr
trans-1,2-Dichloroethene	ND		ug/L	1.0	0.26	SW846 8260B			7/4/18 07:33	PDK	A
trans-1,3-Dichloropropene	ND		ug/L	1.0	0.29	SW846 8260B			7/4/18 07:33	PDK	A
Surrogate Recoveries	*Results*	*Flag*	*Units*	*Limits*		*Method*	*Prepared*	*By*	*Analyzed*	*By*	*Cntr*
1,2-Dichloroethane-d4 (S)	120		%	62 - 133		SW846 8260B			7/4/18 07:33	PDK	A
4-Bromofluorobenzene (S)	117	1	%	79 - 114		SW846 8260B			7/4/18 07:33	PDK	A
Dibromofluoromethane (S)	95.1		%	78 - 116		SW846 8260B			7/4/18 07:33	PDK	A
Toluene-d8 (S)	95.9		%	76 - 127		SW846 8260B			7/4/18 07:33	PDK	A
SEMIVOLATILE SIM											
1,4-Dioxane	ND		ug/L	0.094	0.018	8270 SIM	6/26/18 15:00	MXL	6/27/18 12:17	CGS	G
IS_Naphthalene-d8	0.0		ug/L			8270 SIM	6/26/18 15:00	MXL	6/27/18 12:17	CGS	G
IS_Perylene-d12	0.0		ug/L			8270 SIM	6/26/18 15:00	MXL	6/27/18 12:17	CGS	G
Acenaphthene-d10	0.0		ug/L			8270 SIM	6/26/18 15:00	MXL	6/27/18 12:17	CGS	G
Phenanthrene-d10	0.0		ug/L			8270 SIM	6/26/18 15:00	MXL	6/27/18 12:17	CGS	G
Chrysene-d12	0.0		ug/L			8270 SIM	6/26/18 15:00	MXL	6/27/18 12:17	CGS	G
Surrogate Recoveries	*Results*	*Flag*	*Units*	*Limits*		*Method*	*Prepared*	*By*	*Analyzed*	*By*	*Cntr*
2-Methylnapthalene-d10 (S)	35.9		%	29 - 112		8270 SIM	6/26/18 15:00	MXL	6/27/18 12:17	CGS	G
Fluoranthene-d10 (S)	85.6		%	45 - 130		8270 SIM	6/26/18 15:00	MXL	6/27/18 12:17	CGS	G

Vanessa N. Badman
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ANALYTICAL RESULTS

Workorder: 2322628 ALG001|LMC MRC 06/25/18

Lab ID: **2322628004** Date Collected: 6/25/2018 12:50 Matrix: Water
Sample ID: **MRC-SW8A** Date Received: 6/25/2018 22:40

Parameters	Results	Flag	Units	RDL	MDL	Method	Prepared By	Analyzed	By	*Cntr*
VOLATILE ORGANICS										
1,1,1,2-Tetrachloroethane	ND		ug/L	1.0	0.35	SW846 8260B		7/6/18 17:50	TMP	A
1,1,1-Trichloroethane	ND		ug/L	1.0	0.22	SW846 8260B		7/6/18 17:50	TMP	A
1,1,2,2-Tetrachloroethane	ND		ug/L	1.0	0.34	SW846 8260B		7/6/18 17:50	TMP	A
1,1,2-Trichloroethane	ND		ug/L	1.0	0.33	SW846 8260B		7/6/18 17:50	TMP	A
1,1-Dichloroethane	ND		ug/L	1.0	0.28	SW846 8260B		7/6/18 17:50	TMP	A
1,1-Dichloroethene	ND		ug/L	1.0	0.29	SW846 8260B		7/6/18 17:50	TMP	A
1,2,3-Trichlorobenzene	ND		ug/L	2.0	0.93	SW846 8260B		7/6/18 17:50	TMP	A
1,2,3-Trichloropropane	ND		ug/L	2.0	0.60	SW846 8260B		7/6/18 17:50	TMP	A
1,2,4-Trichlorobenzene	ND		ug/L	2.0	0.82	SW846 8260B		7/6/18 17:50	TMP	A
1,2,4-Trimethylbenzene	0.61J	J	ug/L	1.0	0.25	SW846 8260B		7/6/18 17:50	TMP	A
1,2-Dibromo-3-chloropropane	ND		ug/L	7.0	1.5	SW846 8260B		7/6/18 17:50	TMP	A
1,2-Dibromoethane	ND		ug/L	1.0	0.28	SW846 8260B		7/6/18 17:50	TMP	A
1,2-Dichlorobenzene	ND		ug/L	1.0	0.38	SW846 8260B		7/6/18 17:50	TMP	A
1,2-Dichloroethane	ND		ug/L	1.0	0.32	SW846 8260B		7/6/18 17:50	TMP	A
1,2-Dichloroethene, Total	ND		ug/L	2.0	0.45	SW846 8260B		7/6/18 17:50	TMP	A
1,2-Dichloropropane	ND		ug/L	1.0	0.24	SW846 8260B		7/6/18 17:50	TMP	A
1,3-Dichlorobenzene	ND		ug/L	1.0	0.25	SW846 8260B		7/6/18 17:50	TMP	A
1,3-Dichloropropane	ND		ug/L	1.0	0.27	SW846 8260B		7/6/18 17:50	TMP	A
1,3-Dichloropropene, Total	ND		ug/L	2.0	0.47	SW846 8260B		7/6/18 17:50	TMP	A
1,4-Dichlorobenzene	ND		ug/L	1.0	0.27	SW846 8260B		7/6/18 17:50	TMP	A
2,2-Dichloropropane	ND		ug/L	1.0	0.32	SW846 8260B		7/6/18 17:50	TMP	A
2-Butanone	ND		ug/L	10.0	1.8	SW846 8260B		7/6/18 17:50	TMP	A
2-Chloroethylvinyl ether	ND		ug/L	2.0	0.38	SW846 8260B		7/6/18 17:50	TMP	A
2-Hexanone	ND		ug/L	5.0	1.3	SW846 8260B		7/6/18 17:50	TMP	A
4-Methyl-2-Pentanone(MIBK)	ND		ug/L	5.0	1.5	SW846 8260B		7/6/18 17:50	TMP	A
Acetone	12.3		ug/L	10.0	3.1	SW846 8260B		7/6/18 17:50	TMP	A
Benzene	ND		ug/L	1.0	0.23	SW846 8260B		7/6/18 17:50	TMP	A
Bromobenzene	ND		ug/L	1.0	0.32	SW846 8260B		7/6/18 17:50	TMP	A
Bromochloromethane	ND		ug/L	1.0	0.32	SW846 8260B		7/6/18 17:50	TMP	A
Bromodichloromethane	ND		ug/L	1.0	0.27	SW846 8260B		7/6/18 17:50	TMP	A
Bromoform	ND		ug/L	1.0	0.40	SW846 8260B		7/6/18 17:50	TMP	A
Bromomethane	ND		ug/L	1.0	0.39	SW846 8260B		7/6/18 17:50	TMP	A
Carbon Disulfide	ND		ug/L	1.0	0.23	SW846 8260B		7/6/18 17:50	TMP	A
Carbon Tetrachloride	ND		ug/L	1.0	0.31	SW846 8260B		7/6/18 17:50	TMP	A
Chlorobenzene	ND		ug/L	1.0	0.19	SW846 8260B		7/6/18 17:50	TMP	A
Chlorodibromomethane	ND		ug/L	1.0	0.45	SW846 8260B		7/6/18 17:50	TMP	A

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ANALYTICAL RESULTS

Workorder: 2322628 ALG001|LMC MRC 06/25/18

Lab ID: **2322628004** Date Collected: 6/25/2018 12:50 Matrix: Water
Sample ID: **MRC-SW8A** Date Received: 6/25/2018 22:40

Parameters	Results	Flag	Units	RDL	MDL	Method	Prepared By	Analyzed	By	*Cntr*
Chloroethane	ND		ug/L	1.0	0.33	SW846 8260B		7/6/18 17:50	TMP	A
Chloroform	ND		ug/L	1.0	0.21	SW846 8260B		7/6/18 17:50	TMP	A
Chloromethane	ND		ug/L	1.0	0.31	SW846 8260B		7/6/18 17:50	TMP	A
Cyclohexane	ND		ug/L	1.0	0.29	SW846 8260B		7/6/18 17:50	TMP	A
Dibromomethane	ND		ug/L	1.0	0.31	SW846 8260B		7/6/18 17:50	TMP	A
Dichlorodifluoromethane	ND		ug/L	1.0	0.33	SW846 8260B		7/6/18 17:50	TMP	A
Diisopropyl ether	ND		ug/L	1.0	0.25	SW846 8260B		7/6/18 17:50	TMP	A
Ethyl tert-butyl ether	ND		ug/L	1.0	0.19	SW846 8260B		7/6/18 17:50	TMP	A
Ethylbenzene	ND		ug/L	1.0	0.34	SW846 8260B		7/6/18 17:50	TMP	A
Freon 113	ND		ug/L	1.0	0.26	SW846 8260B		7/6/18 17:50	TMP	A
Hexachlorobutadiene	ND		ug/L	5.0	1.0	SW846 8260B		7/6/18 17:50	TMP	A
Isopropylbenzene	ND		ug/L	1.0	0.22	SW846 8260B		7/6/18 17:50	TMP	A
Methyl acetate	ND		ug/L	2.0	0.32	SW846 8260B		7/6/18 17:50	TMP	A
Methyl cyclohexane	ND		ug/L	1.0	0.30	SW846 8260B		7/6/18 17:50	TMP	A
Methyl t-Butyl Ether	ND		ug/L	1.0	0.33	SW846 8260B		7/6/18 17:50	TMP	A
Methylene Chloride	ND		ug/L	1.0	0.45	SW846 8260B		7/6/18 17:50	TMP	A
Naphthalene	0.53J	J	ug/L	2.0	0.34	SW846 8260B		7/6/18 17:50	TMP	A
Styrene	ND		ug/L	1.0	0.24	SW846 8260B		7/6/18 17:50	TMP	A
Tetrachloroethene	ND		ug/L	1.0	0.35	SW846 8260B		7/6/18 17:50	TMP	A
Toluene	ND		ug/L	1.0	0.23	SW846 8260B		7/6/18 17:50	TMP	A
Total Xylenes	ND		ug/L	3.0	0.66	SW846 8260B		7/6/18 17:50	TMP	A
Trichloroethene	0.60J	J	ug/L	1.0	0.33	SW846 8260B		7/6/18 17:50	TMP	A
Trichlorofluoromethane	ND		ug/L	1.0	0.24	SW846 8260B		7/6/18 17:50	TMP	A
Vinyl Acetate	ND		ug/L	5.0	1.6	SW846 8260B		7/6/18 17:50	TMP	A
Vinyl Chloride	ND		ug/L	1.0	0.30	SW846 8260B		7/6/18 17:50	TMP	A
cis-1,2-Dichloroethene	ND		ug/L	1.0	0.32	SW846 8260B		7/6/18 17:50	TMP	A
cis-1,3-Dichloropropene	ND		ug/L	1.0	0.31	SW846 8260B		7/6/18 17:50	TMP	A
mp-Xylene	ND		ug/L	2.0	0.52	SW846 8260B		7/6/18 17:50	TMP	A
n-Butylbenzene	ND		ug/L	2.0	0.60	SW846 8260B		7/6/18 17:50	TMP	A
n-Propylbenzene	ND		ug/L	1.0	0.33	SW846 8260B		7/6/18 17:50	TMP	A
o-Chlorotoluene	ND		ug/L	1.0	0.26	SW846 8260B		7/6/18 17:50	TMP	A
o-Xylene	ND		ug/L	1.0	0.33	SW846 8260B		7/6/18 17:50	TMP	A
p-Chlorotoluene	ND		ug/L	1.0	0.33	SW846 8260B		7/6/18 17:50	TMP	A
p-Isopropyltoluene	ND		ug/L	1.0	0.32	SW846 8260B		7/6/18 17:50	TMP	A
sec-Butylbenzene	ND		ug/L	1.0	0.31	SW846 8260B		7/6/18 17:50	TMP	A
tert-Amyl methyl ether	ND		ug/L	1.0	0.20	SW846 8260B		7/6/18 17:50	TMP	A
tert-Butyl Alcohol	ND		ug/L	10.0	2.2	SW846 8260B		7/6/18 17:50	TMP	A
tert-Butylbenzene	ND		ug/L	2.0	0.44	SW846 8260B		7/6/18 17:50	TMP	A

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ANALYTICAL RESULTS

Workorder: 2322628 ALG001|LMC MRC 06/25/18

Lab ID: **2322628004** Date Collected: 6/25/2018 12:50 Matrix: Water
Sample ID: **MRC-SW8A** Date Received: 6/25/2018 22:40

Parameters	Results	Flag	Units	RDL	MDL	Method	Prepared	By	Analyzed	By	Cntr
trans-1,2-Dichloroethene	ND		ug/L	1.0	0.26	SW846 8260B			7/6/18 17:50	TMP	A
trans-1,3-Dichloropropene	ND		ug/L	1.0	0.29	SW846 8260B			7/6/18 17:50	TMP	A
Surrogate Recoveries	*Results*	*Flag*	*Units*	*Limits*		*Method*	*Prepared*	*By*	*Analyzed*	*By*	*Cntr*
1,2-Dichloroethane-d4 (S)	93		%	62 - 133		SW846 8260B			7/6/18 17:50	TMP	A
4-Bromofluorobenzene (S)	91.3		%	79 - 114		SW846 8260B			7/6/18 17:50	TMP	A
Dibromofluoromethane (S)	81.8		%	78 - 116		SW846 8260B			7/6/18 17:50	TMP	A
Toluene-d8 (S)	96.5		%	76 - 127		SW846 8260B			7/6/18 17:50	TMP	A
SEMIVOLATILE SIM											
1,4-Dioxane	ND		ug/L	0.095	0.018	8270 SIM	6/26/18 15:00	MXL	6/27/18 12:43	CGS	G
IS_Naphthalene-d8	0.0		ug/L			8270 SIM	6/26/18 15:00	MXL	6/27/18 12:43	CGS	G
IS_Perylene-d12	0.0		ug/L			8270 SIM	6/26/18 15:00	MXL	6/27/18 12:43	CGS	G
Acenaphthene-d10	0.0		ug/L			8270 SIM	6/26/18 15:00	MXL	6/27/18 12:43	CGS	G
Phenanthrene-d10	0.0		ug/L			8270 SIM	6/26/18 15:00	MXL	6/27/18 12:43	CGS	G
Chrysene-d12	0.0		ug/L			8270 SIM	6/26/18 15:00	MXL	6/27/18 12:43	CGS	G
Surrogate Recoveries	*Results*	*Flag*	*Units*	*Limits*		*Method*	*Prepared*	*By*	*Analyzed*	*By*	*Cntr*
2-Methylnapthalene-d10 (S)	42.6		%	29 - 112		8270 SIM	6/26/18 15:00	MXL	6/27/18 12:43	CGS	G
Fluoranthene-d10 (S)	78.6		%	45 - 130		8270 SIM	6/26/18 15:00	MXL	6/27/18 12:43	CGS	G

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ANALYTICAL RESULTS

Workorder: 2322628 ALG001|LMC MRC 06/25/18

Lab ID: **2322628005** Date Collected: 6/25/2018 13:05 Matrix: Water
Sample ID: **MRC-SW8B** Date Received: 6/25/2018 22:40

Parameters	Results	Flag	Units	RDL	MDL	Method	Prepared By	Analyzed	By	*Cntr*
VOLATILE ORGANICS										
1,1,1,2-Tetrachloroethane	ND		ug/L	1.0	0.35	SW846 8260B		7/6/18 18:12	TMP	A
1,1,1-Trichloroethane	ND		ug/L	1.0	0.22	SW846 8260B		7/6/18 18:12	TMP	A
1,1,2,2-Tetrachloroethane	ND		ug/L	1.0	0.34	SW846 8260B		7/6/18 18:12	TMP	A
1,1,2-Trichloroethane	ND		ug/L	1.0	0.33	SW846 8260B		7/6/18 18:12	TMP	A
1,1-Dichloroethane	ND		ug/L	1.0	0.28	SW846 8260B		7/6/18 18:12	TMP	A
1,1-Dichloroethene	ND		ug/L	1.0	0.29	SW846 8260B		7/6/18 18:12	TMP	A
1,2,3-Trichlorobenzene	ND		ug/L	2.0	0.93	SW846 8260B		7/6/18 18:12	TMP	A
1,2,3-Trichloropropane	ND		ug/L	2.0	0.60	SW846 8260B		7/6/18 18:12	TMP	A
1,2,4-Trichlorobenzene	ND		ug/L	2.0	0.82	SW846 8260B		7/6/18 18:12	TMP	A
1,2,4-Trimethylbenzene	ND		ug/L	1.0	0.25	SW846 8260B		7/6/18 18:12	TMP	A
1,2-Dibromo-3-chloropropane	ND		ug/L	7.0	1.5	SW846 8260B		7/6/18 18:12	TMP	A
1,2-Dibromoethane	ND		ug/L	1.0	0.28	SW846 8260B		7/6/18 18:12	TMP	A
1,2-Dichlorobenzene	ND		ug/L	1.0	0.38	SW846 8260B		7/6/18 18:12	TMP	A
1,2-Dichloroethane	ND		ug/L	1.0	0.32	SW846 8260B		7/6/18 18:12	TMP	A
1,2-Dichloroethene, Total	ND		ug/L	2.0	0.45	SW846 8260B		7/6/18 18:12	TMP	A
1,2-Dichloropropane	ND		ug/L	1.0	0.24	SW846 8260B		7/6/18 18:12	TMP	A
1,3-Dichlorobenzene	ND		ug/L	1.0	0.25	SW846 8260B		7/6/18 18:12	TMP	A
1,3-Dichloropropane	ND		ug/L	1.0	0.27	SW846 8260B		7/6/18 18:12	TMP	A
1,3-Dichloropropene, Total	ND		ug/L	2.0	0.47	SW846 8260B		7/6/18 18:12	TMP	A
1,4-Dichlorobenzene	ND		ug/L	1.0	0.27	SW846 8260B		7/6/18 18:12	TMP	A
2,2-Dichloropropane	ND		ug/L	1.0	0.32	SW846 8260B		7/6/18 18:12	TMP	A
2-Butanone	ND		ug/L	10.0	1.8	SW846 8260B		7/6/18 18:12	TMP	A
2-Chloroethylvinyl ether	ND		ug/L	2.0	0.38	SW846 8260B		7/6/18 18:12	TMP	A
2-Hexanone	ND		ug/L	5.0	1.3	SW846 8260B		7/6/18 18:12	TMP	A
4-Methyl-2-Pentanone(MIBK)	ND		ug/L	5.0	1.5	SW846 8260B		7/6/18 18:12	TMP	A
Acetone	13.3		ug/L	10.0	3.1	SW846 8260B		7/6/18 18:12	TMP	A
Benzene	ND		ug/L	1.0	0.23	SW846 8260B		7/6/18 18:12	TMP	A
Bromobenzene	ND		ug/L	1.0	0.32	SW846 8260B		7/6/18 18:12	TMP	A
Bromochloromethane	ND		ug/L	1.0	0.32	SW846 8260B		7/6/18 18:12	TMP	A
Bromodichloromethane	ND		ug/L	1.0	0.27	SW846 8260B		7/6/18 18:12	TMP	A
Bromoform	ND		ug/L	1.0	0.40	SW846 8260B		7/6/18 18:12	TMP	A
Bromomethane	ND		ug/L	1.0	0.39	SW846 8260B		7/6/18 18:12	TMP	A
Carbon Disulfide	ND		ug/L	1.0	0.23	SW846 8260B		7/6/18 18:12	TMP	A
Carbon Tetrachloride	ND		ug/L	1.0	0.31	SW846 8260B		7/6/18 18:12	TMP	A
Chlorobenzene	ND		ug/L	1.0	0.19	SW846 8260B		7/6/18 18:12	TMP	A
Chlorodibromomethane	ND		ug/L	1.0	0.45	SW846 8260B		7/6/18 18:12	TMP	A

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State Certifications: DE ID 11 , MA PA0102 , MD 128 , VA 460157 , WV 343

ANALYTICAL RESULTS

Workorder: 2322628 ALG001|LMC MRC 06/25/18

Lab ID: **2322628005** Date Collected: 6/25/2018 13:05 Matrix: Water
Sample ID: **MRC-SW8B** Date Received: 6/25/2018 22:40

Parameters	Results	Flag	Units	RDL	MDL	Method	Prepared By	Analyzed	By	Cntr
Chloroethane	ND		ug/L	1.0	0.33	SW846 8260B		7/6/18 18:12	TMP	A
Chloroform	ND		ug/L	1.0	0.21	SW846 8260B		7/6/18 18:12	TMP	A
Chloromethane	ND		ug/L	1.0	0.31	SW846 8260B		7/6/18 18:12	TMP	A
Cyclohexane	ND		ug/L	1.0	0.29	SW846 8260B		7/6/18 18:12	TMP	A
Dibromomethane	ND		ug/L	1.0	0.31	SW846 8260B		7/6/18 18:12	TMP	A
Dichlorodifluoromethane	ND		ug/L	1.0	0.33	SW846 8260B		7/6/18 18:12	TMP	A
Diisopropyl ether	ND		ug/L	1.0	0.25	SW846 8260B		7/6/18 18:12	TMP	A
Ethyl tert-butyl ether	ND		ug/L	1.0	0.19	SW846 8260B		7/6/18 18:12	TMP	A
Ethylbenzene	ND		ug/L	1.0	0.34	SW846 8260B		7/6/18 18:12	TMP	A
Freon 113	ND		ug/L	1.0	0.26	SW846 8260B		7/6/18 18:12	TMP	A
Hexachlorobutadiene	ND		ug/L	5.0	1.0	SW846 8260B		7/6/18 18:12	TMP	A
Isopropylbenzene	ND		ug/L	1.0	0.22	SW846 8260B		7/6/18 18:12	TMP	A
Methyl acetate	ND		ug/L	2.0	0.32	SW846 8260B		7/6/18 18:12	TMP	A
Methyl cyclohexane	ND		ug/L	1.0	0.30	SW846 8260B		7/6/18 18:12	TMP	A
Methyl t-Butyl Ether	ND		ug/L	1.0	0.33	SW846 8260B		7/6/18 18:12	TMP	A
Methylene Chloride	ND		ug/L	1.0	0.45	SW846 8260B		7/6/18 18:12	TMP	A
Naphthalene	ND		ug/L	2.0	0.34	SW846 8260B		7/6/18 18:12	TMP	A
Styrene	ND		ug/L	1.0	0.24	SW846 8260B		7/6/18 18:12	TMP	A
Tetrachloroethene	ND		ug/L	1.0	0.35	SW846 8260B		7/6/18 18:12	TMP	A
Toluene	ND		ug/L	1.0	0.23	SW846 8260B		7/6/18 18:12	TMP	A
Total Xylenes	ND		ug/L	3.0	0.66	SW846 8260B		7/6/18 18:12	TMP	A
Trichloroethene	ND		ug/L	1.0	0.33	SW846 8260B		7/6/18 18:12	TMP	A
Trichlorofluoromethane	ND		ug/L	1.0	0.24	SW846 8260B		7/6/18 18:12	TMP	A
Vinyl Acetate	ND		ug/L	5.0	1.6	SW846 8260B		7/6/18 18:12	TMP	A
Vinyl Chloride	ND		ug/L	1.0	0.30	SW846 8260B		7/6/18 18:12	TMP	A
cis-1,2-Dichloroethene	ND		ug/L	1.0	0.32	SW846 8260B		7/6/18 18:12	TMP	A
cis-1,3-Dichloropropene	ND		ug/L	1.0	0.31	SW846 8260B		7/6/18 18:12	TMP	A
mp-Xylene	ND		ug/L	2.0	0.52	SW846 8260B		7/6/18 18:12	TMP	A
n-Butylbenzene	ND		ug/L	2.0	0.60	SW846 8260B		7/6/18 18:12	TMP	A
n-Propylbenzene	ND		ug/L	1.0	0.33	SW846 8260B		7/6/18 18:12	TMP	A
o-Chlorotoluene	ND		ug/L	1.0	0.26	SW846 8260B		7/6/18 18:12	TMP	A
o-Xylene	ND		ug/L	1.0	0.33	SW846 8260B		7/6/18 18:12	TMP	A
p-Chlorotoluene	ND		ug/L	1.0	0.33	SW846 8260B		7/6/18 18:12	TMP	A
p-Isopropyltoluene	ND		ug/L	1.0	0.32	SW846 8260B		7/6/18 18:12	TMP	A
sec-Butylbenzene	ND		ug/L	1.0	0.31	SW846 8260B		7/6/18 18:12	TMP	A
tert-Amyl methyl ether	ND		ug/L	1.0	0.20	SW846 8260B		7/6/18 18:12	TMP	A
tert-Butyl Alcohol	ND		ug/L	10.0	2.2	SW846 8260B		7/6/18 18:12	TMP	A
tert-Butylbenzene	ND		ug/L	2.0	0.44	SW846 8260B		7/6/18 18:12	TMP	A

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State Certifications: DE ID 11 , MA PA0102 , MD 128 , VA 460157 , WV 343

ANALYTICAL RESULTS

Workorder: 2322628 ALG001|LMC MRC 06/25/18

Lab ID: **2322628005** Date Collected: 6/25/2018 13:05 Matrix: Water
Sample ID: **MRC-SW8B** Date Received: 6/25/2018 22:40

Parameters	Results	Flag	Units	RDL	MDL	Method	Prepared	By	Analyzed	By	Cntr
trans-1,2-Dichloroethene	ND		ug/L	1.0	0.26	SW846 8260B			7/6/18 18:12	TMP	A
trans-1,3-Dichloropropene	ND		ug/L	1.0	0.29	SW846 8260B			7/6/18 18:12	TMP	A
Surrogate Recoveries	*Results*	*Flag*	*Units*	*Limits*		*Method*	*Prepared*	*By*	*Analyzed*	*By*	*Cntr*
1,2-Dichloroethane-d4 (S)	94.7		%	62 - 133		SW846 8260B			7/6/18 18:12	TMP	A
4-Bromofluorobenzene (S)	98.2		%	79 - 114		SW846 8260B			7/6/18 18:12	TMP	A
Dibromofluoromethane (S)	81.9		%	78 - 116		SW846 8260B			7/6/18 18:12	TMP	A
Toluene-d8 (S)	91.1		%	76 - 127		SW846 8260B			7/6/18 18:12	TMP	A
SEMIVOLATILE SIM											
1,4-Dioxane	ND		ug/L	0.093	0.018	8270 SIM	6/26/18 15:00	MXL	6/27/18 13:09	CGS	G
IS_Naphthalene-d8	0.0		ug/L			8270 SIM	6/26/18 15:00	MXL	6/27/18 13:09	CGS	G
IS_Perylene-d12	0.0		ug/L			8270 SIM	6/26/18 15:00	MXL	6/27/18 13:09	CGS	G
Acenaphthene-d10	0.0		ug/L			8270 SIM	6/26/18 15:00	MXL	6/27/18 13:09	CGS	G
Phenanthrene-d10	0.0		ug/L			8270 SIM	6/26/18 15:00	MXL	6/27/18 13:09	CGS	G
Chrysene-d12	0.0		ug/L			8270 SIM	6/26/18 15:00	MXL	6/27/18 13:09	CGS	G
Surrogate Recoveries	*Results*	*Flag*	*Units*	*Limits*		*Method*	*Prepared*	*By*	*Analyzed*	*By*	*Cntr*
2-Methylnapthalene-d10 (S)	43.7		%	29 - 112		8270 SIM	6/26/18 15:00	MXL	6/27/18 13:09	CGS	G
Fluoranthene-d10 (S)	81.7		%	45 - 130		8270 SIM	6/26/18 15:00	MXL	6/27/18 13:09	CGS	G

Vanessa N. Badman
Mrs. Vanessa N Badman
Project Coordinator

ANALYTICAL RESULTS

Workorder: 2322628 ALG001|LMC MRC 06/25/18

Lab ID: **2322628006** Date Collected: 6/25/2018 11:35 Matrix: Water

Sample ID: **MRC-SW7B** Date Received: 6/25/2018 22:40

Parameters	Results	Flag	Units	RDL	MDL	Method	Prepared By	Analyzed	By	*Cntr*
VOLATILE ORGANICS										
1,1,1,2-Tetrachloroethane	ND		ug/L	1.0	0.35	SW846 8260B		7/6/18 18:34	TMP	A
1,1,1-Trichloroethane	ND		ug/L	1.0	0.22	SW846 8260B		7/6/18 18:34	TMP	A
1,1,2,2-Tetrachloroethane	ND		ug/L	1.0	0.34	SW846 8260B		7/6/18 18:34	TMP	A
1,1,2-Trichloroethane	ND		ug/L	1.0	0.33	SW846 8260B		7/6/18 18:34	TMP	A
1,1-Dichloroethane	ND		ug/L	1.0	0.28	SW846 8260B		7/6/18 18:34	TMP	A
1,1-Dichloroethene	ND		ug/L	1.0	0.29	SW846 8260B		7/6/18 18:34	TMP	A
1,2,3-Trichlorobenzene	ND		ug/L	2.0	0.93	SW846 8260B		7/6/18 18:34	TMP	A
1,2,3-Trichloropropane	ND		ug/L	2.0	0.60	SW846 8260B		7/6/18 18:34	TMP	A
1,2,4-Trichlorobenzene	ND		ug/L	2.0	0.82	SW846 8260B		7/6/18 18:34	TMP	A
1,2,4-Trimethylbenzene	ND		ug/L	1.0	0.25	SW846 8260B		7/6/18 18:34	TMP	A
1,2-Dibromo-3-chloropropane	ND		ug/L	7.0	1.5	SW846 8260B		7/6/18 18:34	TMP	A
1,2-Dibromoethane	ND		ug/L	1.0	0.28	SW846 8260B		7/6/18 18:34	TMP	A
1,2-Dichlorobenzene	ND		ug/L	1.0	0.38	SW846 8260B		7/6/18 18:34	TMP	A
1,2-Dichloroethane	ND		ug/L	1.0	0.32	SW846 8260B		7/6/18 18:34	TMP	A
1,2-Dichloroethene, Total	ND		ug/L	2.0	0.45	SW846 8260B		7/6/18 18:34	TMP	A
1,2-Dichloropropane	ND		ug/L	1.0	0.24	SW846 8260B		7/6/18 18:34	TMP	A
1,3-Dichlorobenzene	ND		ug/L	1.0	0.25	SW846 8260B		7/6/18 18:34	TMP	A
1,3-Dichloropropane	ND		ug/L	1.0	0.27	SW846 8260B		7/6/18 18:34	TMP	A
1,3-Dichloropropene, Total	ND		ug/L	2.0	0.47	SW846 8260B		7/6/18 18:34	TMP	A
1,4-Dichlorobenzene	ND		ug/L	1.0	0.27	SW846 8260B		7/6/18 18:34	TMP	A
2,2-Dichloropropane	ND		ug/L	1.0	0.32	SW846 8260B		7/6/18 18:34	TMP	A
2-Butanone	ND		ug/L	10.0	1.8	SW846 8260B		7/6/18 18:34	TMP	A
2-Chloroethylvinyl ether	ND		ug/L	2.0	0.38	SW846 8260B		7/6/18 18:34	TMP	A
2-Hexanone	ND		ug/L	5.0	1.3	SW846 8260B		7/6/18 18:34	TMP	A
4-Methyl-2-Pentanone(MIBK)	ND		ug/L	5.0	1.5	SW846 8260B		7/6/18 18:34	TMP	A
Acetone	9.2J	J	ug/L	10.0	3.1	SW846 8260B		7/6/18 18:34	TMP	A
Benzene	ND		ug/L	1.0	0.23	SW846 8260B		7/6/18 18:34	TMP	A
Bromobenzene	ND		ug/L	1.0	0.32	SW846 8260B		7/6/18 18:34	TMP	A
Bromochloromethane	ND		ug/L	1.0	0.32	SW846 8260B		7/6/18 18:34	TMP	A
Bromodichloromethane	ND		ug/L	1.0	0.27	SW846 8260B		7/6/18 18:34	TMP	A
Bromoform	ND		ug/L	1.0	0.40	SW846 8260B		7/6/18 18:34	TMP	A
Bromomethane	ND		ug/L	1.0	0.39	SW846 8260B		7/6/18 18:34	TMP	A
Carbon Disulfide	ND		ug/L	1.0	0.23	SW846 8260B		7/6/18 18:34	TMP	A
Carbon Tetrachloride	ND		ug/L	1.0	0.31	SW846 8260B		7/6/18 18:34	TMP	A
Chlorobenzene	ND		ug/L	1.0	0.19	SW846 8260B		7/6/18 18:34	TMP	A
Chlorodibromomethane	ND		ug/L	1.0	0.45	SW846 8260B		7/6/18 18:34	TMP	A

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ANALYTICAL RESULTS

Workorder: 2322628 ALG001|LMC MRC 06/25/18

Lab ID: **2322628006** Date Collected: 6/25/2018 11:35 Matrix: Water
Sample ID: **MRC-SW7B** Date Received: 6/25/2018 22:40

Parameters	Results	Flag	Units	RDL	MDL	Method	Prepared By	Analyzed	By	*Cntr*
Chloroethane	ND		ug/L	1.0	0.33	SW846 8260B		7/6/18 18:34	TMP	A
Chloroform	ND		ug/L	1.0	0.21	SW846 8260B		7/6/18 18:34	TMP	A
Chloromethane	ND		ug/L	1.0	0.31	SW846 8260B		7/6/18 18:34	TMP	A
Cyclohexane	ND		ug/L	1.0	0.29	SW846 8260B		7/6/18 18:34	TMP	A
Dibromomethane	ND		ug/L	1.0	0.31	SW846 8260B		7/6/18 18:34	TMP	A
Dichlorodifluoromethane	ND		ug/L	1.0	0.33	SW846 8260B		7/6/18 18:34	TMP	A
Diisopropyl ether	ND		ug/L	1.0	0.25	SW846 8260B		7/6/18 18:34	TMP	A
Ethyl tert-butyl ether	ND		ug/L	1.0	0.19	SW846 8260B		7/6/18 18:34	TMP	A
Ethylbenzene	ND		ug/L	1.0	0.34	SW846 8260B		7/6/18 18:34	TMP	A
Freon 113	ND		ug/L	1.0	0.26	SW846 8260B		7/6/18 18:34	TMP	A
Hexachlorobutadiene	ND		ug/L	5.0	1.0	SW846 8260B		7/6/18 18:34	TMP	A
Isopropylbenzene	ND		ug/L	1.0	0.22	SW846 8260B		7/6/18 18:34	TMP	A
Methyl acetate	ND		ug/L	2.0	0.32	SW846 8260B		7/6/18 18:34	TMP	A
Methyl cyclohexane	ND		ug/L	1.0	0.30	SW846 8260B		7/6/18 18:34	TMP	A
Methyl t-Butyl Ether	ND		ug/L	1.0	0.33	SW846 8260B		7/6/18 18:34	TMP	A
Methylene Chloride	ND		ug/L	1.0	0.45	SW846 8260B		7/6/18 18:34	TMP	A
Naphthalene	ND		ug/L	2.0	0.34	SW846 8260B		7/6/18 18:34	TMP	A
Styrene	ND		ug/L	1.0	0.24	SW846 8260B		7/6/18 18:34	TMP	A
Tetrachloroethene	ND		ug/L	1.0	0.35	SW846 8260B		7/6/18 18:34	TMP	A
Toluene	ND		ug/L	1.0	0.23	SW846 8260B		7/6/18 18:34	TMP	A
Total Xylenes	ND		ug/L	3.0	0.66	SW846 8260B		7/6/18 18:34	TMP	A
Trichloroethene	ND		ug/L	1.0	0.33	SW846 8260B		7/6/18 18:34	TMP	A
Trichlorofluoromethane	ND		ug/L	1.0	0.24	SW846 8260B		7/6/18 18:34	TMP	A
Vinyl Acetate	ND		ug/L	5.0	1.6	SW846 8260B		7/6/18 18:34	TMP	A
Vinyl Chloride	ND		ug/L	1.0	0.30	SW846 8260B		7/6/18 18:34	TMP	A
cis-1,2-Dichloroethene	ND		ug/L	1.0	0.32	SW846 8260B		7/6/18 18:34	TMP	A
cis-1,3-Dichloropropene	ND		ug/L	1.0	0.31	SW846 8260B		7/6/18 18:34	TMP	A
mp-Xylene	ND		ug/L	2.0	0.52	SW846 8260B		7/6/18 18:34	TMP	A
n-Butylbenzene	ND		ug/L	2.0	0.60	SW846 8260B		7/6/18 18:34	TMP	A
n-Propylbenzene	ND		ug/L	1.0	0.33	SW846 8260B		7/6/18 18:34	TMP	A
o-Chlorotoluene	ND		ug/L	1.0	0.26	SW846 8260B		7/6/18 18:34	TMP	A
o-Xylene	ND		ug/L	1.0	0.33	SW846 8260B		7/6/18 18:34	TMP	A
p-Chlorotoluene	ND		ug/L	1.0	0.33	SW846 8260B		7/6/18 18:34	TMP	A
p-Isopropyltoluene	ND		ug/L	1.0	0.32	SW846 8260B		7/6/18 18:34	TMP	A
sec-Butylbenzene	ND		ug/L	1.0	0.31	SW846 8260B		7/6/18 18:34	TMP	A
tert-Amyl methyl ether	ND		ug/L	1.0	0.20	SW846 8260B		7/6/18 18:34	TMP	A
tert-Butyl Alcohol	ND		ug/L	10.0	2.2	SW846 8260B		7/6/18 18:34	TMP	A
tert-Butylbenzene	ND		ug/L	2.0	0.44	SW846 8260B		7/6/18 18:34	TMP	A

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State Certifications: DE ID 11 , MA PA0102 , MD 128 , VA 460157 , WV 343

ANALYTICAL RESULTS

Workorder: 2322628 ALG001|LMC MRC 06/25/18

Lab ID: **2322628006** Date Collected: 6/25/2018 11:35 Matrix: Water
Sample ID: **MRC-SW7B** Date Received: 6/25/2018 22:40

Parameters	Results	Flag	Units	RDL	MDL	Method	Prepared	By	Analyzed	By	Cntr
trans-1,2-Dichloroethene	ND		ug/L	1.0	0.26	SW846 8260B			7/6/18 18:34	TMP	A
trans-1,3-Dichloropropene	ND		ug/L	1.0	0.29	SW846 8260B			7/6/18 18:34	TMP	A
Surrogate Recoveries	*Results*	*Flag*	*Units*	*Limits*		*Method*	*Prepared*	*By*	*Analyzed*	*By*	*Cntr*
1,2-Dichloroethane-d4 (S)	94.7		%	62 - 133		SW846 8260B			7/6/18 18:34	TMP	A
4-Bromofluorobenzene (S)	105		%	79 - 114		SW846 8260B			7/6/18 18:34	TMP	A
Dibromofluoromethane (S)	81.9		%	78 - 116		SW846 8260B			7/6/18 18:34	TMP	A
Toluene-d8 (S)	90.5		%	76 - 127		SW846 8260B			7/6/18 18:34	TMP	A
SEMIVOLATILE SIM											
1,4-Dioxane	ND		ug/L	0.093	0.018	8270 SIM	6/26/18 15:00	MXL	6/27/18 13:36	CGS	G
IS_Naphthalene-d8	0.0		ug/L			8270 SIM	6/26/18 15:00	MXL	6/27/18 13:36	CGS	G
IS_Perylene-d12	0.0		ug/L			8270 SIM	6/26/18 15:00	MXL	6/27/18 13:36	CGS	G
Acenaphthene-d10	0.0		ug/L			8270 SIM	6/26/18 15:00	MXL	6/27/18 13:36	CGS	G
Phenanthrene-d10	0.0		ug/L			8270 SIM	6/26/18 15:00	MXL	6/27/18 13:36	CGS	G
Chrysene-d12	0.0		ug/L			8270 SIM	6/26/18 15:00	MXL	6/27/18 13:36	CGS	G
Surrogate Recoveries	*Results*	*Flag*	*Units*	*Limits*		*Method*	*Prepared*	*By*	*Analyzed*	*By*	*Cntr*
2-Methylnapthalene-d10 (S)	43.6		%	29 - 112		8270 SIM	6/26/18 15:00	MXL	6/27/18 13:36	CGS	G
Fluoranthene-d10 (S)	85.7		%	45 - 130		8270 SIM	6/26/18 15:00	MXL	6/27/18 13:36	CGS	G

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ANALYTICAL RESULTS

Workorder: 2322628 ALG001|LMC MRC 06/25/18

Lab ID: **2322628007** Date Collected: 6/25/2018 12:05 Matrix: Water
Sample ID: **MRC-SW9B** Date Received: 6/25/2018 22:40

Parameters	Results	Flag	Units	RDL	MDL	Method	Prepared By	Analyzed	By	*Cntr*
VOLATILE ORGANICS										
1,1,1,2-Tetrachloroethane	ND		ug/L	1.0	0.35	SW846 8260B		7/6/18 18:56	TMP	A
1,1,1-Trichloroethane	ND		ug/L	1.0	0.22	SW846 8260B		7/6/18 18:56	TMP	A
1,1,2,2-Tetrachloroethane	ND		ug/L	1.0	0.34	SW846 8260B		7/6/18 18:56	TMP	A
1,1,2-Trichloroethane	ND		ug/L	1.0	0.33	SW846 8260B		7/6/18 18:56	TMP	A
1,1-Dichloroethane	ND		ug/L	1.0	0.28	SW846 8260B		7/6/18 18:56	TMP	A
1,1-Dichloroethene	ND		ug/L	1.0	0.29	SW846 8260B		7/6/18 18:56	TMP	A
1,2,3-Trichlorobenzene	ND		ug/L	2.0	0.93	SW846 8260B		7/6/18 18:56	TMP	A
1,2,3-Trichloropropane	ND		ug/L	2.0	0.60	SW846 8260B		7/6/18 18:56	TMP	A
1,2,4-Trichlorobenzene	ND		ug/L	2.0	0.82	SW846 8260B		7/6/18 18:56	TMP	A
1,2,4-Trimethylbenzene	ND		ug/L	1.0	0.25	SW846 8260B		7/6/18 18:56	TMP	A
1,2-Dibromo-3-chloropropane	ND		ug/L	7.0	1.5	SW846 8260B		7/6/18 18:56	TMP	A
1,2-Dibromoethane	ND		ug/L	1.0	0.28	SW846 8260B		7/6/18 18:56	TMP	A
1,2-Dichlorobenzene	ND		ug/L	1.0	0.38	SW846 8260B		7/6/18 18:56	TMP	A
1,2-Dichloroethane	ND		ug/L	1.0	0.32	SW846 8260B		7/6/18 18:56	TMP	A
1,2-Dichloroethene, Total	ND		ug/L	2.0	0.45	SW846 8260B		7/6/18 18:56	TMP	A
1,2-Dichloropropane	ND		ug/L	1.0	0.24	SW846 8260B		7/6/18 18:56	TMP	A
1,3-Dichlorobenzene	ND		ug/L	1.0	0.25	SW846 8260B		7/6/18 18:56	TMP	A
1,3-Dichloropropane	ND		ug/L	1.0	0.27	SW846 8260B		7/6/18 18:56	TMP	A
1,3-Dichloropropene, Total	ND		ug/L	2.0	0.47	SW846 8260B		7/6/18 18:56	TMP	A
1,4-Dichlorobenzene	ND		ug/L	1.0	0.27	SW846 8260B		7/6/18 18:56	TMP	A
2,2-Dichloropropane	ND		ug/L	1.0	0.32	SW846 8260B		7/6/18 18:56	TMP	A
2-Butanone	ND		ug/L	10.0	1.8	SW846 8260B		7/6/18 18:56	TMP	A
2-Chloroethylvinyl ether	ND		ug/L	2.0	0.38	SW846 8260B		7/6/18 18:56	TMP	A
2-Hexanone	ND		ug/L	5.0	1.3	SW846 8260B		7/6/18 18:56	TMP	A
4-Methyl-2-Pentanone(MIBK)	ND		ug/L	5.0	1.5	SW846 8260B		7/6/18 18:56	TMP	A
Acetone	12.6		ug/L	10.0	3.1	SW846 8260B		7/6/18 18:56	TMP	A
Benzene	ND		ug/L	1.0	0.23	SW846 8260B		7/6/18 18:56	TMP	A
Bromobenzene	ND		ug/L	1.0	0.32	SW846 8260B		7/6/18 18:56	TMP	A
Bromochloromethane	ND		ug/L	1.0	0.32	SW846 8260B		7/6/18 18:56	TMP	A
Bromodichloromethane	ND		ug/L	1.0	0.27	SW846 8260B		7/6/18 18:56	TMP	A
Bromoform	ND		ug/L	1.0	0.40	SW846 8260B		7/6/18 18:56	TMP	A
Bromomethane	ND		ug/L	1.0	0.39	SW846 8260B		7/6/18 18:56	TMP	A
Carbon Disulfide	ND		ug/L	1.0	0.23	SW846 8260B		7/6/18 18:56	TMP	A
Carbon Tetrachloride	ND		ug/L	1.0	0.31	SW846 8260B		7/6/18 18:56	TMP	A
Chlorobenzene	ND		ug/L	1.0	0.19	SW846 8260B		7/6/18 18:56	TMP	A
Chlorodibromomethane	ND		ug/L	1.0	0.45	SW846 8260B		7/6/18 18:56	TMP	A

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ANALYTICAL RESULTS

Workorder: 2322628 ALG001|LMC MRC 06/25/18

Lab ID: **2322628007** Date Collected: 6/25/2018 12:05 Matrix: Water
Sample ID: **MRC-SW9B** Date Received: 6/25/2018 22:40

Parameters	Results	Flag	Units	RDL	MDL	Method	Prepared By	Analyzed	By	Cntr
Chloroethane	ND		ug/L	1.0	0.33	SW846 8260B		7/6/18 18:56	TMP	A
Chloroform	ND		ug/L	1.0	0.21	SW846 8260B		7/6/18 18:56	TMP	A
Chloromethane	ND		ug/L	1.0	0.31	SW846 8260B		7/6/18 18:56	TMP	A
Cyclohexane	ND		ug/L	1.0	0.29	SW846 8260B		7/6/18 18:56	TMP	A
Dibromomethane	ND		ug/L	1.0	0.31	SW846 8260B		7/6/18 18:56	TMP	A
Dichlorodifluoromethane	ND		ug/L	1.0	0.33	SW846 8260B		7/6/18 18:56	TMP	A
Diisopropyl ether	ND		ug/L	1.0	0.25	SW846 8260B		7/6/18 18:56	TMP	A
Ethyl tert-butyl ether	ND		ug/L	1.0	0.19	SW846 8260B		7/6/18 18:56	TMP	A
Ethylbenzene	ND		ug/L	1.0	0.34	SW846 8260B		7/6/18 18:56	TMP	A
Freon 113	ND		ug/L	1.0	0.26	SW846 8260B		7/6/18 18:56	TMP	A
Hexachlorobutadiene	ND		ug/L	5.0	1.0	SW846 8260B		7/6/18 18:56	TMP	A
Isopropylbenzene	ND		ug/L	1.0	0.22	SW846 8260B		7/6/18 18:56	TMP	A
Methyl acetate	ND		ug/L	2.0	0.32	SW846 8260B		7/6/18 18:56	TMP	A
Methyl cyclohexane	ND		ug/L	1.0	0.30	SW846 8260B		7/6/18 18:56	TMP	A
Methyl t-Butyl Ether	ND		ug/L	1.0	0.33	SW846 8260B		7/6/18 18:56	TMP	A
Methylene Chloride	ND		ug/L	1.0	0.45	SW846 8260B		7/6/18 18:56	TMP	A
Naphthalene	ND		ug/L	2.0	0.34	SW846 8260B		7/6/18 18:56	TMP	A
Styrene	ND		ug/L	1.0	0.24	SW846 8260B		7/6/18 18:56	TMP	A
Tetrachloroethene	ND		ug/L	1.0	0.35	SW846 8260B		7/6/18 18:56	TMP	A
Toluene	ND		ug/L	1.0	0.23	SW846 8260B		7/6/18 18:56	TMP	A
Total Xylenes	ND		ug/L	3.0	0.66	SW846 8260B		7/6/18 18:56	TMP	A
Trichloroethene	ND		ug/L	1.0	0.33	SW846 8260B		7/6/18 18:56	TMP	A
Trichlorofluoromethane	ND		ug/L	1.0	0.24	SW846 8260B		7/6/18 18:56	TMP	A
Vinyl Acetate	ND		ug/L	5.0	1.6	SW846 8260B		7/6/18 18:56	TMP	A
Vinyl Chloride	ND		ug/L	1.0	0.30	SW846 8260B		7/6/18 18:56	TMP	A
cis-1,2-Dichloroethene	ND		ug/L	1.0	0.32	SW846 8260B		7/6/18 18:56	TMP	A
cis-1,3-Dichloropropene	ND		ug/L	1.0	0.31	SW846 8260B		7/6/18 18:56	TMP	A
mp-Xylene	ND		ug/L	2.0	0.52	SW846 8260B		7/6/18 18:56	TMP	A
n-Butylbenzene	ND		ug/L	2.0	0.60	SW846 8260B		7/6/18 18:56	TMP	A
n-Propylbenzene	ND		ug/L	1.0	0.33	SW846 8260B		7/6/18 18:56	TMP	A
o-Chlorotoluene	ND		ug/L	1.0	0.26	SW846 8260B		7/6/18 18:56	TMP	A
o-Xylene	ND		ug/L	1.0	0.33	SW846 8260B		7/6/18 18:56	TMP	A
p-Chlorotoluene	ND		ug/L	1.0	0.33	SW846 8260B		7/6/18 18:56	TMP	A
p-Isopropyltoluene	ND		ug/L	1.0	0.32	SW846 8260B		7/6/18 18:56	TMP	A
sec-Butylbenzene	ND		ug/L	1.0	0.31	SW846 8260B		7/6/18 18:56	TMP	A
tert-Amyl methyl ether	ND		ug/L	1.0	0.20	SW846 8260B		7/6/18 18:56	TMP	A
tert-Butyl Alcohol	ND		ug/L	10.0	2.2	SW846 8260B		7/6/18 18:56	TMP	A
tert-Butylbenzene	ND		ug/L	2.0	0.44	SW846 8260B		7/6/18 18:56	TMP	A

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ANALYTICAL RESULTS

Workorder: 2322628 ALG001|LMC MRC 06/25/18

Lab ID: **2322628007** Date Collected: 6/25/2018 12:05 Matrix: Water
Sample ID: **MRC-SW9B** Date Received: 6/25/2018 22:40

Parameters	Results	Flag	Units	RDL	MDL	Method	Prepared	By	Analyzed	By	Cntr
trans-1,2-Dichloroethene	ND		ug/L	1.0	0.26	SW846 8260B			7/6/18 18:56	TMP	A
trans-1,3-Dichloropropene	ND		ug/L	1.0	0.29	SW846 8260B			7/6/18 18:56	TMP	A
Surrogate Recoveries	*Results*	*Flag*	*Units*	*Limits*		*Method*	*Prepared*	*By*	*Analyzed*	*By*	*Cntr*
1,2-Dichloroethane-d4 (S)	94.3		%	62 - 133		SW846 8260B			7/6/18 18:56	TMP	A
4-Bromofluorobenzene (S)	87.7		%	79 - 114		SW846 8260B			7/6/18 18:56	TMP	A
Dibromofluoromethane (S)	82.2		%	78 - 116		SW846 8260B			7/6/18 18:56	TMP	A
Toluene-d8 (S)	90.9		%	76 - 127		SW846 8260B			7/6/18 18:56	TMP	A
SEMIVOLATILE SIM											
1,4-Dioxane	ND		ug/L	0.096	0.018	8270 SIM	6/26/18 15:00	MXL	6/27/18 14:03	CGS	G
IS_Naphthalene-d8	0.0		ug/L			8270 SIM	6/26/18 15:00	MXL	6/27/18 14:03	CGS	G
IS_Perylene-d12	0.0		ug/L			8270 SIM	6/26/18 15:00	MXL	6/27/18 14:03	CGS	G
Acenaphthene-d10	0.0		ug/L			8270 SIM	6/26/18 15:00	MXL	6/27/18 14:03	CGS	G
Phenanthrene-d10	0.0		ug/L			8270 SIM	6/26/18 15:00	MXL	6/27/18 14:03	CGS	G
Chrysene-d12	0.0		ug/L			8270 SIM	6/26/18 15:00	MXL	6/27/18 14:03	CGS	G
Surrogate Recoveries	*Results*	*Flag*	*Units*	*Limits*		*Method*	*Prepared*	*By*	*Analyzed*	*By*	*Cntr*
2-Methylnapthalene-d10 (S)	44.1		%	29 - 112		8270 SIM	6/26/18 15:00	MXL	6/27/18 14:03	CGS	G
Fluoranthene-d10 (S)	84.7		%	45 - 130		8270 SIM	6/26/18 15:00	MXL	6/27/18 14:03	CGS	G

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ANALYTICAL RESULTS

Workorder: 2322628 ALG001|LMC MRC 06/25/18

Lab ID: **2322628008** Date Collected: 6/25/2018 11:20 Matrix: Water
Sample ID: **MRC-SW7A** Date Received: 6/25/2018 22:40

Parameters	Results	Flag	Units	RDL	MDL	Method	Prepared By	Analyzed	By	*Cntr*
VOLATILE ORGANICS										
1,1,1,2-Tetrachloroethane	ND		ug/L	1.0	0.35	SW846 8260B		7/6/18 19:18	TMP	A
1,1,1-Trichloroethane	ND		ug/L	1.0	0.22	SW846 8260B		7/6/18 19:18	TMP	A
1,1,2,2-Tetrachloroethane	ND		ug/L	1.0	0.34	SW846 8260B		7/6/18 19:18	TMP	A
1,1,2-Trichloroethane	ND		ug/L	1.0	0.33	SW846 8260B		7/6/18 19:18	TMP	A
1,1-Dichloroethane	ND		ug/L	1.0	0.28	SW846 8260B		7/6/18 19:18	TMP	A
1,1-Dichloroethene	ND		ug/L	1.0	0.29	SW846 8260B		7/6/18 19:18	TMP	A
1,2,3-Trichlorobenzene	ND		ug/L	2.0	0.93	SW846 8260B		7/6/18 19:18	TMP	A
1,2,3-Trichloropropane	ND		ug/L	2.0	0.60	SW846 8260B		7/6/18 19:18	TMP	A
1,2,4-Trichlorobenzene	ND		ug/L	2.0	0.82	SW846 8260B		7/6/18 19:18	TMP	A
1,2,4-Trimethylbenzene	ND		ug/L	1.0	0.25	SW846 8260B		7/6/18 19:18	TMP	A
1,2-Dibromo-3-chloropropane	ND		ug/L	7.0	1.5	SW846 8260B		7/6/18 19:18	TMP	A
1,2-Dibromoethane	ND		ug/L	1.0	0.28	SW846 8260B		7/6/18 19:18	TMP	A
1,2-Dichlorobenzene	ND		ug/L	1.0	0.38	SW846 8260B		7/6/18 19:18	TMP	A
1,2-Dichloroethane	ND		ug/L	1.0	0.32	SW846 8260B		7/6/18 19:18	TMP	A
1,2-Dichloroethene, Total	ND		ug/L	2.0	0.45	SW846 8260B		7/6/18 19:18	TMP	A
1,2-Dichloropropane	ND		ug/L	1.0	0.24	SW846 8260B		7/6/18 19:18	TMP	A
1,3-Dichlorobenzene	ND		ug/L	1.0	0.25	SW846 8260B		7/6/18 19:18	TMP	A
1,3-Dichloropropane	ND		ug/L	1.0	0.27	SW846 8260B		7/6/18 19:18	TMP	A
1,3-Dichloropropene, Total	ND		ug/L	2.0	0.47	SW846 8260B		7/6/18 19:18	TMP	A
1,4-Dichlorobenzene	ND		ug/L	1.0	0.27	SW846 8260B		7/6/18 19:18	TMP	A
2,2-Dichloropropane	ND		ug/L	1.0	0.32	SW846 8260B		7/6/18 19:18	TMP	A
2-Butanone	ND		ug/L	10.0	1.8	SW846 8260B		7/6/18 19:18	TMP	A
2-Chloroethylvinyl ether	ND		ug/L	2.0	0.38	SW846 8260B		7/6/18 19:18	TMP	A
2-Hexanone	ND		ug/L	5.0	1.3	SW846 8260B		7/6/18 19:18	TMP	A
4-Methyl-2-Pentanone(MIBK)	ND		ug/L	5.0	1.5	SW846 8260B		7/6/18 19:18	TMP	A
Acetone	8.1J	J	ug/L	10.0	3.1	SW846 8260B		7/6/18 19:18	TMP	A
Benzene	ND		ug/L	1.0	0.23	SW846 8260B		7/6/18 19:18	TMP	A
Bromobenzene	ND		ug/L	1.0	0.32	SW846 8260B		7/6/18 19:18	TMP	A
Bromochloromethane	ND		ug/L	1.0	0.32	SW846 8260B		7/6/18 19:18	TMP	A
Bromodichloromethane	ND		ug/L	1.0	0.27	SW846 8260B		7/6/18 19:18	TMP	A
Bromoform	ND		ug/L	1.0	0.40	SW846 8260B		7/6/18 19:18	TMP	A
Bromomethane	ND		ug/L	1.0	0.39	SW846 8260B		7/6/18 19:18	TMP	A
Carbon Disulfide	ND		ug/L	1.0	0.23	SW846 8260B		7/6/18 19:18	TMP	A
Carbon Tetrachloride	ND		ug/L	1.0	0.31	SW846 8260B		7/6/18 19:18	TMP	A
Chlorobenzene	ND		ug/L	1.0	0.19	SW846 8260B		7/6/18 19:18	TMP	A
Chlorodibromomethane	ND		ug/L	1.0	0.45	SW846 8260B		7/6/18 19:18	TMP	A

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ANALYTICAL RESULTS

Workorder: 2322628 ALG001|LMC MRC 06/25/18

Lab ID: **2322628008** Date Collected: 6/25/2018 11:20 Matrix: Water
Sample ID: **MRC-SW7A** Date Received: 6/25/2018 22:40

Parameters	Results	Flag	Units	RDL	MDL	Method	Prepared By	Analyzed	By	Cntr
Chloroethane	ND		ug/L	1.0	0.33	SW846 8260B		7/6/18 19:18	TMP	A
Chloroform	ND		ug/L	1.0	0.21	SW846 8260B		7/6/18 19:18	TMP	A
Chloromethane	ND		ug/L	1.0	0.31	SW846 8260B		7/6/18 19:18	TMP	A
Cyclohexane	ND		ug/L	1.0	0.29	SW846 8260B		7/6/18 19:18	TMP	A
Dibromomethane	ND		ug/L	1.0	0.31	SW846 8260B		7/6/18 19:18	TMP	A
Dichlorodifluoromethane	ND		ug/L	1.0	0.33	SW846 8260B		7/6/18 19:18	TMP	A
Diisopropyl ether	ND		ug/L	1.0	0.25	SW846 8260B		7/6/18 19:18	TMP	A
Ethyl tert-butyl ether	ND		ug/L	1.0	0.19	SW846 8260B		7/6/18 19:18	TMP	A
Ethylbenzene	ND		ug/L	1.0	0.34	SW846 8260B		7/6/18 19:18	TMP	A
Freon 113	ND		ug/L	1.0	0.26	SW846 8260B		7/6/18 19:18	TMP	A
Hexachlorobutadiene	ND		ug/L	5.0	1.0	SW846 8260B		7/6/18 19:18	TMP	A
Isopropylbenzene	ND		ug/L	1.0	0.22	SW846 8260B		7/6/18 19:18	TMP	A
Methyl acetate	ND		ug/L	2.0	0.32	SW846 8260B		7/6/18 19:18	TMP	A
Methyl cyclohexane	ND		ug/L	1.0	0.30	SW846 8260B		7/6/18 19:18	TMP	A
Methyl t-Butyl Ether	ND		ug/L	1.0	0.33	SW846 8260B		7/6/18 19:18	TMP	A
Methylene Chloride	ND		ug/L	1.0	0.45	SW846 8260B		7/6/18 19:18	TMP	A
Naphthalene	ND		ug/L	2.0	0.34	SW846 8260B		7/6/18 19:18	TMP	A
Styrene	ND		ug/L	1.0	0.24	SW846 8260B		7/6/18 19:18	TMP	A
Tetrachloroethene	ND		ug/L	1.0	0.35	SW846 8260B		7/6/18 19:18	TMP	A
Toluene	ND		ug/L	1.0	0.23	SW846 8260B		7/6/18 19:18	TMP	A
Total Xylenes	ND		ug/L	3.0	0.66	SW846 8260B		7/6/18 19:18	TMP	A
Trichloroethene	ND		ug/L	1.0	0.33	SW846 8260B		7/6/18 19:18	TMP	A
Trichlorofluoromethane	ND		ug/L	1.0	0.24	SW846 8260B		7/6/18 19:18	TMP	A
Vinyl Acetate	ND		ug/L	5.0	1.6	SW846 8260B		7/6/18 19:18	TMP	A
Vinyl Chloride	ND		ug/L	1.0	0.30	SW846 8260B		7/6/18 19:18	TMP	A
cis-1,2-Dichloroethene	ND		ug/L	1.0	0.32	SW846 8260B		7/6/18 19:18	TMP	A
cis-1,3-Dichloropropene	ND		ug/L	1.0	0.31	SW846 8260B		7/6/18 19:18	TMP	A
mp-Xylene	ND		ug/L	2.0	0.52	SW846 8260B		7/6/18 19:18	TMP	A
n-Butylbenzene	ND		ug/L	2.0	0.60	SW846 8260B		7/6/18 19:18	TMP	A
n-Propylbenzene	ND		ug/L	1.0	0.33	SW846 8260B		7/6/18 19:18	TMP	A
o-Chlorotoluene	ND		ug/L	1.0	0.26	SW846 8260B		7/6/18 19:18	TMP	A
o-Xylene	ND		ug/L	1.0	0.33	SW846 8260B		7/6/18 19:18	TMP	A
p-Chlorotoluene	ND		ug/L	1.0	0.33	SW846 8260B		7/6/18 19:18	TMP	A
p-Isopropyltoluene	ND		ug/L	1.0	0.32	SW846 8260B		7/6/18 19:18	TMP	A
sec-Butylbenzene	ND		ug/L	1.0	0.31	SW846 8260B		7/6/18 19:18	TMP	A
tert-Amyl methyl ether	ND		ug/L	1.0	0.20	SW846 8260B		7/6/18 19:18	TMP	A
tert-Butyl Alcohol	ND		ug/L	10.0	2.2	SW846 8260B		7/6/18 19:18	TMP	A
tert-Butylbenzene	ND		ug/L	2.0	0.44	SW846 8260B		7/6/18 19:18	TMP	A

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State Certifications: DE ID 11 , MA PA0102 , MD 128 , VA 460157 , WV 343

ANALYTICAL RESULTS

Workorder: 2322628 ALG001|LMC MRC 06/25/18

Lab ID: **2322628008** Date Collected: 6/25/2018 11:20 Matrix: Water
Sample ID: **MRC-SW7A** Date Received: 6/25/2018 22:40

Parameters	Results	Flag	Units	RDL	MDL	Method	Prepared	By	Analyzed	By	Cntr
trans-1,2-Dichloroethene	ND		ug/L	1.0	0.26	SW846 8260B			7/6/18 19:18	TMP	A
trans-1,3-Dichloropropene	ND		ug/L	1.0	0.29	SW846 8260B			7/6/18 19:18	TMP	A
Surrogate Recoveries	*Results*	*Flag*	*Units*	*Limits*		*Method*	*Prepared*	*By*	*Analyzed*	*By*	*Cntr*
1,2-Dichloroethane-d4 (S)	95.4		%	62 - 133		SW846 8260B			7/6/18 19:18	TMP	A
4-Bromofluorobenzene (S)	95.8		%	79 - 114		SW846 8260B			7/6/18 19:18	TMP	A
Dibromofluoromethane (S)	83.9		%	78 - 116		SW846 8260B			7/6/18 19:18	TMP	A
Toluene-d8 (S)	94.9		%	76 - 127		SW846 8260B			7/6/18 19:18	TMP	A
SEMIVOLATILE SIM											
1,4-Dioxane	ND		ug/L	0.093	0.018	8270 SIM	6/26/18 15:00	MXL	6/27/18 14:29	CGS	G
IS_Naphthalene-d8	0.0		ug/L			8270 SIM	6/26/18 15:00	MXL	6/27/18 14:29	CGS	G
IS_Perylene-d12	0.0		ug/L			8270 SIM	6/26/18 15:00	MXL	6/27/18 14:29	CGS	G
Acenaphthene-d10	0.0		ug/L			8270 SIM	6/26/18 15:00	MXL	6/27/18 14:29	CGS	G
Phenanthrene-d10	0.0		ug/L			8270 SIM	6/26/18 15:00	MXL	6/27/18 14:29	CGS	G
Chrysene-d12	0.0		ug/L			8270 SIM	6/26/18 15:00	MXL	6/27/18 14:29	CGS	G
Surrogate Recoveries	*Results*	*Flag*	*Units*	*Limits*		*Method*	*Prepared*	*By*	*Analyzed*	*By*	*Cntr*
2-Methylnapthalene-d10 (S)	46.7		%	29 - 112		8270 SIM	6/26/18 15:00	MXL	6/27/18 14:29	CGS	G
Fluoranthene-d10 (S)	86.4		%	45 - 130		8270 SIM	6/26/18 15:00	MXL	6/27/18 14:29	CGS	G

Vanessa N. Badman
Mrs. Vanessa N Badman
Project Coordinator

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ANALYTICAL RESULTS

Workorder: 2322628 ALG001|LMC MRC 06/25/18

Lab ID: **2322628009** Date Collected: 6/25/2018 11:50 Matrix: Water
Sample ID: **MRC-SW9A** Date Received: 6/25/2018 22:40

Parameters	Results	Flag	Units	RDL	MDL	Method	Prepared By	Analyzed	By	*Cntr*
VOLATILE ORGANICS										
1,1,1,2-Tetrachloroethane	ND		ug/L	1.0	0.35	SW846 8260B		7/6/18 19:39	TMP	A
1,1,1-Trichloroethane	ND		ug/L	1.0	0.22	SW846 8260B		7/6/18 19:39	TMP	A
1,1,2,2-Tetrachloroethane	ND		ug/L	1.0	0.34	SW846 8260B		7/6/18 19:39	TMP	A
1,1,2-Trichloroethane	ND		ug/L	1.0	0.33	SW846 8260B		7/6/18 19:39	TMP	A
1,1-Dichloroethane	ND		ug/L	1.0	0.28	SW846 8260B		7/6/18 19:39	TMP	A
1,1-Dichloroethene	ND		ug/L	1.0	0.29	SW846 8260B		7/6/18 19:39	TMP	A
1,2,3-Trichlorobenzene	ND		ug/L	2.0	0.93	SW846 8260B		7/6/18 19:39	TMP	A
1,2,3-Trichloropropane	ND		ug/L	2.0	0.60	SW846 8260B		7/6/18 19:39	TMP	A
1,2,4-Trichlorobenzene	ND		ug/L	2.0	0.82	SW846 8260B		7/6/18 19:39	TMP	A
1,2,4-Trimethylbenzene	ND		ug/L	1.0	0.25	SW846 8260B		7/6/18 19:39	TMP	A
1,2-Dibromo-3-chloropropane	ND		ug/L	7.0	1.5	SW846 8260B		7/6/18 19:39	TMP	A
1,2-Dibromoethane	ND		ug/L	1.0	0.28	SW846 8260B		7/6/18 19:39	TMP	A
1,2-Dichlorobenzene	ND		ug/L	1.0	0.38	SW846 8260B		7/6/18 19:39	TMP	A
1,2-Dichloroethane	ND		ug/L	1.0	0.32	SW846 8260B		7/6/18 19:39	TMP	A
1,2-Dichloroethene, Total	ND		ug/L	2.0	0.45	SW846 8260B		7/6/18 19:39	TMP	A
1,2-Dichloropropane	ND		ug/L	1.0	0.24	SW846 8260B		7/6/18 19:39	TMP	A
1,3-Dichlorobenzene	ND		ug/L	1.0	0.25	SW846 8260B		7/6/18 19:39	TMP	A
1,3-Dichloropropane	ND		ug/L	1.0	0.27	SW846 8260B		7/6/18 19:39	TMP	A
1,3-Dichloropropene, Total	ND		ug/L	2.0	0.47	SW846 8260B		7/6/18 19:39	TMP	A
1,4-Dichlorobenzene	ND		ug/L	1.0	0.27	SW846 8260B		7/6/18 19:39	TMP	A
2,2-Dichloropropane	ND		ug/L	1.0	0.32	SW846 8260B		7/6/18 19:39	TMP	A
2-Butanone	ND		ug/L	10.0	1.8	SW846 8260B		7/6/18 19:39	TMP	A
2-Chloroethylvinyl ether	ND		ug/L	2.0	0.38	SW846 8260B		7/6/18 19:39	TMP	A
2-Hexanone	ND		ug/L	5.0	1.3	SW846 8260B		7/6/18 19:39	TMP	A
4-Methyl-2-Pentanone(MIBK)	ND		ug/L	5.0	1.5	SW846 8260B		7/6/18 19:39	TMP	A
Acetone	7.5J	J	ug/L	10.0	3.1	SW846 8260B		7/6/18 19:39	TMP	A
Benzene	ND		ug/L	1.0	0.23	SW846 8260B		7/6/18 19:39	TMP	A
Bromobenzene	ND		ug/L	1.0	0.32	SW846 8260B		7/6/18 19:39	TMP	A
Bromochloromethane	ND		ug/L	1.0	0.32	SW846 8260B		7/6/18 19:39	TMP	A
Bromodichloromethane	ND		ug/L	1.0	0.27	SW846 8260B		7/6/18 19:39	TMP	A
Bromoform	ND		ug/L	1.0	0.40	SW846 8260B		7/6/18 19:39	TMP	A
Bromomethane	ND		ug/L	1.0	0.39	SW846 8260B		7/6/18 19:39	TMP	A
Carbon Disulfide	ND		ug/L	1.0	0.23	SW846 8260B		7/6/18 19:39	TMP	A
Carbon Tetrachloride	ND		ug/L	1.0	0.31	SW846 8260B		7/6/18 19:39	TMP	A
Chlorobenzene	ND		ug/L	1.0	0.19	SW846 8260B		7/6/18 19:39	TMP	A
Chlorodibromomethane	ND		ug/L	1.0	0.45	SW846 8260B		7/6/18 19:39	TMP	A

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ANALYTICAL RESULTS

Workorder: 2322628 ALG001|LMC MRC 06/25/18

Lab ID: **2322628009** Date Collected: 6/25/2018 11:50 Matrix: Water
Sample ID: **MRC-SW9A** Date Received: 6/25/2018 22:40

Parameters	Results	Flag	Units	RDL	MDL	Method	Prepared By	Analyzed	By	Cntr
Chloroethane	ND		ug/L	1.0	0.33	SW846 8260B		7/6/18 19:39	TMP	A
Chloroform	ND		ug/L	1.0	0.21	SW846 8260B		7/6/18 19:39	TMP	A
Chloromethane	ND		ug/L	1.0	0.31	SW846 8260B		7/6/18 19:39	TMP	A
Cyclohexane	ND		ug/L	1.0	0.29	SW846 8260B		7/6/18 19:39	TMP	A
Dibromomethane	ND		ug/L	1.0	0.31	SW846 8260B		7/6/18 19:39	TMP	A
Dichlorodifluoromethane	ND		ug/L	1.0	0.33	SW846 8260B		7/6/18 19:39	TMP	A
Diisopropyl ether	ND		ug/L	1.0	0.25	SW846 8260B		7/6/18 19:39	TMP	A
Ethyl tert-butyl ether	ND		ug/L	1.0	0.19	SW846 8260B		7/6/18 19:39	TMP	A
Ethylbenzene	ND		ug/L	1.0	0.34	SW846 8260B		7/6/18 19:39	TMP	A
Freon 113	ND		ug/L	1.0	0.26	SW846 8260B		7/6/18 19:39	TMP	A
Hexachlorobutadiene	ND		ug/L	5.0	1.0	SW846 8260B		7/6/18 19:39	TMP	A
Isopropylbenzene	ND		ug/L	1.0	0.22	SW846 8260B		7/6/18 19:39	TMP	A
Methyl acetate	ND		ug/L	2.0	0.32	SW846 8260B		7/6/18 19:39	TMP	A
Methyl cyclohexane	ND		ug/L	1.0	0.30	SW846 8260B		7/6/18 19:39	TMP	A
Methyl t-Butyl Ether	ND		ug/L	1.0	0.33	SW846 8260B		7/6/18 19:39	TMP	A
Methylene Chloride	ND		ug/L	1.0	0.45	SW846 8260B		7/6/18 19:39	TMP	A
Naphthalene	ND		ug/L	2.0	0.34	SW846 8260B		7/6/18 19:39	TMP	A
Styrene	ND		ug/L	1.0	0.24	SW846 8260B		7/6/18 19:39	TMP	A
Tetrachloroethene	ND		ug/L	1.0	0.35	SW846 8260B		7/6/18 19:39	TMP	A
Toluene	ND		ug/L	1.0	0.23	SW846 8260B		7/6/18 19:39	TMP	A
Total Xylenes	ND		ug/L	3.0	0.66	SW846 8260B		7/6/18 19:39	TMP	A
Trichloroethene	ND		ug/L	1.0	0.33	SW846 8260B		7/6/18 19:39	TMP	A
Trichlorofluoromethane	ND		ug/L	1.0	0.24	SW846 8260B		7/6/18 19:39	TMP	A
Vinyl Acetate	ND		ug/L	5.0	1.6	SW846 8260B		7/6/18 19:39	TMP	A
Vinyl Chloride	ND		ug/L	1.0	0.30	SW846 8260B		7/6/18 19:39	TMP	A
cis-1,2-Dichloroethene	ND		ug/L	1.0	0.32	SW846 8260B		7/6/18 19:39	TMP	A
cis-1,3-Dichloropropene	ND		ug/L	1.0	0.31	SW846 8260B		7/6/18 19:39	TMP	A
mp-Xylene	ND		ug/L	2.0	0.52	SW846 8260B		7/6/18 19:39	TMP	A
n-Butylbenzene	ND		ug/L	2.0	0.60	SW846 8260B		7/6/18 19:39	TMP	A
n-Propylbenzene	ND		ug/L	1.0	0.33	SW846 8260B		7/6/18 19:39	TMP	A
o-Chlorotoluene	ND		ug/L	1.0	0.26	SW846 8260B		7/6/18 19:39	TMP	A
o-Xylene	ND		ug/L	1.0	0.33	SW846 8260B		7/6/18 19:39	TMP	A
p-Chlorotoluene	ND		ug/L	1.0	0.33	SW846 8260B		7/6/18 19:39	TMP	A
p-Isopropyltoluene	ND		ug/L	1.0	0.32	SW846 8260B		7/6/18 19:39	TMP	A
sec-Butylbenzene	ND		ug/L	1.0	0.31	SW846 8260B		7/6/18 19:39	TMP	A
tert-Amyl methyl ether	ND		ug/L	1.0	0.20	SW846 8260B		7/6/18 19:39	TMP	A
tert-Butyl Alcohol	ND		ug/L	10.0	2.2	SW846 8260B		7/6/18 19:39	TMP	A
tert-Butylbenzene	ND		ug/L	2.0	0.44	SW846 8260B		7/6/18 19:39	TMP	A

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ANALYTICAL RESULTS

Workorder: 2322628 ALG001|LMC MRC 06/25/18

Lab ID: **2322628009** Date Collected: 6/25/2018 11:50 Matrix: Water
Sample ID: **MRC-SW9A** Date Received: 6/25/2018 22:40

Parameters	Results	Flag	Units	RDL	MDL	Method	Prepared	By	Analyzed	By	Cntr
trans-1,2-Dichloroethene	ND		ug/L	1.0	0.26	SW846 8260B			7/6/18 19:39	TMP	A
trans-1,3-Dichloropropene	ND		ug/L	1.0	0.29	SW846 8260B			7/6/18 19:39	TMP	A
Surrogate Recoveries	*Results*	*Flag*	*Units*	*Limits*		*Method*	*Prepared*	*By*	*Analyzed*	*By*	*Cntr*
1,2-Dichloroethane-d4 (S)	98.5		%	62 - 133		SW846 8260B			7/6/18 19:39	TMP	A
4-Bromofluorobenzene (S)	93.6		%	79 - 114		SW846 8260B			7/6/18 19:39	TMP	A
Dibromofluoromethane (S)	84.3		%	78 - 116		SW846 8260B			7/6/18 19:39	TMP	A
Toluene-d8 (S)	87.5		%	76 - 127		SW846 8260B			7/6/18 19:39	TMP	A
SEMIVOLATILE SIM											
1,4-Dioxane	ND		ug/L	0.099	0.019	8270 SIM	6/26/18 15:00	MXL	6/27/18 14:56	CGS	G
IS_Naphthalene-d8	0.0		ug/L			8270 SIM	6/26/18 15:00	MXL	6/27/18 14:56	CGS	G
IS_Perylene-d12	0.0		ug/L			8270 SIM	6/26/18 15:00	MXL	6/27/18 14:56	CGS	G
Acenaphthene-d10	0.0		ug/L			8270 SIM	6/26/18 15:00	MXL	6/27/18 14:56	CGS	G
Phenanthrene-d10	0.0		ug/L			8270 SIM	6/26/18 15:00	MXL	6/27/18 14:56	CGS	G
Chrysene-d12	0.0		ug/L			8270 SIM	6/26/18 15:00	MXL	6/27/18 14:56	CGS	G
Surrogate Recoveries	*Results*	*Flag*	*Units*	*Limits*		*Method*	*Prepared*	*By*	*Analyzed*	*By*	*Cntr*
2-Methylnapthalene-d10 (S)	52.7		%	29 - 112		8270 SIM	6/26/18 15:00	MXL	6/27/18 14:56	CGS	G
Fluoranthene-d10 (S)	91.5		%	45 - 130		8270 SIM	6/26/18 15:00	MXL	6/27/18 14:56	CGS	G

Vanessa N. Badman
Mrs. Vanessa N Badman
Project Coordinator

ANALYTICAL RESULTS

Workorder: 2322628 ALG001|LMC MRC 06/25/18

Lab ID: **2322628010** Date Collected: 6/25/2018 12:20 Matrix: Water

Sample ID: **MRC-SW6A** Date Received: 6/25/2018 22:40

Parameters	Results	Flag	Units	RDL	MDL	Method	Prepared By	Analyzed	By	*Cntr*
VOLATILE ORGANICS										
1,1,1,2-Tetrachloroethane	ND		ug/L	1.0	0.35	SW846 8260B		7/6/18 17:21	TMP	A
1,1,1-Trichloroethane	ND		ug/L	1.0	0.22	SW846 8260B		7/6/18 17:21	TMP	A
1,1,2,2-Tetrachloroethane	ND		ug/L	1.0	0.34	SW846 8260B		7/6/18 17:21	TMP	A
1,1,2-Trichloroethane	ND		ug/L	1.0	0.33	SW846 8260B		7/6/18 17:21	TMP	A
1,1-Dichloroethane	ND		ug/L	1.0	0.28	SW846 8260B		7/6/18 17:21	TMP	A
1,1-Dichloroethene	ND		ug/L	1.0	0.29	SW846 8260B		7/6/18 17:21	TMP	A
1,2,3-Trichlorobenzene	ND		ug/L	2.0	0.93	SW846 8260B		7/6/18 17:21	TMP	A
1,2,3-Trichloropropane	ND		ug/L	2.0	0.60	SW846 8260B		7/6/18 17:21	TMP	A
1,2,4-Trichlorobenzene	ND		ug/L	2.0	0.82	SW846 8260B		7/6/18 17:21	TMP	A
1,2,4-Trimethylbenzene	ND		ug/L	1.0	0.25	SW846 8260B		7/6/18 17:21	TMP	A
1,2-Dibromo-3-chloropropane	ND		ug/L	7.0	1.5	SW846 8260B		7/6/18 17:21	TMP	A
1,2-Dibromoethane	ND		ug/L	1.0	0.28	SW846 8260B		7/6/18 17:21	TMP	A
1,2-Dichlorobenzene	ND		ug/L	1.0	0.38	SW846 8260B		7/6/18 17:21	TMP	A
1,2-Dichloroethane	ND		ug/L	1.0	0.32	SW846 8260B		7/6/18 17:21	TMP	A
1,2-Dichloroethene, Total	ND		ug/L	2.0	0.45	SW846 8260B		7/6/18 17:21	TMP	A
1,2-Dichloropropane	ND		ug/L	1.0	0.24	SW846 8260B		7/6/18 17:21	TMP	A
1,3-Dichlorobenzene	ND		ug/L	1.0	0.25	SW846 8260B		7/6/18 17:21	TMP	A
1,3-Dichloropropane	ND		ug/L	1.0	0.27	SW846 8260B		7/6/18 17:21	TMP	A
1,3-Dichloropropene, Total	ND		ug/L	2.0	0.47	SW846 8260B		7/6/18 17:21	TMP	A
1,4-Dichlorobenzene	ND		ug/L	1.0	0.27	SW846 8260B		7/6/18 17:21	TMP	A
2,2-Dichloropropane	ND		ug/L	1.0	0.32	SW846 8260B		7/6/18 17:21	TMP	A
2-Butanone	ND		ug/L	10.0	1.8	SW846 8260B		7/6/18 17:21	TMP	A
2-Chloroethylvinyl ether	ND		ug/L	2.0	0.38	SW846 8260B		7/6/18 17:21	TMP	A
2-Hexanone	ND		ug/L	5.0	1.3	SW846 8260B		7/6/18 17:21	TMP	A
4-Methyl-2-Pentanone(MIBK)	ND		ug/L	5.0	1.5	SW846 8260B		7/6/18 17:21	TMP	A
Acetone	11.8		ug/L	10.0	3.1	SW846 8260B		7/6/18 17:21	TMP	A
Benzene	ND		ug/L	1.0	0.23	SW846 8260B		7/6/18 17:21	TMP	A
Bromobenzene	ND		ug/L	1.0	0.32	SW846 8260B		7/6/18 17:21	TMP	A
Bromochloromethane	ND		ug/L	1.0	0.32	SW846 8260B		7/6/18 17:21	TMP	A
Bromodichloromethane	ND		ug/L	1.0	0.27	SW846 8260B		7/6/18 17:21	TMP	A
Bromoform	ND		ug/L	1.0	0.40	SW846 8260B		7/6/18 17:21	TMP	A
Bromomethane	ND		ug/L	1.0	0.39	SW846 8260B		7/6/18 17:21	TMP	A
Carbon Disulfide	0.38J	J	ug/L	1.0	0.23	SW846 8260B		7/6/18 17:21	TMP	A
Carbon Tetrachloride	ND		ug/L	1.0	0.31	SW846 8260B		7/6/18 17:21	TMP	A
Chlorobenzene	ND		ug/L	1.0	0.19	SW846 8260B		7/6/18 17:21	TMP	A
Chlorodibromomethane	ND		ug/L	1.0	0.45	SW846 8260B		7/6/18 17:21	TMP	A

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State Certifications: DE ID 11 , MA PA0102 , MD 128 , VA 460157 , WV 343

ANALYTICAL RESULTS

Workorder: 2322628 ALG001|LMC MRC 06/25/18

Lab ID: **2322628010** Date Collected: 6/25/2018 12:20 Matrix: Water
Sample ID: **MRC-SW6A** Date Received: 6/25/2018 22:40

Parameters	Results	Flag	Units	RDL	MDL	Method	Prepared By	Analyzed	By	Cntr
Chloroethane	ND		ug/L	1.0	0.33	SW846 8260B		7/6/18 17:21	TMP	A
Chloroform	ND		ug/L	1.0	0.21	SW846 8260B		7/6/18 17:21	TMP	A
Chloromethane	ND		ug/L	1.0	0.31	SW846 8260B		7/6/18 17:21	TMP	A
Cyclohexane	ND		ug/L	1.0	0.29	SW846 8260B		7/6/18 17:21	TMP	A
Dibromomethane	ND		ug/L	1.0	0.31	SW846 8260B		7/6/18 17:21	TMP	A
Dichlorodifluoromethane	ND		ug/L	1.0	0.33	SW846 8260B		7/6/18 17:21	TMP	A
Diisopropyl ether	ND		ug/L	1.0	0.25	SW846 8260B		7/6/18 17:21	TMP	A
Ethyl tert-butyl ether	ND		ug/L	1.0	0.19	SW846 8260B		7/6/18 17:21	TMP	A
Ethylbenzene	ND		ug/L	1.0	0.34	SW846 8260B		7/6/18 17:21	TMP	A
Freon 113	ND		ug/L	1.0	0.26	SW846 8260B		7/6/18 17:21	TMP	A
Hexachlorobutadiene	ND		ug/L	5.0	1.0	SW846 8260B		7/6/18 17:21	TMP	A
Isopropylbenzene	ND		ug/L	1.0	0.22	SW846 8260B		7/6/18 17:21	TMP	A
Methyl acetate	ND		ug/L	2.0	0.32	SW846 8260B		7/6/18 17:21	TMP	A
Methyl cyclohexane	ND		ug/L	1.0	0.30	SW846 8260B		7/6/18 17:21	TMP	A
Methyl t-Butyl Ether	ND		ug/L	1.0	0.33	SW846 8260B		7/6/18 17:21	TMP	A
Methylene Chloride	ND		ug/L	1.0	0.45	SW846 8260B		7/6/18 17:21	TMP	A
Naphthalene	ND		ug/L	2.0	0.34	SW846 8260B		7/6/18 17:21	TMP	A
Styrene	ND		ug/L	1.0	0.24	SW846 8260B		7/6/18 17:21	TMP	A
Tetrachloroethene	ND		ug/L	1.0	0.35	SW846 8260B		7/6/18 17:21	TMP	A
Toluene	ND		ug/L	1.0	0.23	SW846 8260B		7/6/18 17:21	TMP	A
Total Xylenes	ND		ug/L	3.0	0.66	SW846 8260B		7/6/18 17:21	TMP	A
Trichloroethene	1.1		ug/L	1.0	0.33	SW846 8260B		7/6/18 17:21	TMP	A
Trichlorofluoromethane	ND		ug/L	1.0	0.24	SW846 8260B		7/6/18 17:21	TMP	A
Vinyl Acetate	ND		ug/L	5.0	1.6	SW846 8260B		7/6/18 17:21	TMP	A
Vinyl Chloride	ND		ug/L	1.0	0.30	SW846 8260B		7/6/18 17:21	TMP	A
cis-1,2-Dichloroethene	ND		ug/L	1.0	0.32	SW846 8260B		7/6/18 17:21	TMP	A
cis-1,3-Dichloropropene	ND		ug/L	1.0	0.31	SW846 8260B		7/6/18 17:21	TMP	A
mp-Xylene	ND		ug/L	2.0	0.52	SW846 8260B		7/6/18 17:21	TMP	A
n-Butylbenzene	ND		ug/L	2.0	0.60	SW846 8260B		7/6/18 17:21	TMP	A
n-Propylbenzene	ND		ug/L	1.0	0.33	SW846 8260B		7/6/18 17:21	TMP	A
o-Chlorotoluene	ND		ug/L	1.0	0.26	SW846 8260B		7/6/18 17:21	TMP	A
o-Xylene	ND		ug/L	1.0	0.33	SW846 8260B		7/6/18 17:21	TMP	A
p-Chlorotoluene	ND		ug/L	1.0	0.33	SW846 8260B		7/6/18 17:21	TMP	A
p-Isopropyltoluene	ND		ug/L	1.0	0.32	SW846 8260B		7/6/18 17:21	TMP	A
sec-Butylbenzene	ND		ug/L	1.0	0.31	SW846 8260B		7/6/18 17:21	TMP	A
tert-Amyl methyl ether	ND		ug/L	1.0	0.20	SW846 8260B		7/6/18 17:21	TMP	A
tert-Butyl Alcohol	ND		ug/L	10.0	2.2	SW846 8260B		7/6/18 17:21	TMP	A
tert-Butylbenzene	ND		ug/L	2.0	0.44	SW846 8260B		7/6/18 17:21	TMP	A

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ANALYTICAL RESULTS

Workorder: 2322628 ALG001|LMC MRC 06/25/18

Lab ID: **2322628010** Date Collected: 6/25/2018 12:20 Matrix: Water
Sample ID: **MRC-SW6A** Date Received: 6/25/2018 22:40

Parameters	Results	Flag	Units	RDL	MDL	Method	Prepared	By	Analyzed	By	Cntr
trans-1,2-Dichloroethene	ND		ug/L	1.0	0.26	SW846 8260B			7/6/18 17:21	TMP	A
trans-1,3-Dichloropropene	ND		ug/L	1.0	0.29	SW846 8260B			7/6/18 17:21	TMP	A
Surrogate Recoveries	*Results*	*Flag*	*Units*	*Limits*		*Method*	*Prepared*	*By*	*Analyzed*	*By*	*Cntr*
1,2-Dichloroethane-d4 (S)	105		%	62 - 133		SW846 8260B			7/6/18 17:21	TMP	A
4-Bromofluorobenzene (S)	109		%	79 - 114		SW846 8260B			7/6/18 17:21	TMP	A
Dibromofluoromethane (S)	99.3		%	78 - 116		SW846 8260B			7/6/18 17:21	TMP	A
Toluene-d8 (S)	100		%	76 - 127		SW846 8260B			7/6/18 17:21	TMP	A
SEMIVOLATILE SIM											
1,4-Dioxane	ND		ug/L	0.094	0.018	8270 SIM	6/26/18 15:00	MXL	6/27/18 15:23	CGS	C
IS_Naphthalene-d8	0.0		ug/L			8270 SIM	6/26/18 15:00	MXL	6/27/18 15:23	CGS	C
IS_Perylene-d12	0.0		ug/L			8270 SIM	6/26/18 15:00	MXL	6/27/18 15:23	CGS	C
Acenaphthene-d10	0.0		ug/L			8270 SIM	6/26/18 15:00	MXL	6/27/18 15:23	CGS	C
Phenanthrene-d10	0.0		ug/L			8270 SIM	6/26/18 15:00	MXL	6/27/18 15:23	CGS	C
Chrysene-d12	0.0		ug/L			8270 SIM	6/26/18 15:00	MXL	6/27/18 15:23	CGS	C
Surrogate Recoveries	*Results*	*Flag*	*Units*	*Limits*		*Method*	*Prepared*	*By*	*Analyzed*	*By*	*Cntr*
2-Methylnapthalene-d10 (S)	59.2		%	29 - 112		8270 SIM	6/26/18 15:00	MXL	6/27/18 15:23	CGS	C
Fluoranthene-d10 (S)	87.4		%	45 - 130		8270 SIM	6/26/18 15:00	MXL	6/27/18 15:23	CGS	C

Vanessa N. Badman
Mrs. Vanessa N Badman
Project Coordinator

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ANALYTICAL RESULTS

Workorder: 2322628 ALG001|LMC MRC 06/25/18

Lab ID: **2322628012** Date Collected: 6/25/2018 22:40 Matrix: Water
Sample ID: **TB-062518** Date Received: 6/25/2018 22:40

Parameters	Results	Flag	Units	RDL	MDL	Method	Prepared By	Analyzed	By	*Cntr*
VOLATILE ORGANICS										
1,1,1,2-Tetrachloroethane	ND		ug/L	1.0	0.35	SW846 8260B		7/4/18 04:37	PDK	A
1,1,1-Trichloroethane	ND		ug/L	1.0	0.22	SW846 8260B		7/4/18 04:37	PDK	A
1,1,2,2-Tetrachloroethane	ND		ug/L	1.0	0.34	SW846 8260B		7/4/18 04:37	PDK	A
1,1,2-Trichloroethane	ND		ug/L	1.0	0.33	SW846 8260B		7/4/18 04:37	PDK	A
1,1-Dichloroethane	ND		ug/L	1.0	0.28	SW846 8260B		7/4/18 04:37	PDK	A
1,1-Dichloroethene	ND		ug/L	1.0	0.29	SW846 8260B		7/4/18 04:37	PDK	A
1,2,3-Trichlorobenzene	ND		ug/L	2.0	0.93	SW846 8260B		7/4/18 04:37	PDK	A
1,2,3-Trichloropropane	ND		ug/L	2.0	0.60	SW846 8260B		7/4/18 04:37	PDK	A
1,2,4-Trichlorobenzene	ND		ug/L	2.0	0.82	SW846 8260B		7/4/18 04:37	PDK	A
1,2,4-Trimethylbenzene	ND		ug/L	1.0	0.25	SW846 8260B		7/4/18 04:37	PDK	A
1,2-Dibromo-3-chloropropane	ND		ug/L	7.0	1.5	SW846 8260B		7/4/18 04:37	PDK	A
1,2-Dibromoethane	ND		ug/L	1.0	0.28	SW846 8260B		7/4/18 04:37	PDK	A
1,2-Dichlorobenzene	ND		ug/L	1.0	0.38	SW846 8260B		7/4/18 04:37	PDK	A
1,2-Dichloroethane	ND		ug/L	1.0	0.32	SW846 8260B		7/4/18 04:37	PDK	A
1,2-Dichloroethene, Total	ND		ug/L	2.0	0.45	SW846 8260B		7/4/18 04:37	PDK	A
1,2-Dichloropropane	ND		ug/L	1.0	0.24	SW846 8260B		7/4/18 04:37	PDK	A
1,3-Dichlorobenzene	ND		ug/L	1.0	0.25	SW846 8260B		7/4/18 04:37	PDK	A
1,3-Dichloropropane	ND		ug/L	1.0	0.27	SW846 8260B		7/4/18 04:37	PDK	A
1,3-Dichloropropene, Total	ND		ug/L	2.0	0.47	SW846 8260B		7/4/18 04:37	PDK	A
1,4-Dichlorobenzene	ND		ug/L	1.0	0.27	SW846 8260B		7/4/18 04:37	PDK	A
2,2-Dichloropropane	ND		ug/L	1.0	0.32	SW846 8260B		7/4/18 04:37	PDK	A
2-Butanone	ND		ug/L	10.0	1.8	SW846 8260B		7/4/18 04:37	PDK	A
2-Chloroethylvinyl ether	ND		ug/L	2.0	0.38	SW846 8260B		7/4/18 04:37	PDK	A
2-Hexanone	ND		ug/L	5.0	1.3	SW846 8260B		7/4/18 04:37	PDK	A
4-Methyl-2-Pentanone(MIBK)	ND		ug/L	5.0	1.5	SW846 8260B		7/4/18 04:37	PDK	A
Acetone	9.0J	J	ug/L	10.0	3.1	SW846 8260B		7/4/18 04:37	PDK	A
Benzene	ND		ug/L	1.0	0.23	SW846 8260B		7/4/18 04:37	PDK	A
Bromobenzene	ND		ug/L	1.0	0.32	SW846 8260B		7/4/18 04:37	PDK	A
Bromochloromethane	ND		ug/L	1.0	0.32	SW846 8260B		7/4/18 04:37	PDK	A
Bromodichloromethane	ND		ug/L	1.0	0.27	SW846 8260B		7/4/18 04:37	PDK	A
Bromoform	ND		ug/L	1.0	0.40	SW846 8260B		7/4/18 04:37	PDK	A
Bromomethane	ND		ug/L	1.0	0.39	SW846 8260B		7/4/18 04:37	PDK	A
Carbon Disulfide	0.31J	J	ug/L	1.0	0.23	SW846 8260B		7/4/18 04:37	PDK	A
Carbon Tetrachloride	ND		ug/L	1.0	0.31	SW846 8260B		7/4/18 04:37	PDK	A
Chlorobenzene	ND		ug/L	1.0	0.19	SW846 8260B		7/4/18 04:37	PDK	A
Chlorodibromomethane	ND		ug/L	1.0	0.45	SW846 8260B		7/4/18 04:37	PDK	A

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ANALYTICAL RESULTS

Workorder: 2322628 ALG001|LMC MRC 06/25/18

Lab ID: **2322628012** Date Collected: 6/25/2018 22:40 Matrix: Water
Sample ID: **TB-062518** Date Received: 6/25/2018 22:40

Parameters	Results	Flag	Units	RDL	MDL	Method	Prepared By	Analyzed	By	*Cntr*
Chloroethane	ND		ug/L	1.0	0.33	SW846 8260B		7/4/18 04:37	PDK	A
Chloroform	ND		ug/L	1.0	0.21	SW846 8260B		7/4/18 04:37	PDK	A
Chloromethane	ND		ug/L	1.0	0.31	SW846 8260B		7/4/18 04:37	PDK	A
Cyclohexane	ND		ug/L	1.0	0.29	SW846 8260B		7/4/18 04:37	PDK	A
Dibromomethane	ND		ug/L	1.0	0.31	SW846 8260B		7/4/18 04:37	PDK	A
Dichlorodifluoromethane	ND		ug/L	1.0	0.33	SW846 8260B		7/4/18 04:37	PDK	A
Diisopropyl ether	ND		ug/L	1.0	0.25	SW846 8260B		7/4/18 04:37	PDK	A
Ethyl tert-butyl ether	ND		ug/L	1.0	0.19	SW846 8260B		7/4/18 04:37	PDK	A
Ethylbenzene	ND		ug/L	1.0	0.34	SW846 8260B		7/4/18 04:37	PDK	A
Freon 113	ND		ug/L	1.0	0.26	SW846 8260B		7/4/18 04:37	PDK	A
Hexachlorobutadiene	1.7J	J,2	ug/L	5.0	1.0	SW846 8260B		7/4/18 04:37	PDK	A
Isopropylbenzene	ND		ug/L	1.0	0.22	SW846 8260B		7/4/18 04:37	PDK	A
Methyl acetate	ND		ug/L	2.0	0.32	SW846 8260B		7/4/18 04:37	PDK	A
Methyl cyclohexane	ND		ug/L	1.0	0.30	SW846 8260B		7/4/18 04:37	PDK	A
Methyl t-Butyl Ether	ND		ug/L	1.0	0.33	SW846 8260B		7/4/18 04:37	PDK	A
Methylene Chloride	ND		ug/L	1.0	0.45	SW846 8260B		7/4/18 04:37	PDK	A
Naphthalene	ND		ug/L	2.0	0.34	SW846 8260B		7/4/18 04:37	PDK	A
Styrene	ND		ug/L	1.0	0.24	SW846 8260B		7/4/18 04:37	PDK	A
Tetrachloroethene	ND		ug/L	1.0	0.35	SW846 8260B		7/4/18 04:37	PDK	A
Toluene	ND		ug/L	1.0	0.23	SW846 8260B		7/4/18 04:37	PDK	A
Total Xylenes	ND		ug/L	3.0	0.66	SW846 8260B		7/4/18 04:37	PDK	A
Trichloroethene	ND		ug/L	1.0	0.33	SW846 8260B		7/4/18 04:37	PDK	A
Trichlorofluoromethane	ND		ug/L	1.0	0.24	SW846 8260B		7/4/18 04:37	PDK	A
Vinyl Acetate	ND		ug/L	5.0	1.6	SW846 8260B		7/4/18 04:37	PDK	A
Vinyl Chloride	ND		ug/L	1.0	0.30	SW846 8260B		7/4/18 04:37	PDK	A
cis-1,2-Dichloroethene	ND		ug/L	1.0	0.32	SW846 8260B		7/4/18 04:37	PDK	A
cis-1,3-Dichloropropene	ND		ug/L	1.0	0.31	SW846 8260B		7/4/18 04:37	PDK	A
mp-Xylene	ND		ug/L	2.0	0.52	SW846 8260B		7/4/18 04:37	PDK	A
n-Butylbenzene	ND		ug/L	2.0	0.60	SW846 8260B		7/4/18 04:37	PDK	A
n-Propylbenzene	ND		ug/L	1.0	0.33	SW846 8260B		7/4/18 04:37	PDK	A
o-Chlorotoluene	ND		ug/L	1.0	0.26	SW846 8260B		7/4/18 04:37	PDK	A
o-Xylene	ND		ug/L	1.0	0.33	SW846 8260B		7/4/18 04:37	PDK	A
p-Chlorotoluene	ND		ug/L	1.0	0.33	SW846 8260B		7/4/18 04:37	PDK	A
p-Isopropyltoluene	ND		ug/L	1.0	0.32	SW846 8260B		7/4/18 04:37	PDK	A
sec-Butylbenzene	ND		ug/L	1.0	0.31	SW846 8260B		7/4/18 04:37	PDK	A
tert-Amyl methyl ether	ND		ug/L	1.0	0.20	SW846 8260B		7/4/18 04:37	PDK	A
tert-Butyl Alcohol	ND		ug/L	10.0	2.2	SW846 8260B		7/4/18 04:37	PDK	A
tert-Butylbenzene	ND		ug/L	2.0	0.44	SW846 8260B		7/4/18 04:37	PDK	A

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ANALYTICAL RESULTS

Workorder: 2322628 ALG001|LMC MRC 06/25/18

Lab ID: **2322628012** Date Collected: 6/25/2018 22:40 Matrix: Water
Sample ID: **TB-062518** Date Received: 6/25/2018 22:40

Parameters	Results	Flag	Units	RDL	MDL	Method	Prepared	By	Analyzed	By	Cntr
trans-1,2-Dichloroethene	ND		ug/L	1.0	0.26	SW846 8260B			7/4/18 04:37	PDK	A
trans-1,3-Dichloropropene	ND		ug/L	1.0	0.29	SW846 8260B			7/4/18 04:37	PDK	A
Surrogate Recoveries	*Results*	*Flag*	*Units*	*Limits*		*Method*	*Prepared*	*By*	*Analyzed*	*By*	*Cntr*
1,2-Dichloroethane-d4 (S)	121		%	62 - 133		SW846 8260B			7/4/18 04:37	PDK	A
4-Bromofluorobenzene (S)	142	1	%	79 - 114		SW846 8260B			7/4/18 04:37	PDK	A
Dibromofluoromethane (S)	93.7		%	78 - 116		SW846 8260B			7/4/18 04:37	PDK	A
Toluene-d8 (S)	94.3		%	76 - 127		SW846 8260B			7/4/18 04:37	PDK	A

Vanessa N. Badman
Mrs. Vanessa N Badman
Project Coordinator

ANALYTICAL RESULTS

Workorder: 2322628 ALG001|LMC MRC 06/25/18

PARAMETER QUALIFIERS

Lab ID	#	Sample ID	Analytical Method	Analyte
2322628001	1	MRC-SW13B	SW846 8260B	Trichlorofluoromethane
The QC sample type MS for method SW846 8260B was outside the control limits for the analyte Trichlorofluoromethane. The % Recovery was reported as 126 and the control limits were 38 to 123.				
2322628001	2	MRC-SW13B	SW846 8260B	Trichlorofluoromethane
The QC sample type MSD for method SW846 8260B was outside the control limits for the analyte Trichlorofluoromethane. The % Recovery was reported as 124 and the control limits were 38 to 123.				
2322628001	3	MRC-SW13B	SW846 8260B	1,1-Dichloroethene
The QC sample type MS for method SW846 8260B was outside the control limits for the analyte 1,1-Dichloroethene. The % Recovery was reported as 129 and the control limits were 63 to 128.				
2322628001	4	MRC-SW13B	SW846 8260B	Freon 113
The QC sample type MS for method SW846 8260B was outside the control limits for the analyte Freon 113. The % Recovery was reported as 148 and the control limits were 50 to 130.				
2322628001	5	MRC-SW13B	SW846 8260B	Freon 113
The QC sample type MSD for method SW846 8260B was outside the control limits for the analyte Freon 113. The % Recovery was reported as 143 and the control limits were 50 to 130.				
2322628001	6	MRC-SW13B	SW846 8260B	trans-1,2-Dichloroethene
The QC sample type MS for method SW846 8260B was outside the control limits for the analyte trans-1,2-Dichloroethene. The % Recovery was reported as 126 and the control limits were 71 to 122.				
2322628001	7	MRC-SW13B	SW846 8260B	2,2-Dichloropropane
The QC sample type MS for method SW846 8260B was outside the control limits for the analyte 2,2-Dichloropropane. The % Recovery was reported as 140 and the control limits were 64 to 129.				
2322628001	8	MRC-SW13B	SW846 8260B	2,2-Dichloropropane
The QC sample type MSD for method SW846 8260B was outside the control limits for the analyte 2,2-Dichloropropane. The % Recovery was reported as 138 and the control limits were 64 to 129.				
2322628001	9	MRC-SW13B	SW846 8260B	Ethylbenzene
The QC sample type MS for method SW846 8260B was outside the control limits for the analyte Ethylbenzene. The % Recovery was reported as 125 and the control limits were 80 to 124.				
2322628001	10	MRC-SW13B	SW846 8260B	1,3-Dichlorobenzene
The QC sample type MSD for method SW846 8260B was outside the control limits for the analyte 1,3-Dichlorobenzene. The % Recovery was reported as 123 and the control limits were 81 to 118.				
2322628001	11	MRC-SW13B	SW846 8260B	1,4-Dichlorobenzene
The QC sample type MSD for method SW846 8260B was outside the control limits for the analyte 1,4-Dichlorobenzene. The % Recovery was reported as 118 and the control limits were 81 to 116.				
2322628001	12	MRC-SW13B	SW846 8260B	1,2-Dichlorobenzene
The QC sample type MSD for method SW846 8260B was outside the control limits for the analyte 1,2-Dichlorobenzene. The % Recovery was reported as 119 and the control limits were 82 to 118.				
2322628001	13	MRC-SW13B	SW846 8260B	Naphthalene
The QC sample type MS for method SW846 8260B was outside the control limits for the analyte Naphthalene. The % Recovery was reported as 49.1 and the control limits were 56 to 134.				
2322628001	14	MRC-SW13B	SW846 8260B	Hexachlorobutadiene
The QC sample type MS for method SW846 8260B was outside the control limits for the analyte Hexachlorobutadiene. The % Recovery was reported as 147 and the control limits were 55 to 128.				

