



Assessment Report  
Bowater-Catawba Pulp and Paper  
Mill – Historical Area  
5300 Cureton Ferry Road  
Catawba, South Carolina  
SCDHEC No. 18-6120-VOC  
S&ME Project No. 4213-18-087

PREPARED FOR:

New-Indy Catawba LLC  
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August 27, 2019



August 27, 2019

New-Indy Catawba LLC  
3500 Porsche Way, Suite 150  
Ontario, California 91764

Attention: Mr. Richard Hartman

Reference: **Assessment Report**  
**Bowater-Catawba Pulp and Paper Mill – Historical Area**  
Catawba, South Carolina  
SCDHEC No. 18-6120-VOC  
S&ME Project No. 4213-18-087

Dear Mr. Hartman:

S&ME is pleased to submit this *Assessment Report* for the above referenced project site. Our work was conducted in general accordance with the *Work Plan* (S&ME, May 28, 2019), and to our April 12, 2018 Agreement for Services, Change Order 5.

We appreciate the opportunity to be of service to you. Should you have any questions or when we may be of further service, please do not hesitate to contact us at 8964.574.2360.

Sincerely,

**S&ME, Inc.**

A blue ink signature of Scott E. Dacus.

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t:\projects\2018\env\4213-18-087 New Indy JV LLC\vcc\VCC Implementation Catawba Historical Area/VCC report





## Table of Contents

<b>1.0</b>	<b>Project Background.....</b>	<b>2</b>
<b>2.0</b>	<b>Assessment Methods.....</b>	<b>2</b>
2.1	Sludge Sample Collection.....	2
2.2	Monitoring Well Installation.....	3
2.3	Groundwater Sampling.....	4
2.4	Quality Assurance/Quality Control Sampling.....	4
<b>3.0</b>	<b>Assessment Results .....</b>	<b>5</b>
3.1	Sludge Sample Results.....	5
3.2	Groundwater Sample Results.....	5
<b>4.0</b>	<b>Data Quality Review .....</b>	<b>6</b>
<b>5.0</b>	<b>Investigative-Derived Waste .....</b>	<b>6</b>
<b>6.0</b>	<b>Conclusions.....</b>	<b>6</b>

Figures

Tables

Appendix A – Laboratory Analytical Reports – Sludge Samples

Appendix B – Well Completion Reports

Appendix C – Well Development Summary Sheets

Appendix D – Sample Collection Summary Sheets

Appendix E – Laboratory Analytical Reports - Groundwater

Appendix F – Dioxin Remediation Documents



## 1.0 Project Background

The subject site (or Site) is located at 5300 Cureton Ferry Road in Catawba, York County, South Carolina. The Site is a portion of the currently operating New-Indy Catawba pulp and paper mill. Specifically, this assessment pertains to the Historical Area of the plant property and includes the areas of Sludge Lagoons No. 1 through 4, Wastewater Holding Lagoons No. 1 and 2, Aeration/Stabilization Basin, and Temporary Wastewater Holding Lagoon. The approximate Site location is illustrated on the attached **Figure 1**.

A *Work Plan* was submitted to the South Carolina Department of Health and Environmental Control (SCDHEC) on May 28, 2019. The work plan outlined the purposes and procedures to assess soil and groundwater at the Site. The work plan was approved by SCDHEC by letter dated June 12, 2019.

## 2.0 Assessment Methods

The work plan included the following tasks:

- Sludge sample collection,
- Installation of groundwater monitoring wells, and
- Sampling of newly installed and existing groundwater monitoring wells.

The sludge and groundwater sampling locations are summarized on **Table 1**.

### 2.1 Sludge Sample Collection

During the period June 18 through July 1, 2019 sludge samples were collected in the following lagoons (**Figure 2**):

- ◆ Sludge Lagoon No. 1
- ◆ Sludge Lagoon No. 2
- ◆ Wastewater Holding Lagoon No. 1
- ◆ Wastewater Holding Lagoon No. 2
- ◆ Temporary Wastewater Holding Lagoon
- ◆ Wastewater canal between Sludge Lagoon No. 3 and Aeration Basin

Sludge samples collected from Sludge Lagoon No. 2 (SL2), Wastewater Holding Lagoon No. 1 (WHL1), Wastewater Holding Lagoon No. 2 (WHL2), and Temporary Wastewater Holding Lagoon (TWHL) were collected using a hand driven Sludge Judge sampler. The samples were labeled according to the lagoon abbreviations listed above. For example, sample SL2-1-SU-2 was collected from location 1 in Sludge Lagoon No. 2 at a depth of 2 feet below the top of sludge. The SU abbreviation indicates a sludge sample. An appropriate number of extension rods were connected to the sampler and lowered from a boat to the depth of sludge in the lagoons. Depth-discrete intervals were sampled within the sludge. The sludge samples were removed from the sampler and placed in a stainless-steel bowl, then placed into appropriate laboratory-supplied sample containers. The samples were placed on ice within a cooler.



Sludge samples from Sludge Lagoon No. 1 (SL1) were collected by Geologic Exploration using a Geoprobe direct-push rig mounted on a barge. An appropriate number of extension rods were connected to the direct-push macro core sampler and lowered from the barge rig through the water to the sludge in the lagoon. A dual tube sampler was used to prevent sludge from entering the sampler until the specific sampling interval was reached. A new clear polyethylene liner was placed into the macro core sampler for each sample interval within the sludge in each boring. According to the Work Plan, samples were to be taken in three-foot depth intervals within the sludge. However, sludge recovery in the sampler varied based on the sludge characteristics. Therefore, some sampling locations did not yield sufficient volume of sludge to collect at exact three-foot depth intervals. The specific depths sampled are indicated as the last number in the sample identification; e.g., 10-foot depth in sample SL1-1-SU-10. The sludge samples were removed from the sampler and placed into a stainless-steel bowl, then placed into appropriate laboratory-supplied sample containers. The samples were placed on ice within a cooler. Sample specific analyses and containers filled are included on the Chain-of-Custody form in **Appendix A**. Sludge sample SL1-5-SU-20 was analyzed for dioxins/furans only due to the small amount of sludge recovered in the sampler at that location. The sample containers were placed on ice within coolers and transported via courier to Pace Analytical in Mt. Juliet, Tennessee.

Horizontal coordinates of the samples were collected using a hand-held Global Positioning System (GPS) receiver. The x, y coordinates were recorded in the North American Datum (NAD) 1983 South Carolina State Plane coordinate system and plotted on **Figure 2**.

## 2.2 Monitoring Well Installation

A *Monitoring Well Approval* letter, dated June 12, 2019, was issued by SCDHEC (Approval #MW-12003). During the period June 24 through July 1, 2019, nine groundwater monitoring wells R43-MW-1 through R43-MW-3 and R2-MW-1 through R2-MW-6 were installed using a Diedrich D50 track-mounted hollow-stem drill rig. See **Figure 3** for well locations. These wells were installed in the following locations:

- ◆ R43-MW-1 through R43-MW-3 in the vicinity of Sludge Lagoon No. 1;
- ◆ R2-MW-1 through R2-MW-3 in the vicinity of Sludge Lagoon No. 4;
- ◆ R2-MW-4 and R2-MW-5 in the vicinity of Wastewater Holding Lagoon No. 1; and
- ◆ R2-MW-6 in the vicinity of Temporary Wastewater Holding Lagoon.