ANALYTICAL RESULTS

Workorder: 2322628 ALG001|LMC MRC 06/25/18

2322628001	15	MRC-SW13B	SW846 8260B	Hexachlorobutadiene

The QC sample type MSD for method SW846 8260B was outside the control limits for the analyte Hexachlorobutadiene. The % Recovery was reported as 146 and the control limits were 55 to 128.

2322628001	16	MRC-SW13B	SW846 8260B	1,2,3-Trichlorobenzene

The QC sample type MS for method SW846 8260B was outside the control limits for the analyte 1,2,3-Trichlorobenzene. The % Recovery was reported as 55.9 and the control limits were 61 to 126.

2322628001	17	MRC-SW13B	SW846 8260B	Methyl cyclohexane

The QC sample type MS for method SW846 8260B was outside the control limits for the analyte Methyl cyclohexane. The % Recovery was reported as 141 and the control limits were 70 to 130.

2322628001	18	MRC-SW13B	SW846 8260B	Methyl cyclohexane

The QC sample type MSD for method SW846 8260B was outside the control limits for the analyte Methyl cyclohexane. The % Recovery was reported as 145 and the control limits were 70 to 130.

2322628001	19	MRC-SW13B	SW846 8260B	4-Bromofluorobenzene

The surrogate 4-Bromofluorobenzene for method SW846 8260B was outside of control limits. The % Recovery was reported as 138 and the control limits were 79 to 114. This result was reported at a dilution of 1.

2322628002	1	MRC-SW6B	SW846 8260B	4-Bromofluorobenzene

The surrogate 4-Bromofluorobenzene for method SW846 8260B was outside of control limits. The % Recovery was reported as 129 and the control limits were 79 to 114. This result was reported at a dilution of 1.

2322628003	1	MRC-SW13A	SW846 8260B	4-Bromofluorobenzene

The surrogate 4-Bromofluorobenzene for method SW846 8260B was outside of control limits. The % Recovery was reported as 117 and the control limits were 79 to 114. This result was reported at a dilution of 1.

2322628012	1	TB-062518	SW846 8260B	4-Bromofluorobenzene

The surrogate 4-Bromofluorobenzene for method SW846 8260B was outside of control limits. The % Recovery was reported as 142 and the control limits were 79 to 114. This result was reported at a dilution of 1.

2322628012	2	TB-062518	SW846 8260B	Hexachlorobutadiene

The QC sample type LCS for method SW846 8260B was outside the control limits for the analyte Hexachlorobutadiene. The % Recovery was reported as 146 and the control limits were 55 to 128.

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State Certifications: DE ID 11 , MA PA0102 , MD 128 , VA 460157 , WV 343

ANALYSIS - PREP METHOD CROSS REFERENCE TABLE

Workorder: 2322628 ALG001|LMC MRC 06/25/18

Lab ID	Sample ID	Analysis Method	Prep Method
2322628001	MRC-SW13B	8270 SIM	SW846 3510C
2322628001	MRC-SW13B	SW846 8260B	
2322628002	MRC-SW6B	8270 SIM	SW846 3510C
2322628002	MRC-SW6B	SW846 8260B	
2322628003	MRC-SW13A	8270 SIM	SW846 3510C
2322628003	MRC-SW13A	SW846 8260B	
2322628004	MRC-SW8A	8270 SIM	SW846 3510C
2322628004	MRC-SW8A	SW846 8260B	
2322628005	MRC-SW8B	8270 SIM	SW846 3510C
2322628005	MRC-SW8B	SW846 8260B	
2322628006	MRC-SW7B	8270 SIM	SW846 3510C
2322628006	MRC-SW7B	SW846 8260B	
2322628007	MRC-SW9B	8270 SIM	SW846 3510C
2322628007	MRC-SW9B	SW846 8260B	
2322628008	MRC-SW7A	8270 SIM	SW846 3510C
2322628008	MRC-SW7A	SW846 8260B	
2322628009	MRC-SW9A	8270 SIM	SW846 3510C
2322628009	MRC-SW9A	SW846 8260B	
2322628010	MRC-SW6A	8270 SIM	SW846 3510C
2322628010	MRC-SW6A	SW846 8260B	
2322628011	MRC-SW13BDUP	8270 SIM	SW846 3510C
2322628011	MRC-SW13BDUP	SW846 8260B	
2322628012	TB-062518	SW846 8260B	

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QUALITY CONTROL DATA

Workorder: 2322628 ALG001|LMC MRC 06/25/18

QC Batch: EXTR/52730 **Analysis Method:** 8270 SIM

QC Batch Method: SW846 3510C

Associated Lab Samples: 2322628001, 2322628002, 2322628003, 2322628004, 2322628005, 2322628006, 2322628007, 2322628008, 2322628009, 2322628010, 2322628011

METHOD BLANK: 2764660

Parameter	Blank Result	Units	Reporting Limit
1,4-Dioxane	ND	ug/L	0.10
2-Methylnapthalene-d10 (S)	60.7	%	29 - 112
Fluoranthene-d10 (S)	89.1	%	45 - 130

LABORATORY CONTROL SAMPLE: 2764661

Parameter	LCS % Rec	Units	Spike Conc.	LCS Result	% Rec Limit
1,4-Dioxane	40.3	ug/L	1	0.40	22 - 75
2-Methylnapthalene-d10 (S)	63	%			29 - 112
Fluoranthene-d10 (S)	86.7	%			45 - 130

MATRIX SPIKE: 2764662 DUPLICATE: 2764663 ORIGINAL: 2322628001

****NOTE - The Original Result shown below is a raw result and is only used for the purpose of calculating Matrix Spike percent recoveries. This result is not a final value and cannot be used as such.

Parameter	Original Result	Units	Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limit	RPD	Max RPD
1,4-Dioxane	0	ug/L	.93	.28017	.28111	30.1	30.1	22 - 75	.34	
2-Methylnapthalene-d10 (S)	52.2	%				52.2	49.4	29 - 112		
Fluoranthene-d10 (S)	83.9	%				83.9	81.1	45 - 130		

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State Certifications: DE ID 11 , MA PA0102 , MD 128 , VA 460157 , WV 343

QUALITY CONTROL DATA

Workorder: 2322628 ALG001|LMC MRC 06/25/18

QC Batch: VOMS/47303 **Analysis Method:** SW846 8260B

QC Batch Method: SW846 8260B

Associated Lab Samples: 2322628001, 2322628002, 2322628003, 2322628012

METHOD BLANK: 2769175

Parameter	Blank Result	Units	Reporting Limit
1,1,1,2-Tetrachloroethane	ND	ug/L	1.0
1,1,1-Trichloroethane	ND	ug/L	1.0
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0
1,1,2-Trichloroethane	ND	ug/L	1.0
1,1-Dichloroethane	ND	ug/L	1.0
1,1-Dichloroethene	ND	ug/L	1.0
1,2,3-Trichlorobenzene	ND	ug/L	2.0
1,2,3-Trichloropropane	ND	ug/L	2.0
1,2,4-Trichlorobenzene	ND	ug/L	2.0
1,2,4-Trimethylbenzene	ND	ug/L	1.0
1,2-Dibromo-3-chloropropane	ND	ug/L	7.0
1,2-Dibromoethane	ND	ug/L	1.0
1,2-Dichlorobenzene	ND	ug/L	1.0
1,2-Dichloroethane	ND	ug/L	1.0
1,2-Dichloroethene, Total	ND	ug/L	2.0
1,2-Dichloropropane	ND	ug/L	1.0
1,3-Dichlorobenzene	ND	ug/L	1.0
1,3-Dichloropropane	ND	ug/L	1.0
1,3-Dichloropropene, Total	ND	ug/L	2.0
1,4-Dichlorobenzene	ND	ug/L	1.0
2,2-Dichloropropane	ND	ug/L	1.0
2-Butanone	ND	ug/L	10.0
2-Chloroethylvinyl ether	ND	ug/L	2.0
2-Hexanone	ND	ug/L	5.0
4-Methyl-2-Pentanone(MIBK)	ND	ug/L	5.0
Acetone	ND	ug/L	10.0
Benzene	ND	ug/L	1.0
Bromobenzene	ND	ug/L	1.0
Bromochloromethane	ND	ug/L	1.0
Bromodichloromethane	ND	ug/L	1.0
Bromoform	ND	ug/L	1.0
Bromomethane	ND	ug/L	1.0
Carbon Disulfide	ND	ug/L	1.0
Carbon Tetrachloride	ND	ug/L	1.0
Chlorobenzene	ND	ug/L	1.0
Chlorodibromomethane	ND	ug/L	1.0
Chloroethane	ND	ug/L	1.0

QUALITY CONTROL DATA

Workorder: 2322628 ALG001|LMC MRC 06/25/18

Chloroform	0.42J	ug/L	1.0
Chloromethane	ND	ug/L	1.0
Cyclohexane	ND	ug/L	1.0
Dibromomethane	ND	ug/L	1.0
Dichlorodifluoromethane	ND	ug/L	1.0
Diisopropyl ether	ND	ug/L	1.0
Ethyl tert-butyl ether	ND	ug/L	1.0
Ethylbenzene	ND	ug/L	1.0
Freon 113	ND	ug/L	1.0
Hexachlorobutadiene	4.4J	ug/L	5.0
Isopropylbenzene	ND	ug/L	1.0
Methyl acetate	ND	ug/L	2.0
Methyl cyclohexane	ND	ug/L	1.0
Methyl t-Butyl Ether	ND	ug/L	1.0
Methylene Chloride	ND	ug/L	1.0
Naphthalene	ND	ug/L	2.0
Styrene	ND	ug/L	1.0
Tetrachloroethene	ND	ug/L	1.0
Toluene	ND	ug/L	1.0
Total Xylenes	ND	ug/L	3.0
Trichloroethene	ND	ug/L	1.0
Trichlorofluoromethane	ND	ug/L	1.0
Vinyl Acetate	ND	ug/L	5.0
Vinyl Chloride	ND	ug/L	1.0
cis-1,2-Dichloroethene	ND	ug/L	1.0
cis-1,3-Dichloropropene	ND	ug/L	1.0
mp-Xylene	ND	ug/L	2.0
n-Butylbenzene	ND	ug/L	2.0
n-Propylbenzene	ND	ug/L	1.0
o-Chlorotoluene	ND	ug/L	1.0
o-Xylene	ND	ug/L	1.0
p-Chlorotoluene	ND	ug/L	1.0
p-Isopropyltoluene	ND	ug/L	1.0
sec-Butylbenzene	ND	ug/L	1.0
tert-Amyl methyl ether	ND	ug/L	1.0
tert-Butyl Alcohol	ND	ug/L	10.0
tert-Butylbenzene	ND	ug/L	2.0
trans-1,2-Dichloroethene	ND	ug/L	1.0
trans-1,3-Dichloropropene	ND	ug/L	1.0
1,2-Dichloroethane-d4 (S)	116	%	62 - 133
4-Bromofluorobenzene (S)	132	%	79 - 114
Dibromofluoromethane (S)	92.4	%	78 - 116
Toluene-d8 (S)	94.9	%	76 - 127

QUALITY CONTROL DATA

Workorder: 2322628 ALG001|LMC MRC 06/25/18

LABORATORY CONTROL SAMPLE: 2769176

Parameter	LCS % Rec	Units	Spike Conc.	LCS Result	% Rec Limit
1,1,1,2-Tetrachloroethane	114	ug/L	20	22.9	78 - 121
1,1,1-Trichloroethane	120	ug/L	20	24.1	66 - 130
1,1,2,2-Tetrachloroethane	109	ug/L	20	21.8	74 - 135
1,1,2-Trichloroethane	112	ug/L	20	22.3	82 - 126
1,1-Dichloroethane	114	ug/L	20	22.8	78 - 124
1,1-Dichloroethene	128	ug/L	20	25.6	63 - 128
1,2,3-Trichlorobenzene	75.5	ug/L	20	15.1	61 - 126
1,2,3-Trichloropropane	107	ug/L	20	21.4	75 - 132
1,2,4-Trichlorobenzene	92.2	ug/L	20	18.4	67 - 123
1,2,4-Trimethylbenzene	105	ug/L	20	21.0	76 - 125
1,2-Dibromo-3-chloropropane	97.9	ug/L	20	19.6	59 - 133
1,2-Dibromoethane	114	ug/L	20	22.8	80 - 124
1,2-Dichlorobenzene	108	ug/L	20	21.6	82 - 118
1,2-Dichloroethane	111	ug/L	20	22.2	70 - 133
1,2-Dichloroethene, Total	118	ug/L	40	47.1	78 - 125
1,2-Dichloropropane	113	ug/L	20	22.5	81 - 127
1,3-Dichlorobenzene	117	ug/L	20	23.4	81 - 118
1,3-Dichloropropane	112	ug/L	20	22.3	82 - 126
1,3-Dichloropropene, Total	103	ug/L	40	41.2	80 - 123
1,4-Dichlorobenzene	111	ug/L	20	22.3	81 - 116
2,2-Dichloropropane	133*	ug/L	20	26.7	64 - 129
2-Butanone	101	ug/L	100	101	50 - 152
2-Chloroethylvinyl ether	95	ug/L	20	19.0	1 - 150
2-Hexanone	86.5	ug/L	100	86.5	65 - 154
4-Methyl-2-Pentanone(MIBK)	91.3	ug/L	100	91.3	71 - 146
Acetone	93.7	ug/L	100	93.7	40 - 151
Benzene	114	ug/L	20	22.7	80 - 124
Bromobenzene	114	ug/L	20	22.7	81 - 119
Bromochloromethane	113	ug/L	20	22.7	73 - 117
Bromodichloromethane	101	ug/L	20	20.2	79 - 126
Bromoform	97.7	ug/L	20	19.5	70 - 123
Bromomethane	89.1	ug/L	20	17.8	45 - 148
Carbon Disulfide	119	ug/L	20	23.8	57 - 131
Carbon Tetrachloride	124	ug/L	20	24.8	62 - 132
Chlorobenzene	109	ug/L	20	21.8	85 - 117
Chlorodibromomethane	101	ug/L	20	20.2	77 - 122
Chloroethane	103	ug/L	20	20.5	51 - 142
Chloroform	113	ug/L	20	22.6	78 - 122
Chloromethane	93.2	ug/L	20	18.6	38 - 156
Cyclohexane	112	ug/L	20	22.5	66 - 130
Dibromomethane	108	ug/L	20	21.5	81 - 125

QUALITY CONTROL DATA

Workorder: 2322628 ALG001|LMC MRC 06/25/18

Dichlorodifluoromethane	90.9	ug/L	20	18.2	17 - 166
Diisopropyl ether	93.7	ug/L	20	18.7	74 - 131
Ethyl tert-butyl ether	85.3	ug/L	20	17.1	75 - 123
Ethylbenzene	121	ug/L	20	24.1	80 - 124
Freon 113	143*	ug/L	20	28.6	50 - 130
Hexachlorobutadiene	146*	ug/L	20	29.1	55 - 128
Isopropylbenzene	107	ug/L	20	21.5	73 - 129
Methyl acetate	101	ug/L	20	20.2	70 - 130
Methyl cyclohexane	139*	ug/L	20	27.8	70 - 130
Methyl t-Butyl Ether	89.7	ug/L	20	17.9	69 - 115
Methylene Chloride	112	ug/L	20	22.4	76 - 121
Naphthalene	62.1	ug/L	20	12.4	56 - 134
Styrene	99	ug/L	20	19.8	79 - 123
Tetrachloroethene	122	ug/L	20	24.4	72 - 124
Toluene	104	ug/L	20	20.8	80 - 125
Total Xylenes	110	ug/L	60	65.7	79 - 125
Trichloroethene	112	ug/L	20	22.5	77 - 124
Trichlorofluoromethane	110	ug/L	20	21.9	38 - 123
Vinyl Acetate	88.1	ug/L	20	17.6	58 - 136
Vinyl Chloride	100	ug/L	20	20.0	27 - 138
cis-1,2-Dichloroethene	116	ug/L	20	23.1	78 - 125
cis-1,3-Dichloropropene	101	ug/L	20	20.3	81 - 121
mp-Xylene	111	ug/L	40	44.5	79 - 125
n-Butylbenzene	107	ug/L	20	21.4	71 - 130
n-Propylbenzene	114	ug/L	20	22.8	74 - 122
o-Chlorotoluene	106	ug/L	20	21.3	78 - 126
o-Xylene	106	ug/L	20	21.2	79 - 124
p-Chlorotoluene	104	ug/L	20	20.7	78 - 125
p-Isopropyltoluene	97.7	ug/L	20	19.5	72 - 123
sec-Butylbenzene	113	ug/L	20	22.5	72 - 127
tert-Amyl methyl ether	83.7	ug/L	20	16.7	75 - 121
tert-Butyl Alcohol	72.4	ug/L	100	72.4	17 - 168
tert-Butylbenzene	102	ug/L	20	20.4	72 - 124
trans-1,2-Dichloroethene	120	ug/L	20	23.9	71 - 122
trans-1,3-Dichloropropene	105	ug/L	20	21.0	78 - 126
1,2-Dichloroethane-d4 (S)	113	%			62 - 133
4-Bromofluorobenzene (S)	125*	%			79 - 114
Dibromofluoromethane (S)	92.9	%			78 - 116
Toluene-d8 (S)	92.8	%			76 - 127

MATRIX SPIKE: 2769376 DUPLICATE: 2769377 ORIGINAL: 2322628001

****NOTE - The Original Result shown below is a raw result and is only used for the purpose of calculating Matrix Spike percent recoveries. This result is not a final value and cannot be used as such.

Parameter	Original Result	Units	Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limit	RPD	Max RPD

QUALITY CONTROL DATA

Workorder: 2322628 ALG001|LMC MRC 06/25/18

1,1,1,2-Tetrachloroethane	0	ug/L	20	23.4193	22.8556	117	114	78 - 121	2.44	16
1,1,1-Trichloroethane	0	ug/L	20	25.3237	24.6582	127	123	66 - 130	2.66	20
1,1,2,2-Tetrachloroethane	0	ug/L	20	18.8544	20.4141	94.3	102	74 - 135	7.94	16
1,1,2-Trichloroethane	0	ug/L	20	22.3303	22.1962	112	111	82 - 126	.6	15
1,1-Dichloroethane	0	ug/L	20	23.8504	23.1228	119	116	78 - 124	3.1	15
1,1-Dichloroethene	0	ug/L	20	25.7611	25.2133	129*	126	63 - 128	2.15	21
1,2,3-Trichlorobenzene	0	ug/L	20	11.1724	15.2646	55.9*	76.3	61 - 126	31	36
1,2,3-Trichloropropane	0	ug/L	20	18.6515	19.9406	93.3	99.7	75 - 132	6.68	19
1,2,4-Trichlorobenzene	0	ug/L	20	16.5694	19.8438	82.8	99.2	67 - 123	18	22
1,2,4-Trimethylbenzene	0	ug/L	20	19.7829	21.3509	98.9	107	76 - 125	7.62	24
1,2-Dibromo-3-chloropropane	0	ug/L	20	17.7856	18.4816	88.9	92.4	59 - 133	3.84	26
1,2-Dibromoethane	0	ug/L	20	22.3329	22.3713	112	112	80 - 124	.17	19
1,2-Dichlorobenzene	0	ug/L	20	22.6274	23.7021	113	119*	82 - 118	4.64	15
1,2-Dichloroethane	0	ug/L	20	22.4484	22.0244	112	110	70 - 133	1.91	19
1,2-Dichloroethene, Total	0	ug/L	40	49.2268	47.6442	123	119	78 - 125	3.27	40
1,2-Dichloropropane	0	ug/L	20	23.4706	23.2638	117	116	81 - 127	.89	15
1,3-Dichlorobenzene	0	ug/L	20	22.9984	24.5728	115	123*	81 - 118	6.62	16
1,3-Dichloropropane	0	ug/L	20	22.141	21.9311	111	110	82 - 126	.95	15
1,3-Dichloropropene, Total	0	ug/L	40	40.6414	40.0504	102	100	80 - 123	1.46	16
1,4-Dichlorobenzene	0	ug/L	20	22.5265	23.6767	113	118*	81 - 116	4.98	15
2,2-Dichloropropane	0	ug/L	20	28.044	27.51	140*	138*	64 - 129	1.92	18
2-Butanone	0	ug/L	100	93.7668	95.8614	93.8	95.9	50 - 152	2.21	16
2-Chloroethylvinyl ether	0	ug/L	20	2.71239	3.27082	13.6	16.4	1 - 150	18.7	40
2-Hexanone	0	ug/L	100	80.3619	87.3059	80.4	87.3	65 - 154	8.28	17
4-Methyl-2-Pentanone(MIBK)	0	ug/L	100	86.7342	89.7809	86.7	89.8	71 - 146	3.45	16
Acetone	9.99308	ug/L	100	97.1134	102.425	87.1	92.4	40 - 151	5.32	40
Benzene	0	ug/L	20	23.8862	23.4686	119	117	80 - 124	1.76	26
Bromobenzene	0	ug/L	20	22.5442	22.6806	113	113	81 - 119	.6	17
Bromochloromethane	0	ug/L	20	23.2242	22.6792	116	113	73 - 117	2.37	19
Bromodichloromethane	0	ug/L	20	20.7083	20.0458	104	100	79 - 126	3.25	16
Bromoform	0	ug/L	20	14.907	14.5071	74.5	72.5	70 - 123	2.72	16
Bromomethane	0	ug/L	20	18.1374	17.7862	90.7	88.9	45 - 148	1.96	26
Carbon Disulfide	0	ug/L	20	23.467	21.3623	117	107	57 - 131	9.39	28
Carbon Tetrachloride	0	ug/L	20	25.8688	25.0645	129	125	62 - 132	3.16	17
Chlorobenzene	0	ug/L	20	22.4409	22.0288	112	110	85 - 117	1.85	15
Chlorodibromomethane	0	ug/L	20	18.8262	18.4291	94.1	92.1	77 - 122	2.13	15
Chloroethane	0	ug/L	20	24.8644	24.5002	124	123	51 - 142	1.48	24
Chloroform	0	ug/L	20	23.0792	22.6524	115	113	78 - 122	1.87	16
Chloromethane	0	ug/L	20	21.3301	21.3503	107	107	38 - 156	.09	27
Cyclohexane	0	ug/L	20	23.2735	23.7003	116	119	66 - 130	1.82	20
Dibromomethane	0	ug/L	20	21.725	21.2588	109	106	81 - 125	2.17	16
Dichlorodifluoromethane	0	ug/L	20	20.7662	20.6378	104	103	17 - 166	.62	24
Diisopropyl ether	0	ug/L	20	18.8212	18.9012	94.1	94.5	74 - 131	.42	15
Ethyl tert-butyl ether	0	ug/L	20	16.9993	17.1749	85	85.9	75 - 123	1.03	16
Ethylbenzene	0	ug/L	20	24.9051	24.5282	125*	123	80 - 124	1.52	19
Freon 113	0	ug/L	20	29.5785	28.5977	148*	143*	50 - 130	3.37	26

QUALITY CONTROL DATA

Workorder: 2322628 ALG001|LMC MRC 06/25/18

Hexachlorobutadiene	0	ug/L	20	29.439	29.2754	147*	146*	55 - 128	.56	35
Isopropylbenzene	0	ug/L	20	20.858	22.0471	104	110	73 - 129	5.54	18
Methyl acetate	0	ug/L	20	15.6923	15.8491	78.5	79.2	70 - 130	.99	18
Methyl cyclohexane	0	ug/L	20	28.1323	29.0403	141*	145*	70 - 130	3.18	18
Methyl t-Butyl Ether	0	ug/L	20	17.1542	17.434	85.8	87.2	69 - 115	1.62	20
Methylene Chloride	0	ug/L	20	22.8747	22.0309	114	110	76 - 121	3.76	17
Naphthalene	0	ug/L	20	9.81933	12.458	49.1*	62.3	56 - 134	23.7	40
Styrene	0	ug/L	20	18.0338	18.2146	90.2	91.1	79 - 123	1	16
Tetrachloroethene	0	ug/L	20	24.4533	24.1303	122	121	72 - 124	1.33	38
Toluene	0	ug/L	20	21.6292	21.1573	108	106	80 - 125	2.21	20
Total Xylenes	0	ug/L	60	65.5152	65.8049	109	110	79 - 125	.44	35
Trichloroethene	0	ug/L	20	24.4501	23.5993	122	118	77 - 124	3.54	18
Trichlorofluoromethane	0	ug/L	20	25.2842	24.864	126*	124*	38 - 123	1.68	23
Vinyl Acetate	0	ug/L	20	13.1078	13.192	65.5	66	58 - 136	.64	17
Vinyl Chloride	0	ug/L	20	23.5496	23.2472	118	116	27 - 138	1.29	40
cis-1,2-Dichloroethene	0	ug/L	20	24.1047	23.4932	121	117	78 - 125	2.57	21
cis-1,3-Dichloropropene	0	ug/L	20	20.181	19.8693	101	99.3	81 - 121	1.56	16
mp-Xylene	0	ug/L	40	45.5331	45.0855	114	113	79 - 125	.99	21
n-Butylbenzene	0	ug/L	20	23.7773	24.8605	119	124	71 - 130	4.45	20
n-Propylbenzene	0	ug/L	20	22.8117	23.9783	114	120	74 - 122	4.99	20
o-Chlorotoluene	0	ug/L	20	19.0529	20.3208	95.3	102	78 - 126	6.44	17
o-Xylene	0	ug/L	20	19.9821	20.7195	99.9	104	79 - 124	3.62	19
p-Chlorotoluene	0	ug/L	20	19.3189	20.4705	96.6	102	78 - 125	5.79	16
p-Isopropyltoluene	0	ug/L	20	19.074	20.8521	95.4	104	72 - 123	8.91	17
sec-Butylbenzene	0	ug/L	20	22.0026	23.9559	110	120	72 - 127	8.5	17
tert-Amyl methyl ether	0	ug/L	20	16.3201	16.885	81.6	84.4	75 - 121	3.4	40
tert-Butyl Alcohol	0	ug/L	100	77.9019	86.8656	77.9	86.9	17 - 168	10.9	40
tert-Butylbenzene	0	ug/L	20	19.6644	22.0358	98.3	110	72 - 124	11.4	17
trans-1,2-Dichloroethene	0	ug/L	20	25.1221	24.151	126*	121	71 - 122	3.94	22
trans-1,3-Dichloropropene	0	ug/L	20	20.4604	20.1811	102	101	78 - 126	1.37	18
1,2-Dichloroethane-d4 (S)	115	%				115	107	62 - 133		
4-Bromofluorobenzene (S)	120	%				120*	123*	79 - 114		
Dibromofluoromethane (S)	94.9	%				94.9	93.9	78 - 116		
Toluene-d8 (S)	93.5	%				93.5	92.4	76 - 127		

QUALITY CONTROL DATA

Workorder: 2322628 ALG001|LMC MRC 06/25/18

QC Batch: VOMS/47319 **Analysis Method:** SW846 8260B

QC Batch Method: SW846 8260B

Associated Lab Samples: 2322628010, 2322628011

METHOD BLANK: 2770157

Parameter	Blank Result	Units	Reporting Limit
1,1,1,2-Tetrachloroethane	ND	ug/L	1.0
1,1,1-Trichloroethane	ND	ug/L	1.0
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0
1,1,2-Trichloroethane	ND	ug/L	1.0
1,1-Dichloroethane	ND	ug/L	1.0
1,1-Dichloroethene	ND	ug/L	1.0
1,2,3-Trichlorobenzene	ND	ug/L	2.0
1,2,3-Trichloropropane	ND	ug/L	2.0
1,2,4-Trichlorobenzene	ND	ug/L	2.0
1,2,4-Trimethylbenzene	ND	ug/L	1.0
1,2-Dibromo-3-chloropropane	ND	ug/L	7.0
1,2-Dibromoethane	ND	ug/L	1.0
1,2-Dichlorobenzene	ND	ug/L	1.0
1,2-Dichloroethane	ND	ug/L	1.0
1,2-Dichloroethene, Total	ND	ug/L	2.0
1,2-Dichloropropane	ND	ug/L	1.0
1,3-Dichlorobenzene	ND	ug/L	1.0
1,3-Dichloropropane	ND	ug/L	1.0
1,3-Dichloropropene, Total	ND	ug/L	2.0
1,4-Dichlorobenzene	ND	ug/L	1.0
2,2-Dichloropropane	ND	ug/L	1.0
2-Butanone	ND	ug/L	10.0
2-Chloroethylvinyl ether	ND	ug/L	2.0
2-Hexanone	ND	ug/L	5.0
4-Methyl-2-Pentanone(MIBK)	ND	ug/L	5.0
Acetone	ND	ug/L	10.0
Benzene	ND	ug/L	1.0
Bromobenzene	ND	ug/L	1.0
Bromochloromethane	ND	ug/L	1.0
Bromodichloromethane	ND	ug/L	1.0
Bromoform	ND	ug/L	1.0
Bromomethane	ND	ug/L	1.0
Carbon Disulfide	0.32J	ug/L	1.0
Carbon Tetrachloride	ND	ug/L	1.0
Chlorobenzene	ND	ug/L	1.0
Chlorodibromomethane	ND	ug/L	1.0
Chloroethane	ND	ug/L	1.0

QUALITY CONTROL DATA

Workorder: 2322628 ALG001|LMC MRC 06/25/18

Chloroform	ND	ug/L	1.0
Chloromethane	ND	ug/L	1.0
Cyclohexane	ND	ug/L	1.0
Dibromomethane	ND	ug/L	1.0
Dichlorodifluoromethane	ND	ug/L	1.0
Diisopropyl ether	ND	ug/L	1.0
Ethyl tert-butyl ether	ND	ug/L	1.0
Ethylbenzene	ND	ug/L	1.0
Freon 113	ND	ug/L	1.0
Hexachlorobutadiene	ND	ug/L	5.0
Isopropylbenzene	ND	ug/L	1.0
Methyl acetate	ND	ug/L	2.0
Methyl cyclohexane	ND	ug/L	1.0
Methyl t-Butyl Ether	ND	ug/L	1.0
Methylene Chloride	ND	ug/L	1.0
Naphthalene	ND	ug/L	2.0
Styrene	ND	ug/L	1.0
Tetrachloroethene	ND	ug/L	1.0
Toluene	ND	ug/L	1.0
Total Xylenes	ND	ug/L	3.0
Trichloroethene	ND	ug/L	1.0
Trichlorofluoromethane	ND	ug/L	1.0
Vinyl Acetate	ND	ug/L	5.0
Vinyl Chloride	ND	ug/L	1.0
cis-1,2-Dichloroethene	ND	ug/L	1.0
cis-1,3-Dichloropropene	ND	ug/L	1.0
mp-Xylene	ND	ug/L	2.0
n-Butylbenzene	ND	ug/L	2.0
n-Propylbenzene	ND	ug/L	1.0
o-Chlorotoluene	ND	ug/L	1.0
o-Xylene	ND	ug/L	1.0
p-Chlorotoluene	ND	ug/L	1.0
p-Isopropyltoluene	ND	ug/L	1.0
sec-Butylbenzene	ND	ug/L	1.0
tert-Amyl methyl ether	ND	ug/L	1.0
tert-Butyl Alcohol	ND	ug/L	10.0
tert-Butylbenzene	ND	ug/L	2.0
trans-1,2-Dichloroethene	ND	ug/L	1.0
trans-1,3-Dichloropropene	ND	ug/L	1.0
1,2-Dichloroethane-d4 (S)	106	%	62 - 133
4-Bromofluorobenzene (S)	109	%	79 - 114
Dibromofluoromethane (S)	101	%	78 - 116
Toluene-d8 (S)	103	%	76 - 127

QUALITY CONTROL DATA

Workorder: 2322628 ALG001|LMC MRC 06/25/18

LABORATORY CONTROL SAMPLE: 2770158

Parameter	LCS % Rec	Units	Spike Conc.	LCS Result	% Rec Limit
1,1,1,2-Tetrachloroethane	104	ug/L	20	20.9	78 - 121
1,1,1-Trichloroethane	98.4	ug/L	20	19.7	66 - 130
1,1,2,2-Tetrachloroethane	83.5	ug/L	20	16.7	74 - 135
1,1,2-Trichloroethane	91	ug/L	20	18.2	82 - 126
1,1-Dichloroethane	90.7	ug/L	20	18.1	78 - 124
1,1-Dichloroethene	102	ug/L	20	20.4	63 - 128
1,2,3-Trichlorobenzene	102	ug/L	20	20.3	61 - 126
1,2,3-Trichloropropane	88.4	ug/L	20	17.7	75 - 132
1,2,4-Trichlorobenzene	104	ug/L	20	20.8	67 - 123
1,2,4-Trimethylbenzene	87.7	ug/L	20	17.5	76 - 125
1,2-Dibromo-3-chloropropane	81.7	ug/L	20	16.3	59 - 133
1,2-Dibromoethane	105	ug/L	20	20.9	80 - 124
1,2-Dichlorobenzene	97.9	ug/L	20	19.6	82 - 118
1,2-Dichloroethane	92.2	ug/L	20	18.4	70 - 133
1,2-Dichloroethene, Total	101	ug/L	40	40.5	78 - 125
1,2-Dichloropropane	94.5	ug/L	20	18.9	81 - 127
1,3-Dichlorobenzene	98.3	ug/L	20	19.7	81 - 118
1,3-Dichloropropane	96.6	ug/L	20	19.3	82 - 126
1,3-Dichloropropene, Total	95.6	ug/L	40	38.2	80 - 123
1,4-Dichlorobenzene	91.3	ug/L	20	18.3	81 - 116
2,2-Dichloropropane	90.5	ug/L	20	18.1	64 - 129
2-Butanone	89.2	ug/L	100	89.2	50 - 152
2-Chloroethylvinyl ether	99.5	ug/L	20	19.9	1 - 150
2-Hexanone	103	ug/L	100	103	65 - 154
4-Methyl-2-Pentanone(MIBK)	99.5	ug/L	100	99.5	71 - 146
Acetone	114	ug/L	100	114	40 - 151
Benzene	93.2	ug/L	20	18.6	80 - 124
Bromobenzene	102	ug/L	20	20.4	81 - 119
Bromochloromethane	100	ug/L	20	20.0	73 - 117
Bromodichloromethane	92.1	ug/L	20	18.4	79 - 126
Bromoform	91.9	ug/L	20	18.4	70 - 123
Bromomethane	45.5	ug/L	20	9.1	45 - 148
Carbon Disulfide	114	ug/L	20	22.9	57 - 131
Carbon Tetrachloride	103	ug/L	20	20.6	62 - 132
Chlorobenzene	98.7	ug/L	20	19.7	85 - 117
Chlorodibromomethane	103	ug/L	20	20.6	77 - 122
Chloroethane	71.9	ug/L	20	14.4	51 - 142
Chloroform	98.7	ug/L	20	19.7	78 - 122
Chloromethane	104	ug/L	20	20.8	38 - 156
Cyclohexane	117	ug/L	20	23.5	66 - 130
Dibromomethane	91.5	ug/L	20	18.3	81 - 125

QUALITY CONTROL DATA

Workorder: 2322628 ALG001|LMC MRC 06/25/18

Dichlorodifluoromethane	92.8	ug/L	20	18.6	17 - 166
Diisopropyl ether	104	ug/L	20	20.8	74 - 131
Ethyl tert-butyl ether	94.7	ug/L	20	18.9	75 - 123
Ethylbenzene	103	ug/L	20	20.5	80 - 124
Freon 113	128	ug/L	20	25.5	50 - 130
Hexachlorobutadiene	103	ug/L	20	20.6	55 - 128
Isopropylbenzene	83.8	ug/L	20	16.8	73 - 129
Methyl acetate	101	ug/L	20	20.2	70 - 130
Methyl cyclohexane	99.8	ug/L	20	20.0	70 - 130
Methyl t-Butyl Ether	96.1	ug/L	20	19.2	69 - 115
Methylene Chloride	104	ug/L	20	20.7	76 - 121
Naphthalene	84.6	ug/L	20	16.9	56 - 134
Styrene	101	ug/L	20	20.1	79 - 123
Tetrachloroethene	113	ug/L	20	22.5	72 - 124
Toluene	104	ug/L	20	20.8	80 - 125
Total Xylenes	110	ug/L	60	65.9	79 - 125
Trichloroethene	93.1	ug/L	20	18.6	77 - 124
Trichlorofluoromethane	78.6	ug/L	20	15.7	38 - 123
Vinyl Acetate	92.7	ug/L	20	18.5	58 - 136
Vinyl Chloride	84.4	ug/L	20	16.9	27 - 138
cis-1,2-Dichloroethene	98.6	ug/L	20	19.7	78 - 125
cis-1,3-Dichloropropene	94.7	ug/L	20	18.9	81 - 121
mp-Xylene	109	ug/L	40	43.8	79 - 125
n-Butylbenzene	84.6	ug/L	20	16.9	71 - 130
n-Propylbenzene	86.4	ug/L	20	17.3	74 - 122
o-Chlorotoluene	99.4	ug/L	20	19.9	78 - 126
o-Xylene	111	ug/L	20	22.1	79 - 124
p-Chlorotoluene	98	ug/L	20	19.6	78 - 125
p-Isopropyltoluene	96.4	ug/L	20	19.3	72 - 123
sec-Butylbenzene	98	ug/L	20	19.6	72 - 127
tert-Amyl methyl ether	94.4	ug/L	20	18.9	75 - 121
tert-Butyl Alcohol	52.1	ug/L	100	52.1	17 - 168
tert-Butylbenzene	91.4	ug/L	20	18.3	72 - 124
trans-1,2-Dichloroethene	104	ug/L	20	20.7	71 - 122
trans-1,3-Dichloropropene	96.4	ug/L	20	19.3	78 - 126
1,2-Dichloroethane-d4 (S)	105	%			62 - 133
4-Bromofluorobenzene (S)	110	%			79 - 114
Dibromofluoromethane (S)	95.2	%			78 - 116
Toluene-d8 (S)	100	%			76 - 127

MATRIX SPIKE: 2770788 DUPLICATE: 2770789 ORIGINAL: 2323172001

****NOTE - The Original Result shown below is a raw result and is only used for the purpose of calculating Matrix Spike percent recoveries. This result is not a final value and cannot be used as such.

Parameter	Original Result	Units	Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limit	RPD	Max RPD

QUALITY CONTROL DATA

Workorder: 2322628 ALG001|LMC MRC 06/25/18

1,2,4-Trimethylbenzene	0	ug/L	20	18.4964	19.1271	92.5	95.6	76 - 125	3.35	24
Benzene	0	ug/L	20	21.3863	20.5197	107	103	80 - 124	4.14	26
Ethylbenzene	0	ug/L	20	22.0283	21.9067	110	110	80 - 124	.55	19
Isopropylbenzene	0	ug/L	20	18.3439	18.5411	91.7	92.7	73 - 129	1.07	18
Naphthalene	0	ug/L	20	17.3356	18.1158	86.7	90.6	56 - 134	4.4	40
Toluene	0	ug/L	20	22.3415	22.5216	112	113	80 - 125	.8	20
Total Xylenes	0	ug/L	60	70.2052	70.303	117	117	79 - 125	.14	35
n-Butylbenzene	0	ug/L	20	16.5906	18.2808	83	91.4	71 - 130	9.69	20
n-Propylbenzene	0	ug/L	20	18.334	18.8486	91.7	94.2	74 - 122	2.77	20
p-Isopropyltoluene	0	ug/L	20	20.2052	21.217	101	106	72 - 123	4.89	17
sec-Butylbenzene	0	ug/L	20	20.3668	21.6637	102	108	72 - 127	6.17	17
1,2-Dichloroethane-d4 (S)	100	%				100	97.4	62 - 133		
4-Bromofluorobenzene (S)	111	%				111	109	79 - 114		
Dibromofluoromethane (S)	98.3	%				98.3	96	78 - 116		
Toluene-d8 (S)	98.2	%				98.2	99.6	76 - 127		

ALS Environmental
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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

QUALITY CONTROL DATA

Workorder: 2322628 ALG001|LMC MRC 06/25/18

QC Batch: VOMS/47326 **Analysis Method:** SW846 8260B

QC Batch Method: SW846 8260B

Associated Lab Samples: 2322628004, 2322628005, 2322628006, 2322628007, 2322628008, 2322628009

METHOD BLANK: 2770858

Parameter	Blank Result	Units	Reporting Limit
1,1,1,2-Tetrachloroethane	ND	ug/L	1.0
1,1,1-Trichloroethane	ND	ug/L	1.0
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0
1,1,2-Trichloroethane	ND	ug/L	1.0
1,1-Dichloroethane	ND	ug/L	1.0
1,1-Dichloroethene	ND	ug/L	1.0
1,2,3-Trichlorobenzene	ND	ug/L	2.0
1,2,3-Trichloropropane	ND	ug/L	2.0
1,2,4-Trichlorobenzene	ND	ug/L	2.0
1,2,4-Trimethylbenzene	ND	ug/L	1.0
1,2-Dibromo-3-chloropropane	ND	ug/L	7.0
1,2-Dibromoethane	ND	ug/L	1.0
1,2-Dichlorobenzene	ND	ug/L	1.0
1,2-Dichloroethane	ND	ug/L	1.0
1,2-Dichloroethene, Total	ND	ug/L	2.0
1,2-Dichloropropane	ND	ug/L	1.0
1,3-Dichlorobenzene	ND	ug/L	1.0
1,3-Dichloropropane	ND	ug/L	1.0
1,3-Dichloropropene, Total	ND	ug/L	2.0
1,4-Dichlorobenzene	ND	ug/L	1.0
2,2-Dichloropropane	ND	ug/L	1.0
2-Butanone	ND	ug/L	10.0
2-Chloroethylvinyl ether	ND	ug/L	2.0
2-Hexanone	ND	ug/L	5.0
4-Methyl-2-Pentanone(MIBK)	ND	ug/L	5.0
Acetone	ND	ug/L	10.0
Benzene	ND	ug/L	1.0
Bromobenzene	ND	ug/L	1.0
Bromochloromethane	ND	ug/L	1.0
Bromodichloromethane	ND	ug/L	1.0
Bromoform	ND	ug/L	1.0
Bromomethane	ND	ug/L	1.0
Carbon Disulfide	ND	ug/L	1.0
Carbon Tetrachloride	ND	ug/L	1.0
Chlorobenzene	ND	ug/L	1.0
Chlorodibromomethane	ND	ug/L	1.0
Chloroethane	ND	ug/L	1.0

QUALITY CONTROL DATA

Workorder: 2322628 ALG001|LMC MRC 06/25/18

Chloroform	ND	ug/L	1.0
Chloromethane	ND	ug/L	1.0
Cyclohexane	ND	ug/L	1.0
Dibromomethane	ND	ug/L	1.0
Dichlorodifluoromethane	ND	ug/L	1.0
Diisopropyl ether	ND	ug/L	1.0
Ethyl tert-butyl ether	ND	ug/L	1.0
Ethylbenzene	ND	ug/L	1.0
Freon 113	ND	ug/L	1.0
Hexachlorobutadiene	2.3J	ug/L	5.0
Isopropylbenzene	ND	ug/L	1.0
Methyl acetate	ND	ug/L	2.0
Methyl cyclohexane	ND	ug/L	1.0
Methyl t-Butyl Ether	ND	ug/L	1.0
Methylene Chloride	ND	ug/L	1.0
Naphthalene	ND	ug/L	2.0
Styrene	ND	ug/L	1.0
Tetrachloroethene	ND	ug/L	1.0
Toluene	ND	ug/L	1.0
Total Xylenes	ND	ug/L	3.0
Trichloroethene	ND	ug/L	1.0
Trichlorofluoromethane	ND	ug/L	1.0
Vinyl Acetate	ND	ug/L	5.0
Vinyl Chloride	ND	ug/L	1.0
cis-1,2-Dichloroethene	ND	ug/L	1.0
cis-1,3-Dichloropropene	ND	ug/L	1.0
mp-Xylene	ND	ug/L	2.0
n-Butylbenzene	ND	ug/L	2.0
n-Propylbenzene	ND	ug/L	1.0
o-Chlorotoluene	ND	ug/L	1.0
o-Xylene	ND	ug/L	1.0
p-Chlorotoluene	ND	ug/L	1.0
p-Isopropyltoluene	ND	ug/L	1.0
sec-Butylbenzene	ND	ug/L	1.0
tert-Amyl methyl ether	ND	ug/L	1.0
tert-Butyl Alcohol	ND	ug/L	10.0
tert-Butylbenzene	ND	ug/L	2.0
trans-1,2-Dichloroethene	ND	ug/L	1.0
trans-1,3-Dichloropropene	ND	ug/L	1.0
1,2-Dichloroethane-d4 (S)	90.6	%	62 - 133
4-Bromofluorobenzene (S)	111	%	79 - 114
Dibromofluoromethane (S)	83.2	%	78 - 116
Toluene-d8 (S)	94.3	%	76 - 127

QUALITY CONTROL DATA

Workorder: 2322628 ALG001|LMC MRC 06/25/18

LABORATORY CONTROL SAMPLE: 2770859

Parameter	LCS % Rec	Units	Spike Conc.	LCS Result	% Rec Limit
1,1,1,2-Tetrachloroethane	97.5	ug/L	20	19.5	78 - 121
1,1,1-Trichloroethane	104	ug/L	20	20.8	66 - 130
1,1,2,2-Tetrachloroethane	97.6	ug/L	20	19.5	74 - 135
1,1,2-Trichloroethane	95.7	ug/L	20	19.1	82 - 126
1,1-Dichloroethane	99.3	ug/L	20	19.9	78 - 124
1,1-Dichloroethene	108	ug/L	20	21.6	63 - 128
1,2,3-Trichlorobenzene	89.8	ug/L	20	18.0	61 - 126
1,2,3-Trichloropropane	103	ug/L	20	20.6	75 - 132
1,2,4-Trichlorobenzene	85	ug/L	20	17.0	67 - 123
1,2,4-Trimethylbenzene	92.1	ug/L	20	18.4	76 - 125
1,2-Dibromo-3-chloropropane	81	ug/L	20	16.2	59 - 133
1,2-Dibromoethane	98.4	ug/L	20	19.7	80 - 124
1,2-Dichlorobenzene	95.5	ug/L	20	19.1	82 - 118
1,2-Dichloroethane	93.3	ug/L	20	18.7	70 - 133
1,2-Dichloroethene, Total	101	ug/L	40	40.4	78 - 125
1,2-Dichloropropane	98.2	ug/L	20	19.6	81 - 127
1,3-Dichlorobenzene	94.2	ug/L	20	18.8	81 - 118
1,3-Dichloropropane	98	ug/L	20	19.6	82 - 126
1,3-Dichloropropene, Total	91	ug/L	40	36.4	80 - 123
1,4-Dichlorobenzene	89.9	ug/L	20	18.0	81 - 116
2,2-Dichloropropane	87.1	ug/L	20	17.4	64 - 129
2-Butanone	93.1	ug/L	100	93.1	50 - 152
2-Chloroethylvinyl ether	76.2	ug/L	20	15.2	1 - 150
2-Hexanone	87.8	ug/L	100	87.8	65 - 154
4-Methyl-2-Pentanone(MIBK)	86	ug/L	100	86.0	71 - 146
Acetone	96.1	ug/L	100	96.1	40 - 151
Benzene	99.6	ug/L	20	19.9	80 - 124
Bromobenzene	109	ug/L	20	21.7	81 - 119
Bromochloromethane	94.2	ug/L	20	18.8	73 - 117
Bromodichloromethane	91.5	ug/L	20	18.3	79 - 126
Bromoform	98.7	ug/L	20	19.7	70 - 123
Bromomethane	87.8	ug/L	20	17.6	45 - 148
Carbon Disulfide	94.3	ug/L	20	18.9	57 - 131
Carbon Tetrachloride	100	ug/L	20	20.0	62 - 132
Chlorobenzene	92	ug/L	20	18.4	85 - 117
Chlorodibromomethane	93.1	ug/L	20	18.6	77 - 122
Chloroethane	93.4	ug/L	20	18.7	51 - 142
Chloroform	100	ug/L	20	20.1	78 - 122
Chloromethane	78.9	ug/L	20	15.8	38 - 156
Cyclohexane	108	ug/L	20	21.6	66 - 130
Dibromomethane	90.2	ug/L	20	18.0	81 - 125

QUALITY CONTROL DATA

Workorder: 2322628 ALG001|LMC MRC 06/25/18

Dichlorodifluoromethane	74.4	ug/L	20	14.9	17 - 166
Diisopropyl ether	87.7	ug/L	20	17.5	74 - 131
Ethyl tert-butyl ether	80.8	ug/L	20	16.2	75 - 123
Ethylbenzene	100	ug/L	20	20.0	80 - 124
Freon 113	117	ug/L	20	23.4	50 - 130
Hexachlorobutadiene	102	ug/L	20	20.5	55 - 128
Isopropylbenzene	107	ug/L	20	21.5	73 - 129
Methyl acetate	105	ug/L	20	21.0	70 - 130
Methyl cyclohexane	101	ug/L	20	20.2	70 - 130
Methyl t-Butyl Ether	83.3	ug/L	20	16.7	69 - 115
Methylene Chloride	101	ug/L	20	20.2	76 - 121
Naphthalene	84.5	ug/L	20	16.9	56 - 134
Styrene	97	ug/L	20	19.4	79 - 123
Tetrachloroethene	103	ug/L	20	20.5	72 - 124
Toluene	107	ug/L	20	21.4	80 - 125
Total Xylenes	99.9	ug/L	60	60.0	79 - 125
Trichloroethene	97.4	ug/L	20	19.5	77 - 124
Trichlorofluoromethane	89.6	ug/L	20	17.9	38 - 123
Vinyl Acetate	86.4	ug/L	20	17.3	58 - 136
Vinyl Chloride	80.5	ug/L	20	16.1	27 - 138
cis-1,2-Dichloroethene	101	ug/L	20	20.1	78 - 125
cis-1,3-Dichloropropene	89.5	ug/L	20	17.9	81 - 121
mp-Xylene	107	ug/L	40	42.9	79 - 125
n-Butylbenzene	94.7	ug/L	20	18.9	71 - 130
n-Propylbenzene	99	ug/L	20	19.8	74 - 122
o-Chlorotoluene	90.9	ug/L	20	18.2	78 - 126
o-Xylene	85.5	ug/L	20	17.1	79 - 124
p-Chlorotoluene	113	ug/L	20	22.6	78 - 125
p-Isopropyltoluene	85.9	ug/L	20	17.2	72 - 123
sec-Butylbenzene	91.1	ug/L	20	18.2	72 - 127
tert-Amyl methyl ether	79.6	ug/L	20	15.9	75 - 121
tert-Butyl Alcohol	76.8	ug/L	100	76.8	17 - 168
tert-Butylbenzene	96.2	ug/L	20	19.2	72 - 124
trans-1,2-Dichloroethene	101	ug/L	20	20.3	71 - 122
trans-1,3-Dichloropropene	92.5	ug/L	20	18.5	78 - 126
1,2-Dichloroethane-d4 (S)	88.8	%			62 - 133
4-Bromofluorobenzene (S)	121*	%			79 - 114
Dibromofluoromethane (S)	83.9	%			78 - 116
Toluene-d8 (S)	92.5	%			76 - 127

QUALITY CONTROL DATA QUALIFIERS

Workorder: 2322628 ALG001|LMC MRC 06/25/18

QUALITY CONTROL PARAMETER QUALIFIERS

Lab ID	#	Sample Type	Analytical Method	Analyte
2769176	1	Lab Control Standard	SW846 8260B	Methyl cyclohexane
The QC sample type LCS for method SW846 8260B was outside the control limits for the analyte Methyl cyclohexane. The % Recovery was reported as 139 and the control limits were 70 to 130.				
2769176	2	Lab Control Standard	SW846 8260B	Hexachlorobutadiene
The QC sample type LCS for method SW846 8260B was outside the control limits for the analyte Hexachlorobutadiene. The % Recovery was reported as 146 and the control limits were 55 to 128.				
2769176	3	Lab Control Standard	SW846 8260B	Freon 113
The QC sample type LCS for method SW846 8260B was outside the control limits for the analyte Freon 113. The % Recovery was reported as 143 and the control limits were 50 to 130.				
2769176	4	Lab Control Standard	SW846 8260B	2,2-Dichloropropane
The QC sample type LCS for method SW846 8260B was outside the control limits for the analyte 2,2-Dichloropropane. The % Recovery was reported as 133 and the control limits were 64 to 129.				

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State Certifications: DE ID 11 , MA PA0102 , MD 128 , VA 460157 , WV 343

July 19, 2018

Mr. Naoum Tavantzis
AECOM
7 St.Paul Street
16th Floor
Baltimore, MD 21202

Certificate of Analysis

Project Name:	**2018-MIDDLE RIVER COMPLEX**	Workorder:	**2323127**
Purchase Order:	**95840ACM**	Workorder ID:	**ALG002|LMC MRC**

Dear Mr. Tavantzis:

Enclosed are the analytical results for samples received by the laboratory on Tuesday, June 26, 2018.

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: Ms. Holly Brown , Mr. Ravi Damera , Ms. Victoria Kirkpatrick

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

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SAMPLE SUMMARY

Workorder: 2323127 ALG002|LMC MRC

Lab ID	Sample ID	Matrix	Date Collected	Date Received	Collected By
2323127001	MRC-SW16A	Water	6/25/2018 14:30	6/26/2018 21:30	Ms. Victoria
2323127002	MRC-SW15A	Water	6/25/2018 14:45	6/26/2018 21:30	Ms. Victoria
2323127003	MRC-SW5A2	Water	6/25/2018 15:00	6/26/2018 21:30	Ms. Victoria
2323127004	MRC-SW5A1	Water	6/25/2018 15:05	6/26/2018 21:30	Ms. Victoria
2323127005	MRC-SW5B	Water	6/25/2018 15:15	6/26/2018 21:30	Ms. Victoria
2323127006	MRC-SW2A	Water	6/25/2018 15:30	6/26/2018 21:30	Ms. Victoria
2323127007	MRC-SW1A	Water	6/25/2018 15:45	6/26/2018 21:30	Ms. Victoria
2323127008	TB-0626-18	Water	6/26/2018 21:30	6/26/2018 21:30	Ms. Victoria
2323127009	MRC-MW11A	Water	6/25/2018 14:00	6/26/2018 21:30	Ms. Victoria
2323127010	MRC-MW16A	Water	6/25/2018 15:30	6/26/2018 21:30	Ms. Victoria
2323127011	MRC-MW16A-DUP	Water	6/25/2018 15:50	6/26/2018 21:30	Ms. Victoria
2323127012	MRC-MW17A	Water	6/26/2018 10:40	6/26/2018 21:30	Ms. Victoria
2323127013	MRC-MW17A DUP	Water	6/26/2018 10:45	6/26/2018 21:30	Ms. Victoria
2323127014	EW-2	Water	6/26/2018 11:05	6/26/2018 21:30	Ms. Victoria
2323127015	EW-1	Water	6/26/2018 13:20	6/26/2018 21:30	Ms. Victoria

SAMPLE SUMMARY

Workorder: 2323127 ALG002|LMC MRC

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 incurbator and the "Analyzed" value is the date/time out the incubator.

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

PROJECT SUMMARY

Workorder: 2323127 ALG002|LMC MRC

Workorder Comments

Please see attached subcontracting from ALS Rochester. VNB 7/19/18

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ANALYTICAL RESULTS

Workorder: 2323127 ALG002|LMC MRC

Lab ID: **2323127001** Date Collected: 6/25/2018 14:30 Matrix: Water
Sample ID: **MRC-SW16A** Date Received: 6/26/2018 21:30

Parameters	Results	Flag	Units	RDL	MDL	Method	Prepared By	Analyzed	By	Cntr
VOLATILE ORGANICS										
1,1,1,2-Tetrachloroethane	ND		ug/L	1.0	0.35	SW846 8260B		7/6/18 16:55	TMP	C
1,1,1-Trichloroethane	ND		ug/L	1.0	0.22	SW846 8260B		7/6/18 16:55	TMP	C
1,1,2,2-Tetrachloroethane	ND		ug/L	1.0	0.34	SW846 8260B		7/6/18 16:55	TMP	C
1,1,2-Trichloroethane	ND		ug/L	1.0	0.33	SW846 8260B		7/6/18 16:55	TMP	C
1,1-Dichloroethane	ND		ug/L	1.0	0.28	SW846 8260B		7/6/18 16:55	TMP	C
1,1-Dichloroethene	ND		ug/L	1.0	0.29	SW846 8260B		7/6/18 16:55	TMP	C
1,2,3-Trichlorobenzene	ND		ug/L	2.0	0.93	SW846 8260B		7/6/18 16:55	TMP	C
1,2,3-Trichloropropane	ND		ug/L	2.0	0.60	SW846 8260B		7/6/18 16:55	TMP	C
1,2,4-Trichlorobenzene	ND		ug/L	2.0	0.82	SW846 8260B		7/6/18 16:55	TMP	C
1,2,4-Trimethylbenzene	ND		ug/L	1.0	0.25	SW846 8260B		7/6/18 16:55	TMP	C
1,2-Dibromo-3-chloropropane	ND		ug/L	7.0	1.5	SW846 8260B		7/6/18 16:55	TMP	C
1,2-Dibromoethane	ND		ug/L	1.0	0.28	SW846 8260B		7/6/18 16:55	TMP	C
1,2-Dichlorobenzene	ND		ug/L	1.0	0.38	SW846 8260B		7/6/18 16:55	TMP	C
1,2-Dichloroethane	ND		ug/L	1.0	0.32	SW846 8260B		7/6/18 16:55	TMP	C
1,2-Dichloroethene, Total	0.51J	J,1	ug/L	2.0	0.45	SW846 8260B		7/6/18 16:55	TMP	C
1,2-Dichloropropane	ND		ug/L	1.0	0.24	SW846 8260B		7/6/18 16:55	TMP	C
1,3-Dichlorobenzene	ND		ug/L	1.0	0.25	SW846 8260B		7/6/18 16:55	TMP	C
1,3-Dichloropropane	ND		ug/L	1.0	0.27	SW846 8260B		7/6/18 16:55	TMP	C
1,3-Dichloropropene, Total	ND		ug/L	2.0	0.47	SW846 8260B		7/6/18 16:55	TMP	C
1,4-Dichlorobenzene	ND		ug/L	1.0	0.27	SW846 8260B		7/6/18 16:55	TMP	C
2,2-Dichloropropane	ND		ug/L	1.0	0.32	SW846 8260B		7/6/18 16:55	TMP	C
2-Butanone	ND		ug/L	10.0	1.8	SW846 8260B		7/6/18 16:55	TMP	C
2-Chloroethylvinyl ether	ND		ug/L	2.0	0.38	SW846 8260B		7/6/18 16:55	TMP	C
2-Hexanone	ND		ug/L	5.0	1.3	SW846 8260B		7/6/18 16:55	TMP	C
4-Methyl-2-Pentanone(MIBK)	ND		ug/L	5.0	1.5	SW846 8260B		7/6/18 16:55	TMP	C
Acetone	17.8		ug/L	10.0	3.1	SW846 8260B		7/6/18 16:55	TMP	C
Benzene	ND		ug/L	1.0	0.23	SW846 8260B		7/6/18 16:55	TMP	C
Bromobenzene	ND		ug/L	1.0	0.32	SW846 8260B		7/6/18 16:55	TMP	C
Bromochloromethane	ND		ug/L	1.0	0.32	SW846 8260B		7/6/18 16:55	TMP	C
Bromodichloromethane	ND		ug/L	1.0	0.27	SW846 8260B		7/6/18 16:55	TMP	C
Bromoform	ND		ug/L	1.0	0.40	SW846 8260B		7/6/18 16:55	TMP	C
Bromomethane	0.45J	J	ug/L	1.0	0.39	SW846 8260B		7/6/18 16:55	TMP	C
Carbon Disulfide	ND		ug/L	1.0	0.23	SW846 8260B		7/6/18 16:55	TMP	C
Carbon Tetrachloride	ND		ug/L	1.0	0.31	SW846 8260B		7/6/18 16:55	TMP	C
Chlorobenzene	ND		ug/L	1.0	0.19	SW846 8260B		7/6/18 16:55	TMP	C
Chlorodibromomethane	ND		ug/L	1.0	0.45	SW846 8260B		7/6/18 16:55	TMP	C

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ANALYTICAL RESULTS

Workorder: 2323127 ALG002|LMC MRC

Lab ID: **2323127001** Date Collected: 6/25/2018 14:30 Matrix: Water
Sample ID: **MRC-SW16A** Date Received: 6/26/2018 21:30

Parameters	Results	Flag	Units	RDL	MDL	Method	Prepared By	Analyzed	By	Cntr
Chloroethane	ND		ug/L	1.0	0.33	SW846 8260B		7/6/18 16:55	TMP	C
Chloroform	ND		ug/L	1.0	0.21	SW846 8260B		7/6/18 16:55	TMP	C
Chloromethane	ND		ug/L	1.0	0.31	SW846 8260B		7/6/18 16:55	TMP	C
Cyclohexane	ND		ug/L	1.0	0.29	SW846 8260B		7/6/18 16:55	TMP	C
Dibromomethane	ND		ug/L	1.0	0.31	SW846 8260B		7/6/18 16:55	TMP	C
Dichlorodifluoromethane	ND		ug/L	1.0	0.33	SW846 8260B		7/6/18 16:55	TMP	C
Diisopropyl ether	ND		ug/L	1.0	0.25	SW846 8260B		7/6/18 16:55	TMP	C
Ethyl tert-butyl ether	ND		ug/L	1.0	0.19	SW846 8260B		7/6/18 16:55	TMP	C
Ethylbenzene	ND		ug/L	1.0	0.34	SW846 8260B		7/6/18 16:55	TMP	C
Freon 113	ND		ug/L	1.0	0.26	SW846 8260B		7/6/18 16:55	TMP	C
Hexachlorobutadiene	ND		ug/L	5.0	1.0	SW846 8260B		7/6/18 16:55	TMP	C
Isopropylbenzene	ND		ug/L	1.0	0.22	SW846 8260B		7/6/18 16:55	TMP	C
Methyl acetate	ND		ug/L	2.0	0.32	SW846 8260B		7/6/18 16:55	TMP	C
Methyl cyclohexane	ND		ug/L	1.0	0.30	SW846 8260B		7/6/18 16:55	TMP	C
Methyl t-Butyl Ether	ND		ug/L	1.0	0.33	SW846 8260B		7/6/18 16:55	TMP	C
Methylene Chloride	ND		ug/L	1.0	0.45	SW846 8260B		7/6/18 16:55	TMP	C
Naphthalene	ND		ug/L	2.0	0.34	SW846 8260B		7/6/18 16:55	TMP	C
Styrene	ND		ug/L	1.0	0.24	SW846 8260B		7/6/18 16:55	TMP	C
Tetrachloroethene	ND		ug/L	1.0	0.35	SW846 8260B		7/6/18 16:55	TMP	C
Toluene	ND		ug/L	1.0	0.23	SW846 8260B		7/6/18 16:55	TMP	C
Total Xylenes	ND		ug/L	3.0	0.66	SW846 8260B		7/6/18 16:55	TMP	C
Trichloroethene	2.5		ug/L	1.0	0.33	SW846 8260B		7/6/18 16:55	TMP	C
Trichlorofluoromethane	ND		ug/L	1.0	0.24	SW846 8260B		7/6/18 16:55	TMP	C
Vinyl Acetate	ND		ug/L	5.0	1.6	SW846 8260B		7/6/18 16:55	TMP	C
Vinyl Chloride	ND		ug/L	1.0	0.30	SW846 8260B		7/6/18 16:55	TMP	C
cis-1,2-Dichloroethene	0.51J	J	ug/L	1.0	0.32	SW846 8260B		7/6/18 16:55	TMP	C
cis-1,3-Dichloropropene	ND		ug/L	1.0	0.31	SW846 8260B		7/6/18 16:55	TMP	C
mp-Xylene	ND		ug/L	2.0	0.52	SW846 8260B		7/6/18 16:55	TMP	C
n-Butylbenzene	ND		ug/L	2.0	0.60	SW846 8260B		7/6/18 16:55	TMP	C
n-Propylbenzene	ND		ug/L	1.0	0.33	SW846 8260B		7/6/18 16:55	TMP	C
o-Chlorotoluene	ND		ug/L	1.0	0.26	SW846 8260B		7/6/18 16:55	TMP	C
o-Xylene	ND		ug/L	1.0	0.33	SW846 8260B		7/6/18 16:55	TMP	C
p-Chlorotoluene	ND		ug/L	1.0	0.33	SW846 8260B		7/6/18 16:55	TMP	C
p-Isopropyltoluene	ND		ug/L	1.0	0.32	SW846 8260B		7/6/18 16:55	TMP	C
sec-Butylbenzene	ND		ug/L	1.0	0.31	SW846 8260B		7/6/18 16:55	TMP	C
tert-Amyl methyl ether	ND		ug/L	1.0	0.20	SW846 8260B		7/6/18 16:55	TMP	C
tert-Butyl Alcohol	ND		ug/L	10.0	2.2	SW846 8260B		7/6/18 16:55	TMP	C
tert-Butylbenzene	ND		ug/L	2.0	0.44	SW846 8260B		7/6/18 16:55	TMP	C

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ANALYTICAL RESULTS

Workorder: 2323127 ALG002|LMC MRC

Lab ID: **2323127001** Date Collected: 6/25/2018 14:30 Matrix: Water
Sample ID: **MRC-SW16A** Date Received: 6/26/2018 21:30

Parameters	Results	Flag	Units	RDL	MDL	Method	Prepared	By	Analyzed	By	Cntr
trans-1,2-Dichloroethene	ND		ug/L	1.0	0.26	SW846 8260B			7/6/18 16:55	TMP	C
trans-1,3-Dichloropropene	ND		ug/L	1.0	0.29	SW846 8260B			7/6/18 16:55	TMP	C
Surrogate Recoveries	*Results*	*Flag*	*Units*	*Limits*		*Method*	*Prepared*	*By*	*Analyzed*	*By*	*Cntr*
1,2-Dichloroethane-d4 (S)	81.5		%	62 - 133		SW846 8260B			7/6/18 16:55	TMP	C
4-Bromofluorobenzene (S)	86.2		%	79 - 114		SW846 8260B			7/6/18 16:55	TMP	C
Dibromofluoromethane (S)	89.9		%	78 - 116		SW846 8260B			7/6/18 16:55	TMP	C
Toluene-d8 (S)	82		%	76 - 127		SW846 8260B			7/6/18 16:55	TMP	C
SEMIVOLATILE SIM											
1,4-Dioxane	ND		ug/L	0.096	0.018	8270 SIM	6/28/18 18:00	DXL	6/29/18 12:27	CGS	A
IS_Naphthalene-d8	0.0		ug/L			8270 SIM	6/28/18 18:00	DXL	6/29/18 12:27	CGS	A
IS_Perylene-d12	0.0		ug/L			8270 SIM	6/28/18 18:00	DXL	6/29/18 12:27	CGS	A
Acenaphthene-d10	0.0		ug/L			8270 SIM	6/28/18 18:00	DXL	6/29/18 12:27	CGS	A
Phenanthrene-d10	0.0		ug/L			8270 SIM	6/28/18 18:00	DXL	6/29/18 12:27	CGS	A
Chrysene-d12	0.0		ug/L			8270 SIM	6/28/18 18:00	DXL	6/29/18 12:27	CGS	A

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ANALYTICAL RESULTS

Workorder: 2323127 ALG002|LMC MRC

Lab ID: **2323127002** Date Collected: 6/25/2018 14:45 Matrix: Water
Sample ID: **MRC-SW15A** Date Received: 6/26/2018 21:30

Parameters	Results	Flag	Units	RDL	MDL	Method	Prepared By	Analyzed	By	Cntr
VOLATILE ORGANICS										
1,1,1,2-Tetrachloroethane	ND		ug/L	1.0	0.35	SW846 8260B		7/6/18 17:17	TMP	C
1,1,1-Trichloroethane	ND		ug/L	1.0	0.22	SW846 8260B		7/6/18 17:17	TMP	C
1,1,2,2-Tetrachloroethane	ND		ug/L	1.0	0.34	SW846 8260B		7/6/18 17:17	TMP	C
1,1,2-Trichloroethane	ND		ug/L	1.0	0.33	SW846 8260B		7/6/18 17:17	TMP	C
1,1-Dichloroethane	ND		ug/L	1.0	0.28	SW846 8260B		7/6/18 17:17	TMP	C
1,1-Dichloroethene	ND		ug/L	1.0	0.29	SW846 8260B		7/6/18 17:17	TMP	C
1,2,3-Trichlorobenzene	ND		ug/L	2.0	0.93	SW846 8260B		7/6/18 17:17	TMP	C
1,2,3-Trichloropropane	ND		ug/L	2.0	0.60	SW846 8260B		7/6/18 17:17	TMP	C
1,2,4-Trichlorobenzene	ND		ug/L	2.0	0.82	SW846 8260B		7/6/18 17:17	TMP	C
1,2,4-Trimethylbenzene	ND		ug/L	1.0	0.25	SW846 8260B		7/6/18 17:17	TMP	C
1,2-Dibromo-3-chloropropane	ND		ug/L	7.0	1.5	SW846 8260B		7/6/18 17:17	TMP	C
1,2-Dibromoethane	ND		ug/L	1.0	0.28	SW846 8260B		7/6/18 17:17	TMP	C
1,2-Dichlorobenzene	ND		ug/L	1.0	0.38	SW846 8260B		7/6/18 17:17	TMP	C
1,2-Dichloroethane	ND		ug/L	1.0	0.32	SW846 8260B		7/6/18 17:17	TMP	C
1,2-Dichloroethene, Total	0.46J	J,1	ug/L	2.0	0.45	SW846 8260B		7/6/18 17:17	TMP	C
1,2-Dichloropropane	ND		ug/L	1.0	0.24	SW846 8260B		7/6/18 17:17	TMP	C
1,3-Dichlorobenzene	ND		ug/L	1.0	0.25	SW846 8260B		7/6/18 17:17	TMP	C
1,3-Dichloropropane	ND		ug/L	1.0	0.27	SW846 8260B		7/6/18 17:17	TMP	C
1,3-Dichloropropene, Total	ND		ug/L	2.0	0.47	SW846 8260B		7/6/18 17:17	TMP	C
1,4-Dichlorobenzene	ND		ug/L	1.0	0.27	SW846 8260B		7/6/18 17:17	TMP	C
2,2-Dichloropropane	ND		ug/L	1.0	0.32	SW846 8260B		7/6/18 17:17	TMP	C
2-Butanone	ND		ug/L	10.0	1.8	SW846 8260B		7/6/18 17:17	TMP	C
2-Chloroethylvinyl ether	ND		ug/L	2.0	0.38	SW846 8260B		7/6/18 17:17	TMP	C
2-Hexanone	ND		ug/L	5.0	1.3	SW846 8260B		7/6/18 17:17	TMP	C
4-Methyl-2-Pentanone(MIBK)	ND		ug/L	5.0	1.5	SW846 8260B		7/6/18 17:17	TMP	C
Acetone	14.6		ug/L	10.0	3.1	SW846 8260B		7/6/18 17:17	TMP	C
Benzene	ND		ug/L	1.0	0.23	SW846 8260B		7/6/18 17:17	TMP	C
Bromobenzene	ND		ug/L	1.0	0.32	SW846 8260B		7/6/18 17:17	TMP	C
Bromochloromethane	ND		ug/L	1.0	0.32	SW846 8260B		7/6/18 17:17	TMP	C
Bromodichloromethane	ND		ug/L	1.0	0.27	SW846 8260B		7/6/18 17:17	TMP	C
Bromoform	ND		ug/L	1.0	0.40	SW846 8260B		7/6/18 17:17	TMP	C
Bromomethane	0.47J	J	ug/L	1.0	0.39	SW846 8260B		7/6/18 17:17	TMP	C
Carbon Disulfide	0.26J	J	ug/L	1.0	0.23	SW846 8260B		7/6/18 17:17	TMP	C
Carbon Tetrachloride	ND		ug/L	1.0	0.31	SW846 8260B		7/6/18 17:17	TMP	C
Chlorobenzene	ND		ug/L	1.0	0.19	SW846 8260B		7/6/18 17:17	TMP	C
Chlorodibromomethane	ND		ug/L	1.0	0.45	SW846 8260B		7/6/18 17:17	TMP	C

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ANALYTICAL RESULTS

Workorder: 2323127 ALG002|LMC MRC

Lab ID: **2323127002** Date Collected: 6/25/2018 14:45 Matrix: Water
Sample ID: **MRC-SW15A** Date Received: 6/26/2018 21:30

Parameters	Results	Flag	Units	RDL	MDL	Method	Prepared By	Analyzed	By	Cntr
Chloroethane	ND		ug/L	1.0	0.33	SW846 8260B		7/6/18 17:17	TMP	C
Chloroform	ND		ug/L	1.0	0.21	SW846 8260B		7/6/18 17:17	TMP	C
Chloromethane	ND		ug/L	1.0	0.31	SW846 8260B		7/6/18 17:17	TMP	C
Cyclohexane	ND		ug/L	1.0	0.29	SW846 8260B		7/6/18 17:17	TMP	C
Dibromomethane	ND		ug/L	1.0	0.31	SW846 8260B		7/6/18 17:17	TMP	C
Dichlorodifluoromethane	ND		ug/L	1.0	0.33	SW846 8260B		7/6/18 17:17	TMP	C
Diisopropyl ether	ND		ug/L	1.0	0.25	SW846 8260B		7/6/18 17:17	TMP	C
Ethyl tert-butyl ether	ND		ug/L	1.0	0.19	SW846 8260B		7/6/18 17:17	TMP	C
Ethylbenzene	ND		ug/L	1.0	0.34	SW846 8260B		7/6/18 17:17	TMP	C
Freon 113	ND		ug/L	1.0	0.26	SW846 8260B		7/6/18 17:17	TMP	C
Hexachlorobutadiene	ND		ug/L	5.0	1.0	SW846 8260B		7/6/18 17:17	TMP	C
Isopropylbenzene	ND		ug/L	1.0	0.22	SW846 8260B		7/6/18 17:17	TMP	C
Methyl acetate	ND		ug/L	2.0	0.32	SW846 8260B		7/6/18 17:17	TMP	C
Methyl cyclohexane	ND		ug/L	1.0	0.30	SW846 8260B		7/6/18 17:17	TMP	C
Methyl t-Butyl Ether	ND		ug/L	1.0	0.33	SW846 8260B		7/6/18 17:17	TMP	C
Methylene Chloride	ND		ug/L	1.0	0.45	SW846 8260B		7/6/18 17:17	TMP	C
Naphthalene	ND		ug/L	2.0	0.34	SW846 8260B		7/6/18 17:17	TMP	C
Styrene	ND		ug/L	1.0	0.24	SW846 8260B		7/6/18 17:17	TMP	C
Tetrachloroethene	ND		ug/L	1.0	0.35	SW846 8260B		7/6/18 17:17	TMP	C
Toluene	ND		ug/L	1.0	0.23	SW846 8260B		7/6/18 17:17	TMP	C
Total Xylenes	ND		ug/L	3.0	0.66	SW846 8260B		7/6/18 17:17	TMP	C
Trichloroethene	2.3		ug/L	1.0	0.33	SW846 8260B		7/6/18 17:17	TMP	C
Trichlorofluoromethane	ND		ug/L	1.0	0.24	SW846 8260B		7/6/18 17:17	TMP	C
Vinyl Acetate	ND		ug/L	5.0	1.6	SW846 8260B		7/6/18 17:17	TMP	C
Vinyl Chloride	ND		ug/L	1.0	0.30	SW846 8260B		7/6/18 17:17	TMP	C
cis-1,2-Dichloroethene	0.46J	J	ug/L	1.0	0.32	SW846 8260B		7/6/18 17:17	TMP	C
cis-1,3-Dichloropropene	ND		ug/L	1.0	0.31	SW846 8260B		7/6/18 17:17	TMP	C
mp-Xylene	ND		ug/L	2.0	0.52	SW846 8260B		7/6/18 17:17	TMP	C
n-Butylbenzene	ND		ug/L	2.0	0.60	SW846 8260B		7/6/18 17:17	TMP	C
n-Propylbenzene	ND		ug/L	1.0	0.33	SW846 8260B		7/6/18 17:17	TMP	C
o-Chlorotoluene	ND		ug/L	1.0	0.26	SW846 8260B		7/6/18 17:17	TMP	C
o-Xylene	ND		ug/L	1.0	0.33	SW846 8260B		7/6/18 17:17	TMP	C
p-Chlorotoluene	ND		ug/L	1.0	0.33	SW846 8260B		7/6/18 17:17	TMP	C
p-Isopropyltoluene	ND		ug/L	1.0	0.32	SW846 8260B		7/6/18 17:17	TMP	C
sec-Butylbenzene	ND		ug/L	1.0	0.31	SW846 8260B		7/6/18 17:17	TMP	C
tert-Amyl methyl ether	ND		ug/L	1.0	0.20	SW846 8260B		7/6/18 17:17	TMP	C
tert-Butyl Alcohol	ND		ug/L	10.0	2.2	SW846 8260B		7/6/18 17:17	TMP	C
tert-Butylbenzene	ND		ug/L	2.0	0.44	SW846 8260B		7/6/18 17:17	TMP	C

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ANALYTICAL RESULTS

Workorder: 2323127 ALG002|LMC MRC

Lab ID: **2323127002** Date Collected: 6/25/2018 14:45 Matrix: Water
Sample ID: **MRC-SW15A** Date Received: 6/26/2018 21:30

Parameters	Results	Flag	Units	RDL	MDL	Method	Prepared	By	Analyzed	By	Cntr
trans-1,2-Dichloroethene	ND		ug/L	1.0	0.26	SW846 8260B			7/6/18 17:17	TMP	C
trans-1,3-Dichloropropene	ND		ug/L	1.0	0.29	SW846 8260B			7/6/18 17:17	TMP	C
Surrogate Recoveries	*Results*	*Flag*	*Units*	*Limits*		*Method*	*Prepared*	*By*	*Analyzed*	*By*	*Cntr*
1,2-Dichloroethane-d4 (S)	83.7		%	62 - 133		SW846 8260B			7/6/18 17:17	TMP	C
4-Bromofluorobenzene (S)	89.2		%	79 - 114		SW846 8260B			7/6/18 17:17	TMP	C
Dibromofluoromethane (S)	92.3		%	78 - 116		SW846 8260B			7/6/18 17:17	TMP	C
Toluene-d8 (S)	83.2		%	76 - 127		SW846 8260B			7/6/18 17:17	TMP	C
SEMIVOLATILE SIM											
1,4-Dioxane	ND		ug/L	0.096	0.018	8270 SIM	6/28/18 18:00	DXL	6/29/18 12:53	CGS	A
IS_Naphthalene-d8	0.0		ug/L			8270 SIM	6/28/18 18:00	DXL	6/29/18 12:53	CGS	A
IS_Perylene-d12	0.0		ug/L			8270 SIM	6/28/18 18:00	DXL	6/29/18 12:53	CGS	A
Acenaphthene-d10	0.0		ug/L			8270 SIM	6/28/18 18:00	DXL	6/29/18 12:53	CGS	A
Phenanthrene-d10	0.0		ug/L			8270 SIM	6/28/18 18:00	DXL	6/29/18 12:53	CGS	A
Chrysene-d12	0.0		ug/L			8270 SIM	6/28/18 18:00	DXL	6/29/18 12:53	CGS	A

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ANALYTICAL RESULTS

Workorder: 2323127 ALG002|LMC MRC

Lab ID: **2323127003** Date Collected: 6/25/2018 15:00 Matrix: Water
Sample ID: **MRC-SW5A2** Date Received: 6/26/2018 21:30

Parameters	Results	Flag	Units	RDL	MDL	Method	Prepared By	Analyzed	By	Cntr
VOLATILE ORGANICS										
1,1,1,2-Tetrachloroethane	ND		ug/L	1.0	0.35	SW846 8260B		7/6/18 19:28	TMP	A
1,1,1-Trichloroethane	ND		ug/L	1.0	0.22	SW846 8260B		7/6/18 19:28	TMP	A
1,1,2,2-Tetrachloroethane	ND		ug/L	1.0	0.34	SW846 8260B		7/6/18 19:28	TMP	A
1,1,2-Trichloroethane	ND		ug/L	1.0	0.33	SW846 8260B		7/6/18 19:28	TMP	A
1,1-Dichloroethane	ND		ug/L	1.0	0.28	SW846 8260B		7/6/18 19:28	TMP	A
1,1-Dichloroethene	ND		ug/L	1.0	0.29	SW846 8260B		7/6/18 19:28	TMP	A
1,2,3-Trichlorobenzene	ND		ug/L	2.0	0.93	SW846 8260B		7/6/18 19:28	TMP	A
1,2,3-Trichloropropane	ND		ug/L	2.0	0.60	SW846 8260B		7/6/18 19:28	TMP	A
1,2,4-Trichlorobenzene	ND		ug/L	2.0	0.82	SW846 8260B		7/6/18 19:28	TMP	A
1,2,4-Trimethylbenzene	ND		ug/L	1.0	0.25	SW846 8260B		7/6/18 19:28	TMP	A
1,2-Dibromo-3-chloropropane	ND		ug/L	7.0	1.5	SW846 8260B		7/6/18 19:28	TMP	A
1,2-Dibromoethane	ND		ug/L	1.0	0.28	SW846 8260B		7/6/18 19:28	TMP	A
1,2-Dichlorobenzene	ND		ug/L	1.0	0.38	SW846 8260B		7/6/18 19:28	TMP	A
1,2-Dichloroethane	ND		ug/L	1.0	0.32	SW846 8260B		7/6/18 19:28	TMP	A
1,2-Dichloroethene, Total	ND		ug/L	2.0	0.45	SW846 8260B		7/6/18 19:28	TMP	A
1,2-Dichloropropane	ND		ug/L	1.0	0.24	SW846 8260B		7/6/18 19:28	TMP	A
1,3-Dichlorobenzene	ND		ug/L	1.0	0.25	SW846 8260B		7/6/18 19:28	TMP	A
1,3-Dichloropropane	ND		ug/L	1.0	0.27	SW846 8260B		7/6/18 19:28	TMP	A
1,3-Dichloropropene, Total	ND		ug/L	2.0	0.47	SW846 8260B		7/6/18 19:28	TMP	A
1,4-Dichlorobenzene	ND		ug/L	1.0	0.27	SW846 8260B		7/6/18 19:28	TMP	A
2,2-Dichloropropane	ND		ug/L	1.0	0.32	SW846 8260B		7/6/18 19:28	TMP	A
2-Butanone	ND		ug/L	10.0	1.8	SW846 8260B		7/6/18 19:28	TMP	A
2-Chloroethylvinyl ether	ND		ug/L	2.0	0.38	SW846 8260B		7/6/18 19:28	TMP	A
2-Hexanone	ND		ug/L	5.0	1.3	SW846 8260B		7/6/18 19:28	TMP	A
4-Methyl-2-Pentanone(MIBK)	ND		ug/L	5.0	1.5	SW846 8260B		7/6/18 19:28	TMP	A
Acetone	14.1		ug/L	10.0	3.1	SW846 8260B		7/6/18 19:28	TMP	A
Benzene	ND		ug/L	1.0	0.23	SW846 8260B		7/6/18 19:28	TMP	A
Bromobenzene	ND		ug/L	1.0	0.32	SW846 8260B		7/6/18 19:28	TMP	A
Bromochloromethane	ND		ug/L	1.0	0.32	SW846 8260B		7/6/18 19:28	TMP	A
Bromodichloromethane	ND		ug/L	1.0	0.27	SW846 8260B		7/6/18 19:28	TMP	A
Bromoform	ND		ug/L	1.0	0.40	SW846 8260B		7/6/18 19:28	TMP	A
Bromomethane	0.45J	J	ug/L	1.0	0.39	SW846 8260B		7/6/18 19:28	TMP	A
Carbon Disulfide	0.28J	J	ug/L	1.0	0.23	SW846 8260B		7/6/18 19:28	TMP	A
Carbon Tetrachloride	ND		ug/L	1.0	0.31	SW846 8260B		7/6/18 19:28	TMP	A
Chlorobenzene	ND		ug/L	1.0	0.19	SW846 8260B		7/6/18 19:28	TMP	A
Chlorodibromomethane	ND		ug/L	1.0	0.45	SW846 8260B		7/6/18 19:28	TMP	A

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State Certifications: DE ID 11 , MA PA0102 , MD 128 , VA 460157 , WV 343

ANALYTICAL RESULTS

Workorder: 2323127 ALG002|LMC MRC

Lab ID: **2323127003** Date Collected: 6/25/2018 15:00 Matrix: Water
Sample ID: **MRC-SW5A2** Date Received: 6/26/2018 21:30

Parameters	Results	Flag	Units	RDL	MDL	Method	Prepared By	Analyzed	By	Cntr
Chloroethane	ND		ug/L	1.0	0.33	SW846 8260B		7/6/18 19:28	TMP	A
Chloroform	ND		ug/L	1.0	0.21	SW846 8260B		7/6/18 19:28	TMP	A
Chloromethane	ND		ug/L	1.0	0.31	SW846 8260B		7/6/18 19:28	TMP	A
Cyclohexane	ND		ug/L	1.0	0.29	SW846 8260B		7/6/18 19:28	TMP	A
Dibromomethane	ND		ug/L	1.0	0.31	SW846 8260B		7/6/18 19:28	TMP	A
Dichlorodifluoromethane	ND		ug/L	1.0	0.33	SW846 8260B		7/6/18 19:28	TMP	A
Diisopropyl ether	ND		ug/L	1.0	0.25	SW846 8260B		7/6/18 19:28	TMP	A
Ethyl tert-butyl ether	ND		ug/L	1.0	0.19	SW846 8260B		7/6/18 19:28	TMP	A
Ethylbenzene	ND		ug/L	1.0	0.34	SW846 8260B		7/6/18 19:28	TMP	A
Freon 113	ND		ug/L	1.0	0.26	SW846 8260B		7/6/18 19:28	TMP	A
Hexachlorobutadiene	ND		ug/L	5.0	1.0	SW846 8260B		7/6/18 19:28	TMP	A
Isopropylbenzene	ND		ug/L	1.0	0.22	SW846 8260B		7/6/18 19:28	TMP	A
Methyl acetate	ND		ug/L	2.0	0.32	SW846 8260B		7/6/18 19:28	TMP	A
Methyl cyclohexane	ND		ug/L	1.0	0.30	SW846 8260B		7/6/18 19:28	TMP	A
Methyl t-Butyl Ether	ND		ug/L	1.0	0.33	SW846 8260B		7/6/18 19:28	TMP	A
Methylene Chloride	ND		ug/L	1.0	0.45	SW846 8260B		7/6/18 19:28	TMP	A
Naphthalene	ND		ug/L	2.0	0.34	SW846 8260B		7/6/18 19:28	TMP	A
Styrene	ND		ug/L	1.0	0.24	SW846 8260B		7/6/18 19:28	TMP	A
Tetrachloroethene	ND		ug/L	1.0	0.35	SW846 8260B		7/6/18 19:28	TMP	A
Toluene	ND		ug/L	1.0	0.23	SW846 8260B		7/6/18 19:28	TMP	A
Total Xylenes	ND		ug/L	3.0	0.66	SW846 8260B		7/6/18 19:28	TMP	A
Trichloroethene	ND		ug/L	1.0	0.33	SW846 8260B		7/6/18 19:28	TMP	A
Trichlorofluoromethane	ND		ug/L	1.0	0.24	SW846 8260B		7/6/18 19:28	TMP	A
Vinyl Acetate	ND		ug/L	5.0	1.6	SW846 8260B		7/6/18 19:28	TMP	A
Vinyl Chloride	ND		ug/L	1.0	0.30	SW846 8260B		7/6/18 19:28	TMP	A
cis-1,2-Dichloroethene	ND		ug/L	1.0	0.32	SW846 8260B		7/6/18 19:28	TMP	A
cis-1,3-Dichloropropene	ND		ug/L	1.0	0.31	SW846 8260B		7/6/18 19:28	TMP	A
mp-Xylene	ND		ug/L	2.0	0.52	SW846 8260B		7/6/18 19:28	TMP	A
n-Butylbenzene	ND		ug/L	2.0	0.60	SW846 8260B		7/6/18 19:28	TMP	A
n-Propylbenzene	ND		ug/L	1.0	0.33	SW846 8260B		7/6/18 19:28	TMP	A
o-Chlorotoluene	ND		ug/L	1.0	0.26	SW846 8260B		7/6/18 19:28	TMP	A
o-Xylene	ND		ug/L	1.0	0.33	SW846 8260B		7/6/18 19:28	TMP	A
p-Chlorotoluene	ND		ug/L	1.0	0.33	SW846 8260B		7/6/18 19:28	TMP	A
p-Isopropyltoluene	ND		ug/L	1.0	0.32	SW846 8260B		7/6/18 19:28	TMP	A
sec-Butylbenzene	ND		ug/L	1.0	0.31	SW846 8260B		7/6/18 19:28	TMP	A
tert-Amyl methyl ether	ND		ug/L	1.0	0.20	SW846 8260B		7/6/18 19:28	TMP	A
tert-Butyl Alcohol	ND		ug/L	10.0	2.2	SW846 8260B		7/6/18 19:28	TMP	A
tert-Butylbenzene	ND		ug/L	2.0	0.44	SW846 8260B		7/6/18 19:28	TMP	A

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ANALYTICAL RESULTS

Workorder: 2323127 ALG002|LMC MRC

Lab ID: **2323127003** Date Collected: 6/25/2018 15:00 Matrix: Water

Sample ID: **MRC-SW5A2** Date Received: 6/26/2018 21:30

Parameters	Results	Flag	Units	RDL	MDL	Method	Prepared	By	Analyzed	By	Cntr
trans-1,2-Dichloroethene	ND		ug/L	1.0	0.26	SW846 8260B			7/6/18 19:28	TMP	A
trans-1,3-Dichloropropene	ND		ug/L	1.0	0.29	SW846 8260B			7/6/18 19:28	TMP	A
Surrogate Recoveries	*Results*	*Flag*	*Units*	*Limits*		*Method*	*Prepared*	*By*	*Analyzed*	*By*	*Cntr*
1,2-Dichloroethane-d4 (S)	79.9		%	62 - 133		SW846 8260B			7/6/18 19:28	TMP	A
4-Bromofluorobenzene (S)	88.6		%	79 - 114		SW846 8260B			7/6/18 19:28	TMP	A
Dibromofluoromethane (S)	89.6		%	78 - 116		SW846 8260B			7/6/18 19:28	TMP	A
Toluene-d8 (S)	80.5		%	76 - 127		SW846 8260B			7/6/18 19:28	TMP	A

Vanessa N. Badman

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ANALYTICAL RESULTS

Workorder: 2323127 ALG002|LMC MRC

Lab ID: **2323127004** Date Collected: 6/25/2018 15:05 Matrix: Water
Sample ID: **MRC-SW5A1** Date Received: 6/26/2018 21:30

Parameters	Results	Flag	Units	RDL	MDL	Method	Prepared By	Analyzed	By	Cntr
VOLATILE ORGANICS										
1,1,1,2-Tetrachloroethane	ND		ug/L	1.0	0.35	SW846 8260B		7/6/18 19:50	TMP	A
1,1,1-Trichloroethane	ND		ug/L	1.0	0.22	SW846 8260B		7/6/18 19:50	TMP	A
1,1,2,2-Tetrachloroethane	ND		ug/L	1.0	0.34	SW846 8260B		7/6/18 19:50	TMP	A
1,1,2-Trichloroethane	ND		ug/L	1.0	0.33	SW846 8260B		7/6/18 19:50	TMP	A
1,1-Dichloroethane	ND		ug/L	1.0	0.28	SW846 8260B		7/6/18 19:50	TMP	A
1,1-Dichloroethene	ND		ug/L	1.0	0.29	SW846 8260B		7/6/18 19:50	TMP	A
1,2,3-Trichlorobenzene	ND		ug/L	2.0	0.93	SW846 8260B		7/6/18 19:50	TMP	A
1,2,3-Trichloropropane	ND		ug/L	2.0	0.60	SW846 8260B		7/6/18 19:50	TMP	A
1,2,4-Trichlorobenzene	ND		ug/L	2.0	0.82	SW846 8260B		7/6/18 19:50	TMP	A
1,2,4-Trimethylbenzene	ND		ug/L	1.0	0.25	SW846 8260B		7/6/18 19:50	TMP	A
1,2-Dibromo-3-chloropropane	ND		ug/L	7.0	1.5	SW846 8260B		7/6/18 19:50	TMP	A
1,2-Dibromoethane	ND		ug/L	1.0	0.28	SW846 8260B		7/6/18 19:50	TMP	A
1,2-Dichlorobenzene	ND		ug/L	1.0	0.38	SW846 8260B		7/6/18 19:50	TMP	A
1,2-Dichloroethane	ND		ug/L	1.0	0.32	SW846 8260B		7/6/18 19:50	TMP	A
1,2-Dichloroethene, Total	ND		ug/L	2.0	0.45	SW846 8260B		7/6/18 19:50	TMP	A
1,2-Dichloropropane	ND		ug/L	1.0	0.24	SW846 8260B		7/6/18 19:50	TMP	A
1,3-Dichlorobenzene	ND		ug/L	1.0	0.25	SW846 8260B		7/6/18 19:50	TMP	A
1,3-Dichloropropane	ND		ug/L	1.0	0.27	SW846 8260B		7/6/18 19:50	TMP	A
1,3-Dichloropropene, Total	ND		ug/L	2.0	0.47	SW846 8260B		7/6/18 19:50	TMP	A
1,4-Dichlorobenzene	ND		ug/L	1.0	0.27	SW846 8260B		7/6/18 19:50	TMP	A
2,2-Dichloropropane	ND		ug/L	1.0	0.32	SW846 8260B		7/6/18 19:50	TMP	A
2-Butanone	ND		ug/L	10.0	1.8	SW846 8260B		7/6/18 19:50	TMP	A
2-Chloroethylvinyl ether	ND		ug/L	2.0	0.38	SW846 8260B		7/6/18 19:50	TMP	A
2-Hexanone	ND		ug/L	5.0	1.3	SW846 8260B		7/6/18 19:50	TMP	A
4-Methyl-2-Pentanone(MIBK)	ND		ug/L	5.0	1.5	SW846 8260B		7/6/18 19:50	TMP	A
Acetone	10.8		ug/L	10.0	3.1	SW846 8260B		7/6/18 19:50	TMP	A
Benzene	ND		ug/L	1.0	0.23	SW846 8260B		7/6/18 19:50	TMP	A
Bromobenzene	ND		ug/L	1.0	0.32	SW846 8260B		7/6/18 19:50	TMP	A
Bromochloromethane	ND		ug/L	1.0	0.32	SW846 8260B		7/6/18 19:50	TMP	A
Bromodichloromethane	ND		ug/L	1.0	0.27	SW846 8260B		7/6/18 19:50	TMP	A
Bromoform	ND		ug/L	1.0	0.40	SW846 8260B		7/6/18 19:50	TMP	A
Bromomethane	0.47J	J	ug/L	1.0	0.39	SW846 8260B		7/6/18 19:50	TMP	A
Carbon Disulfide	0.58J	J	ug/L	1.0	0.23	SW846 8260B		7/6/18 19:50	TMP	A
Carbon Tetrachloride	ND		ug/L	1.0	0.31	SW846 8260B		7/6/18 19:50	TMP	A
Chlorobenzene	ND		ug/L	1.0	0.19	SW846 8260B		7/6/18 19:50	TMP	A
Chlorodibromomethane	ND		ug/L	1.0	0.45	SW846 8260B		7/6/18 19:50	TMP	A

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ANALYTICAL RESULTS

Workorder: 2323127 ALG002|LMC MRC

Lab ID: **2323127004** Date Collected: 6/25/2018 15:05 Matrix: Water
Sample ID: **MRC-SW5A1** Date Received: 6/26/2018 21:30

Parameters	Results	Flag	Units	RDL	MDL	Method	Prepared By	Analyzed	By	Cntr
Chloroethane	ND		ug/L	1.0	0.33	SW846 8260B		7/6/18 19:50	TMP	A
Chloroform	ND		ug/L	1.0	0.21	SW846 8260B		7/6/18 19:50	TMP	A
Chloromethane	ND		ug/L	1.0	0.31	SW846 8260B		7/6/18 19:50	TMP	A
Cyclohexane	ND		ug/L	1.0	0.29	SW846 8260B		7/6/18 19:50	TMP	A
Dibromomethane	ND		ug/L	1.0	0.31	SW846 8260B		7/6/18 19:50	TMP	A
Dichlorodifluoromethane	ND		ug/L	1.0	0.33	SW846 8260B		7/6/18 19:50	TMP	A
Diisopropyl ether	ND		ug/L	1.0	0.25	SW846 8260B		7/6/18 19:50	TMP	A
Ethyl tert-butyl ether	ND		ug/L	1.0	0.19	SW846 8260B		7/6/18 19:50	TMP	A
Ethylbenzene	ND		ug/L	1.0	0.34	SW846 8260B		7/6/18 19:50	TMP	A
Freon 113	ND		ug/L	1.0	0.26	SW846 8260B		7/6/18 19:50	TMP	A
Hexachlorobutadiene	ND		ug/L	5.0	1.0	SW846 8260B		7/6/18 19:50	TMP	A
Isopropylbenzene	ND		ug/L	1.0	0.22	SW846 8260B		7/6/18 19:50	TMP	A
Methyl acetate	ND		ug/L	2.0	0.32	SW846 8260B		7/6/18 19:50	TMP	A
Methyl cyclohexane	ND		ug/L	1.0	0.30	SW846 8260B		7/6/18 19:50	TMP	A
Methyl t-Butyl Ether	ND		ug/L	1.0	0.33	SW846 8260B		7/6/18 19:50	TMP	A
Methylene Chloride	ND		ug/L	1.0	0.45	SW846 8260B		7/6/18 19:50	TMP	A
Naphthalene	ND		ug/L	2.0	0.34	SW846 8260B		7/6/18 19:50	TMP	A
Styrene	ND		ug/L	1.0	0.24	SW846 8260B		7/6/18 19:50	TMP	A
Tetrachloroethene	ND		ug/L	1.0	0.35	SW846 8260B		7/6/18 19:50	TMP	A
Toluene	ND		ug/L	1.0	0.23	SW846 8260B		7/6/18 19:50	TMP	A
Total Xylenes	ND		ug/L	3.0	0.66	SW846 8260B		7/6/18 19:50	TMP	A
Trichloroethene	ND		ug/L	1.0	0.33	SW846 8260B		7/6/18 19:50	TMP	A
Trichlorofluoromethane	ND		ug/L	1.0	0.24	SW846 8260B		7/6/18 19:50	TMP	A
Vinyl Acetate	ND		ug/L	5.0	1.6	SW846 8260B		7/6/18 19:50	TMP	A
Vinyl Chloride	ND		ug/L	1.0	0.30	SW846 8260B		7/6/18 19:50	TMP	A
cis-1,2-Dichloroethene	ND		ug/L	1.0	0.32	SW846 8260B		7/6/18 19:50	TMP	A
cis-1,3-Dichloropropene	ND		ug/L	1.0	0.31	SW846 8260B		7/6/18 19:50	TMP	A
mp-Xylene	ND		ug/L	2.0	0.52	SW846 8260B		7/6/18 19:50	TMP	A
n-Butylbenzene	ND		ug/L	2.0	0.60	SW846 8260B		7/6/18 19:50	TMP	A
n-Propylbenzene	ND		ug/L	1.0	0.33	SW846 8260B		7/6/18 19:50	TMP	A
o-Chlorotoluene	ND		ug/L	1.0	0.26	SW846 8260B		7/6/18 19:50	TMP	A
o-Xylene	ND		ug/L	1.0	0.33	SW846 8260B		7/6/18 19:50	TMP	A
p-Chlorotoluene	ND		ug/L	1.0	0.33	SW846 8260B		7/6/18 19:50	TMP	A
p-Isopropyltoluene	ND		ug/L	1.0	0.32	SW846 8260B		7/6/18 19:50	TMP	A
sec-Butylbenzene	ND		ug/L	1.0	0.31	SW846 8260B		7/6/18 19:50	TMP	A
tert-Amyl methyl ether	ND		ug/L	1.0	0.20	SW846 8260B		7/6/18 19:50	TMP	A
tert-Butyl Alcohol	ND		ug/L	10.0	2.2	SW846 8260B		7/6/18 19:50	TMP	A
tert-Butylbenzene	ND		ug/L	2.0	0.44	SW846 8260B		7/6/18 19:50	TMP	A

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ANALYTICAL RESULTS

Workorder: 2323127 ALG002|LMC MRC

Lab ID: **2323127004** Date Collected: 6/25/2018 15:05 Matrix: Water
Sample ID: **MRC-SW5A1** Date Received: 6/26/2018 21:30

Parameters	Results	Flag	Units	RDL	MDL	Method	Prepared	By	Analyzed	By	Cntr
trans-1,2-Dichloroethene	ND		ug/L	1.0	0.26	SW846 8260B			7/6/18 19:50	TMP	A
trans-1,3-Dichloropropene	ND		ug/L	1.0	0.29	SW846 8260B			7/6/18 19:50	TMP	A
Surrogate Recoveries	*Results*	*Flag*	*Units*	*Limits*		*Method*	*Prepared*	*By*	*Analyzed*	*By*	*Cntr*
1,2-Dichloroethane-d4 (S)	83.1		%	62 - 133		SW846 8260B			7/6/18 19:50	TMP	A
4-Bromofluorobenzene (S)	92.4		%	79 - 114		SW846 8260B			7/6/18 19:50	TMP	A
Dibromofluoromethane (S)	91.9		%	78 - 116		SW846 8260B			7/6/18 19:50	TMP	A
Toluene-d8 (S)	84.5		%	76 - 127		SW846 8260B			7/6/18 19:50	TMP	A

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ANALYTICAL RESULTS

Workorder: 2323127 ALG002|LMC MRC

Lab ID: **2323127005** Date Collected: 6/25/2018 15:15 Matrix: Water
Sample ID: **MRC-SW5B** Date Received: 6/26/2018 21:30

Parameters	Results	Flag	Units	RDL	MDL	Method	Prepared By	Analyzed	By	Cntr
VOLATILE ORGANICS										
1,1,1,2-Tetrachloroethane	ND		ug/L	1.0	0.35	SW846 8260B		7/6/18 20:39	TMP	A
1,1,1-Trichloroethane	ND		ug/L	1.0	0.22	SW846 8260B		7/6/18 20:39	TMP	A
1,1,2,2-Tetrachloroethane	ND		ug/L	1.0	0.34	SW846 8260B		7/6/18 20:39	TMP	A
1,1,2-Trichloroethane	ND		ug/L	1.0	0.33	SW846 8260B		7/6/18 20:39	TMP	A
1,1-Dichloroethane	ND		ug/L	1.0	0.28	SW846 8260B		7/6/18 20:39	TMP	A
1,1-Dichloroethene	ND		ug/L	1.0	0.29	SW846 8260B		7/6/18 20:39	TMP	A
1,2,3-Trichlorobenzene	ND		ug/L	2.0	0.93	SW846 8260B		7/6/18 20:39	TMP	A
1,2,3-Trichloropropane	ND		ug/L	2.0	0.60	SW846 8260B		7/6/18 20:39	TMP	A
1,2,4-Trichlorobenzene	ND		ug/L	2.0	0.82	SW846 8260B		7/6/18 20:39	TMP	A
1,2,4-Trimethylbenzene	ND		ug/L	1.0	0.25	SW846 8260B		7/6/18 20:39	TMP	A
1,2-Dibromo-3-chloropropane	ND		ug/L	7.0	1.5	SW846 8260B		7/6/18 20:39	TMP	A
1,2-Dibromoethane	ND		ug/L	1.0	0.28	SW846 8260B		7/6/18 20:39	TMP	A
1,2-Dichlorobenzene	ND		ug/L	1.0	0.38	SW846 8260B		7/6/18 20:39	TMP	A
1,2-Dichloroethane	ND		ug/L	1.0	0.32	SW846 8260B		7/6/18 20:39	TMP	A
1,2-Dichloroethene, Total	ND		ug/L	2.0	0.45	SW846 8260B		7/6/18 20:39	TMP	A
1,2-Dichloropropane	ND		ug/L	1.0	0.24	SW846 8260B		7/6/18 20:39	TMP	A
1,3-Dichlorobenzene	ND		ug/L	1.0	0.25	SW846 8260B		7/6/18 20:39	TMP	A
1,3-Dichloropropane	ND		ug/L	1.0	0.27	SW846 8260B		7/6/18 20:39	TMP	A
1,3-Dichloropropene, Total	ND		ug/L	2.0	0.47	SW846 8260B		7/6/18 20:39	TMP	A
1,4-Dichlorobenzene	ND		ug/L	1.0	0.27	SW846 8260B		7/6/18 20:39	TMP	A
2,2-Dichloropropane	ND		ug/L	1.0	0.32	SW846 8260B		7/6/18 20:39	TMP	A
2-Butanone	ND		ug/L	10.0	1.8	SW846 8260B		7/6/18 20:39	TMP	A
2-Chloroethylvinyl ether	ND		ug/L	2.0	0.38	SW846 8260B		7/6/18 20:39	TMP	A
2-Hexanone	ND		ug/L	5.0	1.3	SW846 8260B		7/6/18 20:39	TMP	A
4-Methyl-2-Pentanone(MIBK)	ND		ug/L	5.0	1.5	SW846 8260B		7/6/18 20:39	TMP	A
Acetone	15.3		ug/L	10.0	3.1	SW846 8260B		7/6/18 20:39	TMP	A
Benzene	ND		ug/L	1.0	0.23	SW846 8260B		7/6/18 20:39	TMP	A
Bromobenzene	ND		ug/L	1.0	0.32	SW846 8260B		7/6/18 20:39	TMP	A
Bromochloromethane	ND		ug/L	1.0	0.32	SW846 8260B		7/6/18 20:39	TMP	A
Bromodichloromethane	ND		ug/L	1.0	0.27	SW846 8260B		7/6/18 20:39	TMP	A
Bromoform	ND		ug/L	1.0	0.40	SW846 8260B		7/6/18 20:39	TMP	A
Bromomethane	0.45J	J	ug/L	1.0	0.39	SW846 8260B		7/6/18 20:39	TMP	A
Carbon Disulfide	ND		ug/L	1.0	0.23	SW846 8260B		7/6/18 20:39	TMP	A
Carbon Tetrachloride	ND		ug/L	1.0	0.31	SW846 8260B		7/6/18 20:39	TMP	A
Chlorobenzene	ND		ug/L	1.0	0.19	SW846 8260B		7/6/18 20:39	TMP	A
Chlorodibromomethane	ND		ug/L	1.0	0.45	SW846 8260B		7/6/18 20:39	TMP	A

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ANALYTICAL RESULTS

Workorder: 2323127 ALG002|LMC MRC

Lab ID: **2323127005** Date Collected: 6/25/2018 15:15 Matrix: Water
Sample ID: **MRC-SW5B** Date Received: 6/26/2018 21:30

Parameters	Results	Flag	Units	RDL	MDL	Method	Prepared By	Analyzed	By	Cntr
Chloroethane	ND		ug/L	1.0	0.33	SW846 8260B		7/6/18 20:39	TMP	A
Chloroform	ND		ug/L	1.0	0.21	SW846 8260B		7/6/18 20:39	TMP	A
Chloromethane	0.35J	J	ug/L	1.0	0.31	SW846 8260B		7/6/18 20:39	TMP	A
Cyclohexane	ND		ug/L	1.0	0.29	SW846 8260B		7/6/18 20:39	TMP	A
Dibromomethane	ND		ug/L	1.0	0.31	SW846 8260B		7/6/18 20:39	TMP	A
Dichlorodifluoromethane	ND		ug/L	1.0	0.33	SW846 8260B		7/6/18 20:39	TMP	A
Diisopropyl ether	ND		ug/L	1.0	0.25	SW846 8260B		7/6/18 20:39	TMP	A
Ethyl tert-butyl ether	ND		ug/L	1.0	0.19	SW846 8260B		7/6/18 20:39	TMP	A
Ethylbenzene	ND		ug/L	1.0	0.34	SW846 8260B		7/6/18 20:39	TMP	A
Freon 113	ND		ug/L	1.0	0.26	SW846 8260B		7/6/18 20:39	TMP	A
Hexachlorobutadiene	ND		ug/L	5.0	1.0	SW846 8260B		7/6/18 20:39	TMP	A
Isopropylbenzene	ND		ug/L	1.0	0.22	SW846 8260B		7/6/18 20:39	TMP	A
Methyl acetate	ND		ug/L	2.0	0.32	SW846 8260B		7/6/18 20:39	TMP	A
Methyl cyclohexane	ND		ug/L	1.0	0.30	SW846 8260B		7/6/18 20:39	TMP	A
Methyl t-Butyl Ether	ND		ug/L	1.0	0.33	SW846 8260B		7/6/18 20:39	TMP	A
Methylene Chloride	ND		ug/L	1.0	0.45	SW846 8260B		7/6/18 20:39	TMP	A
Naphthalene	ND		ug/L	2.0	0.34	SW846 8260B		7/6/18 20:39	TMP	A
Styrene	ND		ug/L	1.0	0.24	SW846 8260B		7/6/18 20:39	TMP	A
Tetrachloroethene	ND		ug/L	1.0	0.35	SW846 8260B		7/6/18 20:39	TMP	A
Toluene	ND		ug/L	1.0	0.23	SW846 8260B		7/6/18 20:39	TMP	A
Total Xylenes	ND		ug/L	3.0	0.66	SW846 8260B		7/6/18 20:39	TMP	A
Trichloroethene	ND		ug/L	1.0	0.33	SW846 8260B		7/6/18 20:39	TMP	A
Trichlorofluoromethane	ND		ug/L	1.0	0.24	SW846 8260B		7/6/18 20:39	TMP	A
Vinyl Acetate	ND		ug/L	5.0	1.6	SW846 8260B		7/6/18 20:39	TMP	A
Vinyl Chloride	ND		ug/L	1.0	0.30	SW846 8260B		7/6/18 20:39	TMP	A
cis-1,2-Dichloroethene	ND		ug/L	1.0	0.32	SW846 8260B		7/6/18 20:39	TMP	A
cis-1,3-Dichloropropene	ND		ug/L	1.0	0.31	SW846 8260B		7/6/18 20:39	TMP	A
mp-Xylene	ND		ug/L	2.0	0.52	SW846 8260B		7/6/18 20:39	TMP	A
n-Butylbenzene	ND		ug/L	2.0	0.60	SW846 8260B		7/6/18 20:39	TMP	A
n-Propylbenzene	ND		ug/L	1.0	0.33	SW846 8260B		7/6/18 20:39	TMP	A
o-Chlorotoluene	ND		ug/L	1.0	0.26	SW846 8260B		7/6/18 20:39	TMP	A
o-Xylene	ND		ug/L	1.0	0.33	SW846 8260B		7/6/18 20:39	TMP	A
p-Chlorotoluene	ND		ug/L	1.0	0.33	SW846 8260B		7/6/18 20:39	TMP	A
p-Isopropyltoluene	ND		ug/L	1.0	0.32	SW846 8260B		7/6/18 20:39	TMP	A
sec-Butylbenzene	ND		ug/L	1.0	0.31	SW846 8260B		7/6/18 20:39	TMP	A
tert-Amyl methyl ether	ND		ug/L	1.0	0.20	SW846 8260B		7/6/18 20:39	TMP	A
tert-Butyl Alcohol	ND		ug/L	10.0	2.2	SW846 8260B		7/6/18 20:39	TMP	A
tert-Butylbenzene	ND		ug/L	2.0	0.44	SW846 8260B		7/6/18 20:39	TMP	A

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ANALYTICAL RESULTS

Workorder: 2323127 ALG002|LMC MRC

Lab ID: **2323127005** Date Collected: 6/25/2018 15:15 Matrix: Water
Sample ID: **MRC-SW5B** Date Received: 6/26/2018 21:30

Parameters	Results	Flag	Units	RDL	MDL	Method	Prepared	By	Analyzed	By	Cntr
trans-1,2-Dichloroethene	ND		ug/L	1.0	0.26	SW846 8260B			7/6/18 20:39	TMP	A
trans-1,3-Dichloropropene	ND		ug/L	1.0	0.29	SW846 8260B			7/6/18 20:39	TMP	A
Surrogate Recoveries	*Results*	*Flag*	*Units*	*Limits*		*Method*	*Prepared*	*By*	*Analyzed*	*By*	*Cntr*
1,2-Dichloroethane-d4 (S)	84.2		%	62 - 133		SW846 8260B			7/6/18 20:39	TMP	A
4-Bromofluorobenzene (S)	93.2		%	79 - 114		SW846 8260B			7/6/18 20:39	TMP	A
Dibromofluoromethane (S)	94.8		%	78 - 116		SW846 8260B			7/6/18 20:39	TMP	A
Toluene-d8 (S)	84.8		%	76 - 127		SW846 8260B			7/6/18 20:39	TMP	A

Vanessa N. Badman
Mrs. Vanessa N Badman
Project Coordinator

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ANALYTICAL RESULTS

Workorder: 2323127 ALG002|LMC MRC

Lab ID: **2323127006** Date Collected: 6/25/2018 15:30 Matrix: Water
Sample ID: **MRC-SW2A** Date Received: 6/26/2018 21:30

Parameters	Results	Flag	Units	RDL	MDL	Method	Prepared By	Analyzed	By	Cntr
VOLATILE ORGANICS										
1,1,1,2-Tetrachloroethane	ND		ug/L	1.0	0.35	SW846 8260B		7/6/18 21:01	TMP	A
1,1,1-Trichloroethane	ND		ug/L	1.0	0.22	SW846 8260B		7/6/18 21:01	TMP	A
1,1,2,2-Tetrachloroethane	ND		ug/L	1.0	0.34	SW846 8260B		7/6/18 21:01	TMP	A
1,1,2-Trichloroethane	ND		ug/L	1.0	0.33	SW846 8260B		7/6/18 21:01	TMP	A
1,1-Dichloroethane	ND		ug/L	1.0	0.28	SW846 8260B		7/6/18 21:01	TMP	A
1,1-Dichloroethene	ND		ug/L	1.0	0.29	SW846 8260B		7/6/18 21:01	TMP	A
1,2,3-Trichlorobenzene	ND		ug/L	2.0	0.93	SW846 8260B		7/6/18 21:01	TMP	A
1,2,3-Trichloropropane	ND		ug/L	2.0	0.60	SW846 8260B		7/6/18 21:01	TMP	A
1,2,4-Trichlorobenzene	ND		ug/L	2.0	0.82	SW846 8260B		7/6/18 21:01	TMP	A
1,2,4-Trimethylbenzene	ND		ug/L	1.0	0.25	SW846 8260B		7/6/18 21:01	TMP	A
1,2-Dibromo-3-chloropropane	ND		ug/L	7.0	1.5	SW846 8260B		7/6/18 21:01	TMP	A
1,2-Dibromoethane	ND		ug/L	1.0	0.28	SW846 8260B		7/6/18 21:01	TMP	A
1,2-Dichlorobenzene	ND		ug/L	1.0	0.38	SW846 8260B		7/6/18 21:01	TMP	A
1,2-Dichloroethane	ND		ug/L	1.0	0.32	SW846 8260B		7/6/18 21:01	TMP	A
1,2-Dichloroethene, Total	ND		ug/L	2.0	0.45	SW846 8260B		7/6/18 21:01	TMP	A
1,2-Dichloropropane	ND		ug/L	1.0	0.24	SW846 8260B		7/6/18 21:01	TMP	A
1,3-Dichlorobenzene	ND		ug/L	1.0	0.25	SW846 8260B		7/6/18 21:01	TMP	A
1,3-Dichloropropane	ND		ug/L	1.0	0.27	SW846 8260B		7/6/18 21:01	TMP	A
1,3-Dichloropropene, Total	ND		ug/L	2.0	0.47	SW846 8260B		7/6/18 21:01	TMP	A
1,4-Dichlorobenzene	ND		ug/L	1.0	0.27	SW846 8260B		7/6/18 21:01	TMP	A
2,2-Dichloropropane	ND		ug/L	1.0	0.32	SW846 8260B		7/6/18 21:01	TMP	A
2-Butanone	1.9J	J	ug/L	10.0	1.8	SW846 8260B		7/6/18 21:01	TMP	A
2-Chloroethylvinyl ether	ND		ug/L	2.0	0.38	SW846 8260B		7/6/18 21:01	TMP	A
2-Hexanone	ND		ug/L	5.0	1.3	SW846 8260B		7/6/18 21:01	TMP	A
4-Methyl-2-Pentanone(MIBK)	ND		ug/L	5.0	1.5	SW846 8260B		7/6/18 21:01	TMP	A
Acetone	21.5		ug/L	10.0	3.1	SW846 8260B		7/6/18 21:01	TMP	A
Benzene	ND		ug/L	1.0	0.23	SW846 8260B		7/6/18 21:01	TMP	A
Bromobenzene	ND		ug/L	1.0	0.32	SW846 8260B		7/6/18 21:01	TMP	A
Bromochloromethane	ND		ug/L	1.0	0.32	SW846 8260B		7/6/18 21:01	TMP	A
Bromodichloromethane	ND		ug/L	1.0	0.27	SW846 8260B		7/6/18 21:01	TMP	A
Bromoform	ND		ug/L	1.0	0.40	SW846 8260B		7/6/18 21:01	TMP	A
Bromomethane	0.66J	J	ug/L	1.0	0.39	SW846 8260B		7/6/18 21:01	TMP	A
Carbon Disulfide	ND		ug/L	1.0	0.23	SW846 8260B		7/6/18 21:01	TMP	A
Carbon Tetrachloride	ND		ug/L	1.0	0.31	SW846 8260B		7/6/18 21:01	TMP	A
Chlorobenzene	ND		ug/L	1.0	0.19	SW846 8260B		7/6/18 21:01	TMP	A
Chlorodibromomethane	ND		ug/L	1.0	0.45	SW846 8260B		7/6/18 21:01	TMP	A

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ANALYTICAL RESULTS

Workorder: 2323127 ALG002|LMC MRC

Lab ID: **2323127006** Date Collected: 6/25/2018 15:30 Matrix: Water
Sample ID: **MRC-SW2A** Date Received: 6/26/2018 21:30

Parameters	Results	Flag	Units	RDL	MDL	Method	Prepared By	Analyzed	By	Cntr
Chloroethane	ND		ug/L	1.0	0.33	SW846 8260B		7/6/18 21:01	TMP	A
Chloroform	ND		ug/L	1.0	0.21	SW846 8260B		7/6/18 21:01	TMP	A
Chloromethane	ND		ug/L	1.0	0.31	SW846 8260B		7/6/18 21:01	TMP	A
Cyclohexane	ND		ug/L	1.0	0.29	SW846 8260B		7/6/18 21:01	TMP	A
Dibromomethane	ND		ug/L	1.0	0.31	SW846 8260B		7/6/18 21:01	TMP	A
Dichlorodifluoromethane	ND		ug/L	1.0	0.33	SW846 8260B		7/6/18 21:01	TMP	A
Diisopropyl ether	ND		ug/L	1.0	0.25	SW846 8260B		7/6/18 21:01	TMP	A
Ethyl tert-butyl ether	ND		ug/L	1.0	0.19	SW846 8260B		7/6/18 21:01	TMP	A
Ethylbenzene	ND		ug/L	1.0	0.34	SW846 8260B		7/6/18 21:01	TMP	A
Freon 113	ND		ug/L	1.0	0.26	SW846 8260B		7/6/18 21:01	TMP	A
Hexachlorobutadiene	ND		ug/L	5.0	1.0	SW846 8260B		7/6/18 21:01	TMP	A
Isopropylbenzene	ND		ug/L	1.0	0.22	SW846 8260B		7/6/18 21:01	TMP	A
Methyl acetate	ND		ug/L	2.0	0.32	SW846 8260B		7/6/18 21:01	TMP	A
Methyl cyclohexane	ND		ug/L	1.0	0.30	SW846 8260B		7/6/18 21:01	TMP	A
Methyl t-Butyl Ether	ND		ug/L	1.0	0.33	SW846 8260B		7/6/18 21:01	TMP	A
Methylene Chloride	ND		ug/L	1.0	0.45	SW846 8260B		7/6/18 21:01	TMP	A
Naphthalene	ND		ug/L	2.0	0.34	SW846 8260B		7/6/18 21:01	TMP	A
Styrene	ND		ug/L	1.0	0.24	SW846 8260B		7/6/18 21:01	TMP	A
Tetrachloroethene	ND		ug/L	1.0	0.35	SW846 8260B		7/6/18 21:01	TMP	A
Toluene	ND		ug/L	1.0	0.23	SW846 8260B		7/6/18 21:01	TMP	A
Total Xylenes	ND		ug/L	3.0	0.66	SW846 8260B		7/6/18 21:01	TMP	A
Trichloroethene	ND		ug/L	1.0	0.33	SW846 8260B		7/6/18 21:01	TMP	A
Trichlorofluoromethane	ND		ug/L	1.0	0.24	SW846 8260B		7/6/18 21:01	TMP	A
Vinyl Acetate	ND		ug/L	5.0	1.6	SW846 8260B		7/6/18 21:01	TMP	A
Vinyl Chloride	ND		ug/L	1.0	0.30	SW846 8260B		7/6/18 21:01	TMP	A
cis-1,2-Dichloroethene	ND		ug/L	1.0	0.32	SW846 8260B		7/6/18 21:01	TMP	A
cis-1,3-Dichloropropene	ND		ug/L	1.0	0.31	SW846 8260B		7/6/18 21:01	TMP	A
mp-Xylene	ND		ug/L	2.0	0.52	SW846 8260B		7/6/18 21:01	TMP	A
n-Butylbenzene	ND		ug/L	2.0	0.60	SW846 8260B		7/6/18 21:01	TMP	A
n-Propylbenzene	ND		ug/L	1.0	0.33	SW846 8260B		7/6/18 21:01	TMP	A
o-Chlorotoluene	ND		ug/L	1.0	0.26	SW846 8260B		7/6/18 21:01	TMP	A
o-Xylene	ND		ug/L	1.0	0.33	SW846 8260B		7/6/18 21:01	TMP	A
p-Chlorotoluene	ND		ug/L	1.0	0.33	SW846 8260B		7/6/18 21:01	TMP	A
p-Isopropyltoluene	ND		ug/L	1.0	0.32	SW846 8260B		7/6/18 21:01	TMP	A
sec-Butylbenzene	ND		ug/L	1.0	0.31	SW846 8260B		7/6/18 21:01	TMP	A
tert-Amyl methyl ether	ND		ug/L	1.0	0.20	SW846 8260B		7/6/18 21:01	TMP	A
tert-Butyl Alcohol	ND		ug/L	10.0	2.2	SW846 8260B		7/6/18 21:01	TMP	A
tert-Butylbenzene	ND		ug/L	2.0	0.44	SW846 8260B		7/6/18 21:01	TMP	A

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ANALYTICAL RESULTS

Workorder: 2323127 ALG002|LMC MRC

Lab ID: **2323127006** Date Collected: 6/25/2018 15:30 Matrix: Water
Sample ID: **MRC-SW2A** Date Received: 6/26/2018 21:30

Parameters	Results	Flag	Units	RDL	MDL	Method	Prepared	By	Analyzed	By	Cntr
trans-1,2-Dichloroethene	ND		ug/L	1.0	0.26	SW846 8260B			7/6/18 21:01	TMP	A
trans-1,3-Dichloropropene	ND		ug/L	1.0	0.29	SW846 8260B			7/6/18 21:01	TMP	A
Surrogate Recoveries	*Results*	*Flag*	*Units*	*Limits*		*Method*	*Prepared*	*By*	*Analyzed*	*By*	*Cntr*
1,2-Dichloroethane-d4 (S)	81.7		%	62 - 133		SW846 8260B			7/6/18 21:01	TMP	A
4-Bromofluorobenzene (S)	91.4		%	79 - 114		SW846 8260B			7/6/18 21:01	TMP	A
Dibromofluoromethane (S)	90		%	78 - 116		SW846 8260B			7/6/18 21:01	TMP	A
Toluene-d8 (S)	81.4		%	76 - 127		SW846 8260B			7/6/18 21:01	TMP	A
SEMIVOLATILE SIM											
1,4-Dioxane	0.021J	J	ug/L	0.096	0.018	8270 SIM	6/28/18 18:00	DXL	6/29/18 13:20	CGS	C
IS_Naphthalene-d8	0.0		ug/L			8270 SIM	6/28/18 18:00	DXL	6/29/18 13:20	CGS	C
IS_Perylene-d12	0.0		ug/L			8270 SIM	6/28/18 18:00	DXL	6/29/18 13:20	CGS	C
Acenaphthene-d10	0.0		ug/L			8270 SIM	6/28/18 18:00	DXL	6/29/18 13:20	CGS	C
Phenanthrene-d10	0.0		ug/L			8270 SIM	6/28/18 18:00	DXL	6/29/18 13:20	CGS	C
Chrysene-d12	0.0		ug/L			8270 SIM	6/28/18 18:00	DXL	6/29/18 13:20	CGS	C

Vanessa N. Badman
Mrs. Vanessa N Badman
Project Coordinator

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State Certifications: DE ID 11 , MA PA0102 , MD 128 , VA 460157 , WV 343

ANALYTICAL RESULTS

Workorder: 2323127 ALG002|LMC MRC

Lab ID: **2323127007** Date Collected: 6/25/2018 15:45 Matrix: Water
Sample ID: **MRC-SW1A** Date Received: 6/26/2018 21:30

Parameters	Results	Flag	Units	RDL	MDL	Method	Prepared By	Analyzed	By	*Cntr*
VOLATILE ORGANICS										
1,1,1,2-Tetrachloroethane	ND		ug/L	1.0	0.35	SW846 8260B		7/6/18 21:22	TMP	A
1,1,1-Trichloroethane	ND		ug/L	1.0	0.22	SW846 8260B		7/6/18 21:22	TMP	A
1,1,2,2-Tetrachloroethane	ND		ug/L	1.0	0.34	SW846 8260B		7/6/18 21:22	TMP	A
1,1,2-Trichloroethane	ND		ug/L	1.0	0.33	SW846 8260B		7/6/18 21:22	TMP	A
1,1-Dichloroethane	ND		ug/L	1.0	0.28	SW846 8260B		7/6/18 21:22	TMP	A
1,1-Dichloroethene	ND		ug/L	1.0	0.29	SW846 8260B		7/6/18 21:22	TMP	A
1,2,3-Trichlorobenzene	ND		ug/L	2.0	0.93	SW846 8260B		7/6/18 21:22	TMP	A
1,2,3-Trichloropropane	ND		ug/L	2.0	0.60	SW846 8260B		7/6/18 21:22	TMP	A
1,2,4-Trichlorobenzene	ND		ug/L	2.0	0.82	SW846 8260B		7/6/18 21:22	TMP	A
1,2,4-Trimethylbenzene	ND		ug/L	1.0	0.25	SW846 8260B		7/6/18 21:22	TMP	A
1,2-Dibromo-3-chloropropane	ND		ug/L	7.0	1.5	SW846 8260B		7/6/18 21:22	TMP	A
1,2-Dibromoethane	ND		ug/L	1.0	0.28	SW846 8260B		7/6/18 21:22	TMP	A
1,2-Dichlorobenzene	ND		ug/L	1.0	0.38	SW846 8260B		7/6/18 21:22	TMP	A
1,2-Dichloroethane	ND		ug/L	1.0	0.32	SW846 8260B		7/6/18 21:22	TMP	A
1,2-Dichloroethene, Total	ND		ug/L	2.0	0.45	SW846 8260B		7/6/18 21:22	TMP	A
1,2-Dichloropropane	ND		ug/L	1.0	0.24	SW846 8260B		7/6/18 21:22	TMP	A
1,3-Dichlorobenzene	ND		ug/L	1.0	0.25	SW846 8260B		7/6/18 21:22	TMP	A
1,3-Dichloropropane	ND		ug/L	1.0	0.27	SW846 8260B		7/6/18 21:22	TMP	A
1,3-Dichloropropene, Total	ND		ug/L	2.0	0.47	SW846 8260B		7/6/18 21:22	TMP	A
1,4-Dichlorobenzene	ND		ug/L	1.0	0.27	SW846 8260B		7/6/18 21:22	TMP	A
2,2-Dichloropropane	ND		ug/L	1.0	0.32	SW846 8260B		7/6/18 21:22	TMP	A
2-Butanone	ND		ug/L	10.0	1.8	SW846 8260B		7/6/18 21:22	TMP	A
2-Chloroethylvinyl ether	ND		ug/L	2.0	0.38	SW846 8260B		7/6/18 21:22	TMP	A
2-Hexanone	ND		ug/L	5.0	1.3	SW846 8260B		7/6/18 21:22	TMP	A
4-Methyl-2-Pentanone(MIBK)	ND		ug/L	5.0	1.5	SW846 8260B		7/6/18 21:22	TMP	A
Acetone	11.4		ug/L	10.0	3.1	SW846 8260B		7/6/18 21:22	TMP	A
Benzene	ND		ug/L	1.0	0.23	SW846 8260B		7/6/18 21:22	TMP	A
Bromobenzene	ND		ug/L	1.0	0.32	SW846 8260B		7/6/18 21:22	TMP	A
Bromochloromethane	ND		ug/L	1.0	0.32	SW846 8260B		7/6/18 21:22	TMP	A
Bromodichloromethane	ND		ug/L	1.0	0.27	SW846 8260B		7/6/18 21:22	TMP	A
Bromoform	ND		ug/L	1.0	0.40	SW846 8260B		7/6/18 21:22	TMP	A
Bromomethane	0.49J	J	ug/L	1.0	0.39	SW846 8260B		7/6/18 21:22	TMP	A
Carbon Disulfide	ND		ug/L	1.0	0.23	SW846 8260B		7/6/18 21:22	TMP	A
Carbon Tetrachloride	ND		ug/L	1.0	0.31	SW846 8260B		7/6/18 21:22	TMP	A
Chlorobenzene	ND		ug/L	1.0	0.19	SW846 8260B		7/6/18 21:22	TMP	A
Chlorodibromomethane	ND		ug/L	1.0	0.45	SW846 8260B		7/6/18 21:22	TMP	A

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ANALYTICAL RESULTS

Workorder: 2323127 ALG002|LMC MRC

Lab ID: **2323127007** Date Collected: 6/25/2018 15:45 Matrix: Water
Sample ID: **MRC-SW1A** Date Received: 6/26/2018 21:30

Parameters	Results	Flag	Units	RDL	MDL	Method	Prepared By	Analyzed	By	Cntr
Chloroethane	ND		ug/L	1.0	0.33	SW846 8260B		7/6/18 21:22	TMP	A
Chloroform	ND		ug/L	1.0	0.21	SW846 8260B		7/6/18 21:22	TMP	A
Chloromethane	ND		ug/L	1.0	0.31	SW846 8260B		7/6/18 21:22	TMP	A
Cyclohexane	ND		ug/L	1.0	0.29	SW846 8260B		7/6/18 21:22	TMP	A
Dibromomethane	ND		ug/L	1.0	0.31	SW846 8260B		7/6/18 21:22	TMP	A
Dichlorodifluoromethane	ND		ug/L	1.0	0.33	SW846 8260B		7/6/18 21:22	TMP	A
Diisopropyl ether	ND		ug/L	1.0	0.25	SW846 8260B		7/6/18 21:22	TMP	A
Ethyl tert-butyl ether	ND		ug/L	1.0	0.19	SW846 8260B		7/6/18 21:22	TMP	A
Ethylbenzene	ND		ug/L	1.0	0.34	SW846 8260B		7/6/18 21:22	TMP	A
Freon 113	ND		ug/L	1.0	0.26	SW846 8260B		7/6/18 21:22	TMP	A
Hexachlorobutadiene	ND		ug/L	5.0	1.0	SW846 8260B		7/6/18 21:22	TMP	A
Isopropylbenzene	ND		ug/L	1.0	0.22	SW846 8260B		7/6/18 21:22	TMP	A
Methyl acetate	ND		ug/L	2.0	0.32	SW846 8260B		7/6/18 21:22	TMP	A
Methyl cyclohexane	ND		ug/L	1.0	0.30	SW846 8260B		7/6/18 21:22	TMP	A
Methyl t-Butyl Ether	ND		ug/L	1.0	0.33	SW846 8260B		7/6/18 21:22	TMP	A
Methylene Chloride	ND		ug/L	1.0	0.45	SW846 8260B		7/6/18 21:22	TMP	A
Naphthalene	ND		ug/L	2.0	0.34	SW846 8260B		7/6/18 21:22	TMP	A
Styrene	ND		ug/L	1.0	0.24	SW846 8260B		7/6/18 21:22	TMP	A
Tetrachloroethene	ND		ug/L	1.0	0.35	SW846 8260B		7/6/18 21:22	TMP	A
Toluene	ND		ug/L	1.0	0.23	SW846 8260B		7/6/18 21:22	TMP	A
Total Xylenes	ND		ug/L	3.0	0.66	SW846 8260B		7/6/18 21:22	TMP	A
Trichloroethene	ND		ug/L	1.0	0.33	SW846 8260B		7/6/18 21:22	TMP	A
Trichlorofluoromethane	ND		ug/L	1.0	0.24	SW846 8260B		7/6/18 21:22	TMP	A
Vinyl Acetate	ND		ug/L	5.0	1.6	SW846 8260B		7/6/18 21:22	TMP	A
Vinyl Chloride	ND		ug/L	1.0	0.30	SW846 8260B		7/6/18 21:22	TMP	A
cis-1,2-Dichloroethene	ND		ug/L	1.0	0.32	SW846 8260B		7/6/18 21:22	TMP	A
cis-1,3-Dichloropropene	ND		ug/L	1.0	0.31	SW846 8260B		7/6/18 21:22	TMP	A
mp-Xylene	ND		ug/L	2.0	0.52	SW846 8260B		7/6/18 21:22	TMP	A
n-Butylbenzene	ND		ug/L	2.0	0.60	SW846 8260B		7/6/18 21:22	TMP	A
n-Propylbenzene	ND		ug/L	1.0	0.33	SW846 8260B		7/6/18 21:22	TMP	A
o-Chlorotoluene	ND		ug/L	1.0	0.26	SW846 8260B		7/6/18 21:22	TMP	A
o-Xylene	ND		ug/L	1.0	0.33	SW846 8260B		7/6/18 21:22	TMP	A
p-Chlorotoluene	ND		ug/L	1.0	0.33	SW846 8260B		7/6/18 21:22	TMP	A
p-Isopropyltoluene	ND		ug/L	1.0	0.32	SW846 8260B		7/6/18 21:22	TMP	A
sec-Butylbenzene	ND		ug/L	1.0	0.31	SW846 8260B		7/6/18 21:22	TMP	A
tert-Amyl methyl ether	ND		ug/L	1.0	0.20	SW846 8260B		7/6/18 21:22	TMP	A
tert-Butyl Alcohol	ND		ug/L	10.0	2.2	SW846 8260B		7/6/18 21:22	TMP	A
tert-Butylbenzene	ND		ug/L	2.0	0.44	SW846 8260B		7/6/18 21:22	TMP	A

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State Certifications: DE ID 11 , MA PA0102 , MD 128 , VA 460157 , WV 343

ANALYTICAL RESULTS

Workorder: 2323127 ALG002|LMC MRC

Lab ID: **2323127007** Date Collected: 6/25/2018 15:45 Matrix: Water
Sample ID: **MRC-SW1A** Date Received: 6/26/2018 21:30

Parameters	Results	Flag	Units	RDL	MDL	Method	Prepared	By	Analyzed	By	Cntr
trans-1,2-Dichloroethene	ND		ug/L	1.0	0.26	SW846 8260B			7/6/18 21:22	TMP	A
trans-1,3-Dichloropropene	ND		ug/L	1.0	0.29	SW846 8260B			7/6/18 21:22	TMP	A
Surrogate Recoveries	*Results*	*Flag*	*Units*	*Limits*		*Method*	*Prepared*	*By*	*Analyzed*	*By*	*Cntr*
1,2-Dichloroethane-d4 (S)	81.8		%	62 - 133		SW846 8260B			7/6/18 21:22	TMP	A
4-Bromofluorobenzene (S)	91.7		%	79 - 114		SW846 8260B			7/6/18 21:22	TMP	A
Dibromofluoromethane (S)	90.5		%	78 - 116		SW846 8260B			7/6/18 21:22	TMP	A
Toluene-d8 (S)	83.2		%	76 - 127		SW846 8260B			7/6/18 21:22	TMP	A
SEMIVOLATILE SIM											
1,4-Dioxane	0.027J	J	ug/L	0.095	0.018	8270 SIM	6/28/18 18:00	DXL	6/29/18 15:07	CGS	C
IS_Naphthalene-d8	0.0		ug/L			8270 SIM	6/28/18 18:00	DXL	6/29/18 15:07	CGS	C
IS_Perylene-d12	0.0		ug/L			8270 SIM	6/28/18 18:00	DXL	6/29/18 15:07	CGS	C
Acenaphthene-d10	0.0		ug/L			8270 SIM	6/28/18 18:00	DXL	6/29/18 15:07	CGS	C
Phenanthrene-d10	0.0		ug/L			8270 SIM	6/28/18 18:00	DXL	6/29/18 15:07	CGS	C
Chrysene-d12	0.0		ug/L			8270 SIM	6/28/18 18:00	DXL	6/29/18 15:07	CGS	C

Vanessa N. Badman
Mrs. Vanessa N Badman
Project Coordinator

ANALYTICAL RESULTS

Workorder: 2323127 ALG002|LMC MRC

Lab ID: **2323127008** Date Collected: 6/26/2018 21:30 Matrix: Water

Sample ID: **TB-0626-18** Date Received: 6/26/2018 21:30

Parameters	Results	Flag	Units	RDL	MDL	Method	Prepared By	Analyzed	By	*Cntr*
VOLATILE ORGANICS										
1,1,1,2-Tetrachloroethane	ND		ug/L	1.0	0.35	SW846 8260B		7/6/18 19:07	TMP	A
1,1,1-Trichloroethane	ND		ug/L	1.0	0.22	SW846 8260B		7/6/18 19:07	TMP	A
1,1,2,2-Tetrachloroethane	ND		ug/L	1.0	0.34	SW846 8260B		7/6/18 19:07	TMP	A
1,1,2-Trichloroethane	ND		ug/L	1.0	0.33	SW846 8260B		7/6/18 19:07	TMP	A
1,1-Dichloroethane	ND		ug/L	1.0	0.28	SW846 8260B		7/6/18 19:07	TMP	A
1,1-Dichloroethene	ND		ug/L	1.0	0.29	SW846 8260B		7/6/18 19:07	TMP	A
1,2,3-Trichlorobenzene	ND		ug/L	2.0	0.93	SW846 8260B		7/6/18 19:07	TMP	A
1,2,3-Trichloropropane	ND		ug/L	2.0	0.60	SW846 8260B		7/6/18 19:07	TMP	A
1,2,4-Trichlorobenzene	ND		ug/L	2.0	0.82	SW846 8260B		7/6/18 19:07	TMP	A
1,2,4-Trimethylbenzene	ND		ug/L	1.0	0.25	SW846 8260B		7/6/18 19:07	TMP	A
1,2-Dibromo-3-chloropropane	ND		ug/L	7.0	1.5	SW846 8260B		7/6/18 19:07	TMP	A
1,2-Dibromoethane	ND		ug/L	1.0	0.28	SW846 8260B		7/6/18 19:07	TMP	A
1,2-Dichlorobenzene	ND		ug/L	1.0	0.38	SW846 8260B		7/6/18 19:07	TMP	A
1,2-Dichloroethane	ND		ug/L	1.0	0.32	SW846 8260B		7/6/18 19:07	TMP	A
1,2-Dichloroethene, Total	ND		ug/L	2.0	0.45	SW846 8260B		7/6/18 19:07	TMP	A
1,2-Dichloropropane	ND		ug/L	1.0	0.24	SW846 8260B		7/6/18 19:07	TMP	A
1,3-Dichlorobenzene	0.37J	J	ug/L	1.0	0.25	SW846 8260B		7/6/18 19:07	TMP	A
1,3-Dichloropropane	ND		ug/L	1.0	0.27	SW846 8260B		7/6/18 19:07	TMP	A
1,3-Dichloropropene, Total	ND		ug/L	2.0	0.47	SW846 8260B		7/6/18 19:07	TMP	A
1,4-Dichlorobenzene	0.45J	J	ug/L	1.0	0.27	SW846 8260B		7/6/18 19:07	TMP	A
2,2-Dichloropropane	ND		ug/L	1.0	0.32	SW846 8260B		7/6/18 19:07	TMP	A
2-Butanone	ND		ug/L	10.0	1.8	SW846 8260B		7/6/18 19:07	TMP	A
2-Chloroethylvinyl ether	ND		ug/L	2.0	0.38	SW846 8260B		7/6/18 19:07	TMP	A
2-Hexanone	ND		ug/L	5.0	1.3	SW846 8260B		7/6/18 19:07	TMP	A
4-Methyl-2-Pentanone(MIBK)	ND		ug/L	5.0	1.5	SW846 8260B		7/6/18 19:07	TMP	A
Acetone	8.5J	J	ug/L	10.0	3.1	SW846 8260B		7/6/18 19:07	TMP	A
Benzene	ND		ug/L	1.0	0.23	SW846 8260B		7/6/18 19:07	TMP	A
Bromobenzene	ND		ug/L	1.0	0.32	SW846 8260B		7/6/18 19:07	TMP	A
Bromochloromethane	ND		ug/L	1.0	0.32	SW846 8260B		7/6/18 19:07	TMP	A
Bromodichloromethane	ND		ug/L	1.0	0.27	SW846 8260B		7/6/18 19:07	TMP	A
Bromoform	ND		ug/L	1.0	0.40	SW846 8260B		7/6/18 19:07	TMP	A
Bromomethane	0.54J	J	ug/L	1.0	0.39	SW846 8260B		7/6/18 19:07	TMP	A
Carbon Disulfide	0.58J	J	ug/L	1.0	0.23	SW846 8260B		7/6/18 19:07	TMP	A
Carbon Tetrachloride	ND		ug/L	1.0	0.31	SW846 8260B		7/6/18 19:07	TMP	A
Chlorobenzene	0.24J	J	ug/L	1.0	0.19	SW846 8260B		7/6/18 19:07	TMP	A
Chlorodibromomethane	ND		ug/L	1.0	0.45	SW846 8260B		7/6/18 19:07	TMP	A

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ANALYTICAL RESULTS

Workorder: 2323127 ALG002|LMC MRC

Lab ID: **2323127008** Date Collected: 6/26/2018 21:30 Matrix: Water
Sample ID: **TB-0626-18** Date Received: 6/26/2018 21:30

Parameters	Results	Flag	Units	RDL	MDL	Method	Prepared By	Analyzed	By	Cntr
Chloroethane	ND		ug/L	1.0	0.33	SW846 8260B		7/6/18 19:07	TMP	A
Chloroform	ND		ug/L	1.0	0.21	SW846 8260B		7/6/18 19:07	TMP	A
Chloromethane	ND		ug/L	1.0	0.31	SW846 8260B		7/6/18 19:07	TMP	A
Cyclohexane	ND		ug/L	1.0	0.29	SW846 8260B		7/6/18 19:07	TMP	A
Dibromomethane	ND		ug/L	1.0	0.31	SW846 8260B		7/6/18 19:07	TMP	A
Dichlorodifluoromethane	ND		ug/L	1.0	0.33	SW846 8260B		7/6/18 19:07	TMP	A
Diisopropyl ether	ND		ug/L	1.0	0.25	SW846 8260B		7/6/18 19:07	TMP	A
Ethyl tert-butyl ether	ND		ug/L	1.0	0.19	SW846 8260B		7/6/18 19:07	TMP	A
Ethylbenzene	ND		ug/L	1.0	0.34	SW846 8260B		7/6/18 19:07	TMP	A
Freon 113	ND		ug/L	1.0	0.26	SW846 8260B		7/6/18 19:07	TMP	A
Hexachlorobutadiene	ND		ug/L	5.0	1.0	SW846 8260B		7/6/18 19:07	TMP	A
Isopropylbenzene	ND		ug/L	1.0	0.22	SW846 8260B		7/6/18 19:07	TMP	A
Methyl acetate	ND		ug/L	2.0	0.32	SW846 8260B		7/6/18 19:07	TMP	A
Methyl cyclohexane	ND		ug/L	1.0	0.30	SW846 8260B		7/6/18 19:07	TMP	A
Methyl t-Butyl Ether	ND		ug/L	1.0	0.33	SW846 8260B		7/6/18 19:07	TMP	A
Methylene Chloride	ND		ug/L	1.0	0.45	SW846 8260B		7/6/18 19:07	TMP	A
Naphthalene	0.66J	J	ug/L	2.0	0.34	SW846 8260B		7/6/18 19:07	TMP	A
Styrene	ND		ug/L	1.0	0.24	SW846 8260B		7/6/18 19:07	TMP	A
Tetrachloroethene	ND		ug/L	1.0	0.35	SW846 8260B		7/6/18 19:07	TMP	A
Toluene	ND		ug/L	1.0	0.23	SW846 8260B		7/6/18 19:07	TMP	A
Total Xylenes	ND		ug/L	3.0	0.66	SW846 8260B		7/6/18 19:07	TMP	A
Trichloroethene	ND		ug/L	1.0	0.33	SW846 8260B		7/6/18 19:07	TMP	A
Trichlorofluoromethane	ND		ug/L	1.0	0.24	SW846 8260B		7/6/18 19:07	TMP	A
Vinyl Acetate	ND		ug/L	5.0	1.6	SW846 8260B		7/6/18 19:07	TMP	A
Vinyl Chloride	ND		ug/L	1.0	0.30	SW846 8260B		7/6/18 19:07	TMP	A
cis-1,2-Dichloroethene	ND		ug/L	1.0	0.32	SW846 8260B		7/6/18 19:07	TMP	A
cis-1,3-Dichloropropene	ND		ug/L	1.0	0.31	SW846 8260B		7/6/18 19:07	TMP	A
mp-Xylene	ND		ug/L	2.0	0.52	SW846 8260B		7/6/18 19:07	TMP	A
n-Butylbenzene	ND		ug/L	2.0	0.60	SW846 8260B		7/6/18 19:07	TMP	A
n-Propylbenzene	ND		ug/L	1.0	0.33	SW846 8260B		7/6/18 19:07	TMP	A
o-Chlorotoluene	ND		ug/L	1.0	0.26	SW846 8260B		7/6/18 19:07	TMP	A
o-Xylene	ND		ug/L	1.0	0.33	SW846 8260B		7/6/18 19:07	TMP	A
p-Chlorotoluene	ND		ug/L	1.0	0.33	SW846 8260B		7/6/18 19:07	TMP	A
p-Isopropyltoluene	ND		ug/L	1.0	0.32	SW846 8260B		7/6/18 19:07	TMP	A
sec-Butylbenzene	ND		ug/L	1.0	0.31	SW846 8260B		7/6/18 19:07	TMP	A
tert-Amyl methyl ether	ND		ug/L	1.0	0.20	SW846 8260B		7/6/18 19:07	TMP	A
tert-Butyl Alcohol	ND		ug/L	10.0	2.2	SW846 8260B		7/6/18 19:07	TMP	A
tert-Butylbenzene	ND		ug/L	2.0	0.44	SW846 8260B		7/6/18 19:07	TMP	A

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ANALYTICAL RESULTS

Workorder: 2323127 ALG002|LMC MRC

Lab ID: **2323127008** Date Collected: 6/26/2018 21:30 Matrix: Water
Sample ID: **TB-0626-18** Date Received: 6/26/2018 21:30

Parameters	Results	Flag	Units	RDL	MDL	Method	Prepared	By	Analyzed	By	Cntr
trans-1,2-Dichloroethene	ND		ug/L	1.0	0.26	SW846 8260B			7/6/18 19:07	TMP	A
trans-1,3-Dichloropropene	ND		ug/L	1.0	0.29	SW846 8260B			7/6/18 19:07	TMP	A
Surrogate Recoveries	*Results*	*Flag*	*Units*	*Limits*		*Method*	*Prepared*	*By*	*Analyzed*	*By*	*Cntr*
1,2-Dichloroethane-d4 (S)	80.5		%	62 - 133		SW846 8260B			7/6/18 19:07	TMP	A
4-Bromofluorobenzene (S)	91.3		%	79 - 114		SW846 8260B			7/6/18 19:07	TMP	A
Dibromofluoromethane (S)	87.9		%	78 - 116		SW846 8260B			7/6/18 19:07	TMP	A
Toluene-d8 (S)	82.2		%	76 - 127		SW846 8260B			7/6/18 19:07	TMP	A

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ANALYTICAL RESULTS

Workorder: 2323127 ALG002|LMC MRC

Lab ID: **2323127009** Date Collected: 6/25/2018 14:00 Matrix: Water
Sample ID: **MRC-MW11A** Date Received: 6/26/2018 21:30

Parameters	Results	Flag	Units	RDL	MDL	Method	Prepared By	Analyzed	By	*Cntr*
VOLATILE ORGANICS										
1,1,1,2-Tetrachloroethane	ND		ug/L	1.0	0.35	SW846 8260B		7/6/18 21:44	TMP	A
1,1,1-Trichloroethane	ND		ug/L	1.0	0.22	SW846 8260B		7/6/18 21:44	TMP	A
1,1,2,2-Tetrachloroethane	ND		ug/L	1.0	0.34	SW846 8260B		7/6/18 21:44	TMP	A
1,1,2-Trichloroethane	ND		ug/L	1.0	0.33	SW846 8260B		7/6/18 21:44	TMP	A
1,1-Dichloroethane	2.8		ug/L	1.0	0.28	SW846 8260B		7/6/18 21:44	TMP	A
1,1-Dichloroethene	10.4	2	ug/L	1.0	0.29	SW846 8260B		7/6/18 21:44	TMP	A
1,2,3-Trichlorobenzene	ND		ug/L	2.0	0.93	SW846 8260B		7/6/18 21:44	TMP	A
1,2,3-Trichloropropane	ND		ug/L	2.0	0.60	SW846 8260B		7/6/18 21:44	TMP	A
1,2,4-Trichlorobenzene	ND		ug/L	2.0	0.82	SW846 8260B		7/6/18 21:44	TMP	A
1,2,4-Trimethylbenzene	ND		ug/L	1.0	0.25	SW846 8260B		7/6/18 21:44	TMP	A
1,2-Dibromo-3-chloropropane	ND		ug/L	7.0	1.5	SW846 8260B		7/6/18 21:44	TMP	A
1,2-Dibromoethane	ND		ug/L	1.0	0.28	SW846 8260B		7/6/18 21:44	TMP	A
1,2-Dichlorobenzene	ND		ug/L	1.0	0.38	SW846 8260B		7/6/18 21:44	TMP	A
1,2-Dichloroethane	ND		ug/L	1.0	0.32	SW846 8260B		7/6/18 21:44	TMP	A
1,2-Dichloroethene, Total	2.7	1	ug/L	2.0	0.45	SW846 8260B		7/6/18 21:44	TMP	A
1,2-Dichloropropane	ND		ug/L	1.0	0.24	SW846 8260B		7/6/18 21:44	TMP	A
1,3-Dichlorobenzene	ND		ug/L	1.0	0.25	SW846 8260B		7/6/18 21:44	TMP	A
1,3-Dichloropropane	ND		ug/L	1.0	0.27	SW846 8260B		7/6/18 21:44	TMP	A
1,3-Dichloropropene, Total	ND		ug/L	2.0	0.47	SW846 8260B		7/6/18 21:44	TMP	A
1,4-Dichlorobenzene	ND		ug/L	1.0	0.27	SW846 8260B		7/6/18 21:44	TMP	A
2,2-Dichloropropane	ND		ug/L	1.0	0.32	SW846 8260B		7/6/18 21:44	TMP	A
2-Butanone	ND		ug/L	10.0	1.8	SW846 8260B		7/6/18 21:44	TMP	A
2-Chloroethylvinyl ether	ND		ug/L	2.0	0.38	SW846 8260B		7/6/18 21:44	TMP	A
2-Hexanone	ND		ug/L	5.0	1.3	SW846 8260B		7/6/18 21:44	TMP	A
4-Methyl-2-Pentanone(MIBK)	ND		ug/L	5.0	1.5	SW846 8260B		7/6/18 21:44	TMP	A
Acetone	11.3		ug/L	10.0	3.1	SW846 8260B		7/6/18 21:44	TMP	A
Benzene	0.25J	J	ug/L	1.0	0.23	SW846 8260B		7/6/18 21:44	TMP	A
Bromobenzene	ND		ug/L	1.0	0.32	SW846 8260B		7/6/18 21:44	TMP	A
Bromochloromethane	ND		ug/L	1.0	0.32	SW846 8260B		7/6/18 21:44	TMP	A
Bromodichloromethane	ND		ug/L	1.0	0.27	SW846 8260B		7/6/18 21:44	TMP	A
Bromoform	ND		ug/L	1.0	0.40	SW846 8260B		7/6/18 21:44	TMP	A
Bromomethane	0.50J	J	ug/L	1.0	0.39	SW846 8260B		7/6/18 21:44	TMP	A
Carbon Disulfide	0.24J	J	ug/L	1.0	0.23	SW846 8260B		7/6/18 21:44	TMP	A
Carbon Tetrachloride	ND		ug/L	1.0	0.31	SW846 8260B		7/6/18 21:44	TMP	A
Chlorobenzene	ND		ug/L	1.0	0.19	SW846 8260B		7/6/18 21:44	TMP	A
Chlorodibromomethane	ND		ug/L	1.0	0.45	SW846 8260B		7/6/18 21:44	TMP	A

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ANALYTICAL RESULTS

Workorder: 2323127 ALG002|LMC MRC

Lab ID: **2323127009** Date Collected: 6/25/2018 14:00 Matrix: Water
Sample ID: **MRC-MW11A** Date Received: 6/26/2018 21:30

Parameters	Results	Flag	Units	RDL	MDL	Method	Prepared By	Analyzed	By	Cntr
Chloroethane	ND		ug/L	1.0	0.33	SW846 8260B		7/6/18 21:44	TMP	A
Chloroform	1.4		ug/L	1.0	0.21	SW846 8260B		7/6/18 21:44	TMP	A
Chloromethane	ND		ug/L	1.0	0.31	SW846 8260B		7/6/18 21:44	TMP	A
Cyclohexane	ND		ug/L	1.0	0.29	SW846 8260B		7/6/18 21:44	TMP	A
Dibromomethane	ND		ug/L	1.0	0.31	SW846 8260B		7/6/18 21:44	TMP	A
Dichlorodifluoromethane	ND		ug/L	1.0	0.33	SW846 8260B		7/6/18 21:44	TMP	A
Diisopropyl ether	ND		ug/L	1.0	0.25	SW846 8260B		7/6/18 21:44	TMP	A
Ethyl tert-butyl ether	ND		ug/L	1.0	0.19	SW846 8260B		7/6/18 21:44	TMP	A
Ethylbenzene	ND		ug/L	1.0	0.34	SW846 8260B		7/6/18 21:44	TMP	A
Freon 113	ND		ug/L	1.0	0.26	SW846 8260B		7/6/18 21:44	TMP	A
Hexachlorobutadiene	ND		ug/L	5.0	1.0	SW846 8260B		7/6/18 21:44	TMP	A
Isopropylbenzene	ND		ug/L	1.0	0.22	SW846 8260B		7/6/18 21:44	TMP	A
Methyl acetate	ND		ug/L	2.0	0.32	SW846 8260B		7/6/18 21:44	TMP	A
Methyl cyclohexane	ND		ug/L	1.0	0.30	SW846 8260B		7/6/18 21:44	TMP	A
Methyl t-Butyl Ether	ND		ug/L	1.0	0.33	SW846 8260B		7/6/18 21:44	TMP	A
Methylene Chloride	ND		ug/L	1.0	0.45	SW846 8260B		7/6/18 21:44	TMP	A
Naphthalene	ND		ug/L	2.0	0.34	SW846 8260B		7/6/18 21:44	TMP	A
Styrene	ND		ug/L	1.0	0.24	SW846 8260B		7/6/18 21:44	TMP	A
Tetrachloroethene	ND		ug/L	1.0	0.35	SW846 8260B		7/6/18 21:44	TMP	A
Toluene	ND		ug/L	1.0	0.23	SW846 8260B		7/6/18 21:44	TMP	A
Total Xylenes	ND		ug/L	3.0	0.66	SW846 8260B		7/6/18 21:44	TMP	A
Trichloroethene	1.7		ug/L	1.0	0.33	SW846 8260B		7/6/18 21:44	TMP	A
Trichlorofluoromethane	ND		ug/L	1.0	0.24	SW846 8260B		7/6/18 21:44	TMP	A
Vinyl Acetate	ND		ug/L	5.0	1.6	SW846 8260B		7/6/18 21:44	TMP	A
Vinyl Chloride	1.1		ug/L	1.0	0.30	SW846 8260B		7/6/18 21:44	TMP	A
cis-1,2-Dichloroethene	2.7		ug/L	1.0	0.32	SW846 8260B		7/6/18 21:44	TMP	A
cis-1,3-Dichloropropene	ND		ug/L	1.0	0.31	SW846 8260B		7/6/18 21:44	TMP	A
mp-Xylene	ND		ug/L	2.0	0.52	SW846 8260B		7/6/18 21:44	TMP	A
n-Butylbenzene	ND		ug/L	2.0	0.60	SW846 8260B		7/6/18 21:44	TMP	A
n-Propylbenzene	ND		ug/L	1.0	0.33	SW846 8260B		7/6/18 21:44	TMP	A
o-Chlorotoluene	ND		ug/L	1.0	0.26	SW846 8260B		7/6/18 21:44	TMP	A
o-Xylene	ND		ug/L	1.0	0.33	SW846 8260B		7/6/18 21:44	TMP	A
p-Chlorotoluene	ND		ug/L	1.0	0.33	SW846 8260B		7/6/18 21:44	TMP	A
p-Isopropyltoluene	ND		ug/L	1.0	0.32	SW846 8260B		7/6/18 21:44	TMP	A
sec-Butylbenzene	ND		ug/L	1.0	0.31	SW846 8260B		7/6/18 21:44	TMP	A
tert-Amyl methyl ether	ND		ug/L	1.0	0.20	SW846 8260B		7/6/18 21:44	TMP	A
tert-Butyl Alcohol	ND		ug/L	10.0	2.2	SW846 8260B		7/6/18 21:44	TMP	A
tert-Butylbenzene	ND		ug/L	2.0	0.44	SW846 8260B		7/6/18 21:44	TMP	A

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ANALYTICAL RESULTS

Workorder: 2323127 ALG002|LMC MRC

Lab ID: **2323127009** Date Collected: 6/25/2018 14:00 Matrix: Water
Sample ID: **MRC-MW11A** Date Received: 6/26/2018 21:30

Parameters	Results	Flag	Units	RDL	MDL	Method	Prepared	By	Analyzed	By	Cntr
trans-1,2-Dichloroethene	ND		ug/L	1.0	0.26	SW846 8260B			7/6/18 21:44	TMP	A
trans-1,3-Dichloropropene	ND		ug/L	1.0	0.29	SW846 8260B			7/6/18 21:44	TMP	A
Surrogate Recoveries	*Results*	*Flag*	*Units*	*Limits*		*Method*	*Prepared*	*By*	*Analyzed*	*By*	*Cntr*
1,2-Dichloroethane-d4 (S)	85.3		%	62 - 133		SW846 8260B			7/6/18 21:44	TMP	A
4-Bromofluorobenzene (S)	90.4		%	79 - 114		SW846 8260B			7/6/18 21:44	TMP	A
Dibromofluoromethane (S)	93.8		%	78 - 116		SW846 8260B			7/6/18 21:44	TMP	A
Toluene-d8 (S)	83.5		%	76 - 127		SW846 8260B			7/6/18 21:44	TMP	A
SEMIVOLATILE SIM											
1,4-Dioxane	2.0		ug/L	0.098	0.019	8270 SIM	6/28/18 18:00	DXL	6/29/18 12:01	CGS	C
IS_Naphthalene-d8	0.0		ug/L			8270 SIM	6/28/18 18:00	DXL	6/29/18 12:01	CGS	C
IS_Perylene-d12	0.0		ug/L			8270 SIM	6/28/18 18:00	DXL	6/29/18 12:01	CGS	C
Acenaphthene-d10	0.0		ug/L			8270 SIM	6/28/18 18:00	DXL	6/29/18 12:01	CGS	C
Phenanthrene-d10	0.0		ug/L			8270 SIM	6/28/18 18:00	DXL	6/29/18 12:01	CGS	C
Chrysene-d12	0.0		ug/L			8270 SIM	6/28/18 18:00	DXL	6/29/18 12:01	CGS	C
METALS											
Antimony, Total	ND		mg/L	0.0022	0.00074	SW846 6020A	6/29/18 19:20	AHI	7/6/18 10:56	MO	E1
Arsenic, Total	0.0071		mg/L	0.0033	0.0011	SW846 6020A	6/29/18 19:20	AHI	7/6/18 10:56	MO	E1
Beryllium, Total	ND		mg/L	0.0011	0.00037	SW846 6020A	6/29/18 19:20	AHI	7/6/18 10:56	MO	E1
Cadmium, Total	ND		mg/L	0.0011	0.00037	SW846 6020A	6/29/18 19:20	AHI	7/6/18 10:56	MO	E1
Chromium, Total	0.0011J	J	mg/L	0.0022	0.00074	SW846 6020A	6/29/18 19:20	AHI	7/6/18 10:56	MO	E1
Cobalt, Total	0.028		mg/L	0.0056	0.0019	SW846 6020A	6/29/18 19:20	AHI	7/6/18 10:56	MO	E1
Copper, Total	0.0022J	J	mg/L	0.0056	0.0019	SW846 6020A	6/29/18 19:20	AHI	7/6/18 10:56	MO	E1
Lead, Total	ND		mg/L	0.0022	0.00074	SW846 6020A	6/29/18 19:20	AHI	7/6/18 10:56	MO	E1
Mercury, Total	ND		mg/L	0.00050	0.00017	SW846 7470A	6/29/18 09:55	AXC	6/29/18 14:35	AXC	E
Nickel, Total	0.0039J	J	mg/L	0.0056	0.0019	SW846 6020A	6/29/18 19:20	AHI	7/6/18 10:56	MO	E1
Selenium, Total	ND		mg/L	0.0056	0.0019	SW846 6020A	6/29/18 19:20	AHI	7/6/18 10:56	MO	E1
Silver, Total	ND		mg/L	0.0022	0.00074	SW846 6020A	6/29/18 19:20	AHI	7/6/18 10:56	MO	E1
Thallium, Total	ND		mg/L	0.0011	0.00037	SW846 6020A	6/29/18 19:20	AHI	7/6/18 10:56	MO	E1
Zinc, Total	0.011		mg/L	0.0056	0.0019	SW846 6020A	6/29/18 19:20	AHI	7/6/18 10:56	MO	E1

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ANALYTICAL RESULTS

Workorder: 2323127 ALG002|LMC MRC

Lab ID: **2323127010** Date Collected: 6/25/2018 15:30 Matrix: Water
Sample ID: **MRC-MW16A** Date Received: 6/26/2018 21:30

Parameters	Results	Flag	Units	RDL	MDL	Method	Prepared By	Analyzed	By	Cntr
VOLATILE ORGANICS										
1,1,1,2-Tetrachloroethane	ND		ug/L	1.0	0.35	SW846 8260B		7/6/18 17:39	TMP	A
1,1,1-Trichloroethane	ND		ug/L	1.0	0.22	SW846 8260B		7/6/18 17:39	TMP	A
1,1,2,2-Tetrachloroethane	ND		ug/L	1.0	0.34	SW846 8260B		7/6/18 17:39	TMP	A
1,1,2-Trichloroethane	ND		ug/L	1.0	0.33	SW846 8260B		7/6/18 17:39	TMP	A
1,1-Dichloroethane	28.2	12,13	ug/L	1.0	0.28	SW846 8260B		7/6/18 17:39	TMP	A
1,1-Dichloroethene	72.7	1,2,3	ug/L	1.0	0.29	SW846 8260B		7/6/18 17:39	TMP	A
1,2,3-Trichlorobenzene	ND		ug/L	2.0	0.93	SW846 8260B		7/6/18 17:39	TMP	A
1,2,3-Trichloropropane	ND		ug/L	2.0	0.60	SW846 8260B		7/6/18 17:39	TMP	A
1,2,4-Trichlorobenzene	ND		ug/L	2.0	0.82	SW846 8260B		7/6/18 17:39	TMP	A
1,2,4-Trimethylbenzene	ND		ug/L	1.0	0.25	SW846 8260B		7/6/18 17:39	TMP	A
1,2-Dibromo-3-chloropropane	ND		ug/L	7.0	1.5	SW846 8260B		7/6/18 17:39	TMP	A
1,2-Dibromoethane	ND		ug/L	1.0	0.28	SW846 8260B		7/6/18 17:39	TMP	A
1,2-Dichlorobenzene	ND		ug/L	1.0	0.38	SW846 8260B		7/6/18 17:39	TMP	A
1,2-Dichloroethane	0.33J	J	ug/L	1.0	0.32	SW846 8260B		7/6/18 17:39	TMP	A
1,2-Dichloroethene, Total	12.3	33,34,35	ug/L	2.0	0.45	SW846 8260B		7/6/18 17:39	TMP	A
1,2-Dichloropropane	ND		ug/L	1.0	0.24	SW846 8260B		7/6/18 17:39	TMP	A
1,3-Dichlorobenzene	ND		ug/L	1.0	0.25	SW846 8260B		7/6/18 17:39	TMP	A
1,3-Dichloropropane	ND		ug/L	1.0	0.27	SW846 8260B		7/6/18 17:39	TMP	A
1,3-Dichloropropene, Total	ND		ug/L	2.0	0.47	SW846 8260B		7/6/18 17:39	TMP	A
1,4-Dichlorobenzene	ND		ug/L	1.0	0.27	SW846 8260B		7/6/18 17:39	TMP	A
2,2-Dichloropropane	ND		ug/L	1.0	0.32	SW846 8260B		7/6/18 17:39	TMP	A
2-Butanone	ND		ug/L	10.0	1.8	SW846 8260B		7/6/18 17:39	TMP	A
2-Chloroethylvinyl ether	ND	25	ug/L	2.0	0.38	SW846 8260B		7/6/18 17:39	TMP	A
2-Hexanone	ND		ug/L	5.0	1.3	SW846 8260B		7/6/18 17:39	TMP	A
4-Methyl-2-Pentanone(MIBK)	ND		ug/L	5.0	1.5	SW846 8260B		7/6/18 17:39	TMP	A
Acetone	17.6		ug/L	10.0	3.1	SW846 8260B		7/6/18 17:39	TMP	A
Benzene	0.70J	J	ug/L	1.0	0.23	SW846 8260B		7/6/18 17:39	TMP	A
Bromobenzene	ND		ug/L	1.0	0.32	SW846 8260B		7/6/18 17:39	TMP	A
Bromochloromethane	ND	16,17	ug/L	1.0	0.32	SW846 8260B		7/6/18 17:39	TMP	A
Bromodichloromethane	ND		ug/L	1.0	0.27	SW846 8260B		7/6/18 17:39	TMP	A
Bromoform	ND		ug/L	1.0	0.40	SW846 8260B		7/6/18 17:39	TMP	A
Bromomethane	ND		ug/L	1.0	0.39	SW846 8260B		7/6/18 17:39	TMP	A
Carbon Disulfide	ND	8,9	ug/L	1.0	0.23	SW846 8260B		7/6/18 17:39	TMP	A

ANALYTICAL RESULTS

Workorder: 2323127 ALG002|LMC MRC

Lab ID: **2323127010** Date Collected: 6/25/2018 15:30 Matrix: Water

Sample ID: **MRC-MW16A** Date Received: 6/26/2018 21:30

Parameters	Results	Flag	Units	RDL	MDL	Method	Prepared By	Analyzed	By	Cntr
Carbon Tetrachloride	ND	22	ug/L	1.0	0.31	SW846 8260B		7/6/18 17:39	TMP	A
Chlorobenzene	ND		ug/L	1.0	0.19	SW846 8260B		7/6/18 17:39	TMP	A
Chlorodibromomethane	ND		ug/L	1.0	0.45	SW846 8260B		7/6/18 17:39	TMP	A
Chloroethane	ND		ug/L	1.0	0.33	SW846 8260B		7/6/18 17:39	TMP	A
Chloroform	ND	18	ug/L	1.0	0.21	SW846 8260B		7/6/18 17:39	TMP	A
Chloromethane	ND		ug/L	1.0	0.31	SW846 8260B		7/6/18 17:39	TMP	A
Cyclohexane	0.35J	J,19,20,21	ug/L	1.0	0.29	SW846 8260B		7/6/18 17:39	TMP	A
Dibromomethane	ND		ug/L	1.0	0.31	SW846 8260B		7/6/18 17:39	TMP	A
Dichlorodifluoromethane	ND		ug/L	1.0	0.33	SW846 8260B		7/6/18 17:39	TMP	A
Diisopropyl ether	ND		ug/L	1.0	0.25	SW846 8260B		7/6/18 17:39	TMP	A
Ethyl tert-butyl ether	ND	29,30	ug/L	1.0	0.19	SW846 8260B		7/6/18 17:39	TMP	A
Ethylbenzene	ND		ug/L	1.0	0.34	SW846 8260B		7/6/18 17:39	TMP	A
Freon 113	ND	6,7	ug/L	1.0	0.26	SW846 8260B		7/6/18 17:39	TMP	A
Hexachlorobutadiene	ND	27,28	ug/L	5.0	1.0	SW846 8260B		7/6/18 17:39	TMP	A
Isopropylbenzene	ND		ug/L	1.0	0.22	SW846 8260B		7/6/18 17:39	TMP	A
Methyl acetate	ND		ug/L	2.0	0.32	SW846 8260B		7/6/18 17:39	TMP	A
Methyl cyclohexane	ND	31,32	ug/L	1.0	0.30	SW846 8260B		7/6/18 17:39	TMP	A
Methyl t-Butyl Ether	ND		ug/L	1.0	0.33	SW846 8260B		7/6/18 17:39	TMP	A
Methylene Chloride	ND	4,5	ug/L	1.0	0.45	SW846 8260B		7/6/18 17:39	TMP	A
Naphthalene	ND		ug/L	2.0	0.34	SW846 8260B		7/6/18 17:39	TMP	A
Styrene	ND		ug/L	1.0	0.24	SW846 8260B		7/6/18 17:39	TMP	A
Tetrachloroethene	6.1	26	ug/L	1.0	0.35	SW846 8260B		7/6/18 17:39	TMP	A
Toluene	ND		ug/L	1.0	0.23	SW846 8260B		7/6/18 17:39	TMP	A
Total Xylenes	ND		ug/L	3.0	0.66	SW846 8260B		7/6/18 17:39	TMP	A
Trichloroethene	20.4	23,24	ug/L	1.0	0.33	SW846 8260B		7/6/18 17:39	TMP	A
Trichlorofluoromethane	ND		ug/L	1.0	0.24	SW846 8260B		7/6/18 17:39	TMP	A
Vinyl Acetate	ND		ug/L	5.0	1.6	SW846 8260B		7/6/18 17:39	TMP	A
Vinyl Chloride	8.1		ug/L	1.0	0.30	SW846 8260B		7/6/18 17:39	TMP	A
cis-1,2-Dichloroethene	12.3	14,15	ug/L	1.0	0.32	SW846 8260B		7/6/18 17:39	TMP	A
cis-1,3-Dichloropropene	ND		ug/L	1.0	0.31	SW846 8260B		7/6/18 17:39	TMP	A
mp-Xylene	ND		ug/L	2.0	0.52	SW846 8260B		7/6/18 17:39	TMP	A
n-Butylbenzene	ND		ug/L	2.0	0.60	SW846 8260B		7/6/18 17:39	TMP	A
n-Propylbenzene	ND		ug/L	1.0	0.33	SW846 8260B		7/6/18 17:39	TMP	A
o-Chlorotoluene	ND		ug/L	1.0	0.26	SW846 8260B		7/6/18 17:39	TMP	A

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State Certifications: DE ID 11 , MA PA0102 , MD 128 , VA 460157 , WV 343

ANALYTICAL RESULTS

Workorder: 2323127 ALG002|LMC MRC

Lab ID: **2323127010** Date Collected: 6/25/2018 15:30 Matrix: Water
Sample ID: **MRC-MW16A** Date Received: 6/26/2018 21:30

Parameters	Results	Flag	Units	RDL	MDL	Method	Prepared	By	Analyzed	By	Cntr
o-Xylene	ND		ug/L	1.0	0.33	SW846 8260B			7/6/18 17:39	TMP	A
p-Chlorotoluene	ND		ug/L	1.0	0.33	SW846 8260B			7/6/18 17:39	TMP	A
p-Isopropyltoluene	ND		ug/L	1.0	0.32	SW846 8260B			7/6/18 17:39	TMP	A
sec-Butylbenzene	ND		ug/L	1.0	0.31	SW846 8260B			7/6/18 17:39	TMP	A
tert-Amyl methyl ether	ND		ug/L	1.0	0.20	SW846 8260B			7/6/18 17:39	TMP	A
tert-Butyl Alcohol	ND		ug/L	10.0	2.2	SW846 8260B			7/6/18 17:39	TMP	A
tert-Butylbenzene	ND		ug/L	2.0	0.44	SW846 8260B			7/6/18 17:39	TMP	A
trans-1,2-Dichloroethene	ND	10,11	ug/L	1.0	0.26	SW846 8260B			7/6/18 17:39	TMP	A
trans-1,3-Dichloropropene	ND		ug/L	1.0	0.29	SW846 8260B			7/6/18 17:39	TMP	A
Surrogate Recoveries	*Results*	*Flag*	*Units*	*Limits*		*Method*	*Prepared*	*By*	*Analyzed*	*By*	*Cntr*
1,2-Dichloroethane-d4 (S)	81.6		%	62 - 133		SW846 8260B			7/6/18 17:39	TMP	A
4-Bromofluorobenzene (S)	90.2		%	79 - 114		SW846 8260B			7/6/18 17:39	TMP	A
Dibromofluoromethane (S)	87.4		%	78 - 116		SW846 8260B			7/6/18 17:39	TMP	A
Toluene-d8 (S)	81.1		%	76 - 127		SW846 8260B			7/6/18 17:39	TMP	A
SEMIVOLATILE SIM											
1,4-Dioxane	42.6		ug/L	2.0	0.38	8270 SIM	6/28/18 18:00	DXL	7/2/18 20:40	CGS	G
IS_Naphthalene-d8	0.0		ug/L			8270 SIM	6/28/18 18:00	DXL	6/29/18 14:40	CGS	G
IS_Perylene-d12	0.0		ug/L			8270 SIM	6/28/18 18:00	DXL	6/29/18 14:40	CGS	G
Acenaphthene-d10	0.0		ug/L			8270 SIM	6/28/18 18:00	DXL	6/29/18 14:40	CGS	G
Phenanthrene-d10	0.0		ug/L			8270 SIM	6/28/18 18:00	DXL	6/29/18 14:40	CGS	G
Chrysene-d12	0.0		ug/L			8270 SIM	6/28/18 18:00	DXL	6/29/18 14:40	CGS	G
Surrogate Recoveries	*Results*	*Flag*	*Units*	*Limits*		*Method*	*Prepared*	*By*	*Analyzed*	*By*	*Cntr*
2-Methylnapthalene-d10 (S)	60.8		%	29 - 112		8270 SIM	6/28/18 18:00	DXL	7/2/18 20:40	CGS	G
Fluoranthene-d10 (S)	96.1		%	45 - 130		8270 SIM	6/28/18 18:00	DXL	7/2/18 20:40	CGS	G

Vanessa N. Badman
Mrs. Vanessa N Badman
Project Coordinator

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State Certifications: DE ID 11 , MA PA0102 , MD 128 , VA 460157 , WV 343

ANALYTICAL RESULTS

Workorder: 2323127 ALG002|LMC MRC

Lab ID: **2323127011** Date Collected: 6/25/2018 15:50 Matrix: Water
Sample ID: **MRC-MW16A-DUP** Date Received: 6/26/2018 21:30

Parameters	Results	Flag	Units	RDL	MDL	Method	Prepared By	Analyzed	By	Cntr
VOLATILE ORGANICS										
1,1,1,2-Tetrachloroethane	ND		ug/L	1.0	0.35	SW846 8260B		7/6/18 22:06	TMP	A
1,1,1-Trichloroethane	ND		ug/L	1.0	0.22	SW846 8260B		7/6/18 22:06	TMP	A
1,1,2,2-Tetrachloroethane	ND		ug/L	1.0	0.34	SW846 8260B		7/6/18 22:06	TMP	A
1,1,2-Trichloroethane	ND		ug/L	1.0	0.33	SW846 8260B		7/6/18 22:06	TMP	A
1,1-Dichloroethane	30.6		ug/L	1.0	0.28	SW846 8260B		7/6/18 22:06	TMP	A
1,1-Dichloroethene	79.0	1	ug/L	1.0	0.29	SW846 8260B		7/6/18 22:06	TMP	A
1,2,3-Trichlorobenzene	ND		ug/L	2.0	0.93	SW846 8260B		7/6/18 22:06	TMP	A
1,2,3-Trichloropropane	ND		ug/L	2.0	0.60	SW846 8260B		7/6/18 22:06	TMP	A
1,2,4-Trichlorobenzene	ND		ug/L	2.0	0.82	SW846 8260B		7/6/18 22:06	TMP	A
1,2,4-Trimethylbenzene	ND		ug/L	1.0	0.25	SW846 8260B		7/6/18 22:06	TMP	A
1,2-Dibromo-3-chloropropane	ND		ug/L	7.0	1.5	SW846 8260B		7/6/18 22:06	TMP	A
1,2-Dibromoethane	ND		ug/L	1.0	0.28	SW846 8260B		7/6/18 22:06	TMP	A
1,2-Dichlorobenzene	ND		ug/L	1.0	0.38	SW846 8260B		7/6/18 22:06	TMP	A
1,2-Dichloroethane	0.34J	J	ug/L	1.0	0.32	SW846 8260B		7/6/18 22:06	TMP	A
1,2-Dichloroethene, Total	13.7	4	ug/L	2.0	0.45	SW846 8260B		7/6/18 22:06	TMP	A
1,2-Dichloropropane	ND		ug/L	1.0	0.24	SW846 8260B		7/6/18 22:06	TMP	A
1,3-Dichlorobenzene	ND		ug/L	1.0	0.25	SW846 8260B		7/6/18 22:06	TMP	A
1,3-Dichloropropane	ND		ug/L	1.0	0.27	SW846 8260B		7/6/18 22:06	TMP	A
1,3-Dichloropropene, Total	ND		ug/L	2.0	0.47	SW846 8260B		7/6/18 22:06	TMP	A
1,4-Dichlorobenzene	ND		ug/L	1.0	0.27	SW846 8260B		7/6/18 22:06	TMP	A
2,2-Dichloropropane	ND		ug/L	1.0	0.32	SW846 8260B		7/6/18 22:06	TMP	A
2-Butanone	ND		ug/L	10.0	1.8	SW846 8260B		7/6/18 22:06	TMP	A
2-Chloroethylvinyl ether	ND		ug/L	2.0	0.38	SW846 8260B		7/6/18 22:06	TMP	A
2-Hexanone	ND		ug/L	5.0	1.3	SW846 8260B		7/6/18 22:06	TMP	A
4-Methyl-2-Pentanone(MIBK)	ND		ug/L	5.0	1.5	SW846 8260B		7/6/18 22:06	TMP	A
Acetone	8.8J	J	ug/L	10.0	3.1	SW846 8260B		7/6/18 22:06	TMP	A
Benzene	0.80J	J	ug/L	1.0	0.23	SW846 8260B		7/6/18 22:06	TMP	A
Bromobenzene	ND		ug/L	1.0	0.32	SW846 8260B		7/6/18 22:06	TMP	A
Bromochloromethane	ND		ug/L	1.0	0.32	SW846 8260B		7/6/18 22:06	TMP	A
Bromodichloromethane	ND		ug/L	1.0	0.27	SW846 8260B		7/6/18 22:06	TMP	A
Bromoform	ND		ug/L	1.0	0.40	SW846 8260B		7/6/18 22:06	TMP	A
Bromomethane	ND		ug/L	1.0	0.39	SW846 8260B		7/6/18 22:06	TMP	A
Carbon Disulfide	ND		ug/L	1.0	0.23	SW846 8260B		7/6/18 22:06	TMP	A
Carbon Tetrachloride	ND		ug/L	1.0	0.31	SW846 8260B		7/6/18 22:06	TMP	A
Chlorobenzene	ND		ug/L	1.0	0.19	SW846 8260B		7/6/18 22:06	TMP	A
Chlorodibromomethane	ND		ug/L	1.0	0.45	SW846 8260B		7/6/18 22:06	TMP	A

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State Certifications: DE ID 11 , MA PA0102 , MD 128 , VA 460157 , WV 343

ANALYTICAL RESULTS

Workorder: 2323127 ALG002|LMC MRC

Lab ID: **2323127011** Date Collected: 6/25/2018 15:50 Matrix: Water
Sample ID: **MRC-MW16A-DUP** Date Received: 6/26/2018 21:30

Parameters	Results	Flag	Units	RDL	MDL	Method	Prepared By	Analyzed	By	Cntr
Chloroethane	ND		ug/L	1.0	0.33	SW846 8260B		7/6/18 22:06	TMP	A
Chloroform	ND		ug/L	1.0	0.21	SW846 8260B		7/6/18 22:06	TMP	A
Chloromethane	ND		ug/L	1.0	0.31	SW846 8260B		7/6/18 22:06	TMP	A
Cyclohexane	0.37J	J,2	ug/L	1.0	0.29	SW846 8260B		7/6/18 22:06	TMP	A
Dibromomethane	ND		ug/L	1.0	0.31	SW846 8260B		7/6/18 22:06	TMP	A
Dichlorodifluoromethane	ND		ug/L	1.0	0.33	SW846 8260B		7/6/18 22:06	TMP	A
Diisopropyl ether	ND		ug/L	1.0	0.25	SW846 8260B		7/6/18 22:06	TMP	A
Ethyl tert-butyl ether	ND		ug/L	1.0	0.19	SW846 8260B		7/6/18 22:06	TMP	A
Ethylbenzene	ND		ug/L	1.0	0.34	SW846 8260B		7/6/18 22:06	TMP	A
Freon 113	ND		ug/L	1.0	0.26	SW846 8260B		7/6/18 22:06	TMP	A
Hexachlorobutadiene	ND		ug/L	5.0	1.0	SW846 8260B		7/6/18 22:06	TMP	A
Isopropylbenzene	ND		ug/L	1.0	0.22	SW846 8260B		7/6/18 22:06	TMP	A
Methyl acetate	ND		ug/L	2.0	0.32	SW846 8260B		7/6/18 22:06	TMP	A
Methyl cyclohexane	ND		ug/L	1.0	0.30	SW846 8260B		7/6/18 22:06	TMP	A
Methyl t-Butyl Ether	ND		ug/L	1.0	0.33	SW846 8260B		7/6/18 22:06	TMP	A
Methylene Chloride	ND		ug/L	1.0	0.45	SW846 8260B		7/6/18 22:06	TMP	A
Naphthalene	ND		ug/L	2.0	0.34	SW846 8260B		7/6/18 22:06	TMP	A
Styrene	ND		ug/L	1.0	0.24	SW846 8260B		7/6/18 22:06	TMP	A
Tetrachloroethene	6.3	3	ug/L	1.0	0.35	SW846 8260B		7/6/18 22:06	TMP	A
Toluene	ND		ug/L	1.0	0.23	SW846 8260B		7/6/18 22:06	TMP	A
Total Xylenes	ND		ug/L	3.0	0.66	SW846 8260B		7/6/18 22:06	TMP	A
Trichloroethene	20.7		ug/L	1.0	0.33	SW846 8260B		7/6/18 22:06	TMP	A
Trichlorofluoromethane	ND		ug/L	1.0	0.24	SW846 8260B		7/6/18 22:06	TMP	A
Vinyl Acetate	ND		ug/L	5.0	1.6	SW846 8260B		7/6/18 22:06	TMP	A
Vinyl Chloride	10.9		ug/L	1.0	0.30	SW846 8260B		7/6/18 22:06	TMP	A
cis-1,2-Dichloroethene	13.7		ug/L	1.0	0.32	SW846 8260B		7/6/18 22:06	TMP	A
cis-1,3-Dichloropropene	ND		ug/L	1.0	0.31	SW846 8260B		7/6/18 22:06	TMP	A
mp-Xylene	ND		ug/L	2.0	0.52	SW846 8260B		7/6/18 22:06	TMP	A
n-Butylbenzene	ND		ug/L	2.0	0.60	SW846 8260B		7/6/18 22:06	TMP	A
n-Propylbenzene	ND		ug/L	1.0	0.33	SW846 8260B		7/6/18 22:06	TMP	A
o-Chlorotoluene	ND		ug/L	1.0	0.26	SW846 8260B		7/6/18 22:06	TMP	A
o-Xylene	ND		ug/L	1.0	0.33	SW846 8260B		7/6/18 22:06	TMP	A
p-Chlorotoluene	ND		ug/L	1.0	0.33	SW846 8260B		7/6/18 22:06	TMP	A
p-Isopropyltoluene	ND		ug/L	1.0	0.32	SW846 8260B		7/6/18 22:06	TMP	A
sec-Butylbenzene	ND		ug/L	1.0	0.31	SW846 8260B		7/6/18 22:06	TMP	A
tert-Amyl methyl ether	ND		ug/L	1.0	0.20	SW846 8260B		7/6/18 22:06	TMP	A
tert-Butyl Alcohol	ND		ug/L	10.0	2.2	SW846 8260B		7/6/18 22:06	TMP	A
tert-Butylbenzene	ND		ug/L	2.0	0.44	SW846 8260B		7/6/18 22:06	TMP	A

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ANALYTICAL RESULTS

Workorder: 2323127 ALG002|LMC MRC

Lab ID: **2323127011** Date Collected: 6/25/2018 15:50 Matrix: Water
Sample ID: **MRC-MW16A-DUP** Date Received: 6/26/2018 21:30