Soils encountered in the monitoring well borings consisted mainly of sandy silt and silty sand (fill and residuum). Alluvium was encountered in borings R2-MW-1 through R2-MW-6. No odors or staining were observed in any of the borings. More detailed descriptions of soils encountered are included in the *Well Completion Reports* in **Appendix B**.

The monitoring wells were installed by placing two-inch PVC screen and well casing into the borings. The screen consisted of a 10-foot or 15-foot section with 0.01-inch factory-cut slots. The annular space around the well screen was filled with filter sand to approximately two feet above the screen. A two to three-foot seal of bentonite pellets was placed above the filter sand and hydrated with potable water. The flush-mount wells were then grouted from the top of bentonite to within one foot of the ground surface with bentonite/Portland cement; while the stick-up wells were grouted to the ground surface with bentonite/Portland cement. The well depths and



screen intervals are included on **Table 2** and well construction details are included on the *Well Completion Reports* in **Appendix B**.

Upon completion, the monitoring wells were developed using a submersible pump. Well development continued until the retrieved water was relatively free of suspended soil particles. Well development information is included on the *Well Development Summary Sheets* in **Appendix C**.

### 2.3 Groundwater Sampling

During the period July 8 through July 16, 2019, the nine newly-installed monitoring wells were sampled; along with 17 existing monitoring wells in the Historical Area of the Site. The existing monitoring wells included GW-4A, GW-4B, GW-5, GW-5B, GW-6, GW-6B, GW-9, GW-10, GW-11, GW-12, GW-13, GW-14, GW-15R, GW-15BR, GW-16, GW-17, and GW-18. The wells were sampled using a peristaltic pump and low flow techniques. New tubing was used at each well. Temperature, pH, specific conductivity, turbidity, dissolved oxygen (DO), and oxidation reduction potential (ORP) were measured prior to sample collection. Monitoring well construction details for existing monitoring wells sampled are included on **Table 3**. The field parameter measurements are included on the *Sample Collection Summary Sheets* in **Appendix D**.

Upon parameter stabilization, groundwater samples were collected by filling laboratory-supplied sample containers directly from the pump tubing. Sample-specific analyses and containers filled are included on the Chain-of-Custody form in **Appendix E**. The sample containers were placed on ice within a cooler and transported via courier to Pace Analytical in Mt. Juliet, Tennessee.

The horizontal coordinates, ground surface elevation, and top of casing elevation at each of the nine newly installed wells were measured by Hucks and Associates PC. The measured groundwater depths were subtracted from the measured elevations, resulting in a groundwater elevation. The groundwater elevations of the newly installed wells, along with the existing wells, were contoured and plotted on **Figure 4, Potentiometric Surface Map**. Groundwater flows generally in a south south-east direction across the wastewater lagoons portion of the Site. Measured groundwater depths, ground surface elevations, top of casing elevations, and groundwater elevations are included on **Table 2** and **Table 3**.

### 2.4 Quality Assurance/Quality Control Sampling

During sludge sampling activities, two duplicate samples were collected: CM-DUP-SU-1 at sample location WHL1-5-SU-2 in Wastewater Holding Lagoon No. 1 and CM-DUP-SU-2 at sample location SL1-4-SU-8 in Sludge Lagoon No. 1. These samples were collected by filling duplicate laboratory containers at each location. An equipment blank, CM-EB-SU-1, was collected by pouring laboratory-supplied deionized water over the stainless-steel Sludge Judge sampler directly into sample containers. A field blank, CM-FB-SU-1, was collected by pouring laboratory-supplied deionized water directly into sample containers. Three trip blanks accompanied the samples within the coolers during sampling activities and during shipment to the laboratory. Sample-specific analyses and containers filled are included on the Chain-of-Custody form in **Appendix A**.

During groundwater sampling activities, two duplicate samples were collected: CM-DUP-GW-1 at sample location GW-9 and CM-DUP-GW-2 at sample location R43-MW-2. These samples were collected by filling duplicate laboratory containers at each location. An equipment blank, CM-EB-GW-1, was collected by pouring laboratory-



supplied deionized water through an un-used section of tubing directly into sample containers. A field blank, CM-FB-GW-1, was collected by pouring laboratory-supplied deionized water directly into sample containers. A trip blank accompanied the samples within the coolers during sampling activities and during shipment to the laboratory. Sample-specific analyses and containers filled are included on the Chain-of-Custody form in **Appendix E**.

## 3.0 Assessment Results

### 3.1 Sludge Sample Results

Sludge sample analytical results were compared to USEPA Regional Screening Levels (RSLs), carcinogenic risk of  $1 \times 10^{-6}$  and non-carcinogenic hazard of 0.1, dated May 2019. Sludge sample analytical results for metals were also compared to background metals concentrations in South Carolina, see **Table 4**.

Laboratory analysis of sludge samples reported dioxins 2,3,7,8-TCDD, TEQ, and Total HxCDD concentrations ranging from 0.13 nanograms per kilogram (ng/kg) to 750 ng/kg in 38 of the sludge samples. Concentrations in 17 samples exceed the industrial RSL for soil of 22 ng/kg for 2,3,7,8-TCDD. Concentrations in 22 samples exceed the industrial RSL for soil of 22 ng/kg for TEQ. The dioxins/furans data are summarized in **Table 5**.

Laboratory analysis of sludge samples reported arsenic concentrations in three samples that exceed the industrial RSL for soil of 3 milligrams per kilogram (mg/kg): 12.6 mg/kg, 16.8 mg/kg, and 21.6 mg/kg. These concentrations slightly exceed the maximum background concentration of 11 mg/kg. The metals data are summarized in **Table 6**.

Several volatile organic compounds (VOCs) and semi-volatile compounds (SVOCs) were reported above their respective laboratory detection limits in the sludge samples. However, none of the concentrations exceed either the residential or industrial RSLs for soil. The VOCs and SVOCs data are summarized in **Table 6**.

Cyanide, pesticides, and PCBs were not detected above their respective laboratory detection limits in the sludge samples.

A copy of the laboratory analytical reports for sludge samples are included in **Appendix A**.

### 3.2 Groundwater Sample Results

Laboratory analysis of groundwater samples reported dioxins/furans below respective laboratory detection limits for each of the monitoring well samples, however five dioxin/furan compounds were reported at concentrations ranging from 2.8 picograms per liter (pg/L) to 1100 pg/L in duplicate sample CM-DUP-GW-1. Of these five compounds, the concentration of TEQ (2.8 pg/L) exceeds the tapwater RSL of 0.12 pg/L, and is below the groundwater MCL of 30 pg/L. The dioxins/furans groundwater data are summarized in **Table 7**.

Cobalt was reported at concentrations exceeding the tapwater RSL of 0.006 mg/L in ten of the well samples. Iron was reported at concentrations exceeding groundwater MCL of 0.3 mg/L in 15 of the well samples. Manganese



was reported at concentrations exceeding the either or both the tapwater RSL (0.43 mg/L) or the groundwater MCL (0.05 mg/L) in 22 of the well samples. The metals groundwater data are summarized on **Table 8**.

Chloroform, 1,4-dichlorobenzene, 1,2,4-trichlorobenzene, and trichloroethene were reported in one sample at concentrations exceeding their respective tapwater RSLs. However, these concentrations are below the groundwater MCLs. The VOCs groundwater data are summarized on **Table 8**.