Parameters	Results	Flag	Units	RDL	MDL	Method	Prepared	By	Analyzed	By	Cntr
trans-1,2-Dichloroethene	ND		ug/L	1.0	0.26	SW846 8260B			7/6/18 22:06	TMP	A
trans-1,3-Dichloropropene	ND		ug/L	1.0	0.29	SW846 8260B			7/6/18 22:06	TMP	A
Surrogate Recoveries	*Results*	*Flag*	*Units*	*Limits*		*Method*	*Prepared*	*By*	*Analyzed*	*By*	*Cntr*
1,2-Dichloroethane-d4 (S)	83.6		%	62 - 133		SW846 8260B			7/6/18 22:06	TMP	A
4-Bromofluorobenzene (S)	90.2		%	79 - 114		SW846 8260B			7/6/18 22:06	TMP	A
Dibromofluoromethane (S)	92		%	78 - 116		SW846 8260B			7/6/18 22:06	TMP	A
Toluene-d8 (S)	82.6		%	76 - 127		SW846 8260B			7/6/18 22:06	TMP	A
SEMIVOLATILE SIM											
1,4-Dioxane	38.1		ug/L	1.9	0.36	8270 SIM	6/28/18 18:00	DXL	6/30/18 06:30	DHF	C
IS_Naphthalene-d8	0.0		ug/L			8270 SIM	6/28/18 18:00	DXL	6/29/18 15:34	CGS	C
IS_Perylene-d12	0.0		ug/L			8270 SIM	6/28/18 18:00	DXL	6/29/18 15:34	CGS	C
Acenaphthene-d10	0.0		ug/L			8270 SIM	6/28/18 18:00	DXL	6/29/18 15:34	CGS	C
Phenanthrene-d10	0.0		ug/L			8270 SIM	6/28/18 18:00	DXL	6/29/18 15:34	CGS	C
Chrysene-d12	0.0		ug/L			8270 SIM	6/28/18 18:00	DXL	6/29/18 15:34	CGS	C
Surrogate Recoveries	*Results*	*Flag*	*Units*	*Limits*		*Method*	*Prepared*	*By*	*Analyzed*	*By*	*Cntr*
2-Methylnapthalene-d10 (S)	55.1		%	29 - 112		8270 SIM	6/28/18 18:00	DXL	6/30/18 06:30	DHF	C
Fluoranthene-d10 (S)	72.2		%	45 - 130		8270 SIM	6/28/18 18:00	DXL	6/30/18 06:30	DHF	C

Vanessa N. Badman
Mrs. Vanessa N Badman
Project Coordinator

ANALYTICAL RESULTS

Workorder: 2323127 ALG002|LMC MRC

Lab ID: **2323127012** Date Collected: 6/26/2018 10:40 Matrix: Water

Sample ID: **MRC-MW17A** Date Received: 6/26/2018 21:30

Parameters	Results	Flag	Units	RDL	MDL	Method	Prepared By	Analyzed	By	*Cntr*
VOLATILE ORGANICS										
1,1,1,2-Tetrachloroethane	ND		ug/L	1.0	0.35	SW846 8260B		7/7/18 02:48	PDK	A
1,1,1-Trichloroethane	ND		ug/L	1.0	0.22	SW846 8260B		7/7/18 02:48	PDK	A
1,1,2,2-Tetrachloroethane	ND		ug/L	1.0	0.34	SW846 8260B		7/7/18 02:48	PDK	A
1,1,2-Trichloroethane	ND		ug/L	1.0	0.33	SW846 8260B		7/7/18 02:48	PDK	A
1,1-Dichloroethane	ND	4	ug/L	1.0	0.28	SW846 8260B		7/7/18 02:48	PDK	A
1,1-Dichloroethene	ND		ug/L	1.0	0.29	SW846 8260B		7/7/18 02:48	PDK	A
1,2,3-Trichlorobenzene	ND		ug/L	2.0	0.93	SW846 8260B		7/7/18 02:48	PDK	A
1,2,3-Trichloropropane	ND		ug/L	2.0	0.60	SW846 8260B		7/7/18 02:48	PDK	A
1,2,4-Trichlorobenzene	ND		ug/L	2.0	0.82	SW846 8260B		7/7/18 02:48	PDK	A
1,2,4-Trimethylbenzene	ND		ug/L	1.0	0.25	SW846 8260B		7/7/18 02:48	PDK	A
1,2-Dibromo-3-chloropropane	ND		ug/L	7.0	1.5	SW846 8260B		7/7/18 02:48	PDK	A
1,2-Dibromoethane	ND		ug/L	1.0	0.28	SW846 8260B		7/7/18 02:48	PDK	A
1,2-Dichlorobenzene	ND		ug/L	1.0	0.38	SW846 8260B		7/7/18 02:48	PDK	A
1,2-Dichloroethane	ND		ug/L	1.0	0.32	SW846 8260B		7/7/18 02:48	PDK	A
1,2-Dichloroethene, Total	ND		ug/L	2.0	0.45	SW846 8260B		7/7/18 02:48	PDK	A
1,2-Dichloropropane	ND		ug/L	1.0	0.24	SW846 8260B		7/7/18 02:48	PDK	A
1,3-Dichlorobenzene	ND		ug/L	1.0	0.25	SW846 8260B		7/7/18 02:48	PDK	A
1,3-Dichloropropane	ND		ug/L	1.0	0.27	SW846 8260B		7/7/18 02:48	PDK	A
1,3-Dichloropropene, Total	ND		ug/L	2.0	0.47	SW846 8260B		7/7/18 02:48	PDK	A
1,4-Dichlorobenzene	ND		ug/L	1.0	0.27	SW846 8260B		7/7/18 02:48	PDK	A
2,2-Dichloropropane	ND		ug/L	1.0	0.32	SW846 8260B		7/7/18 02:48	PDK	A
2-Butanone	ND		ug/L	10.0	1.8	SW846 8260B		7/7/18 02:48	PDK	A
2-Chloroethylvinyl ether	ND	5,6	ug/L	2.0	0.38	SW846 8260B		7/7/18 02:48	PDK	A
2-Hexanone	ND		ug/L	5.0	1.3	SW846 8260B		7/7/18 02:48	PDK	A
4-Methyl-2-Pentanone(MIBK)	ND		ug/L	5.0	1.5	SW846 8260B		7/7/18 02:48	PDK	A
Acetone	7.4J	J	ug/L	10.0	3.1	SW846 8260B		7/7/18 02:48	PDK	A
Benzene	ND		ug/L	1.0	0.23	SW846 8260B		7/7/18 02:48	PDK	A
Bromobenzene	ND		ug/L	1.0	0.32	SW846 8260B		7/7/18 02:48	PDK	A
Bromochloromethane	ND		ug/L	1.0	0.32	SW846 8260B		7/7/18 02:48	PDK	A
Bromodichloromethane	0.31J	J	ug/L	1.0	0.27	SW846 8260B		7/7/18 02:48	PDK	A
Bromoform	ND		ug/L	1.0	0.40	SW846 8260B		7/7/18 02:48	PDK	A
Bromomethane	ND		ug/L	1.0	0.39	SW846 8260B		7/7/18 02:48	PDK	A
Carbon Disulfide	ND		ug/L	1.0	0.23	SW846 8260B		7/7/18 02:48	PDK	A
Carbon Tetrachloride	ND		ug/L	1.0	0.31	SW846 8260B		7/7/18 02:48	PDK	A
Chlorobenzene	ND		ug/L	1.0	0.19	SW846 8260B		7/7/18 02:48	PDK	A
Chlorodibromomethane	ND		ug/L	1.0	0.45	SW846 8260B		7/7/18 02:48	PDK	A

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State Certifications: DE ID 11 , MA PA0102 , MD 128 , VA 460157 , WV 343

ANALYTICAL RESULTS

Workorder: 2323127 ALG002|LMC MRC

Lab ID: **2323127012** Date Collected: 6/26/2018 10:40 Matrix: Water
Sample ID: **MRC-MW17A** Date Received: 6/26/2018 21:30

Parameters	Results	Flag	Units	RDL	MDL	Method	Prepared By	Analyzed	By	Cntr
Chloroethane	ND		ug/L	1.0	0.33	SW846 8260B		7/7/18 02:48	PDK	A
Chloroform	1.1		ug/L	1.0	0.21	SW846 8260B		7/7/18 02:48	PDK	A
Chloromethane	ND		ug/L	1.0	0.31	SW846 8260B		7/7/18 02:48	PDK	A
Cyclohexane	ND		ug/L	1.0	0.29	SW846 8260B		7/7/18 02:48	PDK	A
Dibromomethane	ND		ug/L	1.0	0.31	SW846 8260B		7/7/18 02:48	PDK	A
Dichlorodifluoromethane	ND		ug/L	1.0	0.33	SW846 8260B		7/7/18 02:48	PDK	A
Diisopropyl ether	ND	1	ug/L	1.0	0.25	SW846 8260B		7/7/18 02:48	PDK	A
Ethyl tert-butyl ether	ND		ug/L	1.0	0.19	SW846 8260B		7/7/18 02:48	PDK	A
Ethylbenzene	ND		ug/L	1.0	0.34	SW846 8260B		7/7/18 02:48	PDK	A
Freon 113	ND		ug/L	1.0	0.26	SW846 8260B		7/7/18 02:48	PDK	A
Hexachlorobutadiene	ND		ug/L	5.0	1.0	SW846 8260B		7/7/18 02:48	PDK	A
Isopropylbenzene	ND		ug/L	1.0	0.22	SW846 8260B		7/7/18 02:48	PDK	A
Methyl acetate	ND	2	ug/L	2.0	0.32	SW846 8260B		7/7/18 02:48	PDK	A
Methyl cyclohexane	ND		ug/L	1.0	0.30	SW846 8260B		7/7/18 02:48	PDK	A
Methyl t-Butyl Ether	ND		ug/L	1.0	0.33	SW846 8260B		7/7/18 02:48	PDK	A
Methylene Chloride	ND	3	ug/L	1.0	0.45	SW846 8260B		7/7/18 02:48	PDK	A
Naphthalene	ND		ug/L	2.0	0.34	SW846 8260B		7/7/18 02:48	PDK	A
Styrene	ND		ug/L	1.0	0.24	SW846 8260B		7/7/18 02:48	PDK	A
Tetrachloroethene	ND		ug/L	1.0	0.35	SW846 8260B		7/7/18 02:48	PDK	A
Toluene	ND		ug/L	1.0	0.23	SW846 8260B		7/7/18 02:48	PDK	A
Total Xylenes	ND		ug/L	3.0	0.66	SW846 8260B		7/7/18 02:48	PDK	A
Trichloroethene	ND		ug/L	1.0	0.33	SW846 8260B		7/7/18 02:48	PDK	A
Trichlorofluoromethane	ND		ug/L	1.0	0.24	SW846 8260B		7/7/18 02:48	PDK	A
Vinyl Acetate	ND		ug/L	5.0	1.6	SW846 8260B		7/7/18 02:48	PDK	A
Vinyl Chloride	ND		ug/L	1.0	0.30	SW846 8260B		7/7/18 02:48	PDK	A
cis-1,2-Dichloroethene	ND		ug/L	1.0	0.32	SW846 8260B		7/7/18 02:48	PDK	A
cis-1,3-Dichloropropene	ND		ug/L	1.0	0.31	SW846 8260B		7/7/18 02:48	PDK	A
mp-Xylene	ND		ug/L	2.0	0.52	SW846 8260B		7/7/18 02:48	PDK	A
n-Butylbenzene	ND		ug/L	2.0	0.60	SW846 8260B		7/7/18 02:48	PDK	A
n-Propylbenzene	ND		ug/L	1.0	0.33	SW846 8260B		7/7/18 02:48	PDK	A
o-Chlorotoluene	ND		ug/L	1.0	0.26	SW846 8260B		7/7/18 02:48	PDK	A
o-Xylene	ND		ug/L	1.0	0.33	SW846 8260B		7/7/18 02:48	PDK	A
p-Chlorotoluene	ND		ug/L	1.0	0.33	SW846 8260B		7/7/18 02:48	PDK	A
p-Isopropyltoluene	ND		ug/L	1.0	0.32	SW846 8260B		7/7/18 02:48	PDK	A
sec-Butylbenzene	ND		ug/L	1.0	0.31	SW846 8260B		7/7/18 02:48	PDK	A
tert-Amyl methyl ether	ND		ug/L	1.0	0.20	SW846 8260B		7/7/18 02:48	PDK	A
tert-Butyl Alcohol	ND		ug/L	10.0	2.2	SW846 8260B		7/7/18 02:48	PDK	A
tert-Butylbenzene	ND		ug/L	2.0	0.44	SW846 8260B		7/7/18 02:48	PDK	A

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ANALYTICAL RESULTS

Workorder: 2323127 ALG002|LMC MRC

Lab ID: **2323127012** Date Collected: 6/26/2018 10:40 Matrix: Water
Sample ID: **MRC-MW17A** Date Received: 6/26/2018 21:30

Parameters	Results	Flag	Units	RDL	MDL	Method	Prepared	By	Analyzed	By	Cntr
trans-1,2-Dichloroethene	ND		ug/L	1.0	0.26	SW846 8260B			7/7/18 02:48	PDK	A
trans-1,3-Dichloropropene	ND		ug/L	1.0	0.29	SW846 8260B			7/7/18 02:48	PDK	A
Surrogate Recoveries	*Results*	*Flag*	*Units*	*Limits*		*Method*	*Prepared*	*By*	*Analyzed*	*By*	*Cntr*
1,2-Dichloroethane-d4 (S)	101		%	62 - 133		SW846 8260B			7/7/18 02:48	PDK	A
4-Bromofluorobenzene (S)	93.3		%	79 - 114		SW846 8260B			7/7/18 02:48	PDK	A
Dibromofluoromethane (S)	87.1		%	78 - 116		SW846 8260B			7/7/18 02:48	PDK	A
Toluene-d8 (S)	89.3		%	76 - 127		SW846 8260B			7/7/18 02:48	PDK	A
SEMIVOLATILE SIM											
1,4-Dioxane	0.042J	J	ug/L	0.097	0.018	8270 SIM	6/28/18 18:00	DXL	6/29/18 16:01	CGS	G
IS_Naphthalene-d8	0.0		ug/L			8270 SIM	6/28/18 18:00	DXL	6/29/18 16:01	CGS	G
IS_Perylene-d12	0.0		ug/L			8270 SIM	6/28/18 18:00	DXL	6/29/18 16:01	CGS	G
Acenaphthene-d10	0.0		ug/L			8270 SIM	6/28/18 18:00	DXL	6/29/18 16:01	CGS	G
Phenanthrene-d10	0.0		ug/L			8270 SIM	6/28/18 18:00	DXL	6/29/18 16:01	CGS	G
Chrysene-d12	0.0		ug/L			8270 SIM	6/28/18 18:00	DXL	6/29/18 16:01	CGS	G

Vanessa N. Badman
Mrs. Vanessa N Badman
Project Coordinator

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ANALYTICAL RESULTS

Workorder: 2323127 ALG002|LMC MRC

Lab ID: **2323127013** Date Collected: 6/26/2018 10:45 Matrix: Water
Sample ID: **MRC-MW17A DUP** Date Received: 6/26/2018 21:30

Parameters	Results	Flag	Units	RDL	MDL	Method	Prepared By	Analyzed	By	Cntr
VOLATILE ORGANICS										
1,1,1,2-Tetrachloroethane	ND		ug/L	1.0	0.35	SW846 8260B		7/7/18 03:10	PDK	A
1,1,1-Trichloroethane	ND		ug/L	1.0	0.22	SW846 8260B		7/7/18 03:10	PDK	A
1,1,2,2-Tetrachloroethane	ND		ug/L	1.0	0.34	SW846 8260B		7/7/18 03:10	PDK	A
1,1,2-Trichloroethane	ND		ug/L	1.0	0.33	SW846 8260B		7/7/18 03:10	PDK	A
1,1-Dichloroethane	ND		ug/L	1.0	0.28	SW846 8260B		7/7/18 03:10	PDK	A
1,1-Dichloroethene	ND		ug/L	1.0	0.29	SW846 8260B		7/7/18 03:10	PDK	A
1,2,3-Trichlorobenzene	ND		ug/L	2.0	0.93	SW846 8260B		7/7/18 03:10	PDK	A
1,2,3-Trichloropropane	ND		ug/L	2.0	0.60	SW846 8260B		7/7/18 03:10	PDK	A
1,2,4-Trichlorobenzene	ND		ug/L	2.0	0.82	SW846 8260B		7/7/18 03:10	PDK	A
1,2,4-Trimethylbenzene	ND		ug/L	1.0	0.25	SW846 8260B		7/7/18 03:10	PDK	A
1,2-Dibromo-3-chloropropane	ND		ug/L	7.0	1.5	SW846 8260B		7/7/18 03:10	PDK	A
1,2-Dibromoethane	ND		ug/L	1.0	0.28	SW846 8260B		7/7/18 03:10	PDK	A
1,2-Dichlorobenzene	ND		ug/L	1.0	0.38	SW846 8260B		7/7/18 03:10	PDK	A
1,2-Dichloroethane	ND		ug/L	1.0	0.32	SW846 8260B		7/7/18 03:10	PDK	A
1,2-Dichloroethene, Total	ND		ug/L	2.0	0.45	SW846 8260B		7/7/18 03:10	PDK	A
1,2-Dichloropropane	ND		ug/L	1.0	0.24	SW846 8260B		7/7/18 03:10	PDK	A
1,3-Dichlorobenzene	ND		ug/L	1.0	0.25	SW846 8260B		7/7/18 03:10	PDK	A
1,3-Dichloropropane	ND		ug/L	1.0	0.27	SW846 8260B		7/7/18 03:10	PDK	A
1,3-Dichloropropene, Total	ND		ug/L	2.0	0.47	SW846 8260B		7/7/18 03:10	PDK	A
1,4-Dichlorobenzene	ND		ug/L	1.0	0.27	SW846 8260B		7/7/18 03:10	PDK	A
2,2-Dichloropropane	ND		ug/L	1.0	0.32	SW846 8260B		7/7/18 03:10	PDK	A
2-Butanone	ND		ug/L	10.0	1.8	SW846 8260B		7/7/18 03:10	PDK	A
2-Chloroethylvinyl ether	ND		ug/L	2.0	0.38	SW846 8260B		7/7/18 03:10	PDK	A
2-Hexanone	ND		ug/L	5.0	1.3	SW846 8260B		7/7/18 03:10	PDK	A
4-Methyl-2-Pentanone(MIBK)	ND		ug/L	5.0	1.5	SW846 8260B		7/7/18 03:10	PDK	A
Acetone	9.8J	J	ug/L	10.0	3.1	SW846 8260B		7/7/18 03:10	PDK	A
Benzene	ND		ug/L	1.0	0.23	SW846 8260B		7/7/18 03:10	PDK	A
Bromobenzene	ND		ug/L	1.0	0.32	SW846 8260B		7/7/18 03:10	PDK	A
Bromochloromethane	ND		ug/L	1.0	0.32	SW846 8260B		7/7/18 03:10	PDK	A
Bromodichloromethane	0.30J	J	ug/L	1.0	0.27	SW846 8260B		7/7/18 03:10	PDK	A
Bromoform	ND		ug/L	1.0	0.40	SW846 8260B		7/7/18 03:10	PDK	A
Bromomethane	ND		ug/L	1.0	0.39	SW846 8260B		7/7/18 03:10	PDK	A
Carbon Disulfide	ND		ug/L	1.0	0.23	SW846 8260B		7/7/18 03:10	PDK	A
Carbon Tetrachloride	ND		ug/L	1.0	0.31	SW846 8260B		7/7/18 03:10	PDK	A
Chlorobenzene	ND		ug/L	1.0	0.19	SW846 8260B		7/7/18 03:10	PDK	A
Chlorodibromomethane	ND		ug/L	1.0	0.45	SW846 8260B		7/7/18 03:10	PDK	A

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ANALYTICAL RESULTS

Workorder: 2323127 ALG002|LMC MRC

Lab ID: **2323127013** Date Collected: 6/26/2018 10:45 Matrix: Water
Sample ID: **MRC-MW17A DUP** Date Received: 6/26/2018 21:30

Parameters	Results	Flag	Units	RDL	MDL	Method	Prepared By	Analyzed	By	Cntr
Chloroethane	ND		ug/L	1.0	0.33	SW846 8260B		7/7/18 03:10	PDK	A
Chloroform	1.1		ug/L	1.0	0.21	SW846 8260B		7/7/18 03:10	PDK	A
Chloromethane	ND		ug/L	1.0	0.31	SW846 8260B		7/7/18 03:10	PDK	A
Cyclohexane	ND		ug/L	1.0	0.29	SW846 8260B		7/7/18 03:10	PDK	A
Dibromomethane	ND		ug/L	1.0	0.31	SW846 8260B		7/7/18 03:10	PDK	A
Dichlorodifluoromethane	ND		ug/L	1.0	0.33	SW846 8260B		7/7/18 03:10	PDK	A
Diisopropyl ether	ND		ug/L	1.0	0.25	SW846 8260B		7/7/18 03:10	PDK	A
Ethyl tert-butyl ether	ND		ug/L	1.0	0.19	SW846 8260B		7/7/18 03:10	PDK	A
Ethylbenzene	ND		ug/L	1.0	0.34	SW846 8260B		7/7/18 03:10	PDK	A
Freon 113	ND		ug/L	1.0	0.26	SW846 8260B		7/7/18 03:10	PDK	A
Hexachlorobutadiene	ND		ug/L	5.0	1.0	SW846 8260B		7/7/18 03:10	PDK	A
Isopropylbenzene	ND		ug/L	1.0	0.22	SW846 8260B		7/7/18 03:10	PDK	A
Methyl acetate	ND		ug/L	2.0	0.32	SW846 8260B		7/7/18 03:10	PDK	A
Methyl cyclohexane	ND		ug/L	1.0	0.30	SW846 8260B		7/7/18 03:10	PDK	A
Methyl t-Butyl Ether	ND		ug/L	1.0	0.33	SW846 8260B		7/7/18 03:10	PDK	A
Methylene Chloride	ND		ug/L	1.0	0.45	SW846 8260B		7/7/18 03:10	PDK	A
Naphthalene	ND		ug/L	2.0	0.34	SW846 8260B		7/7/18 03:10	PDK	A
Styrene	ND		ug/L	1.0	0.24	SW846 8260B		7/7/18 03:10	PDK	A
Tetrachloroethene	ND		ug/L	1.0	0.35	SW846 8260B		7/7/18 03:10	PDK	A
Toluene	ND		ug/L	1.0	0.23	SW846 8260B		7/7/18 03:10	PDK	A
Total Xylenes	ND		ug/L	3.0	0.66	SW846 8260B		7/7/18 03:10	PDK	A
Trichloroethene	ND		ug/L	1.0	0.33	SW846 8260B		7/7/18 03:10	PDK	A
Trichlorofluoromethane	ND		ug/L	1.0	0.24	SW846 8260B		7/7/18 03:10	PDK	A
Vinyl Acetate	ND		ug/L	5.0	1.6	SW846 8260B		7/7/18 03:10	PDK	A
Vinyl Chloride	ND		ug/L	1.0	0.30	SW846 8260B		7/7/18 03:10	PDK	A
cis-1,2-Dichloroethene	ND		ug/L	1.0	0.32	SW846 8260B		7/7/18 03:10	PDK	A
cis-1,3-Dichloropropene	ND		ug/L	1.0	0.31	SW846 8260B		7/7/18 03:10	PDK	A
mp-Xylene	ND		ug/L	2.0	0.52	SW846 8260B		7/7/18 03:10	PDK	A
n-Butylbenzene	ND		ug/L	2.0	0.60	SW846 8260B		7/7/18 03:10	PDK	A
n-Propylbenzene	ND		ug/L	1.0	0.33	SW846 8260B		7/7/18 03:10	PDK	A
o-Chlorotoluene	ND		ug/L	1.0	0.26	SW846 8260B		7/7/18 03:10	PDK	A
o-Xylene	ND		ug/L	1.0	0.33	SW846 8260B		7/7/18 03:10	PDK	A
p-Chlorotoluene	ND		ug/L	1.0	0.33	SW846 8260B		7/7/18 03:10	PDK	A
p-Isopropyltoluene	ND		ug/L	1.0	0.32	SW846 8260B		7/7/18 03:10	PDK	A
sec-Butylbenzene	ND		ug/L	1.0	0.31	SW846 8260B		7/7/18 03:10	PDK	A
tert-Amyl methyl ether	ND		ug/L	1.0	0.20	SW846 8260B		7/7/18 03:10	PDK	A
tert-Butyl Alcohol	ND		ug/L	10.0	2.2	SW846 8260B		7/7/18 03:10	PDK	A
tert-Butylbenzene	ND		ug/L	2.0	0.44	SW846 8260B		7/7/18 03:10	PDK	A

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ANALYTICAL RESULTS

Workorder: 2323127 ALG002|LMC MRC

Lab ID: **2323127013** Date Collected: 6/26/2018 10:45 Matrix: Water
Sample ID: **MRC-MW17A DUP** Date Received: 6/26/2018 21:30

Parameters	Results	Flag	Units	RDL	MDL	Method	Prepared	By	Analyzed	By	Cntr
trans-1,2-Dichloroethene	ND		ug/L	1.0	0.26	SW846 8260B			7/7/18 03:10	PDK	A
trans-1,3-Dichloropropene	ND		ug/L	1.0	0.29	SW846 8260B			7/7/18 03:10	PDK	A
Surrogate Recoveries	*Results*	*Flag*	*Units*	*Limits*		*Method*	*Prepared*	*By*	*Analyzed*	*By*	*Cntr*
1,2-Dichloroethane-d4 (S)	100		%	62 - 133		SW846 8260B			7/7/18 03:10	PDK	A
4-Bromofluorobenzene (S)	91.5		%	79 - 114		SW846 8260B			7/7/18 03:10	PDK	A
Dibromofluoromethane (S)	88.3		%	78 - 116		SW846 8260B			7/7/18 03:10	PDK	A
Toluene-d8 (S)	90.1		%	76 - 127		SW846 8260B			7/7/18 03:10	PDK	A
SEMIVOLATILE SIM											
1,4-Dioxane	0.037J	J	ug/L	0.096	0.018	8270 SIM	6/28/18 18:00	DXL	6/29/18 17:20	CGS	C
IS_Naphthalene-d8	0.0		ug/L			8270 SIM	6/28/18 18:00	DXL	6/29/18 17:20	CGS	C
IS_Perylene-d12	0.0		ug/L			8270 SIM	6/28/18 18:00	DXL	6/29/18 17:20	CGS	C
Acenaphthene-d10	0.0		ug/L			8270 SIM	6/28/18 18:00	DXL	6/29/18 17:20	CGS	C
Phenanthrene-d10	0.0		ug/L			8270 SIM	6/28/18 18:00	DXL	6/29/18 17:20	CGS	C
Chrysene-d12	0.0		ug/L			8270 SIM	6/28/18 18:00	DXL	6/29/18 17:20	CGS	C

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ANALYTICAL RESULTS

Workorder: 2323127 ALG002|LMC MRC

Lab ID: **2323127014** Date Collected: 6/26/2018 11:05 Matrix: Water
Sample ID: **EW-2** Date Received: 6/26/2018 21:30

Parameters	Results	Flag	Units	RDL	MDL	Method	Prepared By	Analyzed	By	Cntr
VOLATILE ORGANICS										
1,1,1,2-Tetrachloroethane	ND		ug/L	1.0	0.35	SW846 8260B		7/6/18 21:07	TMP	A
1,1,1-Trichloroethane	ND		ug/L	1.0	0.22	SW846 8260B		7/6/18 21:07	TMP	A
1,1,2,2-Tetrachloroethane	ND		ug/L	1.0	0.34	SW846 8260B		7/6/18 21:07	TMP	A
1,1,2-Trichloroethane	ND		ug/L	1.0	0.33	SW846 8260B		7/6/18 21:07	TMP	A
1,1-Dichloroethane	ND		ug/L	1.0	0.28	SW846 8260B		7/6/18 21:07	TMP	A
1,1-Dichloroethene	ND		ug/L	1.0	0.29	SW846 8260B		7/6/18 21:07	TMP	A
1,2,3-Trichlorobenzene	ND		ug/L	2.0	0.93	SW846 8260B		7/6/18 21:07	TMP	A
1,2,3-Trichloropropane	ND		ug/L	2.0	0.60	SW846 8260B		7/6/18 21:07	TMP	A
1,2,4-Trichlorobenzene	ND		ug/L	2.0	0.82	SW846 8260B		7/6/18 21:07	TMP	A
1,2,4-Trimethylbenzene	ND		ug/L	1.0	0.25	SW846 8260B		7/6/18 21:07	TMP	A
1,2-Dibromo-3-chloropropane	ND		ug/L	7.0	1.5	SW846 8260B		7/6/18 21:07	TMP	A
1,2-Dibromoethane	ND		ug/L	1.0	0.28	SW846 8260B		7/6/18 21:07	TMP	A
1,2-Dichlorobenzene	ND		ug/L	1.0	0.38	SW846 8260B		7/6/18 21:07	TMP	A
1,2-Dichloroethane	ND		ug/L	1.0	0.32	SW846 8260B		7/6/18 21:07	TMP	A
1,2-Dichloroethene, Total	23.0		ug/L	2.0	0.45	SW846 8260B		7/6/18 21:07	TMP	A
1,2-Dichloropropane	ND		ug/L	1.0	0.24	SW846 8260B		7/6/18 21:07	TMP	A
1,3-Dichlorobenzene	ND		ug/L	1.0	0.25	SW846 8260B		7/6/18 21:07	TMP	A
1,3-Dichloropropane	ND		ug/L	1.0	0.27	SW846 8260B		7/6/18 21:07	TMP	A
1,3-Dichloropropene, Total	ND		ug/L	2.0	0.47	SW846 8260B		7/6/18 21:07	TMP	A
1,4-Dichlorobenzene	ND		ug/L	1.0	0.27	SW846 8260B		7/6/18 21:07	TMP	A
2,2-Dichloropropane	ND		ug/L	1.0	0.32	SW846 8260B		7/6/18 21:07	TMP	A
2-Butanone	ND		ug/L	10.0	1.8	SW846 8260B		7/6/18 21:07	TMP	A
2-Chloroethylvinyl ether	ND		ug/L	2.0	0.38	SW846 8260B		7/6/18 21:07	TMP	A
2-Hexanone	ND		ug/L	5.0	1.3	SW846 8260B		7/6/18 21:07	TMP	A
4-Methyl-2-Pentanone(MIBK)	ND		ug/L	5.0	1.5	SW846 8260B		7/6/18 21:07	TMP	A
Acetone	6.7J	J	ug/L	10.0	3.1	SW846 8260B		7/6/18 21:07	TMP	A
Benzene	ND		ug/L	1.0	0.23	SW846 8260B		7/6/18 21:07	TMP	A
Bromobenzene	ND		ug/L	1.0	0.32	SW846 8260B		7/6/18 21:07	TMP	A
Bromochloromethane	ND		ug/L	1.0	0.32	SW846 8260B		7/6/18 21:07	TMP	A
Bromodichloromethane	ND		ug/L	1.0	0.27	SW846 8260B		7/6/18 21:07	TMP	A
Bromoform	ND		ug/L	1.0	0.40	SW846 8260B		7/6/18 21:07	TMP	A
Bromomethane	0.44J	J	ug/L	1.0	0.39	SW846 8260B		7/6/18 21:07	TMP	A
Carbon Disulfide	ND		ug/L	1.0	0.23	SW846 8260B		7/6/18 21:07	TMP	A
Carbon Tetrachloride	1.8		ug/L	1.0	0.31	SW846 8260B		7/6/18 21:07	TMP	A
Chlorobenzene	ND		ug/L	1.0	0.19	SW846 8260B		7/6/18 21:07	TMP	A
Chlorodibromomethane	ND		ug/L	1.0	0.45	SW846 8260B		7/6/18 21:07	TMP	A

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ANALYTICAL RESULTS

Workorder: 2323127 ALG002|LMC MRC

Lab ID: **2323127014** Date Collected: 6/26/2018 11:05 Matrix: Water
Sample ID: **EW-2** Date Received: 6/26/2018 21:30

Parameters	Results	Flag	Units	RDL	MDL	Method	Prepared By	Analyzed	By	Cntr
Chloroethane	ND		ug/L	1.0	0.33	SW846 8260B		7/6/18 21:07	TMP	A
Chloroform	0.91J	J	ug/L	1.0	0.21	SW846 8260B		7/6/18 21:07	TMP	A
Chloromethane	ND		ug/L	1.0	0.31	SW846 8260B		7/6/18 21:07	TMP	A
Cyclohexane	ND		ug/L	1.0	0.29	SW846 8260B		7/6/18 21:07	TMP	A
Dibromomethane	ND		ug/L	1.0	0.31	SW846 8260B		7/6/18 21:07	TMP	A
Dichlorodifluoromethane	ND		ug/L	1.0	0.33	SW846 8260B		7/6/18 21:07	TMP	A
Diisopropyl ether	ND		ug/L	1.0	0.25	SW846 8260B		7/6/18 21:07	TMP	A
Ethyl tert-butyl ether	ND		ug/L	1.0	0.19	SW846 8260B		7/6/18 21:07	TMP	A
Ethylbenzene	ND		ug/L	1.0	0.34	SW846 8260B		7/6/18 21:07	TMP	A
Freon 113	7.1		ug/L	1.0	0.26	SW846 8260B		7/6/18 21:07	TMP	A
Hexachlorobutadiene	ND		ug/L	5.0	1.0	SW846 8260B		7/6/18 21:07	TMP	A
Isopropylbenzene	ND		ug/L	1.0	0.22	SW846 8260B		7/6/18 21:07	TMP	A
Methyl acetate	ND		ug/L	2.0	0.32	SW846 8260B		7/6/18 21:07	TMP	A
Methyl cyclohexane	ND		ug/L	1.0	0.30	SW846 8260B		7/6/18 21:07	TMP	A
Methyl t-Butyl Ether	5.4		ug/L	1.0	0.33	SW846 8260B		7/6/18 21:07	TMP	A
Methylene Chloride	ND		ug/L	1.0	0.45	SW846 8260B		7/6/18 21:07	TMP	A
Naphthalene	ND		ug/L	2.0	0.34	SW846 8260B		7/6/18 21:07	TMP	A
Styrene	ND		ug/L	1.0	0.24	SW846 8260B		7/6/18 21:07	TMP	A
Tetrachloroethene	ND		ug/L	1.0	0.35	SW846 8260B		7/6/18 21:07	TMP	A
Toluene	ND		ug/L	1.0	0.23	SW846 8260B		7/6/18 21:07	TMP	A
Total Xylenes	ND		ug/L	3.0	0.66	SW846 8260B		7/6/18 21:07	TMP	A
Trichloroethene	2420		ug/L	50.0	16.5	SW846 8260B		7/9/18 14:58	DD	B
Trichlorofluoromethane	ND		ug/L	1.0	0.24	SW846 8260B		7/6/18 21:07	TMP	A
Vinyl Acetate	ND		ug/L	5.0	1.6	SW846 8260B		7/6/18 21:07	TMP	A
Vinyl Chloride	ND		ug/L	1.0	0.30	SW846 8260B		7/6/18 21:07	TMP	A
cis-1,2-Dichloroethene	22.5		ug/L	1.0	0.32	SW846 8260B		7/6/18 21:07	TMP	A
cis-1,3-Dichloropropene	ND		ug/L	1.0	0.31	SW846 8260B		7/6/18 21:07	TMP	A
mp-Xylene	ND		ug/L	2.0	0.52	SW846 8260B		7/6/18 21:07	TMP	A
n-Butylbenzene	ND		ug/L	2.0	0.60	SW846 8260B		7/6/18 21:07	TMP	A
n-Propylbenzene	ND		ug/L	1.0	0.33	SW846 8260B		7/6/18 21:07	TMP	A
o-Chlorotoluene	ND		ug/L	1.0	0.26	SW846 8260B		7/6/18 21:07	TMP	A
o-Xylene	ND		ug/L	1.0	0.33	SW846 8260B		7/6/18 21:07	TMP	A
p-Chlorotoluene	ND		ug/L	1.0	0.33	SW846 8260B		7/6/18 21:07	TMP	A
p-Isopropyltoluene	ND		ug/L	1.0	0.32	SW846 8260B		7/6/18 21:07	TMP	A
sec-Butylbenzene	ND		ug/L	1.0	0.31	SW846 8260B		7/6/18 21:07	TMP	A
tert-Amyl methyl ether	ND		ug/L	1.0	0.20	SW846 8260B		7/6/18 21:07	TMP	A
tert-Butyl Alcohol	ND		ug/L	10.0	2.2	SW846 8260B		7/6/18 21:07	TMP	A
tert-Butylbenzene	ND		ug/L	2.0	0.44	SW846 8260B		7/6/18 21:07	TMP	A

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ANALYTICAL RESULTS

Workorder: 2323127 ALG002|LMC MRC

Lab ID: **2323127014** Date Collected: 6/26/2018 11:05 Matrix: Water
Sample ID: **EW-2** Date Received: 6/26/2018 21:30

Parameters	Results	Flag	Units	RDL	MDL	Method	Prepared	By	Analyzed	By	Cntr
trans-1,2-Dichloroethene	0.48J	J	ug/L	1.0	0.26	SW846 8260B			7/6/18 21:07	TMP	A
trans-1,3-Dichloropropene	ND		ug/L	1.0	0.29	SW846 8260B			7/6/18 21:07	TMP	A
Surrogate Recoveries	*Results*	*Flag*	*Units*	*Limits*		*Method*	*Prepared*	*By*	*Analyzed*	*By*	*Cntr*
1,2-Dichloroethane-d4 (S)	99.5		%	62 - 133		SW846 8260B			7/9/18 14:58	DD	B
1,2-Dichloroethane-d4 (S)	97.8		%	62 - 133		SW846 8260B			7/6/18 21:07	TMP	A
4-Bromofluorobenzene (S)	88.2		%	79 - 114		SW846 8260B			7/6/18 21:07	TMP	A
4-Bromofluorobenzene (S)	86.2		%	79 - 114		SW846 8260B			7/9/18 14:58	DD	B
Dibromofluoromethane (S)	84.4		%	78 - 116		SW846 8260B			7/6/18 21:07	TMP	A
Dibromofluoromethane (S)	85.5		%	78 - 116		SW846 8260B			7/9/18 14:58	DD	B
Toluene-d8 (S)	92.1		%	76 - 127		SW846 8260B			7/9/18 14:58	DD	B
Toluene-d8 (S)	95.9		%	76 - 127		SW846 8260B			7/6/18 21:07	TMP	A
SEMIVOLATILE SIM											
1,4-Dioxane	0.13		ug/L	0.099	0.019	8270 SIM	6/28/18 18:00	DXL	6/29/18 17:47	CGS	C
IS_Naphthalene-d8	0.0		ug/L			8270 SIM	6/28/18 18:00	DXL	6/29/18 17:47	CGS	C
IS_Perylene-d12	0.0		ug/L			8270 SIM	6/28/18 18:00	DXL	6/29/18 17:47	CGS	C
Acenaphthene-d10	0.0		ug/L			8270 SIM	6/28/18 18:00	DXL	6/29/18 17:47	CGS	C
Phenanthrene-d10	0.0		ug/L			8270 SIM	6/28/18 18:00	DXL	6/29/18 17:47	CGS	C
Chrysene-d12	0.0		ug/L			8270 SIM	6/28/18 18:00	DXL	6/29/18 17:47	CGS	C
SUBCONTRACTED ANALYSIS											
Subcontracted Analysis	See attached.					Subcontract			6/26/18 11:05	SUB	E

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ANALYTICAL RESULTS

Workorder: 2323127 ALG002|LMC MRC

Lab ID: **2323127015** Date Collected: 6/26/2018 13:20 Matrix: Water
Sample ID: **EW-1** Date Received: 6/26/2018 21:30

Parameters	Results	Flag	Units	RDL	MDL	Method	Prepared By	Analyzed	By	Cntr
VOLATILE ORGANICS										
1,1,1,2-Tetrachloroethane	ND		ug/L	1.0	0.35	SW846 8260B		7/7/18 03:32	PDK	A
1,1,1-Trichloroethane	ND		ug/L	1.0	0.22	SW846 8260B		7/7/18 03:32	PDK	A
1,1,2,2-Tetrachloroethane	ND		ug/L	1.0	0.34	SW846 8260B		7/7/18 03:32	PDK	A
1,1,2-Trichloroethane	ND		ug/L	1.0	0.33	SW846 8260B		7/7/18 03:32	PDK	A
1,1-Dichloroethane	ND		ug/L	1.0	0.28	SW846 8260B		7/7/18 03:32	PDK	A
1,1-Dichloroethene	12.1		ug/L	1.0	0.29	SW846 8260B		7/7/18 03:32	PDK	A
1,2,3-Trichlorobenzene	ND		ug/L	2.0	0.93	SW846 8260B		7/7/18 03:32	PDK	A
1,2,3-Trichloropropane	ND		ug/L	2.0	0.60	SW846 8260B		7/7/18 03:32	PDK	A
1,2,4-Trichlorobenzene	ND		ug/L	2.0	0.82	SW846 8260B		7/7/18 03:32	PDK	A
1,2,4-Trimethylbenzene	ND		ug/L	1.0	0.25	SW846 8260B		7/7/18 03:32	PDK	A
1,2-Dibromo-3-chloropropane	ND		ug/L	7.0	1.5	SW846 8260B		7/7/18 03:32	PDK	A
1,2-Dibromoethane	ND		ug/L	1.0	0.28	SW846 8260B		7/7/18 03:32	PDK	A
1,2-Dichlorobenzene	ND		ug/L	1.0	0.38	SW846 8260B		7/7/18 03:32	PDK	A
1,2-Dichloroethane	ND		ug/L	1.0	0.32	SW846 8260B		7/7/18 03:32	PDK	A
1,2-Dichloroethene, Total	5320		ug/L	200	45.0	SW846 8260B		7/10/18 03:22	PDK	B
1,2-Dichloropropane	ND		ug/L	1.0	0.24	SW846 8260B		7/7/18 03:32	PDK	A
1,3-Dichlorobenzene	ND		ug/L	1.0	0.25	SW846 8260B		7/7/18 03:32	PDK	A
1,3-Dichloropropane	ND		ug/L	1.0	0.27	SW846 8260B		7/7/18 03:32	PDK	A
1,3-Dichloropropene, Total	ND		ug/L	2.0	0.47	SW846 8260B		7/7/18 03:32	PDK	A
1,4-Dichlorobenzene	ND		ug/L	1.0	0.27	SW846 8260B		7/7/18 03:32	PDK	A
2,2-Dichloropropane	ND		ug/L	1.0	0.32	SW846 8260B		7/7/18 03:32	PDK	A
2-Butanone	ND		ug/L	10.0	1.8	SW846 8260B		7/7/18 03:32	PDK	A
2-Chloroethylvinyl ether	ND		ug/L	2.0	0.38	SW846 8260B		7/7/18 03:32	PDK	A
2-Hexanone	ND		ug/L	5.0	1.3	SW846 8260B		7/7/18 03:32	PDK	A
4-Methyl-2-Pentanone(MIBK)	ND		ug/L	5.0	1.5	SW846 8260B		7/7/18 03:32	PDK	A
Acetone	7.3J	J	ug/L	10.0	3.1	SW846 8260B		7/7/18 03:32	PDK	A
Benzene	ND		ug/L	1.0	0.23	SW846 8260B		7/7/18 03:32	PDK	A
Bromobenzene	ND		ug/L	1.0	0.32	SW846 8260B		7/7/18 03:32	PDK	A
Bromochloromethane	ND		ug/L	1.0	0.32	SW846 8260B		7/7/18 03:32	PDK	A
Bromodichloromethane	ND		ug/L	1.0	0.27	SW846 8260B		7/7/18 03:32	PDK	A
Bromoform	ND		ug/L	1.0	0.40	SW846 8260B		7/7/18 03:32	PDK	A
Bromomethane	ND		ug/L	1.0	0.39	SW846 8260B		7/7/18 03:32	PDK	A
Carbon Disulfide	ND		ug/L	1.0	0.23	SW846 8260B		7/7/18 03:32	PDK	A
Carbon Tetrachloride	ND		ug/L	1.0	0.31	SW846 8260B		7/7/18 03:32	PDK	A
Chlorobenzene	1.2		ug/L	1.0	0.19	SW846 8260B		7/7/18 03:32	PDK	A
Chlorodibromomethane	ND		ug/L	1.0	0.45	SW846 8260B		7/7/18 03:32	PDK	A

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ANALYTICAL RESULTS

Workorder: 2323127 ALG002|LMC MRC

Lab ID: **2323127015** Date Collected: 6/26/2018 13:20 Matrix: Water
Sample ID: **EW-1** Date Received: 6/26/2018 21:30

Parameters	Results	Flag	Units	RDL	MDL	Method	Prepared By	Analyzed	By	Cntr
Chloroethane	ND		ug/L	1.0	0.33	SW846 8260B		7/7/18 03:32	PDK	A
Chloroform	1.7		ug/L	1.0	0.21	SW846 8260B		7/7/18 03:32	PDK	A
Chloromethane	ND		ug/L	1.0	0.31	SW846 8260B		7/7/18 03:32	PDK	A
Cyclohexane	ND		ug/L	1.0	0.29	SW846 8260B		7/7/18 03:32	PDK	A
Dibromomethane	ND		ug/L	1.0	0.31	SW846 8260B		7/7/18 03:32	PDK	A
Dichlorodifluoromethane	ND		ug/L	1.0	0.33	SW846 8260B		7/7/18 03:32	PDK	A
Diisopropyl ether	ND		ug/L	1.0	0.25	SW846 8260B		7/7/18 03:32	PDK	A
Ethyl tert-butyl ether	ND		ug/L	1.0	0.19	SW846 8260B		7/7/18 03:32	PDK	A
Ethylbenzene	ND		ug/L	1.0	0.34	SW846 8260B		7/7/18 03:32	PDK	A
Freon 113	ND		ug/L	1.0	0.26	SW846 8260B		7/7/18 03:32	PDK	A
Hexachlorobutadiene	ND		ug/L	5.0	1.0	SW846 8260B		7/7/18 03:32	PDK	A
Isopropylbenzene	ND		ug/L	1.0	0.22	SW846 8260B		7/7/18 03:32	PDK	A
Methyl acetate	ND		ug/L	2.0	0.32	SW846 8260B		7/7/18 03:32	PDK	A
Methyl cyclohexane	ND		ug/L	1.0	0.30	SW846 8260B		7/7/18 03:32	PDK	A
Methyl t-Butyl Ether	0.65J	J	ug/L	1.0	0.33	SW846 8260B		7/7/18 03:32	PDK	A
Methylene Chloride	ND		ug/L	1.0	0.45	SW846 8260B		7/7/18 03:32	PDK	A
Naphthalene	ND		ug/L	2.0	0.34	SW846 8260B		7/7/18 03:32	PDK	A
Styrene	ND		ug/L	1.0	0.24	SW846 8260B		7/7/18 03:32	PDK	A
Tetrachloroethene	ND		ug/L	1.0	0.35	SW846 8260B		7/7/18 03:32	PDK	A
Toluene	ND		ug/L	1.0	0.23	SW846 8260B		7/7/18 03:32	PDK	A
Total Xylenes	ND		ug/L	3.0	0.66	SW846 8260B		7/7/18 03:32	PDK	A
Trichloroethene	794		ug/L	100	33.0	SW846 8260B		7/10/18 03:22	PDK	B
Trichlorofluoromethane	ND		ug/L	1.0	0.24	SW846 8260B		7/7/18 03:32	PDK	A
Vinyl Acetate	ND		ug/L	5.0	1.6	SW846 8260B		7/7/18 03:32	PDK	A
Vinyl Chloride	0.54J	J	ug/L	1.0	0.30	SW846 8260B		7/7/18 03:32	PDK	A
cis-1,2-Dichloroethene	5320		ug/L	100	32.0	SW846 8260B		7/10/18 03:22	PDK	B
cis-1,3-Dichloropropene	ND		ug/L	1.0	0.31	SW846 8260B		7/7/18 03:32	PDK	A
mp-Xylene	ND		ug/L	2.0	0.52	SW846 8260B		7/7/18 03:32	PDK	A
n-Butylbenzene	ND		ug/L	2.0	0.60	SW846 8260B		7/7/18 03:32	PDK	A
n-Propylbenzene	ND		ug/L	1.0	0.33	SW846 8260B		7/7/18 03:32	PDK	A
o-Chlorotoluene	ND		ug/L	1.0	0.26	SW846 8260B		7/7/18 03:32	PDK	A
o-Xylene	ND		ug/L	1.0	0.33	SW846 8260B		7/7/18 03:32	PDK	A
p-Chlorotoluene	ND		ug/L	1.0	0.33	SW846 8260B		7/7/18 03:32	PDK	A
p-Isopropyltoluene	ND		ug/L	1.0	0.32	SW846 8260B		7/7/18 03:32	PDK	A
sec-Butylbenzene	ND		ug/L	1.0	0.31	SW846 8260B		7/7/18 03:32	PDK	A
tert-Amyl methyl ether	ND		ug/L	1.0	0.20	SW846 8260B		7/7/18 03:32	PDK	A
tert-Butyl Alcohol	ND		ug/L	10.0	2.2	SW846 8260B		7/7/18 03:32	PDK	A
tert-Butylbenzene	ND		ug/L	2.0	0.44	SW846 8260B		7/7/18 03:32	PDK	A

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State Certifications: DE ID 11 , MA PA0102 , MD 128 , VA 460157 , WV 343

ANALYTICAL RESULTS

Workorder: 2323127 ALG002|LMC MRC

Lab ID: **2323127015** Date Collected: 6/26/2018 13:20 Matrix: Water
Sample ID: **EW-1** Date Received: 6/26/2018 21:30

Parameters	Results	Flag	Units	RDL	MDL	Method	Prepared	By	Analyzed	By	Cntr
trans-1,2-Dichloroethene	8.9		ug/L	1.0	0.26	SW846 8260B			7/7/18 03:32	PDK	A
trans-1,3-Dichloropropene	ND		ug/L	1.0	0.29	SW846 8260B			7/7/18 03:32	PDK	A
Surrogate Recoveries	*Results*	*Flag*	*Units*	*Limits*		*Method*	*Prepared*	*By*	*Analyzed*	*By*	*Cntr*
1,2-Dichloroethane-d4 (S)	95		%	62 - 133		SW846 8260B			7/7/18 03:32	PDK	A
1,2-Dichloroethane-d4 (S)	89.7		%	62 - 133		SW846 8260B			7/10/18 03:22	PDK	B
4-Bromofluorobenzene (S)	91.8		%	79 - 114		SW846 8260B			7/10/18 03:22	PDK	B
4-Bromofluorobenzene (S)	88.1		%	79 - 114		SW846 8260B			7/7/18 03:32	PDK	A
Dibromofluoromethane (S)	78.1		%	78 - 116		SW846 8260B			7/10/18 03:22	PDK	B
Dibromofluoromethane (S)	86.6		%	78 - 116		SW846 8260B			7/7/18 03:32	PDK	A
Toluene-d8 (S)	90.7		%	76 - 127		SW846 8260B			7/10/18 03:22	PDK	B
Toluene-d8 (S)	89.1		%	76 - 127		SW846 8260B			7/7/18 03:32	PDK	A
SEMIVOLATILE SIM											
1,4-Dioxane	0.075J	J	ug/L	0.099	0.019	8270 SIM	6/28/18 18:00	DXL	6/29/18 18:14	CGS	C
IS_Naphthalene-d8	0.0		ug/L			8270 SIM	6/28/18 18:00	DXL	6/29/18 18:14	CGS	C
IS_Perylene-d12	0.0		ug/L			8270 SIM	6/28/18 18:00	DXL	6/29/18 18:14	CGS	C
Acenaphthene-d10	0.0		ug/L			8270 SIM	6/28/18 18:00	DXL	6/29/18 18:14	CGS	C
Phenanthrene-d10	0.0		ug/L			8270 SIM	6/28/18 18:00	DXL	6/29/18 18:14	CGS	C
Chrysene-d12	0.0		ug/L			8270 SIM	6/28/18 18:00	DXL	6/29/18 18:14	CGS	C
SUBCONTRACTED ANALYSIS											
Subcontracted Analysis	See attached.					Subcontract			6/26/18 13:20	SUB	E

Vanessa N. Badman
Mrs. Vanessa N Badman
Project Coordinator

ANALYTICAL RESULTS

Workorder: 2323127 ALG002|LMC MRC

PARAMETER QUALIFIERS

Lab ID	#	Sample ID	Analytical Method	Analyte
2323127001	1	MRC-SW16A	SW846 8260B	1,2-Dichloroethene, Total
The QC sample type LCS for method SW846 8260B was outside the control limits for the analyte 1,2-Dichloroethene, Total. The % Recovery was reported as 126 and the control limits were 78 to 125.				
2323127002	1	MRC-SW15A	SW846 8260B	1,2-Dichloroethene, Total
The QC sample type LCS for method SW846 8260B was outside the control limits for the analyte 1,2-Dichloroethene, Total. The % Recovery was reported as 126 and the control limits were 78 to 125.				
2323127009	1	MRC-MW11A	SW846 8260B	1,2-Dichloroethene, Total
The QC sample type LCS for method SW846 8260B was outside the control limits for the analyte 1,2-Dichloroethene, Total. The % Recovery was reported as 126 and the control limits were 78 to 125.				
2323127009	2	MRC-MW11A	SW846 8260B	1,1-Dichloroethene
The QC sample type LCS for method SW846 8260B was outside the control limits for the analyte 1,1-Dichloroethene. The % Recovery was reported as 147 and the control limits were 63 to 128.				
2323127010	1	MRC-MW16A	SW846 8260B	1,1-Dichloroethene
The QC sample type LCS for method SW846 8260B was outside the control limits for the analyte 1,1-Dichloroethene. The % Recovery was reported as 147 and the control limits were 63 to 128.				
2323127010	2	MRC-MW16A	SW846 8260B	1,1-Dichloroethene
The QC sample type MS for method SW846 8260B was outside the control limits for the analyte 1,1-Dichloroethene. The % Recovery was reported as 170 and the control limits were 63 to 128.				
2323127010	3	MRC-MW16A	SW846 8260B	1,1-Dichloroethene
The QC sample type MSD for method SW846 8260B was outside the control limits for the analyte 1,1-Dichloroethene. The % Recovery was reported as 163 and the control limits were 63 to 128.				
2323127010	4	MRC-MW16A	SW846 8260B	Methylene Chloride
The QC sample type MS for method SW846 8260B was outside the control limits for the analyte Methylene Chloride. The % Recovery was reported as 133 and the control limits were 76 to 121.				
2323127010	5	MRC-MW16A	SW846 8260B	Methylene Chloride
The QC sample type MSD for method SW846 8260B was outside the control limits for the analyte Methylene Chloride. The % Recovery was reported as 128 and the control limits were 76 to 121.				
2323127010	6	MRC-MW16A	SW846 8260B	Freon 113
The QC sample type MS for method SW846 8260B was outside the control limits for the analyte Freon 113. The % Recovery was reported as 163 and the control limits were 50 to 130.				
2323127010	7	MRC-MW16A	SW846 8260B	Freon 113
The QC sample type MSD for method SW846 8260B was outside the control limits for the analyte Freon 113. The % Recovery was reported as 171 and the control limits were 50 to 130.				
2323127010	8	MRC-MW16A	SW846 8260B	Carbon Disulfide
The QC sample type MS for method SW846 8260B was outside the control limits for the analyte Carbon Disulfide. The % Recovery was reported as 144 and the control limits were 57 to 131.				
2323127010	9	MRC-MW16A	SW846 8260B	Carbon Disulfide
The QC sample type MSD for method SW846 8260B was outside the control limits for the analyte Carbon Disulfide. The % Recovery was reported as 143 and the control limits were 57 to 131.				
2323127010	10	MRC-MW16A	SW846 8260B	trans-1,2-Dichloroethene
The QC sample type MS for method SW846 8260B was outside the control limits for the analyte trans-1,2-Dichloroethene. The % Recovery was reported as 140 and the control limits were 71 to 122.				

ANALYTICAL RESULTS

Workorder: 2323127 ALG002|LMC MRC

2323127010	11	MRC-MW16A	SW846 8260B	trans-1,2-Dichloroethene

The QC sample type MSD for method SW846 8260B was outside the control limits for the analyte trans-1,2-Dichloroethene. The % Recovery was reported as 141 and the control limits were 71 to 122.

2323127010	12	MRC-MW16A	SW846 8260B	1,1-Dichloroethane

The QC sample type MS for method SW846 8260B was outside the control limits for the analyte 1,1-Dichloroethane. The % Recovery was reported as 141 and the control limits were 78 to 124.

2323127010	13	MRC-MW16A	SW846 8260B	1,1-Dichloroethane

The QC sample type MSD for method SW846 8260B was outside the control limits for the analyte 1,1-Dichloroethane. The % Recovery was reported as 139 and the control limits were 78 to 124.

2323127010	14	MRC-MW16A	SW846 8260B	cis-1,2-Dichloroethene

The QC sample type MS for method SW846 8260B was outside the control limits for the analyte cis-1,2-Dichloroethene. The % Recovery was reported as 136 and the control limits were 78 to 125.

2323127010	15	MRC-MW16A	SW846 8260B	cis-1,2-Dichloroethene

The QC sample type MSD for method SW846 8260B was outside the control limits for the analyte cis-1,2-Dichloroethene. The % Recovery was reported as 132 and the control limits were 78 to 125.

2323127010	16	MRC-MW16A	SW846 8260B	Bromochloromethane

The QC sample type MS for method SW846 8260B was outside the control limits for the analyte Bromochloromethane. The % Recovery was reported as 126 and the control limits were 73 to 117.

2323127010	17	MRC-MW16A	SW846 8260B	Bromochloromethane

The QC sample type MSD for method SW846 8260B was outside the control limits for the analyte Bromochloromethane. The % Recovery was reported as 126 and the control limits were 73 to 117.

2323127010	18	MRC-MW16A	SW846 8260B	Chloroform

The QC sample type MSD for method SW846 8260B was outside the control limits for the analyte Chloroform. The % Recovery was reported as 125 and the control limits were 78 to 122.

2323127010	19	MRC-MW16A	SW846 8260B	Cyclohexane

The QC sample type LCS for method SW846 8260B was outside the control limits for the analyte Cyclohexane. The % Recovery was reported as 132 and the control limits were 66 to 130.

2323127010	20	MRC-MW16A	SW846 8260B	Cyclohexane

The QC sample type MS for method SW846 8260B was outside the control limits for the analyte Cyclohexane. The % Recovery was reported as 136 and the control limits were 66 to 130.

2323127010	21	MRC-MW16A	SW846 8260B	Cyclohexane

The QC sample type MSD for method SW846 8260B was outside the control limits for the analyte Cyclohexane. The % Recovery was reported as 140 and the control limits were 66 to 130.

2323127010	22	MRC-MW16A	SW846 8260B	Carbon Tetrachloride

The QC sample type MSD for method SW846 8260B was outside the control limits for the analyte Carbon Tetrachloride. The % Recovery was reported as 135 and the control limits were 62 to 132.

2323127010	23	MRC-MW16A	SW846 8260B	Trichloroethene

The QC sample type MS for method SW846 8260B was outside the control limits for the analyte Trichloroethene. The % Recovery was reported as 129 and the control limits were 77 to 124.

2323127010	24	MRC-MW16A	SW846 8260B	Trichloroethene

The QC sample type MSD for method SW846 8260B was outside the control limits for the analyte Trichloroethene. The % Recovery was reported as 128 and the control limits were 77 to 124.

2323127010	25	MRC-MW16A	SW846 8260B	2-Chloroethylvinyl ether

The QC sample type MS for method SW846 8260B was outside the control limits for the analyte 2-Chloroethylvinyl ether. The % Recovery was reported as 163 and the control limits were 1 to 150.

ANALYTICAL RESULTS

Workorder: 2323127 ALG002|LMC MRC

2323127010	26	MRC-MW16A	SW846 8260B	Tetrachloroethene

The QC sample type LCS for method SW846 8260B was outside the control limits for the analyte Tetrachloroethene. The % Recovery was reported as 127 and the control limits were 72 to 124.

2323127010	27	MRC-MW16A	SW846 8260B	Hexachlorobutadiene

The QC sample type MS for method SW846 8260B was outside the control limits for the analyte Hexachlorobutadiene. The % Recovery was reported as 135 and the control limits were 55 to 128.

2323127010	28	MRC-MW16A	SW846 8260B	Hexachlorobutadiene

The QC sample type MSD for method SW846 8260B was outside the control limits for the analyte Hexachlorobutadiene. The % Recovery was reported as 146 and the control limits were 55 to 128.

2323127010	29	MRC-MW16A	SW846 8260B	Ethyl tert-butyl ether

The QC sample type MS for method SW846 8260B was outside the control limits for the analyte Ethyl tert-butyl ether. The % Recovery was reported as 125 and the control limits were 75 to 123.

2323127010	30	MRC-MW16A	SW846 8260B	Ethyl tert-butyl ether

The QC sample type MSD for method SW846 8260B was outside the control limits for the analyte Ethyl tert-butyl ether. The % Recovery was reported as 125 and the control limits were 75 to 123.

2323127010	31	MRC-MW16A	SW846 8260B	Methyl cyclohexane

The QC sample type MS for method SW846 8260B was outside the control limits for the analyte Methyl cyclohexane. The % Recovery was reported as 141 and the control limits were 70 to 130.

2323127010	32	MRC-MW16A	SW846 8260B	Methyl cyclohexane

The QC sample type MSD for method SW846 8260B was outside the control limits for the analyte Methyl cyclohexane. The % Recovery was reported as 150 and the control limits were 70 to 130.

2323127010	33	MRC-MW16A	SW846 8260B	1,2-Dichloroethene, Total

The QC sample type LCS for method SW846 8260B was outside the control limits for the analyte 1,2-Dichloroethene, Total. The % Recovery was reported as 126 and the control limits were 78 to 125.

2323127010	34	MRC-MW16A	SW846 8260B	1,2-Dichloroethene, Total

The QC sample type MS for method SW846 8260B was outside the control limits for the analyte 1,2-Dichloroethene, Total. The % Recovery was reported as 138 and the control limits were 78 to 125.

2323127010	35	MRC-MW16A	SW846 8260B	1,2-Dichloroethene, Total

The QC sample type MSD for method SW846 8260B was outside the control limits for the analyte 1,2-Dichloroethene, Total. The % Recovery was reported as 136 and the control limits were 78 to 125.

2323127011	1	MRC-MW16A-DUP	SW846 8260B	1,1-Dichloroethene

The QC sample type LCS for method SW846 8260B was outside the control limits for the analyte 1,1-Dichloroethene. The % Recovery was reported as 147 and the control limits were 63 to 128.

2323127011	2	MRC-MW16A-DUP	SW846 8260B	Cyclohexane

The QC sample type LCS for method SW846 8260B was outside the control limits for the analyte Cyclohexane. The % Recovery was reported as 132 and the control limits were 66 to 130.

2323127011	3	MRC-MW16A-DUP	SW846 8260B	Tetrachloroethene

The QC sample type LCS for method SW846 8260B was outside the control limits for the analyte Tetrachloroethene. The % Recovery was reported as 127 and the control limits were 72 to 124.

2323127011	4	MRC-MW16A-DUP	SW846 8260B	1,2-Dichloroethene, Total

The QC sample type LCS for method SW846 8260B was outside the control limits for the analyte 1,2-Dichloroethene, Total. The % Recovery was reported as 126 and the control limits were 78 to 125.

2323127012	1	MRC-MW17A	SW846 8260B	Diisopropyl ether

The QC sample type MSD for method SW846 8260B was outside the control limits for the analyte Diisopropyl ether. The RPD was reported as 18.2 and the upper control limit is 15.

ANALYTICAL RESULTS

Workorder: 2323127 ALG002|LMC MRC

2323127012	2	MRC-MW17A	SW846 8260B	Methyl acetate

The QC sample type MSD for method SW846 8260B was outside the control limits for the analyte Methyl acetate. The RPD was reported as 22 and the upper control limit is 18.

2323127012	3	MRC-MW17A	SW846 8260B	Methylene Chloride

The QC sample type MSD for method SW846 8260B was outside the control limits for the analyte Methylene Chloride. The RPD was reported as 18.5 and the upper control limit is 17.

2323127012	4	MRC-MW17A	SW846 8260B	1,1-Dichloroethane

The QC sample type MSD for method SW846 8260B was outside the control limits for the analyte 1,1-Dichloroethane. The RPD was reported as 16.4 and the upper control limit is 15.

2323127012	5	MRC-MW17A	SW846 8260B	2-Chloroethylvinyl ether

The QC sample type MS for method SW846 8260B was outside the control limits for the analyte 2-Chloroethylvinyl ether. The % Recovery was reported as .5 and the control limits were 1 to 150.

2323127012	6	MRC-MW17A	SW846 8260B	2-Chloroethylvinyl ether

The QC sample type MSD for method SW846 8260B was outside the control limits for the analyte 2-Chloroethylvinyl ether. The % Recovery was reported as .5 and the control limits were 1 to 150.

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State Certifications: DE ID 11 , MA PA0102 , MD 128 , VA 460157 , WV 343

ANALYSIS - PREP METHOD CROSS REFERENCE TABLE

Workorder: 2323127 ALG002|LMC MRC

Lab ID	Sample ID	Analysis Method	Prep Method
2323127001	MRC-SW16A	8270 SIM	SW846 3510C
2323127001	MRC-SW16A	SW846 8260B	
2323127002	MRC-SW15A	8270 SIM	SW846 3510C
2323127002	MRC-SW15A	SW846 8260B	
2323127003	MRC-SW5A2	SW846 8260B	
2323127004	MRC-SW5A1	SW846 8260B	
2323127005	MRC-SW5B	SW846 8260B	
2323127006	MRC-SW2A	8270 SIM	SW846 3510C
2323127006	MRC-SW2A	SW846 8260B	
2323127007	MRC-SW1A	8270 SIM	SW846 3510C
2323127007	MRC-SW1A	SW846 8260B	
2323127008	TB-0626-18	SW846 8260B	
2323127009	MRC-MW11A	8270 SIM	SW846 3510C
2323127009	MRC-MW11A	SW846 6020A	SW846 3015
2323127009	MRC-MW11A	SW846 7470A	SW846 7470A
2323127009	MRC-MW11A	SW846 8260B	
2323127010	MRC-MW16A	8270 SIM	SW846 3510C
2323127010	MRC-MW16A	SW846 8260B	
2323127011	MRC-MW16A-DUP	8270 SIM	SW846 3510C
2323127011	MRC-MW16A-DUP	SW846 8260B	
2323127012	MRC-MW17A	8270 SIM	SW846 3510C
2323127012	MRC-MW17A	SW846 8260B	
2323127013	MRC-MW17A DUP	8270 SIM	SW846 3510C
2323127013	MRC-MW17A DUP	SW846 8260B	
2323127014	EW-2	8270 SIM	SW846 3510C
2323127014	EW-2	SW846 8260B	
2323127014	EW-2	Subcontract	
2323127015	EW-1	8270 SIM	SW846 3510C
2323127015	EW-1	SW846 8260B	
2323127015	EW-1	Subcontract	

QUALITY CONTROL DATA

Workorder: 2323127 ALG002|LMC MRC

QC Batch: EXTR/52759 **Analysis Method:** 8270 SIM

QC Batch Method: SW846 3510C

Associated Lab Samples: 2323127001, 2323127002, 2323127006, 2323127007, 2323127009, 2323127010, 2323127011, 2323127012, 2323127013, 2323127014, 2323127015

METHOD BLANK: 2766541

Parameter	Blank Result	Units	Reporting Limit
1,4-Dioxane	0.029J	ug/L	0.10
2-Methylnapthalene-d10 (S)			
Fluoranthene-d10 (S)			

LABORATORY CONTROL SAMPLE: 2766542

Parameter	LCS % Rec	Units	Spike Conc.	LCS Result	% Rec Limit
1,4-Dioxane	29.8	ug/L	1	0.30	22 - 75
2-Methylnapthalene-d10 (S)					
Fluoranthene-d10 (S)					

MATRIX SPIKE: 2766543 DUPLICATE: 2766544 ORIGINAL: 2323127010

****NOTE - The Original Result shown below is a raw result and is only used for the purpose of calculating Matrix Spike percent recoveries. This result is not a final value and cannot be used as such.

Parameter	Original Result	Units	Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limit	RPD	Max RPD
1,4-Dioxane	42.6286	ug/L	.98	24.3529	28.1237	NC	NC	22 - 75	14.4	

MATRIX SPIKE: 2766545 DUPLICATE: 2766546 ORIGINAL: 2323127012

****NOTE - The Original Result shown below is a raw result and is only used for the purpose of calculating Matrix Spike percent recoveries. This result is not a final value and cannot be used as such.

Parameter	Original Result	Units	Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limit	RPD	Max RPD
1,4-Dioxane	.04152	ug/L	.96	.29137	.32321	26.1	29.4	22 - 75	10.4	

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QUALITY CONTROL DATA

Workorder: 2323127 ALG002|LMC MRC

QC Batch: MDIG/72452 **Analysis Method:** SW846 7470A

QC Batch Method: SW846 7470A

Associated Lab Samples: 2323127009

METHOD BLANK: 2767054

Parameter	Blank Result	Units	Reporting Limit
Mercury, Total	ND	mg/L	0.00050

LABORATORY CONTROL SAMPLE: 2767055

Parameter	LCS % Rec	Units	Spike Conc.	LCS Result	% Rec Limit
Mercury, Total	108	mg/L	.002	0.0022	85 - 115

MATRIX SPIKE: 2767058 DUPLICATE: 2767059 ORIGINAL: 2322792002

****NOTE - The Original Result shown below is a raw result and is only used for the purpose of calculating Matrix Spike percent recoveries. This result is not a final value and cannot be used as such.

Parameter	Original Result	Units	Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limit	RPD	Max RPD
Mercury, Total	0	mg/L	.005	.00514	.00503	103	101	70 - 130	2.16	20

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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

QUALITY CONTROL DATA

Workorder: 2323127 ALG002|LMC MRC

QC Batch: MDIG/72465 **Analysis Method:** SW846 6020A

QC Batch Method: SW846 3015

Associated Lab Samples: 2323127009

METHOD BLANK: 2767319

Parameter	Blank Result	Units	Reporting Limit
Antimony, Total	ND	mg/L	0.0022
Arsenic, Total	ND	mg/L	0.0033
Beryllium, Total	ND	mg/L	0.0011
Cadmium, Total	ND	mg/L	0.0011
Chromium, Total	ND	mg/L	0.0022
Cobalt, Total	ND	mg/L	0.0056
Copper, Total	ND	mg/L	0.0056
Lead, Total	ND	mg/L	0.0022
Nickel, Total	ND	mg/L	0.0056
Selenium, Total	ND	mg/L	0.0056
Silver, Total	ND	mg/L	0.0022
Thallium, Total	ND	mg/L	0.0011
Zinc, Total	0.0022J	mg/L	0.0056

LABORATORY CONTROL SAMPLE: 2767320

Parameter	LCS % Rec	Units	Spike Conc.	LCS Result	% Rec Limit
Antimony, Total	94.1	mg/L	.22	0.21	80 - 120
Arsenic, Total	83.3	mg/L	.22	0.19	80 - 120
Beryllium, Total	96.1	mg/L	.22	0.21	80 - 120
Cadmium, Total	90.9	mg/L	.22	0.20	80 - 120
Chromium, Total	92.9	mg/L	.22	0.21	80 - 120
Cobalt, Total	95.3	mg/L	.22	0.21	80 - 120
Copper, Total	93.4	mg/L	.22	0.21	80 - 120
Lead, Total	98.6	mg/L	.22	0.22	80 - 120
Nickel, Total	94.4	mg/L	.22	0.21	80 - 120
Selenium, Total	88	mg/L	.22	0.20	80 - 120
Silver, Total	91.1	mg/L	.11	0.10	80 - 120
Thallium, Total	96.4	mg/L	.22	0.21	80 - 120
Zinc, Total	95.2	mg/L	.22	0.21	80 - 120

QUALITY CONTROL DATA

Workorder: 2323127 ALG002|LMC MRC

MATRIX SPIKE: 2767321 DUPLICATE: 2767322 ORIGINAL: 2323443003

****NOTE - The Original Result shown below is a raw result and is only used for the purpose of calculating Matrix Spike percent recoveries. This result is not a final value and cannot be used as such.

Parameter	Original Result	Units	Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limit	RPD	Max RPD
Arsenic, Total	.00213	mg/L	.22	.21269	.21224	94.8	94.5	75 - 125	.21	20
Cadmium, Total	.00003	mg/L	.22	.2162	.21327	97.3	96	75 - 125	1.37	20
Chromium, Total	.00373	mg/L	.22	.21906	.21397	96.9	94.6	75 - 125	2.35	20
Copper, Total	.00377	mg/L	.22	.21454	.21208	94.8	93.7	75 - 125	1.16	20
Lead, Total	.00058	mg/L	.22	.23019	.22593	103	101	75 - 125	1.87	20
Nickel, Total	.00272	mg/L	.22	.21384	.21028	95	93.4	75 - 125	1.68	20
Selenium, Total	.00021	mg/L	.22	.18984	.18929	85.3	85.1	75 - 125	.29	20
Silver, Total	.00013	mg/L	.11	.10194	.10094	91.6	90.7	75 - 125	.99	20
Zinc, Total	.00812	mg/L	.22	.20829	.20521	90.1	88.7	75 - 125	1.49	20

QUALITY CONTROL DATA

Workorder: 2323127 ALG002|LMC MRC

QC Batch: VOMS/47322 **Analysis Method:** SW846 8260B

QC Batch Method: SW846 8260B

Associated Lab Samples: 2323127001, 2323127002, 2323127003, 2323127004, 2323127005, 2323127006, 2323127007, 2323127008, 2323127009, 2323127010, 2323127011

METHOD BLANK: 2770696

Parameter	Blank Result	Units	Reporting Limit
1,1,1,2-Tetrachloroethane	ND	ug/L	1.0
1,1,1-Trichloroethane	ND	ug/L	1.0
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0
1,1,2-Trichloroethane	ND	ug/L	1.0
1,1-Dichloroethane	ND	ug/L	1.0
1,1-Dichloroethene	ND	ug/L	1.0
1,2,3-Trichlorobenzene	ND	ug/L	2.0
1,2,3-Trichloropropane	ND	ug/L	2.0
1,2,4-Trichlorobenzene	ND	ug/L	2.0
1,2,4-Trimethylbenzene	ND	ug/L	1.0
1,2-Dibromo-3-chloropropane	ND	ug/L	7.0
1,2-Dibromoethane	ND	ug/L	1.0
1,2-Dichlorobenzene	ND	ug/L	1.0
1,2-Dichloroethane	ND	ug/L	1.0
1,2-Dichloroethene, Total	ND	ug/L	2.0
1,2-Dichloropropane	ND	ug/L	1.0
1,3-Dichlorobenzene	ND	ug/L	1.0
1,3-Dichloropropane	ND	ug/L	1.0
1,3-Dichloropropene, Total	ND	ug/L	2.0
1,4-Dichlorobenzene	ND	ug/L	1.0
2,2-Dichloropropane	ND	ug/L	1.0
2-Butanone	ND	ug/L	10.0
2-Chloroethylvinyl ether	ND	ug/L	2.0
2-Hexanone	ND	ug/L	5.0
4-Methyl-2-Pentanone(MIBK)	ND	ug/L	5.0
Acetone	ND	ug/L	10.0
Benzene	ND	ug/L	1.0
Bromobenzene	ND	ug/L	1.0
Bromochloromethane	ND	ug/L	1.0
Bromodichloromethane	ND	ug/L	1.0
Bromoform	ND	ug/L	1.0
Bromomethane	0.46J	ug/L	1.0
Carbon Disulfide	ND	ug/L	1.0
Carbon Tetrachloride	ND	ug/L	1.0
Chlorobenzene	ND	ug/L	1.0
Chlorodibromomethane	ND	ug/L	1.0

QUALITY CONTROL DATA

Workorder: 2323127 ALG002|LMC MRC

Chloroethane	ND	ug/L	1.0
Chloroform	ND	ug/L	1.0
Chloromethane	ND	ug/L	1.0
Cyclohexane	ND	ug/L	1.0
Dibromomethane	ND	ug/L	1.0
Dichlorodifluoromethane	ND	ug/L	1.0
Diisopropyl ether	ND	ug/L	1.0
Ethyl tert-butyl ether	ND	ug/L	1.0
Ethylbenzene	ND	ug/L	1.0
Freon 113	ND	ug/L	1.0
Hexachlorobutadiene	ND	ug/L	5.0
Isopropylbenzene	ND	ug/L	1.0
Methyl acetate	ND	ug/L	2.0
Methyl cyclohexane	ND	ug/L	1.0
Methyl t-Butyl Ether	ND	ug/L	1.0
Methylene Chloride	ND	ug/L	1.0
Naphthalene	ND	ug/L	2.0
Styrene	ND	ug/L	1.0
Tetrachloroethene	ND	ug/L	1.0
Toluene	ND	ug/L	1.0
Total Xylenes	ND	ug/L	3.0
Trichloroethene	ND	ug/L	1.0
Trichlorofluoromethane	ND	ug/L	1.0
Vinyl Acetate	ND	ug/L	5.0
Vinyl Chloride	ND	ug/L	1.0
cis-1,2-Dichloroethene	ND	ug/L	1.0
cis-1,3-Dichloropropene	ND	ug/L	1.0
mp-Xylene	ND	ug/L	2.0
n-Butylbenzene	ND	ug/L	2.0
n-Propylbenzene	ND	ug/L	1.0
o-Chlorotoluene	ND	ug/L	1.0
o-Xylene	ND	ug/L	1.0
p-Chlorotoluene	ND	ug/L	1.0
p-Isopropyltoluene	ND	ug/L	1.0
sec-Butylbenzene	ND	ug/L	1.0
tert-Amyl methyl ether	ND	ug/L	1.0
tert-Butyl Alcohol	ND	ug/L	10.0
tert-Butylbenzene	ND	ug/L	2.0
trans-1,2-Dichloroethene	ND	ug/L	1.0
trans-1,3-Dichloropropene	ND	ug/L	1.0
1,2-Dichloroethane-d4 (S)	82.2	%	62 - 133
4-Bromofluorobenzene (S)	85.5	%	79 - 114
Dibromofluoromethane (S)	89.3	%	78 - 116
Toluene-d8 (S)	83.5	%	76 - 127

QUALITY CONTROL DATA

Workorder: 2323127 ALG002|LMC MRC

LABORATORY CONTROL SAMPLE: 2770697

Parameter	LCS % Rec	Units	Spike Conc.	LCS Result	% Rec Limit
1,1,1,2-Tetrachloroethane	98.9	ug/L	20	19.8	78 - 121
1,1,1-Trichloroethane	124	ug/L	20	24.9	66 - 130
1,1,2,2-Tetrachloroethane	84.5	ug/L	20	16.9	74 - 135
1,1,2-Trichloroethane	105	ug/L	20	21.0	82 - 126
1,1-Dichloroethane	124	ug/L	20	24.9	78 - 124
1,1-Dichloroethene	147*	ug/L	20	29.5	63 - 128
1,2,3-Trichlorobenzene	89.6	ug/L	20	17.9	61 - 126
1,2,3-Trichloropropane	86.8	ug/L	20	17.4	75 - 132
1,2,4-Trichlorobenzene	94.3	ug/L	20	18.9	67 - 123
1,2,4-Trimethylbenzene	90.3	ug/L	20	18.1	76 - 125
1,2-Dibromo-3-chloropropane	76.4	ug/L	20	15.3	59 - 133
1,2-Dibromoethane	101	ug/L	20	20.3	80 - 124
1,2-Dichlorobenzene	87.1	ug/L	20	17.4	82 - 118
1,2-Dichloroethane	112	ug/L	20	22.4	70 - 133
1,2-Dichloroethene, Total	126*	ug/L	40	50.2	78 - 125
1,2-Dichloropropane	119	ug/L	20	23.8	81 - 127
1,3-Dichlorobenzene	87.5	ug/L	20	17.5	81 - 118
1,3-Dichloropropane	98.2	ug/L	20	19.6	82 - 126
1,3-Dichloropropene, Total	100	ug/L	40	40.2	80 - 123
1,4-Dichlorobenzene	85.1	ug/L	20	17.0	81 - 116
2,2-Dichloropropane	119	ug/L	20	23.7	64 - 129
2-Butanone	127	ug/L	100	127	50 - 152
2-Chloroethylvinyl ether	78.2	ug/L	20	15.6	1 - 150
2-Hexanone	106	ug/L	100	106	65 - 154
4-Methyl-2-Pentanone(MIBK)	107	ug/L	100	107	71 - 146
Acetone	124	ug/L	100	124	40 - 151
Benzene	111	ug/L	20	22.3	80 - 124
Bromobenzene	88.6	ug/L	20	17.7	81 - 119
Bromochloromethane	121*	ug/L	20	24.2	73 - 117
Bromodichloromethane	111	ug/L	20	22.2	79 - 126
Bromoform	83.7	ug/L	20	16.7	70 - 123
Bromomethane	136	ug/L	20	27.2	45 - 148
Carbon Disulfide	131	ug/L	20	26.1	57 - 131
Carbon Tetrachloride	129	ug/L	20	25.7	62 - 132
Chlorobenzene	99	ug/L	20	19.8	85 - 117
Chlorodibromomethane	99	ug/L	20	19.8	77 - 122
Chloroethane	170*	ug/L	20	34.0	51 - 142
Chloroform	122	ug/L	20	24.3	78 - 122
Chloromethane	127	ug/L	20	25.4	38 - 156
Cyclohexane	132*	ug/L	20	26.3	66 - 130
Dibromomethane	111	ug/L	20	22.1	81 - 125

QUALITY CONTROL DATA

Workorder: 2323127 ALG002|LMC MRC

Dichlorodifluoromethane	118	ug/L	20	23.6	17 - 166
Diisopropyl ether	121	ug/L	20	24.2	74 - 131
Ethyl tert-butyl ether	126*	ug/L	20	25.3	75 - 123
Ethylbenzene	104	ug/L	20	20.8	80 - 124
Freon 113	160*	ug/L	20	31.9	50 - 130
Hexachlorobutadiene	126	ug/L	20	25.1	55 - 128
Isopropylbenzene	96.6	ug/L	20	19.3	73 - 129
Methyl acetate	124	ug/L	20	24.8	70 - 130
Methyl cyclohexane	139*	ug/L	20	27.8	70 - 130
Methyl t-Butyl Ether	113	ug/L	20	22.5	69 - 115
Methylene Chloride	122*	ug/L	20	24.4	76 - 121
Naphthalene	75.4	ug/L	20	15.1	56 - 134
Styrene	86.7	ug/L	20	17.3	79 - 123
Tetrachloroethene	127*	ug/L	20	25.4	72 - 124
Toluene	107	ug/L	20	21.5	80 - 125
Total Xylenes	103	ug/L	60	61.8	79 - 125
Trichloroethene	121	ug/L	20	24.3	77 - 124
Trichlorofluoromethane	120	ug/L	20	23.9	38 - 123
Vinyl Acetate	143*	ug/L	20	28.6	58 - 136
Vinyl Chloride	121	ug/L	20	24.3	27 - 138
cis-1,2-Dichloroethene	122	ug/L	20	24.5	78 - 125
cis-1,3-Dichloropropene	101	ug/L	20	20.1	81 - 121
mp-Xylene	104	ug/L	40	41.8	79 - 125
n-Butylbenzene	100	ug/L	20	20.1	71 - 130
n-Propylbenzene	99.7	ug/L	20	19.9	74 - 122
o-Chlorotoluene	86.9	ug/L	20	17.4	78 - 126
o-Xylene	100	ug/L	20	20.0	79 - 124
p-Chlorotoluene	88.4	ug/L	20	17.7	78 - 125
p-Isopropyltoluene	97.4	ug/L	20	19.5	72 - 123
sec-Butylbenzene	103	ug/L	20	20.5	72 - 127
tert-Amyl methyl ether	121	ug/L	20	24.3	75 - 121
tert-Butyl Alcohol	121	ug/L	100	121	17 - 168
tert-Butylbenzene	91	ug/L	20	18.2	72 - 124
trans-1,2-Dichloroethene	129*	ug/L	20	25.8	71 - 122
trans-1,3-Dichloropropene	100	ug/L	20	20.1	78 - 126
1,2-Dichloroethane-d4 (S)	82.3	%			62 - 133
4-Bromofluorobenzene (S)	84.3	%			79 - 114
Dibromofluoromethane (S)	92.9	%			78 - 116
Toluene-d8 (S)	83.3	%			76 - 127

MATRIX SPIKE: 2770856 DUPLICATE: 2770857 ORIGINAL: 2323127010

****NOTE - The Original Result shown below is a raw result and is only used for the purpose of calculating Matrix Spike percent recoveries. This result is not a final value and cannot be used as such.

Parameter	Original Result	Units	Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limit	RPD	Max RPD

QUALITY CONTROL DATA

Workorder: 2323127 ALG002|LMC MRC

1,1,1,2-Tetrachloroethane	0	ug/L	20	19.9584	20.6685	99.8	103	78 - 121	3.5	16
1,1,1-Trichloroethane	0	ug/L	20	25.846	25.8952	129	129	66 - 130	.19	20
1,1,2,2-Tetrachloroethane	0	ug/L	20	18.0663	19.029	90.3	95.1	74 - 135	5.19	16
1,1,2-Trichloroethane	0	ug/L	20	20.9663	21.0446	105	105	82 - 126	.37	15
1,1-Dichloroethane	28.2149	ug/L	20	56.374	55.9288	141*	139*	78 - 124	.79	15
1,1-Dichloroethene	72.7311	ug/L	20	106.811	105.375	170*	163*	63 - 128	1.35	21
1,2,3-Trichlorobenzene	0	ug/L	20	19.4944	21.2125	97.5	106	61 - 126	8.44	36
1,2,3-Trichloropropane	0	ug/L	20	17.815	18.7921	89.1	94	75 - 132	5.34	19
1,2,4-Trichlorobenzene	0	ug/L	20	19.5208	22.4454	97.6	112	67 - 123	13.9	22
1,2,4-Trimethylbenzene	0	ug/L	20	19.1693	20.8096	95.8	104	76 - 125	8.21	24
1,2-Dibromo-3-chloropropane	0	ug/L	20	15.7497	17.3143	78.7	86.6	59 - 133	9.46	26
1,2-Dibromoethane	0	ug/L	20	20.0154	20.3222	100	102	80 - 124	1.52	19
1,2-Dichlorobenzene	0	ug/L	20	18.1217	20.5017	90.6	103	82 - 118	12.3	15
1,2-Dichloroethane	.32812	ug/L	20	23.6424	23.2039	117	114	70 - 133	1.87	19
1,2-Dichloroethene, Total	12.2977	ug/L	40	67.5353	66.7628	138*	136*	78 - 125	1.15	40
1,2-Dichloropropane	0	ug/L	20	25.2202	24.8674	126	124	81 - 127	1.41	15
1,3-Dichlorobenzene	0	ug/L	20	18.2605	20.3198	91.3	102	81 - 118	10.7	16
1,3-Dichloropropane	0	ug/L	20	20.2817	20.7636	101	104	82 - 126	2.35	15
1,3-Dichloropropene, Total	0	ug/L	40	40.096	41.151	100	103	80 - 123	2.6	16
1,4-Dichlorobenzene	0	ug/L	20	18.2382	20.5968	91.2	103	81 - 116	12.1	15
2,2-Dichloropropane	0	ug/L	20	24.4301	24.4225	122	122	64 - 129	.03	18
2-Butanone	0	ug/L	100	123.878	129.232	124	129	50 - 152	4.23	16
2-Chloroethylvinyl ether	0	ug/L	20	32.5809	29.4865	163*	147	1 - 150	9.97	40
2-Hexanone	0	ug/L	100	107.789	110.746	108	111	65 - 154	2.71	17
4-Methyl-2-Pentanone(MIBK)	0	ug/L	100	108.161	114.238	108	114	71 - 146	5.46	16
Acetone	17.6365	ug/L	100	132.991	135.587	115	118	40 - 151	1.93	40
Benzene	.70297	ug/L	20	24.6771	25.5232	120	124	80 - 124	3.37	26
Bromobenzene	0	ug/L	20	17.8513	20.4352	89.3	102	81 - 119	13.5	17
Bromochloromethane	0	ug/L	20	25.1824	25.1119	126*	126*	73 - 117	.28	19
Bromodichloromethane	0	ug/L	20	22.7302	22.5222	114	113	79 - 126	.92	16
Bromoform	0	ug/L	20	17.7807	18.9275	88.9	94.6	70 - 123	6.25	16
Bromomethane	0	ug/L	20	23.8214	21.6116	119	108	45 - 148	9.73	26
Carbon Disulfide	0	ug/L	20	28.8058	28.6976	144*	143*	57 - 131	.38	28
Carbon Tetrachloride	0	ug/L	20	26.0844	27.0487	130	135*	62 - 132	3.63	17
Chlorobenzene	0	ug/L	20	20.5732	22.0309	103	110	85 - 117	6.84	15
Chlorodibromomethane	0	ug/L	20	20.058	20.2608	100	101	77 - 122	1.01	15
Chloroethane	0	ug/L	20	25.834	22.0269	129	110	51 - 142	15.9	24
Chloroform	0	ug/L	20	24.4946	24.9986	122	125*	78 - 122	2.04	16
Chloromethane	0	ug/L	20	18.0325	15.9246	90.2	79.6	38 - 156	12.4	27
Cyclohexane	.34839	ug/L	20	27.6146	28.3849	136*	140*	66 - 130	2.75	20
Dibromomethane	0	ug/L	20	22.4521	22.946	112	115	81 - 125	2.18	16
Dichlorodifluoromethane	0	ug/L	20	12.4657	10.4682	62.3	52.3	17 - 166	17.4	24
Diisopropyl ether	0	ug/L	20	24.4711	24.4964	122	122	74 - 131	.1	15
Ethyl tert-butyl ether	0	ug/L	20	25.0497	25.0539	125*	125*	75 - 123	.02	16
Ethylbenzene	0	ug/L	20	21.2304	22.1028	106	111	80 - 124	4.03	19
Freon 113	0	ug/L	20	32.6221	34.1136	163*	171*	50 - 130	4.47	26

QUALITY CONTROL DATA

Workorder: 2323127 ALG002|LMC MRC

Hexachlorobutadiene	0	ug/L	20	26.998	29.2372	135*	146*	55 - 128	7.96	35
Isopropylbenzene	0	ug/L	20	20.6264	22.1605	103	111	73 - 129	7.17	18
Methyl acetate	0	ug/L	20	20.8711	21.3463	104	107	70 - 130	2.25	18
Methyl cyclohexane	0	ug/L	20	28.1414	29.975	141*	150*	70 - 130	6.31	18
Methyl t-Butyl Ether	0	ug/L	20	22.7276	23.0638	114	115	69 - 115	1.47	20
Methylene Chloride	0	ug/L	20	26.5502	25.6731	133*	128*	76 - 121	3.36	17
Naphthalene	0	ug/L	20	16.4071	18.9551	82	94.8	56 - 134	14.4	40
Styrene	0	ug/L	20	18.2358	20.0982	91.2	100	79 - 123	9.72	16
Tetrachloroethene	6.06213	ug/L	20	29.2104	30.7372	116	123	72 - 124	5.09	38
Toluene	0	ug/L	20	21.8671	23.0205	109	115	80 - 125	5.14	20
Total Xylenes	0	ug/L	60	64.5839	66.1405	108	110	79 - 125	2.38	35
Trichloroethene	20.4031	ug/L	20	46.2419	46.0496	129*	128*	77 - 124	.42	18
Trichlorofluoromethane	0	ug/L	20	18.8742	16.1797	94.4	80.9	38 - 123	15.4	23
Vinyl Acetate	0	ug/L	20	21.2945	22.0412	106	110	58 - 136	3.45	17
Vinyl Chloride	8.11519	ug/L	20	25.8793	23.347	88.8	76.2	27 - 138	10.3	40
cis-1,2-Dichloroethene	12.2977	ug/L	20	39.5857	38.6434	136*	132*	78 - 125	2.41	21
cis-1,3-Dichloropropene	0	ug/L	20	19.709	20.6157	98.5	103	81 - 121	4.5	16
mp-Xylene	0	ug/L	40	44.1692	44.8714	110	112	79 - 125	1.58	21
n-Butylbenzene	0	ug/L	20	20.8592	23.1003	104	116	71 - 130	10.2	20
n-Propylbenzene	0	ug/L	20	20.1825	22.38	101	112	74 - 122	10.3	20
o-Chlorotoluene	0	ug/L	20	18.4165	19.9241	92.1	99.6	78 - 126	7.86	17
o-Xylene	0	ug/L	20	20.4146	21.2691	102	106	79 - 124	4.1	19
p-Chlorotoluene	0	ug/L	20	18.5394	19.9434	92.7	99.7	78 - 125	7.3	16
p-Isopropyltoluene	0	ug/L	20	21.0755	22.3216	105	112	72 - 123	5.74	17
sec-Butylbenzene	0	ug/L	20	21.4037	23.5219	107	118	72 - 127	9.43	17
tert-Amyl methyl ether	0	ug/L	20	23.4915	24.1187	117	121	75 - 121	2.63	40
tert-Butyl Alcohol	0	ug/L	100	122.533	123.667	123	124	17 - 168	.92	40
tert-Butylbenzene	0	ug/L	20	19.7524	21.0403	98.8	105	72 - 124	6.31	17
trans-1,2-Dichloroethene	0	ug/L	20	27.9495	28.1194	140*	141*	71 - 122	.61	22
trans-1,3-Dichloropropene	0	ug/L	20	20.387	20.5353	102	103	78 - 126	.72	18
1,2-Dichloroethane-d4 (S)	82.5	%				82.5	80.3	62 - 133		
4-Bromofluorobenzene (S)	86.7	%				86.7	92.6	79 - 114		
Dibromofluoromethane (S)	92.5	%				92.5	92.2	78 - 116		
Toluene-d8 (S)	80.8	%				80.8	83	76 - 127		

QUALITY CONTROL DATA

Workorder: 2323127 ALG002|LMC MRC

QC Batch: VOMS/47323 **Analysis Method:** SW846 8260B

QC Batch Method: SW846 8260B

Associated Lab Samples: 2323127012, 2323127013, 2323127015

METHOD BLANK: 2770709

Parameter	Blank Result	Units	Reporting Limit
1,1,1,2-Tetrachloroethane	ND	ug/L	1.0
1,1,1-Trichloroethane	ND	ug/L	1.0
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0
1,1,2-Trichloroethane	ND	ug/L	1.0
1,1-Dichloroethane	ND	ug/L	1.0
1,1-Dichloroethene	ND	ug/L	1.0
1,2,3-Trichlorobenzene	ND	ug/L	2.0
1,2,3-Trichloropropane	ND	ug/L	2.0
1,2,4-Trichlorobenzene	ND	ug/L	2.0
1,2,4-Trimethylbenzene	ND	ug/L	1.0
1,2-Dibromo-3-chloropropane	ND	ug/L	7.0
1,2-Dibromoethane	ND	ug/L	1.0
1,2-Dichlorobenzene	ND	ug/L	1.0
1,2-Dichloroethane	ND	ug/L	1.0
1,2-Dichloroethene, Total	ND	ug/L	2.0
1,2-Dichloropropane	ND	ug/L	1.0
1,3-Dichlorobenzene	ND	ug/L	1.0
1,3-Dichloropropane	ND	ug/L	1.0
1,3-Dichloropropene, Total	ND	ug/L	2.0
1,4-Dichlorobenzene	ND	ug/L	1.0
2,2-Dichloropropane	ND	ug/L	1.0
2-Butanone	ND	ug/L	10.0
2-Chloroethylvinyl ether	ND	ug/L	2.0
2-Hexanone	ND	ug/L	5.0
4-Methyl-2-Pentanone(MIBK)	ND	ug/L	5.0
Acetone	ND	ug/L	10.0
Benzene	ND	ug/L	1.0
Bromobenzene	ND	ug/L	1.0
Bromochloromethane	ND	ug/L	1.0
Bromodichloromethane	ND	ug/L	1.0
Bromoform	ND	ug/L	1.0
Bromomethane	ND	ug/L	1.0
Carbon Disulfide	ND	ug/L	1.0
Carbon Tetrachloride	ND	ug/L	1.0
Chlorobenzene	ND	ug/L	1.0
Chlorodibromomethane	ND	ug/L	1.0
Chloroethane	ND	ug/L	1.0

QUALITY CONTROL DATA

Workorder: 2323127 ALG002|LMC MRC

Chloroform	ND	ug/L	1.0
Chloromethane	ND	ug/L	1.0
Cyclohexane	ND	ug/L	1.0
Dibromomethane	ND	ug/L	1.0
Dichlorodifluoromethane	ND	ug/L	1.0
Diisopropyl ether	ND	ug/L	1.0
Ethyl tert-butyl ether	ND	ug/L	1.0
Ethylbenzene	ND	ug/L	1.0
Freon 113	ND	ug/L	1.0
Hexachlorobutadiene	ND	ug/L	5.0
Isopropylbenzene	ND	ug/L	1.0
Methyl acetate	ND	ug/L	2.0
Methyl cyclohexane	ND	ug/L	1.0
Methyl t-Butyl Ether	ND	ug/L	1.0
Methylene Chloride	ND	ug/L	1.0
Naphthalene	ND	ug/L	2.0
Styrene	ND	ug/L	1.0
Tetrachloroethene	ND	ug/L	1.0
Toluene	ND	ug/L	1.0
Total Xylenes	ND	ug/L	3.0
Trichloroethene	ND	ug/L	1.0
Trichlorofluoromethane	ND	ug/L	1.0
Vinyl Acetate	ND	ug/L	5.0
Vinyl Chloride	ND	ug/L	1.0
cis-1,2-Dichloroethene	ND	ug/L	1.0
cis-1,3-Dichloropropene	ND	ug/L	1.0
mp-Xylene	ND	ug/L	2.0
n-Butylbenzene	ND	ug/L	2.0
n-Propylbenzene	ND	ug/L	1.0
o-Chlorotoluene	ND	ug/L	1.0
o-Xylene	ND	ug/L	1.0
p-Chlorotoluene	ND	ug/L	1.0
p-Isopropyltoluene	ND	ug/L	1.0
sec-Butylbenzene	ND	ug/L	1.0
tert-Amyl methyl ether	ND	ug/L	1.0
tert-Butyl Alcohol	ND	ug/L	10.0
tert-Butylbenzene	ND	ug/L	2.0
trans-1,2-Dichloroethene	ND	ug/L	1.0
trans-1,3-Dichloropropene	ND	ug/L	1.0
1,2-Dichloroethane-d4 (S)	96.4	%	62 - 133
4-Bromofluorobenzene (S)	93.3	%	79 - 114
Dibromofluoromethane (S)	82.7	%	78 - 116
Toluene-d8 (S)	97.2	%	76 - 127

QUALITY CONTROL DATA

Workorder: 2323127 ALG002|LMC MRC

LABORATORY CONTROL SAMPLE: 2770710

Parameter	LCS % Rec	Units	Spike Conc.	LCS Result	% Rec Limit
1,1,1,2-Tetrachloroethane	99.9	ug/L	20	20.0	78 - 121
1,1,1-Trichloroethane	104	ug/L	20	20.9	66 - 130
1,1,2,2-Tetrachloroethane	91.6	ug/L	20	18.3	74 - 135
1,1,2-Trichloroethane	102	ug/L	20	20.4	82 - 126
1,1-Dichloroethane	98.3	ug/L	20	19.7	78 - 124
1,1-Dichloroethene	109	ug/L	20	21.8	63 - 128
1,2,3-Trichlorobenzene	83.5	ug/L	20	16.7	61 - 126
1,2,3-Trichloropropane	95.3	ug/L	20	19.1	75 - 132
1,2,4-Trichlorobenzene	84.2	ug/L	20	16.8	67 - 123
1,2,4-Trimethylbenzene	91.4	ug/L	20	18.3	76 - 125
1,2-Dibromo-3-chloropropane	72.5	ug/L	20	14.5	59 - 133
1,2-Dibromoethane	105	ug/L	20	21.1	80 - 124
1,2-Dichlorobenzene	97.2	ug/L	20	19.4	82 - 118
1,2-Dichloroethane	94	ug/L	20	18.8	70 - 133
1,2-Dichloroethene, Total	102	ug/L	40	40.6	78 - 125
1,2-Dichloropropane	96.2	ug/L	20	19.2	81 - 127
1,3-Dichlorobenzene	97	ug/L	20	19.4	81 - 118
1,3-Dichloropropane	104	ug/L	20	20.8	82 - 126
1,3-Dichloropropene, Total	100	ug/L	40	40.2	80 - 123
1,4-Dichlorobenzene	92	ug/L	20	18.4	81 - 116
2,2-Dichloropropane	110	ug/L	20	22.0	64 - 129
2-Butanone	106	ug/L	100	106	50 - 152
2-Chloroethylvinyl ether	68.3	ug/L	20	13.7	1 - 150
2-Hexanone	105	ug/L	100	105	65 - 154
4-Methyl-2-Pentanone(MIBK)	91.9	ug/L	100	91.9	71 - 146
Acetone	145	ug/L	100	145	40 - 151
Benzene	100	ug/L	20	20.1	80 - 124
Bromobenzene	101	ug/L	20	20.2	81 - 119
Bromochloromethane	97.2	ug/L	20	19.4	73 - 117
Bromodichloromethane	91.3	ug/L	20	18.3	79 - 126
Bromoform	80.1	ug/L	20	16.0	70 - 123
Bromomethane	85.1	ug/L	20	17.0	45 - 148
Carbon Disulfide	95.4	ug/L	20	19.1	57 - 131
Carbon Tetrachloride	102	ug/L	20	20.3	62 - 132
Chlorobenzene	94.4	ug/L	20	18.9	85 - 117
Chlorodibromomethane	97	ug/L	20	19.4	77 - 122
Chloroethane	90	ug/L	20	18.0	51 - 142
Chloroform	99.8	ug/L	20	20.0	78 - 122
Chloromethane	72.2	ug/L	20	14.4	38 - 156
Cyclohexane	110	ug/L	20	22.0	66 - 130
Dibromomethane	91.7	ug/L	20	18.3	81 - 125

QUALITY CONTROL DATA

Workorder: 2323127 ALG002|LMC MRC

Dichlorodifluoromethane	74.2	ug/L	20	14.8	17 - 166
Diisopropyl ether	89.8	ug/L	20	18.0	74 - 131
Ethyl tert-butyl ether	81.9	ug/L	20	16.4	75 - 123
Ethylbenzene	104	ug/L	20	20.7	80 - 124
Freon 113	123	ug/L	20	24.6	50 - 130
Hexachlorobutadiene	101	ug/L	20	20.2	55 - 128
Isopropylbenzene	94.4	ug/L	20	18.9	73 - 129
Methyl acetate	105	ug/L	20	21.0	70 - 130
Methyl cyclohexane	118	ug/L	20	23.6	70 - 130
Methyl t-Butyl Ether	85.7	ug/L	20	17.1	69 - 115
Methylene Chloride	102	ug/L	20	20.5	76 - 121
Naphthalene	75	ug/L	20	15.0	56 - 134
Styrene	88.8	ug/L	20	17.8	79 - 123
Tetrachloroethene	110	ug/L	20	22.0	72 - 124
Toluene	112	ug/L	20	22.4	80 - 125
Total Xylenes	104	ug/L	60	62.5	79 - 125
Trichloroethene	102	ug/L	20	20.5	77 - 124
Trichlorofluoromethane	91.8	ug/L	20	18.4	38 - 123
Vinyl Acetate	87.7	ug/L	20	17.5	58 - 136
Vinyl Chloride	77.9	ug/L	20	15.6	27 - 138
cis-1,2-Dichloroethene	101	ug/L	20	20.2	78 - 125
cis-1,3-Dichloropropene	98.7	ug/L	20	19.7	81 - 121
mp-Xylene	110	ug/L	40	44.1	79 - 125
n-Butylbenzene	106	ug/L	20	21.3	71 - 130
n-Propylbenzene	94.1	ug/L	20	18.8	74 - 122
o-Chlorotoluene	92.7	ug/L	20	18.5	78 - 126
o-Xylene	92.1	ug/L	20	18.4	79 - 124
p-Chlorotoluene	108	ug/L	20	21.7	78 - 125
p-Isopropyltoluene	92	ug/L	20	18.4	72 - 123
sec-Butylbenzene	100	ug/L	20	20.1	72 - 127
tert-Amyl methyl ether	80.7	ug/L	20	16.1	75 - 121
tert-Butyl Alcohol	75.9	ug/L	100	75.9	17 - 168
tert-Butylbenzene	93	ug/L	20	18.6	72 - 124
trans-1,2-Dichloroethene	102	ug/L	20	20.4	71 - 122
trans-1,3-Dichloropropene	102	ug/L	20	20.4	78 - 126
1,2-Dichloroethane-d4 (S)	91.1	%			62 - 133
4-Bromofluorobenzene (S)	95.1	%			79 - 114
Dibromofluoromethane (S)	82.6	%			78 - 116
Toluene-d8 (S)	93.7	%			76 - 127

MATRIX SPIKE: 2770997 DUPLICATE: 2770998 ORIGINAL: 2323127012

****NOTE - The Original Result shown below is a raw result and is only used for the purpose of calculating Matrix Spike percent recoveries. This result is not a final value and cannot be used as such.

Parameter	Original Result	Units	Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limit	RPD	Max RPD

QUALITY CONTROL DATA

Workorder: 2323127 ALG002|LMC MRC

1,1,1,2-Tetrachloroethane	0	ug/L	20	20.8418	20.8845	104	104	78 - 121	.2	16
1,1,1-Trichloroethane	0	ug/L	20	22.8276	22.4735	114	112	66 - 130	1.56	20
1,1,2,2-Tetrachloroethane	0	ug/L	20	19.9315	19.2472	99.7	96.2	74 - 135	3.49	16
1,1,2-Trichloroethane	0	ug/L	20	19.737	19.883	98.7	99.4	82 - 126	.74	15
1,1-Dichloroethane	0	ug/L	20	21.2818	18.0568	106	90.3	78 - 124	16.4	15
1,1-Dichloroethene	0	ug/L	20	19.7482	19.5254	98.7	97.6	63 - 128	1.13	21
1,2,3-Trichlorobenzene	0	ug/L	20	15.4012	16.1312	77	80.7	61 - 126	4.63	36
1,2,3-Trichloropropane	0	ug/L	20	21.4373	20.2309	107	101	75 - 132	5.79	19
1,2,4-Trichlorobenzene	0	ug/L	20	14.9184	16.1817	74.6	80.9	67 - 123	8.12	22
1,2,4-Trimethylbenzene	0	ug/L	20	19.6579	19.3731	98.3	96.9	76 - 125	1.46	24
1,2-Dibromo-3-chloropropane	0	ug/L	20	15.3816	15.158	76.9	75.8	59 - 133	1.46	26
1,2-Dibromoethane	0	ug/L	20	20.5193	20.687	103	103	80 - 124	.81	19
1,2-Dichlorobenzene	0	ug/L	20	20.7676	20.6231	104	103	82 - 118	.7	15
1,2-Dichloroethane	0	ug/L	20	19.8775	19.7374	99.4	98.7	70 - 133	.71	19
1,2-Dichloroethene, Total	0	ug/L	40	43.9949	38.2037	110	95.5	78 - 125	14.1	40
1,2-Dichloropropane	0	ug/L	20	21.5206	21.4358	108	107	81 - 127	.39	15
1,3-Dichlorobenzene	0	ug/L	20	20.528	20.317	103	102	81 - 118	1.03	16
1,3-Dichloropropane	0	ug/L	20	20.935	20.9534	105	105	82 - 126	.09	15
1,3-Dichloropropene, Total	0	ug/L	40	38.8426	39.4529	97.1	98.6	80 - 123	1.56	16
1,4-Dichlorobenzene	0	ug/L	20	19.3225	19.1346	96.6	95.7	81 - 116	.98	15
2,2-Dichloropropane	0	ug/L	20	21.6988	21.1789	108	106	64 - 129	2.43	18
2-Butanone	0	ug/L	100	88.3399	93.5535	88.3	93.6	50 - 152	5.73	16
2-Chloroethylvinyl ether	0	ug/L	20	.10071	.09949	.5*	.5*	1 - 150	1.22	40
2-Hexanone	0	ug/L	100	90.2221	94.0332	90.2	94	65 - 154	4.14	17
4-Methyl-2-Pentanone(MIBK)	0	ug/L	100	89.8488	91.2903	89.8	91.3	71 - 146	1.59	16
Acetone	7.38144	ug/L	100	103.533	81.0743	96.2	73.7	40 - 151	24.3	40
Benzene	0	ug/L	20	21.5268	21.3386	108	107	80 - 124	.88	26
Bromobenzene	0	ug/L	20	22.2293	21.9965	111	110	81 - 119	1.05	17
Bromochloromethane	0	ug/L	20	20.3892	19.6793	102	98.4	73 - 117	3.54	19
Bromodichloromethane	.30647	ug/L	20	20.0637	20.2014	98.8	99.5	79 - 126	.68	16
Bromoform	0	ug/L	20	18.2698	17.6786	91.3	88.4	70 - 123	3.29	16
Bromomethane	0	ug/L	20	17.1183	16.5727	85.6	82.9	45 - 148	3.24	26
Carbon Disulfide	0	ug/L	20	16.0126	15.8113	80.1	79.1	57 - 131	1.27	28
Carbon Tetrachloride	0	ug/L	20	22.0504	22.0412	110	110	62 - 132	.04	17
Chlorobenzene	0	ug/L	20	19.8349	19.8694	99.2	99.3	85 - 117	.17	15
Chlorodibromomethane	0	ug/L	20	19.1737	19.2447	95.9	96.2	77 - 122	.37	15
Chloroethane	0	ug/L	20	20.0961	20.4742	100	102	51 - 142	1.86	24
Chloroform	1.08031	ug/L	20	22.5588	22.3365	107	106	78 - 122	.99	16
Chloromethane	0	ug/L	20	16.5696	16.4586	82.8	82.3	38 - 156	.67	27
Cyclohexane	0	ug/L	20	23.6553	23.515	118	118	66 - 130	.59	20
Dibromomethane	0	ug/L	20	19.187	18.7726	95.9	93.9	81 - 125	2.18	16
Dichlorodifluoromethane	0	ug/L	20	16.6515	16.3327	83.3	81.7	17 - 166	1.93	24
Diisopropyl ether	0	ug/L	20	19.176	15.9838	95.9	79.9	74 - 131	18.2	15
Ethyl tert-butyl ether	0	ug/L	20	17.7629	15.4881	88.8	77.4	75 - 123	13.7	16
Ethylbenzene	0	ug/L	20	21.5675	22.0161	108	110	80 - 124	2.06	19
Freon 113	0	ug/L	20	22.5339	22.0683	113	110	50 - 130	2.09	26

QUALITY CONTROL DATA

Workorder: 2323127 ALG002|LMC MRC

Hexachlorobutadiene	0	ug/L	20	15.6584	17.5789	78.3	87.9	55 - 128	11.6	35
Isopropylbenzene	0	ug/L	20	22.3085	21.7921	112	109	73 - 129	2.34	18
Methyl acetate	0	ug/L	20	18.3728	14.7341	91.9	73.7	70 - 130	22	18
Methyl cyclohexane	0	ug/L	20	20.8832	21.2523	104	106	70 - 130	1.75	18
Methyl t-Butyl Ether	0	ug/L	20	17.8143	15.6105	89.1	78.1	69 - 115	13.2	20
Methylene Chloride	0	ug/L	20	21.8097	18.1096	109	90.5	76 - 121	18.5	17
Naphthalene	0	ug/L	20	17.2224	16.9307	86.1	84.7	56 - 134	1.71	40
Styrene	0	ug/L	20	20.3364	19.7473	102	98.7	79 - 123	2.94	16
Tetrachloroethene	0	ug/L	20	21.16	21.485	106	107	72 - 124	1.52	38
Toluene	0	ug/L	20	23.3281	23.4276	117	117	80 - 125	.43	20
Total Xylenes	0	ug/L	60	65.1681	65.6729	109	109	79 - 125	.77	35
Trichloroethene	0	ug/L	20	21.7743	21.6363	109	108	77 - 124	.64	18
Trichlorofluoromethane	0	ug/L	20	19.5405	19.6371	97.7	98.2	38 - 123	.49	23
Vinyl Acetate	0	ug/L	20	15.938	14.1043	79.7	70.5	58 - 136	12.2	17
Vinyl Chloride	0	ug/L	20	16.6973	16.7392	83.5	83.7	27 - 138	.25	40
cis-1,2-Dichloroethene	0	ug/L	20	22.0335	19.7956	110	99	78 - 125	10.7	21
cis-1,3-Dichloropropene	0	ug/L	20	18.9325	19.371	94.7	96.9	81 - 121	2.29	16
mp-Xylene	0	ug/L	40	46.5044	46.6958	116	117	79 - 125	.41	21
n-Butylbenzene	0	ug/L	20	19.6511	20.2038	98.3	101	71 - 130	2.77	20
n-Propylbenzene	0	ug/L	20	20.3901	20.2271	102	101	74 - 122	.8	20
o-Chlorotoluene	0	ug/L	20	20.6564	20.2955	103	101	78 - 126	1.76	17
o-Xylene	0	ug/L	20	18.6637	18.9771	93.3	94.9	79 - 124	1.67	19
p-Chlorotoluene	0	ug/L	20	23.8203	23.2737	119	116	78 - 125	2.32	16
p-Isopropyltoluene	0	ug/L	20	18.2693	18.4403	91.3	92.2	72 - 123	.93	17
sec-Butylbenzene	0	ug/L	20	19.7748	20.0728	98.9	100	72 - 127	1.5	17
tert-Amyl methyl ether	0	ug/L	20	17.2867	17.5835	86.4	87.9	75 - 121	1.7	40
tert-Butyl Alcohol	0	ug/L	100	77.9516	73.223	78	73.2	17 - 168	6.26	40
tert-Butylbenzene	0	ug/L	20	19.7183	19.8008	98.6	99	72 - 124	.42	17
trans-1,2-Dichloroethene	0	ug/L	20	21.9614	18.4081	110	92	71 - 122	17.6	22
trans-1,3-Dichloropropene	0	ug/L	20	19.91	20.082	99.6	100	78 - 126	.86	18
1,2-Dichloroethane-d4 (S)	91.5	%				91.5	91.4	62 - 133		
4-Bromofluorobenzene (S)	97.7	%				97.7	97.9	79 - 114		
Dibromofluoromethane (S)	82.4	%				82.4	82.2	78 - 116		
Toluene-d8 (S)	87.4	%				87.4	89.3	76 - 127		

QUALITY CONTROL DATA

Workorder: 2323127 ALG002|LMC MRC

QC Batch: VOMS/47326 **Analysis Method:** SW846 8260B

QC Batch Method: SW846 8260B

Associated Lab Samples: 2323127014

METHOD BLANK: 2770858

Parameter	Blank Result	Units	Reporting Limit
1,1,1,2-Tetrachloroethane	ND	ug/L	1.0
1,1,1-Trichloroethane	ND	ug/L	1.0
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0
1,1,2-Trichloroethane	ND	ug/L	1.0
1,1-Dichloroethane	ND	ug/L	1.0
1,1-Dichloroethene	ND	ug/L	1.0
1,2,3-Trichlorobenzene	ND	ug/L	2.0
1,2,3-Trichloropropane	ND	ug/L	2.0
1,2,4-Trichlorobenzene	ND	ug/L	2.0
1,2,4-Trimethylbenzene	ND	ug/L	1.0
1,2-Dibromo-3-chloropropane	ND	ug/L	7.0
1,2-Dibromoethane	ND	ug/L	1.0
1,2-Dichlorobenzene	ND	ug/L	1.0
1,2-Dichloroethane	ND	ug/L	1.0
1,2-Dichloroethene, Total	ND	ug/L	2.0
1,2-Dichloropropane	ND	ug/L	1.0
1,3-Dichlorobenzene	ND	ug/L	1.0
1,3-Dichloropropane	ND	ug/L	1.0
1,3-Dichloropropene, Total	ND	ug/L	2.0
1,4-Dichlorobenzene	ND	ug/L	1.0
2,2-Dichloropropane	ND	ug/L	1.0
2-Butanone	ND	ug/L	10.0
2-Chloroethylvinyl ether	ND	ug/L	2.0
2-Hexanone	ND	ug/L	5.0
4-Methyl-2-Pentanone(MIBK)	ND	ug/L	5.0
Acetone	ND	ug/L	10.0
Benzene	ND	ug/L	1.0
Bromobenzene	ND	ug/L	1.0
Bromochloromethane	ND	ug/L	1.0
Bromodichloromethane	ND	ug/L	1.0
Bromoform	ND	ug/L	1.0
Bromomethane	ND	ug/L	1.0
Carbon Disulfide	ND	ug/L	1.0
Carbon Tetrachloride	ND	ug/L	1.0
Chlorobenzene	ND	ug/L	1.0
Chlorodibromomethane	ND	ug/L	1.0
Chloroethane	ND	ug/L	1.0

QUALITY CONTROL DATA

Workorder: 2323127 ALG002|LMC MRC

Chloroform	ND	ug/L	1.0
Chloromethane	ND	ug/L	1.0
Cyclohexane	ND	ug/L	1.0
Dibromomethane	ND	ug/L	1.0
Dichlorodifluoromethane	ND	ug/L	1.0
Diisopropyl ether	ND	ug/L	1.0
Ethyl tert-butyl ether	ND	ug/L	1.0
Ethylbenzene	ND	ug/L	1.0
Freon 113	ND	ug/L	1.0
Hexachlorobutadiene	2.3J	ug/L	5.0
Isopropylbenzene	ND	ug/L	1.0
Methyl acetate	ND	ug/L	2.0
Methyl cyclohexane	ND	ug/L	1.0
Methyl t-Butyl Ether	ND	ug/L	1.0
Methylene Chloride	ND	ug/L	1.0
Naphthalene	ND	ug/L	2.0
Styrene	ND	ug/L	1.0
Tetrachloroethene	ND	ug/L	1.0
Toluene	ND	ug/L	1.0
Total Xylenes	ND	ug/L	3.0
Trichlorofluoromethane	ND	ug/L	1.0
Vinyl Acetate	ND	ug/L	5.0
Vinyl Chloride	ND	ug/L	1.0
cis-1,2-Dichloroethene	ND	ug/L	1.0
cis-1,3-Dichloropropene	ND	ug/L	1.0
mp-Xylene	ND	ug/L	2.0
n-Butylbenzene	ND	ug/L	2.0
n-Propylbenzene	ND	ug/L	1.0
o-Chlorotoluene	ND	ug/L	1.0
o-Xylene	ND	ug/L	1.0
p-Chlorotoluene	ND	ug/L	1.0
p-Isopropyltoluene	ND	ug/L	1.0
sec-Butylbenzene	ND	ug/L	1.0
tert-Amyl methyl ether	ND	ug/L	1.0
tert-Butyl Alcohol	ND	ug/L	10.0
tert-Butylbenzene	ND	ug/L	2.0
trans-1,2-Dichloroethene	ND	ug/L	1.0
trans-1,3-Dichloropropene	ND	ug/L	1.0
1,2-Dichloroethane-d4 (S)	90.6	%	62 - 133
4-Bromofluorobenzene (S)	111	%	79 - 114
Dibromofluoromethane (S)	83.2	%	78 - 116
Toluene-d8 (S)	94.3	%	76 - 127

QUALITY CONTROL DATA

Workorder: 2323127 ALG002|LMC MRC

LABORATORY CONTROL SAMPLE: 2770859

Parameter	LCS % Rec	Units	Spike Conc.	LCS Result	% Rec Limit
1,1,1,2-Tetrachloroethane	97.5	ug/L	20	19.5	78 - 121
1,1,1-Trichloroethane	104	ug/L	20	20.8	66 - 130
1,1,2,2-Tetrachloroethane	97.6	ug/L	20	19.5	74 - 135
1,1,2-Trichloroethane	95.7	ug/L	20	19.1	82 - 126
1,1-Dichloroethane	99.3	ug/L	20	19.9	78 - 124
1,1-Dichloroethene	108	ug/L	20	21.6	63 - 128
1,2,3-Trichlorobenzene	89.8	ug/L	20	18.0	61 - 126
1,2,3-Trichloropropane	103	ug/L	20	20.6	75 - 132
1,2,4-Trichlorobenzene	85	ug/L	20	17.0	67 - 123
1,2,4-Trimethylbenzene	92.1	ug/L	20	18.4	76 - 125
1,2-Dibromo-3-chloropropane	81	ug/L	20	16.2	59 - 133
1,2-Dibromoethane	98.4	ug/L	20	19.7	80 - 124
1,2-Dichlorobenzene	95.5	ug/L	20	19.1	82 - 118
1,2-Dichloroethane	93.3	ug/L	20	18.7	70 - 133
1,2-Dichloroethene, Total	101	ug/L	40	40.4	78 - 125
1,2-Dichloropropane	98.2	ug/L	20	19.6	81 - 127
1,3-Dichlorobenzene	94.2	ug/L	20	18.8	81 - 118
1,3-Dichloropropane	98	ug/L	20	19.6	82 - 126
1,3-Dichloropropene, Total	91	ug/L	40	36.4	80 - 123
1,4-Dichlorobenzene	89.9	ug/L	20	18.0	81 - 116
2,2-Dichloropropane	87.1	ug/L	20	17.4	64 - 129
2-Butanone	93.1	ug/L	100	93.1	50 - 152
2-Chloroethylvinyl ether	76.2	ug/L	20	15.2	1 - 150
2-Hexanone	87.8	ug/L	100	87.8	65 - 154
4-Methyl-2-Pentanone(MIBK)	86	ug/L	100	86.0	71 - 146
Acetone	96.1	ug/L	100	96.1	40 - 151
Benzene	99.6	ug/L	20	19.9	80 - 124
Bromobenzene	109	ug/L	20	21.7	81 - 119
Bromochloromethane	94.2	ug/L	20	18.8	73 - 117
Bromodichloromethane	91.5	ug/L	20	18.3	79 - 126
Bromoform	98.7	ug/L	20	19.7	70 - 123
Bromomethane	87.8	ug/L	20	17.6	45 - 148
Carbon Disulfide	94.3	ug/L	20	18.9	57 - 131
Carbon Tetrachloride	100	ug/L	20	20.0	62 - 132
Chlorobenzene	92	ug/L	20	18.4	85 - 117
Chlorodibromomethane	93.1	ug/L	20	18.6	77 - 122
Chloroethane	93.4	ug/L	20	18.7	51 - 142
Chloroform	100	ug/L	20	20.1	78 - 122
Chloromethane	78.9	ug/L	20	15.8	38 - 156
Cyclohexane	108	ug/L	20	21.6	66 - 130
Dibromomethane	90.2	ug/L	20	18.0	81 - 125

QUALITY CONTROL DATA

Workorder: 2323127 ALG002|LMC MRC

Dichlorodifluoromethane	74.4	ug/L	20	14.9	17 - 166
Diisopropyl ether	87.7	ug/L	20	17.5	74 - 131
Ethyl tert-butyl ether	80.8	ug/L	20	16.2	75 - 123
Ethylbenzene	100	ug/L	20	20.0	80 - 124
Freon 113	117	ug/L	20	23.4	50 - 130
Hexachlorobutadiene	102	ug/L	20	20.5	55 - 128
Isopropylbenzene	107	ug/L	20	21.5	73 - 129
Methyl acetate	105	ug/L	20	21.0	70 - 130
Methyl cyclohexane	101	ug/L	20	20.2	70 - 130
Methyl t-Butyl Ether	83.3	ug/L	20	16.7	69 - 115
Methylene Chloride	101	ug/L	20	20.2	76 - 121
Naphthalene	84.5	ug/L	20	16.9	56 - 134
Styrene	97	ug/L	20	19.4	79 - 123
Tetrachloroethene	103	ug/L	20	20.5	72 - 124
Toluene	107	ug/L	20	21.4	80 - 125
Total Xylenes	99.9	ug/L	60	60.0	79 - 125
Trichlorofluoromethane	89.6	ug/L	20	17.9	38 - 123
Vinyl Acetate	86.4	ug/L	20	17.3	58 - 136
Vinyl Chloride	80.5	ug/L	20	16.1	27 - 138
cis-1,2-Dichloroethene	101	ug/L	20	20.1	78 - 125
cis-1,3-Dichloropropene	89.5	ug/L	20	17.9	81 - 121
mp-Xylene	107	ug/L	40	42.9	79 - 125
n-Butylbenzene	94.7	ug/L	20	18.9	71 - 130
n-Propylbenzene	99	ug/L	20	19.8	74 - 122
o-Chlorotoluene	90.9	ug/L	20	18.2	78 - 126
o-Xylene	85.5	ug/L	20	17.1	79 - 124
p-Chlorotoluene	113	ug/L	20	22.6	78 - 125
p-Isopropyltoluene	85.9	ug/L	20	17.2	72 - 123
sec-Butylbenzene	91.1	ug/L	20	18.2	72 - 127
tert-Amyl methyl ether	79.6	ug/L	20	15.9	75 - 121
tert-Butyl Alcohol	76.8	ug/L	100	76.8	17 - 168
tert-Butylbenzene	96.2	ug/L	20	19.2	72 - 124
trans-1,2-Dichloroethene	101	ug/L	20	20.3	71 - 122
trans-1,3-Dichloropropene	92.5	ug/L	20	18.5	78 - 126
1,2-Dichloroethane-d4 (S)	88.8	%			62 - 133
4-Bromofluorobenzene (S)	121*	%			79 - 114
Dibromofluoromethane (S)	83.9	%			78 - 116
Toluene-d8 (S)	92.5	%			76 - 127

QUALITY CONTROL DATA

Workorder: 2323127 ALG002|LMC MRC

QC Batch: VOMS/47336 **Analysis Method:** SW846 8260B

QC Batch Method: SW846 8260B

Associated Lab Samples: 2323127014

METHOD BLANK: 2771294

Parameter	Blank Result	Units	Reporting Limit
Trichloroethene	ND	ug/L	1.0
1,1,1,2-Tetrachloroethane	ND	ug/L	1.0
1,1,1-Trichloroethane	ND	ug/L	1.0
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0
1,1,2-Trichloroethane	ND	ug/L	1.0
1,1-Dichloroethane	ND	ug/L	1.0
1,1-Dichloroethene	ND	ug/L	1.0
1,2,3-Trichlorobenzene	ND	ug/L	2.0
1,2,3-Trichloropropane	ND	ug/L	2.0
1,2,4-Trichlorobenzene	ND	ug/L	2.0
1,2,4-Trimethylbenzene	ND	ug/L	1.0
1,2-Dibromo-3-chloropropane	ND	ug/L	7.0
1,2-Dibromoethane	ND	ug/L	1.0
1,2-Dichlorobenzene	ND	ug/L	1.0
1,2-Dichloroethane	ND	ug/L	1.0
1,2-Dichloroethene, Total	ND	ug/L	2.0
1,2-Dichloropropane	ND	ug/L	1.0
1,3-Dichlorobenzene	ND	ug/L	1.0
1,3-Dichloropropane	ND	ug/L	1.0
1,3-Dichloropropene, Total	ND	ug/L	2.0
1,4-Dichlorobenzene	ND	ug/L	1.0
2,2-Dichloropropane	ND	ug/L	1.0
2-Butanone	ND	ug/L	10.0
2-Chloroethylvinyl ether	ND	ug/L	2.0
2-Hexanone	ND	ug/L	5.0
4-Methyl-2-Pentanone(MIBK)	ND	ug/L	5.0
Acetone	ND	ug/L	10.0
Benzene	ND	ug/L	1.0
Bromobenzene	ND	ug/L	1.0
Bromochloromethane	ND	ug/L	1.0
Bromodichloromethane	ND	ug/L	1.0
Bromoform	ND	ug/L	1.0
Bromomethane	ND	ug/L	1.0
Carbon Disulfide	ND	ug/L	1.0
Carbon Tetrachloride	ND	ug/L	1.0
Chlorobenzene	ND	ug/L	1.0
Chlorodibromomethane	ND	ug/L	1.0

QUALITY CONTROL DATA

Workorder: 2323127 ALG002|LMC MRC

Chloroethane	ND	ug/L	1.0
Chloroform	ND	ug/L	1.0
Chloromethane	ND	ug/L	1.0
Cyclohexane	ND	ug/L	1.0
Dibromomethane	ND	ug/L	1.0
Dichlorodifluoromethane	ND	ug/L	1.0
Diisopropyl ether	ND	ug/L	1.0
Ethyl tert-butyl ether	ND	ug/L	1.0
Ethylbenzene	ND	ug/L	1.0
Freon 113	ND	ug/L	1.0
Hexachlorobutadiene	1.3J	ug/L	5.0
Isopropylbenzene	ND	ug/L	1.0
Methyl acetate	ND	ug/L	2.0
Methyl cyclohexane	ND	ug/L	1.0
Methyl t-Butyl Ether	ND	ug/L	1.0
Methylene Chloride	ND	ug/L	1.0
Naphthalene	ND	ug/L	2.0
Styrene	ND	ug/L	1.0
Tetrachloroethene	ND	ug/L	1.0
Toluene	ND	ug/L	1.0
Total Xylenes	ND	ug/L	3.0
Trichlorofluoromethane	ND	ug/L	1.0
Vinyl Acetate	ND	ug/L	5.0
Vinyl Chloride	ND	ug/L	1.0
cis-1,2-Dichloroethene	ND	ug/L	1.0
cis-1,3-Dichloropropene	ND	ug/L	1.0
mp-Xylene	ND	ug/L	2.0
n-Butylbenzene	ND	ug/L	2.0
n-Propylbenzene	ND	ug/L	1.0
o-Chlorotoluene	ND	ug/L	1.0
o-Xylene	ND	ug/L	1.0
p-Chlorotoluene	ND	ug/L	1.0
p-Isopropyltoluene	ND	ug/L	1.0
sec-Butylbenzene	ND	ug/L	1.0
tert-Amyl methyl ether	ND	ug/L	1.0
tert-Butyl Alcohol	ND	ug/L	10.0
tert-Butylbenzene	ND	ug/L	2.0
trans-1,2-Dichloroethene	ND	ug/L	1.0
trans-1,3-Dichloropropene	ND	ug/L	1.0
1,2-Dichloroethane-d4 (S)	94.3	%	62 - 133
4-Bromofluorobenzene (S)	86.8	%	79 - 114
Dibromofluoromethane (S)	82.4	%	78 - 116
Toluene-d8 (S)	84	%	76 - 127

QUALITY CONTROL DATA

Workorder: 2323127 ALG002|LMC MRC

LABORATORY CONTROL SAMPLE: 2771295

Parameter	LCS % Rec	Units	Spike Conc.	LCS Result	% Rec Limit
Trichloroethene	99.2	ug/L	20	19.8	77 - 124
1,1,1,2-Tetrachloroethane	102	ug/L	20	20.4	78 - 121
1,1,1-Trichloroethane	104	ug/L	20	20.7	66 - 130
1,1,2,2-Tetrachloroethane	86.1	ug/L	20	17.2	74 - 135
1,1,2-Trichloroethane	104	ug/L	20	20.8	82 - 126
1,1-Dichloroethane	100	ug/L	20	20.1	78 - 124
1,1-Dichloroethene	105	ug/L	20	21.1	63 - 128
1,2,3-Trichlorobenzene	78.8	ug/L	20	15.8	61 - 126
1,2,3-Trichloropropane	97.5	ug/L	20	19.5	75 - 132
1,2,4-Trichlorobenzene	80.9	ug/L	20	16.2	67 - 123
1,2,4-Trimethylbenzene	87	ug/L	20	17.4	76 - 125
1,2-Dibromo-3-chloropropane	67.6	ug/L	20	13.5	59 - 133
1,2-Dibromoethane	106	ug/L	20	21.1	80 - 124
1,2-Dichlorobenzene	96.7	ug/L	20	19.3	82 - 118
1,2-Dichloroethane	94.2	ug/L	20	18.8	70 - 133
1,2-Dichloroethene, Total	101	ug/L	40	40.4	78 - 125
1,2-Dichloropropane	100	ug/L	20	20.0	81 - 127
1,3-Dichlorobenzene	95.5	ug/L	20	19.1	81 - 118
1,3-Dichloropropane	103	ug/L	20	20.6	82 - 126
1,3-Dichloropropene, Total	102	ug/L	40	40.8	80 - 123
1,4-Dichlorobenzene	90.8	ug/L	20	18.2	81 - 116
2,2-Dichloropropane	106	ug/L	20	21.1	64 - 129
2-Butanone	91.9	ug/L	100	91.9	50 - 152
2-Chloroethylvinyl ether	64.2	ug/L	20	12.8	1 - 150
2-Hexanone	89.9	ug/L	100	89.9	65 - 154
4-Methyl-2-Pentanone(MIBK)	90.5	ug/L	100	90.5	71 - 146
Acetone	95.9	ug/L	100	95.9	40 - 151
Benzene	100	ug/L	20	20.0	80 - 124
Bromobenzene	102	ug/L	20	20.3	81 - 119
Bromochloromethane	96.6	ug/L	20	19.3	73 - 117
Bromodichloromethane	92.9	ug/L	20	18.6	79 - 126
Bromoform	79.3	ug/L	20	15.9	70 - 123
Bromomethane	73.7	ug/L	20	14.7	45 - 148
Carbon Disulfide	97.3	ug/L	20	19.5	57 - 131
Carbon Tetrachloride	102	ug/L	20	20.5	62 - 132
Chlorobenzene	94.5	ug/L	20	18.9	85 - 117
Chlorodibromomethane	94.6	ug/L	20	18.9	77 - 122
Chloroethane	83.7	ug/L	20	16.7	51 - 142
Chloroform	98	ug/L	20	19.6	78 - 122
Chloromethane	66.1	ug/L	20	13.2	38 - 156
Cyclohexane	107	ug/L	20	21.4	66 - 130

QUALITY CONTROL DATA

Workorder: 2323127 ALG002|LMC MRC

Dibromomethane	91.3	ug/L	20	18.3	81 - 125
Dichlorodifluoromethane	58.7	ug/L	20	11.7	17 - 166
Diisopropyl ether	90.4	ug/L	20	18.1	74 - 131
Ethyl tert-butyl ether	85.1	ug/L	20	17.0	75 - 123
Ethylbenzene	102	ug/L	20	20.5	80 - 124
Freon 113	116	ug/L	20	23.1	50 - 130
Hexachlorobutadiene	104	ug/L	20	20.8	55 - 128
Isopropylbenzene	95	ug/L	20	19.0	73 - 129
Methyl acetate	101	ug/L	20	20.2	70 - 130
Methyl cyclohexane	108	ug/L	20	21.7	70 - 130
Methyl t-Butyl Ether	87.7	ug/L	20	17.5	69 - 115
Methylene Chloride	103	ug/L	20	20.6	76 - 121
Naphthalene	67.5	ug/L	20	13.5	56 - 134
Styrene	84.7	ug/L	20	16.9	79 - 123
Tetrachloroethene	111	ug/L	20	22.1	72 - 124
Toluene	116	ug/L	20	23.2	80 - 125
Total Xylenes	101	ug/L	60	60.9	79 - 125
Trichlorofluoromethane	83.5	ug/L	20	16.7	38 - 123
Vinyl Acetate	91.5	ug/L	20	18.3	58 - 136
Vinyl Chloride	71	ug/L	20	14.2	27 - 138
cis-1,2-Dichloroethene	101	ug/L	20	20.2	78 - 125
cis-1,3-Dichloropropene	99.3	ug/L	20	19.9	81 - 121
mp-Xylene	109	ug/L	40	43.7	79 - 125
n-Butylbenzene	104	ug/L	20	20.8	71 - 130
n-Propylbenzene	92	ug/L	20	18.4	74 - 122
o-Chlorotoluene	88.6	ug/L	20	17.7	78 - 126
o-Xylene	85.9	ug/L	20	17.2	79 - 124
p-Chlorotoluene	102	ug/L	20	20.4	78 - 125
p-Isopropyltoluene	90.9	ug/L	20	18.2	72 - 123
sec-Butylbenzene	97.1	ug/L	20	19.4	72 - 127
tert-Amyl methyl ether	84.5	ug/L	20	16.9	75 - 121
tert-Butyl Alcohol	81.4	ug/L	100	81.4	17 - 168
tert-Butylbenzene	92.3	ug/L	20	18.5	72 - 124
trans-1,2-Dichloroethene	101	ug/L	20	20.2	71 - 122
trans-1,3-Dichloropropene	105	ug/L	20	20.9	78 - 126
1,2-Dichloroethane-d4 (S)	84.8	%			62 - 133
4-Bromofluorobenzene (S)	94.8	%			79 - 114
Dibromofluoromethane (S)	83	%			78 - 116
Toluene-d8 (S)	97.1	%			76 - 127

MATRIX SPIKE: 2771691 DUPLICATE: 2771692 ORIGINAL: 2323597001

****NOTE - The Original Result shown below is a raw result and is only used for the purpose of calculating Matrix Spike percent recoveries. This result is not a final value and cannot be used as such.

Parameter	Original Result	Units	Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limit	RPD	Max RPD

QUALITY CONTROL DATA

Workorder: 2323127 ALG002|LMC MRC

1,2,4-Trimethylbenzene	0	ug/L	20	19.2979	19.2682	96.5	96.3	76 - 125	.15	24
Benzene	0	ug/L	20	21.7085	21.755	109	109	80 - 124	.21	26
Ethylbenzene	0	ug/L	20	21.341	21.4698	107	107	80 - 124	.6	19
Isopropylbenzene	0	ug/L	20	21.7094	22.4	109	112	73 - 129	3.13	18
Methyl t-Butyl Ether	0	ug/L	20	17.5283	17.7216	87.6	88.6	69 - 115	1.1	20
Naphthalene	0	ug/L	20	14.1073	13.8638	70.5	69.3	56 - 134	1.74	40
Toluene	0	ug/L	20	22.9594	22.5143	115	113	80 - 125	1.96	20
1,2-Dichloroethane-d4 (S)	87.1	%				87.1	93.6	62 - 133		
4-Bromofluorobenzene (S)	96.9	%				96.9	96.7	79 - 114		
Dibromofluoromethane (S)	83.7	%				83.7	84.8	78 - 116		
Toluene-d8 (S)	86.3	%				86.3	87	76 - 127		

ALS Environmental
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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

QUALITY CONTROL DATA

Workorder: 2323127 ALG002|LMC MRC

QC Batch: VOMS/47346 **Analysis Method:** SW846 8260B

QC Batch Method: SW846 8260B

Associated Lab Samples: 2323127015

METHOD BLANK: 2771849

Parameter	Blank Result	Units	Reporting Limit
1,2-Dichloroethene, Total	ND	ug/L	2.0
Trichloroethene	ND	ug/L	1.0
cis-1,2-Dichloroethene	ND	ug/L	1.0
1,1,1,2-Tetrachloroethane	ND	ug/L	1.0
1,1,1-Trichloroethane	ND	ug/L	1.0
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0
1,1,2-Trichloroethane	ND	ug/L	1.0
1,1-Dichloroethane	ND	ug/L	1.0
1,1-Dichloroethene	ND	ug/L	1.0
1,2,3-Trichlorobenzene	ND	ug/L	2.0
1,2,3-Trichloropropane	ND	ug/L	2.0
1,2,4-Trichlorobenzene	ND	ug/L	2.0
1,2,4-Trimethylbenzene	ND	ug/L	1.0
1,2-Dibromo-3-chloropropane	ND	ug/L	7.0
1,2-Dibromoethane	ND	ug/L	1.0
1,2-Dichlorobenzene	ND	ug/L	1.0
1,2-Dichloroethane	ND	ug/L	1.0
1,2-Dichloropropane	ND	ug/L	1.0
1,3-Dichlorobenzene	ND	ug/L	1.0
1,3-Dichloropropane	ND	ug/L	1.0
1,3-Dichloropropene, Total	ND	ug/L	2.0
1,4-Dichlorobenzene	ND	ug/L	1.0
2,2-Dichloropropane	ND	ug/L	1.0
2-Butanone	ND	ug/L	10.0
2-Chloroethylvinyl ether	ND	ug/L	2.0
2-Hexanone	ND	ug/L	5.0
4-Methyl-2-Pentanone(MIBK)	ND	ug/L	5.0
Acetone	ND	ug/L	10.0
Benzene	ND	ug/L	1.0
Bromobenzene	ND	ug/L	1.0
Bromochloromethane	ND	ug/L	1.0
Bromodichloromethane	ND	ug/L	1.0
Bromoform	ND	ug/L	1.0
Bromomethane	ND	ug/L	1.0
Carbon Disulfide	ND	ug/L	1.0
Carbon Tetrachloride	ND	ug/L	1.0
Chlorobenzene	ND	ug/L	1.0

QUALITY CONTROL DATA

Workorder: 2323127 ALG002|LMC MRC

Chlorodibromomethane	ND	ug/L	1.0
Chloroethane	ND	ug/L	1.0
Chloroform	ND	ug/L	1.0
Chloromethane	ND	ug/L	1.0
Cyclohexane	ND	ug/L	1.0
Dibromomethane	ND	ug/L	1.0
Dichlorodifluoromethane	ND	ug/L	1.0
Diisopropyl ether	ND	ug/L	1.0
Ethyl tert-butyl ether	ND	ug/L	1.0
Ethylbenzene	ND	ug/L	1.0
Freon 113	ND	ug/L	1.0
Hexachlorobutadiene	1.1J	ug/L	5.0
Isopropylbenzene	ND	ug/L	1.0
Methyl acetate	ND	ug/L	2.0
Methyl cyclohexane	ND	ug/L	1.0
Methyl t-Butyl Ether	ND	ug/L	1.0
Methylene Chloride	ND	ug/L	1.0
Naphthalene	ND	ug/L	2.0
Styrene	ND	ug/L	1.0
Tetrachloroethene	ND	ug/L	1.0
Toluene	ND	ug/L	1.0
Total Xylenes	ND	ug/L	3.0
Trichlorofluoromethane	ND	ug/L	1.0
Vinyl Acetate	ND	ug/L	5.0
Vinyl Chloride	ND	ug/L	1.0
cis-1,3-Dichloropropene	ND	ug/L	1.0
mp-Xylene	ND	ug/L	2.0
n-Butylbenzene	ND	ug/L	2.0
n-Propylbenzene	ND	ug/L	1.0
o-Chlorotoluene	ND	ug/L	1.0
o-Xylene	ND	ug/L	1.0
p-Chlorotoluene	ND	ug/L	1.0
p-Isopropyltoluene	ND	ug/L	1.0
sec-Butylbenzene	ND	ug/L	1.0
tert-Amyl methyl ether	ND	ug/L	1.0
tert-Butyl Alcohol	ND	ug/L	10.0
tert-Butylbenzene	ND	ug/L	2.0
trans-1,2-Dichloroethene	ND	ug/L	1.0
trans-1,3-Dichloropropene	ND	ug/L	1.0
1,2-Dichloroethane-d4 (S)	90.2	%	62 - 133
4-Bromofluorobenzene (S)	93.5	%	79 - 114
Dibromofluoromethane (S)	81.8	%	78 - 116
Toluene-d8 (S)	87.7	%	76 - 127

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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

QUALITY CONTROL DATA

Workorder: 2323127 ALG002|LMC MRC

LABORATORY CONTROL SAMPLE: 2771850

Parameter	LCS % Rec	Units	Spike Conc.	LCS Result	% Rec Limit
1,2-Dichloroethene, Total	103	ug/L	40	41.2	78 - 125
Trichloroethene	107	ug/L	20	21.3	77 - 124
cis-1,2-Dichloroethene	103	ug/L	20	20.5	78 - 125
1,1,1,2-Tetrachloroethane	102	ug/L	20	20.4	78 - 121
1,1,1-Trichloroethane	113	ug/L	20	22.7	66 - 130
1,1,2,2-Tetrachloroethane	91.8	ug/L	20	18.4	74 - 135
1,1,2-Trichloroethane	91.1	ug/L	20	18.2	82 - 126
1,1-Dichloroethane	98.1	ug/L	20	19.6	78 - 124
1,1-Dichloroethene	109	ug/L	20	21.9	63 - 128
1,2,3-Trichlorobenzene	66.2	ug/L	20	13.2	61 - 126
1,2,3-Trichloropropane	98.3	ug/L	20	19.7	75 - 132
1,2,4-Trichlorobenzene	79.3	ug/L	20	15.9	67 - 123
1,2,4-Trimethylbenzene	94.6	ug/L	20	18.9	76 - 125
1,2-Dibromo-3-chloropropane	70.2	ug/L	20	14.0	59 - 133
1,2-Dibromoethane	97.9	ug/L	20	19.6	80 - 124
1,2-Dichlorobenzene	99.8	ug/L	20	20.0	82 - 118
1,2-Dichloroethane	103	ug/L	20	20.6	70 - 133
1,2-Dichloropropane	99.1	ug/L	20	19.8	81 - 127
1,3-Dichlorobenzene	101	ug/L	20	20.1	81 - 118
1,3-Dichloropropane	94.2	ug/L	20	18.8	82 - 126
1,3-Dichloropropene, Total	94.1	ug/L	40	37.6	80 - 123
1,4-Dichlorobenzene	95.2	ug/L	20	19.0	81 - 116
2,2-Dichloropropane	124	ug/L	20	24.8	64 - 129
2-Butanone	104	ug/L	100	104	50 - 152
2-Chloroethylvinyl ether	70.7	ug/L	20	14.1	1 - 150
2-Hexanone	101	ug/L	100	101	65 - 154
4-Methyl-2-Pentanone(MIBK)	82.5	ug/L	100	82.5	71 - 146
Acetone	139	ug/L	100	139	40 - 151
Benzene	100	ug/L	20	20.1	80 - 124
Bromobenzene	106	ug/L	20	21.2	81 - 119
Bromochloromethane	102	ug/L	20	20.4	73 - 117
Bromodichloromethane	97.5	ug/L	20	19.5	79 - 126
Bromoform	80.3	ug/L	20	16.1	70 - 123
Bromomethane	83.9	ug/L	20	16.8	45 - 148
Carbon Disulfide	99.1	ug/L	20	19.8	57 - 131
Carbon Tetrachloride	110	ug/L	20	22.0	62 - 132
Chlorobenzene	95.2	ug/L	20	19.0	85 - 117
Chlorodibromomethane	88.7	ug/L	20	17.7	77 - 122
Chloroethane	93	ug/L	20	18.6	51 - 142
Chloroform	105	ug/L	20	21.0	78 - 122
Chloromethane	68.8	ug/L	20	13.8	38 - 156

QUALITY CONTROL DATA

Workorder: 2323127 ALG002|LMC MRC

Cyclohexane	110	ug/L	20	22.1	66 - 130
Dibromomethane	97.1	ug/L	20	19.4	81 - 125
Dichlorodifluoromethane	64.5	ug/L	20	12.9	17 - 166
Diisopropyl ether	88.7	ug/L	20	17.7	74 - 131
Ethyl tert-butyl ether	87.3	ug/L	20	17.5	75 - 123
Ethylbenzene	105	ug/L	20	21.0	80 - 124
Freon 113	125	ug/L	20	25.0	50 - 130
Hexachlorobutadiene	106	ug/L	20	21.2	55 - 128
Isopropylbenzene	105	ug/L	20	21.0	73 - 129
Methyl acetate	95.7	ug/L	20	19.1	70 - 130
Methyl cyclohexane	94.9	ug/L	20	19.0	70 - 130
Methyl t-Butyl Ether	91.5	ug/L	20	18.3	69 - 115
Methylene Chloride	101	ug/L	20	20.3	76 - 121
Naphthalene	63.9	ug/L	20	12.8	56 - 134
Styrene	94.5	ug/L	20	18.9	79 - 123
Tetrachloroethene	103	ug/L	20	20.6	72 - 124
Toluene	105	ug/L	20	21.1	80 - 125
Total Xylenes	105	ug/L	60	63.1	79 - 125
Trichlorofluoromethane	92.7	ug/L	20	18.5	38 - 123
Vinyl Acetate	91	ug/L	20	18.2	58 - 136
Vinyl Chloride	77	ug/L	20	15.4	27 - 138
cis-1,3-Dichloropropene	92.2	ug/L	20	18.4	81 - 121
mp-Xylene	112	ug/L	40	44.8	79 - 125
n-Butylbenzene	111	ug/L	20	22.2	71 - 130
n-Propylbenzene	97.6	ug/L	20	19.5	74 - 122
o-Chlorotoluene	96.9	ug/L	20	19.4	78 - 126
o-Xylene	91.7	ug/L	20	18.3	79 - 124
p-Chlorotoluene	113	ug/L	20	22.5	78 - 125
p-Isopropyltoluene	98.5	ug/L	20	19.7	72 - 123
sec-Butylbenzene	105	ug/L	20	21.0	72 - 127
tert-Amyl methyl ether	87.7	ug/L	20	17.5	75 - 121
tert-Butyl Alcohol	84.4	ug/L	100	84.4	17 - 168
tert-Butylbenzene	98.9	ug/L	20	19.8	72 - 124
trans-1,2-Dichloroethene	103	ug/L	20	20.6	71 - 122
trans-1,3-Dichloropropene	96	ug/L	20	19.2	78 - 126
1,2-Dichloroethane-d4 (S)	90.7	%			62 - 133
4-Bromofluorobenzene (S)	97.8	%			79 - 114
Dibromofluoromethane (S)	85.7	%			78 - 116
Toluene-d8 (S)	84.9	%			76 - 127

MATRIX SPIKE: 2772130 DUPLICATE: 2772131 ORIGINAL: 2323941002

****NOTE - The Original Result shown below is a raw result and is only used for the purpose of calculating Matrix Spike percent recoveries. This result is not a final value and cannot be used as such.

Parameter	Original Result	Units	Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limit	RPD	Max RPD

QUALITY CONTROL DATA

Workorder: 2323127 ALG002|LMC MRC

1,2,4-Trimethylbenzene	0	ug/L	20	17.7285	18.3424	88.6	91.7	76 - 125	3.4	24
Benzene	0	ug/L	20	21.7427	21.2188	109	106	80 - 124	2.44	26
Ethylbenzene	0	ug/L	20	21.014	20.5509	105	103	80 - 124	2.23	19
Isopropylbenzene	0	ug/L	20	20.1222	20.4566	101	102	73 - 129	1.65	18
Methyl t-Butyl Ether	0	ug/L	20	17.9906	16.3447	90	81.7	69 - 115	9.59	20
Naphthalene	0	ug/L	20	9.46996	11.5804	47.3*	57.9	56 - 134	20.1	40
Toluene	0	ug/L	20	23.7725	22.1399	119	111	80 - 125	7.11	20
1,2-Dichloroethane-d4 (S)	90.6	%				90.6	90.6	62 - 133		
4-Bromofluorobenzene (S)	93.8	%				93.8	93.7	79 - 114		
Dibromofluoromethane (S)	83.1	%				83.1	83.4	78 - 116		
Toluene-d8 (S)	91	%				91	87	76 - 127		

QUALITY CONTROL DATA QUALIFIERS

Workorder: 2323127 ALG002|LMC MRC

QUALITY CONTROL PARAMETER QUALIFIERS

Lab ID	#	Sample Type	Analytical Method	Analyte
2770697	1	Lab Control Standard	SW846 8260B	Vinyl Acetate
The QC sample type LCS for method SW846 8260B was outside the control limits for the analyte Vinyl Acetate. The % Recovery was reported as 143 and the control limits were 58 to 136.				
2770697	2	Lab Control Standard	SW846 8260B	Cyclohexane
The QC sample type LCS for method SW846 8260B was outside the control limits for the analyte Cyclohexane. The % Recovery was reported as 132 and the control limits were 66 to 130.				
2770697	3	Lab Control Standard	SW846 8260B	Methylene Chloride
The QC sample type LCS for method SW846 8260B was outside the control limits for the analyte Methylene Chloride. The % Recovery was reported as 122 and the control limits were 76 to 121.				
2770697	4	Lab Control Standard	SW846 8260B	Ethyl tert-butyl ether
The QC sample type LCS for method SW846 8260B was outside the control limits for the analyte Ethyl tert-butyl ether. The % Recovery was reported as 126 and the control limits were 75 to 123.				
2770697	5	Lab Control Standard	SW846 8260B	Bromochloromethane
The QC sample type LCS for method SW846 8260B was outside the control limits for the analyte Bromochloromethane. The % Recovery was reported as 121 and the control limits were 73 to 117.				
2770697	6	Lab Control Standard	SW846 8260B	trans-1,2-Dichloroethene
The QC sample type LCS for method SW846 8260B was outside the control limits for the analyte trans-1,2-Dichloroethene. The % Recovery was reported as 129 and the control limits were 71 to 122.				
2770697	7	Lab Control Standard	SW846 8260B	Tetrachloroethene
The QC sample type LCS for method SW846 8260B was outside the control limits for the analyte Tetrachloroethene. The % Recovery was reported as 127 and the control limits were 72 to 124.				
2770697	8	Lab Control Standard	SW846 8260B	Methyl cyclohexane
The QC sample type LCS for method SW846 8260B was outside the control limits for the analyte Methyl cyclohexane. The % Recovery was reported as 139 and the control limits were 70 to 130.				
2770697	9	Lab Control Standard	SW846 8260B	1,2-Dichloroethene, Total
The QC sample type LCS for method SW846 8260B was outside the control limits for the analyte 1,2-Dichloroethene, Total. The % Recovery was reported as 126 and the control limits were 78 to 125.				
2770697	10	Lab Control Standard	SW846 8260B	Chloroethane
The QC sample type LCS for method SW846 8260B was outside the control limits for the analyte Chloroethane. The % Recovery was reported as 170 and the control limits were 51 to 142.				
2770697	11	Lab Control Standard	SW846 8260B	Freon 113
The QC sample type LCS for method SW846 8260B was outside the control limits for the analyte Freon 113. The % Recovery was reported as 160 and the control limits were 50 to 130.				
2770697	12	Lab Control Standard	SW846 8260B	1,1-Dichloroethene
The QC sample type LCS for method SW846 8260B was outside the control limits for the analyte 1,1-Dichloroethene. The % Recovery was reported as 147 and the control limits were 63 to 128.				

QUALITY CONTROL DATA CROSS REFERENCE TABLE

Workorder: 2323127 ALG002|LMC MRC

Lab ID	Sample ID	Prep Method	Prep Batch	Analysis Method	Analysis Batch
2323127001	MRC-SW16A	SW846 3510C	EXTR/52759	8270 SIM	SVMS/30943
2323127002	MRC-SW15A	SW846 3510C	EXTR/52759	8270 SIM	SVMS/30943
2323127006	MRC-SW2A	SW846 3510C	EXTR/52759	8270 SIM	SVMS/30943
2323127007	MRC-SW1A	SW846 3510C	EXTR/52759	8270 SIM	SVMS/30943
2323127009	MRC-MW11A	SW846 3510C	EXTR/52759	8270 SIM	SVMS/30943
2323127010	MRC-MW16A	SW846 3510C	EXTR/52759	8270 SIM	SVMS/30943
2323127011	MRC-MW16A-DUP	SW846 3510C	EXTR/52759	8270 SIM	SVMS/30943
2323127012	MRC-MW17A	SW846 3510C	EXTR/52759	8270 SIM	SVMS/30943
2323127013	MRC-MW17A DUP	SW846 3510C	EXTR/52759	8270 SIM	SVMS/30943
2323127014	EW-2	SW846 3510C	EXTR/52759	8270 SIM	SVMS/30943
2323127015	EW-1	SW846 3510C	EXTR/52759	8270 SIM	SVMS/30943
2323127011	MRC-MW16A-DUP	SW846 3510C	EXTR/52759	8270 SIM	SVMS/30949
2323127010	MRC-MW16A	SW846 3510C	EXTR/52759	8270 SIM	SVMS/30953
2323127009	MRC-MW11A	SW846 7470A	MDIG/72452	SW846 7470A	META/62650
2323127009	MRC-MW11A	SW846 3015	MDIG/72465	SW846 6020A	META/62728
2323127001	MRC-SW16A			SW846 8260B	VOMS/47322
2323127002	MRC-SW15A			SW846 8260B	VOMS/47322
2323127003	MRC-SW5A2			SW846 8260B	VOMS/47322
2323127004	MRC-SW5A1			SW846 8260B	VOMS/47322
2323127005	MRC-SW5B			SW846 8260B	VOMS/47322
2323127006	MRC-SW2A			SW846 8260B	VOMS/47322
2323127007	MRC-SW1A			SW846 8260B	VOMS/47322
2323127008	TB-0626-18			SW846 8260B	VOMS/47322
2323127009	MRC-MW11A			SW846 8260B	VOMS/47322
2323127010	MRC-MW16A			SW846 8260B	VOMS/47322
2323127011	MRC-MW16A-DUP			SW846 8260B	VOMS/47322
2323127012	MRC-MW17A			SW846 8260B	VOMS/47323
2323127013	MRC-MW17A DUP			SW846 8260B	VOMS/47323

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State Certifications: DE ID 11 , MA PA0102 , MD 128 , VA 460157 , WV 343

QUALITY CONTROL DATA CROSS REFERENCE TABLE

Workorder: 2323127 ALG002|LMC MRC

Lab ID	Sample ID	Prep Method	Prep Batch	Analysis Method	Analysis Batch
2323127015	EW-1			SW846 8260B	VOMS/47323
2323127014	EW-2			SW846 8260B	VOMS/47326
2323127014	EW-2			SW846 8260B	VOMS/47336
2323127015	EW-1			SW846 8260B	VOMS/47346

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F.717-944-1430

CHAIN OF CUSTODY/ REQUEST FOR ANALYSIS

ALL SHADED AREAS MUST BE COMPLETED BY THE CLIENT / SAMPLER. INSTRUCTIONS ON THE BACK.

Courier:

Tracking #:

23231127

Co. Name: AECOM

Contact (Report to): Ravi Bamera Phone: 301-674-3199

Address: 12420 Milestone Center Drive Suite 150 Germantown, MD 20876

Bill to (if different than Report to): PO#: 95840ACM

Project Name/#: LMC MRC ALS Quote #:

TAT: [X] Normal-Standard TAT is 10-12 business days. [ ] Rush-Subject to ALS approval and surcharges. Date Required: Approved By:

Email? [X] Y ravi.damera@aecom.com

Fax? [ ] Y No.:

	Sample Description/Location (as it will appear on the lab report)	COC Comments	Sample Date	Military Time	*G or C	**Matrix	VOC (8260C)	1,4-Dioxane (8270 SIM)									Correct containers?	Correct sample volume?	Correct preservation?	Headspace/Volatiles?	Circle appropriate Y or N.
	***Container Type																				
	***Container Size																				
	***Preservative																				
1	MRC-SW16A	SW=Surface H_2O	6/25/18	1430	G	SW	~~2~~	2	→ rec'd HCl VIALS + AIL 6/26/18								Y	Y	Y	Y	Y
2	MRC-SW15A		6/25/18	1445	G	SW	2	2									Y	Y	Y	Y	Y
3	MRC-SW5A2		6/25/18	1500	G	SW	2										Y	Y	Y	Y	Y
4	MRC-SW5A1		6/25/18	1505	G	SW	2														
5	MRC-SW5B		6/25/18	1515	G	SW	2														
6	MRC-SW2A		6/25/18	1530	G	SW	2	2													
7	MRC-SW2A		6/25/18	1545	G	SW	2	2													
8	TB-062518		6/25/18	—	G	W	2														

Custody seals Present? (if present) Seals intact? Received on ice? COC/Label's complete/accurate? Container in good condition?

(completed by Sample Receiver) Performed by: MKA Cooler Temp: 3.2 Therm. ID: 402 No. of Coolers:

Notes:

SAMPLED BY (Please Print): Victoria Kirkpatrick

Project Comments: Also email holly.brown@aecom.com and naoum.tavantzis@aecom.com

Relinquished By / Company Name	Date	Time	Received By / Company Name	Date	Time
1 AECOM	6-26-18	1600	2	6/26	1600
3 ALS	6/26	1735	4	6/26	1830
5	6/26	2130	6 M Rowan	6/26	2130
7			8		
9			10		

Data Deliverables: [ ] Standard [X] CLP-like [ ] NJ-Reduced [ ] NJ-Full [ ] other

EDDs Required? [X] If yes, format type: EQuiS+.CSV

DOD Criteria Required?

SOWA Forms? yes [ ] yes [ ] yes [ ] yes [ ]

State Samples Collected In? MD [ ] NJ [ ] NY [ ] PA [ ] Other

Enter PWSID No.

ALS FIELD SERVICES: [ ] Pickup [ ] Labor [ ] Composite Sampling [ ] Rental Equipment [ ] Other:

* G=Grab; C=Composite

**Matrix: Al=Air; DW=Drinking Water; GW=Groundwater; Ol=Oil; OL=Other Liquid; SL=Sludge; SO=Soil; WP=Wipe; WW=Wastewater

Copies: WHITE - ORIGINAL CANARY - CUSTOMER COPY

***Container Type: AG-Amber Glass; CG-Clear Glass, PL-Plastic. Container Size: 250ml, 500ml, 1L, 8oz., etc. Preservative: HCl, HNO3, NaOH, etc.

Rev 01-2013

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CHAIN OF CUSTODY/ REQUEST FOR ANALYSIS

ALL SHADED AREAS MUST BE COMPLETED BY THE CLIENT / SAMPLER. INSTRUCTIONS ON THE BACK.

gd/set up 2-07

Page 2 of 2

Courier:

Tracking #:

COC# 3127

Co. Name: AECOM

Contact (Report to): Ravi Damera Phone: 301-674-3199

Address: 12420 Milestone Center Drive Suite 150 Germantown, MD 20876

Bill to (if different than Report to): PO#: 95840ACM

Project Name/#: LMC MRC ALS Quote #:

TAT: [X] Normal-Standard TAT is 10-12 business days. [ ] Rush-Subject to ALS approval and surcharges. Date Required: Approved By:

Email? [X] Y ravi.damera@aecom.com

Fax? [ ] Y No.:

Sample Description/Location (as it will appear on the lab report)	COC Comments	Sample Date	Military Time	*G or C	**Matrix	VOC (8260C)	1,4-Dioxane (8270 SIM)	Metals	PCBs							
***Container Type				CG	AG	P										
***Container Size				40ml	1L	250ml										
*** Preservative				HCl	—	HNO3										
				Enter Number of Containers Per Analysis												
1 MRC-MW11A	GW = groundwater	6/25/18	1400	G	GW	2	2	1								
2 MRC-MW16A	+ extra volume for MS/MSD	6/25/18	1530	G	GW	6	6									
3 MRC-MW16A-DUP		6/25/18	1550	G	GW	2	2									
4 MRC-SW17A	+ extra volume for MS/MSD	6/26/18	1010	G	SW	6	6									
5 MRC-SW17A-DUP		6/26/18	1045	G	SW	2	2									
6 EW-2		6/26/18	1105	G	GW	2	2		2							
7 EW-1		6/26/18	1320	G	GW	2	2		2							
8																

Broken bottle MRA

Receipt Information (complete if by Sample Receiver): Received by: MRA

Cooler Temp: 3.0

Therm. ID: 402

No. of Coolers:

Notes:

Circle appropriate Y or N.	Correct containers?	Correct sample volume?	Correct preservation?	Headspace/Volatiles?
	Y	Y	Y	Y

Circle appropriate Y or N.	Custody seals Present?	(if present) Seals intact?	Received on ice?	COC/Labels complete/accurate?	Container in good condition?
	Y	Y	Y	Y	Y

SAMPLED BY (Please Print): ~~MS~~ Antonio Zarelli

Project Comments: Please also email holly.brown@aecom.com and naoum.tavantzis@aecom.com

Relinquished By / Company Name	Date	Time	Received By / Company Name	Date	Time
1 AECOM	6-26-18	1600	2	6/26	1600
3	6/26	1235	4	6/26	1830
5	6/26	2130	6 M. Konfaw	6/26/18	2130
7			8		
9			10		

Data Deliverables: [ ] Standard [X] CLP-like [ ] NJ-Reduced [ ] NJ-Full [ ] new

SDWA Forms? yes [ ] yes [ ] yes [ ] yes [ ]

State Samples Collected In? MD [ ] NJ [ ] NY [ ] PA [ ] Other

EDDs Required? [X] If yes, format type: EQuIS 1.CSV Enter PWSID No.

DOD Criteria Required?

ALS FIELD SERVICES: [ ] Pickup [ ] Labor [ ] Composite Sampling [ ] Rental Equipment [ ] Other:

* G=Grab; C=Composite **Matrix: AI=Air; DW=Drinking Water; GW=Groundwater; OI=Oil; OL=Other Liquid; SL=Sludge; SO=Soil; WP=Wipe; WW=Wastewater

Copies: WHITE - ORIGINAL CANARY - CUSTOMER COPY ***Container Type: AG-Amber Glass; CG-Clear Glass, PL-Plastic. Container Size: 250ml, 500ml, 1L, 8oz., etc. Preservative: HCl, HNO3, NaOH, etc. Rev 01-2013

July 18, 2018

Service Request No:R1806157

Vanessa Badman
ALS Environmental
34 Dogwood Lane
Middletown, PA 17057

Laboratory Results for: UR115: 2323127

Dear Vanessa,

Enclosed are the results of the sample(s) submitted to our laboratory June 29, 2018
For your reference, these analyses have been assigned our service request number **R1806157.**

All analyses were performed according to our laboratory's quality assurance program. The test results meet requirements of the NELAP standards except as noted in the case narrative report. All results are intended to be considered in their entirety, and ALS Environmental is not responsible for use of less than the complete report. Results apply only to the items submitted to the laboratory for analysis and individual items (samples) analyzed, as listed in the report. The measurement uncertainty of the results included in this report is within that expected when using the prescribed method(s) for analysis of these samples, and represented by Laboratory Control Sample control limits. Any events, such as QC failures, which may add to the uncertainty are explained in the report narrative.

Please contact me if you have any questions. My extension is 7472. You may also contact me via email at Janice.Jaeger@alsglobal.com.

Respectfully submitted,

ALS Group USA, Corp. dba ALS Environmental

Janice Jaeger
Project Manager

ADDRESS 1565 Jefferson Road, Building 300, Suite 360, Rochester, NY 14623
PHONE +1 585 288 5380 | FAX +1 585 288 8475
ALS Group USA, Corp.
dba ALS Environmental

Narrative Documents

ALS Environmental Rochester Laboratory
1565 Jefferson Road, Building 300, Suite 360, Rochester, NY 14623
Phone (585) 288-5380 Fax (585) 288-8475
www.alsglobal.com

ALS Environmental

Client: ALS Environmental - US
Project: UR115:2323127
Sample Matrix: Water

Service Request: R1806157
Date Received: 06/29/2018

CASE NARRATIVE

All analyses were performed consistent with the quality assurance program of ALS Environmental. This report contains analytical results for samples designated for Tier II data deliverables, including results of QC samples analyzed from this delivery group. Analytical procedures performed by the lab are validated in accordance with NELAC standards. Any parameters that are not included in the lab's NELAC accreditation are identified on a "Non-Certified Analytes" report in the Miscellaneous Forms Section of this report. Individual analytical results requiring further explanation are flagged with qualifiers and/or discussed below. The flags are explained in the Report Qualifiers and Definitions page in the Miscellaneous Forms section of this report.

Sample Receipt:

Two water samples were received for analysis at ALS Environmental on 06/29/2018. Any discrepancies noted upon initial sample inspection are noted on the cooler receipt and preservation form included in this data package. The samples were received in good condition and consistent with the accompanying chain of custody form. Samples are refrigerated at 6°C upon receipt at the lab except for aqueous samples designated for metals analyses, which are stored at room temperature.

Semivolatiles by GC/MS:

Method 680, 07/13/2018: The control limit was exceeded for one or more surrogates in the Continuing Calibration Verification (CCV). The surrogates were within acceptance limits for the associated field samples. The data quality was not significantly affected and no further corrective action was taken.
Method 680, 07/09/2018: The lower control limit for the spike recovery of the Laboratory Control Sample (LCS) was exceeded for one or more analyte. There were no detections of the analyte(s) in the associated field samples. The discrepancy associated with reduced recovery equates to a potential low bias. Additional analysis of R1806157-001 could not be performed because insufficient sample remained for testing. Sample R1806157-002 was re-extracted out of holding time. The spikes for the re-extracted sample also failed recoveries low. The analytes affected are flagged in the LCS Summary.

Approved by _____ Date 07/13/2018

SAMPLE DETECTION SUMMARY

CLIENT ID: 2323127-015			Lab ID: R1806157-002			
Analyte	**Results**	**Flag**	**MDL**	**MRL**	**Units**	**Method**
Dichlorobiphenyls, Total	0.0035	J	0.0016	0.0051	ug/L	680
Trichlorobiphenyls, Total	0.0056		0.0022	0.0051	ug/L	680

Sample Receipt Information

ALS Environmental Rochester Laboratory
1565 Jefferson Road, Building 300, Suite 360, Rochester, NY 14623
Phone (585) 288-5380 Fax (585) 288-8475
www.alsglobal.com

SAMPLE CROSS-REFERENCE

SAMPLE #	CLIENT SAMPLE ID	DATE	TIME
R1806157-001	2323127-014	6/26/2018	1105
R1806157-002	2323127-015	6/26/2018	1320

ALS Environmental

34 Dogwood Lane • Middletown, PA 17057 • 717.944.5541 • Fax: 717.944.1430

CHAIN OF CUSTODY/ REQUEST FOR ANALYSIS

Generated by ALS

** ALL SHADED AREAS MUST BE COMPLETED BY THE CLIENT / SAMPLER. INSTRUCTIONS ON THE BACK.

COC #: 1 of 2

ALS Quote #:

Client Name: ALS Environmental

Address: 34 Dogwood Lane
Middletown, PA 17057

Contact: Vanessa Badman

Phone#: (717) 944-5541

Project Name/#: UR115: 2323127

Bill To: ALS Environmental

TAT [ ] Normal-Standard TAT is 10-12 business days.
[X] Rush-Subject to ALS approval and surcharges.

Date Required: 7/10/2018 Approved By: ____

Email? [ ] Y

Fax? [ ] Y No.:

Receipt Information (completed by Receiving Lab)

Cooler Temp: ____ Therm ID: ____

No. of Coolers: ____

	Y	N	Initial
Custody Seals Present?			
(if present) Seals Intact?			
Received on Ice?			
COC/Labels Complete/Accurate?			
Cont. in Good Cond.?			
Correct Containers?			
Correct Sample Volumes?			
Correct Preservation?			
Headspace/Volatiles?			

Courier/Tracking #:

ANALYSES/METHOD REQUESTED

Sample Description/Location (as it will appear on the lab report)	Sample Date	Time	*G or C	**Matrix	680 (PCB Homologs)	*Report to the MDL, QC lab report needed, EQUIS EDD.									Sample/COC Comments
					Enter Number of Containers Per Sample or Field Results Below.										
1 2323127 014	6/26/18	1105	G	WT	2	*									
2 2323127 015	6/26/18	1320	G	WT	2	*									Sub to ALS Rochester
3															
4															
5															
6															
7															
8															
9															
10															

ALS Field Services: [ ] Pickup [ ] Labor [ ] Composite_Sampling [ ] Rental_Equipment [ ] Other: ____

Project Comments:

LOGGED BY(signature): DATE: TIME:

REVIEWED BY(signature): DATE: TIME:

Relinquished By / Company Name	Date	Time	Received By / Company Name	Date	Time
1 [signature]	6/26/18	1445	2 [signature] ALS	6/26/18	1235
3			4		
5			6		
7			8		
9			10		

Data Deliverables: [X] Standard [ ] CLP-like [ ] USACE [ ]

Special Processing: USACE [ ] Navy [ ] [ ]

State Samples Collected In: [ ] NY [ ] NJ [ ] PA [ ] NC [X] MD

Reportable to PADEP? Yes [ ]

PWSID #

Sample Disposal: Lab [X] Special [ ]

EDDS: Format Typ

R1806157 5

ALS Environmental
UR115: 2323127

* G=Grab; C=Composite **Matrix - Al=Air; DW=Drinking Water; GW=Groundwater; OI=Oil; OL=Other Liquid; SL=Sludge; SO=Soil; WP=Wipe; W

ALS ENVIRONMENTAL SHIPPING ADDRESS: 34 DOGWOOD LANE, MIDDLETOWN, PA 17057

R1806157 5
ALS Environmental
UR116: 2323127

Cooler Receipt and Preservation Check Form

Project/Client ALS- MOT Folder Number R1806157

Cooler received on 6/29/18 by: @ COURIER: ALS UPS (FEDEX) VELOCITY CLIENT

1	Were **Custody seals** on outside of cooler?	Y (N)	5a	**Perchlorate** samples have required headspace?	Y N (NA)
2	**Custody papers** properly completed (ink, signed)?	(Y) N	5b	Did VOA vials, Alk,or Sulfide have sig* **bubbles**?	Y N (NA)
3	Did all bottles arrive in good **condition** (unbroken)?	Y (N) *	6	Where did the bottles originate? ALS/ROC	(CLIENT)
4	Circle: (Wet Ice) **Dry Ice Gel packs** present?	(Y) N	7	Soil VOA received as: Bulk Encore 5035set	(NA)

8. Temperature Readings Date: 6/29/18 Time: 1245 ID: (IR#7) (~~IR#9~~) From: Temp Blank (Sample Bottle)

Observed Temp (°C)	2.9						
Correction Factor (°C)	–						
Corrected Temp (°C)	2.9						
Temp from:Type of bottle	–						
Within 0-6°C?	(Y) N	Y N	Y N	Y N	Y N	Y N	Y N
If <0°C, were samples frozen?	Y N	Y N	Y N	Y N	Y N	Y N	Y N

If out of Temperature, note packing/ice condition: _____ (Ice melted) Poorly Packed (described below) Same Day Rule

&Client Approval to Run Samples: _____ Standing Approval Client aware at drop-off Client notified by: _____

All samples held in storage location: R-002 by e on 6/29/18 at 1250
5035 samples placed in storage location: _____ by _____ on _____ at _____

Cooler Breakdown/Preservation Check**: Date: 7-2-18 Time: 13:30 by: RE

9. Were all bottle labels complete (*i.e.* analysis, preservation, etc.)? (YES) NO
10. Did all bottle labels and tags agree with custody papers? (YES) NO
11. Were correct containers used for the tests indicated? (YES) NO
12. Were 5035 vials acceptable (no extra labels, not leaking)? YES NO (N/A)
13. Air Samples: Cassettes / Tubes Intact with MS? Canisters Pressurized Tedlar® Bags Inflated (N/A)

pH	Lot of test paper	Reagent	Preserved? Yes	Preserved? No	Lot Received	Exp	Sample ID Adjusted	Vol. Added	Lot Added	Final pH
≥12		NaOH								
≤2		HNO_3								
≤2		H_2SO_4								
<4		$NaHSO_4$								
5-9		For 608pest			No=Notify for 3day					
Residual Chlorine (-)		For CN, Phenol, 625, 608pest, 522			If +, contact PM to add $Na_2S_2O_3$ (625, 608, CN), ascorbic (phenol).					
		$Na_2S_2O_3$								
		ZnAcetate	-	-						
		HCl	**	**						

**VOAs and 1664 Not to be tested before analysis. Otherwise, all bottles of all samples with chemical preservatives are checked (not just representatives).

Bottle lot numbers: Client bottles

Explain all Discrepancies/ Other Comments:

* samples packed in cooler w/o bubble wrap

014 - 1 amber broke

CLRES	BULK
DO	FLDT
HPROD	HGFB
HTR	LL3541
PH	SUB
SO3	MARRS
ALS	REV

Labels secondary reviewed by: RE

PC Secondary Review: [signature] 7/5/18 *significant air bubbles: VOA > 5-6 mm : WC >1 in. diameter

Miscellaneous Forms

ALS Environmental Rochester Laboratory
1565 Jefferson Road, Building 300, Suite 360, Rochester, NY 14623
Phone (585) 288-5380 Fax (585) 288-8475
www.alsglobal.com

REPORT QUALIFIERS AND DEFINITIONS

U Analyte was analyzed for but not detected. The sample quantitation limit has been corrected for dilution and for percent moisture, unless otherwise noted in the case narrative.

J Estimated value due to either being a Tentatively Identified Compound (TIC) or that the concentration is between the MRL and the MDL. Concentrations are not verified within the linear range of the calibration. For DoD: concentration >40% difference between two GC columns (pesticides/Arclors).

B Analyte was also detected in the associated method blank at a concentration that may have contributed to the sample result.

E Inorganics- Concentration is estimated due to the serial dilution was outside control limits.

E Organics- Concentration has exceeded the calibration range for that specific analysis.

D Concentration is a result of a dilution, typically a secondary analysis of the sample due to exceeding the calibration range or that a surrogate has been diluted out of the sample and cannot be assessed.

* Indicates that a quality control parameter has exceeded laboratory limits. Under the "Notes" column of the Form I, this qualifier denotes analysis was performed out of Holding Time.

H Analysis was performed out of hold time for tests that have an "immediate" hold time criteria.

\# Spike was diluted out

\+ Correlation coefficient for MSA is <0.995.

N Inorganics- Matrix spike recovery was outside laboratory limits.

N Organics- Presumptive evidence of a compound (reported as a TIC) based on the MS library search

S Concentration has been determined using Method of Standard Additions (MSA).

W Post-Digestion Spike recovery is outside control limits and the sample absorbance is <50% of the spike absorbance.

P Concentration >40% difference between the two GC columns.

C Confirmed by GC/MS

Q DoD reports: indicates a pesticide/Aroclor is not confirmed (≥100% Difference between two GC columns).

X See Case Narrative for discussion.

MRL Method Reporting Limit. Also known as:
LOQ Limit of Quantitation (LOQ)
The lowest concentration at which the method analyte may be reliably quantified under the method conditions.

MDL Method Detection Limit. A statistical value derived from a study designed to provide the lowest concentration that will be detected 99% of the time. Values between the MDL and MRL are estimated (see J qualifier).

LOD Limit of Detection. A value at or above the MDL which has been verified to be detectable.

ND Non-Detect. Analyte was not detected at the concentration listed. Same as U qualifier.

ACCREDITED IN ACCORDANCE WITH nelac

Rochester Lab ID # for State Certifications[1]

Connecticut ID # PH0556	Maine ID #NY0032	New Hampshire ID # 294100 A/B
Delaware Approved	New Jersey ID # NY004	
DoD ELAP #65817	New York ID # 10145	Pennsylvania ID# 68-786
Florida ID # E87674	North Carolina #676	Rhode Island ID # 158
		Virginia #460167

[1] Analyses were performed according to our laboratory's NELAP-approved quality assurance program and any applicable state or agency requirements. The test results meet requirements of the current NELAP/TNI standards or state or agency requirements, where applicable, except as noted in the case narrative. Since not all analyte/method/matrix combinations are offered for state/NELAC accreditation, this report may contain results which are not accredited. For a specific list of accredited analytes, contact the laboratory or go to https://www.alsglobal.com/locations/americas/north-america/usa/new-york/rochester-environmental

Acronyms

ASTM	American Society for Testing and Materials
A2LA	American Association for Laboratory Accreditation
CARB	California Air Resources Board
CAS Number	Chemical Abstract Service registry Number
CFC	Chlorofluorocarbon
CFU	Colony-Forming Unit
DEC	Department of Environmental Conservation
DEQ	Department of Environmental Quality
DHS	Department of Health Services
DOE	Department of Ecology
DOH	Department of Health
EPA	U. S. Environmental Protection Agency
ELAP	Environmental Laboratory Accreditation Program
GC	Gas Chromatography
GC/MS	Gas Chromatography/Mass Spectrometry
LUFT	Leaking Underground Fuel Tank
M	Modified
MCL	Maximum Contaminant Level is the highest permissible concentration of a substance allowed in drinking water as established by the USEPA.
MDL	Method Detection Limit
MPN	Most Probable Number
MRL	Method Reporting Limit
NA	Not Applicable
NC	Not Calculated
NCASI	National Council of the Paper Industry for Air and Stream Improvement
ND	Not Detected
NIOSH	National Institute for Occupational Safety and Health
PQL	Practical Quantitation Limit
RCRA	Resource Conservation and Recovery Act
SIM	Selected Ion Monitoring
TPH	Total Petroleum Hydrocarbons
tr	Trace level is the concentration of an analyte that is less than the PQL but greater than or equal to the MDL

Client: ALS Environmental - US
Project: UR115: 2323127

Service Request: R1806157

Sample Name: 2323127 014
Lab Code: R1806157-001
Sample Matrix: Water

Date Collected: 06/26/18
Date Received: 06/29/18

Analysis Method	Extracted/Digested By	Analyzed By
680	MPEDRO	JMISIUREWICZ

Sample Name: 2323127 015
Lab Code: R1806157-002
Sample Matrix: Water

Date Collected: 06/26/18
Date Received: 06/29/18

Analysis Method	Extracted/Digested By	Analyzed By
680	MPEDRO	JMISIUREWICZ

INORGANIC PREPARATION METHODS

The preparation methods associated with this report are found in these tables unless discussed in the case narrative.

Water/Liquid Matrix

Analytical Method	Preparation Method
200.7	200.2
200.8	200.2
6010C	3005A/3010A
6020A	ILM05.3
9014 Cyanide Reactivity	SW846 Ch7, 7.3.4.2
9034 Sulfide Reactivity	SW846 Ch7, 7.3.4.2
9034 Sulfide Acid Soluble	9030B
9056A Bomb (Halogens)	5050A
9066 Manual Distillation	9065
SM 4500-CN-E Residual Cyanide	SM 4500-CN-C
SM 4500-CN-E WAD Cyanide	SM 4500-CN-I

Solid/Soil/Non-Aqueous Matrix

Analytical Method	Preparation Method
6010C	3050B
6020A	3050B
6010C TCLP (1311) extract	3005A/3010A
6010 SPLP (1312) extract	3005A/3010A
7196A	3060A
7199	3060A
9056A Halogens/Halides	5050
300.0 Anions/ 350.1/ 353.2/ SM 2320B/ SM 5210B/ 9056A Anions	DI extraction

For analytical methods not listed, the preparation method is the same as the analytical method reference.

Sample Results

ALS Environmental Rochester Laboratory
1565 Jefferson Road, Building 300, Suite 360, Rochester, NY 14623
Phone (585) 288-5380 Fax (585) 288-8475
www.alsglobal.com

Semivolatile Organic Compounds by GC/MS

ALS Environmental Rochester Laboratory
1565 Jefferson Road, Building 300, Suite 360, Rochester, NY 14623
Phone (585) 288-5380 Fax (585) 288-8475
www.alsglobal.com

Client:	ALS Environmental - US	**Service Request:**	R1806157
Project:	UR115: 2323127	**Date Collected:**	06/26/18 11:05
Sample Matrix:	Water	**Date Received:**	06/29/18 12:35
Sample Name:	2323127 014	**Units:**	ug/L
Lab Code:	R1806157-001	**Basis:**	NA

PCB Homologs in Water and Soil/Sediment by Gas Chromatography/Mass Spectrometry

Analysis Method: 680
Prep Method: EPA 3510C

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Decachlorobiphenyl	0.024 U	0.024	0.012	1	07/09/18 13:17	7/3/18	
Dichlorobiphenyls, Total	0.0047 U	0.0047	0.0016	1	07/09/18 13:17	7/3/18	
Heptachlorobiphenyls, Total	0.014 U	0.014	0.0090	1	07/09/18 13:17	7/3/18	
Hexachlorobiphenyls, Total	0.0094 U	0.0094	0.0047	1	07/09/18 13:17	7/3/18	
Monochlorobiphenyls, Total	0.0047 U	0.0047	0.00059	1	07/09/18 13:17	7/3/18	
Nonachlorobiphenyls, Total	0.019 U	0.019	0.0088	1	07/09/18 13:17	7/3/18	
Octachlorobiphenyls, Total	0.014 U	0.014	0.0099	1	07/09/18 13:17	7/3/18	
Pentachlorobiphenyls, Total	0.0094 U	0.0094	0.0043	1	07/09/18 13:17	7/3/18	
Tetrachlorobiphenyls, Total	0.0094 U	0.0094	0.0023	1	07/09/18 13:17	7/3/18	
Trichlorobiphenyls, Total	0.0047 U	0.0047	0.0022	1	07/09/18 13:17	7/3/18	
Total PCBs as Sum of Homologs	0.024 U	0.024	-	1	07/09/18 13:17	7/3/18	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
gamma-BHC (Lindane)	39	55 - 133	07/09/18 13:17	
4,4'-DDT	93	57 - 200	07/09/18 13:17	

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client:	ALS Environmental - US	**Service Request:**	R1806157
Project:	UR115: 2323127	**Date Collected:**	06/26/18 13:20
Sample Matrix:	Water	**Date Received:**	06/29/18 12:35
Sample Name:	2323127 015	**Units:**	ug/L
Lab Code:	R1806157-002	**Basis:**	NA

PCB Homologs in Water and Soil/Sediment by Gas Chromatography/Mass Spectrometry

Analysis Method: 680
Prep Method: EPA 3510C

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Decachlorobiphenyl	0.024 U	0.024	0.012	1	07/09/18 13:46	7/3/18	
Dichlorobiphenyls, Total	0.0047 U	0.0047	0.0016	1	07/09/18 13:46	7/3/18	
Heptachlorobiphenyls, Total	0.014 U	0.014	0.0090	1	07/09/18 13:46	7/3/18	
Hexachlorobiphenyls, Total	0.0094 U	0.0094	0.0047	1	07/09/18 13:46	7/3/18	
Monochlorobiphenyls, Total	0.0047 U	0.0047	0.00059	1	07/09/18 13:46	7/3/18	
Nonachlorobiphenyls, Total	0.019 U	0.019	0.0088	1	07/09/18 13:46	7/3/18	
Octachlorobiphenyls, Total	0.014 U	0.014	0.0099	1	07/09/18 13:46	7/3/18	
Pentachlorobiphenyls, Total	0.0094 U	0.0094	0.0043	1	07/09/18 13:46	7/3/18	
Tetrachlorobiphenyls, Total	0.0094 U	0.0094	0.0023	1	07/09/18 13:46	7/3/18	
Trichlorobiphenyls, Total	0.0047 U	0.0047	0.0022	1	07/09/18 13:46	7/3/18	
Total PCBs as Sum of Homologs	0.024 U	0.024	-	1	07/09/18 13:46	7/3/18	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
gamma-BHC (Lindane)	50	55 - 133	07/09/18 13:46	
4,4'-DDT	57	57 - 200	07/09/18 13:46	

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client:	ALS Environmental - US	**Service Request:**	R1806157
Project:	UR115: 2323127	**Date Collected:**	06/26/18 13:20
Sample Matrix:	Water	**Date Received:**	06/29/18 12:35
Sample Name:	2323127 015	**Units:**	ug/L
Lab Code:	R1806157-002	**Basis:**	NA

PCB Homologs in Water and Soil/Sediment by Gas Chromatography/Mass Spectrometry

Analysis Method: 680
Prep Method: EPA 3510C

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Decachlorobiphenyl	0.025 U	0.025	0.012	1	07/13/18 07:55	7/11/18	*
Dichlorobiphenyls, Total	**0.0035 J**	0.0051	0.0016	1	07/13/18 07:55	7/11/18	*
Heptachlorobiphenyls, Total	0.015 U	0.015	0.0090	1	07/13/18 07:55	7/11/18	*
Hexachlorobiphenyls, Total	0.010 U	0.010	0.0047	1	07/13/18 07:55	7/11/18	*
Monochlorobiphenyls, Total	0.0051 U	0.0051	0.00060	1	07/13/18 07:55	7/11/18	*
Nonachlorobiphenyls, Total	0.020 U	0.020	0.0089	1	07/13/18 07:55	7/11/18	*
Octachlorobiphenyls, Total	0.015 U	0.015	0.010	1	07/13/18 07:55	7/11/18	*
Pentachlorobiphenyls, Total	0.010 U	0.010	0.0043	1	07/13/18 07:55	7/11/18	*
Tetrachlorobiphenyls, Total	0.010 U	0.010	0.0024	1	07/13/18 07:55	7/11/18	*
Trichlorobiphenyls, Total	**0.0056**	0.0051	0.0022	1	07/13/18 07:55	7/11/18	*
Total PCBs as Sum of Homologs	0.025 U	0.025	-	1	07/13/18 07:55	7/11/18	*

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
gamma-BHC (Lindane)	105	55 - 133	07/13/18 07:55	
4,4'-DDT	99	57 - 200	07/13/18 07:55	

QC Summary Forms

ALS Environmental Rochester Laboratory
1565 Jefferson Road, Building 300, Suite 360, Rochester, NY 14623
Phone (585) 288-5380 Fax (585) 288-8475
www.alsglobal.com

Semivolatile Organic Compounds by GC/MS

ALS Environmental Rochester Laboratory
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Client: ALS Environmental - US **Service Request:** R1806157

Project: UR115: 2323127

Sample Matrix: Water

SURROGATE RECOVERY SUMMARY

PCB Homologs in Water and Soil/Sediment by Gas Chromatography/Mass Spectrometry

Analysis Method: 680

Extraction Method: EPA 3510C

Sample Name	Lab Code	gamma-BHC (Lindane) 55-133	4,4'-DDT 57-200
2323127 014	R1806157-001	89	93
2323127 015	R1806157-002	60	57
2323127 015 RE	R1806157-002	105	99
Method Blank	RQ1806671-01	92	108
Method Blank	RQ1806951-01	75	92
Lab Control Sample	RQ1806671-02	76	90
Duplicate Lab Control Sample	RQ1806671-03	83	97
Lab Control Sample	RQ1806951-02	68	91
Duplicate Lab Control Sample	RQ1806951-03	77	99

Client:	ALS Environmental - US	**Service Request:**	R1806157
Project:	UR115: 2323127	**Date Collected:**	NA
Sample Matrix:	Water	**Date Received:**	NA
Sample Name:	Method Blank	**Units:**	ug/L
Lab Code:	RQ1806671-01	**Basis:**	NA

PCB Homologs in Water and Soil/Sediment by Gas Chromatography/Mass Spectrometry

Analysis Method: 680
Prep Method: EPA 3510C

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Decachlorobiphenyl	0.025 U	0.025	0.012	1	07/09/18 12:20	7/3/18	
Dichlorobiphenyls, Total	0.0050 U	0.0050	0.0016	1	07/09/18 12:20	7/3/18	
Heptachlorobiphenyls, Total	0.015 U	0.015	0.0090	1	07/09/18 12:20	7/3/18	
Hexachlorobiphenyls, Total	0.010 U	0.010	0.0047	1	07/09/18 12:20	7/3/18	
Monochlorobiphenyls, Total	0.0050 U	0.0050	0.00059	1	07/09/18 12:20	7/3/18	
Nonachlorobiphenyls, Total	0.020 U	0.020	0.0088	1	07/09/18 12:20	7/3/18	
Octachlorobiphenyls, Total	0.015 U	0.015	0.0099	1	07/09/18 12:20	7/3/18	
Pentachlorobiphenyls, Total	0.010 U	0.010	0.0043	1	07/09/18 12:20	7/3/18	
Tetrachlorobiphenyls, Total	0.010 U	0.010	0.0023	1	07/09/18 12:20	7/3/18	
Trichlorobiphenyls, Total	0.0050 U	0.0050	0.0022	1	07/09/18 12:20	7/3/18	
Total PCBs as Sum of Homologs	0.025 U	0.025	-	1	07/09/18 12:20	7/3/18	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
gamma-BHC (Lindane)	92	55 - 133	07/09/18 12:20	
4,4'-DDT	108	57 - 200	07/09/18 12:20	

Client:	ALS Environmental - US	**Service Request:**	R1806157
Project:	UR115: 2323127	**Date Collected:**	NA
Sample Matrix:	Water	**Date Received:**	NA
Sample Name:	Method Blank	**Units:**	ug/L
Lab Code:	RQ1806951-01	**Basis:**	NA

PCB Homologs in Water and Soil/Sediment by Gas Chromatography/Mass Spectrometry

Analysis Method: 680
Prep Method: EPA 3510C

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Decachlorobiphenyl	0.025 U	0.025	0.012	1	07/13/18 07:27	7/11/18	
Dichlorobiphenyls, Total	0.0050 U	0.0050	0.0016	1	07/13/18 07:27	7/11/18	
Heptachlorobiphenyls, Total	0.015 U	0.015	0.0090	1	07/13/18 07:27	7/11/18	
Hexachlorobiphenyls, Total	0.010 U	0.010	0.0047	1	07/13/18 07:27	7/11/18	
Monochlorobiphenyls, Total	0.0050 U	0.0050	0.00059	1	07/13/18 07:27	7/11/18	
Nonachlorobiphenyls, Total	0.020 U	0.020	0.0088	1	07/13/18 07:27	7/11/18	
Octachlorobiphenyls, Total	0.015 U	0.015	0.0099	1	07/13/18 07:27	7/11/18	
Pentachlorobiphenyls, Total	0.010 U	0.010	0.0043	1	07/13/18 07:27	7/11/18	
Tetrachlorobiphenyls, Total	0.010 U	0.010	0.0023	1	07/13/18 07:27	7/11/18	
Trichlorobiphenyls, Total	0.0050 U	0.0050	0.0022	1	07/13/18 07:27	7/11/18	
Total PCBs as Sum of Homologs	0.025 U	0.025	-	1	07/13/18 07:27	7/11/18	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
gamma-BHC (Lindane)	75	55 - 133	07/13/18 07:27	
4,4'-DDT	92	57 - 200	07/13/18 07:27	

Client: ALS Environmental - US
Project: UR115: 2323127
Sample Matrix: Water

Service Request: R1806157
Date Analyzed: 07/09/18

Duplicate Lab Control Sample Summary
PCB Homologs in Water and Soil/Sediment by Gas Chromatography/Mass Spectrometry

Units: ug/L
Basis: NA

		Lab Control Sample RQ1806671-02			Duplicate Lab Control Sample RQ1806671-03					
Analyte Name	**Analytical Method**	**Result**	**Spike Amount**	**% Rec**	**Result**	**Spike Amount**	**% Rec**	**% Rec Limits**	**RPD**	**RPD Limit**
Decachlorobiphenyl	680	0.342	1.25	27 *	0.414	1.25	33	29-162	19	30
Dichlorobiphenyls, Total	680	0.174	0.250	69	0.184	0.250	73	37-139	6	30
Heptachlorobiphenyls, Total	680	0.362	0.750	48 *	0.413	0.750	55	53-120	13	30
Hexachlorobiphenyls, Total	680	0.287	0.500	57	0.329	0.500	66	11-160	14	30
Monochlorobiphenyls, Total	680	0.151	0.250	60	0.155	0.250	62	34-137	3	30
Octachlorobiphenyls, Total	680	0.311	0.750	41 *	0.368	0.750	49 *	57-125	17	30
Pentachlorobiphenyls, Total	680	0.350	0.500	70	0.385	0.500	77	10-180	10	30
Tetrachlorobiphenyls, Total	680	0.326	0.500	65	0.355	0.500	71	14-153	9	30
Trichlorobiphenyls, Total	680	0.179	0.250	71	0.190	0.250	76	10-173	6	30

Client: ALS Environmental - US
Project: UR115: 2323127
Sample Matrix: Water

Service Request: R1806157
Date Analyzed: 07/13/18

Duplicate Lab Control Sample Summary
PCB Homologs in Water and Soil/Sediment by Gas Chromatography/Mass Spectrometry

Units: ug/L
Basis: NA

		Lab Control Sample RQ1806951-02			Duplicate Lab Control Sample RQ1806951-03					
Analyte Name	**Analytical Method**	**Result**	**Spike Amount**	**% Rec**	**Result**	**Spike Amount**	**% Rec**	**% Rec Limits**	**RPD**	**RPD Limit**
Decachlorobiphenyl	680	0.392	1.25	31	0.401	1.25	32	29-162	2	30
Dichlorobiphenyls, Total	680	0.144	0.250	57	0.167	0.250	67	37-139	15	30
Heptachlorobiphenyls, Total	680	0.369	0.750	49 *	0.385	0.750	51 *	53-120	4	30
Hexachlorobiphenyls, Total	680	0.281	0.500	56	0.305	0.500	61	11-160	8	30
Monochlorobiphenyls, Total	680	0.122	0.250	49	0.144	0.250	58	34-137	17	30
Octachlorobiphenyls, Total	680	0.353	0.750	47 *	0.361	0.750	48 *	57-125	2	30
Pentachlorobiphenyls, Total	680	0.329	0.500	66	0.356	0.500	71	10-180	8	30
Tetrachlorobiphenyls, Total	680	0.269	0.500	54	0.300	0.500	60	14-153	11	30
Trichlorobiphenyls, Total	680	0.146	0.250	58	0.163	0.250	65	10-173	11	30

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State Certifications: DE ID 11 , MA PA0102 , MD 128 , VA 460157 , WV 343

October 1, 2018

Ms. Holly Brown
AECOM (fka URS) - Germantown MD
12420 Milestone Center Drive
Suite 150
Germantown, MD 20876

Certificate of Analysis

Project Name:	**2018-MIDDLE RIVER COMPLEX**	Workorder:	**2339934**
Purchase Order:	**95840ACM**	Workorder ID:	**ALG005|LMC MRC SWS**

Dear Ms. Brown:

Enclosed are the analytical results for samples received by the laboratory on Friday, September 21, 2018.