Naphthalene was reported in two samples at concentrations exceeding the tapwater RSL of 0.00017 mg/L. The SVOCs groundwater data are summarized on **Table 8**.

Cyanide was reported in one sample at a concentration exceeding the tapwater RSL of 0.0015 mg/L. However, this concentration is below the groundwater MCL of 0.2 mg/L. The cyanide groundwater data is summarized on **Table 8**.

Laboratory analysis of groundwater samples reported concentrations of pesticides and PCBs below their respective laboratory detection limits.

A copy of the laboratory analytical reports is included in **Appendix E**.

## 4.0 Data Quality Review

To ensure that analyte concentrations in the assessment datasets were of known quality, the following items were reviewed:

- the *Sample Receipt Condition Report* (included on the Chain of Custody);
- analytical data presented in the laboratory reports;
- laboratory-assigned data qualifiers;
- laboratory quality control (QC) data provided in the Analytical Support Level (ASL) II laboratory reports, and;
- field QC sample data.

## 5.0 Investigative-Derived Waste

Soil cuttings from monitoring well installation were placed in Sludge Lagoon No. 4. Groundwater and decontamination water generated during the assessment activities were placed into the discharge canal between Sludge Lagoon No. 3 and the Aeration Basin.

## 6.0 Conclusions

Laboratory analysis reported arsenic concentrations slightly above the industrial RSL in three sludge samples. No further action is proposed.



Laboratory analysis reported cobalt, iron, and manganese concentrations in groundwater samples above either one or both the tapwater RSL and groundwater MCL. Several VOCs, an SVOC, and cyanide exceed the tapwater RSLs. Tapwater is provided to the Site by an offsite municipal water facility. Groundwater is not considered an exposure pathway at the Site.

Dioxin concentrations in certain sludge samples in Sludge Lagoon 1, Sludge Lagoon 2, and Wastewater Holding Pond 1 exceeded Industrial Regional Screening Limits (RSLs). Typically, a risk analysis regarding the dioxin concentrations would be performed. However, in the case of these lagoons, there are no likely exposure pathways. The sludge is at the bottom of the lagoons and is covered by water. The wastewater effluent does not contain dioxins. Additionally, dioxins have not been identified in downgradient groundwater. Site access is controlled by fencing. The sludge itself is not accessible because it is beneath the water, and the lagoon area is accessible only to plant personnel. Personnel who may enter the lagoon area are not exposed to the sludge. They are limited to environmental technicians who sample wastewater discharge for NPDES monitoring and environmental professionals who periodically sample groundwater monitoring wells. Since the groundwater and wastewater effluent contain no dioxins and the sludge itself is not accessible, we recommend leaving the sludge in place in these lagoons.

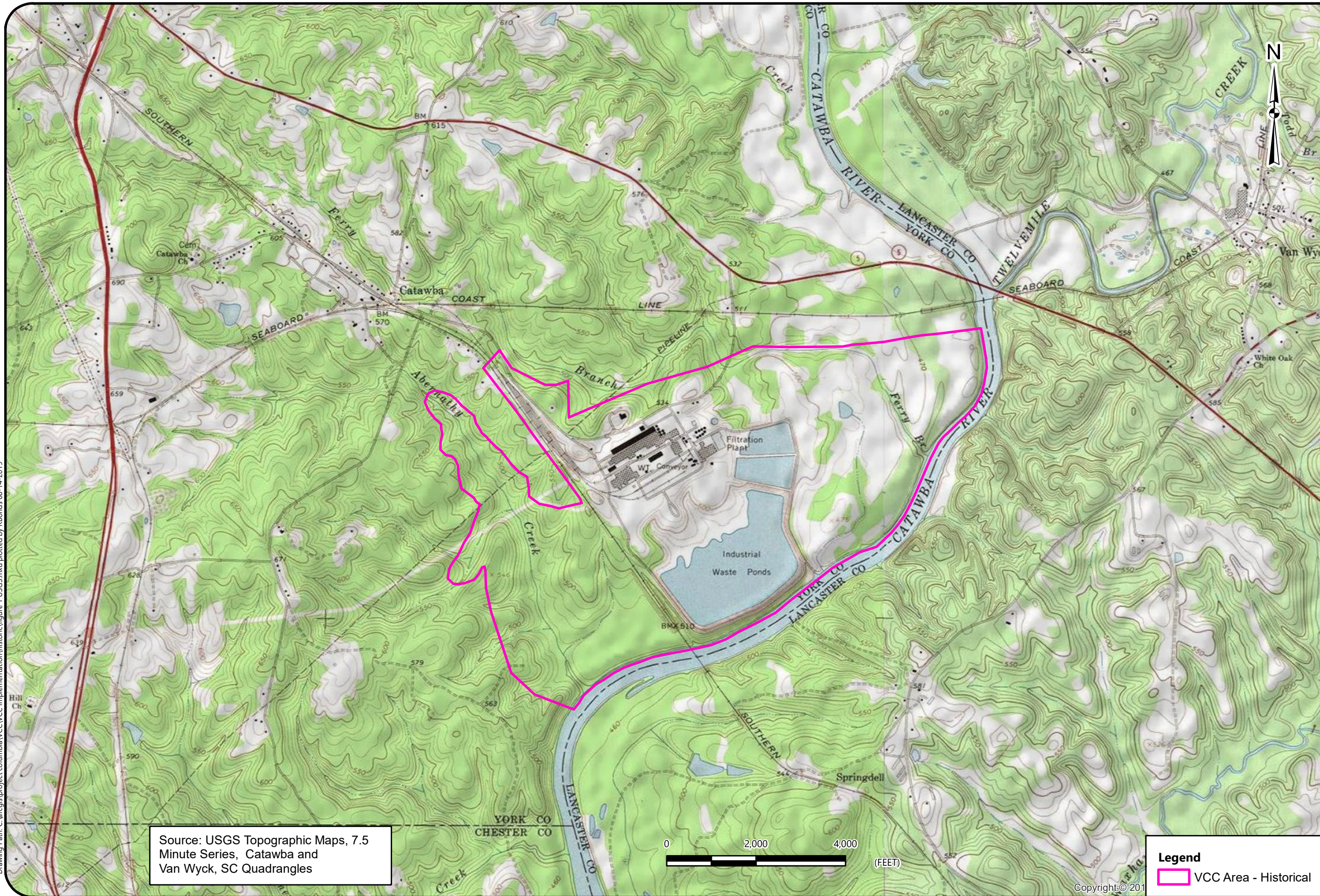
Well-settled precedent exists for establishing closure requirements that exceed Industrial RSLs. In its April 13, 1998 Directive 9200.4-26, *Approach for Addressing Dioxin in Soil at CERCLA and RCRA Sites*, EPA's Office of Solid Waste and Emergency Response (OSWER) stated that, "for commercial/industrial exposure scenarios, a soil level within the range of 5 ppb to 20 ppb (TEQs) should generally be used ...as a PRG [Preliminary Remediation Goal] for remedial sites for dioxin in surface soil. These levels are recommended unless extenuating site-specific circumstances warrant a different level." The Directive also sets a 1 ppb PRG for residential exposure scenarios. This directive was affirmed by the Agency for Toxic Substances and Disease Registry (ATSDR) in its *Policy Guideline for Dioxins and Dioxin-Like Compounds in Residential Soil*, published on October 15, 2008 (73 Fed. Reg. 61,133), which states, "ATSDR continues to consider health risks associated with levels of dioxins in soil below 1 ppb to be low under most residential scenarios where the primary exposure pathway is incidental ingestion through direct exposure to soil". These documents are included in **Appendix F**.