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.

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ALS Spring City: 10 Riverside Drive, Spring City, PA 19475 610-948-4903

CC: Mr. Zachary Neigh , Mr. Ravi Damera , Ms. Victoria Kirkpatrick , Mr. Naoum Tavantzis

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

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State Certifications: DE ID 11 , MA PA0102 , MD 128 , VA 460157 , WV 343

SAMPLE SUMMARY

Workorder: 2339934 ALG005|LMC MRC SWS

Lab ID	Sample ID	Matrix	Date Collected	Date Received	Collected By
2339934001	MRC-SW1A	Water	9/21/2018 13:22	9/21/2018 21:05	Mr. Zachary Neigh
2339934002	MRC-SW2A	Water	9/21/2018 12:51	9/21/2018 21:05	Mr. Zachary Neigh
2339934003	MRC-SW5A1-S	Water	9/21/2018 12:21	9/21/2018 21:05	Mr. Zachary Neigh
2339934004	MRC-SW5A2-S	Water	9/21/2018 12:15	9/21/2018 21:05	Mr. Zachary Neigh
2339934005	MRC-SW5B-S	Water	9/21/2018 12:06	9/21/2018 21:05	Mr. Zachary Neigh
2339934006	MRC-SW6A-S	Water	9/21/2018 10:32	9/21/2018 21:05	Mr. Zachary Neigh
2339934007	MRC-SW6B-S	Water	9/21/2018 10:46	9/21/2018 21:05	Mr. Zachary Neigh
2339934008	MRC-SW7A-S	Water	9/21/2018 09:53	9/21/2018 21:05	Mr. Zachary Neigh
2339934009	MRC-SW7B-S	Water	9/21/2018 10:04	9/21/2018 21:05	Mr. Zachary Neigh
2339934010	MRC-SW8A-S	Water	9/21/2018 11:13	9/21/2018 21:05	Mr. Zachary Neigh
2339934011	MRC-SW8B-S	Water	9/21/2018 11:01	9/21/2018 21:05	Mr. Zachary Neigh
2339934012	MRC-SW9A-S	Water	9/21/2018 10:13	9/21/2018 21:05	Mr. Zachary Neigh
2339934013	MRC-SW9B-S	Water	9/21/2018 10:21	9/21/2018 21:05	Mr. Zachary Neigh
2339934014	MRC-SW13A-S	Water	9/21/2018 11:56	9/21/2018 21:05	Mr. Zachary Neigh
2339934015	MRC-SW15A-S	Water	9/21/2018 11:49	9/21/2018 21:05	Mr. Zachary Neigh
2339934016	MRC-SW16A-S	Water	9/21/2018 11:40	9/21/2018 21:05	Mr. Zachary Neigh
2339934017	MRC-17A	Water	9/21/2018 14:14	9/21/2018 21:05	Mr. Zachary Neigh
2339934018	MRC-SW8A-S-DUP	Water	9/21/2018 11:18	9/21/2018 21:05	Mr. Zachary Neigh
2339934019	TB092118	Water	9/21/2018 21:05	9/21/2018 21:05	Mr. Zachary Neigh

SAMPLE SUMMARY

Workorder: 2339934 ALG005|LMC MRC SWS

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 incurbator and the "Analyzed" value is the date/time out the incubator.

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

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State Certifications: DE ID 11 , MA PA0102 , MD 128 , VA 460157 , WV 343

ANALYTICAL RESULTS

Workorder: 2339934 ALG005|LMC MRC SWS

Lab ID: **2339934001** Date Collected: 9/21/2018 13:22 Matrix: Water
Sample ID: **MRC-SW1A** Date Received: 9/21/2018 21:05

Parameters	Results	Flag	Units	RDL	MDL	Method	Prepared By	Analyzed	By	*Cntr*
VOLATILE ORGANICS										
1,1,1,2-Tetrachloroethane	ND		ug/L	1.0	0.35	SW846 8260B		9/27/18 05:39	PDK	A
1,1,1-Trichloroethane	ND		ug/L	1.0	0.22	SW846 8260B		9/27/18 05:39	PDK	A
1,1,2,2-Tetrachloroethane	ND		ug/L	1.0	0.34	SW846 8260B		9/27/18 05:39	PDK	A
1,1,2-Trichloroethane	ND		ug/L	1.0	0.33	SW846 8260B		9/27/18 05:39	PDK	A
1,1-Dichloroethane	ND		ug/L	1.0	0.28	SW846 8260B		9/27/18 05:39	PDK	A
1,1-Dichloroethene	ND		ug/L	1.0	0.29	SW846 8260B		9/27/18 05:39	PDK	A
1,2,3-Trichlorobenzene	ND		ug/L	2.0	0.93	SW846 8260B		9/27/18 05:39	PDK	A
1,2,3-Trichloropropane	ND		ug/L	2.0	0.60	SW846 8260B		9/27/18 05:39	PDK	A
1,2,4-Trichlorobenzene	ND		ug/L	2.0	0.82	SW846 8260B		9/27/18 05:39	PDK	A
1,2,4-Trimethylbenzene	ND		ug/L	1.0	0.25	SW846 8260B		9/27/18 05:39	PDK	A
1,2-Dibromo-3-chloropropane	ND		ug/L	7.0	1.5	SW846 8260B		9/27/18 05:39	PDK	A
1,2-Dibromoethane	ND		ug/L	1.0	0.28	SW846 8260B		9/27/18 05:39	PDK	A
1,2-Dichlorobenzene	ND		ug/L	1.0	0.38	SW846 8260B		9/27/18 05:39	PDK	A
1,2-Dichloroethane	ND		ug/L	1.0	0.32	SW846 8260B		9/27/18 05:39	PDK	A
1,2-Dichloroethene, Total	ND		ug/L	2.0	0.45	SW846 8260B		9/27/18 05:39	PDK	A
1,2-Dichloropropane	ND		ug/L	1.0	0.24	SW846 8260B		9/27/18 05:39	PDK	A
1,3-Dichlorobenzene	ND		ug/L	1.0	0.25	SW846 8260B		9/27/18 05:39	PDK	A
1,3-Dichloropropane	ND		ug/L	1.0	0.27	SW846 8260B		9/27/18 05:39	PDK	A
1,3-Dichloropropene, Total	ND		ug/L	2.0	0.47	SW846 8260B		9/27/18 05:39	PDK	A
1,4-Dichlorobenzene	ND		ug/L	1.0	0.27	SW846 8260B		9/27/18 05:39	PDK	A
2,2-Dichloropropane	ND		ug/L	1.0	0.32	SW846 8260B		9/27/18 05:39	PDK	A
2-Butanone	ND		ug/L	10.0	1.8	SW846 8260B		9/27/18 05:39	PDK	A
2-Chloroethylvinyl ether	ND		ug/L	2.0	0.38	SW846 8260B		9/27/18 05:39	PDK	A
2-Hexanone	ND		ug/L	5.0	1.3	SW846 8260B		9/27/18 05:39	PDK	A
4-Methyl-2-Pentanone(MIBK)	ND		ug/L	5.0	1.5	SW846 8260B		9/27/18 05:39	PDK	A
Acetone	ND		ug/L	10.0	3.1	SW846 8260B		9/27/18 05:39	PDK	A
Benzene	ND		ug/L	1.0	0.23	SW846 8260B		9/27/18 05:39	PDK	A
Bromobenzene	ND		ug/L	1.0	0.32	SW846 8260B		9/27/18 05:39	PDK	A
Bromochloromethane	ND		ug/L	1.0	0.32	SW846 8260B		9/27/18 05:39	PDK	A
Bromodichloromethane	ND		ug/L	1.0	0.27	SW846 8260B		9/27/18 05:39	PDK	A
Bromoform	ND		ug/L	1.0	0.40	SW846 8260B		9/27/18 05:39	PDK	A
Bromomethane	ND		ug/L	1.0	0.39	SW846 8260B		9/27/18 05:39	PDK	A
Carbon Disulfide	ND		ug/L	1.0	0.23	SW846 8260B		9/27/18 05:39	PDK	A
Carbon Tetrachloride	ND		ug/L	1.0	0.31	SW846 8260B		9/27/18 05:39	PDK	A
Chlorobenzene	ND		ug/L	1.0	0.19	SW846 8260B		9/27/18 05:39	PDK	A
Chlorodibromomethane	ND		ug/L	1.0	0.45	SW846 8260B		9/27/18 05:39	PDK	A

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State Certifications: DE ID 11 , MA PA0102 , MD 128 , VA 460157 , WV 343

ANALYTICAL RESULTS

Workorder: 2339934 ALG005|LMC MRC SWS

Lab ID: **2339934001** Date Collected: 9/21/2018 13:22 Matrix: Water
Sample ID: **MRC-SW1A** Date Received: 9/21/2018 21:05

Parameters	Results	Flag	Units	RDL	MDL	Method	Prepared By	Analyzed	By	Cntr
Chloroethane	ND		ug/L	1.0	0.33	SW846 8260B		9/27/18 05:39	PDK	A
Chloroform	ND		ug/L	1.0	0.21	SW846 8260B		9/27/18 05:39	PDK	A
Chloromethane	ND		ug/L	1.0	0.31	SW846 8260B		9/27/18 05:39	PDK	A
Cyclohexane	ND		ug/L	1.0	0.29	SW846 8260B		9/27/18 05:39	PDK	A
Dibromomethane	ND		ug/L	1.0	0.31	SW846 8260B		9/27/18 05:39	PDK	A
Dichlorodifluoromethane	ND		ug/L	1.0	0.33	SW846 8260B		9/27/18 05:39	PDK	A
Diisopropyl ether	ND		ug/L	1.0	0.25	SW846 8260B		9/27/18 05:39	PDK	A
Ethyl tert-butyl ether	ND		ug/L	1.0	0.19	SW846 8260B		9/27/18 05:39	PDK	A
Ethylbenzene	ND		ug/L	1.0	0.34	SW846 8260B		9/27/18 05:39	PDK	A
Freon 113	ND		ug/L	1.0	0.26	SW846 8260B		9/27/18 05:39	PDK	A
Hexachlorobutadiene	ND		ug/L	5.0	1.0	SW846 8260B		9/27/18 05:39	PDK	A
Isopropylbenzene	ND		ug/L	1.0	0.22	SW846 8260B		9/27/18 05:39	PDK	A
Methyl acetate	ND		ug/L	2.0	0.32	SW846 8260B		9/27/18 05:39	PDK	A
Methyl cyclohexane	ND		ug/L	1.0	0.30	SW846 8260B		9/27/18 05:39	PDK	A
Methyl t-Butyl Ether	ND		ug/L	1.0	0.33	SW846 8260B		9/27/18 05:39	PDK	A
Methylene Chloride	ND		ug/L	1.0	0.45	SW846 8260B		9/27/18 05:39	PDK	A
Naphthalene	ND	1	ug/L	2.0	0.34	SW846 8260B		9/27/18 05:39	PDK	A
Styrene	ND		ug/L	1.0	0.24	SW846 8260B		9/27/18 05:39	PDK	A
Tetrachloroethene	ND		ug/L	1.0	0.35	SW846 8260B		9/27/18 05:39	PDK	A
Toluene	ND		ug/L	1.0	0.23	SW846 8260B		9/27/18 05:39	PDK	A
Total Xylenes	ND		ug/L	3.0	0.66	SW846 8260B		9/27/18 05:39	PDK	A
Trichloroethene	ND		ug/L	1.0	0.33	SW846 8260B		9/27/18 05:39	PDK	A
Trichlorofluoromethane	ND		ug/L	1.0	0.24	SW846 8260B		9/27/18 05:39	PDK	A
Vinyl Acetate	ND		ug/L	5.0	1.6	SW846 8260B		9/27/18 05:39	PDK	A
Vinyl Chloride	ND		ug/L	1.0	0.30	SW846 8260B		9/27/18 05:39	PDK	A
cis-1,2-Dichloroethene	ND		ug/L	1.0	0.32	SW846 8260B		9/27/18 05:39	PDK	A
cis-1,3-Dichloropropene	ND		ug/L	1.0	0.31	SW846 8260B		9/27/18 05:39	PDK	A
mp-Xylene	ND		ug/L	2.0	0.52	SW846 8260B		9/27/18 05:39	PDK	A
n-Butylbenzene	ND		ug/L	2.0	0.60	SW846 8260B		9/27/18 05:39	PDK	A
n-Propylbenzene	ND		ug/L	1.0	0.33	SW846 8260B		9/27/18 05:39	PDK	A
o-Chlorotoluene	ND		ug/L	1.0	0.26	SW846 8260B		9/27/18 05:39	PDK	A
o-Xylene	ND		ug/L	1.0	0.33	SW846 8260B		9/27/18 05:39	PDK	A
p-Chlorotoluene	ND		ug/L	1.0	0.33	SW846 8260B		9/27/18 05:39	PDK	A
p-Isopropyltoluene	ND		ug/L	1.0	0.32	SW846 8260B		9/27/18 05:39	PDK	A
sec-Butylbenzene	ND		ug/L	1.0	0.31	SW846 8260B		9/27/18 05:39	PDK	A
tert-Amyl methyl ether	ND		ug/L	1.0	0.20	SW846 8260B		9/27/18 05:39	PDK	A
tert-Butyl Alcohol	ND		ug/L	10.0	2.2	SW846 8260B		9/27/18 05:39	PDK	A
tert-Butylbenzene	ND		ug/L	2.0	0.44	SW846 8260B		9/27/18 05:39	PDK	A

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ANALYTICAL RESULTS

Workorder: 2339934 ALG005|LMC MRC SWS

Lab ID: **2339934001** Date Collected: 9/21/2018 13:22 Matrix: Water
Sample ID: **MRC-SW1A** Date Received: 9/21/2018 21:05

Parameters	Results	Flag	Units	RDL	MDL	Method	Prepared	By	Analyzed	By	Cntr
trans-1,2-Dichloroethene	ND		ug/L	1.0	0.26	SW846 8260B			9/27/18 05:39	PDK	A
trans-1,3-Dichloropropene	ND		ug/L	1.0	0.29	SW846 8260B			9/27/18 05:39	PDK	A
Surrogate Recoveries	*Results*	*Flag*	*Units*	*Limits*		*Method*	*Prepared*	*By*	*Analyzed*	*By*	*Cntr*
1,2-Dichloroethane-d4 (S)	101		%	62 - 133		SW846 8260B			9/27/18 05:39	PDK	A
4-Bromofluorobenzene (S)	94.5		%	79 - 114		SW846 8260B			9/27/18 05:39	PDK	A
Dibromofluoromethane (S)	99.7		%	78 - 116		SW846 8260B			9/27/18 05:39	PDK	A
Toluene-d8 (S)	90.1		%	76 - 127		SW846 8260B			9/27/18 05:39	PDK	A
SEMIVOLATILE SIM											
1,4-Dioxane	ND		ug/L	0.093	0.018	8270 SIM	9/28/18 13:30	DXL	9/29/18 14:49	CGS	C
IS_Naphthalene-d8	0.0		ug/L			8270 SIM	9/28/18 13:30	DXL	9/29/18 14:49	CGS	C
IS_Perylene-d12	0.0		ug/L			8270 SIM	9/28/18 13:30	DXL	9/29/18 14:49	CGS	C
Acenaphthene-d10	0.0		ug/L			8270 SIM	9/28/18 13:30	DXL	9/29/18 14:49	CGS	C
Phenanthrene-d10	0.0		ug/L			8270 SIM	9/28/18 13:30	DXL	9/29/18 14:49	CGS	C
Chrysene-d12	0.0		ug/L			8270 SIM	9/28/18 13:30	DXL	9/29/18 14:49	CGS	C
Surrogate Recoveries	*Results*	*Flag*	*Units*	*Limits*		*Method*	*Prepared*	*By*	*Analyzed*	*By*	*Cntr*
2-Methylnapthalene-d10 (S)	84.3		%	29 - 112		8270 SIM	9/28/18 13:30	DXL	9/29/18 14:49	CGS	C
Fluoranthene-d10 (S)	97.4		%	45 - 130		8270 SIM	9/28/18 13:30	DXL	9/29/18 14:49	CGS	C

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ANALYTICAL RESULTS

Workorder: 2339934 ALG005|LMC MRC SWS

Lab ID: **2339934002** Date Collected: 9/21/2018 12:51 Matrix: Water
Sample ID: **MRC-SW2A** Date Received: 9/21/2018 21:05

Parameters	Results	Flag	Units	RDL	MDL	Method	Prepared By	Analyzed	By	*Cntr*
VOLATILE ORGANICS										
1,1,1,2-Tetrachloroethane	ND		ug/L	1.0	0.35	SW846 8260B		9/27/18 06:01	PDK	A
1,1,1-Trichloroethane	ND		ug/L	1.0	0.22	SW846 8260B		9/27/18 06:01	PDK	A
1,1,2,2-Tetrachloroethane	ND		ug/L	1.0	0.34	SW846 8260B		9/27/18 06:01	PDK	A
1,1,2-Trichloroethane	ND		ug/L	1.0	0.33	SW846 8260B		9/27/18 06:01	PDK	A
1,1-Dichloroethane	ND		ug/L	1.0	0.28	SW846 8260B		9/27/18 06:01	PDK	A
1,1-Dichloroethene	ND		ug/L	1.0	0.29	SW846 8260B		9/27/18 06:01	PDK	A
1,2,3-Trichlorobenzene	ND		ug/L	2.0	0.93	SW846 8260B		9/27/18 06:01	PDK	A
1,2,3-Trichloropropane	ND		ug/L	2.0	0.60	SW846 8260B		9/27/18 06:01	PDK	A
1,2,4-Trichlorobenzene	ND		ug/L	2.0	0.82	SW846 8260B		9/27/18 06:01	PDK	A
1,2,4-Trimethylbenzene	ND		ug/L	1.0	0.25	SW846 8260B		9/27/18 06:01	PDK	A
1,2-Dibromo-3-chloropropane	ND		ug/L	7.0	1.5	SW846 8260B		9/27/18 06:01	PDK	A
1,2-Dibromoethane	ND		ug/L	1.0	0.28	SW846 8260B		9/27/18 06:01	PDK	A
1,2-Dichlorobenzene	ND		ug/L	1.0	0.38	SW846 8260B		9/27/18 06:01	PDK	A
1,2-Dichloroethane	ND		ug/L	1.0	0.32	SW846 8260B		9/27/18 06:01	PDK	A
1,2-Dichloroethene, Total	ND		ug/L	2.0	0.45	SW846 8260B		9/27/18 06:01	PDK	A
1,2-Dichloropropane	ND		ug/L	1.0	0.24	SW846 8260B		9/27/18 06:01	PDK	A
1,3-Dichlorobenzene	ND		ug/L	1.0	0.25	SW846 8260B		9/27/18 06:01	PDK	A
1,3-Dichloropropane	ND		ug/L	1.0	0.27	SW846 8260B		9/27/18 06:01	PDK	A
1,3-Dichloropropene, Total	ND		ug/L	2.0	0.47	SW846 8260B		9/27/18 06:01	PDK	A
1,4-Dichlorobenzene	ND		ug/L	1.0	0.27	SW846 8260B		9/27/18 06:01	PDK	A
2,2-Dichloropropane	ND		ug/L	1.0	0.32	SW846 8260B		9/27/18 06:01	PDK	A
2-Butanone	ND		ug/L	10.0	1.8	SW846 8260B		9/27/18 06:01	PDK	A
2-Chloroethylvinyl ether	ND		ug/L	2.0	0.38	SW846 8260B		9/27/18 06:01	PDK	A
2-Hexanone	ND		ug/L	5.0	1.3	SW846 8260B		9/27/18 06:01	PDK	A
4-Methyl-2-Pentanone(MIBK)	ND		ug/L	5.0	1.5	SW846 8260B		9/27/18 06:01	PDK	A
Acetone	ND		ug/L	10.0	3.1	SW846 8260B		9/27/18 06:01	PDK	A
Benzene	ND		ug/L	1.0	0.23	SW846 8260B		9/27/18 06:01	PDK	A
Bromobenzene	ND		ug/L	1.0	0.32	SW846 8260B		9/27/18 06:01	PDK	A
Bromochloromethane	ND	1,2	ug/L	1.0	0.32	SW846 8260B		9/27/18 06:01	PDK	A
Bromodichloromethane	ND		ug/L	1.0	0.27	SW846 8260B		9/27/18 06:01	PDK	A
Bromoform	ND	3,4	ug/L	1.0	0.40	SW846 8260B		9/27/18 06:01	PDK	A
Bromomethane	0.58J	J	ug/L	1.0	0.39	SW846 8260B		9/27/18 06:01	PDK	A
Carbon Disulfide	ND		ug/L	1.0	0.23	SW846 8260B		9/27/18 06:01	PDK	A
Carbon Tetrachloride	ND		ug/L	1.0	0.31	SW846 8260B		9/27/18 06:01	PDK	A
Chlorobenzene	ND		ug/L	1.0	0.19	SW846 8260B		9/27/18 06:01	PDK	A
Chlorodibromomethane	ND		ug/L	1.0	0.45	SW846 8260B		9/27/18 06:01	PDK	A

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ANALYTICAL RESULTS

Workorder: 2339934 ALG005|LMC MRC SWS

Lab ID: **2339934002** Date Collected: 9/21/2018 12:51 Matrix: Water
Sample ID: **MRC-SW2A** Date Received: 9/21/2018 21:05

Parameters	Results	Flag	Units	RDL	MDL	Method	Prepared By	Analyzed	By	*Cntr*
Chloroethane	ND		ug/L	1.0	0.33	SW846 8260B		9/27/18 06:01	PDK	A
Chloroform	ND		ug/L	1.0	0.21	SW846 8260B		9/27/18 06:01	PDK	A
Chloromethane	ND		ug/L	1.0	0.31	SW846 8260B		9/27/18 06:01	PDK	A
Cyclohexane	ND		ug/L	1.0	0.29	SW846 8260B		9/27/18 06:01	PDK	A
Dibromomethane	ND		ug/L	1.0	0.31	SW846 8260B		9/27/18 06:01	PDK	A
Dichlorodifluoromethane	ND		ug/L	1.0	0.33	SW846 8260B		9/27/18 06:01	PDK	A
Diisopropyl ether	ND		ug/L	1.0	0.25	SW846 8260B		9/27/18 06:01	PDK	A
Ethyl tert-butyl ether	ND		ug/L	1.0	0.19	SW846 8260B		9/27/18 06:01	PDK	A
Ethylbenzene	ND		ug/L	1.0	0.34	SW846 8260B		9/27/18 06:01	PDK	A
Freon 113	ND		ug/L	1.0	0.26	SW846 8260B		9/27/18 06:01	PDK	A
Hexachlorobutadiene	ND		ug/L	5.0	1.0	SW846 8260B		9/27/18 06:01	PDK	A
Isopropylbenzene	ND		ug/L	1.0	0.22	SW846 8260B		9/27/18 06:01	PDK	A
Methyl acetate	ND		ug/L	2.0	0.32	SW846 8260B		9/27/18 06:01	PDK	A
Methyl cyclohexane	ND		ug/L	1.0	0.30	SW846 8260B		9/27/18 06:01	PDK	A
Methyl t-Butyl Ether	ND		ug/L	1.0	0.33	SW846 8260B		9/27/18 06:01	PDK	A
Methylene Chloride	ND		ug/L	1.0	0.45	SW846 8260B		9/27/18 06:01	PDK	A
Naphthalene	ND	5,6, 7	ug/L	2.0	0.34	SW846 8260B		9/27/18 06:01	PDK	A
Styrene	ND		ug/L	1.0	0.24	SW846 8260B		9/27/18 06:01	PDK	A
Tetrachloroethene	ND		ug/L	1.0	0.35	SW846 8260B		9/27/18 06:01	PDK	A
Toluene	ND		ug/L	1.0	0.23	SW846 8260B		9/27/18 06:01	PDK	A
Total Xylenes	ND		ug/L	3.0	0.66	SW846 8260B		9/27/18 06:01	PDK	A
Trichloroethene	ND		ug/L	1.0	0.33	SW846 8260B		9/27/18 06:01	PDK	A
Trichlorofluoromethane	ND		ug/L	1.0	0.24	SW846 8260B		9/27/18 06:01	PDK	A
Vinyl Acetate	ND		ug/L	5.0	1.6	SW846 8260B		9/27/18 06:01	PDK	A
Vinyl Chloride	ND		ug/L	1.0	0.30	SW846 8260B		9/27/18 06:01	PDK	A
cis-1,2-Dichloroethene	ND		ug/L	1.0	0.32	SW846 8260B		9/27/18 06:01	PDK	A
cis-1,3-Dichloropropene	ND		ug/L	1.0	0.31	SW846 8260B		9/27/18 06:01	PDK	A
mp-Xylene	ND		ug/L	2.0	0.52	SW846 8260B		9/27/18 06:01	PDK	A
n-Butylbenzene	ND		ug/L	2.0	0.60	SW846 8260B		9/27/18 06:01	PDK	A
n-Propylbenzene	ND		ug/L	1.0	0.33	SW846 8260B		9/27/18 06:01	PDK	A
o-Chlorotoluene	ND		ug/L	1.0	0.26	SW846 8260B		9/27/18 06:01	PDK	A
o-Xylene	ND		ug/L	1.0	0.33	SW846 8260B		9/27/18 06:01	PDK	A
p-Chlorotoluene	ND		ug/L	1.0	0.33	SW846 8260B		9/27/18 06:01	PDK	A
p-Isopropyltoluene	ND		ug/L	1.0	0.32	SW846 8260B		9/27/18 06:01	PDK	A
sec-Butylbenzene	ND		ug/L	1.0	0.31	SW846 8260B		9/27/18 06:01	PDK	A
tert-Amyl methyl ether	ND		ug/L	1.0	0.20	SW846 8260B		9/27/18 06:01	PDK	A
tert-Butyl Alcohol	ND		ug/L	10.0	2.2	SW846 8260B		9/27/18 06:01	PDK	A
tert-Butylbenzene	ND		ug/L	2.0	0.44	SW846 8260B		9/27/18 06:01	PDK	A

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ANALYTICAL RESULTS

Workorder: 2339934 ALG005|LMC MRC SWS

Lab ID: **2339934002** Date Collected: 9/21/2018 12:51 Matrix: Water
Sample ID: **MRC-SW2A** Date Received: 9/21/2018 21:05

Parameters	Results	Flag	Units	RDL	MDL	Method	Prepared	By	Analyzed	By	Cntr
trans-1,2-Dichloroethene	ND		ug/L	1.0	0.26	SW846 8260B			9/27/18 06:01	PDK	A
trans-1,3-Dichloropropene	ND		ug/L	1.0	0.29	SW846 8260B			9/27/18 06:01	PDK	A
Surrogate Recoveries	*Results*	*Flag*	*Units*	*Limits*		*Method*	*Prepared*	*By*	*Analyzed*	*By*	*Cntr*
1,2-Dichloroethane-d4 (S)	102		%	62 - 133		SW846 8260B			9/27/18 06:01	PDK	A
4-Bromofluorobenzene (S)	98.5		%	79 - 114		SW846 8260B			9/27/18 06:01	PDK	A
Dibromofluoromethane (S)	102		%	78 - 116		SW846 8260B			9/27/18 06:01	PDK	A
Toluene-d8 (S)	91.7		%	76 - 127		SW846 8260B			9/27/18 06:01	PDK	A
SEMIVOLATILE SIM											
1,4-Dioxane	ND		ug/L	0.093	0.018	8270 SIM	9/28/18 13:30	DXL	9/29/18 15:15	CGS	G
IS_Naphthalene-d8	0.0		ug/L			8270 SIM	9/28/18 13:30	DXL	9/29/18 15:15	CGS	G
IS_Perylene-d12	0.0		ug/L			8270 SIM	9/28/18 13:30	DXL	9/29/18 15:15	CGS	G
Acenaphthene-d10	0.0		ug/L			8270 SIM	9/28/18 13:30	DXL	9/29/18 15:15	CGS	G
Phenanthrene-d10	0.0		ug/L			8270 SIM	9/28/18 13:30	DXL	9/29/18 15:15	CGS	G
Chrysene-d12	0.0		ug/L			8270 SIM	9/28/18 13:30	DXL	9/29/18 15:15	CGS	G
Surrogate Recoveries	*Results*	*Flag*	*Units*	*Limits*		*Method*	*Prepared*	*By*	*Analyzed*	*By*	*Cntr*
2-Methylnapthalene-d10 (S)	76.6		%	29 - 112		8270 SIM	9/28/18 13:30	DXL	9/29/18 15:15	CGS	G
Fluoranthene-d10 (S)	89.7		%	45 - 130		8270 SIM	9/28/18 13:30	DXL	9/29/18 15:15	CGS	G

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ANALYTICAL RESULTS

Workorder: 2339934 ALG005|LMC MRC SWS

Lab ID: **2339934003** Date Collected: 9/21/2018 12:21 Matrix: Water
Sample ID: **MRC-SW5A1-S** Date Received: 9/21/2018 21:05

Parameters	Results	Flag	Units	RDL	MDL	Method	Prepared By	Analyzed	By	*Cntr*
VOLATILE ORGANICS										
1,1,1,2-Tetrachloroethane	ND		ug/L	1.0	0.35	SW846 8260B		9/28/18 03:04	PDK	A
1,1,1-Trichloroethane	ND		ug/L	1.0	0.22	SW846 8260B		9/28/18 03:04	PDK	A
1,1,2,2-Tetrachloroethane	ND		ug/L	1.0	0.34	SW846 8260B		9/28/18 03:04	PDK	A
1,1,2-Trichloroethane	ND		ug/L	1.0	0.33	SW846 8260B		9/28/18 03:04	PDK	A
1,1-Dichloroethane	ND		ug/L	1.0	0.28	SW846 8260B		9/28/18 03:04	PDK	A
1,1-Dichloroethene	ND		ug/L	1.0	0.29	SW846 8260B		9/28/18 03:04	PDK	A
1,2,3-Trichlorobenzene	ND		ug/L	2.0	0.93	SW846 8260B		9/28/18 03:04	PDK	A
1,2,3-Trichloropropane	ND		ug/L	2.0	0.60	SW846 8260B		9/28/18 03:04	PDK	A
1,2,4-Trichlorobenzene	ND		ug/L	2.0	0.82	SW846 8260B		9/28/18 03:04	PDK	A
1,2,4-Trimethylbenzene	ND		ug/L	1.0	0.25	SW846 8260B		9/28/18 03:04	PDK	A
1,2-Dibromo-3-chloropropane	ND		ug/L	7.0	1.5	SW846 8260B		9/28/18 03:04	PDK	A
1,2-Dibromoethane	ND		ug/L	1.0	0.28	SW846 8260B		9/28/18 03:04	PDK	A
1,2-Dichlorobenzene	ND		ug/L	1.0	0.38	SW846 8260B		9/28/18 03:04	PDK	A
1,2-Dichloroethane	ND		ug/L	1.0	0.32	SW846 8260B		9/28/18 03:04	PDK	A
1,2-Dichloroethene, Total	ND		ug/L	2.0	0.45	SW846 8260B		9/28/18 03:04	PDK	A
1,2-Dichloropropane	ND		ug/L	1.0	0.24	SW846 8260B		9/28/18 03:04	PDK	A
1,3-Dichlorobenzene	ND		ug/L	1.0	0.25	SW846 8260B		9/28/18 03:04	PDK	A
1,3-Dichloropropane	ND		ug/L	1.0	0.27	SW846 8260B		9/28/18 03:04	PDK	A
1,3-Dichloropropene, Total	ND		ug/L	2.0	0.47	SW846 8260B		9/28/18 03:04	PDK	A
1,4-Dichlorobenzene	ND		ug/L	1.0	0.27	SW846 8260B		9/28/18 03:04	PDK	A
2,2-Dichloropropane	ND		ug/L	1.0	0.32	SW846 8260B		9/28/18 03:04	PDK	A
2-Butanone	ND		ug/L	10.0	1.8	SW846 8260B		9/28/18 03:04	PDK	A
2-Chloroethylvinyl ether	ND		ug/L	2.0	0.38	SW846 8260B		9/28/18 03:04	PDK	A
2-Hexanone	ND		ug/L	5.0	1.3	SW846 8260B		9/28/18 03:04	PDK	A
4-Methyl-2-Pentanone(MIBK)	ND		ug/L	5.0	1.5	SW846 8260B		9/28/18 03:04	PDK	A
Acetone	ND		ug/L	10.0	3.1	SW846 8260B		9/28/18 03:04	PDK	A
Benzene	ND		ug/L	1.0	0.23	SW846 8260B		9/28/18 03:04	PDK	A
Bromobenzene	ND		ug/L	1.0	0.32	SW846 8260B		9/28/18 03:04	PDK	A
Bromochloromethane	ND		ug/L	1.0	0.32	SW846 8260B		9/28/18 03:04	PDK	A
Bromodichloromethane	ND		ug/L	1.0	0.27	SW846 8260B		9/28/18 03:04	PDK	A
Bromoform	ND		ug/L	1.0	0.40	SW846 8260B		9/28/18 03:04	PDK	A
Bromomethane	ND		ug/L	1.0	0.39	SW846 8260B		9/28/18 03:04	PDK	A
Carbon Disulfide	ND		ug/L	1.0	0.23	SW846 8260B		9/28/18 03:04	PDK	A
Carbon Tetrachloride	ND		ug/L	1.0	0.31	SW846 8260B		9/28/18 03:04	PDK	A
Chlorobenzene	ND		ug/L	1.0	0.19	SW846 8260B		9/28/18 03:04	PDK	A
Chlorodibromomethane	ND		ug/L	1.0	0.45	SW846 8260B		9/28/18 03:04	PDK	A

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ANALYTICAL RESULTS

Workorder: 2339934 ALG005|LMC MRC SWS

Lab ID: **2339934003** Date Collected: 9/21/2018 12:21 Matrix: Water
Sample ID: **MRC-SW5A1-S** Date Received: 9/21/2018 21:05

Parameters	Results	Flag	Units	RDL	MDL	Method	Prepared By	Analyzed	By	Cntr
Chloroethane	ND		ug/L	1.0	0.33	SW846 8260B		9/28/18 03:04	PDK	A
Chloroform	ND		ug/L	1.0	0.21	SW846 8260B		9/28/18 03:04	PDK	A
Chloromethane	ND		ug/L	1.0	0.31	SW846 8260B		9/28/18 03:04	PDK	A
Cyclohexane	ND		ug/L	1.0	0.29	SW846 8260B		9/28/18 03:04	PDK	A
Dibromomethane	ND		ug/L	1.0	0.31	SW846 8260B		9/28/18 03:04	PDK	A
Dichlorodifluoromethane	ND		ug/L	1.0	0.33	SW846 8260B		9/28/18 03:04	PDK	A
Diisopropyl ether	ND		ug/L	1.0	0.25	SW846 8260B		9/28/18 03:04	PDK	A
Ethyl tert-butyl ether	ND		ug/L	1.0	0.19	SW846 8260B		9/28/18 03:04	PDK	A
Ethylbenzene	ND		ug/L	1.0	0.34	SW846 8260B		9/28/18 03:04	PDK	A
Freon 113	ND		ug/L	1.0	0.26	SW846 8260B		9/28/18 03:04	PDK	A
Hexachlorobutadiene	ND		ug/L	5.0	1.0	SW846 8260B		9/28/18 03:04	PDK	A
Isopropylbenzene	ND		ug/L	1.0	0.22	SW846 8260B		9/28/18 03:04	PDK	A
Methyl acetate	ND		ug/L	2.0	0.32	SW846 8260B		9/28/18 03:04	PDK	A
Methyl cyclohexane	ND		ug/L	1.0	0.30	SW846 8260B		9/28/18 03:04	PDK	A
Methyl t-Butyl Ether	ND		ug/L	1.0	0.33	SW846 8260B		9/28/18 03:04	PDK	A
Methylene Chloride	ND		ug/L	1.0	0.45	SW846 8260B		9/28/18 03:04	PDK	A
Naphthalene	ND		ug/L	2.0	0.34	SW846 8260B		9/28/18 03:04	PDK	A
Styrene	ND		ug/L	1.0	0.24	SW846 8260B		9/28/18 03:04	PDK	A
Tetrachloroethene	ND		ug/L	1.0	0.35	SW846 8260B		9/28/18 03:04	PDK	A
Toluene	ND		ug/L	1.0	0.23	SW846 8260B		9/28/18 03:04	PDK	A
Total Xylenes	ND		ug/L	3.0	0.66	SW846 8260B		9/28/18 03:04	PDK	A
Trichloroethene	ND		ug/L	1.0	0.33	SW846 8260B		9/28/18 03:04	PDK	A
Trichlorofluoromethane	ND		ug/L	1.0	0.24	SW846 8260B		9/28/18 03:04	PDK	A
Vinyl Acetate	ND		ug/L	5.0	1.6	SW846 8260B		9/28/18 03:04	PDK	A
Vinyl Chloride	ND		ug/L	1.0	0.30	SW846 8260B		9/28/18 03:04	PDK	A
cis-1,2-Dichloroethene	ND		ug/L	1.0	0.32	SW846 8260B		9/28/18 03:04	PDK	A
cis-1,3-Dichloropropene	ND		ug/L	1.0	0.31	SW846 8260B		9/28/18 03:04	PDK	A
mp-Xylene	ND		ug/L	2.0	0.52	SW846 8260B		9/28/18 03:04	PDK	A
n-Butylbenzene	ND		ug/L	2.0	0.60	SW846 8260B		9/28/18 03:04	PDK	A
n-Propylbenzene	ND		ug/L	1.0	0.33	SW846 8260B		9/28/18 03:04	PDK	A
o-Chlorotoluene	ND		ug/L	1.0	0.26	SW846 8260B		9/28/18 03:04	PDK	A
o-Xylene	ND		ug/L	1.0	0.33	SW846 8260B		9/28/18 03:04	PDK	A
p-Chlorotoluene	ND		ug/L	1.0	0.33	SW846 8260B		9/28/18 03:04	PDK	A
p-Isopropyltoluene	ND		ug/L	1.0	0.32	SW846 8260B		9/28/18 03:04	PDK	A
sec-Butylbenzene	ND		ug/L	1.0	0.31	SW846 8260B		9/28/18 03:04	PDK	A
tert-Amyl methyl ether	ND		ug/L	1.0	0.20	SW846 8260B		9/28/18 03:04	PDK	A
tert-Butyl Alcohol	ND		ug/L	10.0	2.2	SW846 8260B		9/28/18 03:04	PDK	A
tert-Butylbenzene	ND		ug/L	2.0	0.44	SW846 8260B		9/28/18 03:04	PDK	A

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ANALYTICAL RESULTS

Workorder: 2339934 ALG005|LMC MRC SWS

Lab ID: **2339934003** Date Collected: 9/21/2018 12:21 Matrix: Water
Sample ID: **MRC-SW5A1-S** Date Received: 9/21/2018 21:05

Parameters	Results	Flag	Units	RDL	MDL	Method	Prepared	By	Analyzed	By	Cntr
trans-1,2-Dichloroethene	ND		ug/L	1.0	0.26	SW846 8260B			9/28/18 03:04	PDK	A
trans-1,3-Dichloropropene	ND		ug/L	1.0	0.29	SW846 8260B			9/28/18 03:04	PDK	A
Surrogate Recoveries	*Results*	*Flag*	*Units*	*Limits*		*Method*	*Prepared*	*By*	*Analyzed*	*By*	*Cntr*
1,2-Dichloroethane-d4 (S)	120		%	62 - 133		SW846 8260B			9/28/18 03:04	PDK	A
4-Bromofluorobenzene (S)	107		%	79 - 114		SW846 8260B			9/28/18 03:04	PDK	A
Dibromofluoromethane (S)	111		%	78 - 116		SW846 8260B			9/28/18 03:04	PDK	A
Toluene-d8 (S)	103		%	76 - 127		SW846 8260B			9/28/18 03:04	PDK	A

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ANALYTICAL RESULTS

Workorder: 2339934 ALG005|LMC MRC SWS

Lab ID: **2339934004** Date Collected: 9/21/2018 12:15 Matrix: Water
Sample ID: **MRC-SW5A2-S** Date Received: 9/21/2018 21:05

Parameters	Results	Flag	Units	RDL	MDL	Method	Prepared By	Analyzed	By	Cntr
VOLATILE ORGANICS										
1,1,1,2-Tetrachloroethane	ND		ug/L	1.0	0.35	SW846 8260B		9/28/18 03:27	PDK	A
1,1,1-Trichloroethane	ND		ug/L	1.0	0.22	SW846 8260B		9/28/18 03:27	PDK	A
1,1,2,2-Tetrachloroethane	ND		ug/L	1.0	0.34	SW846 8260B		9/28/18 03:27	PDK	A
1,1,2-Trichloroethane	ND		ug/L	1.0	0.33	SW846 8260B		9/28/18 03:27	PDK	A
1,1-Dichloroethane	ND		ug/L	1.0	0.28	SW846 8260B		9/28/18 03:27	PDK	A
1,1-Dichloroethene	ND		ug/L	1.0	0.29	SW846 8260B		9/28/18 03:27	PDK	A
1,2,3-Trichlorobenzene	ND		ug/L	2.0	0.93	SW846 8260B		9/28/18 03:27	PDK	A
1,2,3-Trichloropropane	ND		ug/L	2.0	0.60	SW846 8260B		9/28/18 03:27	PDK	A
1,2,4-Trichlorobenzene	ND		ug/L	2.0	0.82	SW846 8260B		9/28/18 03:27	PDK	A
1,2,4-Trimethylbenzene	ND		ug/L	1.0	0.25	SW846 8260B		9/28/18 03:27	PDK	A
1,2-Dibromo-3-chloropropane	ND		ug/L	7.0	1.5	SW846 8260B		9/28/18 03:27	PDK	A
1,2-Dibromoethane	ND		ug/L	1.0	0.28	SW846 8260B		9/28/18 03:27	PDK	A
1,2-Dichlorobenzene	ND		ug/L	1.0	0.38	SW846 8260B		9/28/18 03:27	PDK	A
1,2-Dichloroethane	ND		ug/L	1.0	0.32	SW846 8260B		9/28/18 03:27	PDK	A
1,2-Dichloroethene, Total	ND		ug/L	2.0	0.45	SW846 8260B		9/28/18 03:27	PDK	A
1,2-Dichloropropane	ND		ug/L	1.0	0.24	SW846 8260B		9/28/18 03:27	PDK	A
1,3-Dichlorobenzene	ND		ug/L	1.0	0.25	SW846 8260B		9/28/18 03:27	PDK	A
1,3-Dichloropropane	ND		ug/L	1.0	0.27	SW846 8260B		9/28/18 03:27	PDK	A
1,3-Dichloropropene, Total	ND		ug/L	2.0	0.47	SW846 8260B		9/28/18 03:27	PDK	A
1,4-Dichlorobenzene	ND		ug/L	1.0	0.27	SW846 8260B		9/28/18 03:27	PDK	A
2,2-Dichloropropane	ND		ug/L	1.0	0.32	SW846 8260B		9/28/18 03:27	PDK	A
2-Butanone	ND		ug/L	10.0	1.8	SW846 8260B		9/28/18 03:27	PDK	A
2-Chloroethylvinyl ether	ND		ug/L	2.0	0.38	SW846 8260B		9/28/18 03:27	PDK	A
2-Hexanone	ND		ug/L	5.0	1.3	SW846 8260B		9/28/18 03:27	PDK	A
4-Methyl-2-Pentanone(MIBK)	ND		ug/L	5.0	1.5	SW846 8260B		9/28/18 03:27	PDK	A
Acetone	3.6J	J	ug/L	10.0	3.1	SW846 8260B		9/28/18 03:27	PDK	A
Benzene	ND		ug/L	1.0	0.23	SW846 8260B		9/28/18 03:27	PDK	A
Bromobenzene	ND		ug/L	1.0	0.32	SW846 8260B		9/28/18 03:27	PDK	A
Bromochloromethane	ND		ug/L	1.0	0.32	SW846 8260B		9/28/18 03:27	PDK	A
Bromodichloromethane	ND		ug/L	1.0	0.27	SW846 8260B		9/28/18 03:27	PDK	A
Bromoform	ND		ug/L	1.0	0.40	SW846 8260B		9/28/18 03:27	PDK	A
Bromomethane	ND		ug/L	1.0	0.39	SW846 8260B		9/28/18 03:27	PDK	A
Carbon Disulfide	ND		ug/L	1.0	0.23	SW846 8260B		9/28/18 03:27	PDK	A
Carbon Tetrachloride	ND		ug/L	1.0	0.31	SW846 8260B		9/28/18 03:27	PDK	A
Chlorobenzene	ND		ug/L	1.0	0.19	SW846 8260B		9/28/18 03:27	PDK	A
Chlorodibromomethane	ND		ug/L	1.0	0.45	SW846 8260B		9/28/18 03:27	PDK	A

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ANALYTICAL RESULTS

Workorder: 2339934 ALG005|LMC MRC SWS

Lab ID: **2339934004** Date Collected: 9/21/2018 12:15 Matrix: Water

Sample ID: **MRC-SW5A2-S** Date Received: 9/21/2018 21:05

Parameters	Results	Flag	Units	RDL	MDL	Method	Prepared By	Analyzed	By	*Cntr*
Chloroethane	ND		ug/L	1.0	0.33	SW846 8260B		9/28/18 03:27	PDK	A
Chloroform	ND		ug/L	1.0	0.21	SW846 8260B		9/28/18 03:27	PDK	A
Chloromethane	ND		ug/L	1.0	0.31	SW846 8260B		9/28/18 03:27	PDK	A
Cyclohexane	ND		ug/L	1.0	0.29	SW846 8260B		9/28/18 03:27	PDK	A
Dibromomethane	ND		ug/L	1.0	0.31	SW846 8260B		9/28/18 03:27	PDK	A
Dichlorodifluoromethane	ND		ug/L	1.0	0.33	SW846 8260B		9/28/18 03:27	PDK	A
Diisopropyl ether	ND		ug/L	1.0	0.25	SW846 8260B		9/28/18 03:27	PDK	A
Ethyl tert-butyl ether	ND		ug/L	1.0	0.19	SW846 8260B		9/28/18 03:27	PDK	A
Ethylbenzene	ND		ug/L	1.0	0.34	SW846 8260B		9/28/18 03:27	PDK	A
Freon 113	ND		ug/L	1.0	0.26	SW846 8260B		9/28/18 03:27	PDK	A
Hexachlorobutadiene	ND		ug/L	5.0	1.0	SW846 8260B		9/28/18 03:27	PDK	A
Isopropylbenzene	ND		ug/L	1.0	0.22	SW846 8260B		9/28/18 03:27	PDK	A
Methyl acetate	ND		ug/L	2.0	0.32	SW846 8260B		9/28/18 03:27	PDK	A
Methyl cyclohexane	ND		ug/L	1.0	0.30	SW846 8260B		9/28/18 03:27	PDK	A
Methyl t-Butyl Ether	ND		ug/L	1.0	0.33	SW846 8260B		9/28/18 03:27	PDK	A
Methylene Chloride	ND		ug/L	1.0	0.45	SW846 8260B		9/28/18 03:27	PDK	A
Naphthalene	ND		ug/L	2.0	0.34	SW846 8260B		9/28/18 03:27	PDK	A
Styrene	ND		ug/L	1.0	0.24	SW846 8260B		9/28/18 03:27	PDK	A
Tetrachloroethene	ND		ug/L	1.0	0.35	SW846 8260B		9/28/18 03:27	PDK	A
Toluene	ND		ug/L	1.0	0.23	SW846 8260B		9/28/18 03:27	PDK	A
Total Xylenes	ND		ug/L	3.0	0.66	SW846 8260B		9/28/18 03:27	PDK	A
Trichloroethene	ND		ug/L	1.0	0.33	SW846 8260B		9/28/18 03:27	PDK	A
Trichlorofluoromethane	ND		ug/L	1.0	0.24	SW846 8260B		9/28/18 03:27	PDK	A
Vinyl Acetate	ND		ug/L	5.0	1.6	SW846 8260B		9/28/18 03:27	PDK	A
Vinyl Chloride	ND		ug/L	1.0	0.30	SW846 8260B		9/28/18 03:27	PDK	A
cis-1,2-Dichloroethene	0.37J	J	ug/L	1.0	0.32	SW846 8260B		9/28/18 03:27	PDK	A
cis-1,3-Dichloropropene	ND		ug/L	1.0	0.31	SW846 8260B		9/28/18 03:27	PDK	A
mp-Xylene	ND		ug/L	2.0	0.52	SW846 8260B		9/28/18 03:27	PDK	A
n-Butylbenzene	ND		ug/L	2.0	0.60	SW846 8260B		9/28/18 03:27	PDK	A
n-Propylbenzene	ND		ug/L	1.0	0.33	SW846 8260B		9/28/18 03:27	PDK	A
o-Chlorotoluene	ND		ug/L	1.0	0.26	SW846 8260B		9/28/18 03:27	PDK	A
o-Xylene	ND		ug/L	1.0	0.33	SW846 8260B		9/28/18 03:27	PDK	A
p-Chlorotoluene	ND		ug/L	1.0	0.33	SW846 8260B		9/28/18 03:27	PDK	A
p-Isopropyltoluene	ND		ug/L	1.0	0.32	SW846 8260B		9/28/18 03:27	PDK	A
sec-Butylbenzene	ND		ug/L	1.0	0.31	SW846 8260B		9/28/18 03:27	PDK	A
tert-Amyl methyl ether	ND		ug/L	1.0	0.20	SW846 8260B		9/28/18 03:27	PDK	A
tert-Butyl Alcohol	ND		ug/L	10.0	2.2	SW846 8260B		9/28/18 03:27	PDK	A
tert-Butylbenzene	ND		ug/L	2.0	0.44	SW846 8260B		9/28/18 03:27	PDK	A

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ANALYTICAL RESULTS

Workorder: 2339934 ALG005|LMC MRC SWS

Lab ID: **2339934004** Date Collected: 9/21/2018 12:15 Matrix: Water
Sample ID: **MRC-SW5A2-S** Date Received: 9/21/2018 21:05

Parameters	Results	Flag	Units	RDL	MDL	Method	Prepared	By	Analyzed	By	Cntr
trans-1,2-Dichloroethene	ND		ug/L	1.0	0.26	SW846 8260B			9/28/18 03:27	PDK	A
trans-1,3-Dichloropropene	ND		ug/L	1.0	0.29	SW846 8260B			9/28/18 03:27	PDK	A
Surrogate Recoveries	*Results*	*Flag*	*Units*	*Limits*		*Method*	*Prepared*	*By*	*Analyzed*	*By*	*Cntr*
1,2-Dichloroethane-d4 (S)	119		%	62 - 133		SW846 8260B			9/28/18 03:27	PDK	A
4-Bromofluorobenzene (S)	110		%	79 - 114		SW846 8260B			9/28/18 03:27	PDK	A
Dibromofluoromethane (S)	112		%	78 - 116		SW846 8260B			9/28/18 03:27	PDK	A
Toluene-d8 (S)	105		%	76 - 127		SW846 8260B			9/28/18 03:27	PDK	A

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ANALYTICAL RESULTS

Workorder: 2339934 ALG005|LMC MRC SWS

Lab ID: **2339934005** Date Collected: 9/21/2018 12:06 Matrix: Water
Sample ID: **MRC-SW5B-S** Date Received: 9/21/2018 21:05

Parameters	Results	Flag	Units	RDL	MDL	Method	Prepared By	Analyzed	By	Cntr
VOLATILE ORGANICS										
1,1,1,2-Tetrachloroethane	ND		ug/L	1.0	0.35	SW846 8260B		9/28/18 03:49	PDK	A
1,1,1-Trichloroethane	ND		ug/L	1.0	0.22	SW846 8260B		9/28/18 03:49	PDK	A
1,1,2,2-Tetrachloroethane	ND		ug/L	1.0	0.34	SW846 8260B		9/28/18 03:49	PDK	A
1,1,2-Trichloroethane	ND		ug/L	1.0	0.33	SW846 8260B		9/28/18 03:49	PDK	A
1,1-Dichloroethane	ND		ug/L	1.0	0.28	SW846 8260B		9/28/18 03:49	PDK	A
1,1-Dichloroethene	ND		ug/L	1.0	0.29	SW846 8260B		9/28/18 03:49	PDK	A
1,2,3-Trichlorobenzene	ND		ug/L	2.0	0.93	SW846 8260B		9/28/18 03:49	PDK	A
1,2,3-Trichloropropane	ND		ug/L	2.0	0.60	SW846 8260B		9/28/18 03:49	PDK	A
1,2,4-Trichlorobenzene	ND		ug/L	2.0	0.82	SW846 8260B		9/28/18 03:49	PDK	A
1,2,4-Trimethylbenzene	ND		ug/L	1.0	0.25	SW846 8260B		9/28/18 03:49	PDK	A
1,2-Dibromo-3-chloropropane	ND		ug/L	7.0	1.5	SW846 8260B		9/28/18 03:49	PDK	A
1,2-Dibromoethane	ND		ug/L	1.0	0.28	SW846 8260B		9/28/18 03:49	PDK	A
1,2-Dichlorobenzene	ND		ug/L	1.0	0.38	SW846 8260B		9/28/18 03:49	PDK	A
1,2-Dichloroethane	ND		ug/L	1.0	0.32	SW846 8260B		9/28/18 03:49	PDK	A
1,2-Dichloroethene, Total	ND		ug/L	2.0	0.45	SW846 8260B		9/28/18 03:49	PDK	A
1,2-Dichloropropane	ND		ug/L	1.0	0.24	SW846 8260B		9/28/18 03:49	PDK	A
1,3-Dichlorobenzene	ND		ug/L	1.0	0.25	SW846 8260B		9/28/18 03:49	PDK	A
1,3-Dichloropropane	ND		ug/L	1.0	0.27	SW846 8260B		9/28/18 03:49	PDK	A
1,3-Dichloropropene, Total	ND		ug/L	2.0	0.47	SW846 8260B		9/28/18 03:49	PDK	A
1,4-Dichlorobenzene	ND		ug/L	1.0	0.27	SW846 8260B		9/28/18 03:49	PDK	A
2,2-Dichloropropane	ND		ug/L	1.0	0.32	SW846 8260B		9/28/18 03:49	PDK	A
2-Butanone	ND		ug/L	10.0	1.8	SW846 8260B		9/28/18 03:49	PDK	A
2-Chloroethylvinyl ether	ND		ug/L	2.0	0.38	SW846 8260B		9/28/18 03:49	PDK	A
2-Hexanone	ND		ug/L	5.0	1.3	SW846 8260B		9/28/18 03:49	PDK	A
4-Methyl-2-Pentanone(MIBK)	ND		ug/L	5.0	1.5	SW846 8260B		9/28/18 03:49	PDK	A
Acetone	ND		ug/L	10.0	3.1	SW846 8260B		9/28/18 03:49	PDK	A
Benzene	ND		ug/L	1.0	0.23	SW846 8260B		9/28/18 03:49	PDK	A
Bromobenzene	ND		ug/L	1.0	0.32	SW846 8260B		9/28/18 03:49	PDK	A
Bromochloromethane	ND		ug/L	1.0	0.32	SW846 8260B		9/28/18 03:49	PDK	A
Bromodichloromethane	ND		ug/L	1.0	0.27	SW846 8260B		9/28/18 03:49	PDK	A
Bromoform	ND		ug/L	1.0	0.40	SW846 8260B		9/28/18 03:49	PDK	A
Bromomethane	ND		ug/L	1.0	0.39	SW846 8260B		9/28/18 03:49	PDK	A
Carbon Disulfide	ND		ug/L	1.0	0.23	SW846 8260B		9/28/18 03:49	PDK	A
Carbon Tetrachloride	ND		ug/L	1.0	0.31	SW846 8260B		9/28/18 03:49	PDK	A
Chlorobenzene	ND		ug/L	1.0	0.19	SW846 8260B		9/28/18 03:49	PDK	A
Chlorodibromomethane	ND		ug/L	1.0	0.45	SW846 8260B		9/28/18 03:49	PDK	A

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ANALYTICAL RESULTS

Workorder: 2339934 ALG005|LMC MRC SWS

Lab ID: **2339934005** Date Collected: 9/21/2018 12:06 Matrix: Water
Sample ID: **MRC-SW5B-S** Date Received: 9/21/2018 21:05

Parameters	Results	Flag	Units	RDL	MDL	Method	Prepared By	Analyzed	By	Cntr
Chloroethane	ND		ug/L	1.0	0.33	SW846 8260B		9/28/18 03:49	PDK	A
Chloroform	ND		ug/L	1.0	0.21	SW846 8260B		9/28/18 03:49	PDK	A
Chloromethane	ND		ug/L	1.0	0.31	SW846 8260B		9/28/18 03:49	PDK	A
Cyclohexane	ND	3,4	ug/L	1.0	0.29	SW846 8260B		9/28/18 03:49	PDK	A
Dibromomethane	ND		ug/L	1.0	0.31	SW846 8260B		9/28/18 03:49	PDK	A
Dichlorodifluoromethane	ND		ug/L	1.0	0.33	SW846 8260B		9/28/18 03:49	PDK	A
Diisopropyl ether	ND		ug/L	1.0	0.25	SW846 8260B		9/28/18 03:49	PDK	A
Ethyl tert-butyl ether	ND		ug/L	1.0	0.19	SW846 8260B		9/28/18 03:49	PDK	A
Ethylbenzene	ND		ug/L	1.0	0.34	SW846 8260B		9/28/18 03:49	PDK	A
Freon 113	ND	1,2	ug/L	1.0	0.26	SW846 8260B		9/28/18 03:49	PDK	A
Hexachlorobutadiene	ND		ug/L	5.0	1.0	SW846 8260B		9/28/18 03:49	PDK	A
Isopropylbenzene	ND		ug/L	1.0	0.22	SW846 8260B		9/28/18 03:49	PDK	A
Methyl acetate	ND		ug/L	2.0	0.32	SW846 8260B		9/28/18 03:49	PDK	A
Methyl cyclohexane	ND	5,6	ug/L	1.0	0.30	SW846 8260B		9/28/18 03:49	PDK	A
Methyl t-Butyl Ether	ND		ug/L	1.0	0.33	SW846 8260B		9/28/18 03:49	PDK	A
Methylene Chloride	ND		ug/L	1.0	0.45	SW846 8260B		9/28/18 03:49	PDK	A
Naphthalene	ND		ug/L	2.0	0.34	SW846 8260B		9/28/18 03:49	PDK	A
Styrene	ND		ug/L	1.0	0.24	SW846 8260B		9/28/18 03:49	PDK	A
Tetrachloroethene	ND		ug/L	1.0	0.35	SW846 8260B		9/28/18 03:49	PDK	A
Toluene	ND		ug/L	1.0	0.23	SW846 8260B		9/28/18 03:49	PDK	A
Total Xylenes	ND		ug/L	3.0	0.66	SW846 8260B		9/28/18 03:49	PDK	A
Trichloroethene	ND		ug/L	1.0	0.33	SW846 8260B		9/28/18 03:49	PDK	A
Trichlorofluoromethane	ND		ug/L	1.0	0.24	SW846 8260B		9/28/18 03:49	PDK	A
Vinyl Acetate	ND		ug/L	5.0	1.6	SW846 8260B		9/28/18 03:49	PDK	A
Vinyl Chloride	ND		ug/L	1.0	0.30	SW846 8260B		9/28/18 03:49	PDK	A
cis-1,2-Dichloroethene	ND		ug/L	1.0	0.32	SW846 8260B		9/28/18 03:49	PDK	A
cis-1,3-Dichloropropene	ND		ug/L	1.0	0.31	SW846 8260B		9/28/18 03:49	PDK	A
mp-Xylene	ND		ug/L	2.0	0.52	SW846 8260B		9/28/18 03:49	PDK	A
n-Butylbenzene	ND		ug/L	2.0	0.60	SW846 8260B		9/28/18 03:49	PDK	A
n-Propylbenzene	ND		ug/L	1.0	0.33	SW846 8260B		9/28/18 03:49	PDK	A
o-Chlorotoluene	ND		ug/L	1.0	0.26	SW846 8260B		9/28/18 03:49	PDK	A
o-Xylene	ND		ug/L	1.0	0.33	SW846 8260B		9/28/18 03:49	PDK	A
p-Chlorotoluene	ND		ug/L	1.0	0.33	SW846 8260B		9/28/18 03:49	PDK	A
p-Isopropyltoluene	ND		ug/L	1.0	0.32	SW846 8260B		9/28/18 03:49	PDK	A
sec-Butylbenzene	ND		ug/L	1.0	0.31	SW846 8260B		9/28/18 03:49	PDK	A
tert-Amyl methyl ether	ND		ug/L	1.0	0.20	SW846 8260B		9/28/18 03:49	PDK	A
tert-Butyl Alcohol	ND		ug/L	10.0	2.2	SW846 8260B		9/28/18 03:49	PDK	A
tert-Butylbenzene	ND		ug/L	2.0	0.44	SW846 8260B		9/28/18 03:49	PDK	A

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ANALYTICAL RESULTS

Workorder: 2339934 ALG005|LMC MRC SWS

Lab ID: **2339934005** Date Collected: 9/21/2018 12:06 Matrix: Water
Sample ID: **MRC-SW5B-S** Date Received: 9/21/2018 21:05

Parameters	Results	Flag	Units	RDL	MDL	Method	Prepared	By	Analyzed	By	Cntr
trans-1,2-Dichloroethene	ND		ug/L	1.0	0.26	SW846 8260B			9/28/18 03:49	PDK	A
trans-1,3-Dichloropropene	ND		ug/L	1.0	0.29	SW846 8260B			9/28/18 03:49	PDK	A
Surrogate Recoveries	*Results*	*Flag*	*Units*	*Limits*		*Method*	*Prepared*	*By*	*Analyzed*	*By*	*Cntr*
1,2-Dichloroethane-d4 (S)	119		%	62 - 133		SW846 8260B			9/28/18 03:49	PDK	A
4-Bromofluorobenzene (S)	108		%	79 - 114		SW846 8260B			9/28/18 03:49	PDK	A
Dibromofluoromethane (S)	112		%	78 - 116		SW846 8260B			9/28/18 03:49	PDK	A
Toluene-d8 (S)	104		%	76 - 127		SW846 8260B			9/28/18 03:49	PDK	A

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ANALYTICAL RESULTS

Workorder: 2339934 ALG005|LMC MRC SWS

Lab ID: **2339934006** Date Collected: 9/21/2018 10:32 Matrix: Water
Sample ID: **MRC-SW6A-S** Date Received: 9/21/2018 21:05

Parameters	Results	Flag	Units	RDL	MDL	Method	Prepared By	Analyzed	By	Cntr
VOLATILE ORGANICS										
1,1,1,2-Tetrachloroethane	ND		ug/L	1.0	0.35	SW846 8260B		9/28/18 04:12	PDK	A
1,1,1-Trichloroethane	ND		ug/L	1.0	0.22	SW846 8260B		9/28/18 04:12	PDK	A
1,1,2,2-Tetrachloroethane	ND		ug/L	1.0	0.34	SW846 8260B		9/28/18 04:12	PDK	A
1,1,2-Trichloroethane	ND		ug/L	1.0	0.33	SW846 8260B		9/28/18 04:12	PDK	A
1,1-Dichloroethane	ND		ug/L	1.0	0.28	SW846 8260B		9/28/18 04:12	PDK	A
1,1-Dichloroethene	ND		ug/L	1.0	0.29	SW846 8260B		9/28/18 04:12	PDK	A
1,2,3-Trichlorobenzene	ND		ug/L	2.0	0.93	SW846 8260B		9/28/18 04:12	PDK	A
1,2,3-Trichloropropane	ND		ug/L	2.0	0.60	SW846 8260B		9/28/18 04:12	PDK	A
1,2,4-Trichlorobenzene	ND		ug/L	2.0	0.82	SW846 8260B		9/28/18 04:12	PDK	A
1,2,4-Trimethylbenzene	ND		ug/L	1.0	0.25	SW846 8260B		9/28/18 04:12	PDK	A
1,2-Dibromo-3-chloropropane	ND		ug/L	7.0	1.5	SW846 8260B		9/28/18 04:12	PDK	A
1,2-Dibromoethane	ND		ug/L	1.0	0.28	SW846 8260B		9/28/18 04:12	PDK	A
1,2-Dichlorobenzene	ND		ug/L	1.0	0.38	SW846 8260B		9/28/18 04:12	PDK	A
1,2-Dichloroethane	ND		ug/L	1.0	0.32	SW846 8260B		9/28/18 04:12	PDK	A
1,2-Dichloroethene, Total	ND		ug/L	2.0	0.45	SW846 8260B		9/28/18 04:12	PDK	A
1,2-Dichloropropane	ND		ug/L	1.0	0.24	SW846 8260B		9/28/18 04:12	PDK	A
1,3-Dichlorobenzene	ND		ug/L	1.0	0.25	SW846 8260B		9/28/18 04:12	PDK	A
1,3-Dichloropropane	ND		ug/L	1.0	0.27	SW846 8260B		9/28/18 04:12	PDK	A
1,3-Dichloropropene, Total	ND		ug/L	2.0	0.47	SW846 8260B		9/28/18 04:12	PDK	A
1,4-Dichlorobenzene	ND		ug/L	1.0	0.27	SW846 8260B		9/28/18 04:12	PDK	A
2,2-Dichloropropane	ND		ug/L	1.0	0.32	SW846 8260B		9/28/18 04:12	PDK	A
2-Butanone	ND		ug/L	10.0	1.8	SW846 8260B		9/28/18 04:12	PDK	A
2-Chloroethylvinyl ether	ND		ug/L	2.0	0.38	SW846 8260B		9/28/18 04:12	PDK	A
2-Hexanone	ND		ug/L	5.0	1.3	SW846 8260B		9/28/18 04:12	PDK	A
4-Methyl-2-Pentanone(MIBK)	ND		ug/L	5.0	1.5	SW846 8260B		9/28/18 04:12	PDK	A
Acetone	ND		ug/L	10.0	3.1	SW846 8260B		9/28/18 04:12	PDK	A
Benzene	ND		ug/L	1.0	0.23	SW846 8260B		9/28/18 04:12	PDK	A
Bromobenzene	ND		ug/L	1.0	0.32	SW846 8260B		9/28/18 04:12	PDK	A
Bromochloromethane	ND		ug/L	1.0	0.32	SW846 8260B		9/28/18 04:12	PDK	A
Bromodichloromethane	ND		ug/L	1.0	0.27	SW846 8260B		9/28/18 04:12	PDK	A
Bromoform	ND		ug/L	1.0	0.40	SW846 8260B		9/28/18 04:12	PDK	A
Bromomethane	ND		ug/L	1.0	0.39	SW846 8260B		9/28/18 04:12	PDK	A
Carbon Disulfide	ND		ug/L	1.0	0.23	SW846 8260B		9/28/18 04:12	PDK	A
Carbon Tetrachloride	ND		ug/L	1.0	0.31	SW846 8260B		9/28/18 04:12	PDK	A
Chlorobenzene	ND		ug/L	1.0	0.19	SW846 8260B		9/28/18 04:12	PDK	A
Chlorodibromomethane	ND		ug/L	1.0	0.45	SW846 8260B		9/28/18 04:12	PDK	A

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ANALYTICAL RESULTS

Workorder: 2339934 ALG005|LMC MRC SWS

Lab ID: **2339934006** Date Collected: 9/21/2018 10:32 Matrix: Water
Sample ID: **MRC-SW6A-S** Date Received: 9/21/2018 21:05

Parameters	Results	Flag	Units	RDL	MDL	Method	Prepared By	Analyzed	By	Cntr
Chloroethane	ND		ug/L	1.0	0.33	SW846 8260B		9/28/18 04:12	PDK	A
Chloroform	ND		ug/L	1.0	0.21	SW846 8260B		9/28/18 04:12	PDK	A
Chloromethane	ND		ug/L	1.0	0.31	SW846 8260B		9/28/18 04:12	PDK	A
Cyclohexane	ND		ug/L	1.0	0.29	SW846 8260B		9/28/18 04:12	PDK	A
Dibromomethane	ND		ug/L	1.0	0.31	SW846 8260B		9/28/18 04:12	PDK	A
Dichlorodifluoromethane	ND		ug/L	1.0	0.33	SW846 8260B		9/28/18 04:12	PDK	A
Diisopropyl ether	ND		ug/L	1.0	0.25	SW846 8260B		9/28/18 04:12	PDK	A
Ethyl tert-butyl ether	ND		ug/L	1.0	0.19	SW846 8260B		9/28/18 04:12	PDK	A
Ethylbenzene	ND		ug/L	1.0	0.34	SW846 8260B		9/28/18 04:12	PDK	A
Freon 113	ND		ug/L	1.0	0.26	SW846 8260B		9/28/18 04:12	PDK	A
Hexachlorobutadiene	ND		ug/L	5.0	1.0	SW846 8260B		9/28/18 04:12	PDK	A
Isopropylbenzene	ND		ug/L	1.0	0.22	SW846 8260B		9/28/18 04:12	PDK	A
Methyl acetate	ND		ug/L	2.0	0.32	SW846 8260B		9/28/18 04:12	PDK	A
Methyl cyclohexane	ND		ug/L	1.0	0.30	SW846 8260B		9/28/18 04:12	PDK	A
Methyl t-Butyl Ether	ND		ug/L	1.0	0.33	SW846 8260B		9/28/18 04:12	PDK	A
Methylene Chloride	ND		ug/L	1.0	0.45	SW846 8260B		9/28/18 04:12	PDK	A
Naphthalene	ND		ug/L	2.0	0.34	SW846 8260B		9/28/18 04:12	PDK	A
Styrene	ND		ug/L	1.0	0.24	SW846 8260B		9/28/18 04:12	PDK	A
Tetrachloroethene	ND		ug/L	1.0	0.35	SW846 8260B		9/28/18 04:12	PDK	A
Toluene	ND		ug/L	1.0	0.23	SW846 8260B		9/28/18 04:12	PDK	A
Total Xylenes	ND		ug/L	3.0	0.66	SW846 8260B		9/28/18 04:12	PDK	A
Trichloroethene	ND		ug/L	1.0	0.33	SW846 8260B		9/28/18 04:12	PDK	A
Trichlorofluoromethane	ND		ug/L	1.0	0.24	SW846 8260B		9/28/18 04:12	PDK	A
Vinyl Acetate	ND		ug/L	5.0	1.6	SW846 8260B		9/28/18 04:12	PDK	A
Vinyl Chloride	ND		ug/L	1.0	0.30	SW846 8260B		9/28/18 04:12	PDK	A
cis-1,2-Dichloroethene	0.32J	J	ug/L	1.0	0.32	SW846 8260B		9/28/18 04:12	PDK	A
cis-1,3-Dichloropropene	ND		ug/L	1.0	0.31	SW846 8260B		9/28/18 04:12	PDK	A
mp-Xylene	ND		ug/L	2.0	0.52	SW846 8260B		9/28/18 04:12	PDK	A
n-Butylbenzene	ND		ug/L	2.0	0.60	SW846 8260B		9/28/18 04:12	PDK	A
n-Propylbenzene	ND		ug/L	1.0	0.33	SW846 8260B		9/28/18 04:12	PDK	A
o-Chlorotoluene	ND		ug/L	1.0	0.26	SW846 8260B		9/28/18 04:12	PDK	A
o-Xylene	ND		ug/L	1.0	0.33	SW846 8260B		9/28/18 04:12	PDK	A
p-Chlorotoluene	ND		ug/L	1.0	0.33	SW846 8260B		9/28/18 04:12	PDK	A
p-Isopropyltoluene	ND		ug/L	1.0	0.32	SW846 8260B		9/28/18 04:12	PDK	A
sec-Butylbenzene	ND		ug/L	1.0	0.31	SW846 8260B		9/28/18 04:12	PDK	A
tert-Amyl methyl ether	ND		ug/L	1.0	0.20	SW846 8260B		9/28/18 04:12	PDK	A
tert-Butyl Alcohol	ND		ug/L	10.0	2.2	SW846 8260B		9/28/18 04:12	PDK	A
tert-Butylbenzene	ND		ug/L	2.0	0.44	SW846 8260B		9/28/18 04:12	PDK	A

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ANALYTICAL RESULTS

Workorder: 2339934 ALG005|LMC MRC SWS

Lab ID: **2339934006** Date Collected: 9/21/2018 10:32 Matrix: Water
Sample ID: **MRC-SW6A-S** Date Received: 9/21/2018 21:05

Parameters	Results	Flag	Units	RDL	MDL	Method	Prepared	By	Analyzed	By	Cntr
trans-1,2-Dichloroethene	ND		ug/L	1.0	0.26	SW846 8260B			9/28/18 04:12	PDK	A
trans-1,3-Dichloropropene	ND		ug/L	1.0	0.29	SW846 8260B			9/28/18 04:12	PDK	A
Surrogate Recoveries	*Results*	*Flag*	*Units*	*Limits*		*Method*	*Prepared*	*By*	*Analyzed*	*By*	*Cntr*
1,2-Dichloroethane-d4 (S)	119		%	62 - 133		SW846 8260B			9/28/18 04:12	PDK	A
4-Bromofluorobenzene (S)	107		%	79 - 114		SW846 8260B			9/28/18 04:12	PDK	A
Dibromofluoromethane (S)	113		%	78 - 116		SW846 8260B			9/28/18 04:12	PDK	A
Toluene-d8 (S)	103		%	76 - 127		SW846 8260B			9/28/18 04:12	PDK	A
SEMIVOLATILE SIM											
1,4-Dioxane	ND		ug/L	0.093	0.018	8270 SIM	9/28/18 13:30	DXL	9/29/18 16:36	CGS	C
IS_Naphthalene-d8	0.0		ug/L			8270 SIM	9/28/18 13:30	DXL	9/29/18 16:36	CGS	C
IS_Perylene-d12	0.0		ug/L			8270 SIM	9/28/18 13:30	DXL	9/29/18 16:36	CGS	C
Acenaphthene-d10	0.0		ug/L			8270 SIM	9/28/18 13:30	DXL	9/29/18 16:36	CGS	C
Phenanthrene-d10	0.0		ug/L			8270 SIM	9/28/18 13:30	DXL	9/29/18 16:36	CGS	C
Chrysene-d12	0.0		ug/L			8270 SIM	9/28/18 13:30	DXL	9/29/18 16:36	CGS	C
Surrogate Recoveries	*Results*	*Flag*	*Units*	*Limits*		*Method*	*Prepared*	*By*	*Analyzed*	*By*	*Cntr*
2-Methylnapthalene-d10 (S)	78.2		%	29 - 112		8270 SIM	9/28/18 13:30	DXL	9/29/18 16:36	CGS	C
Fluoranthene-d10 (S)	93.9		%	45 - 130		8270 SIM	9/28/18 13:30	DXL	9/29/18 16:36	CGS	C

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State Certifications: DE ID 11 , MA PA0102 , MD 128 , VA 460157 , WV 343

ANALYTICAL RESULTS

Workorder: 2339934 ALG005|LMC MRC SWS

Lab ID: **2339934007** Date Collected: 9/21/2018 10:46 Matrix: Water
Sample ID: **MRC-SW6B-S** Date Received: 9/21/2018 21:05

Parameters	Results	Flag	Units	RDL	MDL	Method	Prepared By	Analyzed	By	Cntr
VOLATILE ORGANICS										
1,1,1,2-Tetrachloroethane	ND		ug/L	1.0	0.35	SW846 8260B		9/28/18 04:35	PDK	A
1,1,1-Trichloroethane	ND		ug/L	1.0	0.22	SW846 8260B		9/28/18 04:35	PDK	A
1,1,2,2-Tetrachloroethane	ND		ug/L	1.0	0.34	SW846 8260B		9/28/18 04:35	PDK	A
1,1,2-Trichloroethane	ND		ug/L	1.0	0.33	SW846 8260B		9/28/18 04:35	PDK	A
1,1-Dichloroethane	ND		ug/L	1.0	0.28	SW846 8260B		9/28/18 04:35	PDK	A
1,1-Dichloroethene	ND		ug/L	1.0	0.29	SW846 8260B		9/28/18 04:35	PDK	A
1,2,3-Trichlorobenzene	ND		ug/L	2.0	0.93	SW846 8260B		9/28/18 04:35	PDK	A
1,2,3-Trichloropropane	ND		ug/L	2.0	0.60	SW846 8260B		9/28/18 04:35	PDK	A
1,2,4-Trichlorobenzene	ND		ug/L	2.0	0.82	SW846 8260B		9/28/18 04:35	PDK	A
1,2,4-Trimethylbenzene	ND		ug/L	1.0	0.25	SW846 8260B		9/28/18 04:35	PDK	A
1,2-Dibromo-3-chloropropane	ND		ug/L	7.0	1.5	SW846 8260B		9/28/18 04:35	PDK	A
1,2-Dibromoethane	ND		ug/L	1.0	0.28	SW846 8260B		9/28/18 04:35	PDK	A
1,2-Dichlorobenzene	ND		ug/L	1.0	0.38	SW846 8260B		9/28/18 04:35	PDK	A
1,2-Dichloroethane	ND		ug/L	1.0	0.32	SW846 8260B		9/28/18 04:35	PDK	A
1,2-Dichloroethene, Total	ND		ug/L	2.0	0.45	SW846 8260B		9/28/18 04:35	PDK	A
1,2-Dichloropropane	ND		ug/L	1.0	0.24	SW846 8260B		9/28/18 04:35	PDK	A
1,3-Dichlorobenzene	ND		ug/L	1.0	0.25	SW846 8260B		9/28/18 04:35	PDK	A
1,3-Dichloropropane	ND		ug/L	1.0	0.27	SW846 8260B		9/28/18 04:35	PDK	A
1,3-Dichloropropene, Total	ND		ug/L	2.0	0.47	SW846 8260B		9/28/18 04:35	PDK	A
1,4-Dichlorobenzene	ND		ug/L	1.0	0.27	SW846 8260B		9/28/18 04:35	PDK	A
2,2-Dichloropropane	ND		ug/L	1.0	0.32	SW846 8260B		9/28/18 04:35	PDK	A
2-Butanone	ND		ug/L	10.0	1.8	SW846 8260B		9/28/18 04:35	PDK	A
2-Chloroethylvinyl ether	ND		ug/L	2.0	0.38	SW846 8260B		9/28/18 04:35	PDK	A
2-Hexanone	ND		ug/L	5.0	1.3	SW846 8260B		9/28/18 04:35	PDK	A
4-Methyl-2-Pentanone(MIBK)	ND		ug/L	5.0	1.5	SW846 8260B		9/28/18 04:35	PDK	A
Acetone	ND		ug/L	10.0	3.1	SW846 8260B		9/28/18 04:35	PDK	A
Benzene	ND		ug/L	1.0	0.23	SW846 8260B		9/28/18 04:35	PDK	A
Bromobenzene	ND		ug/L	1.0	0.32	SW846 8260B		9/28/18 04:35	PDK	A
Bromochloromethane	ND		ug/L	1.0	0.32	SW846 8260B		9/28/18 04:35	PDK	A
Bromodichloromethane	ND		ug/L	1.0	0.27	SW846 8260B		9/28/18 04:35	PDK	A
Bromoform	ND		ug/L	1.0	0.40	SW846 8260B		9/28/18 04:35	PDK	A
Bromomethane	ND		ug/L	1.0	0.39	SW846 8260B		9/28/18 04:35	PDK	A
Carbon Disulfide	ND		ug/L	1.0	0.23	SW846 8260B		9/28/18 04:35	PDK	A
Carbon Tetrachloride	ND		ug/L	1.0	0.31	SW846 8260B		9/28/18 04:35	PDK	A
Chlorobenzene	ND		ug/L	1.0	0.19	SW846 8260B		9/28/18 04:35	PDK	A
Chlorodibromomethane	ND		ug/L	1.0	0.45	SW846 8260B		9/28/18 04:35	PDK	A

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ANALYTICAL RESULTS

Workorder: 2339934 ALG005|LMC MRC SWS

Lab ID: **2339934007** Date Collected: 9/21/2018 10:46 Matrix: Water
Sample ID: **MRC-SW6B-S** Date Received: 9/21/2018 21:05

Parameters	Results	Flag	Units	RDL	MDL	Method	Prepared By	Analyzed	By	Cntr
Chloroethane	ND		ug/L	1.0	0.33	SW846 8260B		9/28/18 04:35	PDK	A
Chloroform	ND		ug/L	1.0	0.21	SW846 8260B		9/28/18 04:35	PDK	A
Chloromethane	ND		ug/L	1.0	0.31	SW846 8260B		9/28/18 04:35	PDK	A
Cyclohexane	ND		ug/L	1.0	0.29	SW846 8260B		9/28/18 04:35	PDK	A
Dibromomethane	ND		ug/L	1.0	0.31	SW846 8260B		9/28/18 04:35	PDK	A
Dichlorodifluoromethane	ND		ug/L	1.0	0.33	SW846 8260B		9/28/18 04:35	PDK	A
Diisopropyl ether	ND		ug/L	1.0	0.25	SW846 8260B		9/28/18 04:35	PDK	A
Ethyl tert-butyl ether	ND		ug/L	1.0	0.19	SW846 8260B		9/28/18 04:35	PDK	A
Ethylbenzene	ND		ug/L	1.0	0.34	SW846 8260B		9/28/18 04:35	PDK	A
Freon 113	ND		ug/L	1.0	0.26	SW846 8260B		9/28/18 04:35	PDK	A
Hexachlorobutadiene	ND		ug/L	5.0	1.0	SW846 8260B		9/28/18 04:35	PDK	A
Isopropylbenzene	ND		ug/L	1.0	0.22	SW846 8260B		9/28/18 04:35	PDK	A
Methyl acetate	ND		ug/L	2.0	0.32	SW846 8260B		9/28/18 04:35	PDK	A
Methyl cyclohexane	ND		ug/L	1.0	0.30	SW846 8260B		9/28/18 04:35	PDK	A
Methyl t-Butyl Ether	ND		ug/L	1.0	0.33	SW846 8260B		9/28/18 04:35	PDK	A
Methylene Chloride	ND		ug/L	1.0	0.45	SW846 8260B		9/28/18 04:35	PDK	A
Naphthalene	ND		ug/L	2.0	0.34	SW846 8260B		9/28/18 04:35	PDK	A
Styrene	ND		ug/L	1.0	0.24	SW846 8260B		9/28/18 04:35	PDK	A
Tetrachloroethene	ND		ug/L	1.0	0.35	SW846 8260B		9/28/18 04:35	PDK	A
Toluene	ND		ug/L	1.0	0.23	SW846 8260B		9/28/18 04:35	PDK	A
Total Xylenes	ND		ug/L	3.0	0.66	SW846 8260B		9/28/18 04:35	PDK	A
Trichloroethene	ND		ug/L	1.0	0.33	SW846 8260B		9/28/18 04:35	PDK	A
Trichlorofluoromethane	ND		ug/L	1.0	0.24	SW846 8260B		9/28/18 04:35	PDK	A
Vinyl Acetate	ND		ug/L	5.0	1.6	SW846 8260B		9/28/18 04:35	PDK	A
Vinyl Chloride	ND		ug/L	1.0	0.30	SW846 8260B		9/28/18 04:35	PDK	A
cis-1,2-Dichloroethene	ND		ug/L	1.0	0.32	SW846 8260B		9/28/18 04:35	PDK	A
cis-1,3-Dichloropropene	ND		ug/L	1.0	0.31	SW846 8260B		9/28/18 04:35	PDK	A
mp-Xylene	ND		ug/L	2.0	0.52	SW846 8260B		9/28/18 04:35	PDK	A
n-Butylbenzene	ND		ug/L	2.0	0.60	SW846 8260B		9/28/18 04:35	PDK	A
n-Propylbenzene	ND		ug/L	1.0	0.33	SW846 8260B		9/28/18 04:35	PDK	A
o-Chlorotoluene	ND		ug/L	1.0	0.26	SW846 8260B		9/28/18 04:35	PDK	A
o-Xylene	ND		ug/L	1.0	0.33	SW846 8260B		9/28/18 04:35	PDK	A
p-Chlorotoluene	ND		ug/L	1.0	0.33	SW846 8260B		9/28/18 04:35	PDK	A
p-Isopropyltoluene	ND		ug/L	1.0	0.32	SW846 8260B		9/28/18 04:35	PDK	A
sec-Butylbenzene	ND		ug/L	1.0	0.31	SW846 8260B		9/28/18 04:35	PDK	A
tert-Amyl methyl ether	ND		ug/L	1.0	0.20	SW846 8260B		9/28/18 04:35	PDK	A
tert-Butyl Alcohol	ND		ug/L	10.0	2.2	SW846 8260B		9/28/18 04:35	PDK	A
tert-Butylbenzene	ND		ug/L	2.0	0.44	SW846 8260B		9/28/18 04:35	PDK	A

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State Certifications: DE ID 11 , MA PA0102 , MD 128 , VA 460157 , WV 343

ANALYTICAL RESULTS

Workorder: 2339934 ALG005|LMC MRC SWS

Lab ID: **2339934007** Date Collected: 9/21/2018 10:46 Matrix: Water
Sample ID: **MRC-SW6B-S** Date Received: 9/21/2018 21:05

Parameters	Results	Flag	Units	RDL	MDL	Method	Prepared	By	Analyzed	By	Cntr
trans-1,2-Dichloroethene	ND		ug/L	1.0	0.26	SW846 8260B			9/28/18 04:35	PDK	A
trans-1,3-Dichloropropene	ND		ug/L	1.0	0.29	SW846 8260B			9/28/18 04:35	PDK	A
Surrogate Recoveries	*Results*	*Flag*	*Units*	*Limits*		*Method*	*Prepared*	*By*	*Analyzed*	*By*	*Cntr*
1,2-Dichloroethane-d4 (S)	120		%	62 - 133		SW846 8260B			9/28/18 04:35	PDK	A
4-Bromofluorobenzene (S)	107		%	79 - 114		SW846 8260B			9/28/18 04:35	PDK	A
Dibromofluoromethane (S)	114		%	78 - 116		SW846 8260B			9/28/18 04:35	PDK	A
Toluene-d8 (S)	102		%	76 - 127		SW846 8260B			9/28/18 04:35	PDK	A
SEMIVOLATILE SIM											
1,4-Dioxane	ND		ug/L	0.093	0.018	8270 SIM	9/28/18 13:30	DXL	9/29/18 17:02	CGS	C
IS_Naphthalene-d8	0.0		ug/L			8270 SIM	9/28/18 13:30	DXL	9/29/18 17:02	CGS	C
IS_Perylene-d12	0.0		ug/L			8270 SIM	9/28/18 13:30	DXL	9/29/18 17:02	CGS	C
Acenaphthene-d10	0.0		ug/L			8270 SIM	9/28/18 13:30	DXL	9/29/18 17:02	CGS	C
Phenanthrene-d10	0.0		ug/L			8270 SIM	9/28/18 13:30	DXL	9/29/18 17:02	CGS	C
Chrysene-d12	0.0		ug/L			8270 SIM	9/28/18 13:30	DXL	9/29/18 17:02	CGS	C
Surrogate Recoveries	*Results*	*Flag*	*Units*	*Limits*		*Method*	*Prepared*	*By*	*Analyzed*	*By*	*Cntr*
2-Methylnapthalene-d10 (S)	81.2		%	29 - 112		8270 SIM	9/28/18 13:30	DXL	9/29/18 17:02	CGS	C
Fluoranthene-d10 (S)	95.4		%	45 - 130		8270 SIM	9/28/18 13:30	DXL	9/29/18 17:02	CGS	C

Vanessa N. Badman
Mrs. Vanessa N Badman
Project Coordinator

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ANALYTICAL RESULTS

Workorder: 2339934 ALG005|LMC MRC SWS

Lab ID: **2339934008** Date Collected: 9/21/2018 09:53 Matrix: Water
Sample ID: **MRC-SW7A-S** Date Received: 9/21/2018 21:05

Parameters	Results	Flag	Units	RDL	MDL	Method	Prepared By	Analyzed	By	*Cntr*
VOLATILE ORGANICS										
1,1,1,2-Tetrachloroethane	ND		ug/L	1.0	0.35	SW846 8260B		9/28/18 04:58	PDK	A
1,1,1-Trichloroethane	ND		ug/L	1.0	0.22	SW846 8260B		9/28/18 04:58	PDK	A
1,1,2,2-Tetrachloroethane	ND		ug/L	1.0	0.34	SW846 8260B		9/28/18 04:58	PDK	A
1,1,2-Trichloroethane	ND		ug/L	1.0	0.33	SW846 8260B		9/28/18 04:58	PDK	A
1,1-Dichloroethane	ND		ug/L	1.0	0.28	SW846 8260B		9/28/18 04:58	PDK	A
1,1-Dichloroethene	ND		ug/L	1.0	0.29	SW846 8260B		9/28/18 04:58	PDK	A
1,2,3-Trichlorobenzene	ND		ug/L	2.0	0.93	SW846 8260B		9/28/18 04:58	PDK	A
1,2,3-Trichloropropane	ND		ug/L	2.0	0.60	SW846 8260B		9/28/18 04:58	PDK	A
1,2,4-Trichlorobenzene	ND		ug/L	2.0	0.82	SW846 8260B		9/28/18 04:58	PDK	A
1,2,4-Trimethylbenzene	ND		ug/L	1.0	0.25	SW846 8260B		9/28/18 04:58	PDK	A
1,2-Dibromo-3-chloropropane	ND		ug/L	7.0	1.5	SW846 8260B		9/28/18 04:58	PDK	A
1,2-Dibromoethane	ND		ug/L	1.0	0.28	SW846 8260B		9/28/18 04:58	PDK	A
1,2-Dichlorobenzene	ND		ug/L	1.0	0.38	SW846 8260B		9/28/18 04:58	PDK	A
1,2-Dichloroethane	ND		ug/L	1.0	0.32	SW846 8260B		9/28/18 04:58	PDK	A
1,2-Dichloroethene, Total	ND		ug/L	2.0	0.45	SW846 8260B		9/28/18 04:58	PDK	A
1,2-Dichloropropane	ND		ug/L	1.0	0.24	SW846 8260B		9/28/18 04:58	PDK	A
1,3-Dichlorobenzene	ND		ug/L	1.0	0.25	SW846 8260B		9/28/18 04:58	PDK	A
1,3-Dichloropropane	ND		ug/L	1.0	0.27	SW846 8260B		9/28/18 04:58	PDK	A
1,3-Dichloropropene, Total	ND		ug/L	2.0	0.47	SW846 8260B		9/28/18 04:58	PDK	A
1,4-Dichlorobenzene	ND		ug/L	1.0	0.27	SW846 8260B		9/28/18 04:58	PDK	A
2,2-Dichloropropane	ND		ug/L	1.0	0.32	SW846 8260B		9/28/18 04:58	PDK	A
2-Butanone	ND		ug/L	10.0	1.8	SW846 8260B		9/28/18 04:58	PDK	A
2-Chloroethylvinyl ether	ND		ug/L	2.0	0.38	SW846 8260B		9/28/18 04:58	PDK	A
2-Hexanone	ND		ug/L	5.0	1.3	SW846 8260B		9/28/18 04:58	PDK	A
4-Methyl-2-Pentanone(MIBK)	ND		ug/L	5.0	1.5	SW846 8260B		9/28/18 04:58	PDK	A
Acetone	3.6J	J	ug/L	10.0	3.1	SW846 8260B		9/28/18 04:58	PDK	A
Benzene	ND		ug/L	1.0	0.23	SW846 8260B		9/28/18 04:58	PDK	A
Bromobenzene	ND		ug/L	1.0	0.32	SW846 8260B		9/28/18 04:58	PDK	A
Bromochloromethane	ND		ug/L	1.0	0.32	SW846 8260B		9/28/18 04:58	PDK	A
Bromodichloromethane	ND		ug/L	1.0	0.27	SW846 8260B		9/28/18 04:58	PDK	A
Bromoform	ND		ug/L	1.0	0.40	SW846 8260B		9/28/18 04:58	PDK	A
Bromomethane	ND		ug/L	1.0	0.39	SW846 8260B		9/28/18 04:58	PDK	A
Carbon Disulfide	ND		ug/L	1.0	0.23	SW846 8260B		9/28/18 04:58	PDK	A
Carbon Tetrachloride	ND		ug/L	1.0	0.31	SW846 8260B		9/28/18 04:58	PDK	A
Chlorobenzene	ND		ug/L	1.0	0.19	SW846 8260B		9/28/18 04:58	PDK	A
Chlorodibromomethane	ND		ug/L	1.0	0.45	SW846 8260B		9/28/18 04:58	PDK	A

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ANALYTICAL RESULTS

Workorder: 2339934 ALG005|LMC MRC SWS

Lab ID: **2339934008** Date Collected: 9/21/2018 09:53 Matrix: Water

Sample ID: **MRC-SW7A-S** Date Received: 9/21/2018 21:05

Parameters	Results	Flag	Units	RDL	MDL	Method	Prepared By	Analyzed	By	Cntr
Chloroethane	ND		ug/L	1.0	0.33	SW846 8260B		9/28/18 04:58	PDK	A
Chloroform	ND		ug/L	1.0	0.21	SW846 8260B		9/28/18 04:58	PDK	A
Chloromethane	ND		ug/L	1.0	0.31	SW846 8260B		9/28/18 04:58	PDK	A
Cyclohexane	ND		ug/L	1.0	0.29	SW846 8260B		9/28/18 04:58	PDK	A
Dibromomethane	ND		ug/L	1.0	0.31	SW846 8260B		9/28/18 04:58	PDK	A
Dichlorodifluoromethane	ND		ug/L	1.0	0.33	SW846 8260B		9/28/18 04:58	PDK	A
Diisopropyl ether	ND		ug/L	1.0	0.25	SW846 8260B		9/28/18 04:58	PDK	A
Ethyl tert-butyl ether	ND		ug/L	1.0	0.19	SW846 8260B		9/28/18 04:58	PDK	A
Ethylbenzene	ND		ug/L	1.0	0.34	SW846 8260B		9/28/18 04:58	PDK	A
Freon 113	ND		ug/L	1.0	0.26	SW846 8260B		9/28/18 04:58	PDK	A
Hexachlorobutadiene	ND		ug/L	5.0	1.0	SW846 8260B		9/28/18 04:58	PDK	A
Isopropylbenzene	ND		ug/L	1.0	0.22	SW846 8260B		9/28/18 04:58	PDK	A
Methyl acetate	ND		ug/L	2.0	0.32	SW846 8260B		9/28/18 04:58	PDK	A
Methyl cyclohexane	ND		ug/L	1.0	0.30	SW846 8260B		9/28/18 04:58	PDK	A
Methyl t-Butyl Ether	ND		ug/L	1.0	0.33	SW846 8260B		9/28/18 04:58	PDK	A
Methylene Chloride	ND		ug/L	1.0	0.45	SW846 8260B		9/28/18 04:58	PDK	A
Naphthalene	ND		ug/L	2.0	0.34	SW846 8260B		9/28/18 04:58	PDK	A
Styrene	ND		ug/L	1.0	0.24	SW846 8260B		9/28/18 04:58	PDK	A
Tetrachloroethene	ND		ug/L	1.0	0.35	SW846 8260B		9/28/18 04:58	PDK	A
Toluene	ND		ug/L	1.0	0.23	SW846 8260B		9/28/18 04:58	PDK	A
Total Xylenes	ND		ug/L	3.0	0.66	SW846 8260B		9/28/18 04:58	PDK	A
Trichloroethene	ND		ug/L	1.0	0.33	SW846 8260B		9/28/18 04:58	PDK	A
Trichlorofluoromethane	ND		ug/L	1.0	0.24	SW846 8260B		9/28/18 04:58	PDK	A
Vinyl Acetate	ND		ug/L	5.0	1.6	SW846 8260B		9/28/18 04:58	PDK	A
Vinyl Chloride	ND		ug/L	1.0	0.30	SW846 8260B		9/28/18 04:58	PDK	A
cis-1,2-Dichloroethene	ND		ug/L	1.0	0.32	SW846 8260B		9/28/18 04:58	PDK	A
cis-1,3-Dichloropropene	ND		ug/L	1.0	0.31	SW846 8260B		9/28/18 04:58	PDK	A
mp-Xylene	ND		ug/L	2.0	0.52	SW846 8260B		9/28/18 04:58	PDK	A
n-Butylbenzene	ND		ug/L	2.0	0.60	SW846 8260B		9/28/18 04:58	PDK	A
n-Propylbenzene	ND		ug/L	1.0	0.33	SW846 8260B		9/28/18 04:58	PDK	A
o-Chlorotoluene	ND		ug/L	1.0	0.26	SW846 8260B		9/28/18 04:58	PDK	A
o-Xylene	ND		ug/L	1.0	0.33	SW846 8260B		9/28/18 04:58	PDK	A
p-Chlorotoluene	ND		ug/L	1.0	0.33	SW846 8260B		9/28/18 04:58	PDK	A
p-Isopropyltoluene	ND		ug/L	1.0	0.32	SW846 8260B		9/28/18 04:58	PDK	A
sec-Butylbenzene	ND		ug/L	1.0	0.31	SW846 8260B		9/28/18 04:58	PDK	A
tert-Amyl methyl ether	ND		ug/L	1.0	0.20	SW846 8260B		9/28/18 04:58	PDK	A
tert-Butyl Alcohol	ND		ug/L	10.0	2.2	SW846 8260B		9/28/18 04:58	PDK	A
tert-Butylbenzene	ND		ug/L	2.0	0.44	SW846 8260B		9/28/18 04:58	PDK	A

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State Certifications: DE ID 11 , MA PA0102 , MD 128 , VA 460157 , WV 343

ANALYTICAL RESULTS

Workorder: 2339934 ALG005|LMC MRC SWS

Lab ID: **2339934008** Date Collected: 9/21/2018 09:53 Matrix: Water
Sample ID: **MRC-SW7A-S** Date Received: 9/21/2018 21:05

Parameters	Results	Flag	Units	RDL	MDL	Method	Prepared	By	Analyzed	By	Cntr
trans-1,2-Dichloroethene	ND		ug/L	1.0	0.26	SW846 8260B			9/28/18 04:58	PDK	A
trans-1,3-Dichloropropene	ND		ug/L	1.0	0.29	SW846 8260B			9/28/18 04:58	PDK	A
Surrogate Recoveries	*Results*	*Flag*	*Units*	*Limits*		*Method*	*Prepared*	*By*	*Analyzed*	*By*	*Cntr*
1,2-Dichloroethane-d4 (S)	120		%	62 - 133		SW846 8260B			9/28/18 04:58	PDK	A
4-Bromofluorobenzene (S)	109		%	79 - 114		SW846 8260B			9/28/18 04:58	PDK	A
Dibromofluoromethane (S)	115		%	78 - 116		SW846 8260B			9/28/18 04:58	PDK	A
Toluene-d8 (S)	105		%	76 - 127		SW846 8260B			9/28/18 04:58	PDK	A

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ANALYTICAL RESULTS

Workorder: 2339934 ALG005|LMC MRC SWS

Lab ID: **2339934009** Date Collected: 9/21/2018 10:04 Matrix: Water
Sample ID: **MRC-SW7B-S** Date Received: 9/21/2018 21:05

Parameters	Results	Flag	Units	RDL	MDL	Method	Prepared By	Analyzed	By	Cntr
VOLATILE ORGANICS										
1,1,1,2-Tetrachloroethane	ND		ug/L	1.0	0.35	SW846 8260B		9/28/18 05:21	PDK	A
1,1,1-Trichloroethane	ND		ug/L	1.0	0.22	SW846 8260B		9/28/18 05:21	PDK	A
1,1,2,2-Tetrachloroethane	ND		ug/L	1.0	0.34	SW846 8260B		9/28/18 05:21	PDK	A
1,1,2-Trichloroethane	ND		ug/L	1.0	0.33	SW846 8260B		9/28/18 05:21	PDK	A
1,1-Dichloroethane	ND		ug/L	1.0	0.28	SW846 8260B		9/28/18 05:21	PDK	A
1,1-Dichloroethene	ND		ug/L	1.0	0.29	SW846 8260B		9/28/18 05:21	PDK	A
1,2,3-Trichlorobenzene	ND		ug/L	2.0	0.93	SW846 8260B		9/28/18 05:21	PDK	A
1,2,3-Trichloropropane	ND		ug/L	2.0	0.60	SW846 8260B		9/28/18 05:21	PDK	A
1,2,4-Trichlorobenzene	ND		ug/L	2.0	0.82	SW846 8260B		9/28/18 05:21	PDK	A
1,2,4-Trimethylbenzene	ND		ug/L	1.0	0.25	SW846 8260B		9/28/18 05:21	PDK	A
1,2-Dibromo-3-chloropropane	ND		ug/L	7.0	1.5	SW846 8260B		9/28/18 05:21	PDK	A
1,2-Dibromoethane	ND		ug/L	1.0	0.28	SW846 8260B		9/28/18 05:21	PDK	A
1,2-Dichlorobenzene	ND		ug/L	1.0	0.38	SW846 8260B		9/28/18 05:21	PDK	A
1,2-Dichloroethane	ND		ug/L	1.0	0.32	SW846 8260B		9/28/18 05:21	PDK	A
1,2-Dichloroethene, Total	ND		ug/L	2.0	0.45	SW846 8260B		9/28/18 05:21	PDK	A
1,2-Dichloropropane	ND		ug/L	1.0	0.24	SW846 8260B		9/28/18 05:21	PDK	A
1,3-Dichlorobenzene	ND		ug/L	1.0	0.25	SW846 8260B		9/28/18 05:21	PDK	A
1,3-Dichloropropane	ND		ug/L	1.0	0.27	SW846 8260B		9/28/18 05:21	PDK	A
1,3-Dichloropropene, Total	ND		ug/L	2.0	0.47	SW846 8260B		9/28/18 05:21	PDK	A
1,4-Dichlorobenzene	ND		ug/L	1.0	0.27	SW846 8260B		9/28/18 05:21	PDK	A
2,2-Dichloropropane	ND		ug/L	1.0	0.32	SW846 8260B		9/28/18 05:21	PDK	A
2-Butanone	ND		ug/L	10.0	1.8	SW846 8260B		9/28/18 05:21	PDK	A
2-Chloroethylvinyl ether	ND		ug/L	2.0	0.38	SW846 8260B		9/28/18 05:21	PDK	A
2-Hexanone	ND		ug/L	5.0	1.3	SW846 8260B		9/28/18 05:21	PDK	A
4-Methyl-2-Pentanone(MIBK)	ND		ug/L	5.0	1.5	SW846 8260B		9/28/18 05:21	PDK	A
Acetone	ND		ug/L	10.0	3.1	SW846 8260B		9/28/18 05:21	PDK	A
Benzene	ND		ug/L	1.0	0.23	SW846 8260B		9/28/18 05:21	PDK	A
Bromobenzene	ND		ug/L	1.0	0.32	SW846 8260B		9/28/18 05:21	PDK	A
Bromochloromethane	ND		ug/L	1.0	0.32	SW846 8260B		9/28/18 05:21	PDK	A
Bromodichloromethane	ND		ug/L	1.0	0.27	SW846 8260B		9/28/18 05:21	PDK	A
Bromoform	ND		ug/L	1.0	0.40	SW846 8260B		9/28/18 05:21	PDK	A
Bromomethane	ND		ug/L	1.0	0.39	SW846 8260B		9/28/18 05:21	PDK	A
Carbon Disulfide	ND		ug/L	1.0	0.23	SW846 8260B		9/28/18 05:21	PDK	A
Carbon Tetrachloride	ND		ug/L	1.0	0.31	SW846 8260B		9/28/18 05:21	PDK	A
Chlorobenzene	ND		ug/L	1.0	0.19	SW846 8260B		9/28/18 05:21	PDK	A
Chlorodibromomethane	ND		ug/L	1.0	0.45	SW846 8260B		9/28/18 05:21	PDK	A

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ANALYTICAL RESULTS

Workorder: 2339934 ALG005|LMC MRC SWS

Lab ID: **2339934009** Date Collected: 9/21/2018 10:04 Matrix: Water
Sample ID: **MRC-SW7B-S** Date Received: 9/21/2018 21:05

Parameters	Results	Flag	Units	RDL	MDL	Method	Prepared By	Analyzed	By	Cntr
Chloroethane	ND		ug/L	1.0	0.33	SW846 8260B		9/28/18 05:21	PDK	A
Chloroform	ND		ug/L	1.0	0.21	SW846 8260B		9/28/18 05:21	PDK	A
Chloromethane	ND		ug/L	1.0	0.31	SW846 8260B		9/28/18 05:21	PDK	A
Cyclohexane	ND		ug/L	1.0	0.29	SW846 8260B		9/28/18 05:21	PDK	A
Dibromomethane	ND		ug/L	1.0	0.31	SW846 8260B		9/28/18 05:21	PDK	A
Dichlorodifluoromethane	ND		ug/L	1.0	0.33	SW846 8260B		9/28/18 05:21	PDK	A
Diisopropyl ether	ND		ug/L	1.0	0.25	SW846 8260B		9/28/18 05:21	PDK	A
Ethyl tert-butyl ether	ND		ug/L	1.0	0.19	SW846 8260B		9/28/18 05:21	PDK	A
Ethylbenzene	ND		ug/L	1.0	0.34	SW846 8260B		9/28/18 05:21	PDK	A
Freon 113	ND		ug/L	1.0	0.26	SW846 8260B		9/28/18 05:21	PDK	A
Hexachlorobutadiene	ND		ug/L	5.0	1.0	SW846 8260B		9/28/18 05:21	PDK	A
Isopropylbenzene	ND		ug/L	1.0	0.22	SW846 8260B		9/28/18 05:21	PDK	A
Methyl acetate	ND		ug/L	2.0	0.32	SW846 8260B		9/28/18 05:21	PDK	A
Methyl cyclohexane	ND		ug/L	1.0	0.30	SW846 8260B		9/28/18 05:21	PDK	A
Methyl t-Butyl Ether	ND		ug/L	1.0	0.33	SW846 8260B		9/28/18 05:21	PDK	A
Methylene Chloride	ND		ug/L	1.0	0.45	SW846 8260B		9/28/18 05:21	PDK	A
Naphthalene	ND		ug/L	2.0	0.34	SW846 8260B		9/28/18 05:21	PDK	A
Styrene	ND		ug/L	1.0	0.24	SW846 8260B		9/28/18 05:21	PDK	A
Tetrachloroethene	ND		ug/L	1.0	0.35	SW846 8260B		9/28/18 05:21	PDK	A
Toluene	ND		ug/L	1.0	0.23	SW846 8260B		9/28/18 05:21	PDK	A
Total Xylenes	ND		ug/L	3.0	0.66	SW846 8260B		9/28/18 05:21	PDK	A
Trichloroethene	ND		ug/L	1.0	0.33	SW846 8260B		9/28/18 05:21	PDK	A
Trichlorofluoromethane	ND		ug/L	1.0	0.24	SW846 8260B		9/28/18 05:21	PDK	A
Vinyl Acetate	ND		ug/L	5.0	1.6	SW846 8260B		9/28/18 05:21	PDK	A
Vinyl Chloride	ND		ug/L	1.0	0.30	SW846 8260B		9/28/18 05:21	PDK	A
cis-1,2-Dichloroethene	ND		ug/L	1.0	0.32	SW846 8260B		9/28/18 05:21	PDK	A
cis-1,3-Dichloropropene	ND		ug/L	1.0	0.31	SW846 8260B		9/28/18 05:21	PDK	A
mp-Xylene	ND		ug/L	2.0	0.52	SW846 8260B		9/28/18 05:21	PDK	A
n-Butylbenzene	ND		ug/L	2.0	0.60	SW846 8260B		9/28/18 05:21	PDK	A
n-Propylbenzene	ND		ug/L	1.0	0.33	SW846 8260B		9/28/18 05:21	PDK	A
o-Chlorotoluene	ND		ug/L	1.0	0.26	SW846 8260B		9/28/18 05:21	PDK	A
o-Xylene	ND		ug/L	1.0	0.33	SW846 8260B		9/28/18 05:21	PDK	A
p-Chlorotoluene	ND		ug/L	1.0	0.33	SW846 8260B		9/28/18 05:21	PDK	A
p-Isopropyltoluene	ND		ug/L	1.0	0.32	SW846 8260B		9/28/18 05:21	PDK	A
sec-Butylbenzene	ND		ug/L	1.0	0.31	SW846 8260B		9/28/18 05:21	PDK	A
tert-Amyl methyl ether	ND		ug/L	1.0	0.20	SW846 8260B		9/28/18 05:21	PDK	A
tert-Butyl Alcohol	ND		ug/L	10.0	2.2	SW846 8260B		9/28/18 05:21	PDK	A
tert-Butylbenzene	ND		ug/L	2.0	0.44	SW846 8260B		9/28/18 05:21	PDK	A

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ANALYTICAL RESULTS

Workorder: 2339934 ALG005|LMC MRC SWS

Lab ID: **2339934009** Date Collected: 9/21/2018 10:04 Matrix: Water
Sample ID: **MRC-SW7B-S** Date Received: 9/21/2018 21:05

Parameters	Results	Flag	Units	RDL	MDL	Method	Prepared	By	Analyzed	By	Cntr
trans-1,2-Dichloroethene	ND		ug/L	1.0	0.26	SW846 8260B			9/28/18 05:21	PDK	A
trans-1,3-Dichloropropene	ND		ug/L	1.0	0.29	SW846 8260B			9/28/18 05:21	PDK	A
Surrogate Recoveries	*Results*	*Flag*	*Units*	*Limits*		*Method*	*Prepared*	*By*	*Analyzed*	*By*	*Cntr*
1,2-Dichloroethane-d4 (S)	119		%	62 - 133		SW846 8260B			9/28/18 05:21	PDK	A
4-Bromofluorobenzene (S)	106		%	79 - 114		SW846 8260B			9/28/18 05:21	PDK	A
Dibromofluoromethane (S)	109		%	78 - 116		SW846 8260B			9/28/18 05:21	PDK	A
Toluene-d8 (S)	103		%	76 - 127		SW846 8260B			9/28/18 05:21	PDK	A

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ANALYTICAL RESULTS

Workorder: 2339934 ALG005|LMC MRC SWS

Lab ID: **2339934010** Date Collected: 9/21/2018 11:13 Matrix: Water
Sample ID: **MRC-SW8A-S** Date Received: 9/21/2018 21:05

Parameters	Results	Flag	Units	RDL	MDL	Method	Prepared By	Analyzed	By	Cntr
VOLATILE ORGANICS										
1,1,1,2-Tetrachloroethane	ND		ug/L	1.0	0.35	SW846 8260B		9/28/18 05:44	PDK	A
1,1,1-Trichloroethane	ND		ug/L	1.0	0.22	SW846 8260B		9/28/18 05:44	PDK	A
1,1,2,2-Tetrachloroethane	ND		ug/L	1.0	0.34	SW846 8260B		9/28/18 05:44	PDK	A
1,1,2-Trichloroethane	ND		ug/L	1.0	0.33	SW846 8260B		9/28/18 05:44	PDK	A
1,1-Dichloroethane	ND		ug/L	1.0	0.28	SW846 8260B		9/28/18 05:44	PDK	A
1,1-Dichloroethene	ND		ug/L	1.0	0.29	SW846 8260B		9/28/18 05:44	PDK	A
1,2,3-Trichlorobenzene	ND		ug/L	2.0	0.93	SW846 8260B		9/28/18 05:44	PDK	A
1,2,3-Trichloropropane	ND		ug/L	2.0	0.60	SW846 8260B		9/28/18 05:44	PDK	A
1,2,4-Trichlorobenzene	ND		ug/L	2.0	0.82	SW846 8260B		9/28/18 05:44	PDK	A
1,2,4-Trimethylbenzene	ND		ug/L	1.0	0.25	SW846 8260B		9/28/18 05:44	PDK	A
1,2-Dibromo-3-chloropropane	ND		ug/L	7.0	1.5	SW846 8260B		9/28/18 05:44	PDK	A
1,2-Dibromoethane	ND		ug/L	1.0	0.28	SW846 8260B		9/28/18 05:44	PDK	A
1,2-Dichlorobenzene	ND		ug/L	1.0	0.38	SW846 8260B		9/28/18 05:44	PDK	A
1,2-Dichloroethane	ND		ug/L	1.0	0.32	SW846 8260B		9/28/18 05:44	PDK	A
1,2-Dichloroethene, Total	ND		ug/L	2.0	0.45	SW846 8260B		9/28/18 05:44	PDK	A
1,2-Dichloropropane	ND		ug/L	1.0	0.24	SW846 8260B		9/28/18 05:44	PDK	A
1,3-Dichlorobenzene	ND		ug/L	1.0	0.25	SW846 8260B		9/28/18 05:44	PDK	A
1,3-Dichloropropane	ND		ug/L	1.0	0.27	SW846 8260B		9/28/18 05:44	PDK	A
1,3-Dichloropropene, Total	ND		ug/L	2.0	0.47	SW846 8260B		9/28/18 05:44	PDK	A
1,4-Dichlorobenzene	ND		ug/L	1.0	0.27	SW846 8260B		9/28/18 05:44	PDK	A
2,2-Dichloropropane	ND		ug/L	1.0	0.32	SW846 8260B		9/28/18 05:44	PDK	A
2-Butanone	ND		ug/L	10.0	1.8	SW846 8260B		9/28/18 05:44	PDK	A
2-Chloroethylvinyl ether	ND		ug/L	2.0	0.38	SW846 8260B		9/28/18 05:44	PDK	A
2-Hexanone	ND		ug/L	5.0	1.3	SW846 8260B		9/28/18 05:44	PDK	A
4-Methyl-2-Pentanone(MIBK)	ND		ug/L	5.0	1.5	SW846 8260B		9/28/18 05:44	PDK	A
Acetone	ND		ug/L	10.0	3.1	SW846 8260B		9/28/18 05:44	PDK	A
Benzene	ND		ug/L	1.0	0.23	SW846 8260B		9/28/18 05:44	PDK	A
Bromobenzene	ND		ug/L	1.0	0.32	SW846 8260B		9/28/18 05:44	PDK	A
Bromochloromethane	ND		ug/L	1.0	0.32	SW846 8260B		9/28/18 05:44	PDK	A
Bromodichloromethane	ND		ug/L	1.0	0.27	SW846 8260B		9/28/18 05:44	PDK	A
Bromoform	ND		ug/L	1.0	0.40	SW846 8260B		9/28/18 05:44	PDK	A
Bromomethane	ND		ug/L	1.0	0.39	SW846 8260B		9/28/18 05:44	PDK	A
Carbon Disulfide	ND		ug/L	1.0	0.23	SW846 8260B		9/28/18 05:44	PDK	A
Carbon Tetrachloride	ND		ug/L	1.0	0.31	SW846 8260B		9/28/18 05:44	PDK	A
Chlorobenzene	ND		ug/L	1.0	0.19	SW846 8260B		9/28/18 05:44	PDK	A
Chlorodibromomethane	ND		ug/L	1.0	0.45	SW846 8260B		9/28/18 05:44	PDK	A

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ANALYTICAL RESULTS

Workorder: 2339934 ALG005|LMC MRC SWS

Lab ID: **2339934010** Date Collected: 9/21/2018 11:13 Matrix: Water
Sample ID: **MRC-SW8A-S** Date Received: 9/21/2018 21:05

Parameters	Results	Flag	Units	RDL	MDL	Method	Prepared By	Analyzed	By	Cntr
Chloroethane	ND		ug/L	1.0	0.33	SW846 8260B		9/28/18 05:44	PDK	A
Chloroform	ND		ug/L	1.0	0.21	SW846 8260B		9/28/18 05:44	PDK	A
Chloromethane	ND		ug/L	1.0	0.31	SW846 8260B		9/28/18 05:44	PDK	A
Cyclohexane	ND		ug/L	1.0	0.29	SW846 8260B		9/28/18 05:44	PDK	A
Dibromomethane	ND		ug/L	1.0	0.31	SW846 8260B		9/28/18 05:44	PDK	A
Dichlorodifluoromethane	ND		ug/L	1.0	0.33	SW846 8260B		9/28/18 05:44	PDK	A
Diisopropyl ether	ND		ug/L	1.0	0.25	SW846 8260B		9/28/18 05:44	PDK	A
Ethyl tert-butyl ether	ND		ug/L	1.0	0.19	SW846 8260B		9/28/18 05:44	PDK	A
Ethylbenzene	ND		ug/L	1.0	0.34	SW846 8260B		9/28/18 05:44	PDK	A
Freon 113	ND		ug/L	1.0	0.26	SW846 8260B		9/28/18 05:44	PDK	A
Hexachlorobutadiene	ND		ug/L	5.0	1.0	SW846 8260B		9/28/18 05:44	PDK	A
Isopropylbenzene	ND		ug/L	1.0	0.22	SW846 8260B		9/28/18 05:44	PDK	A
Methyl acetate	ND		ug/L	2.0	0.32	SW846 8260B		9/28/18 05:44	PDK	A
Methyl cyclohexane	ND		ug/L	1.0	0.30	SW846 8260B		9/28/18 05:44	PDK	A
Methyl t-Butyl Ether	ND		ug/L	1.0	0.33	SW846 8260B		9/28/18 05:44	PDK	A
Methylene Chloride	ND		ug/L	1.0	0.45	SW846 8260B		9/28/18 05:44	PDK	A
Naphthalene	ND		ug/L	2.0	0.34	SW846 8260B		9/28/18 05:44	PDK	A
Styrene	ND		ug/L	1.0	0.24	SW846 8260B		9/28/18 05:44	PDK	A
Tetrachloroethene	ND		ug/L	1.0	0.35	SW846 8260B		9/28/18 05:44	PDK	A
Toluene	ND		ug/L	1.0	0.23	SW846 8260B		9/28/18 05:44	PDK	A
Total Xylenes	ND		ug/L	3.0	0.66	SW846 8260B		9/28/18 05:44	PDK	A
Trichloroethene	ND		ug/L	1.0	0.33	SW846 8260B		9/28/18 05:44	PDK	A
Trichlorofluoromethane	ND		ug/L	1.0	0.24	SW846 8260B		9/28/18 05:44	PDK	A
Vinyl Acetate	ND		ug/L	5.0	1.6	SW846 8260B		9/28/18 05:44	PDK	A
Vinyl Chloride	ND		ug/L	1.0	0.30	SW846 8260B		9/28/18 05:44	PDK	A
cis-1,2-Dichloroethene	ND		ug/L	1.0	0.32	SW846 8260B		9/28/18 05:44	PDK	A
cis-1,3-Dichloropropene	ND		ug/L	1.0	0.31	SW846 8260B		9/28/18 05:44	PDK	A
mp-Xylene	ND		ug/L	2.0	0.52	SW846 8260B		9/28/18 05:44	PDK	A
n-Butylbenzene	ND		ug/L	2.0	0.60	SW846 8260B		9/28/18 05:44	PDK	A
n-Propylbenzene	ND		ug/L	1.0	0.33	SW846 8260B		9/28/18 05:44	PDK	A
o-Chlorotoluene	ND		ug/L	1.0	0.26	SW846 8260B		9/28/18 05:44	PDK	A
o-Xylene	ND		ug/L	1.0	0.33	SW846 8260B		9/28/18 05:44	PDK	A
p-Chlorotoluene	ND		ug/L	1.0	0.33	SW846 8260B		9/28/18 05:44	PDK	A
p-Isopropyltoluene	ND		ug/L	1.0	0.32	SW846 8260B		9/28/18 05:44	PDK	A
sec-Butylbenzene	ND		ug/L	1.0	0.31	SW846 8260B		9/28/18 05:44	PDK	A
tert-Amyl methyl ether	ND		ug/L	1.0	0.20	SW846 8260B		9/28/18 05:44	PDK	A
tert-Butyl Alcohol	ND		ug/L	10.0	2.2	SW846 8260B		9/28/18 05:44	PDK	A
tert-Butylbenzene	ND		ug/L	2.0	0.44	SW846 8260B		9/28/18 05:44	PDK	A

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ANALYTICAL RESULTS

Workorder: 2339934 ALG005|LMC MRC SWS

Lab ID: **2339934010** Date Collected: 9/21/2018 11:13 Matrix: Water
Sample ID: **MRC-SW8A-S** Date Received: 9/21/2018 21:05

Parameters	Results	Flag	Units	RDL	MDL	Method	Prepared	By	Analyzed	By	Cntr
trans-1,2-Dichloroethene	ND		ug/L	1.0	0.26	SW846 8260B			9/28/18 05:44	PDK	A
trans-1,3-Dichloropropene	ND		ug/L	1.0	0.29	SW846 8260B			9/28/18 05:44	PDK	A
Surrogate Recoveries	*Results*	*Flag*	*Units*	*Limits*		*Method*	*Prepared*	*By*	*Analyzed*	*By*	*Cntr*
1,2-Dichloroethane-d4 (S)	119		%	62 - 133		SW846 8260B			9/28/18 05:44	PDK	A
4-Bromofluorobenzene (S)	105		%	79 - 114		SW846 8260B			9/28/18 05:44	PDK	A
Dibromofluoromethane (S)	112		%	78 - 116		SW846 8260B			9/28/18 05:44	PDK	A
Toluene-d8 (S)	102		%	76 - 127		SW846 8260B			9/28/18 05:44	PDK	A
SEMIVOLATILE SIM											
1,4-Dioxane	ND		ug/L	0.093	0.018	8270 SIM	9/28/18 13:30	DXL	9/29/18 17:29	CGS	C
IS_Naphthalene-d8	0.0		ug/L			8270 SIM	9/28/18 13:30	DXL	9/29/18 17:29	CGS	C
IS_Perylene-d12	0.0		ug/L			8270 SIM	9/28/18 13:30	DXL	9/29/18 17:29	CGS	C
Acenaphthene-d10	0.0		ug/L			8270 SIM	9/28/18 13:30	DXL	9/29/18 17:29	CGS	C
Phenanthrene-d10	0.0		ug/L			8270 SIM	9/28/18 13:30	DXL	9/29/18 17:29	CGS	C
Chrysene-d12	0.0		ug/L			8270 SIM	9/28/18 13:30	DXL	9/29/18 17:29	CGS	C
Surrogate Recoveries	*Results*	*Flag*	*Units*	*Limits*		*Method*	*Prepared*	*By*	*Analyzed*	*By*	*Cntr*
2-Methylnapthalene-d10 (S)	74.3		%	29 - 112		8270 SIM	9/28/18 13:30	DXL	9/29/18 17:29	CGS	C
Fluoranthene-d10 (S)	92.5		%	45 - 130		8270 SIM	9/28/18 13:30	DXL	9/29/18 17:29	CGS	C

Vanessa N. Badman
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Project Coordinator

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ANALYTICAL RESULTS

Workorder: 2339934 ALG005|LMC MRC SWS

Lab ID: **2339934011** Date Collected: 9/21/2018 11:01 Matrix: Water
Sample ID: **MRC-SW8B-S** Date Received: 9/21/2018 21:05

Parameters	Results	Flag	Units	RDL	MDL	Method	Prepared By	Analyzed	By	Cntr
VOLATILE ORGANICS										
1,1,1,2-Tetrachloroethane	ND		ug/L	1.0	0.35	SW846 8260B		9/28/18 06:07	PDK	A
1,1,1-Trichloroethane	ND		ug/L	1.0	0.22	SW846 8260B		9/28/18 06:07	PDK	A
1,1,2,2-Tetrachloroethane	ND		ug/L	1.0	0.34	SW846 8260B		9/28/18 06:07	PDK	A
1,1,2-Trichloroethane	ND		ug/L	1.0	0.33	SW846 8260B		9/28/18 06:07	PDK	A
1,1-Dichloroethane	ND		ug/L	1.0	0.28	SW846 8260B		9/28/18 06:07	PDK	A
1,1-Dichloroethene	ND		ug/L	1.0	0.29	SW846 8260B		9/28/18 06:07	PDK	A
1,2,3-Trichlorobenzene	ND		ug/L	2.0	0.93	SW846 8260B		9/28/18 06:07	PDK	A
1,2,3-Trichloropropane	ND		ug/L	2.0	0.60	SW846 8260B		9/28/18 06:07	PDK	A
1,2,4-Trichlorobenzene	ND		ug/L	2.0	0.82	SW846 8260B		9/28/18 06:07	PDK	A
1,2,4-Trimethylbenzene	ND		ug/L	1.0	0.25	SW846 8260B		9/28/18 06:07	PDK	A
1,2-Dibromo-3-chloropropane	ND		ug/L	7.0	1.5	SW846 8260B		9/28/18 06:07	PDK	A
1,2-Dibromoethane	ND		ug/L	1.0	0.28	SW846 8260B		9/28/18 06:07	PDK	A
1,2-Dichlorobenzene	ND		ug/L	1.0	0.38	SW846 8260B		9/28/18 06:07	PDK	A
1,2-Dichloroethane	ND		ug/L	1.0	0.32	SW846 8260B		9/28/18 06:07	PDK	A
1,2-Dichloroethene, Total	ND		ug/L	2.0	0.45	SW846 8260B		9/28/18 06:07	PDK	A
1,2-Dichloropropane	ND		ug/L	1.0	0.24	SW846 8260B		9/28/18 06:07	PDK	A
1,3-Dichlorobenzene	ND		ug/L	1.0	0.25	SW846 8260B		9/28/18 06:07	PDK	A
1,3-Dichloropropane	ND		ug/L	1.0	0.27	SW846 8260B		9/28/18 06:07	PDK	A
1,3-Dichloropropene, Total	ND		ug/L	2.0	0.47	SW846 8260B		9/28/18 06:07	PDK	A
1,4-Dichlorobenzene	ND		ug/L	1.0	0.27	SW846 8260B		9/28/18 06:07	PDK	A
2,2-Dichloropropane	ND		ug/L	1.0	0.32	SW846 8260B		9/28/18 06:07	PDK	A
2-Butanone	ND		ug/L	10.0	1.8	SW846 8260B		9/28/18 06:07	PDK	A
2-Chloroethylvinyl ether	ND		ug/L	2.0	0.38	SW846 8260B		9/28/18 06:07	PDK	A
2-Hexanone	ND		ug/L	5.0	1.3	SW846 8260B		9/28/18 06:07	PDK	A
4-Methyl-2-Pentanone(MIBK)	ND		ug/L	5.0	1.5	SW846 8260B		9/28/18 06:07	PDK	A
Acetone	ND		ug/L	10.0	3.1	SW846 8260B		9/28/18 06:07	PDK	A
Benzene	ND		ug/L	1.0	0.23	SW846 8260B		9/28/18 06:07	PDK	A
Bromobenzene	ND		ug/L	1.0	0.32	SW846 8260B		9/28/18 06:07	PDK	A
Bromochloromethane	ND		ug/L	1.0	0.32	SW846 8260B		9/28/18 06:07	PDK	A
Bromodichloromethane	ND		ug/L	1.0	0.27	SW846 8260B		9/28/18 06:07	PDK	A
Bromoform	ND		ug/L	1.0	0.40	SW846 8260B		9/28/18 06:07	PDK	A
Bromomethane	ND		ug/L	1.0	0.39	SW846 8260B		9/28/18 06:07	PDK	A
Carbon Disulfide	ND		ug/L	1.0	0.23	SW846 8260B		9/28/18 06:07	PDK	A
Carbon Tetrachloride	ND		ug/L	1.0	0.31	SW846 8260B		9/28/18 06:07	PDK	A
Chlorobenzene	ND		ug/L	1.0	0.19	SW846 8260B		9/28/18 06:07	PDK	A
Chlorodibromomethane	ND		ug/L	1.0	0.45	SW846 8260B		9/28/18 06:07	PDK	A

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ANALYTICAL RESULTS

Workorder: 2339934 ALG005|LMC MRC SWS

Lab ID: **2339934011** Date Collected: 9/21/2018 11:01 Matrix: Water

Sample ID: **MRC-SW8B-S** Date Received: 9/21/2018 21:05

Parameters	Results	Flag	Units	RDL	MDL	Method	Prepared By	Analyzed	By	Cntr
Chloroethane	ND		ug/L	1.0	0.33	SW846 8260B		9/28/18 06:07	PDK	A
Chloroform	ND		ug/L	1.0	0.21	SW846 8260B		9/28/18 06:07	PDK	A
Chloromethane	ND		ug/L	1.0	0.31	SW846 8260B		9/28/18 06:07	PDK	A
Cyclohexane	ND		ug/L	1.0	0.29	SW846 8260B		9/28/18 06:07	PDK	A
Dibromomethane	ND		ug/L	1.0	0.31	SW846 8260B		9/28/18 06:07	PDK	A
Dichlorodifluoromethane	ND		ug/L	1.0	0.33	SW846 8260B		9/28/18 06:07	PDK	A
Diisopropyl ether	ND		ug/L	1.0	0.25	SW846 8260B		9/28/18 06:07	PDK	A
Ethyl tert-butyl ether	ND		ug/L	1.0	0.19	SW846 8260B		9/28/18 06:07	PDK	A
Ethylbenzene	ND		ug/L	1.0	0.34	SW846 8260B		9/28/18 06:07	PDK	A
Freon 113	ND		ug/L	1.0	0.26	SW846 8260B		9/28/18 06:07	PDK	A
Hexachlorobutadiene	ND		ug/L	5.0	1.0	SW846 8260B		9/28/18 06:07	PDK	A
Isopropylbenzene	ND		ug/L	1.0	0.22	SW846 8260B		9/28/18 06:07	PDK	A
Methyl acetate	ND		ug/L	2.0	0.32	SW846 8260B		9/28/18 06:07	PDK	A
Methyl cyclohexane	ND		ug/L	1.0	0.30	SW846 8260B		9/28/18 06:07	PDK	A
Methyl t-Butyl Ether	ND		ug/L	1.0	0.33	SW846 8260B		9/28/18 06:07	PDK	A
Methylene Chloride	ND		ug/L	1.0	0.45	SW846 8260B		9/28/18 06:07	PDK	A
Naphthalene	ND		ug/L	2.0	0.34	SW846 8260B		9/28/18 06:07	PDK	A
Styrene	ND		ug/L	1.0	0.24	SW846 8260B		9/28/18 06:07	PDK	A
Tetrachloroethene	ND		ug/L	1.0	0.35	SW846 8260B		9/28/18 06:07	PDK	A
Toluene	ND		ug/L	1.0	0.23	SW846 8260B		9/28/18 06:07	PDK	A
Total Xylenes	ND		ug/L	3.0	0.66	SW846 8260B		9/28/18 06:07	PDK	A
Trichloroethene	ND		ug/L	1.0	0.33	SW846 8260B		9/28/18 06:07	PDK	A
Trichlorofluoromethane	ND		ug/L	1.0	0.24	SW846 8260B		9/28/18 06:07	PDK	A
Vinyl Acetate	ND		ug/L	5.0	1.6	SW846 8260B		9/28/18 06:07	PDK	A
Vinyl Chloride	ND		ug/L	1.0	0.30	SW846 8260B		9/28/18 06:07	PDK	A
cis-1,2-Dichloroethene	ND		ug/L	1.0	0.32	SW846 8260B		9/28/18 06:07	PDK	A
cis-1,3-Dichloropropene	ND		ug/L	1.0	0.31	SW846 8260B		9/28/18 06:07	PDK	A
mp-Xylene	ND		ug/L	2.0	0.52	SW846 8260B		9/28/18 06:07	PDK	A
n-Butylbenzene	ND		ug/L	2.0	0.60	SW846 8260B		9/28/18 06:07	PDK	A
n-Propylbenzene	ND		ug/L	1.0	0.33	SW846 8260B		9/28/18 06:07	PDK	A
o-Chlorotoluene	ND		ug/L	1.0	0.26	SW846 8260B		9/28/18 06:07	PDK	A
o-Xylene	ND		ug/L	1.0	0.33	SW846 8260B		9/28/18 06:07	PDK	A
p-Chlorotoluene	ND		ug/L	1.0	0.33	SW846 8260B		9/28/18 06:07	PDK	A
p-Isopropyltoluene	ND		ug/L	1.0	0.32	SW846 8260B		9/28/18 06:07	PDK	A
sec-Butylbenzene	ND		ug/L	1.0	0.31	SW846 8260B		9/28/18 06:07	PDK	A
tert-Amyl methyl ether	ND		ug/L	1.0	0.20	SW846 8260B		9/28/18 06:07	PDK	A
tert-Butyl Alcohol	ND		ug/L	10.0	2.2	SW846 8260B		9/28/18 06:07	PDK	A
tert-Butylbenzene	ND		ug/L	2.0	0.44	SW846 8260B		9/28/18 06:07	PDK	A

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ANALYTICAL RESULTS

Workorder: 2339934 ALG005|LMC MRC SWS

Lab ID: **2339934011** Date Collected: 9/21/2018 11:01 Matrix: Water
Sample ID: **MRC-SW8B-S** Date Received: 9/21/2018 21:05

Parameters	Results	Flag	Units	RDL	MDL	Method	Prepared	By	Analyzed	By	Cntr
trans-1,2-Dichloroethene	ND		ug/L	1.0	0.26	SW846 8260B			9/28/18 06:07	PDK	A
trans-1,3-Dichloropropene	ND		ug/L	1.0	0.29	SW846 8260B			9/28/18 06:07	PDK	A
Surrogate Recoveries	*Results*	*Flag*	*Units*	*Limits*		*Method*	*Prepared*	*By*	*Analyzed*	*By*	*Cntr*
1,2-Dichloroethane-d4 (S)	119		%	62 - 133		SW846 8260B			9/28/18 06:07	PDK	A
4-Bromofluorobenzene (S)	108		%	79 - 114		SW846 8260B			9/28/18 06:07	PDK	A
Dibromofluoromethane (S)	112		%	78 - 116		SW846 8260B			9/28/18 06:07	PDK	A
Toluene-d8 (S)	103		%	76 - 127		SW846 8260B			9/28/18 06:07	PDK	A
SEMIVOLATILE SIM											
1,4-Dioxane	ND		ug/L	0.093	0.018	8270 SIM	9/28/18 13:30	DXL	9/29/18 17:56	CGS	C
IS_Naphthalene-d8	0.0		ug/L			8270 SIM	9/28/18 13:30	DXL	9/29/18 17:56	CGS	C
IS_Perylene-d12	0.0		ug/L			8270 SIM	9/28/18 13:30	DXL	9/29/18 17:56	CGS	C
Acenaphthene-d10	0.0		ug/L			8270 SIM	9/28/18 13:30	DXL	9/29/18 17:56	CGS	C
Phenanthrene-d10	0.0		ug/L			8270 SIM	9/28/18 13:30	DXL	9/29/18 17:56	CGS	C
Chrysene-d12	0.0		ug/L			8270 SIM	9/28/18 13:30	DXL	9/29/18 17:56	CGS	C
Surrogate Recoveries	*Results*	*Flag*	*Units*	*Limits*		*Method*	*Prepared*	*By*	*Analyzed*	*By*	*Cntr*
2-Methylnapthalene-d10 (S)	75.3		%	29 - 112		8270 SIM	9/28/18 13:30	DXL	9/29/18 17:56	CGS	C
Fluoranthene-d10 (S)	91.3		%	45 - 130		8270 SIM	9/28/18 13:30	DXL	9/29/18 17:56	CGS	C

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ANALYTICAL RESULTS

Workorder: 2339934 ALG005|LMC MRC SWS

Lab ID: **2339934012** Date Collected: 9/21/2018 10:13 Matrix: Water
Sample ID: **MRC-SW9A-S** Date Received: 9/21/2018 21:05

Parameters	Results	Flag	Units	RDL	MDL	Method	Prepared By	Analyzed	By	Cntr
VOLATILE ORGANICS										
1,1,1,2-Tetrachloroethane	ND		ug/L	1.0	0.35	SW846 8260B		9/28/18 06:30	PDK	A
1,1,1-Trichloroethane	ND		ug/L	1.0	0.22	SW846 8260B		9/28/18 06:30	PDK	A
1,1,2,2-Tetrachloroethane	ND		ug/L	1.0	0.34	SW846 8260B		9/28/18 06:30	PDK	A
1,1,2-Trichloroethane	ND		ug/L	1.0	0.33	SW846 8260B		9/28/18 06:30	PDK	A
1,1-Dichloroethane	ND		ug/L	1.0	0.28	SW846 8260B		9/28/18 06:30	PDK	A
1,1-Dichloroethene	ND		ug/L	1.0	0.29	SW846 8260B		9/28/18 06:30	PDK	A
1,2,3-Trichlorobenzene	ND		ug/L	2.0	0.93	SW846 8260B		9/28/18 06:30	PDK	A
1,2,3-Trichloropropane	ND		ug/L	2.0	0.60	SW846 8260B		9/28/18 06:30	PDK	A
1,2,4-Trichlorobenzene	ND		ug/L	2.0	0.82	SW846 8260B		9/28/18 06:30	PDK	A
1,2,4-Trimethylbenzene	ND		ug/L	1.0	0.25	SW846 8260B		9/28/18 06:30	PDK	A
1,2-Dibromo-3-chloropropane	ND		ug/L	7.0	1.5	SW846 8260B		9/28/18 06:30	PDK	A
1,2-Dibromoethane	ND		ug/L	1.0	0.28	SW846 8260B		9/28/18 06:30	PDK	A
1,2-Dichlorobenzene	ND		ug/L	1.0	0.38	SW846 8260B		9/28/18 06:30	PDK	A
1,2-Dichloroethane	ND		ug/L	1.0	0.32	SW846 8260B		9/28/18 06:30	PDK	A
1,2-Dichloroethene, Total	ND		ug/L	2.0	0.45	SW846 8260B		9/28/18 06:30	PDK	A
1,2-Dichloropropane	ND		ug/L	1.0	0.24	SW846 8260B		9/28/18 06:30	PDK	A
1,3-Dichlorobenzene	ND		ug/L	1.0	0.25	SW846 8260B		9/28/18 06:30	PDK	A
1,3-Dichloropropane	ND		ug/L	1.0	0.27	SW846 8260B		9/28/18 06:30	PDK	A
1,3-Dichloropropene, Total	ND		ug/L	2.0	0.47	SW846 8260B		9/28/18 06:30	PDK	A
1,4-Dichlorobenzene	ND		ug/L	1.0	0.27	SW846 8260B		9/28/18 06:30	PDK	A
2,2-Dichloropropane	ND		ug/L	1.0	0.32	SW846 8260B		9/28/18 06:30	PDK	A
2-Butanone	ND		ug/L	10.0	1.8	SW846 8260B		9/28/18 06:30	PDK	A
2-Chloroethylvinyl ether	ND		ug/L	2.0	0.38	SW846 8260B		9/28/18 06:30	PDK	A
2-Hexanone	ND		ug/L	5.0	1.3	SW846 8260B		9/28/18 06:30	PDK	A
4-Methyl-2-Pentanone(MIBK)	ND		ug/L	5.0	1.5	SW846 8260B		9/28/18 06:30	PDK	A
Acetone	ND		ug/L	10.0	3.1	SW846 8260B		9/28/18 06:30	PDK	A
Benzene	ND		ug/L	1.0	0.23	SW846 8260B		9/28/18 06:30	PDK	A
Bromobenzene	ND		ug/L	1.0	0.32	SW846 8260B		9/28/18 06:30	PDK	A
Bromochloromethane	ND		ug/L	1.0	0.32	SW846 8260B		9/28/18 06:30	PDK	A
Bromodichloromethane	ND		ug/L	1.0	0.27	SW846 8260B		9/28/18 06:30	PDK	A
Bromoform	ND		ug/L	1.0	0.40	SW846 8260B		9/28/18 06:30	PDK	A
Bromomethane	ND		ug/L	1.0	0.39	SW846 8260B		9/28/18 06:30	PDK	A
Carbon Disulfide	ND		ug/L	1.0	0.23	SW846 8260B		9/28/18 06:30	PDK	A
Carbon Tetrachloride	ND		ug/L	1.0	0.31	SW846 8260B		9/28/18 06:30	PDK	A
Chlorobenzene	ND		ug/L	1.0	0.19	SW846 8260B		9/28/18 06:30	PDK	A
Chlorodibromomethane	ND		ug/L	1.0	0.45	SW846 8260B		9/28/18 06:30	PDK	A

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State Certifications: DE ID 11 , MA PA0102 , MD 128 , VA 460157 , WV 343

ANALYTICAL RESULTS

Workorder: 2339934 ALG005|LMC MRC SWS

Lab ID: **2339934012** Date Collected: 9/21/2018 10:13 Matrix: Water

Sample ID: **MRC-SW9A-S** Date Received: 9/21/2018 21:05

Parameters	Results	Flag	Units	RDL	MDL	Method	Prepared By	Analyzed	By	Cntr
Chloroethane	ND		ug/L	1.0	0.33	SW846 8260B		9/28/18 06:30	PDK	A
Chloroform	ND		ug/L	1.0	0.21	SW846 8260B		9/28/18 06:30	PDK	A
Chloromethane	ND		ug/L	1.0	0.31	SW846 8260B		9/28/18 06:30	PDK	A
Cyclohexane	ND		ug/L	1.0	0.29	SW846 8260B		9/28/18 06:30	PDK	A
Dibromomethane	ND		ug/L	1.0	0.31	SW846 8260B		9/28/18 06:30	PDK	A
Dichlorodifluoromethane	ND		ug/L	1.0	0.33	SW846 8260B		9/28/18 06:30	PDK	A
Diisopropyl ether	ND		ug/L	1.0	0.25	SW846 8260B		9/28/18 06:30	PDK	A
Ethyl tert-butyl ether	ND		ug/L	1.0	0.19	SW846 8260B		9/28/18 06:30	PDK	A
Ethylbenzene	ND		ug/L	1.0	0.34	SW846 8260B		9/28/18 06:30	PDK	A
Freon 113	ND		ug/L	1.0	0.26	SW846 8260B		9/28/18 06:30	PDK	A
Hexachlorobutadiene	ND		ug/L	5.0	1.0	SW846 8260B		9/28/18 06:30	PDK	A
Isopropylbenzene	ND		ug/L	1.0	0.22	SW846 8260B		9/28/18 06:30	PDK	A
Methyl acetate	ND		ug/L	2.0	0.32	SW846 8260B		9/28/18 06:30	PDK	A
Methyl cyclohexane	ND		ug/L	1.0	0.30	SW846 8260B		9/28/18 06:30	PDK	A
Methyl t-Butyl Ether	ND		ug/L	1.0	0.33	SW846 8260B		9/28/18 06:30	PDK	A
Methylene Chloride	ND		ug/L	1.0	0.45	SW846 8260B		9/28/18 06:30	PDK	A
Naphthalene	ND		ug/L	2.0	0.34	SW846 8260B		9/28/18 06:30	PDK	A
Styrene	ND		ug/L	1.0	0.24	SW846 8260B		9/28/18 06:30	PDK	A
Tetrachloroethene	ND		ug/L	1.0	0.35	SW846 8260B		9/28/18 06:30	PDK	A
Toluene	ND		ug/L	1.0	0.23	SW846 8260B		9/28/18 06:30	PDK	A
Total Xylenes	ND		ug/L	3.0	0.66	SW846 8260B		9/28/18 06:30	PDK	A
Trichloroethene	ND		ug/L	1.0	0.33	SW846 8260B		9/28/18 06:30	PDK	A
Trichlorofluoromethane	ND		ug/L	1.0	0.24	SW846 8260B		9/28/18 06:30	PDK	A
Vinyl Acetate	ND		ug/L	5.0	1.6	SW846 8260B		9/28/18 06:30	PDK	A
Vinyl Chloride	ND		ug/L	1.0	0.30	SW846 8260B		9/28/18 06:30	PDK	A
cis-1,2-Dichloroethene	ND		ug/L	1.0	0.32	SW846 8260B		9/28/18 06:30	PDK	A
cis-1,3-Dichloropropene	ND		ug/L	1.0	0.31	SW846 8260B		9/28/18 06:30	PDK	A
mp-Xylene	ND		ug/L	2.0	0.52	SW846 8260B		9/28/18 06:30	PDK	A
n-Butylbenzene	ND		ug/L	2.0	0.60	SW846 8260B		9/28/18 06:30	PDK	A
n-Propylbenzene	ND		ug/L	1.0	0.33	SW846 8260B		9/28/18 06:30	PDK	A
o-Chlorotoluene	ND		ug/L	1.0	0.26	SW846 8260B		9/28/18 06:30	PDK	A
o-Xylene	ND		ug/L	1.0	0.33	SW846 8260B		9/28/18 06:30	PDK	A
p-Chlorotoluene	ND		ug/L	1.0	0.33	SW846 8260B		9/28/18 06:30	PDK	A
p-Isopropyltoluene	ND		ug/L	1.0	0.32	SW846 8260B		9/28/18 06:30	PDK	A
sec-Butylbenzene	ND		ug/L	1.0	0.31	SW846 8260B		9/28/18 06:30	PDK	A
tert-Amyl methyl ether	ND		ug/L	1.0	0.20	SW846 8260B		9/28/18 06:30	PDK	A
tert-Butyl Alcohol	ND		ug/L	10.0	2.2	SW846 8260B		9/28/18 06:30	PDK	A
tert-Butylbenzene	ND		ug/L	2.0	0.44	SW846 8260B		9/28/18 06:30	PDK	A

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ANALYTICAL RESULTS

Workorder: 2339934 ALG005|LMC MRC SWS

Lab ID: **2339934012** Date Collected: 9/21/2018 10:13 Matrix: Water
Sample ID: **MRC-SW9A-S** Date Received: 9/21/2018 21:05

Parameters	Results	Flag	Units	RDL	MDL	Method	Prepared	By	Analyzed	By	Cntr
trans-1,2-Dichloroethene	ND		ug/L	1.0	0.26	SW846 8260B			9/28/18 06:30	PDK	A
trans-1,3-Dichloropropene	ND		ug/L	1.0	0.29	SW846 8260B			9/28/18 06:30	PDK	A
Surrogate Recoveries	*Results*	*Flag*	*Units*	*Limits*		*Method*	*Prepared*	*By*	*Analyzed*	*By*	*Cntr*
1,2-Dichloroethane-d4 (S)	122		%	62 - 133		SW846 8260B			9/28/18 06:30	PDK	A
4-Bromofluorobenzene (S)	106		%	79 - 114		SW846 8260B			9/28/18 06:30	PDK	A
Dibromofluoromethane (S)	112		%	78 - 116		SW846 8260B			9/28/18 06:30	PDK	A
Toluene-d8 (S)	104		%	76 - 127		SW846 8260B			9/28/18 06:30	PDK	A

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ANALYTICAL RESULTS

Workorder: 2339934 ALG005|LMC MRC SWS

Lab ID: **2339934013** Date Collected: 9/21/2018 10:21 Matrix: Water
Sample ID: **MRC-SW9B-S** Date Received: 9/21/2018 21:05

Parameters	Results	Flag	Units	RDL	MDL	Method	Prepared By	Analyzed	By	Cntr
VOLATILE ORGANICS										
1,1,1,2-Tetrachloroethane	ND		ug/L	1.0	0.35	SW846 8260B		9/28/18 06:53	PDK	A
1,1,1-Trichloroethane	ND		ug/L	1.0	0.22	SW846 8260B		9/28/18 06:53	PDK	A
1,1,2,2-Tetrachloroethane	ND		ug/L	1.0	0.34	SW846 8260B		9/28/18 06:53	PDK	A
1,1,2-Trichloroethane	ND		ug/L	1.0	0.33	SW846 8260B		9/28/18 06:53	PDK	A
1,1-Dichloroethane	ND		ug/L	1.0	0.28	SW846 8260B		9/28/18 06:53	PDK	A
1,1-Dichloroethene	ND		ug/L	1.0	0.29	SW846 8260B		9/28/18 06:53	PDK	A
1,2,3-Trichlorobenzene	ND		ug/L	2.0	0.93	SW846 8260B		9/28/18 06:53	PDK	A
1,2,3-Trichloropropane	ND		ug/L	2.0	0.60	SW846 8260B		9/28/18 06:53	PDK	A
1,2,4-Trichlorobenzene	ND		ug/L	2.0	0.82	SW846 8260B		9/28/18 06:53	PDK	A
1,2,4-Trimethylbenzene	ND		ug/L	1.0	0.25	SW846 8260B		9/28/18 06:53	PDK	A
1,2-Dibromo-3-chloropropane	ND		ug/L	7.0	1.5	SW846 8260B		9/28/18 06:53	PDK	A
1,2-Dibromoethane	ND		ug/L	1.0	0.28	SW846 8260B		9/28/18 06:53	PDK	A
1,2-Dichlorobenzene	ND		ug/L	1.0	0.38	SW846 8260B		9/28/18 06:53	PDK	A
1,2-Dichloroethane	ND		ug/L	1.0	0.32	SW846 8260B		9/28/18 06:53	PDK	A
1,2-Dichloroethene, Total	ND		ug/L	2.0	0.45	SW846 8260B		9/28/18 06:53	PDK	A
1,2-Dichloropropane	ND		ug/L	1.0	0.24	SW846 8260B		9/28/18 06:53	PDK	A
1,3-Dichlorobenzene	ND		ug/L	1.0	0.25	SW846 8260B		9/28/18 06:53	PDK	A
1,3-Dichloropropane	ND		ug/L	1.0	0.27	SW846 8260B		9/28/18 06:53	PDK	A
1,3-Dichloropropene, Total	ND		ug/L	2.0	0.47	SW846 8260B		9/28/18 06:53	PDK	A
1,4-Dichlorobenzene	ND		ug/L	1.0	0.27	SW846 8260B		9/28/18 06:53	PDK	A
2,2-Dichloropropane	ND		ug/L	1.0	0.32	SW846 8260B		9/28/18 06:53	PDK	A
2-Butanone	ND		ug/L	10.0	1.8	SW846 8260B		9/28/18 06:53	PDK	A
2-Chloroethylvinyl ether	ND		ug/L	2.0	0.38	SW846 8260B		9/28/18 06:53	PDK	A
2-Hexanone	ND		ug/L	5.0	1.3	SW846 8260B		9/28/18 06:53	PDK	A
4-Methyl-2-Pentanone(MIBK)	ND		ug/L	5.0	1.5	SW846 8260B		9/28/18 06:53	PDK	A
Acetone	ND		ug/L	10.0	3.1	SW846 8260B		9/28/18 06:53	PDK	A
Benzene	ND		ug/L	1.0	0.23	SW846 8260B		9/28/18 06:53	PDK	A
Bromobenzene	ND		ug/L	1.0	0.32	SW846 8260B		9/28/18 06:53	PDK	A
Bromochloromethane	ND		ug/L	1.0	0.32	SW846 8260B		9/28/18 06:53	PDK	A
Bromodichloromethane	ND		ug/L	1.0	0.27	SW846 8260B		9/28/18 06:53	PDK	A
Bromoform	ND		ug/L	1.0	0.40	SW846 8260B		9/28/18 06:53	PDK	A
Bromomethane	ND		ug/L	1.0	0.39	SW846 8260B		9/28/18 06:53	PDK	A
Carbon Disulfide	ND		ug/L	1.0	0.23	SW846 8260B		9/28/18 06:53	PDK	A
Carbon Tetrachloride	ND		ug/L	1.0	0.31	SW846 8260B		9/28/18 06:53	PDK	A
Chlorobenzene	ND		ug/L	1.0	0.19	SW846 8260B		9/28/18 06:53	PDK	A
Chlorodibromomethane	ND		ug/L	1.0	0.45	SW846 8260B		9/28/18 06:53	PDK	A

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ANALYTICAL RESULTS

Workorder: 2339934 ALG005|LMC MRC SWS

Lab ID: **2339934013** Date Collected: 9/21/2018 10:21 Matrix: Water

Sample ID: **MRC-SW9B-S** Date Received: 9/21/2018 21:05

Parameters	Results	Flag	Units	RDL	MDL	Method	Prepared By	Analyzed	By	Cntr
Chloroethane	ND		ug/L	1.0	0.33	SW846 8260B		9/28/18 06:53	PDK	A
Chloroform	ND		ug/L	1.0	0.21	SW846 8260B		9/28/18 06:53	PDK	A
Chloromethane	ND		ug/L	1.0	0.31	SW846 8260B		9/28/18 06:53	PDK	A
Cyclohexane	ND		ug/L	1.0	0.29	SW846 8260B		9/28/18 06:53	PDK	A
Dibromomethane	ND		ug/L	1.0	0.31	SW846 8260B		9/28/18 06:53	PDK	A
Dichlorodifluoromethane	ND		ug/L	1.0	0.33	SW846 8260B		9/28/18 06:53	PDK	A
Diisopropyl ether	ND		ug/L	1.0	0.25	SW846 8260B		9/28/18 06:53	PDK	A
Ethyl tert-butyl ether	ND		ug/L	1.0	0.19	SW846 8260B		9/28/18 06:53	PDK	A
Ethylbenzene	ND		ug/L	1.0	0.34	SW846 8260B		9/28/18 06:53	PDK	A
Freon 113	ND		ug/L	1.0	0.26	SW846 8260B		9/28/18 06:53	PDK	A
Hexachlorobutadiene	ND		ug/L	5.0	1.0	SW846 8260B		9/28/18 06:53	PDK	A
Isopropylbenzene	ND		ug/L	1.0	0.22	SW846 8260B		9/28/18 06:53	PDK	A
Methyl acetate	ND		ug/L	2.0	0.32	SW846 8260B		9/28/18 06:53	PDK	A
Methyl cyclohexane	ND		ug/L	1.0	0.30	SW846 8260B		9/28/18 06:53	PDK	A
Methyl t-Butyl Ether	ND		ug/L	1.0	0.33	SW846 8260B		9/28/18 06:53	PDK	A
Methylene Chloride	ND		ug/L	1.0	0.45	SW846 8260B		9/28/18 06:53	PDK	A
Naphthalene	ND		ug/L	2.0	0.34	SW846 8260B		9/28/18 06:53	PDK	A
Styrene	ND		ug/L	1.0	0.24	SW846 8260B		9/28/18 06:53	PDK	A
Tetrachloroethene	ND		ug/L	1.0	0.35	SW846 8260B		9/28/18 06:53	PDK	A
Toluene	ND		ug/L	1.0	0.23	SW846 8260B		9/28/18 06:53	PDK	A
Total Xylenes	ND		ug/L	3.0	0.66	SW846 8260B		9/28/18 06:53	PDK	A
Trichloroethene	ND		ug/L	1.0	0.33	SW846 8260B		9/28/18 06:53	PDK	A
Trichlorofluoromethane	ND		ug/L	1.0	0.24	SW846 8260B		9/28/18 06:53	PDK	A
Vinyl Acetate	ND		ug/L	5.0	1.6	SW846 8260B		9/28/18 06:53	PDK	A
Vinyl Chloride	ND		ug/L	1.0	0.30	SW846 8260B		9/28/18 06:53	PDK	A
cis-1,2-Dichloroethene	ND		ug/L	1.0	0.32	SW846 8260B		9/28/18 06:53	PDK	A
cis-1,3-Dichloropropene	ND		ug/L	1.0	0.31	SW846 8260B		9/28/18 06:53	PDK	A
mp-Xylene	ND		ug/L	2.0	0.52	SW846 8260B		9/28/18 06:53	PDK	A
n-Butylbenzene	ND		ug/L	2.0	0.60	SW846 8260B		9/28/18 06:53	PDK	A
n-Propylbenzene	ND		ug/L	1.0	0.33	SW846 8260B		9/28/18 06:53	PDK	A
o-Chlorotoluene	ND		ug/L	1.0	0.26	SW846 8260B		9/28/18 06:53	PDK	A
o-Xylene	ND		ug/L	1.0	0.33	SW846 8260B		9/28/18 06:53	PDK	A
p-Chlorotoluene	ND		ug/L	1.0	0.33	SW846 8260B		9/28/18 06:53	PDK	A
p-Isopropyltoluene	ND		ug/L	1.0	0.32	SW846 8260B		9/28/18 06:53	PDK	A
sec-Butylbenzene	ND		ug/L	1.0	0.31	SW846 8260B		9/28/18 06:53	PDK	A
tert-Amyl methyl ether	ND		ug/L	1.0	0.20	SW846 8260B		9/28/18 06:53	PDK	A
tert-Butyl Alcohol	ND		ug/L	10.0	2.2	SW846 8260B		9/28/18 06:53	PDK	A
tert-Butylbenzene	ND		ug/L	2.0	0.44	SW846 8260B		9/28/18 06:53	PDK	A

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ANALYTICAL RESULTS

Workorder: 2339934 ALG005|LMC MRC SWS

Lab ID: **2339934013** Date Collected: 9/21/2018 10:21 Matrix: Water
Sample ID: **MRC-SW9B-S** Date Received: 9/21/2018 21:05

Parameters	Results	Flag	Units	RDL	MDL	Method	Prepared	By	Analyzed	By	Cntr
trans-1,2-Dichloroethene	ND		ug/L	1.0	0.26	SW846 8260B			9/28/18 06:53	PDK	A
trans-1,3-Dichloropropene	ND		ug/L	1.0	0.29	SW846 8260B			9/28/18 06:53	PDK	A
Surrogate Recoveries	*Results*	*Flag*	*Units*	*Limits*		*Method*	*Prepared*	*By*	*Analyzed*	*By*	*Cntr*
1,2-Dichloroethane-d4 (S)	119		%	62 - 133		SW846 8260B			9/28/18 06:53	PDK	A
4-Bromofluorobenzene (S)	123	1	%	79 - 114		SW846 8260B			9/28/18 06:53	PDK	A
Dibromofluoromethane (S)	114		%	78 - 116		SW846 8260B			9/28/18 06:53	PDK	A
Toluene-d8 (S)	105		%	76 - 127		SW846 8260B			9/28/18 06:53	PDK	A

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ANALYTICAL RESULTS

Workorder: 2339934 ALG005|LMC MRC SWS

Lab ID: **2339934014** Date Collected: 9/21/2018 11:56 Matrix: Water
Sample ID: **MRC-SW13A-S** Date Received: 9/21/2018 21:05

Parameters	Results	Flag	Units	RDL	MDL	Method	Prepared By	Analyzed	By	Cntr
VOLATILE ORGANICS										
1,1,1,2-Tetrachloroethane	ND		ug/L	1.0	0.35	SW846 8260B		9/28/18 07:16	PDK	A
1,1,1-Trichloroethane	ND		ug/L	1.0	0.22	SW846 8260B		9/28/18 07:16	PDK	A
1,1,2,2-Tetrachloroethane	ND		ug/L	1.0	0.34	SW846 8260B		9/28/18 07:16	PDK	A
1,1,2-Trichloroethane	ND		ug/L	1.0	0.33	SW846 8260B		9/28/18 07:16	PDK	A
1,1-Dichloroethane	ND		ug/L	1.0	0.28	SW846 8260B		9/28/18 07:16	PDK	A
1,1-Dichloroethene	ND		ug/L	1.0	0.29	SW846 8260B		9/28/18 07:16	PDK	A
1,2,3-Trichlorobenzene	ND		ug/L	2.0	0.93	SW846 8260B		9/28/18 07:16	PDK	A
1,2,3-Trichloropropane	ND		ug/L	2.0	0.60	SW846 8260B		9/28/18 07:16	PDK	A
1,2,4-Trichlorobenzene	ND		ug/L	2.0	0.82	SW846 8260B		9/28/18 07:16	PDK	A
1,2,4-Trimethylbenzene	ND		ug/L	1.0	0.25	SW846 8260B		9/28/18 07:16	PDK	A
1,2-Dibromo-3-chloropropane	ND		ug/L	7.0	1.5	SW846 8260B		9/28/18 07:16	PDK	A
1,2-Dibromoethane	ND		ug/L	1.0	0.28	SW846 8260B		9/28/18 07:16	PDK	A
1,2-Dichlorobenzene	ND		ug/L	1.0	0.38	SW846 8260B		9/28/18 07:16	PDK	A
1,2-Dichloroethane	ND		ug/L	1.0	0.32	SW846 8260B		9/28/18 07:16	PDK	A
1,2-Dichloroethene, Total	ND		ug/L	2.0	0.45	SW846 8260B		9/28/18 07:16	PDK	A
1,2-Dichloropropane	ND		ug/L	1.0	0.24	SW846 8260B		9/28/18 07:16	PDK	A
1,3-Dichlorobenzene	ND		ug/L	1.0	0.25	SW846 8260B		9/28/18 07:16	PDK	A
1,3-Dichloropropane	ND		ug/L	1.0	0.27	SW846 8260B		9/28/18 07:16	PDK	A
1,3-Dichloropropene, Total	ND		ug/L	2.0	0.47	SW846 8260B		9/28/18 07:16	PDK	A
1,4-Dichlorobenzene	ND		ug/L	1.0	0.27	SW846 8260B		9/28/18 07:16	PDK	A
2,2-Dichloropropane	ND		ug/L	1.0	0.32	SW846 8260B		9/28/18 07:16	PDK	A
2-Butanone	ND		ug/L	10.0	1.8	SW846 8260B		9/28/18 07:16	PDK	A
2-Chloroethylvinyl ether	ND		ug/L	2.0	0.38	SW846 8260B		9/28/18 07:16	PDK	A
2-Hexanone	ND		ug/L	5.0	1.3	SW846 8260B		9/28/18 07:16	PDK	A
4-Methyl-2-Pentanone(MIBK)	ND		ug/L	5.0	1.5	SW846 8260B		9/28/18 07:16	PDK	A
Acetone	3.1J	J	ug/L	10.0	3.1	SW846 8260B		9/28/18 07:16	PDK	A
Benzene	ND		ug/L	1.0	0.23	SW846 8260B		9/28/18 07:16	PDK	A
Bromobenzene	ND		ug/L	1.0	0.32	SW846 8260B		9/28/18 07:16	PDK	A
Bromochloromethane	ND		ug/L	1.0	0.32	SW846 8260B		9/28/18 07:16	PDK	A
Bromodichloromethane	ND		ug/L	1.0	0.27	SW846 8260B		9/28/18 07:16	PDK	A
Bromoform	ND		ug/L	1.0	0.40	SW846 8260B		9/28/18 07:16	PDK	A
Bromomethane	ND		ug/L	1.0	0.39	SW846 8260B		9/28/18 07:16	PDK	A
Carbon Disulfide	ND		ug/L	1.0	0.23	SW846 8260B		9/28/18 07:16	PDK	A
Carbon Tetrachloride	ND		ug/L	1.0	0.31	SW846 8260B		9/28/18 07:16	PDK	A
Chlorobenzene	ND		ug/L	1.0	0.19	SW846 8260B		9/28/18 07:16	PDK	A
Chlorodibromomethane	ND		ug/L	1.0	0.45	SW846 8260B		9/28/18 07:16	PDK	A

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State Certifications: DE ID 11 , MA PA0102 , MD 128 , VA 460157 , WV 343

ANALYTICAL RESULTS

Workorder: 2339934 ALG005|LMC MRC SWS

Lab ID: **2339934014** Date Collected: 9/21/2018 11:56 Matrix: Water
Sample ID: **MRC-SW13A-S** Date Received: 9/21/2018 21:05

Parameters	Results	Flag	Units	RDL	MDL	Method	Prepared By	Analyzed	By	Cntr
Chloroethane	ND		ug/L	1.0	0.33	SW846 8260B		9/28/18 07:16	PDK	A
Chloroform	ND		ug/L	1.0	0.21	SW846 8260B		9/28/18 07:16	PDK	A
Chloromethane	ND		ug/L	1.0	0.31	SW846 8260B		9/28/18 07:16	PDK	A
Cyclohexane	ND		ug/L	1.0	0.29	SW846 8260B		9/28/18 07:16	PDK	A
Dibromomethane	ND		ug/L	1.0	0.31	SW846 8260B		9/28/18 07:16	PDK	A
Dichlorodifluoromethane	ND		ug/L	1.0	0.33	SW846 8260B		9/28/18 07:16	PDK	A
Diisopropyl ether	ND		ug/L	1.0	0.25	SW846 8260B		9/28/18 07:16	PDK	A
Ethyl tert-butyl ether	ND		ug/L	1.0	0.19	SW846 8260B		9/28/18 07:16	PDK	A
Ethylbenzene	ND		ug/L	1.0	0.34	SW846 8260B		9/28/18 07:16	PDK	A
Freon 113	ND		ug/L	1.0	0.26	SW846 8260B		9/28/18 07:16	PDK	A
Hexachlorobutadiene	ND		ug/L	5.0	1.0	SW846 8260B		9/28/18 07:16	PDK	A
Isopropylbenzene	ND		ug/L	1.0	0.22	SW846 8260B		9/28/18 07:16	PDK	A
Methyl acetate	ND		ug/L	2.0	0.32	SW846 8260B		9/28/18 07:16	PDK	A
Methyl cyclohexane	ND		ug/L	1.0	0.30	SW846 8260B		9/28/18 07:16	PDK	A
Methyl t-Butyl Ether	ND		ug/L	1.0	0.33	SW846 8260B		9/28/18 07:16	PDK	A
Methylene Chloride	ND		ug/L	1.0	0.45	SW846 8260B		9/28/18 07:16	PDK	A
Naphthalene	ND		ug/L	2.0	0.34	SW846 8260B		9/28/18 07:16	PDK	A
Styrene	ND		ug/L	1.0	0.24	SW846 8260B		9/28/18 07:16	PDK	A
Tetrachloroethene	ND		ug/L	1.0	0.35	SW846 8260B		9/28/18 07:16	PDK	A
Toluene	ND		ug/L	1.0	0.23	SW846 8260B		9/28/18 07:16	PDK	A
Total Xylenes	ND		ug/L	3.0	0.66	SW846 8260B		9/28/18 07:16	PDK	A
Trichloroethene	ND		ug/L	1.0	0.33	SW846 8260B		9/28/18 07:16	PDK	A
Trichlorofluoromethane	ND		ug/L	1.0	0.24	SW846 8260B		9/28/18 07:16	PDK	A
Vinyl Acetate	ND		ug/L	5.0	1.6	SW846 8260B		9/28/18 07:16	PDK	A
Vinyl Chloride	ND		ug/L	1.0	0.30	SW846 8260B		9/28/18 07:16	PDK	A
cis-1,2-Dichloroethene	ND		ug/L	1.0	0.32	SW846 8260B		9/28/18 07:16	PDK	A
cis-1,3-Dichloropropene	ND		ug/L	1.0	0.31	SW846 8260B		9/28/18 07:16	PDK	A
mp-Xylene	ND		ug/L	2.0	0.52	SW846 8260B		9/28/18 07:16	PDK	A
n-Butylbenzene	ND		ug/L	2.0	0.60	SW846 8260B		9/28/18 07:16	PDK	A
n-Propylbenzene	ND		ug/L	1.0	0.33	SW846 8260B		9/28/18 07:16	PDK	A
o-Chlorotoluene	ND		ug/L	1.0	0.26	SW846 8260B		9/28/18 07:16	PDK	A
o-Xylene	ND		ug/L	1.0	0.33	SW846 8260B		9/28/18 07:16	PDK	A
p-Chlorotoluene	ND		ug/L	1.0	0.33	SW846 8260B		9/28/18 07:16	PDK	A
p-Isopropyltoluene	ND		ug/L	1.0	0.32	SW846 8260B		9/28/18 07:16	PDK	A
sec-Butylbenzene	ND		ug/L	1.0	0.31	SW846 8260B		9/28/18 07:16	PDK	A
tert-Amyl methyl ether	ND		ug/L	1.0	0.20	SW846 8260B		9/28/18 07:16	PDK	A
tert-Butyl Alcohol	ND		ug/L	10.0	2.2	SW846 8260B		9/28/18 07:16	PDK	A
tert-Butylbenzene	ND		ug/L	2.0	0.44	SW846 8260B		9/28/18 07:16	PDK	A

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State Certifications: DE ID 11 , MA PA0102 , MD 128 , VA 460157 , WV 343

ANALYTICAL RESULTS

Workorder: 2339934 ALG005|LMC MRC SWS

Lab ID: **2339934014** Date Collected: 9/21/2018 11:56 Matrix: Water
Sample ID: **MRC-SW13A-S** Date Received: 9/21/2018 21:05

Parameters	Results	Flag	Units	RDL	MDL	Method	Prepared	By	Analyzed	By	Cntr
trans-1,2-Dichloroethene	ND		ug/L	1.0	0.26	SW846 8260B			9/28/18 07:16	PDK	A
trans-1,3-Dichloropropene	ND		ug/L	1.0	0.29	SW846 8260B			9/28/18 07:16	PDK	A
Surrogate Recoveries	*Results*	*Flag*	*Units*	*Limits*		*Method*	*Prepared*	*By*	*Analyzed*	*By*	*Cntr*
1,2-Dichloroethane-d4 (S)	122		%	62 - 133		SW846 8260B			9/28/18 07:16	PDK	A
4-Bromofluorobenzene (S)	105		%	79 - 114		SW846 8260B			9/28/18 07:16	PDK	A
Dibromofluoromethane (S)	117	1	%	78 - 116		SW846 8260B			9/28/18 07:16	PDK	A
Toluene-d8 (S)	105		%	76 - 127		SW846 8260B			9/28/18 07:16	PDK	A

Vanessa N. Badman
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ANALYTICAL RESULTS

Workorder: 2339934 ALG005|LMC MRC SWS

Lab ID: **2339934015** Date Collected: 9/21/2018 11:49 Matrix: Water
Sample ID: **MRC-SW15A-S** Date Received: 9/21/2018 21:05

Parameters	Results	Flag	Units	RDL	MDL	Method	Prepared By	Analyzed	By	Cntr
VOLATILE ORGANICS										
1,1,1,2-Tetrachloroethane	ND		ug/L	1.0	0.35	SW846 8260B		9/28/18 07:39	PDK	A
1,1,1-Trichloroethane	ND		ug/L	1.0	0.22	SW846 8260B		9/28/18 07:39	PDK	A
1,1,2,2-Tetrachloroethane	ND		ug/L	1.0	0.34	SW846 8260B		9/28/18 07:39	PDK	A
1,1,2-Trichloroethane	ND		ug/L	1.0	0.33	SW846 8260B		9/28/18 07:39	PDK	A
1,1-Dichloroethane	ND		ug/L	1.0	0.28	SW846 8260B		9/28/18 07:39	PDK	A
1,1-Dichloroethene	ND		ug/L	1.0	0.29	SW846 8260B		9/28/18 07:39	PDK	A
1,2,3-Trichlorobenzene	ND		ug/L	2.0	0.93	SW846 8260B		9/28/18 07:39	PDK	A
1,2,3-Trichloropropane	ND		ug/L	2.0	0.60	SW846 8260B		9/28/18 07:39	PDK	A
1,2,4-Trichlorobenzene	ND		ug/L	2.0	0.82	SW846 8260B		9/28/18 07:39	PDK	A
1,2,4-Trimethylbenzene	ND		ug/L	1.0	0.25	SW846 8260B		9/28/18 07:39	PDK	A
1,2-Dibromo-3-chloropropane	ND		ug/L	7.0	1.5	SW846 8260B		9/28/18 07:39	PDK	A
1,2-Dibromoethane	ND		ug/L	1.0	0.28	SW846 8260B		9/28/18 07:39	PDK	A
1,2-Dichlorobenzene	ND		ug/L	1.0	0.38	SW846 8260B		9/28/18 07:39	PDK	A
1,2-Dichloroethane	ND		ug/L	1.0	0.32	SW846 8260B		9/28/18 07:39	PDK	A
1,2-Dichloroethene, Total	ND		ug/L	2.0	0.45	SW846 8260B		9/28/18 07:39	PDK	A
1,2-Dichloropropane	ND		ug/L	1.0	0.24	SW846 8260B		9/28/18 07:39	PDK	A
1,3-Dichlorobenzene	ND		ug/L	1.0	0.25	SW846 8260B		9/28/18 07:39	PDK	A
1,3-Dichloropropane	ND		ug/L	1.0	0.27	SW846 8260B		9/28/18 07:39	PDK	A
1,3-Dichloropropene, Total	ND		ug/L	2.0	0.47	SW846 8260B		9/28/18 07:39	PDK	A
1,4-Dichlorobenzene	ND		ug/L	1.0	0.27	SW846 8260B		9/28/18 07:39	PDK	A
2,2-Dichloropropane	ND		ug/L	1.0	0.32	SW846 8260B		9/28/18 07:39	PDK	A
2-Butanone	ND		ug/L	10.0	1.8	SW846 8260B		9/28/18 07:39	PDK	A
2-Chloroethylvinyl ether	ND		ug/L	2.0	0.38	SW846 8260B		9/28/18 07:39	PDK	A
2-Hexanone	ND		ug/L	5.0	1.3	SW846 8260B		9/28/18 07:39	PDK	A
4-Methyl-2-Pentanone(MIBK)	ND		ug/L	5.0	1.5	SW846 8260B		9/28/18 07:39	PDK	A
Acetone	ND		ug/L	10.0	3.1	SW846 8260B		9/28/18 07:39	PDK	A
Benzene	ND		ug/L	1.0	0.23	SW846 8260B		9/28/18 07:39	PDK	A
Bromobenzene	ND		ug/L	1.0	0.32	SW846 8260B		9/28/18 07:39	PDK	A
Bromochloromethane	ND		ug/L	1.0	0.32	SW846 8260B		9/28/18 07:39	PDK	A
Bromodichloromethane	ND		ug/L	1.0	0.27	SW846 8260B		9/28/18 07:39	PDK	A
Bromoform	ND		ug/L	1.0	0.40	SW846 8260B		9/28/18 07:39	PDK	A
Bromomethane	ND		ug/L	1.0	0.39	SW846 8260B		9/28/18 07:39	PDK	A
Carbon Disulfide	ND		ug/L	1.0	0.23	SW846 8260B		9/28/18 07:39	PDK	A
Carbon Tetrachloride	ND		ug/L	1.0	0.31	SW846 8260B		9/28/18 07:39	PDK	A
Chlorobenzene	ND		ug/L	1.0	0.19	SW846 8260B		9/28/18 07:39	PDK	A
Chlorodibromomethane	ND		ug/L	1.0	0.45	SW846 8260B		9/28/18 07:39	PDK	A

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ANALYTICAL RESULTS

Workorder: 2339934 ALG005|LMC MRC SWS

Lab ID: **2339934015** Date Collected: 9/21/2018 11:49 Matrix: Water

Sample ID: **MRC-SW15A-S** Date Received: 9/21/2018 21:05

Parameters	Results	Flag	Units	RDL	MDL	Method	Prepared By	Analyzed	By	Cntr
Chloroethane	ND		ug/L	1.0	0.33	SW846 8260B		9/28/18 07:39	PDK	A
Chloroform	ND		ug/L	1.0	0.21	SW846 8260B		9/28/18 07:39	PDK	A
Chloromethane	ND		ug/L	1.0	0.31	SW846 8260B		9/28/18 07:39	PDK	A
Cyclohexane	ND		ug/L	1.0	0.29	SW846 8260B		9/28/18 07:39	PDK	A
Dibromomethane	ND		ug/L	1.0	0.31	SW846 8260B		9/28/18 07:39	PDK	A
Dichlorodifluoromethane	ND		ug/L	1.0	0.33	SW846 8260B		9/28/18 07:39	PDK	A
Diisopropyl ether	ND		ug/L	1.0	0.25	SW846 8260B		9/28/18 07:39	PDK	A
Ethyl tert-butyl ether	ND		ug/L	1.0	0.19	SW846 8260B		9/28/18 07:39	PDK	A
Ethylbenzene	ND		ug/L	1.0	0.34	SW846 8260B		9/28/18 07:39	PDK	A
Freon 113	ND		ug/L	1.0	0.26	SW846 8260B		9/28/18 07:39	PDK	A
Hexachlorobutadiene	ND		ug/L	5.0	1.0	SW846 8260B		9/28/18 07:39	PDK	A
Isopropylbenzene	ND		ug/L	1.0	0.22	SW846 8260B		9/28/18 07:39	PDK	A
Methyl acetate	ND		ug/L	2.0	0.32	SW846 8260B		9/28/18 07:39	PDK	A
Methyl cyclohexane	ND		ug/L	1.0	0.30	SW846 8260B		9/28/18 07:39	PDK	A
Methyl t-Butyl Ether	ND		ug/L	1.0	0.33	SW846 8260B		9/28/18 07:39	PDK	A
Methylene Chloride	ND		ug/L	1.0	0.45	SW846 8260B		9/28/18 07:39	PDK	A
Naphthalene	ND		ug/L	2.0	0.34	SW846 8260B		9/28/18 07:39	PDK	A
Styrene	ND		ug/L	1.0	0.24	SW846 8260B		9/28/18 07:39	PDK	A
Tetrachloroethene	ND		ug/L	1.0	0.35	SW846 8260B		9/28/18 07:39	PDK	A
Toluene	ND		ug/L	1.0	0.23	SW846 8260B		9/28/18 07:39	PDK	A
Total Xylenes	ND		ug/L	3.0	0.66	SW846 8260B		9/28/18 07:39	PDK	A
Trichloroethene	1.1		ug/L	1.0	0.33	SW846 8260B		9/28/18 07:39	PDK	A
Trichlorofluoromethane	ND		ug/L	1.0	0.24	SW846 8260B		9/28/18 07:39	PDK	A
Vinyl Acetate	ND		ug/L	5.0	1.6	SW846 8260B		9/28/18 07:39	PDK	A
Vinyl Chloride	ND		ug/L	1.0	0.30	SW846 8260B		9/28/18 07:39	PDK	A
cis-1,2-Dichloroethene	ND		ug/L	1.0	0.32	SW846 8260B		9/28/18 07:39	PDK	A
cis-1,3-Dichloropropene	ND		ug/L	1.0	0.31	SW846 8260B		9/28/18 07:39	PDK	A
mp-Xylene	ND		ug/L	2.0	0.52	SW846 8260B		9/28/18 07:39	PDK	A
n-Butylbenzene	ND		ug/L	2.0	0.60	SW846 8260B		9/28/18 07:39	PDK	A
n-Propylbenzene	ND		ug/L	1.0	0.33	SW846 8260B		9/28/18 07:39	PDK	A
o-Chlorotoluene	ND		ug/L	1.0	0.26	SW846 8260B		9/28/18 07:39	PDK	A
o-Xylene	ND		ug/L	1.0	0.33	SW846 8260B		9/28/18 07:39	PDK	A
p-Chlorotoluene	ND		ug/L	1.0	0.33	SW846 8260B		9/28/18 07:39	PDK	A
p-Isopropyltoluene	ND		ug/L	1.0	0.32	SW846 8260B		9/28/18 07:39	PDK	A
sec-Butylbenzene	ND		ug/L	1.0	0.31	SW846 8260B		9/28/18 07:39	PDK	A
tert-Amyl methyl ether	ND		ug/L	1.0	0.20	SW846 8260B		9/28/18 07:39	PDK	A
tert-Butyl Alcohol	ND		ug/L	10.0	2.2	SW846 8260B		9/28/18 07:39	PDK	A
tert-Butylbenzene	ND		ug/L	2.0	0.44	SW846 8260B		9/28/18 07:39	PDK	A

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ANALYTICAL RESULTS

Workorder: 2339934 ALG005|LMC MRC SWS

Lab ID: **2339934015** Date Collected: 9/21/2018 11:49 Matrix: Water
Sample ID: **MRC-SW15A-S** Date Received: 9/21/2018 21:05

Parameters	Results	Flag	Units	RDL	MDL	Method	Prepared	By	Analyzed	By	Cntr
trans-1,2-Dichloroethene	ND		ug/L	1.0	0.26	SW846 8260B			9/28/18 07:39	PDK	A
trans-1,3-Dichloropropene	ND		ug/L	1.0	0.29	SW846 8260B			9/28/18 07:39	PDK	A
Surrogate Recoveries	*Results*	*Flag*	*Units*	*Limits*		*Method*	*Prepared*	*By*	*Analyzed*	*By*	*Cntr*
1,2-Dichloroethane-d4 (S)	121		%	62 - 133		SW846 8260B			9/28/18 07:39	PDK	A
4-Bromofluorobenzene (S)	111		%	79 - 114		SW846 8260B			9/28/18 07:39	PDK	A
Dibromofluoromethane (S)	114		%	78 - 116		SW846 8260B			9/28/18 07:39	PDK	A
Toluene-d8 (S)	104		%	76 - 127		SW846 8260B			9/28/18 07:39	PDK	A

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ANALYTICAL RESULTS

Workorder: 2339934 ALG005|LMC MRC SWS

Lab ID: **2339934016** Date Collected: 9/21/2018 11:40 Matrix: Water

Sample ID: **MRC-SW16A-S** Date Received: 9/21/2018 21:05

Parameters	Results	Flag	Units	RDL	MDL	Method	Prepared By	Analyzed	By	*Cntr*
VOLATILE ORGANICS										
1,1,1,2-Tetrachloroethane	ND		ug/L	1.0	0.35	SW846 8260B		9/28/18 08:01	PDK	A
1,1,1-Trichloroethane	ND		ug/L	1.0	0.22	SW846 8260B		9/28/18 08:01	PDK	A
1,1,2,2-Tetrachloroethane	ND		ug/L	1.0	0.34	SW846 8260B		9/28/18 08:01	PDK	A
1,1,2-Trichloroethane	ND		ug/L	1.0	0.33	SW846 8260B		9/28/18 08:01	PDK	A
1,1-Dichloroethane	ND		ug/L	1.0	0.28	SW846 8260B		9/28/18 08:01	PDK	A
1,1-Dichloroethene	ND		ug/L	1.0	0.29	SW846 8260B		9/28/18 08:01	PDK	A
1,2,3-Trichlorobenzene	ND		ug/L	2.0	0.93	SW846 8260B		9/28/18 08:01	PDK	A
1,2,3-Trichloropropane	ND		ug/L	2.0	0.60	SW846 8260B		9/28/18 08:01	PDK	A
1,2,4-Trichlorobenzene	ND		ug/L	2.0	0.82	SW846 8260B		9/28/18 08:01	PDK	A
1,2,4-Trimethylbenzene	ND		ug/L	1.0	0.25	SW846 8260B		9/28/18 08:01	PDK	A
1,2-Dibromo-3-chloropropane	ND		ug/L	7.0	1.5	SW846 8260B		9/28/18 08:01	PDK	A
1,2-Dibromoethane	ND		ug/L	1.0	0.28	SW846 8260B		9/28/18 08:01	PDK	A
1,2-Dichlorobenzene	ND		ug/L	1.0	0.38	SW846 8260B		9/28/18 08:01	PDK	A
1,2-Dichloroethane	ND		ug/L	1.0	0.32	SW846 8260B		9/28/18 08:01	PDK	A
1,2-Dichloroethene, Total	ND		ug/L	2.0	0.45	SW846 8260B		9/28/18 08:01	PDK	A
1,2-Dichloropropane	ND		ug/L	1.0	0.24	SW846 8260B		9/28/18 08:01	PDK	A
1,3-Dichlorobenzene	ND		ug/L	1.0	0.25	SW846 8260B		9/28/18 08:01	PDK	A
1,3-Dichloropropane	ND		ug/L	1.0	0.27	SW846 8260B		9/28/18 08:01	PDK	A
1,3-Dichloropropene, Total	ND		ug/L	2.0	0.47	SW846 8260B		9/28/18 08:01	PDK	A
1,4-Dichlorobenzene	ND		ug/L	1.0	0.27	SW846 8260B		9/28/18 08:01	PDK	A
2,2-Dichloropropane	ND		ug/L	1.0	0.32	SW846 8260B		9/28/18 08:01	PDK	A
2-Butanone	ND		ug/L	10.0	1.8	SW846 8260B		9/28/18 08:01	PDK	A
2-Chloroethylvinyl ether	ND		ug/L	2.0	0.38	SW846 8260B		9/28/18 08:01	PDK	A
2-Hexanone	ND		ug/L	5.0	1.3	SW846 8260B		9/28/18 08:01	PDK	A
4-Methyl-2-Pentanone(MIBK)	ND		ug/L	5.0	1.5	SW846 8260B		9/28/18 08:01	PDK	A
Acetone	ND		ug/L	10.0	3.1	SW846 8260B		9/28/18 08:01	PDK	A
Benzene	ND		ug/L	1.0	0.23	SW846 8260B		9/28/18 08:01	PDK	A
Bromobenzene	ND		ug/L	1.0	0.32	SW846 8260B		9/28/18 08:01	PDK	A
Bromochloromethane	ND		ug/L	1.0	0.32	SW846 8260B		9/28/18 08:01	PDK	A
Bromodichloromethane	ND		ug/L	1.0	0.27	SW846 8260B		9/28/18 08:01	PDK	A
Bromoform	ND		ug/L	1.0	0.40	SW846 8260B		9/28/18 08:01	PDK	A
Bromomethane	ND		ug/L	1.0	0.39	SW846 8260B		9/28/18 08:01	PDK	A
Carbon Disulfide	ND		ug/L	1.0	0.23	SW846 8260B		9/28/18 08:01	PDK	A
Carbon Tetrachloride	ND		ug/L	1.0	0.31	SW846 8260B		9/28/18 08:01	PDK	A
Chlorobenzene	ND		ug/L	1.0	0.19	SW846 8260B		9/28/18 08:01	PDK	A
Chlorodibromomethane	ND		ug/L	1.0	0.45	SW846 8260B		9/28/18 08:01	PDK	A

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State Certifications: DE ID 11 , MA PA0102 , MD 128 , VA 460157 , WV 343

ANALYTICAL RESULTS

Workorder: 2339934 ALG005|LMC MRC SWS

Lab ID: **2339934016** Date Collected: 9/21/2018 11:40 Matrix: Water

Sample ID: **MRC-SW16A-S** Date Received: 9/21/2018 21:05

Parameters	Results	Flag	Units	RDL	MDL	Method	Prepared By	Analyzed	By	Cntr
Chloroethane	ND		ug/L	1.0	0.33	SW846 8260B		9/28/18 08:01	PDK	A
Chloroform	ND		ug/L	1.0	0.21	SW846 8260B		9/28/18 08:01	PDK	A
Chloromethane	ND		ug/L	1.0	0.31	SW846 8260B		9/28/18 08:01	PDK	A
Cyclohexane	ND		ug/L	1.0	0.29	SW846 8260B		9/28/18 08:01	PDK	A
Dibromomethane	ND		ug/L	1.0	0.31	SW846 8260B		9/28/18 08:01	PDK	A
Dichlorodifluoromethane	ND		ug/L	1.0	0.33	SW846 8260B		9/28/18 08:01	PDK	A
Diisopropyl ether	ND		ug/L	1.0	0.25	SW846 8260B		9/28/18 08:01	PDK	A
Ethyl tert-butyl ether	ND		ug/L	1.0	0.19	SW846 8260B		9/28/18 08:01	PDK	A
Ethylbenzene	ND		ug/L	1.0	0.34	SW846 8260B		9/28/18 08:01	PDK	A
Freon 113	ND		ug/L	1.0	0.26	SW846 8260B		9/28/18 08:01	PDK	A
Hexachlorobutadiene	ND		ug/L	5.0	1.0	SW846 8260B		9/28/18 08:01	PDK	A
Isopropylbenzene	ND		ug/L	1.0	0.22	SW846 8260B		9/28/18 08:01	PDK	A
Methyl acetate	ND		ug/L	2.0	0.32	SW846 8260B		9/28/18 08:01	PDK	A
Methyl cyclohexane	ND		ug/L	1.0	0.30	SW846 8260B		9/28/18 08:01	PDK	A
Methyl t-Butyl Ether	ND		ug/L	1.0	0.33	SW846 8260B		9/28/18 08:01	PDK	A
Methylene Chloride	ND		ug/L	1.0	0.45	SW846 8260B		9/28/18 08:01	PDK	A
Naphthalene	ND		ug/L	2.0	0.34	SW846 8260B		9/28/18 08:01	PDK	A
Styrene	ND		ug/L	1.0	0.24	SW846 8260B		9/28/18 08:01	PDK	A
Tetrachloroethene	ND		ug/L	1.0	0.35	SW846 8260B		9/28/18 08:01	PDK	A
Toluene	ND		ug/L	1.0	0.23	SW846 8260B		9/28/18 08:01	PDK	A
Total Xylenes	ND		ug/L	3.0	0.66	SW846 8260B		9/28/18 08:01	PDK	A
Trichloroethene	0.85J	J	ug/L	1.0	0.33	SW846 8260B		9/28/18 08:01	PDK	A
Trichlorofluoromethane	ND		ug/L	1.0	0.24	SW846 8260B		9/28/18 08:01	PDK	A
Vinyl Acetate	ND		ug/L	5.0	1.6	SW846 8260B		9/28/18 08:01	PDK	A
Vinyl Chloride	ND		ug/L	1.0	0.30	SW846 8260B		9/28/18 08:01	PDK	A
cis-1,2-Dichloroethene	ND		ug/L	1.0	0.32	SW846 8260B		9/28/18 08:01	PDK	A
cis-1,3-Dichloropropene	ND		ug/L	1.0	0.31	SW846 8260B		9/28/18 08:01	PDK	A
mp-Xylene	ND		ug/L	2.0	0.52	SW846 8260B		9/28/18 08:01	PDK	A
n-Butylbenzene	ND		ug/L	2.0	0.60	SW846 8260B		9/28/18 08:01	PDK	A
n-Propylbenzene	ND		ug/L	1.0	0.33	SW846 8260B		9/28/18 08:01	PDK	A
o-Chlorotoluene	ND		ug/L	1.0	0.26	SW846 8260B		9/28/18 08:01	PDK	A
o-Xylene	ND		ug/L	1.0	0.33	SW846 8260B		9/28/18 08:01	PDK	A
p-Chlorotoluene	ND		ug/L	1.0	0.33	SW846 8260B		9/28/18 08:01	PDK	A
p-Isopropyltoluene	ND		ug/L	1.0	0.32	SW846 8260B		9/28/18 08:01	PDK	A
sec-Butylbenzene	ND		ug/L	1.0	0.31	SW846 8260B		9/28/18 08:01	PDK	A
tert-Amyl methyl ether	ND		ug/L	1.0	0.20	SW846 8260B		9/28/18 08:01	PDK	A
tert-Butyl Alcohol	ND		ug/L	10.0	2.2	SW846 8260B		9/28/18 08:01	PDK	A
tert-Butylbenzene	ND		ug/L	2.0	0.44	SW846 8260B		9/28/18 08:01	PDK	A

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State Certifications: DE ID 11 , MA PA0102 , MD 128 , VA 460157 , WV 343

ANALYTICAL RESULTS

Workorder: 2339934 ALG005|LMC MRC SWS

Lab ID: **2339934016** Date Collected: 9/21/2018 11:40 Matrix: Water
Sample ID: **MRC-SW16A-S** Date Received: 9/21/2018 21:05

Parameters	Results	Flag	Units	RDL	MDL	Method	Prepared	By	Analyzed	By	Cntr
trans-1,2-Dichloroethene	ND		ug/L	1.0	0.26	SW846 8260B			9/28/18 08:01	PDK	A
trans-1,3-Dichloropropene	ND		ug/L	1.0	0.29	SW846 8260B			9/28/18 08:01	PDK	A
Surrogate Recoveries	*Results*	*Flag*	*Units*	*Limits*		*Method*	*Prepared*	*By*	*Analyzed*	*By*	*Cntr*
1,2-Dichloroethane-d4 (S)	119		%	62 - 133		SW846 8260B			9/28/18 08:01	PDK	A
4-Bromofluorobenzene (S)	107		%	79 - 114		SW846 8260B			9/28/18 08:01	PDK	A
Dibromofluoromethane (S)	113		%	78 - 116		SW846 8260B			9/28/18 08:01	PDK	A
Toluene-d8 (S)	105		%	76 - 127		SW846 8260B			9/28/18 08:01	PDK	A

Vanessa N. Badman
Mrs. Vanessa N Badman
Project Coordinator

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ANALYTICAL RESULTS

Workorder: 2339934 ALG005|LMC MRC SWS

Lab ID: **2339934017** Date Collected: 9/21/2018 14:14 Matrix: Water
Sample ID: **MRC-17A** Date Received: 9/21/2018 21:05

Parameters	Results	Flag	Units	RDL	MDL	Method	Prepared By	Analyzed	By	Cntr
VOLATILE ORGANICS										
1,1,1,2-Tetrachloroethane	ND		ug/L	1.0	0.35	SW846 8260B		9/28/18 08:24	PDK	A
1,1,1-Trichloroethane	ND		ug/L	1.0	0.22	SW846 8260B		9/28/18 08:24	PDK	A
1,1,2,2-Tetrachloroethane	ND		ug/L	1.0	0.34	SW846 8260B		9/28/18 08:24	PDK	A
1,1,2-Trichloroethane	ND		ug/L	1.0	0.33	SW846 8260B		9/28/18 08:24	PDK	A
1,1-Dichloroethane	ND		ug/L	1.0	0.28	SW846 8260B		9/28/18 08:24	PDK	A
1,1-Dichloroethene	ND		ug/L	1.0	0.29	SW846 8260B		9/28/18 08:24	PDK	A
1,2,3-Trichlorobenzene	ND		ug/L	2.0	0.93	SW846 8260B		9/28/18 08:24	PDK	A
1,2,3-Trichloropropane	ND		ug/L	2.0	0.60	SW846 8260B		9/28/18 08:24	PDK	A
1,2,4-Trichlorobenzene	ND		ug/L	2.0	0.82	SW846 8260B		9/28/18 08:24	PDK	A
1,2,4-Trimethylbenzene	ND		ug/L	1.0	0.25	SW846 8260B		9/28/18 08:24	PDK	A
1,2-Dibromo-3-chloropropane	ND		ug/L	7.0	1.5	SW846 8260B		9/28/18 08:24	PDK	A
1,2-Dibromoethane	ND		ug/L	1.0	0.28	SW846 8260B		9/28/18 08:24	PDK	A
1,2-Dichlorobenzene	ND		ug/L	1.0	0.38	SW846 8260B		9/28/18 08:24	PDK	A
1,2-Dichloroethane	ND		ug/L	1.0	0.32	SW846 8260B		9/28/18 08:24	PDK	A
1,2-Dichloroethene, Total	ND		ug/L	2.0	0.45	SW846 8260B		9/28/18 08:24	PDK	A
1,2-Dichloropropane	ND		ug/L	1.0	0.24	SW846 8260B		9/28/18 08:24	PDK	A
1,3-Dichlorobenzene	ND		ug/L	1.0	0.25	SW846 8260B		9/28/18 08:24	PDK	A
1,3-Dichloropropane	ND		ug/L	1.0	0.27	SW846 8260B		9/28/18 08:24	PDK	A
1,3-Dichloropropene, Total	ND		ug/L	2.0	0.47	SW846 8260B		9/28/18 08:24	PDK	A
1,4-Dichlorobenzene	ND		ug/L	1.0	0.27	SW846 8260B		9/28/18 08:24	PDK	A
2,2-Dichloropropane	ND		ug/L	1.0	0.32	SW846 8260B		9/28/18 08:24	PDK	A
2-Butanone	ND		ug/L	10.0	1.8	SW846 8260B		9/28/18 08:24	PDK	A
2-Chloroethylvinyl ether	ND		ug/L	2.0	0.38	SW846 8260B		9/28/18 08:24	PDK	A
2-Hexanone	ND		ug/L	5.0	1.3	SW846 8260B		9/28/18 08:24	PDK	A
4-Methyl-2-Pentanone(MIBK)	ND		ug/L	5.0	1.5	SW846 8260B		9/28/18 08:24	PDK	A
Acetone	3.7J	J	ug/L	10.0	3.1	SW846 8260B		9/28/18 08:24	PDK	A
Benzene	ND		ug/L	1.0	0.23	SW846 8260B		9/28/18 08:24	PDK	A
Bromobenzene	ND		ug/L	1.0	0.32	SW846 8260B		9/28/18 08:24	PDK	A
Bromochloromethane	ND		ug/L	1.0	0.32	SW846 8260B		9/28/18 08:24	PDK	A
Bromodichloromethane	ND		ug/L	1.0	0.27	SW846 8260B		9/28/18 08:24	PDK	A
Bromoform	ND		ug/L	1.0	0.40	SW846 8260B		9/28/18 08:24	PDK	A
Bromomethane	ND		ug/L	1.0	0.39	SW846 8260B		9/28/18 08:24	PDK	A
Carbon Disulfide	ND		ug/L	1.0	0.23	SW846 8260B		9/28/18 08:24	PDK	A
Carbon Tetrachloride	ND		ug/L	1.0	0.31	SW846 8260B		9/28/18 08:24	PDK	A
Chlorobenzene	ND		ug/L	1.0	0.19	SW846 8260B		9/28/18 08:24	PDK	A
Chlorodibromomethane	ND		ug/L	1.0	0.45	SW846 8260B		9/28/18 08:24	PDK	A