Based on the above information, no further assessment is recommended for the Historical Area portion of the Site.

## Figures



Drawing Path: C:\arcgis\project\columbia\VCC\implementation\historic\figure 1 USGS.mxd plotted by RBonds 08-14-2019



Source: USGS Topographic Maps, 7.5 Minute Series, Catawba and Van Wyck, SC Quadrangles

Legend  
VCC Area - Historical



USGS TOPOGRAPHIC MAP

NEW INDY CATAWBA LLC - VCC 18-6120-VOC (HISTORICAL AREA)  
5300 CURETON FERRY ROAD  
CATAWBA, SOUTH CAROLINA 29704

SCALE:  
1" = 2,000'  
DATE:  
AUGUST 2019  
PROJECT NUMBER  
4213-18-087  
FIGURE NO.

1

Copyright © 2019



Drawing Path: C:\arcgis\project\columbia\VCCVCC\implementation\historic\sludge sampling plan 11x17.mxd



**SLUDGE SAMPLING LOCATIONS - HISTORICAL AREA**

NEW INDY CATAWBA LLC - VCC 18-6120-VOC  
 5300 CURETON FERRY ROAD  
 CATAWBA, SOUTH CAROLINA 29704



**Legend**  
 [Green Square with Crosshair] Approximate Sludge Sample Location

SCALE:  
 1" = 1,000'

DATE:  
 AUGUST 20, 2019

PROJECT NUMBER  
 4213-18-087

FIGURE NO.



Drawing Path: C:\arcgis\project\columbia\VCC\implementation\historic\Groundwater Sampling Plan 11x17.mxd



**MONITORING WELL LOCATIONS - HISTORICAL AREA**

NEW INDY CATAWBA LLC - VCC 18-6120-VOC  
 5300 CURETON FERRY ROAD  
 CATAWBA, SOUTH CAROLINA 29704

SCALE:  
 1" = 1,000'

DATE:  
 AUGUST 20, 2019

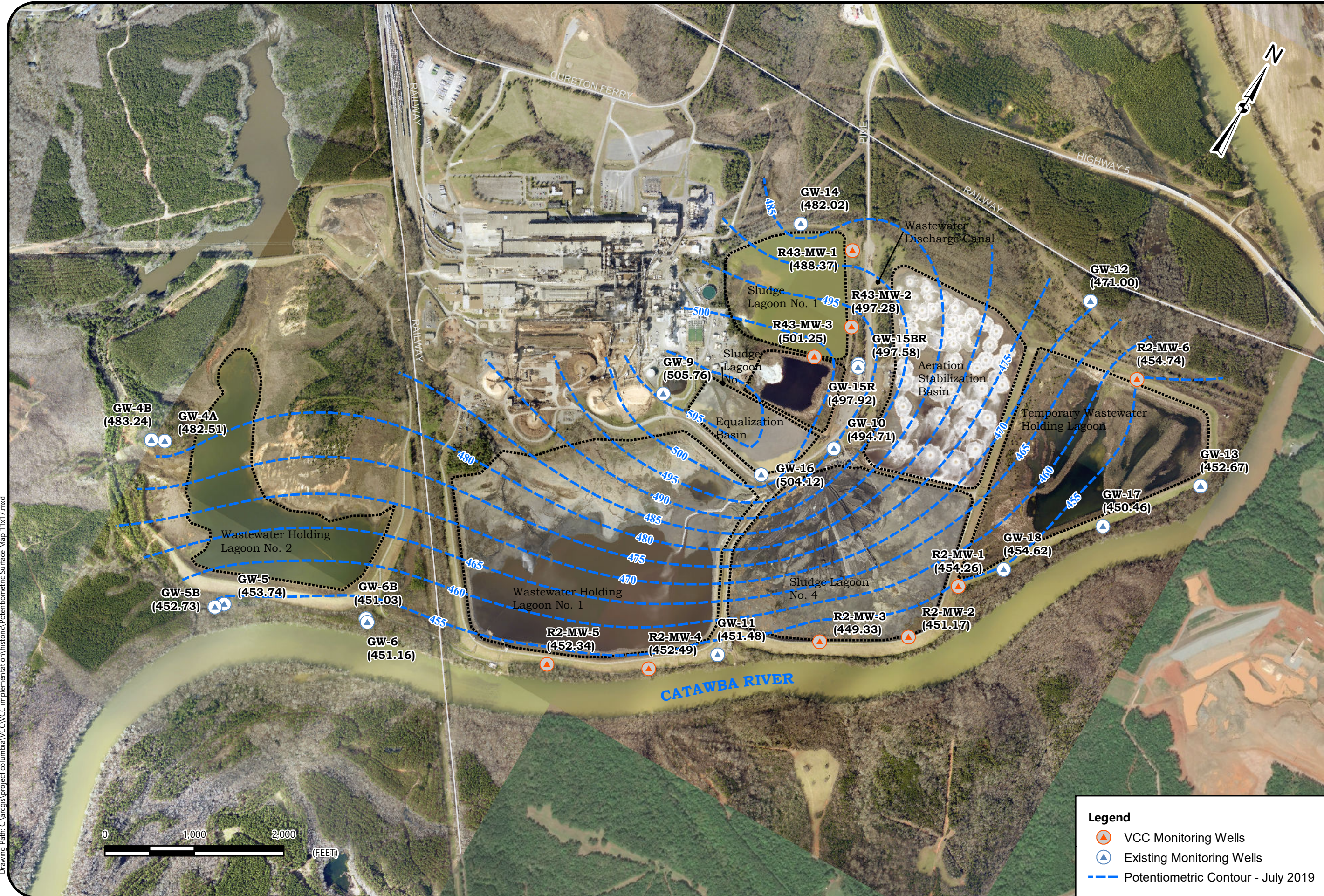
PROJECT NUMBER  
 4213-18-087

FIGURE NO.

**3**

- Legend**
- ▲ VCC Monitoring Wells
  - ▲ Existing Monitoring Wells





POTENTIOMETRIC SURFACE MAP - HISTORICAL AREA

NEW INDY CATAWBA LLC - VCC 18-6120-VOC  
5300 CURETON FERRY ROAD  
CATAWBA, SOUTH CAROLINA 29704

SCALE:  
1" = 1,000'  
DATE:  
AUGUST 20, 2019  
PROJECT NUMBER  
4213-18-087  
FIGURE NO.

- Legend**
- VCC Monitoring Wells
  - Existing Monitoring Wells
  - Potentiometric Contour - July 2019

Drawing Path: C:\arcgis\project\columbia\VCC\implementation\historical\Potentiometric Surface Map 11x17.mxd





## **Tables**

Table 1  
 Sludge and Groundwater Sampling  
 Historical Area  
 Catawba, South Carolina  
 S&ME Job Number 4213-18-087  
 SCDHEC VCC Number 18-6120-VOG

SAMPLE					Dioxins/ Furans	PAHs	TAL Metals	TCL VOCs	TCL SVOCs	Cyanide	TCL Pesticides	TCL PCBs			
ID	LOCATION		TYPE	DEPTH (feet)											
SL2-1-SU-2	Wastewater Solids	Sludge Lagoon No. 2	sludge	2	✓	✓	✓	✓	✓	✓	✓	✓			
SL2-2-SU-2			sludge	2	✓	✓	✓	✓	✓	✓	✓	✓	✓		
R2-MW-1		Sludge Lagoon No. 4	groundwater	25 - 40	✓	✓	✓	✓	✓	✓	✓	✓	✓		
R2-MW-2			groundwater	57 - 67	✓	✓	✓	✓	✓	✓	✓	✓	✓		
R2-MW-3			groundwater	59 - 69	✓	✓	✓	✓	✓	✓	✓	✓	✓		
R2-MW-4			groundwater	15 - 25	✓	✓	✓	✓	✓	✓	✓	✓	✓		
R2-MW-5			groundwater	20 - 35	✓	✓	✓	✓	✓	✓	✓	✓	✓		
WHL1-1-SU-1		Wastewater Holding Lagoon No. 1	sludge	1	✓	✓	✓	✓	✓	✓	✓	✓	✓		
WHL1-2-SU-1			sludge	1	✓	✓	✓	✓	✓	✓	✓	✓	✓		
WHL1-3-SU-2			sludge	2	✓	✓	✓	✓	✓	✓	✓	✓	✓		
WHL1-4-SU-1			sludge	1	✓	✓	✓	✓	✓	✓	✓	✓	✓		
WHL1-5-SU-2			sludge	2	✓	✓	✓	✓	✓	✓	✓	✓	✓		
WHL1-6-SU-1			sludge	1	✓	✓	✓	✓	✓	✓	✓	✓	✓		
WHL1-7-SU-2			sludge	2	✓	✓	✓	✓	✓	✓	✓	✓	✓		
WHL1-8-SU-1			sludge	1	✓	✓	✓	✓	✓	✓	✓	✓	✓		
WHL2-1-SU-3			Wastewater Holding Lagoon No. 2	sludge	3	✓	✓	✓	✓	✓	✓	✓	✓	✓	
WHL2-2-SU-3				sludge	3	✓	✓	✓	✓	✓	✓	✓	✓	✓	
WHL2-3-SU-2				sludge	2	✓	✓	✓	✓	✓	✓	✓	✓	✓	
WHL2-4-SU-1				sludge	1	✓	✓	✓	✓	✓	✓	✓	✓	✓	
R2-MW-6			Temporary Wastewater Holding Lagoon	groundwater	13 - 28	✓	✓	✓	✓	✓	✓	✓	✓	✓	
TWHL-1-SU-1				sludge	1	✓	✓	✓	✓	✓	✓	✓	✓	✓	
TWHL-2-SU-1				sludge	1	✓	✓	✓	✓	✓	✓	✓	✓	✓	
TWHL-3-SU-1		sludge		1	✓	✓	✓	✓	✓	✓	✓	✓	✓		
TWHL-4-SU-1		sludge		1	✓	✓	✓	✓	✓	✓	✓	✓	✓		
WWD-1		Wastewater Discharge	sludge	0.5	✓	✓	✓	✓	✓	✓	✓	✓	✓		
R43-MW-1		Sludge Lagoon No. 1	east side - north	groundwater	15 - 30	✓	✓	✓	✓	✓	✓	✓	✓		
R43-MW-2			east side - south	groundwater	8 - 23	✓	✓	✓	✓	✓	✓	✓	✓		
R43-MW-3			south side	groundwater	12 - 27	✓	✓	✓	✓	✓	✓	✓	✓		
SL1-1-SU-5			within lagoon	sludge	5	✓	✓	✓	✓	✓	✓	✓	✓	✓	
SL1-1-SU-10				sludge	10	✓	✓	✓	✓	✓	✓	✓	✓	✓	
SL1-1-SU-14	sludge			14	✓	✓	✓	✓	✓	✓	✓	✓	✓		
SL1-1-SU-20	sludge			20	✓	✓	✓	✓	✓	✓	✓	✓	✓		
SL1-2-SU-14	sludge			14	✓	✓	✓	✓	✓	✓	✓	✓	✓		
SL1-2-SU-18	sludge			18	✓	✓	✓	✓	✓	✓	✓	✓	✓		
SL1-3-SU-4	sludge			4	✓	✓	✓	✓	✓	✓	✓	✓	✓		
SL1-3-SU-8	sludge			8	✓	✓	✓	✓	✓	✓	✓	✓	✓		
SL1-3-SU-12	sludge			12	✓	✓	✓	✓	✓	✓	✓	✓	✓		
SL1-3-SU-16	sludge			16	✓	✓	✓	✓	✓	✓	✓	✓	✓		
SL1-3-SU-20	sludge			20	✓	✓	✓	✓	✓	✓	✓	✓	✓		
SL1-3-SU-24	sludge			24	✓	✓	✓	✓	✓	✓	✓	✓	✓		
SL1-4-SU-8	sludge			8	✓	✓	✓	✓	✓	✓	✓	✓	✓		
SL1-4-SU-12	sludge			12	✓	✓	✓	✓	✓	✓	✓	✓	✓		
SL1-4-SU-15	sludge			15	✓	✓	✓	✓	✓	✓	✓	✓	✓		
SL1-5-SU-6	sludge			6	✓	✓	✓	✓	✓	✓	✓	✓	✓		
SL1-5-SU-10	sludge			10	✓	✓	✓	✓	✓	✓	✓	✓	✓		
SL1-5-SU-20	sludge			20	✓	✓	✓	✓	✓	✓	✓	✓	✓		
SL1-6-SU-8	sludge			8	✓	✓	✓	✓	✓	✓	✓	✓	✓		
SL1-6-SU-11	sludge			11	✓	✓	✓	✓	✓	✓	✓	✓	✓		
GW-4A	Existing Monitoring Wells			--	groundwater	--	✓	✓	✓	✓	✓	✓	✓	✓	
GW-4B				--	groundwater	--	✓	✓	✓	✓	✓	✓	✓	✓	✓
GW-5				--	groundwater	--	✓	✓	✓	✓	✓	✓	✓	✓	✓
GW-5B				--	groundwater	--	✓	✓	✓	✓	✓	✓	✓	✓	✓
GW-6			--	groundwater	--	✓	✓	✓	✓	✓	✓	✓	✓	✓	
GW-6B			--	groundwater	--	✓	✓	✓	✓	✓	✓	✓	✓	✓	
GW-9			--	groundwater	--	✓	✓	✓	✓	✓	✓	✓	✓	✓	
GW-10		--	groundwater	--	✓	✓	✓	✓	✓	✓	✓	✓	✓		
GW-11		--	groundwater	--	✓	✓	✓	✓	✓	✓	✓	✓	✓		
GW-12		--	groundwater	--	✓	✓	✓	✓	✓	✓	✓	✓	✓		
GW-13		--	groundwater	--	✓	✓	✓	✓	✓	✓	✓	✓	✓		
GW-14		--	groundwater	--	✓	✓	✓	✓	✓	✓	✓	✓	✓		
GW-15R		--	groundwater	--	✓	✓	✓	✓	✓	✓	✓	✓	✓		
GW-15BR		--	groundwater	--	✓	✓	✓	✓	✓	✓	✓	✓	✓		
GW-16		--	groundwater	--	✓	✓	✓	✓	✓	✓	✓	✓	✓		
GW-17		--	groundwater	--	✓	✓	✓	✓	✓	✓	✓	✓	✓		
GW-18		--	groundwater	--	✓	✓	✓	✓	✓	✓	✓	✓	✓		
CM-DUP-GW-1		QA/QC	Duplicate	groundwater	--	✓	✓	✓	✓	✓	✓	✓	✓		
CM-DUP-GW-2	Duplicate		groundwater	--	✓	✓	✓	✓	✓	✓	✓	✓			
CM-DUP-SU-1	Duplicate		sludge	--	✓	✓	✓	✓	✓	✓	✓	✓			
CM-DUP-SU-2	Duplicate		sludge	--	✓	✓	✓	✓	✓	✓	✓	✓			
CM-EB-GW-1	Equipment Rinsate Blank		groundwater	--	✓	✓	✓	✓	✓	✓	✓	✓			
CM-EB-SU-1	Equipment Rinsate Blank		sludge	--	✓	✓	✓	✓	✓	✓	✓	✓			
CM-FB-GW-1	Field Blank		groundwater	--	✓	✓	✓	✓	✓	✓	✓	✓			
CM-FB-SU-1	Field Blank		sludge	--	✓	✓	✓	✓	✓	✓	✓	✓			
Trip Blank	Trip Blank		--	--	--	✓	✓	✓	✓	✓	✓	✓			
Trip Blank	Trip Blank		--	--	--	✓	✓	✓	✓	✓	✓	✓			