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State Certifications: DE ID 11 , MA PA0102 , MD 128 , VA 460157 , WV 343

ANALYTICAL RESULTS

Workorder: 2339934 ALG005|LMC MRC SWS

Lab ID: **2339934017** Date Collected: 9/21/2018 14:14 Matrix: Water

Sample ID: **MRC-17A** Date Received: 9/21/2018 21:05

Parameters	Results	Flag	Units	RDL	MDL	Method	Prepared By	Analyzed	By	*Cntr*
Chloroethane	ND		ug/L	1.0	0.33	SW846 8260B		9/28/18 08:24	PDK	A
Chloroform	ND		ug/L	1.0	0.21	SW846 8260B		9/28/18 08:24	PDK	A
Chloromethane	ND		ug/L	1.0	0.31	SW846 8260B		9/28/18 08:24	PDK	A
Cyclohexane	ND		ug/L	1.0	0.29	SW846 8260B		9/28/18 08:24	PDK	A
Dibromomethane	ND		ug/L	1.0	0.31	SW846 8260B		9/28/18 08:24	PDK	A
Dichlorodifluoromethane	ND		ug/L	1.0	0.33	SW846 8260B		9/28/18 08:24	PDK	A
Diisopropyl ether	ND		ug/L	1.0	0.25	SW846 8260B		9/28/18 08:24	PDK	A
Ethyl tert-butyl ether	ND		ug/L	1.0	0.19	SW846 8260B		9/28/18 08:24	PDK	A
Ethylbenzene	ND		ug/L	1.0	0.34	SW846 8260B		9/28/18 08:24	PDK	A
Freon 113	ND		ug/L	1.0	0.26	SW846 8260B		9/28/18 08:24	PDK	A
Hexachlorobutadiene	ND		ug/L	5.0	1.0	SW846 8260B		9/28/18 08:24	PDK	A
Isopropylbenzene	ND		ug/L	1.0	0.22	SW846 8260B		9/28/18 08:24	PDK	A
Methyl acetate	ND		ug/L	2.0	0.32	SW846 8260B		9/28/18 08:24	PDK	A
Methyl cyclohexane	ND		ug/L	1.0	0.30	SW846 8260B		9/28/18 08:24	PDK	A
Methyl t-Butyl Ether	ND		ug/L	1.0	0.33	SW846 8260B		9/28/18 08:24	PDK	A
Methylene Chloride	ND		ug/L	1.0	0.45	SW846 8260B		9/28/18 08:24	PDK	A
Naphthalene	ND		ug/L	2.0	0.34	SW846 8260B		9/28/18 08:24	PDK	A
Styrene	ND		ug/L	1.0	0.24	SW846 8260B		9/28/18 08:24	PDK	A
Tetrachloroethene	ND		ug/L	1.0	0.35	SW846 8260B		9/28/18 08:24	PDK	A
Toluene	ND		ug/L	1.0	0.23	SW846 8260B		9/28/18 08:24	PDK	A
Total Xylenes	ND		ug/L	3.0	0.66	SW846 8260B		9/28/18 08:24	PDK	A
Trichloroethene	ND		ug/L	1.0	0.33	SW846 8260B		9/28/18 08:24	PDK	A
Trichlorofluoromethane	ND		ug/L	1.0	0.24	SW846 8260B		9/28/18 08:24	PDK	A
Vinyl Acetate	ND		ug/L	5.0	1.6	SW846 8260B		9/28/18 08:24	PDK	A
Vinyl Chloride	ND		ug/L	1.0	0.30	SW846 8260B		9/28/18 08:24	PDK	A
cis-1,2-Dichloroethene	ND		ug/L	1.0	0.32	SW846 8260B		9/28/18 08:24	PDK	A
cis-1,3-Dichloropropene	ND		ug/L	1.0	0.31	SW846 8260B		9/28/18 08:24	PDK	A
mp-Xylene	ND		ug/L	2.0	0.52	SW846 8260B		9/28/18 08:24	PDK	A
n-Butylbenzene	ND		ug/L	2.0	0.60	SW846 8260B		9/28/18 08:24	PDK	A
n-Propylbenzene	ND		ug/L	1.0	0.33	SW846 8260B		9/28/18 08:24	PDK	A
o-Chlorotoluene	ND		ug/L	1.0	0.26	SW846 8260B		9/28/18 08:24	PDK	A
o-Xylene	ND		ug/L	1.0	0.33	SW846 8260B		9/28/18 08:24	PDK	A
p-Chlorotoluene	ND		ug/L	1.0	0.33	SW846 8260B		9/28/18 08:24	PDK	A
p-Isopropyltoluene	ND		ug/L	1.0	0.32	SW846 8260B		9/28/18 08:24	PDK	A
sec-Butylbenzene	ND		ug/L	1.0	0.31	SW846 8260B		9/28/18 08:24	PDK	A
tert-Amyl methyl ether	ND		ug/L	1.0	0.20	SW846 8260B		9/28/18 08:24	PDK	A
tert-Butyl Alcohol	ND		ug/L	10.0	2.2	SW846 8260B		9/28/18 08:24	PDK	A
tert-Butylbenzene	ND		ug/L	2.0	0.44	SW846 8260B		9/28/18 08:24	PDK	A

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State Certifications: DE ID 11 , MA PA0102 , MD 128 , VA 460157 , WV 343

ANALYTICAL RESULTS

Workorder: 2339934 ALG005|LMC MRC SWS

Lab ID: **2339934017** Date Collected: 9/21/2018 14:14 Matrix: Water
Sample ID: **MRC-17A** Date Received: 9/21/2018 21:05

Parameters	Results	Flag	Units	RDL	MDL	Method	Prepared	By	Analyzed	By	Cntr
trans-1,2-Dichloroethene	ND		ug/L	1.0	0.26	SW846 8260B			9/28/18 08:24	PDK	A
trans-1,3-Dichloropropene	ND		ug/L	1.0	0.29	SW846 8260B			9/28/18 08:24	PDK	A
Surrogate Recoveries	*Results*	*Flag*	*Units*	*Limits*		*Method*	*Prepared*	*By*	*Analyzed*	*By*	*Cntr*
1,2-Dichloroethane-d4 (S)	120		%	62 - 133		SW846 8260B			9/28/18 08:24	PDK	A
4-Bromofluorobenzene (S)	106		%	79 - 114		SW846 8260B			9/28/18 08:24	PDK	A
Dibromofluoromethane (S)	114		%	78 - 116		SW846 8260B			9/28/18 08:24	PDK	A
Toluene-d8 (S)	102		%	76 - 127		SW846 8260B			9/28/18 08:24	PDK	A
SEMIVOLATILE SIM											
1,4-Dioxane	0.072J	J	ug/L	0.093	0.018	8270 SIM	9/28/18 13:30	DXL	9/29/18 18:23	CGS	C
IS_Naphthalene-d8	0.0		ug/L			8270 SIM	9/28/18 13:30	DXL	9/29/18 18:23	CGS	C
IS_Perylene-d12	0.0		ug/L			8270 SIM	9/28/18 13:30	DXL	9/29/18 18:23	CGS	C
Acenaphthene-d10	0.0		ug/L			8270 SIM	9/28/18 13:30	DXL	9/29/18 18:23	CGS	C
Phenanthrene-d10	0.0		ug/L			8270 SIM	9/28/18 13:30	DXL	9/29/18 18:23	CGS	C
Chrysene-d12	0.0		ug/L			8270 SIM	9/28/18 13:30	DXL	9/29/18 18:23	CGS	C
Surrogate Recoveries	*Results*	*Flag*	*Units*	*Limits*		*Method*	*Prepared*	*By*	*Analyzed*	*By*	*Cntr*
2-Methylnapthalene-d10 (S)	77.7		%	29 - 112		8270 SIM	9/28/18 13:30	DXL	9/29/18 18:23	CGS	C
Fluoranthene-d10 (S)	93.2		%	45 - 130		8270 SIM	9/28/18 13:30	DXL	9/29/18 18:23	CGS	C

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State Certifications: DE ID 11 , MA PA0102 , MD 128 , VA 460157 , WV 343

ANALYTICAL RESULTS

Workorder: 2339934 ALG005|LMC MRC SWS

Lab ID: **2339934018** Date Collected: 9/21/2018 11:18 Matrix: Water
Sample ID: **MRC-SW8A-S-DUP** Date Received: 9/21/2018 21:05

Parameters	Results	Flag	Units	RDL	MDL	Method	Prepared By	Analyzed	By	Cntr
VOLATILE ORGANICS										
1,1,1,2-Tetrachloroethane	ND		ug/L	1.0	0.35	SW846 8260B		9/28/18 08:47	PDK	A
1,1,1-Trichloroethane	ND		ug/L	1.0	0.22	SW846 8260B		9/28/18 08:47	PDK	A
1,1,2,2-Tetrachloroethane	ND		ug/L	1.0	0.34	SW846 8260B		9/28/18 08:47	PDK	A
1,1,2-Trichloroethane	ND		ug/L	1.0	0.33	SW846 8260B		9/28/18 08:47	PDK	A
1,1-Dichloroethane	ND		ug/L	1.0	0.28	SW846 8260B		9/28/18 08:47	PDK	A
1,1-Dichloroethene	ND		ug/L	1.0	0.29	SW846 8260B		9/28/18 08:47	PDK	A
1,2,3-Trichlorobenzene	ND		ug/L	2.0	0.93	SW846 8260B		9/28/18 08:47	PDK	A
1,2,3-Trichloropropane	ND		ug/L	2.0	0.60	SW846 8260B		9/28/18 08:47	PDK	A
1,2,4-Trichlorobenzene	ND		ug/L	2.0	0.82	SW846 8260B		9/28/18 08:47	PDK	A
1,2,4-Trimethylbenzene	ND		ug/L	1.0	0.25	SW846 8260B		9/28/18 08:47	PDK	A
1,2-Dibromo-3-chloropropane	ND		ug/L	7.0	1.5	SW846 8260B		9/28/18 08:47	PDK	A
1,2-Dibromoethane	ND		ug/L	1.0	0.28	SW846 8260B		9/28/18 08:47	PDK	A
1,2-Dichlorobenzene	ND		ug/L	1.0	0.38	SW846 8260B		9/28/18 08:47	PDK	A
1,2-Dichloroethane	ND		ug/L	1.0	0.32	SW846 8260B		9/28/18 08:47	PDK	A
1,2-Dichloroethene, Total	ND		ug/L	2.0	0.45	SW846 8260B		9/28/18 08:47	PDK	A
1,2-Dichloropropane	ND		ug/L	1.0	0.24	SW846 8260B		9/28/18 08:47	PDK	A
1,3-Dichlorobenzene	ND		ug/L	1.0	0.25	SW846 8260B		9/28/18 08:47	PDK	A
1,3-Dichloropropane	ND		ug/L	1.0	0.27	SW846 8260B		9/28/18 08:47	PDK	A
1,3-Dichloropropene, Total	ND		ug/L	2.0	0.47	SW846 8260B		9/28/18 08:47	PDK	A
1,4-Dichlorobenzene	ND		ug/L	1.0	0.27	SW846 8260B		9/28/18 08:47	PDK	A
2,2-Dichloropropane	ND		ug/L	1.0	0.32	SW846 8260B		9/28/18 08:47	PDK	A
2-Butanone	ND		ug/L	10.0	1.8	SW846 8260B		9/28/18 08:47	PDK	A
2-Chloroethylvinyl ether	ND		ug/L	2.0	0.38	SW846 8260B		9/28/18 08:47	PDK	A
2-Hexanone	ND		ug/L	5.0	1.3	SW846 8260B		9/28/18 08:47	PDK	A
4-Methyl-2-Pentanone(MIBK)	ND		ug/L	5.0	1.5	SW846 8260B		9/28/18 08:47	PDK	A
Acetone	ND		ug/L	10.0	3.1	SW846 8260B		9/28/18 08:47	PDK	A
Benzene	ND		ug/L	1.0	0.23	SW846 8260B		9/28/18 08:47	PDK	A
Bromobenzene	ND		ug/L	1.0	0.32	SW846 8260B		9/28/18 08:47	PDK	A
Bromochloromethane	ND		ug/L	1.0	0.32	SW846 8260B		9/28/18 08:47	PDK	A
Bromodichloromethane	ND		ug/L	1.0	0.27	SW846 8260B		9/28/18 08:47	PDK	A
Bromoform	ND		ug/L	1.0	0.40	SW846 8260B		9/28/18 08:47	PDK	A
Bromomethane	ND		ug/L	1.0	0.39	SW846 8260B		9/28/18 08:47	PDK	A
Carbon Disulfide	ND		ug/L	1.0	0.23	SW846 8260B		9/28/18 08:47	PDK	A
Carbon Tetrachloride	ND		ug/L	1.0	0.31	SW846 8260B		9/28/18 08:47	PDK	A
Chlorobenzene	ND		ug/L	1.0	0.19	SW846 8260B		9/28/18 08:47	PDK	A
Chlorodibromomethane	ND		ug/L	1.0	0.45	SW846 8260B		9/28/18 08:47	PDK	A

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ANALYTICAL RESULTS

Workorder: 2339934 ALG005|LMC MRC SWS

Lab ID: **2339934018** Date Collected: 9/21/2018 11:18 Matrix: Water

Sample ID: **MRC-SW8A-S-DUP** Date Received: 9/21/2018 21:05

Parameters	Results	Flag	Units	RDL	MDL	Method	Prepared By	Analyzed	By	*Cntr*
Chloroethane	ND		ug/L	1.0	0.33	SW846 8260B		9/28/18 08:47	PDK	A
Chloroform	ND		ug/L	1.0	0.21	SW846 8260B		9/28/18 08:47	PDK	A
Chloromethane	ND		ug/L	1.0	0.31	SW846 8260B		9/28/18 08:47	PDK	A
Cyclohexane	ND		ug/L	1.0	0.29	SW846 8260B		9/28/18 08:47	PDK	A
Dibromomethane	ND		ug/L	1.0	0.31	SW846 8260B		9/28/18 08:47	PDK	A
Dichlorodifluoromethane	ND		ug/L	1.0	0.33	SW846 8260B		9/28/18 08:47	PDK	A
Diisopropyl ether	ND		ug/L	1.0	0.25	SW846 8260B		9/28/18 08:47	PDK	A
Ethyl tert-butyl ether	ND		ug/L	1.0	0.19	SW846 8260B		9/28/18 08:47	PDK	A
Ethylbenzene	ND		ug/L	1.0	0.34	SW846 8260B		9/28/18 08:47	PDK	A
Freon 113	ND		ug/L	1.0	0.26	SW846 8260B		9/28/18 08:47	PDK	A
Hexachlorobutadiene	ND		ug/L	5.0	1.0	SW846 8260B		9/28/18 08:47	PDK	A
Isopropylbenzene	ND		ug/L	1.0	0.22	SW846 8260B		9/28/18 08:47	PDK	A
Methyl acetate	ND		ug/L	2.0	0.32	SW846 8260B		9/28/18 08:47	PDK	A
Methyl cyclohexane	ND		ug/L	1.0	0.30	SW846 8260B		9/28/18 08:47	PDK	A
Methyl t-Butyl Ether	ND		ug/L	1.0	0.33	SW846 8260B		9/28/18 08:47	PDK	A
Methylene Chloride	ND		ug/L	1.0	0.45	SW846 8260B		9/28/18 08:47	PDK	A
Naphthalene	ND		ug/L	2.0	0.34	SW846 8260B		9/28/18 08:47	PDK	A
Styrene	ND		ug/L	1.0	0.24	SW846 8260B		9/28/18 08:47	PDK	A
Tetrachloroethene	ND		ug/L	1.0	0.35	SW846 8260B		9/28/18 08:47	PDK	A
Toluene	ND		ug/L	1.0	0.23	SW846 8260B		9/28/18 08:47	PDK	A
Total Xylenes	ND		ug/L	3.0	0.66	SW846 8260B		9/28/18 08:47	PDK	A
Trichloroethene	ND		ug/L	1.0	0.33	SW846 8260B		9/28/18 08:47	PDK	A
Trichlorofluoromethane	ND		ug/L	1.0	0.24	SW846 8260B		9/28/18 08:47	PDK	A
Vinyl Acetate	ND		ug/L	5.0	1.6	SW846 8260B		9/28/18 08:47	PDK	A
Vinyl Chloride	ND		ug/L	1.0	0.30	SW846 8260B		9/28/18 08:47	PDK	A
cis-1,2-Dichloroethene	ND		ug/L	1.0	0.32	SW846 8260B		9/28/18 08:47	PDK	A
cis-1,3-Dichloropropene	ND		ug/L	1.0	0.31	SW846 8260B		9/28/18 08:47	PDK	A
mp-Xylene	ND		ug/L	2.0	0.52	SW846 8260B		9/28/18 08:47	PDK	A
n-Butylbenzene	ND		ug/L	2.0	0.60	SW846 8260B		9/28/18 08:47	PDK	A
n-Propylbenzene	ND		ug/L	1.0	0.33	SW846 8260B		9/28/18 08:47	PDK	A
o-Chlorotoluene	ND		ug/L	1.0	0.26	SW846 8260B		9/28/18 08:47	PDK	A
o-Xylene	ND		ug/L	1.0	0.33	SW846 8260B		9/28/18 08:47	PDK	A
p-Chlorotoluene	ND		ug/L	1.0	0.33	SW846 8260B		9/28/18 08:47	PDK	A
p-Isopropyltoluene	ND		ug/L	1.0	0.32	SW846 8260B		9/28/18 08:47	PDK	A
sec-Butylbenzene	ND		ug/L	1.0	0.31	SW846 8260B		9/28/18 08:47	PDK	A
tert-Amyl methyl ether	ND		ug/L	1.0	0.20	SW846 8260B		9/28/18 08:47	PDK	A
tert-Butyl Alcohol	ND		ug/L	10.0	2.2	SW846 8260B		9/28/18 08:47	PDK	A
tert-Butylbenzene	ND		ug/L	2.0	0.44	SW846 8260B		9/28/18 08:47	PDK	A

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ANALYTICAL RESULTS

Workorder: 2339934 ALG005|LMC MRC SWS

Lab ID: **2339934018** Date Collected: 9/21/2018 11:18 Matrix: Water
Sample ID: **MRC-SW8A-S-DUP** Date Received: 9/21/2018 21:05

Parameters	Results	Flag	Units	RDL	MDL	Method	Prepared	By	Analyzed	By	Cntr
trans-1,2-Dichloroethene	ND		ug/L	1.0	0.26	SW846 8260B			9/28/18 08:47	PDK	A
trans-1,3-Dichloropropene	ND		ug/L	1.0	0.29	SW846 8260B			9/28/18 08:47	PDK	A
Surrogate Recoveries	*Results*	*Flag*	*Units*	*Limits*		*Method*	*Prepared*	*By*	*Analyzed*	*By*	*Cntr*
1,2-Dichloroethane-d4 (S)	120		%	62 - 133		SW846 8260B			9/28/18 08:47	PDK	A
4-Bromofluorobenzene (S)	108		%	79 - 114		SW846 8260B			9/28/18 08:47	PDK	A
Dibromofluoromethane (S)	111		%	78 - 116		SW846 8260B			9/28/18 08:47	PDK	A
Toluene-d8 (S)	104		%	76 - 127		SW846 8260B			9/28/18 08:47	PDK	A
SEMIVOLATILE SIM											
1,4-Dioxane	ND		ug/L	0.093	0.018	8270 SIM	9/28/18 13:30	DXL	9/29/18 18:50	CGS	C
IS_Naphthalene-d8	0.0		ug/L			8270 SIM	9/28/18 13:30	DXL	9/29/18 18:50	CGS	C
IS_Perylene-d12	0.0		ug/L			8270 SIM	9/28/18 13:30	DXL	9/29/18 18:50	CGS	C
Acenaphthene-d10	0.0		ug/L			8270 SIM	9/28/18 13:30	DXL	9/29/18 18:50	CGS	C
Phenanthrene-d10	0.0		ug/L			8270 SIM	9/28/18 13:30	DXL	9/29/18 18:50	CGS	C
Chrysene-d12	0.0		ug/L			8270 SIM	9/28/18 13:30	DXL	9/29/18 18:50	CGS	C
Surrogate Recoveries	*Results*	*Flag*	*Units*	*Limits*		*Method*	*Prepared*	*By*	*Analyzed*	*By*	*Cntr*
2-Methylnapthalene-d10 (S)	81.5		%	29 - 112		8270 SIM	9/28/18 13:30	DXL	9/29/18 18:50	CGS	C
Fluoranthene-d10 (S)	96.7		%	45 - 130		8270 SIM	9/28/18 13:30	DXL	9/29/18 18:50	CGS	C

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ANALYTICAL RESULTS

Workorder: 2339934 ALG005|LMC MRC SWS

Lab ID: **2339934019** Date Collected: 9/21/2018 21:05 Matrix: Water
Sample ID: **TB092118** Date Received: 9/21/2018 21:05

Parameters	Results	Flag	Units	RDL	MDL	Method	Prepared By	Analyzed	By	Cntr
VOLATILE ORGANICS										
1,1,1,2-Tetrachloroethane	ND		ug/L	1.0	0.35	SW846 8260B		9/28/18 01:09	PDK	A
1,1,1-Trichloroethane	ND		ug/L	1.0	0.22	SW846 8260B		9/28/18 01:09	PDK	A
1,1,2,2-Tetrachloroethane	ND		ug/L	1.0	0.34	SW846 8260B		9/28/18 01:09	PDK	A
1,1,2-Trichloroethane	ND		ug/L	1.0	0.33	SW846 8260B		9/28/18 01:09	PDK	A
1,1-Dichloroethane	ND		ug/L	1.0	0.28	SW846 8260B		9/28/18 01:09	PDK	A
1,1-Dichloroethene	ND		ug/L	1.0	0.29	SW846 8260B		9/28/18 01:09	PDK	A
1,2,3-Trichlorobenzene	ND		ug/L	2.0	0.93	SW846 8260B		9/28/18 01:09	PDK	A
1,2,3-Trichloropropane	ND		ug/L	2.0	0.60	SW846 8260B		9/28/18 01:09	PDK	A
1,2,4-Trichlorobenzene	ND		ug/L	2.0	0.82	SW846 8260B		9/28/18 01:09	PDK	A
1,2,4-Trimethylbenzene	ND		ug/L	1.0	0.25	SW846 8260B		9/28/18 01:09	PDK	A
1,2-Dibromo-3-chloropropane	ND		ug/L	7.0	1.5	SW846 8260B		9/28/18 01:09	PDK	A
1,2-Dibromoethane	ND		ug/L	1.0	0.28	SW846 8260B		9/28/18 01:09	PDK	A
1,2-Dichlorobenzene	ND		ug/L	1.0	0.38	SW846 8260B		9/28/18 01:09	PDK	A
1,2-Dichloroethane	ND		ug/L	1.0	0.32	SW846 8260B		9/28/18 01:09	PDK	A
1,2-Dichloroethene, Total	ND		ug/L	2.0	0.45	SW846 8260B		9/28/18 01:09	PDK	A
1,2-Dichloropropane	ND		ug/L	1.0	0.24	SW846 8260B		9/28/18 01:09	PDK	A
1,3-Dichlorobenzene	ND		ug/L	1.0	0.25	SW846 8260B		9/28/18 01:09	PDK	A
1,3-Dichloropropane	ND		ug/L	1.0	0.27	SW846 8260B		9/28/18 01:09	PDK	A
1,3-Dichloropropene, Total	ND		ug/L	2.0	0.47	SW846 8260B		9/28/18 01:09	PDK	A
1,4-Dichlorobenzene	ND		ug/L	1.0	0.27	SW846 8260B		9/28/18 01:09	PDK	A
2,2-Dichloropropane	ND		ug/L	1.0	0.32	SW846 8260B		9/28/18 01:09	PDK	A
2-Butanone	ND		ug/L	10.0	1.8	SW846 8260B		9/28/18 01:09	PDK	A
2-Chloroethylvinyl ether	ND		ug/L	2.0	0.38	SW846 8260B		9/28/18 01:09	PDK	A
2-Hexanone	ND		ug/L	5.0	1.3	SW846 8260B		9/28/18 01:09	PDK	A
4-Methyl-2-Pentanone(MIBK)	ND		ug/L	5.0	1.5	SW846 8260B		9/28/18 01:09	PDK	A
Acetone	ND		ug/L	10.0	3.1	SW846 8260B		9/28/18 01:09	PDK	A
Benzene	ND		ug/L	1.0	0.23	SW846 8260B		9/28/18 01:09	PDK	A
Bromobenzene	ND		ug/L	1.0	0.32	SW846 8260B		9/28/18 01:09	PDK	A
Bromochloromethane	ND		ug/L	1.0	0.32	SW846 8260B		9/28/18 01:09	PDK	A
Bromodichloromethane	ND		ug/L	1.0	0.27	SW846 8260B		9/28/18 01:09	PDK	A
Bromoform	ND		ug/L	1.0	0.40	SW846 8260B		9/28/18 01:09	PDK	A
Bromomethane	ND		ug/L	1.0	0.39	SW846 8260B		9/28/18 01:09	PDK	A
Carbon Disulfide	ND		ug/L	1.0	0.23	SW846 8260B		9/28/18 01:09	PDK	A
Carbon Tetrachloride	ND		ug/L	1.0	0.31	SW846 8260B		9/28/18 01:09	PDK	A
Chlorobenzene	ND		ug/L	1.0	0.19	SW846 8260B		9/28/18 01:09	PDK	A
Chlorodibromomethane	ND		ug/L	1.0	0.45	SW846 8260B		9/28/18 01:09	PDK	A

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ANALYTICAL RESULTS

Workorder: 2339934 ALG005|LMC MRC SWS

Lab ID: **2339934019** Date Collected: 9/21/2018 21:05 Matrix: Water
Sample ID: **TB092118** Date Received: 9/21/2018 21:05

Parameters	Results	Flag	Units	RDL	MDL	Method	Prepared By	Analyzed	By	Cntr
Chloroethane	ND		ug/L	1.0	0.33	SW846 8260B		9/28/18 01:09	PDK	A
Chloroform	ND		ug/L	1.0	0.21	SW846 8260B		9/28/18 01:09	PDK	A
Chloromethane	ND		ug/L	1.0	0.31	SW846 8260B		9/28/18 01:09	PDK	A
Cyclohexane	ND		ug/L	1.0	0.29	SW846 8260B		9/28/18 01:09	PDK	A
Dibromomethane	ND		ug/L	1.0	0.31	SW846 8260B		9/28/18 01:09	PDK	A
Dichlorodifluoromethane	ND		ug/L	1.0	0.33	SW846 8260B		9/28/18 01:09	PDK	A
Diisopropyl ether	ND		ug/L	1.0	0.25	SW846 8260B		9/28/18 01:09	PDK	A
Ethyl tert-butyl ether	ND		ug/L	1.0	0.19	SW846 8260B		9/28/18 01:09	PDK	A
Ethylbenzene	ND		ug/L	1.0	0.34	SW846 8260B		9/28/18 01:09	PDK	A
Freon 113	ND		ug/L	1.0	0.26	SW846 8260B		9/28/18 01:09	PDK	A
Hexachlorobutadiene	ND		ug/L	5.0	1.0	SW846 8260B		9/28/18 01:09	PDK	A
Isopropylbenzene	ND		ug/L	1.0	0.22	SW846 8260B		9/28/18 01:09	PDK	A
Methyl acetate	ND		ug/L	2.0	0.32	SW846 8260B		9/28/18 01:09	PDK	A
Methyl cyclohexane	ND		ug/L	1.0	0.30	SW846 8260B		9/28/18 01:09	PDK	A
Methyl t-Butyl Ether	ND		ug/L	1.0	0.33	SW846 8260B		9/28/18 01:09	PDK	A
Methylene Chloride	ND		ug/L	1.0	0.45	SW846 8260B		9/28/18 01:09	PDK	A
Naphthalene	ND		ug/L	2.0	0.34	SW846 8260B		9/28/18 01:09	PDK	A
Styrene	ND		ug/L	1.0	0.24	SW846 8260B		9/28/18 01:09	PDK	A
Tetrachloroethene	ND		ug/L	1.0	0.35	SW846 8260B		9/28/18 01:09	PDK	A
Toluene	ND		ug/L	1.0	0.23	SW846 8260B		9/28/18 01:09	PDK	A
Total Xylenes	ND		ug/L	3.0	0.66	SW846 8260B		9/28/18 01:09	PDK	A
Trichloroethene	ND		ug/L	1.0	0.33	SW846 8260B		9/28/18 01:09	PDK	A
Trichlorofluoromethane	ND		ug/L	1.0	0.24	SW846 8260B		9/28/18 01:09	PDK	A
Vinyl Acetate	ND		ug/L	5.0	1.6	SW846 8260B		9/28/18 01:09	PDK	A
Vinyl Chloride	ND		ug/L	1.0	0.30	SW846 8260B		9/28/18 01:09	PDK	A
cis-1,2-Dichloroethene	ND		ug/L	1.0	0.32	SW846 8260B		9/28/18 01:09	PDK	A
cis-1,3-Dichloropropene	ND		ug/L	1.0	0.31	SW846 8260B		9/28/18 01:09	PDK	A
mp-Xylene	ND		ug/L	2.0	0.52	SW846 8260B		9/28/18 01:09	PDK	A
n-Butylbenzene	ND		ug/L	2.0	0.60	SW846 8260B		9/28/18 01:09	PDK	A
n-Propylbenzene	ND		ug/L	1.0	0.33	SW846 8260B		9/28/18 01:09	PDK	A
o-Chlorotoluene	ND		ug/L	1.0	0.26	SW846 8260B		9/28/18 01:09	PDK	A
o-Xylene	ND		ug/L	1.0	0.33	SW846 8260B		9/28/18 01:09	PDK	A
p-Chlorotoluene	ND		ug/L	1.0	0.33	SW846 8260B		9/28/18 01:09	PDK	A
p-Isopropyltoluene	ND		ug/L	1.0	0.32	SW846 8260B		9/28/18 01:09	PDK	A
sec-Butylbenzene	ND		ug/L	1.0	0.31	SW846 8260B		9/28/18 01:09	PDK	A
tert-Amyl methyl ether	ND		ug/L	1.0	0.20	SW846 8260B		9/28/18 01:09	PDK	A
tert-Butyl Alcohol	ND		ug/L	10.0	2.2	SW846 8260B		9/28/18 01:09	PDK	A
tert-Butylbenzene	ND		ug/L	2.0	0.44	SW846 8260B		9/28/18 01:09	PDK	A

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ANALYTICAL RESULTS

Workorder: 2339934 ALG005|LMC MRC SWS

Lab ID: **2339934019** Date Collected: 9/21/2018 21:05 Matrix: Water
Sample ID: **TB092118** Date Received: 9/21/2018 21:05

Parameters	Results	Flag	Units	RDL	MDL	Method	Prepared	By	Analyzed	By	Cntr
trans-1,2-Dichloroethene	ND		ug/L	1.0	0.26	SW846 8260B			9/28/18 01:09	PDK	A
trans-1,3-Dichloropropene	ND		ug/L	1.0	0.29	SW846 8260B			9/28/18 01:09	PDK	A
Surrogate Recoveries	*Results*	*Flag*	*Units*	*Limits*		*Method*	*Prepared*	*By*	*Analyzed*	*By*	*Cntr*
1,2-Dichloroethane-d4 (S)	116		%	62 - 133		SW846 8260B			9/28/18 01:09	PDK	A
4-Bromofluorobenzene (S)	109		%	79 - 114		SW846 8260B			9/28/18 01:09	PDK	A
Dibromofluoromethane (S)	109		%	78 - 116		SW846 8260B			9/28/18 01:09	PDK	A
Toluene-d8 (S)	105		%	76 - 127		SW846 8260B			9/28/18 01:09	PDK	A

Vanessa N. Badman
Mrs. Vanessa N Badman
Project Coordinator

ANALYTICAL RESULTS

Workorder: 2339934 ALG005|LMC MRC SWS

PARAMETER QUALIFIERS

Lab ID	#	Sample ID	Analytical Method	Analyte
2339934001	1	MRC-SW1A	SW846 8260B	Naphthalene
The QC sample type LCS for method SW846 8260B was outside the control limits for the analyte Naphthalene. The % Recovery was reported as 51.7 and the control limits were 56 to 134.				
2339934002	1	MRC-SW2A	SW846 8260B	Bromochloromethane
The QC sample type MS for method SW846 8260B was outside the control limits for the analyte Bromochloromethane. The % Recovery was reported as 122 and the control limits were 73 to 117.				
2339934002	2	MRC-SW2A	SW846 8260B	Bromochloromethane
The QC sample type MSD for method SW846 8260B was outside the control limits for the analyte Bromochloromethane. The % Recovery was reported as 119 and the control limits were 73 to 117.				
2339934002	3	MRC-SW2A	SW846 8260B	Bromoform
The QC sample type MS for method SW846 8260B was outside the control limits for the analyte Bromoform. The % Recovery was reported as 66.4 and the control limits were 70 to 123.				
2339934002	4	MRC-SW2A	SW846 8260B	Bromoform
The QC sample type MSD for method SW846 8260B was outside the control limits for the analyte Bromoform. The % Recovery was reported as 68.2 and the control limits were 70 to 123.				
2339934002	5	MRC-SW2A	SW846 8260B	Naphthalene
The QC sample type LCS for method SW846 8260B was outside the control limits for the analyte Naphthalene. The % Recovery was reported as 51.7 and the control limits were 56 to 134.				
2339934002	6	MRC-SW2A	SW846 8260B	Naphthalene
The QC sample type MS for method SW846 8260B was outside the control limits for the analyte Naphthalene. The % Recovery was reported as 38.3 and the control limits were 56 to 134.				
2339934002	7	MRC-SW2A	SW846 8260B	Naphthalene
The QC sample type MSD for method SW846 8260B was outside the control limits for the analyte Naphthalene. The % Recovery was reported as 39.9 and the control limits were 56 to 134.				
2339934005	1	MRC-SW5B-S	SW846 8260B	Freon 113
The QC sample type MS for method SW846 8260B was outside the control limits for the analyte Freon 113. The % Recovery was reported as 134 and the control limits were 50 to 130.				
2339934005	2	MRC-SW5B-S	SW846 8260B	Freon 113
The QC sample type MSD for method SW846 8260B was outside the control limits for the analyte Freon 113. The % Recovery was reported as 137 and the control limits were 50 to 130.				
2339934005	3	MRC-SW5B-S	SW846 8260B	Cyclohexane
The QC sample type MS for method SW846 8260B was outside the control limits for the analyte Cyclohexane. The % Recovery was reported as 135 and the control limits were 66 to 130.				
2339934005	4	MRC-SW5B-S	SW846 8260B	Cyclohexane
The QC sample type MSD for method SW846 8260B was outside the control limits for the analyte Cyclohexane. The % Recovery was reported as 136 and the control limits were 66 to 130.				
2339934005	5	MRC-SW5B-S	SW846 8260B	Methyl cyclohexane
The QC sample type MS for method SW846 8260B was outside the control limits for the analyte Methyl cyclohexane. The % Recovery was reported as 144 and the control limits were 70 to 130.				
2339934005	6	MRC-SW5B-S	SW846 8260B	Methyl cyclohexane
The QC sample type MSD for method SW846 8260B was outside the control limits for the analyte Methyl cyclohexane. The % Recovery was reported as 148 and the control limits were 70 to 130.				

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ANALYTICAL RESULTS

Workorder: 2339934 ALG005|LMC MRC SWS

2339934013	1	MRC-SW9B-S	SW846 8260B	4-Bromofluorobenzene

The surrogate 4-Bromofluorobenzene for method SW846 8260B was outside of control limits. The % Recovery was reported as 123 and the control limits were 79 to 114. This result was reported at a dilution of 1.

2339934014	1	MRC-SW13A-S	SW846 8260B	Dibromofluoromethane

The surrogate Dibromofluoromethane for method SW846 8260B was outside of control limits. The % Recovery was reported as 117 and the control limits were 78 to 116. This result was reported at a dilution of 1.

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ANALYSIS - PREP METHOD CROSS REFERENCE TABLE

Workorder: 2339934 ALG005|LMC MRC SWS

Lab ID	Sample ID	Analysis Method	Prep Method
2339934001	MRC-SW1A	8270 SIM	SW846 3510C
2339934001	MRC-SW1A	SW846 8260B	
2339934002	MRC-SW2A	8270 SIM	SW846 3510C
2339934002	MRC-SW2A	SW846 8260B	
2339934003	MRC-SW5A1-S	SW846 8260B	
2339934004	MRC-SW5A2-S	SW846 8260B	
2339934005	MRC-SW5B-S	SW846 8260B	
2339934006	MRC-SW6A-S	8270 SIM	SW846 3510C
2339934006	MRC-SW6A-S	SW846 8260B	
2339934007	MRC-SW6B-S	8270 SIM	SW846 3510C
2339934007	MRC-SW6B-S	SW846 8260B	
2339934008	MRC-SW7A-S	SW846 8260B	
2339934009	MRC-SW7B-S	SW846 8260B	
2339934010	MRC-SW8A-S	8270 SIM	SW846 3510C
2339934010	MRC-SW8A-S	SW846 8260B	
2339934011	MRC-SW8B-S	8270 SIM	SW846 3510C
2339934011	MRC-SW8B-S	SW846 8260B	
2339934012	MRC-SW9A-S	SW846 8260B	
2339934013	MRC-SW9B-S	SW846 8260B	
2339934014	MRC-SW13A-S	SW846 8260B	
2339934015	MRC-SW15A-S	SW846 8260B	
2339934016	MRC-SW16A-S	SW846 8260B	
2339934017	MRC-17A	8270 SIM	SW846 3510C
2339934017	MRC-17A	SW846 8260B	
2339934018	MRC-SW8A-S-DUP	8270 SIM	SW846 3510C
2339934018	MRC-SW8A-S-DUP	SW846 8260B	
2339934019	TB092118	SW846 8260B	

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QUALITY CONTROL DATA

Workorder: 2339934 ALG005|LMC MRC SWS

QC Batch: EXTR/53889 **Analysis Method:** 8270 SIM

QC Batch Method: SW846 3510C

Associated Lab Samples: 2339934001, 2339934002, 2339934006, 2339934007, 2339934010, 2339934011, 2339934017, 2339934018

METHOD BLANK: 2818301

Parameter	Blank Result	Units	Reporting Limit
1,4-Dioxane	ND	ug/L	0.10
2-Methylnapthalene-d10 (S)	70.5	%	29 - 112
Fluoranthene-d10 (S)	85.9	%	45 - 130

LABORATORY CONTROL SAMPLE: 2818302

Parameter	LCS % Rec	Units	Spike Conc.	LCS Result	% Rec Limit
1,4-Dioxane	44.6	ug/L	1	0.45	22 - 75
2-Methylnapthalene-d10 (S)	80.3	%			29 - 112
Fluoranthene-d10 (S)	94.3	%			45 - 130

MATRIX SPIKE: 2818303 DUPLICATE: 2818304 ORIGINAL: 2339934002

****NOTE - The Original Result shown below is a raw result and is only used for the purpose of calculating Matrix Spike percent recoveries. This result is not a final value and cannot be used as such.

Parameter	Original Result	Units	Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limit	RPD	Max RPD
1,4-Dioxane	0	ug/L	.93	.39637	.35087	42.6	37.7	22 - 75	12.2	30
2-Methylnapthalene-d10 (S)	80.8	%				80.8	74.9	29 - 112		
Fluoranthene-d10 (S)	95.2	%				95.2	92.2	45 - 130		

MATRIX SPIKE: 2818305 DUPLICATE: 2818306 ORIGINAL: 2340307002

****NOTE - The Original Result shown below is a raw result and is only used for the purpose of calculating Matrix Spike percent recoveries. This result is not a final value and cannot be used as such.

Parameter	Original Result	Units	Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limit	RPD	Max RPD
1,4-Dioxane	1.6386	ug/L	.93	2.16947	2.4339	57.1	85.9*	22 - 75	11.5	30
2-Methylnapthalene-d10 (S)	83.1	%				83.1	85.4	29 - 112		
Fluoranthene-d10 (S)	97.3	%				97.3	102	45 - 130		

QUALITY CONTROL DATA

Workorder: 2339934 ALG005|LMC MRC SWS

QC Batch: VOMS/48109 **Analysis Method:** SW846 8260B

QC Batch Method: SW846 8260B

Associated Lab Samples: 2339934001, 2339934002

METHOD BLANK: 2816952

Parameter	Blank Result	Units	Reporting Limit
1,1,1,2-Tetrachloroethane	ND	ug/L	1.0
1,1,1-Trichloroethane	ND	ug/L	1.0
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0
1,1,2-Trichloroethane	ND	ug/L	1.0
1,1-Dichloroethane	ND	ug/L	1.0
1,1-Dichloroethene	ND	ug/L	1.0
1,2,3-Trichlorobenzene	ND	ug/L	2.0
1,2,3-Trichloropropane	ND	ug/L	2.0
1,2,4-Trichlorobenzene	ND	ug/L	2.0
1,2,4-Trimethylbenzene	ND	ug/L	1.0
1,2-Dibromo-3-chloropropane	ND	ug/L	7.0
1,2-Dibromoethane	ND	ug/L	1.0
1,2-Dichlorobenzene	ND	ug/L	1.0
1,2-Dichloroethane	ND	ug/L	1.0
1,2-Dichloroethene, Total	ND	ug/L	2.0
1,2-Dichloropropane	ND	ug/L	1.0
1,3-Dichlorobenzene	ND	ug/L	1.0
1,3-Dichloropropane	ND	ug/L	1.0
1,3-Dichloropropene, Total	ND	ug/L	2.0
1,4-Dichlorobenzene	ND	ug/L	1.0
2,2-Dichloropropane	ND	ug/L	1.0
2-Butanone	ND	ug/L	10.0
2-Chloroethylvinyl ether	ND	ug/L	2.0
2-Hexanone	ND	ug/L	5.0
4-Methyl-2-Pentanone(MIBK)	ND	ug/L	5.0
Acetone	ND	ug/L	10.0
Benzene	ND	ug/L	1.0
Bromobenzene	ND	ug/L	1.0
Bromochloromethane	ND	ug/L	1.0
Bromodichloromethane	ND	ug/L	1.0
Bromoform	ND	ug/L	1.0
Bromomethane	ND	ug/L	1.0
Carbon Disulfide	ND	ug/L	1.0
Carbon Tetrachloride	ND	ug/L	1.0
Chlorobenzene	ND	ug/L	1.0
Chlorodibromomethane	ND	ug/L	1.0
Chloroethane	ND	ug/L	1.0

QUALITY CONTROL DATA

Workorder: 2339934 ALG005|LMC MRC SWS

Chloroform	0.53J	ug/L	1.0
Chloromethane	ND	ug/L	1.0
Cyclohexane	ND	ug/L	1.0
Dibromomethane	ND	ug/L	1.0
Dichlorodifluoromethane	ND	ug/L	1.0
Diisopropyl ether	ND	ug/L	1.0
Ethyl tert-butyl ether	ND	ug/L	1.0
Ethylbenzene	ND	ug/L	1.0
Freon 113	ND	ug/L	1.0
Hexachlorobutadiene	1.3J	ug/L	5.0
Isopropylbenzene	ND	ug/L	1.0
Methyl acetate	ND	ug/L	2.0
Methyl cyclohexane	ND	ug/L	1.0
Methyl t-Butyl Ether	ND	ug/L	1.0
Methylene Chloride	ND	ug/L	1.0
Naphthalene	ND	ug/L	2.0
Styrene	ND	ug/L	1.0
Tetrachloroethene	ND	ug/L	1.0
Toluene	ND	ug/L	1.0
Total Xylenes	ND	ug/L	3.0
Trichloroethene	ND	ug/L	1.0
Trichlorofluoromethane	ND	ug/L	1.0
Vinyl Acetate	ND	ug/L	5.0
Vinyl Chloride	ND	ug/L	1.0
cis-1,2-Dichloroethene	ND	ug/L	1.0
cis-1,3-Dichloropropene	ND	ug/L	1.0
mp-Xylene	ND	ug/L	2.0
n-Butylbenzene	ND	ug/L	2.0
n-Propylbenzene	ND	ug/L	1.0
o-Chlorotoluene	ND	ug/L	1.0
o-Xylene	ND	ug/L	1.0
p-Chlorotoluene	ND	ug/L	1.0
p-Isopropyltoluene	ND	ug/L	1.0
sec-Butylbenzene	ND	ug/L	1.0
tert-Amyl methyl ether	ND	ug/L	1.0
tert-Butyl Alcohol	ND	ug/L	10.0
tert-Butylbenzene	ND	ug/L	2.0
trans-1,2-Dichloroethene	ND	ug/L	1.0
trans-1,3-Dichloropropene	ND	ug/L	1.0
1,2-Dichloroethane-d4 (S)	92.6	%	62 - 133
4-Bromofluorobenzene (S)	98.1	%	79 - 114
Dibromofluoromethane (S)	92.9	%	78 - 116
Toluene-d8 (S)	93.1	%	76 - 127

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QUALITY CONTROL DATA

Workorder: 2339934 ALG005|LMC MRC SWS

LABORATORY CONTROL SAMPLE: 2816953

Parameter	LCS % Rec	Units	Spike Conc.	LCS Result	% Rec Limit
1,1,1,2-Tetrachloroethane	111	ug/L	20	22.3	78 - 121
1,1,1-Trichloroethane	108	ug/L	20	21.7	66 - 130
1,1,2,2-Tetrachloroethane	91.9	ug/L	20	18.4	74 - 135
1,1,2-Trichloroethane	101	ug/L	20	20.3	82 - 126
1,1-Dichloroethane	98.8	ug/L	20	19.8	78 - 124
1,1-Dichloroethene	102	ug/L	20	20.4	63 - 128
1,2,3-Trichlorobenzene	80.9	ug/L	20	16.2	61 - 126
1,2,3-Trichloropropane	97.1	ug/L	20	19.4	75 - 132
1,2,4-Trichlorobenzene	88.7	ug/L	20	17.7	67 - 123
1,2,4-Trimethylbenzene	87.6	ug/L	20	17.5	76 - 125
1,2-Dibromo-3-chloropropane	81.5	ug/L	20	16.3	59 - 133
1,2-Dibromoethane	112	ug/L	20	22.5	80 - 124
1,2-Dichlorobenzene	93	ug/L	20	18.6	82 - 118
1,2-Dichloroethane	95	ug/L	20	19.0	70 - 133
1,2-Dichloroethene, Total	103	ug/L	40	41.0	78 - 125
1,2-Dichloropropane	102	ug/L	20	20.4	81 - 127
1,3-Dichlorobenzene	96.7	ug/L	20	19.3	81 - 118
1,3-Dichloropropane	96.9	ug/L	20	19.4	82 - 126
1,3-Dichloropropene, Total	99.4	ug/L	40	39.8	80 - 123
1,4-Dichlorobenzene	93.7	ug/L	20	18.7	81 - 116
2,2-Dichloropropane	112	ug/L	20	22.4	64 - 129
2-Butanone	127	ug/L	100	127	50 - 152
2-Chloroethylvinyl ether	96	ug/L	20	19.2	1 - 150
2-Hexanone	87.3	ug/L	100	87.3	65 - 154
4-Methyl-2-Pentanone(MIBK)	89.4	ug/L	100	89.4	71 - 146
Acetone	114	ug/L	100	114	40 - 151
Benzene	100	ug/L	20	20.0	80 - 124
Bromobenzene	102	ug/L	20	20.3	81 - 119
Bromochloromethane	115	ug/L	20	23.0	73 - 117
Bromodichloromethane	97.9	ug/L	20	19.6	79 - 126
Bromoform	75.4	ug/L	20	15.1	70 - 123
Bromomethane	63.7	ug/L	20	12.7	45 - 148
Carbon Disulfide	110	ug/L	20	22.0	57 - 131
Carbon Tetrachloride	109	ug/L	20	21.8	62 - 132
Chlorobenzene	100	ug/L	20	20.0	85 - 117
Chlorodibromomethane	94.6	ug/L	20	18.9	77 - 122
Chloroethane	82.4	ug/L	20	16.5	51 - 142
Chloroform	104	ug/L	20	20.8	78 - 122
Chloromethane	72.3	ug/L	20	14.5	38 - 156
Cyclohexane	113	ug/L	20	22.6	66 - 130
Dibromomethane	106	ug/L	20	21.3	81 - 125

QUALITY CONTROL DATA

Workorder: 2339934 ALG005|LMC MRC SWS

Dichlorodifluoromethane	71.1	ug/L	20	14.2	17 - 166
Diisopropyl ether	106	ug/L	20	21.2	74 - 131
Ethyl tert-butyl ether	102	ug/L	20	20.4	75 - 123
Ethylbenzene	105	ug/L	20	21.0	80 - 124
Freon 113	107	ug/L	20	21.4	50 - 130
Hexachlorobutadiene	128	ug/L	20	25.6	55 - 128
Isopropylbenzene	76.9	ug/L	20	15.4	73 - 129
Methyl acetate	128	ug/L	20	25.5	70 - 130
Methyl cyclohexane	108	ug/L	20	21.7	70 - 130
Methyl t-Butyl Ether	108	ug/L	20	21.7	69 - 115
Methylene Chloride	113	ug/L	20	22.7	76 - 121
Naphthalene	51.7*	ug/L	20	10.3	56 - 134
Styrene	82.7	ug/L	20	16.5	79 - 123
Tetrachloroethene	112	ug/L	20	22.3	72 - 124
Toluene	118	ug/L	20	23.7	80 - 125
Total Xylenes	107	ug/L	60	63.9	79 - 125
Trichloroethene	108	ug/L	20	21.6	77 - 124
Trichlorofluoromethane	91.3	ug/L	20	18.3	38 - 123
Vinyl Acetate	104	ug/L	20	20.8	58 - 136
Vinyl Chloride	76.5	ug/L	20	15.3	27 - 138
cis-1,2-Dichloroethene	99.4	ug/L	20	19.9	78 - 125
cis-1,3-Dichloropropene	101	ug/L	20	20.2	81 - 121
mp-Xylene	110	ug/L	40	44.0	79 - 125
n-Butylbenzene	102	ug/L	20	20.5	71 - 130
n-Propylbenzene	89.8	ug/L	20	18.0	74 - 122
o-Chlorotoluene	97.2	ug/L	20	19.4	78 - 126
o-Xylene	100	ug/L	20	20.0	79 - 124
p-Chlorotoluene	96.7	ug/L	20	19.3	78 - 125
p-Isopropyltoluene	100	ug/L	20	20.1	72 - 123
sec-Butylbenzene	88.8	ug/L	20	17.8	72 - 127
tert-Amyl methyl ether	104	ug/L	20	20.8	75 - 121
tert-Butyl Alcohol	115	ug/L	100	115	17 - 168
tert-Butylbenzene	108	ug/L	20	21.6	72 - 124
trans-1,2-Dichloroethene	106	ug/L	20	21.1	71 - 122
trans-1,3-Dichloropropene	97.6	ug/L	20	19.5	78 - 126
1,2-Dichloroethane-d4 (S)	90	%			62 - 133
4-Bromofluorobenzene (S)	97.8	%			79 - 114
Dibromofluoromethane (S)	95.6	%			78 - 116
Toluene-d8 (S)	94.1	%			76 - 127

MATRIX SPIKE: 2817179 DUPLICATE: 2817180 ORIGINAL: 2339934002

****NOTE - The Original Result shown below is a raw result and is only used for the purpose of calculating Matrix Spike percent recoveries. This result is not a final value and cannot be used as such.

Parameter	Original Result	Units	Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limit	RPD	Max RPD

QUALITY CONTROL DATA

Workorder: 2339934 ALG005|LMC MRC SWS

1,1,1,2-Tetrachloroethane	0	ug/L	20	22.6566	22.4302	113	112	78 - 121	1	16
1,1,1-Trichloroethane	0	ug/L	20	24.6532	24.2256	123	121	66 - 130	1.75	20
1,1,2,2-Tetrachloroethane	0	ug/L	20	19.1444	18.1332	95.7	90.7	74 - 135	5.43	16
1,1,2-Trichloroethane	0	ug/L	20	20.8032	19.2304	104	96.2	82 - 126	7.86	15
1,1-Dichloroethane	0	ug/L	20	21.6716	21.397	108	107	78 - 124	1.28	15
1,1-Dichloroethene	0	ug/L	20	23.5943	22.9652	118	115	63 - 128	2.7	21
1,2,3-Trichlorobenzene	0	ug/L	20	13.5349	13.506	67.7	67.5	61 - 126	.21	36
1,2,3-Trichloropropane	0	ug/L	20	20.2938	19.8446	101	99.2	75 - 132	2.24	19
1,2,4-Trichlorobenzene	0	ug/L	20	14.4881	14.7084	72.4	73.5	67 - 123	1.51	22
1,2,4-Trimethylbenzene	0	ug/L	20	17.1744	17.2836	85.9	86.4	76 - 125	.63	24
1,2-Dibromo-3-chloropropane	0	ug/L	20	15.6807	15.5616	78.4	77.8	59 - 133	.76	26
1,2-Dibromoethane	0	ug/L	20	22.5019	21.8259	113	109	80 - 124	3.05	19
1,2-Dichlorobenzene	0	ug/L	20	18.2308	17.9988	91.2	90	82 - 118	1.28	15
1,2-Dichloroethane	0	ug/L	20	20.8119	20.8014	104	104	70 - 133	.05	19
1,2-Dichloroethene, Total	0	ug/L	40	44.054	44.2537	110	111	78 - 125	.45	40
1,2-Dichloropropane	0	ug/L	20	21.312	20.9134	107	105	81 - 127	1.89	15
1,3-Dichlorobenzene	0	ug/L	20	18.8735	18.864	94.4	94.3	81 - 118	.05	16
1,3-Dichloropropane	0	ug/L	20	19.9689	19.0014	99.8	95	82 - 126	4.97	15
1,3-Dichloropropene, Total	0	ug/L	40	37.7652	36.5499	94.4	91.4	80 - 123	3.27	16
1,4-Dichlorobenzene	0	ug/L	20	18.2298	18.4839	91.1	92.4	81 - 116	1.38	15
2,2-Dichloropropane	0	ug/L	20	21.1795	20.9016	106	105	64 - 129	1.32	18
2-Butanone	0	ug/L	100	128.556	129.521	129	130	50 - 152	.75	16
2-Chloroethylvinyl ether	0	ug/L	20	.20583	.21165	1.03	1.06	1 - 150	2.79	40
2-Hexanone	0	ug/L	100	86.8005	84.4998	86.8	84.5	65 - 154	2.69	17
4-Methyl-2-Pentanone(MIBK)	0	ug/L	100	92.6723	86.8649	92.7	86.9	71 - 146	6.47	16
Acetone	0	ug/L	100	117.281	119.01	117	119	40 - 151	1.46	40
Benzene	0	ug/L	20	21.7422	21.3508	109	107	80 - 124	1.82	26
Bromobenzene	0	ug/L	20	20.0549	20.1091	100	101	81 - 119	.27	17
Bromochloromethane	0	ug/L	20	24.4687	23.7241	122*	119*	73 - 117	3.09	19
Bromodichloromethane	0	ug/L	20	20.7176	20.289	104	101	79 - 126	2.09	16
Bromoform	0	ug/L	20	13.2792	13.6308	66.4*	68.2*	70 - 123	2.61	16
Bromomethane	.58482	ug/L	20	14.292	15.4174	68.5	74.2	45 - 148	7.58	26
Carbon Disulfide	0	ug/L	20	21.3944	21.2942	107	106	57 - 131	.47	28
Carbon Tetrachloride	0	ug/L	20	25.0476	24.7761	125	124	62 - 132	1.09	17
Chlorobenzene	0	ug/L	20	20.6402	20.1685	103	101	85 - 117	2.31	15
Chlorodibromomethane	0	ug/L	20	18.4498	17.8884	92.2	89.4	77 - 122	3.09	15
Chloroethane	0	ug/L	20	20.2075	19.6842	101	98.4	51 - 142	2.62	24
Chloroform	0	ug/L	20	22.6972	21.8625	113	109	78 - 122	3.75	16
Chloromethane	0	ug/L	20	15.2776	15.1079	76.4	75.5	38 - 156	1.12	27
Cyclohexane	0	ug/L	20	24.6047	24.4773	123	122	66 - 130	.52	20
Dibromomethane	0	ug/L	20	22.8756	21.6347	114	108	81 - 125	5.58	16
Dichlorodifluoromethane	0	ug/L	20	16.9144	16.3811	84.6	81.9	17 - 166	3.2	24
Diisopropyl ether	0	ug/L	20	20.9796	21.5894	105	108	74 - 131	2.86	15
Ethyl tert-butyl ether	0	ug/L	20	19.5563	20.0823	97.8	100	75 - 123	2.65	16
Ethylbenzene	0	ug/L	20	22.0186	21.6204	110	108	80 - 124	1.82	19
Freon 113	0	ug/L	20	23.994	23.8576	120	119	50 - 130	.57	26

QUALITY CONTROL DATA

Workorder: 2339934 ALG005|LMC MRC SWS

Hexachlorobutadiene	0	ug/L	20	20.5291	21.5417	103	108	55 - 128	4.81	35
Isopropylbenzene	0	ug/L	20	15.5088	15.5239	77.5	77.6	73 - 129	.1	18
Methyl acetate	0	ug/L	20	21.6622	21.1943	108	106	70 - 130	2.18	18
Methyl cyclohexane	0	ug/L	20	22.5168	21.5421	113	108	70 - 130	4.42	18
Methyl t-Butyl Ether	0	ug/L	20	21.1542	21.5966	106	108	69 - 115	2.07	20
Methylene Chloride	0	ug/L	20	24.1524	24.1275	121	121	76 - 121	.1	17
Naphthalene	0	ug/L	20	7.66961	7.98665	38.3*	39.9*	56 - 134	4.05	40
Styrene	0	ug/L	20	16.0844	16.1837	80.4	80.9	79 - 123	.62	16
Tetrachloroethene	0	ug/L	20	22.9802	21.8193	115	109	72 - 124	5.18	38
Toluene	0	ug/L	20	22.3594	21.708	112	109	80 - 125	2.96	20
Total Xylenes	0	ug/L	60	63.7249	63.4349	106	106	79 - 125	.46	35
Trichloroethene	0	ug/L	20	23.7657	23.699	119	118	77 - 124	.28	18
Trichlorofluoromethane	0	ug/L	20	22.4517	22.8023	112	114	38 - 123	1.55	23
Vinyl Acetate	0	ug/L	20	19.0793	17.396	95.4	87	58 - 136	9.23	17
Vinyl Chloride	0	ug/L	20	17.2302	17.2094	86.2	86	27 - 138	.12	40
cis-1,2-Dichloroethene	0	ug/L	20	21.2108	21.1498	106	106	78 - 125	.29	21
cis-1,3-Dichloropropene	0	ug/L	20	18.8023	18.5622	94	92.8	81 - 121	1.29	16
mp-Xylene	0	ug/L	40	44.4417	44.0118	111	110	79 - 125	.97	21
n-Butylbenzene	0	ug/L	20	17.2296	17.8744	86.1	89.4	71 - 130	3.67	20
n-Propylbenzene	0	ug/L	20	17.5915	17.5622	88	87.8	74 - 122	.17	20
o-Chlorotoluene	0	ug/L	20	19.6008	19.2067	98	96	78 - 126	2.03	17
o-Xylene	0	ug/L	20	19.2832	19.4231	96.4	97.1	79 - 124	.72	19
p-Chlorotoluene	0	ug/L	20	19.2267	18.9938	96.1	95	78 - 125	1.22	16
p-Isopropyltoluene	0	ug/L	20	18.249	18.5161	91.2	92.6	72 - 123	1.45	17
sec-Butylbenzene	0	ug/L	20	16.496	16.8296	82.5	84.1	72 - 127	2	17
tert-Amyl methyl ether	0	ug/L	20	19.7226	20.3751	98.6	102	75 - 121	3.25	40
tert-Butyl Alcohol	0	ug/L	100	107.298	113.656	107	114	17 - 168	5.76	40
tert-Butylbenzene	0	ug/L	20	20.4725	20.5967	102	103	72 - 124	.6	17
trans-1,2-Dichloroethene	0	ug/L	20	22.8432	23.1039	114	116	71 - 122	1.13	22
trans-1,3-Dichloropropene	0	ug/L	20	18.9629	17.9877	94.8	89.9	78 - 126	5.28	18
1,2-Dichloroethane-d4 (S)	90.6	%				90.6	91	62 - 133		
4-Bromofluorobenzene (S)	95.5	%				95.5	99.1	79 - 114		
Dibromofluoromethane (S)	99.6	%				99.6	100	78 - 116		
Toluene-d8 (S)	91.5	%				91.5	90	76 - 127		

QUALITY CONTROL DATA

Workorder: 2339934 ALG005|LMC MRC SWS

QC Batch: VOMS/48122 **Analysis Method:** SW846 8260B

QC Batch Method: SW846 8260B

Associated Lab Samples: 2339934003, 2339934004, 2339934005, 2339934006, 2339934007, 2339934008, 2339934009, 2339934010, 2339934011, 2339934012, 2339934013, 2339934014, 2339934015, 2339934016, 2339934017, 2339934018, 2339934019

METHOD BLANK: 2817431

Parameter	Blank Result	Units	Reporting Limit
1,1,1,2-Tetrachloroethane	ND	ug/L	1.0
1,1,1-Trichloroethane	ND	ug/L	1.0
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0
1,1,2-Trichloroethane	ND	ug/L	1.0
1,1-Dichloroethane	ND	ug/L	1.0
1,1-Dichloroethene	ND	ug/L	1.0
1,2,3-Trichlorobenzene	ND	ug/L	2.0
1,2,3-Trichloropropane	ND	ug/L	2.0
1,2,4-Trichlorobenzene	ND	ug/L	2.0
1,2,4-Trimethylbenzene	ND	ug/L	1.0
1,2-Dibromo-3-chloropropane	ND	ug/L	7.0
1,2-Dibromoethane	ND	ug/L	1.0
1,2-Dichlorobenzene	ND	ug/L	1.0
1,2-Dichloroethane	ND	ug/L	1.0
1,2-Dichloroethene, Total	ND	ug/L	2.0
1,2-Dichloropropane	ND	ug/L	1.0
1,3-Dichlorobenzene	ND	ug/L	1.0
1,3-Dichloropropane	ND	ug/L	1.0
1,3-Dichloropropene, Total	ND	ug/L	2.0
1,4-Dichlorobenzene	ND	ug/L	1.0
2,2-Dichloropropane	ND	ug/L	1.0
2-Butanone	ND	ug/L	10.0
2-Chloroethylvinyl ether	ND	ug/L	2.0
2-Hexanone	ND	ug/L	5.0
4-Methyl-2-Pentanone(MIBK)	ND	ug/L	5.0
Acetone	ND	ug/L	10.0
Benzene	ND	ug/L	1.0
Bromobenzene	ND	ug/L	1.0
Bromochloromethane	ND	ug/L	1.0
Bromodichloromethane	ND	ug/L	1.0
Bromoform	ND	ug/L	1.0
Bromomethane	ND	ug/L	1.0
Carbon Disulfide	ND	ug/L	1.0
Carbon Tetrachloride	ND	ug/L	1.0
Chlorobenzene	ND	ug/L	1.0

QUALITY CONTROL DATA

Workorder: 2339934 ALG005|LMC MRC SWS

Chlorodibromomethane	ND	ug/L	1.0
Chloroethane	ND	ug/L	1.0
Chloroform	ND	ug/L	1.0
Chloromethane	ND	ug/L	1.0
Cyclohexane	ND	ug/L	1.0
Dibromomethane	ND	ug/L	1.0
Dichlorodifluoromethane	ND	ug/L	1.0
Diisopropyl ether	ND	ug/L	1.0
Ethyl tert-butyl ether	ND	ug/L	1.0
Ethylbenzene	ND	ug/L	1.0
Freon 113	ND	ug/L	1.0
Hexachlorobutadiene	ND	ug/L	5.0
Isopropylbenzene	ND	ug/L	1.0
Methyl acetate	ND	ug/L	2.0
Methyl cyclohexane	ND	ug/L	1.0
Methyl t-Butyl Ether	ND	ug/L	1.0
Methylene Chloride	ND	ug/L	1.0
Naphthalene	ND	ug/L	2.0
Styrene	ND	ug/L	1.0
Tetrachloroethene	ND	ug/L	1.0
Toluene	ND	ug/L	1.0
Total Xylenes	ND	ug/L	3.0
Trichloroethene	ND	ug/L	1.0
Trichlorofluoromethane	ND	ug/L	1.0
Vinyl Acetate	ND	ug/L	5.0
Vinyl Chloride	ND	ug/L	1.0
cis-1,2-Dichloroethene	ND	ug/L	1.0
cis-1,3-Dichloropropene	ND	ug/L	1.0
mp-Xylene	ND	ug/L	2.0
n-Butylbenzene	ND	ug/L	2.0
n-Propylbenzene	ND	ug/L	1.0
o-Chlorotoluene	ND	ug/L	1.0
o-Xylene	ND	ug/L	1.0
p-Chlorotoluene	ND	ug/L	1.0
p-Isopropyltoluene	ND	ug/L	1.0
sec-Butylbenzene	ND	ug/L	1.0
tert-Amyl methyl ether	ND	ug/L	1.0
tert-Butyl Alcohol	ND	ug/L	10.0
tert-Butylbenzene	ND	ug/L	2.0
trans-1,2-Dichloroethene	ND	ug/L	1.0
trans-1,3-Dichloropropene	ND	ug/L	1.0
1,2-Dichloroethane-d4 (S)	114	%	62 - 133
4-Bromofluorobenzene (S)	106	%	79 - 114
Dibromofluoromethane (S)	111	%	78 - 116
Toluene-d8 (S)	105	%	76 - 127

QUALITY CONTROL DATA

Workorder: 2339934 ALG005|LMC MRC SWS

LABORATORY CONTROL SAMPLE: 2817432

Parameter	LCS % Rec	Units	Spike Conc.	LCS Result	% Rec Limit
1,1,1,2-Tetrachloroethane	103	ug/L	20	20.6	78 - 121
1,1,1-Trichloroethane	105	ug/L	20	20.9	66 - 130
1,1,2,2-Tetrachloroethane	95.1	ug/L	20	19.0	74 - 135
1,1,2-Trichloroethane	97.3	ug/L	20	19.5	82 - 126
1,1-Dichloroethane	105	ug/L	20	20.9	78 - 124
1,1-Dichloroethene	114	ug/L	20	22.9	63 - 128
1,2,3-Trichlorobenzene	90.3	ug/L	20	18.1	61 - 126
1,2,3-Trichloropropane	95.9	ug/L	20	19.2	75 - 132
1,2,4-Trichlorobenzene	103	ug/L	20	20.6	67 - 123
1,2,4-Trimethylbenzene	99.2	ug/L	20	19.8	76 - 125
1,2-Dibromo-3-chloropropane	87.9	ug/L	20	17.6	59 - 133
1,2-Dibromoethane	102	ug/L	20	20.4	80 - 124
1,2-Dichlorobenzene	103	ug/L	20	20.6	82 - 118
1,2-Dichloroethane	97.9	ug/L	20	19.6	70 - 133
1,2-Dichloroethene, Total	105	ug/L	40	42.2	78 - 125
1,2-Dichloropropane	98.8	ug/L	20	19.8	81 - 127
1,3-Dichlorobenzene	101	ug/L	20	20.2	81 - 118
1,3-Dichloropropane	99.2	ug/L	20	19.8	82 - 126
1,3-Dichloropropene, Total	102	ug/L	40	40.7	80 - 123
1,4-Dichlorobenzene	100	ug/L	20	20.0	81 - 116
2,2-Dichloropropane	109	ug/L	20	21.8	64 - 129
2-Butanone	97.3	ug/L	100	97.3	50 - 152
2-Chloroethylvinyl ether	93	ug/L	20	18.6	1 - 150
2-Hexanone	103	ug/L	100	103	65 - 154
4-Methyl-2-Pentanone(MIBK)	105	ug/L	100	105	71 - 146
Acetone	94.2	ug/L	100	94.2	40 - 151
Benzene	98	ug/L	20	19.6	80 - 124
Bromobenzene	99.8	ug/L	20	20.0	81 - 119
Bromochloromethane	102	ug/L	20	20.4	73 - 117
Bromodichloromethane	94	ug/L	20	18.8	79 - 126
Bromoform	101	ug/L	20	20.2	70 - 123
Bromomethane	101	ug/L	20	20.1	45 - 148
Carbon Disulfide	109	ug/L	20	21.8	57 - 131
Carbon Tetrachloride	111	ug/L	20	22.2	62 - 132
Chlorobenzene	104	ug/L	20	20.7	85 - 117
Chlorodibromomethane	100	ug/L	20	20.0	77 - 122
Chloroethane	85.6	ug/L	20	17.1	51 - 142
Chloroform	105	ug/L	20	21.0	78 - 122
Chloromethane	78.3	ug/L	20	15.7	38 - 156
Cyclohexane	126	ug/L	20	25.2	66 - 130
Dibromomethane	97	ug/L	20	19.4	81 - 125

QUALITY CONTROL DATA

Workorder: 2339934 ALG005|LMC MRC SWS

Dichlorodifluoromethane	70.4	ug/L	20	14.1	17 - 166
Diisopropyl ether	103	ug/L	20	20.7	74 - 131
Ethyl tert-butyl ether	107	ug/L	20	21.4	75 - 123
Ethylbenzene	109	ug/L	20	21.8	80 - 124
Freon 113	130	ug/L	20	26.0	50 - 130
Hexachlorobutadiene	130*	ug/L	20	26.0	55 - 128
Isopropylbenzene	104	ug/L	20	20.8	73 - 129
Methyl acetate	95.6	ug/L	20	19.1	70 - 130
Methyl cyclohexane	143*	ug/L	20	28.5	70 - 130
Methyl t-Butyl Ether	102	ug/L	20	20.3	69 - 115
Methylene Chloride	106	ug/L	20	21.2	76 - 121
Naphthalene	84.6	ug/L	20	16.9	56 - 134
Styrene	108	ug/L	20	21.5	79 - 123
Tetrachloroethene	109	ug/L	20	21.8	72 - 124
Toluene	106	ug/L	20	21.1	80 - 125
Total Xylenes	109	ug/L	60	65.1	79 - 125
Trichloroethene	101	ug/L	20	20.1	77 - 124
Trichlorofluoromethane	96.5	ug/L	20	19.3	38 - 123
Vinyl Acetate	98.3	ug/L	20	19.7	58 - 136
Vinyl Chloride	99.1	ug/L	20	19.8	27 - 138
cis-1,2-Dichloroethene	101	ug/L	20	20.2	78 - 125
cis-1,3-Dichloropropene	102	ug/L	20	20.4	81 - 121
mp-Xylene	109	ug/L	40	43.6	79 - 125
n-Butylbenzene	118	ug/L	20	23.6	71 - 130
n-Propylbenzene	104	ug/L	20	20.8	74 - 122
o-Chlorotoluene	106	ug/L	20	21.2	78 - 126
o-Xylene	108	ug/L	20	21.6	79 - 124
p-Chlorotoluene	106	ug/L	20	21.2	78 - 125
p-Isopropyltoluene	98.9	ug/L	20	19.8	72 - 123
sec-Butylbenzene	104	ug/L	20	20.9	72 - 127
tert-Amyl methyl ether	106	ug/L	20	21.2	75 - 121
tert-Butyl Alcohol	81	ug/L	100	81.0	17 - 168
tert-Butylbenzene	114	ug/L	20	22.8	72 - 124
trans-1,2-Dichloroethene	110	ug/L	20	22.0	71 - 122
trans-1,3-Dichloropropene	102	ug/L	20	20.3	78 - 126
1,2-Dichloroethane-d4 (S)	106	%			62 - 133
4-Bromofluorobenzene (S)	107	%			79 - 114
Dibromofluoromethane (S)	107	%			78 - 116
Toluene-d8 (S)	106	%			76 - 127

MATRIX SPIKE: 2818033 DUPLICATE: 2818034 ORIGINAL: 2339934005

****NOTE - The Original Result shown below is a raw result and is only used for the purpose of calculating Matrix Spike percent recoveries. This result is not a final value and cannot be used as such.

Parameter	Original Result	Units	Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limit	RPD	Max RPD

QUALITY CONTROL DATA

Workorder: 2339934 ALG005|LMC MRC SWS

1,1,1,2-Tetrachloroethane	0	ug/L	20	21.3367	21.3349	107	107	78 - 121	.008	16
1,1,1-Trichloroethane	0	ug/L	20	23.4364	23.8817	117	119	66 - 130	1.88	20
1,1,2,2-Tetrachloroethane	0	ug/L	20	20.6429	20.1405	103	101	74 - 135	2.46	16
1,1,2-Trichloroethane	0	ug/L	20	20.4195	20.2513	102	101	82 - 126	.83	15
1,1-Dichloroethane	0	ug/L	20	23.0419	22.8207	115	114	78 - 124	.96	15
1,1-Dichloroethene	0	ug/L	20	24.3737	23.9217	122	120	63 - 128	1.87	21
1,2,3-Trichlorobenzene	0	ug/L	20	19.3091	19.9468	96.5	99.7	61 - 126	3.25	36
1,2,3-Trichloropropane	0	ug/L	20	20.8581	20.6413	104	103	75 - 132	1.04	19
1,2,4-Trichlorobenzene	0	ug/L	20	19.6262	21.4874	98.1	107	67 - 123	9.05	22
1,2,4-Trimethylbenzene	0	ug/L	20	20.5514	21.0554	103	105	76 - 125	2.42	24
1,2-Dibromo-3-chloropropane	0	ug/L	20	18.867	20.4101	94.3	102	59 - 133	7.86	26
1,2-Dibromoethane	0	ug/L	20	20.432	20.8459	102	104	80 - 124	2.01	19
1,2-Dichlorobenzene	0	ug/L	20	21.1098	20.9421	106	105	82 - 118	.8	15
1,2-Dichloroethane	0	ug/L	20	21.6282	21.8138	108	109	70 - 133	.85	19
1,2-Dichloroethene, Total	0	ug/L	40	44.7895	45.4729	112	114	78 - 125	1.51	40
1,2-Dichloropropane	0	ug/L	20	21.0364	22.1031	105	111	81 - 127	4.95	15
1,3-Dichlorobenzene	0	ug/L	20	21.1504	21.1389	106	106	81 - 118	.05	16
1,3-Dichloropropane	0	ug/L	20	20.2354	20.2086	101	101	82 - 126	.13	15
1,3-Dichloropropene, Total	0	ug/L	40	39.4859	39.6915	98.7	99.2	80 - 123	.52	16
1,4-Dichlorobenzene	0	ug/L	20	20.8511	20.907	104	105	81 - 116	.27	15
2,2-Dichloropropane	0	ug/L	20	20.3543	19.6273	102	98.1	64 - 129	3.64	18
2-Butanone	0	ug/L	100	103.038	107.343	103	107	50 - 152	4.09	16
2-Hexanone	0	ug/L	100	112.387	114.113	112	114	65 - 154	1.52	17
4-Methyl-2-Pentanone(MIBK)	0	ug/L	100	117.041	115.073	117	115	71 - 146	1.7	16
Acetone	0	ug/L	100	95.9444	99.8969	95.9	99.9	40 - 151	4.04	40
Benzene	0	ug/L	20	21.2695	21.1366	106	106	80 - 124	.63	26
Bromobenzene	0	ug/L	20	20.9527	21.1561	105	106	81 - 119	.97	17
Bromochloromethane	0	ug/L	20	21.109	21.2188	106	106	73 - 117	.52	19
Bromodichloromethane	0	ug/L	20	21.1152	21.2555	106	106	79 - 126	.66	16
Bromoform	0	ug/L	20	20.9975	20.6373	105	103	70 - 123	1.73	16
Bromomethane	0	ug/L	20	20.1441	21.8939	101	109	45 - 148	8.32	26
Carbon Disulfide	0	ug/L	20	23.879	22.8777	119	114	57 - 131	4.28	28
Carbon Tetrachloride	0	ug/L	20	24.1665	24.641	121	123	62 - 132	1.94	17
Chlorobenzene	0	ug/L	20	21.4237	21.3561	107	107	85 - 117	.32	15
Chlorodibromomethane	0	ug/L	20	21.1024	20.9012	106	105	77 - 122	.96	15
Chloroethane	0	ug/L	20	19.2125	20.2262	96.1	101	51 - 142	5.14	24
Chloroform	0	ug/L	20	21.8995	22.3227	109	112	78 - 122	1.91	16
Chloromethane	0	ug/L	20	17.1735	17.8504	85.9	89.3	38 - 156	3.87	27
Cyclohexane	0	ug/L	20	26.9565	27.2821	135*	136*	66 - 130	1.2	20
Dibromomethane	0	ug/L	20	21.1624	20.5528	106	103	81 - 125	2.92	16
Dichlorodifluoromethane	0	ug/L	20	15.8402	15.7862	79.2	78.9	17 - 166	.34	24
Diisopropyl ether	0	ug/L	20	21.9022	22.4085	110	112	74 - 131	2.29	15
Ethyl tert-butyl ether	0	ug/L	20	22.148	22.2321	111	111	75 - 123	.38	16
Ethylbenzene	0	ug/L	20	22.6303	22.6896	113	113	80 - 124	.26	19
Freon 113	0	ug/L	20	26.7751	27.3325	134*	137*	50 - 130	2.06	26
Hexachlorobutadiene	0	ug/L	20	25.2282	24.8095	126	124	55 - 128	1.67	35

QUALITY CONTROL DATA

Workorder: 2339934 ALG005|LMC MRC SWS

Isopropylbenzene	0	ug/L	20	21.7843	22.1845	109	111	73 - 129	1.82	18
Methyl acetate	0	ug/L	20	17.2211	16.3874	86.1	81.9	70 - 130	4.96	18
Methyl cyclohexane	0	ug/L	20	28.7651	29.5236	144*	148*	70 - 130	2.6	18
Methyl t-Butyl Ether	0	ug/L	20	20.6228	21.1659	103	106	69 - 115	2.6	20
Methylene Chloride	0	ug/L	20	22.3187	22.8924	112	114	76 - 121	2.54	17
Naphthalene	0	ug/L	20	16.3714	17.7902	81.9	89	56 - 134	8.31	40
Styrene	0	ug/L	20	22.1402	22.3227	111	112	79 - 123	.82	16
Tetrachloroethene	0	ug/L	20	23.4623	22.6779	117	113	72 - 124	3.4	38
Toluene	0	ug/L	20	22.3852	21.5986	112	108	80 - 125	3.58	20
Total Xylenes	0	ug/L	60	68.7861	68.5222	115	114	79 - 125	.38	35
Trichloroethene	0	ug/L	20	22.3294	21.9141	112	110	77 - 124	1.88	18
Trichlorofluoromethane	0	ug/L	20	22.7334	21.4057	114	107	38 - 123	6.02	23
Vinyl Acetate	0	ug/L	20	17.7563	16.8833	88.8	84.4	58 - 136	5.04	17
Vinyl Chloride	0	ug/L	20	23.0285	21.8418	115	109	27 - 138	5.29	40
cis-1,2-Dichloroethene	0	ug/L	20	21.3508	21.8342	107	109	78 - 125	2.24	21
cis-1,3-Dichloropropene	0	ug/L	20	19.6223	19.5496	98.1	97.7	81 - 121	.37	16
mp-Xylene	0	ug/L	40	46.4371	45.9112	116	115	79 - 125	1.14	21
n-Butylbenzene	0	ug/L	20	22.7352	23.4907	114	117	71 - 130	3.27	20
n-Propylbenzene	0	ug/L	20	21.6499	21.6711	108	108	74 - 122	.1	20
o-Chlorotoluene	0	ug/L	20	22.064	22.3712	110	112	78 - 126	1.38	17
o-Xylene	0	ug/L	20	22.349	22.611	112	113	79 - 124	1.17	19
p-Chlorotoluene	0	ug/L	20	22.2312	22.2526	111	111	78 - 125	.1	16
p-Isopropyltoluene	0	ug/L	20	19.7769	20.8986	98.9	104	72 - 123	5.52	17
sec-Butylbenzene	0	ug/L	20	21.2324	22.1026	106	111	72 - 127	4.02	17
tert-Amyl methyl ether	0	ug/L	20	20.2963	20.7533	101	104	75 - 121	2.23	40
tert-Butyl Alcohol	0	ug/L	100	99.3874	109.679	99.4	110	17 - 168	9.85	40
tert-Butylbenzene	0	ug/L	20	23.2733	23.7705	116	119	72 - 124	2.11	17
trans-1,2-Dichloroethene	0	ug/L	20	23.4387	23.6387	117	118	71 - 122	.85	22
trans-1,3-Dichloropropene	0	ug/L	20	19.8636	20.142	99.3	101	78 - 126	1.39	18
1,2-Dichloroethane-d4 (S)	121	%				121	112	62 - 133		
4-Bromofluorobenzene (S)	106	%				106	108	79 - 114		
Dibromofluoromethane (S)	109	%				109	110	78 - 116		
Toluene-d8 (S)	103	%				103	102	76 - 127		

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

QUALITY CONTROL DATA QUALIFIERS

Workorder: 2339934 ALG005|LMC MRC SWS

QUALITY CONTROL PARAMETER QUALIFIERS

Lab ID	#	Sample Type	Analytical Method	Analyte
2816953	1	Lab Control Standard	SW846 8260B	Naphthalene
The QC sample type LCS for method SW846 8260B was outside the control limits for the analyte Naphthalene. The % Recovery was reported as 51.7 and the control limits were 56 to 134.				
2817432	2	Lab Control Standard	SW846 8260B	Hexachlorobutadiene
The QC sample type LCS for method SW846 8260B was outside the control limits for the analyte Hexachlorobutadiene. The % Recovery was reported as 130 and the control limits were 55 to 128.				
2817432	3	Lab Control Standard	SW846 8260B	Methyl cyclohexane
The QC sample type LCS for method SW846 8260B was outside the control limits for the analyte Methyl cyclohexane. The % Recovery was reported as 143 and the control limits were 70 to 130.				

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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

QUALITY CONTROL DATA CROSS REFERENCE TABLE

Workorder: 2339934 ALG005|LMC MRC SWS

Lab ID	Sample ID	Prep Method	Prep Batch	Analysis Method	Analysis Batch
2339934001	MRC-SW1A			SW846 8260B	VOMS/48109
2339934002	MRC-SW2A			SW846 8260B	VOMS/48109
2339934003	MRC-SW5A1-S			SW846 8260B	VOMS/48122
2339934004	MRC-SW5A2-S			SW846 8260B	VOMS/48122
2339934005	MRC-SW5B-S			SW846 8260B	VOMS/48122
2339934006	MRC-SW6A-S			SW846 8260B	VOMS/48122
2339934007	MRC-SW6B-S			SW846 8260B	VOMS/48122
2339934008	MRC-SW7A-S			SW846 8260B	VOMS/48122
2339934009	MRC-SW7B-S			SW846 8260B	VOMS/48122
2339934010	MRC-SW8A-S			SW846 8260B	VOMS/48122
2339934011	MRC-SW8B-S			SW846 8260B	VOMS/48122
2339934012	MRC-SW9A-S			SW846 8260B	VOMS/48122
2339934013	MRC-SW9B-S			SW846 8260B	VOMS/48122
2339934014	MRC-SW13A-S			SW846 8260B	VOMS/48122
2339934015	MRC-SW15A-S			SW846 8260B	VOMS/48122
2339934016	MRC-SW16A-S			SW846 8260B	VOMS/48122
2339934017	MRC-17A			SW846 8260B	VOMS/48122
2339934018	MRC-SW8A-S-DUP			SW846 8260B	VOMS/48122
2339934019	TB092118			SW846 8260B	VOMS/48122
2339934001	MRC-SW1A	SW846 3510C	EXTR/53889	8270 SIM	SVMS/31565
2339934002	MRC-SW2A	SW846 3510C	EXTR/53889	8270 SIM	SVMS/31565
2339934006	MRC-SW6A-S	SW846 3510C	EXTR/53889	8270 SIM	SVMS/31565
2339934007	MRC-SW6B-S	SW846 3510C	EXTR/53889	8270 SIM	SVMS/31565
2339934010	MRC-SW8A-S	SW846 3510C	EXTR/53889	8270 SIM	SVMS/31565
2339934011	MRC-SW8B-S	SW846 3510C	EXTR/53889	8270 SIM	SVMS/31565
2339934017	MRC-17A	SW846 3510C	EXTR/53889	8270 SIM	SVMS/31565
2339934018	MRC-SW8A-S-DUP	SW846 3510C	EXTR/53889	8270 SIM	SVMS/31565

ALS Environmental

34 Dogwood Lane
Middletown, PA 17057
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F. 717-944-1430

CHAIN OF CUSTODY/ REQUEST FOR ANALYSIS

ALL SHADED AREAS MUST BE COMPLETED BY THE CLIENT / SAMPLER. INSTRUCTIONS ON THE BACK.

Courier:
Tracking #:

MD1809210001,2,3

2339934

Co. Name: AECOM
Contact (Report to): Ravi Damera
Phone: 301-674-3199
Address: 12420 Milestone Center Dr., Suite 150, Germantown, MD 20876
Bill to (if different than Report to):
PO#:
Project Name/#: LMC MRC SWS
ALS Quote #:
TAT: [X] Normal-Standard TAT is 10-12 business days. [ ] Rush-Subject to ALS approval and surcharges.
Date Required:
Approved By:
Email? [X] Y ravi.damera@aecom.com
Fax? [ ] Y No.:

				***Container Type		CG	AG
				***Container Size		40ml	1L
				*** Preservative		HCl	—
				ANALYSES/METHOD REQUESTED		VOCs 8260C	1,4-Dioxane 8270 SIM

Sample Description/Location (as it will appear on the lab report)	COC Comments	Sample Date	Military Time	*G or C	**Matrix	VOCs 8260C	1,4-Dioxane 8270 SIM
1 MRC-SW1A		9-21-18	1322	G	SW	2	2
2 MRC-SW2A	MS/MSD	9-21-18	1251	G	SW	6	6
3 MRC-SW5A1-S		9-21-18	1221	G	SW	2	
4 MRC-SW5A2-S		9-21-18	1215	G	SW	2	
5 MRC-SW5B-S		9-21-18	1206	G	SW	2	
6 MRC-SW6A-S		9-21-18	1032	G	SW	2	2
7 MRC-SW6B-S		9-21-18	1046	G	SW	2	2
8 MRC-SW7A-S		9-21-18	0953	G	SW	2	

Enter Number of Containers Per Analysis

(completed by Sample Receiving)
Performed by: KM
Cooler Temp: 3 °C
Therm. ID: 359
No. of Coolers:
Notes:

Circle appropriate Y or N.

Correct containers?	Y
Correct sample volume?	Y
Correct preservation?	Y
Headspace/Volatiles?	Y
Custody seals Present?	N
(If present) Seals intact?	N
Received on Ice?	Y
COC/Labels complete/accurate?	Y
Container in good condition?	Y

SAMPLED BY (Please Print): Zach Neigh

Project Comments: Please also email holly.brown@aecom.com & naoum.tavantzis@aecom.com

	Relinquished By / Company Name	Date	Time		Received By / Company Name	Date	Time
1	[signature] / AECOM	9-21-18	1600	2	[signature]	9/21	1600
3	[signature]	9/21		4	COMMON COURIER / ALS COURIER		
5	COMMON COURIER / ALS COURIER			6	[signature]	9/21/2018	2105
7				8			
9				10			

Data Deliverables: [ ] Standard [X] CLP-like [ ] NJ-Reduced [ ] NJ-Full [ ] other

EDDs Required? [X] If yes, format type: Equis k.csv

SDWA Forms? yes [ ] yes [ ] yes [ ] yes [ ] Other

State Samples Collected In? MD [ ] NJ [ ] NY [ ] PA [ ]

Enter PWSID No.

DOD Criteria Required? No

ALS FIELD SERVICES: [ ] Pickup [ ] Labor [ ] Composite Sampling [ ] Rental Equipment [ ] Other:

* G=Grab; C=Composite

**Matrix: AI=Air; DW=Drinking Water; GW=Groundwater; OI=Oil; OL=Other Liquid; SL=Sludge; SO=Soil; WP=Wipe; WW=Wastewater SW = Surface Water

Copies: WHITE - ORIGINAL CANARY - CUSTOMER COPY

***Container Type: AG-Amber Glass; CG-Clear Glass, PL-Plastic., Container Size: 250ml, 500ml, 1L, 8oz., etc. Preservative: HCl, HNO3, NaOH, etc.

Rev 01-2013

ALS Environmental

34 Dogwood Lane
Middletown, PA 17057
P. 717-944-5541
F. 717-944-1430

CHAIN OF CUSTODY/ REQUEST FOR ANALYSIS

ALL SHADED AREAS MUST BE COMPLETED BY THE CLIENT / SAMPLER. INSTRUCTIONS ON THE BACK.

Page 2 of 3

Courier:

Tracking #: MD1809210001,2,3

2339934

Co. Name: AEcom

Contact (Report to): Ravi Donera

Phone: 301-614-3199

Address: 12420 Milestone Center Drive, Suite 150 Germantown, MD 20876

Bill to (if different than Report to):

PO#:

Project Name/#: LMC MRC SWS

ALS Quote #:

TAT: [X] Normal-Standard TAT is 10-12 business days. [ ] Rush-Subject to ALS approval and surcharges.

Date Required:

Approved By:

Email? [X] Y ravi.danera@aecom.com

Fax? [ ] Y No.:

***Container Type	CG	AG
***Container Size	40mL	1L
***Preservative	HCl	—

ANALYSES/METHOD REQUESTED: VOCs 8260C; 1,4-Dioxane 8270D SIM

Sample Description/Location (as it will appear on the lab report)	COC Comments	Sample Date	Military Time	*G or C	**Matrix	VOCs 8260C	1,4-Dioxane 8270D SIM
1 MRC-SW7B-S		9-21-18	1004	G	SW	2	
2 MRC-SW8A-S		↓	1113	↓	↓	2	2
3 MRC-SW8B-S		↓	1101	↓	↓	2	2
4 MRC-SW9A-S		↓	1013	↓	↓	2	
5 MRC-SW9B-S		↓	1021	↓	↓	2	
6 MRC-SW13A-S		↓	1156	↓	↓	2	
7 MRC-SW15A-S		↓	1149	↓	↓	2	
8 MRC-SW16A-S		↓	1140	↓	↓	2	

Enter Number of Containers Per Analysis

SAMPLED BY (Please Print): Zach Neigh

Project Comments: Please also email holly.brown@aecom.com & naoum.tavantzis@aecom.com

	Relinquished By / Company Name	Date	Time		Received By / Company Name	Date	Time
1	[signature] / AEcom	9-21-18	1600	2	[signature]	9/21	1600
3	[signature] ALS	9/21		4	COMMON COURIER / ALS COURIER		
5	COMMON COURIER / ALS COURIER			6	[signature]	9/21/2018	2105
7				8			
9				10			

Data Deliverables: [ ] Standard [X] CLP-like [ ] NJ-Reduced [ ] NJ-Full [ ]

EDDs Required? [X] If yes, format type: EQuIS 4.CSV

SDWA Forms? yes [ ] yes [ ] yes [ ] yes [ ] Other

State Samples Collected In? MD [ ] NJ [ ] NY [ ] PA [ ]

Enter PWSID No.

DOD Criteria Required? NO

Receipt Information (completed by Sample Receiving)

Performed by: KMA

Cooler Temp: 3 °C

Therm. ID: 359

No. of Coolers:

Notes:

	Y	N
Correct containers?	✓	
Correct sample volume?	✓	
Correct preservation?	✓	
Headspace/Volatiles?	✓	
Custody seals Present?	✓	
(if present) Seals intact?	✓	
Received on ice?	✓	
COC/Labels complete/accurate?	✓	
Container in good condition?	✓	

Circle appropriate Y or N.

ALS FIELD SERVICES: [ ] Pickup [ ] Labor [ ] Composite Sampling [ ] Rental Equipment [ ] Other:

* G=Grab; C=Composite

**Matrix: Al=Air; DW=Drinking Water; GW=Groundwater; Ol=Oil; OL=Other Liquid; SL=Sludge; SO=Soil; WP=Wipe; WW=Wastewater

***Container Type: AG-Amber Glass; CG-Clear Glass, PL-Plastic. Container Size: 250ml, 500ml, 1L, 8oz., etc. Preservative: HCl, HNO3, NaOH, etc.

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ALS Environmental

34 Dogwood Lane
Middletown, PA 17057
P. 717-944-5541
F.717-944-1430

CHAIN OF CUSTODY/ REQUEST FOR ANALYSIS

ALL SHADED AREAS MUST BE COMPLETED BY THE CLIENT / SAMPLER. INSTRUCTIONS ON THE BACK.

Courier:
Tracking #: MD18092100123

23399434

Co. Name: AECOM
Contact (Report to): Ravi Damera
Phone: 301-674-3199
Address: 12420 Milestone Center Drive, Suite 150
Germantown, MD 20876

Bill to (if different than Report to):
PO#:

Project Name/#: LMC MRC SWS
ALS Quote #:

TAT: [X] Normal-Standard TAT is 10-12 business days. [ ] Rush-Subject to ALS approval and surcharges.
Date Required:
Approved By:

Email? [X] -Y ravi.damera@aecom.com
Fax? [ ] -Y No.:

	Sample Description/Location (as it will appear on the lab report)	COC Comments	Sample Date	Military Time	*G or C	**Matrix	VOCs 8260C	8270D SIM	1,4-Dioxane									Correct containers?	Correct sample volume?	Correct preservation?	Headspace/Volatiles?	Circle appropriate Y or N.
	***Container Type				CG	AG																
	***Container Size				40mL	1L																
	*** Preservative				HCl	—																
1	MRC-17A		9-21-18	1414	G	SW	2	2										Y	Y	Y	Y	
2	MRC-SW8A-S-Dup	duplicate	9-21-18	1118	G	SW	2	2										N	N	N	N	N
3	TB092118	trip blank	N/A				2											Y	Y	Y	Y	Y
4																						
5																						
6																						
7																						
8																						

ANALYSES/METHOD REQUESTED — Enter Number of Containers Per Analysis

Custody seals Present? | (if present) Seals intact? | Received on ice? | COC/Labels complete/accurate? | Container in good condition?

Receipt Information (completed by Sample Receiving)
Performed by: KM
Cooler Temp: 3°C
Therm. ID: 359
No. of Coolers:
Notes:

SAMPLED BY (Please Print): Zach Neigh

Project Comments: email holly.brown@aecom.com & naomi.tsantzis@aecom.com

Relinquished By / Company Name	Date	Time	Received By / Company Name	Date	Time
1 AECOM	9-21-18	1600	2	9/21	1600
3	9-21		4 COMMON COURIER / ALS COURIER		
5 COMMON COURIER / ALS COURIER			6	9/21/2018	2105
7			8		
9			10		

Data Deliverables: [ ] Standard [X] CLP-like [ ] NJ-Reduced [ ] NJ-Full [ ] other

SDWA Forms? ⇨ yes [ ] yes [ ] yes [ ] yes [ ]

State Samples Collected In? MD [ ] NJ [ ] NY [ ] PA [ ]

Other

EDDs Required? [X] If yes, format type: EQuIS & .CSV ⇨ Enter PWSID No.

DOD Criteria Required? No

ALS FIELD SERVICES: [ ] Pickup [ ] Labor [ ] Composite Sampling [ ] Rental Equipment [ ] Other:

* G=Grab; C=Composite
**Matrix: Al=Air; DW=Drinking Water; GW=Groundwater; Ol=Oil; OL=Other Liquid; SL=Sludge; SO=Soil; WP=Wipe; WW=Wastewater
***Container Type: AG-Amber Glass; CG-Clear Glass, PL-Plastic. Container Size: 250ml, 500ml, 1L, 8oz., etc. Preservative: HCl, HNO3, NaOH, etc.

Copies: WHITE - ORIGINAL CANARY - CUSTOMER COPY

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