NOTES:

TCL - Target Compound List

VOCs - volatile organic compounds

SVOCs - semi-volatile organic compounds

TAL - Target Analyte List

PCBs - polychlorinated biphenyls

**Table 2**  
**Catawba Mill - Historical Area**  
**VCC Monitoring Well Construction Details**  
 Project Columbia  
 Catawba, SC  
 SCDHEC No. 18-7443-VOC  
 S&ME Job Number 4213-18-087

Well ID	Total Well Depth	Screen Interval	Ground Surface Elevation	Top of Casing Elevation	Depth to Water <sup>1</sup>	Groundwater Elevation
R2-MW-1	40	25-40	483.76	486.81	32.55	454.26
R2-MW-2	67	57-67	510.35	510.79	59.62	451.17
R2-MW-3	69	59-69	509.69	510.03	60.70	449.33
R2-MW-4	25	15-25	466.82	469.94	17.45	452.49
R2-MW-5	35	20-35	476.83	479.83	27.49	452.34
R2-MW-6	28	13-28	474.05	476.85	22.11	454.74
R43-MW-1	30	15-30	508.70	511.65	23.28	488.37
R43-MW-2	23	8-23	510.20	512.77	15.49	497.28
R43-MW-3	27	12-27	514.67	514.98	13.73	501.25

Notes:

1 - measured from top of casing  
 measurements are in feet

**Table 3**  
**Catawba Mill - Historical Area**  
**Existing Monitoring Well Construction Details**  
 Project Columbia  
 Catawba, SC  
 SCDHEC No. 18-7443-VOC  
 S&ME Job Number 4213-18-087

Well ID	Total Well Depth <sup>1</sup>	Screen Interval <sup>1</sup>	Ground Surface Elevation <sup>1</sup>	Top of Casing Elevation <sup>1</sup>	Depth to Water <sup>2</sup>	Groundwater Elevation
GW-4A	53.2	43.2-53.2	509.70	511.90	29.39	482.51
GW-4B	95	85-95	--	510.73	27.49	483.24
GW-5	23	13-23	455.4	457.60	3.86	453.74
GW-5B	200	--	--	459.65	6.92	452.73
GW-6	28.2	23.2-28.2	463.24	465.84	14.68	451.16
GW-6B	105.5	95.5-105.5	--	464.95	13.92	451.03
GW-9	48	28-48	514.77	516.77	11.01	505.76
GW-10	34.7	24.7-34.7	511.82	513.82	19.11	494.71
GW-11	27.6	17.6-27.6	464.98	467.08	15.60	451.48
GW-12	43	23-43	486.72	488.82	17.82	471.00
GW-13	38.3	28.3-38.3	470.91	473.21	20.54	452.67
GW-14	22.5	12.5-22.5	--	496.91	14.89	482.02
GW-15R	25.4	15.4-25.4	509.92	512.08	14.16	497.92
GW-15BR	113.6	103.6-113.6	508.93	511.65	14.07	497.58
GW-16	18.5	8.5-18.5	--	512.43	8.31	504.12
GW-17	15.5	5.5-15.5	--	465.55	15.09	450.46
GW-18	20	10-20	--	468.22	13.60	454.62

Notes:

1 - obtained historical information

-- information not obtained

2 - measured during July 2019 sampling event



Table 4  
 Summary of Background Metals Concentrations  
 Project Columbia  
 Catawba, SC  
 S&ME Job Number 4213-18-087

Metal	Data Source				
	Canova <sup>1</sup>	Franklin <sup>2</sup>	USGS (2001) <sup>3</sup>	Average	Maximum
ALUMINUM	24255	9998	100000	44751	100000
ARSENIC	11	2.6	4.7	6.1	11
BARIUM	59	21	353	144	353
BERYLLIUM	NL	0.17	NL	0.17	0.17
CADMIUM	1	2.2	NL	1.6	2.2
CALCIUM	NL	NL	2500	2500	2500
CHROMIUM	29	9.2	41	26.4	41
COBALT	4	5.3	NL	4.7	5.3
COPPER	13	2.8	34.7	16.8	34.7
CYANIDE	1	NL	NL	1	1
IRON	28467	6688	26000	20385	28467
LEAD	16	NL	17.6	16.8	17.6
MAGNESIUM	1916	109	2700	1575	2700
MANGANESE	235	93	155	161	235
NICKEL	9	0.5	14.9	8.1	14.9
POTASSIUM	1588	1155	5500	2748	5500
SELENIUM	0.9	3.6	0.58	1.7	3.6
SODIUM	194	32	1900	709	1900
VANADIUM	67	25	120	71	120
ZINC	34	22	52	36	52
MERCURY	0.18	NL	0.065	0.12	0.18

Notes:

All results are in milligrams per kilogram (mg/kg).

Only analyzed metals are shown.

NL - Not Listed

Sources:

1) Canova, J.L. 1999. Elements in South Carolina Inferred Background Soil and Stream Sediment Samples. South Carolina Geology 41: 11-25. Table2 - Average concentration for piedmont soils used.

2) Franklin, R.E., L. Duis, B.R. Smith, R. Brown and J.E. Toler. 2003. Elemental Concentrations in Soils of South Carolina. Soil Science 168(4): 280-291. Table 3 - Geometric mean for listed metals concentrations used.

3) United States Geological Survey. 2001. Geochemical Landscapes of the Conterminous United States – New Map Presentations for 22 Elements. By N. Gustavsson, B. Bølviken, D.B. Smith and R.C. Severson. U.S. Geological Survey Professional Paper 1648. Washington, D.C.

Table 5  
 Summary of Dioxins/Furans Data  
 Wastewater Lagoon Sludge  
 New Indy  
 Catawba, SC  
 S&ME Job Number 4213-18-087  
 SCDHEC VCC No. 18-6120-VOC

Lab Sample ID		EPA Regional Screening Levels					Sludge Lagoon 1 Samples												
		Industrial Soil	MCL-Based	Residential Soil	Risk-Based	Region IV Ecological SSLs	SL1-1-SU-5	SL1-1-SU-10	SL1-1-SU-14	SL1-1-SU-20	SL1-2-SU-14	SL1-2-SU-18	SL1-3-SU-4	SL1-3-SU-8	SL1-3-SU-12	SL1-3-SU-16	SL1-3-SU-20	SL1-3-SU-24	
Compound	CAS	Concentration, ng/Kg					Concentration ng/Kg												
1,2,3,4,6,7,8-HpCDD	35822-46-9	NE	NE	NE	NE	NE	120	150	140	380	710	1800	130	120	160	230	920	600	
1,2,3,4,6,7,8-HpCDF	67562-39-4	NE	NE	NE	NE	NE	25	29	35	<45	130	220	35	28	36	39	190	120	
1,2,3,4,7,8,9-HpCDF	55673-89-7	NE	NE	NE	NE	NE	<5	<5	<5	<5	12	18	<5	<5	<5	<5	19	<9	
1,2,3,4,7,8-HxCDD	39227-28-6	NE	NE	NE	NE	NE	<5	<5	<5	<5	5.2	6.2	<5	<5	<5	<5	7.7	7.1	
1,2,3,4,7,8-HxCDF	70648-26-9	NE	NE	NE	NE	NE	<5	<5	<5	<5	5.6	8.8	<5	<5	<5	<5	9.2	5.5	
1,2,3,6,7,8-HxCDD	57653-85-7	NE	NE	NE	NE	NE	<5	<5	<5	14	34	59	<5	<5	6.2	8.2	43	29	
1,2,3,6,7,8-HxCDF	57117-44-9	NE	NE	NE	NE	NE	<5	<5	<5	<5	<5	5.5	<5	<5	<5	<5	<5	<5	
1,2,3,7,8,9-HxCDD	19408-74-3	NE	NE	NE	NE	NE	<5	<5	<5	5.9	8.9	11	<5	<5	<5	7.2	9.1	<8	
1,2,3,7,8,9-HxCDF	72918-21-9	NE	NE	NE	NE	NE	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	
1,2,3,7,8-PeCDD	40321-76-4	NE	NE	NE	NE	NE	<5	<5	<5	<5	<12	11	<5	<5	<5	11	<18	16	
1,2,3,7,8-PeCDF	57117-41-6	NE	NE	NE	NE	NE	<5	<5	<5	<5	16	9.3	<5	<5	<5	7.6	27	15	
2,3,4,6,7,8-HxCDF	60851-34-5	NE	NE	NE	NE	NE	<5	<5	<5	<5	7.8	12	<5	<5	<5	<5	9.5	9.3	
2,3,4,7,8-PeCDF	57117-31-4	NE	NE	NE	NE	NE	<5	<5	<5	<5	26	14	<5	<5	<5	8.7	41	26	
<b>2,3,7,8-TCDD</b>	<b>1746-01-6</b>	<b>22</b>	<b>15</b>	<b>4.8</b>	<b>0.059</b>	<b>NE</b>	<1	1.7	4.8	11	290	200	<1	<3	3.1	170	420	270	
2,3,7,8-TCDF	51207-31-9	NE	NE	NE	NE	NE	2.4	3.8	8.5	43	1700	760	2.3	2.5	7.2	360	2700	1500	
OCDD	3268-87-9	NE	NE	NE	NE	NE	3900	5000	4300	9100	11000	29000	4600	3700	5000	5400	12000	8100	
OCDF	39001-02-0	NE	NE	NE	NE	NE	62	62	83	180	490	2000	61	63	90	110	760	620	
<b>TEQ</b>	<b>E17134024</b>	<b>22</b>	<b>15</b>	<b>4.8</b>	<b>0.059</b>	<b>3.15</b>	<b>5.7</b>	<b>8.9</b>	<b>12</b>	<b>31</b>	<b>510</b>	<b>340</b>	<b>6.5</b>	<b>5.5</b>	<b>11</b>	<b>230</b>	<b>750</b>	<b>470</b>	
Total HpCDD	37871-00-4	NE	NE	NE	NE	NE	260	340	300	770	1500	3700	300	270	360	520	2100	1200	
Total HpCDF	38998-75-3	NE	NE	NE	NE	NE	64	75	81	110	340	1000	78	66	90	100	890	570	
<b>Total HxCDD</b>	<b>34465-46-8</b>	<b>470</b>	<b>NE</b>	<b>100</b>	<b>17</b>	<b>NE</b>	<b>33</b>	<b>46</b>	<b>52</b>	<b>99</b>	<b>190</b>	<b>330</b>	<b>44</b>	<b>40</b>	<b>63</b>	<b>110</b>	<b>260</b>	<b>170</b>	
Total HxCDF	55684-94-1	NE	NE	NE	NE	NE	20	27	<5	43	170	360	25	19	30	48	250	150	
Total PeCDD	36088-22-9	NE	NE	NE	NE	NE	<5	<5	<5	8.8	36	77	<5	<5	<5	33	65	75	
Total PeCDF	30402-15-4	NE	NE	NE	NE	NE	14	23	15	36	280	290	13	12	26	170	390	280	
Total TCDD	41903-57-5	NE	NE	NE	NE	NE	2.4	4.4	4.8	11	340	250	6.1	5.4	8.6	230	500	300	
Total TCDF	30402-14-3	NE	NE	NE	NE	NE	5.8	13	22	130	3200	1600	8.5	5.4	16	1400	5300	3100	

Notes:

Sample locations are shown within attached Figures located within the Appendix of this Report.

Sample ID Methodology: Location-sample location number-medium-sample depth

Complete laboratory results are included in the Appendix of this Report

All results are in nanograms per kilogram (ng/Kg) dry weight.

Listed EPA Regional Screening Tables (RSLs) are dated May 2018 (carcinogenic risk of 1x10<sup>-6</sup> and non-carcinogenic hazard of 1.0).

	Highlighted cell indicate exceedances of all of the listed EPA Regional Screening Levels (RSLs)
	Highlighted cell indicates an exceedance of the EPA Maximum Contaminant Level (MCL) Groundwater Protection SSL
	Highlighted cell indicate exceedances of the Residential RSL as well as both Groundwater Protection Site Screening Levels (SSLs)
	Highlighted Cell indicates an exceedance of the EPA Risk-Based Groundwater Protection SSL

Red number indicates an exceedance of the EPA Region IV Ecological Risk Assessment Supplemental Guidance (2018) -

Table 3 - Soil Screening Value for Hazardous Waste Sites

Lab qualifiers are shown on each respective lab report.

NE - Not Established

TWHL - Temporary Wastewater Holding Lagoon

SL - Sludge Lagoon

WHL - Wastewater Holding Lagoon

WWD - Wastewater Ditch

Table 5  
 Summary of Dioxins/Furans Data  
 Wastewater Lagoon Sludge  
 New Indy  
 Catawba, SC  
 S&ME Job Number 4213-18-087  
 SCDHEC VCC No. 18-6120-VOC

Lab Sample ID		EPA Regional Screening Levels					Sludge Lagoon 1 Samples							
		Industrial Soil	MCL-Based	Residential Soil	Risk-Based	Region IV Ecological SSLs	SL1-4-SU-8	SL1-4-SU-12	SL1-4-SU-15	SL1-5-SU-6	SL1-5-SU-10	SL1-5-SU-20	SL1-6-SU-8	SL1-6-SU-11
Compound	CAS	Concentration, ng/Kg					Concentration ng/Kg							
1,2,3,4,6,7,8-HpCDD	35822-46-9	NE	NE	NE	NE	NE	1400	930	1200	260	300	210	450	1300
1,2,3,4,6,7,8-HpCDF	67562-39-4	NE	NE	NE	NE	NE	<280	<190	<180	51	<57	33	87	<240
1,2,3,4,7,8,9-HpCDF	55673-89-7	NE	NE	NE	NE	NE	17	13	11	<5	<5	<5	7.7	23
1,2,3,4,7,8-HxCDD	39227-28-6	NE	NE	NE	NE	NE	<5	<5	5.4	<5	<5	<5	<5	6.8
1,2,3,4,7,8-HxCDF	70648-26-9	NE	NE	NE	NE	NE	9.5	8.1	7.9	<5	<5	<5	<5	8.5
1,2,3,6,7,8-HxCDD	57653-85-7	NE	NE	NE	NE	NE	57	57	53	9.7	9.3	5.9	22	58
1,2,3,6,7,8-HxCDF	57117-44-9	NE	NE	NE	NE	NE	<5	6.1	6	<5	<5	<5	<5	<5
1,2,3,7,8,9-HxCDD	19408-74-3	NE	NE	NE	NE	NE	8.5	7.7	6.7	7.9	8	<5	<5	<8
1,2,3,7,8,9-HxCDF	72918-21-9	NE	NE	NE	NE	NE	<5	<5	<5	<5	<5	<5	<5	<5
1,2,3,7,8-PeCDD	40321-76-4	NE	NE	NE	NE	NE	10	<11	10	<5	<5	<5	11	16
1,2,3,7,8-PeCDF	57117-41-6	NE	NE	NE	NE	NE	8	8.6	7.6	<5	<5	<5	16	20
2,3,4,6,7,8-HxCDF	60851-34-5	NE	NE	NE	NE	NE	11	12	11	<5	<5	<5	<5	9.3
2,3,4,7,8-PeCDF	57117-31-4	NE	NE	NE	NE	NE	9.5	10	10	<5	<5	5.2	26	29
<b>2,3,7,8-TCDD</b>	<b>1746-01-6</b>	<b>22</b>	<b>15</b>	<b>4.8</b>	<b>0.059</b>	<b>NE</b>	<b>160</b>	<b>200</b>	<b>170</b>	<b>31</b>	<b>11</b>	<b>13</b>	<b>230</b>	<b>320</b>
2,3,7,8-TCDF	51207-31-9	NE	NE	NE	NE	NE	550	480	440	87	50	69	1700	1800
OCDD	3268-87-9	NE	NE	NE	NE	NE	22000	14000	29000	6700	6700	6300	6200	19000
OCDF	39001-02-0	NE	NE	NE	NE	NE	1700	630	540	94	170	110	300	1400
<b>TEQ</b>	<b>E17134024</b>	<b>22</b>	<b>15</b>	<b>4.8</b>	<b>0.059</b>	<b>3.15</b>	<b>270</b>	<b>290</b>	<b>280</b>	<b>51</b>	<b>28</b>	<b>32</b>	<b>430</b>	<b>570</b>
Total HpCDD	37871-00-4	NE	NE	NE	NE	NE	2800	1900	2900	590	550	550	1300	2800
Total HpCDF	38998-75-3	NE	NE	NE	NE	NE	1000	500	530	110	86	140	420	940
<b>Total HxCDD</b>	<b>34465-46-8</b>	<b>470</b>	<b>NE</b>	<b>100</b>	<b>17</b>	<b>NE</b>	<b>230</b>	<b>210</b>	<b>330</b>	<b>110</b>	<b>94</b>	<b>25</b>	<b>330</b>	<b>390</b>
Total HxCDF	55684-94-1	NE	NE	NE	NE	NE	320	380	340	45	38	36	96	270
Total PeCDD	36088-22-9	NE	NE	NE	NE	NE	51	64	86	16	<5	<5	78	96
Total PeCDF	30402-15-4	NE	NE	NE	NE	NE	270	390	370	62	32	49	190	320
Total TCDD	41903-57-5	NE	NE	NE	NE	NE	220	270	240	69	11	13	260	320
Total TCDF	30402-14-3	NE	NE	NE	NE	NE	1100	1300	1300	340	120	260	2900	3600

Notes:

Sample locations are shown within attached Figures located within the Appendix of this Report.

Sample ID Methodology: Location-sample location number-medium-sample depth

Complete laboratory results are included in the Appendix of this Report

All results are in nanograms per kilogram (ng/Kg) dry weight.

Listed EPA Regional Screening Tables (RSLs) are dated May 2018 (carcinogenic risk of 1x10<sup>-6</sup> and non-carcinogenic hazard of 1.0).

	Highlighted cell indicate exceedences of all of the listed EPA Regional Screening Levels (RSLs)
	Highlighted cell indicates an exceedance of the EPA Maximum Contaminant Level (MCL) Groundwater Protection SSL
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	Highlighted Cell indicates an exceedance of the EPA Risk-Based Groundwater Protection SSL

Red number indicates an exceedance of the EPA Region IV Ecological Risk Assessment Supplemental Guidance (2018) - Table 3 - Soil Screening Value for Hazardous Waste Sites

Lab qualifers are shown on each respective lab report.

NE - Not Established

TWHL - Temporary Wastewater Holding Lagoon

SL - Sludge Lagoon

WHL - Wastewater Holding Lagoon

WWD - Wastewater Ditch

Table 5  
 Summary of Dioxins/Furans Data  
 Wastewater Lagoon Sludge  
 New Indy  
 Catawba, SC  
 S&ME Job Number 4213-18-087  
 SCDHEC VCC No. 18-6120-VOC

Lab Sample ID		EPA Regional Screening Levels					Sludge Lagoon 2		Temporary Wastewater Holding Lagoon			
		Industrial Soil	MCL-Based	Residential Soil	Risk-Based	Region IV Ecological SSLs	SL2-1-SU-2	SL2-2-SU-2	TWHL-1-SU-1	TWHL-2-SU-1	TWHL-3-SU-1	TWHL-4-SU-1
Compound	CAS	Concentration, ng/Kg					Concentration, ng/kg		Concentration, ng/kg			
1,2,3,4,6,7,8-HpCDD	35822-46-9	NE	NE	NE	NE	NE	78	150	72	45	<5	<5
1,2,3,4,6,7,8-HpCDF	67562-39-4	NE	NE	NE	NE	NE	5.9	<25	11	6.1	<5	<5
1,2,3,4,7,8,9-HpCDF	55673-89-7	NE	NE	NE	NE	NE	<5	<5	<5	<5	<5	<5
1,2,3,4,7,8-HxCDD	39227-28-6	NE	NE	NE	NE	NE	<5	<5	<5	<5	<5	<5
1,2,3,4,7,8-HxCDF	70648-26-9	NE	NE	NE	NE	NE	<5	<5	<5	<5	<5	<5
1,2,3,6,7,8-HxCDD	57653-85-7	NE	NE	NE	NE	NE	<5	7.1	<5	<5	<5	<5
1,2,3,6,7,8-HxCDF	57117-44-9	NE	NE	NE	NE	NE	<5	<5	<5	<5	<5	<5
1,2,3,7,8,9-HxCDD	19408-74-3	NE	NE	NE	NE	NE	<5	<5	<5	<5	<5	<5
1,2,3,7,8,9-HxCDF	72918-21-9	NE	NE	NE	NE	NE	<5	<5	<5	<5	<5	<5
1,2,3,7,8-PeCDD	40321-76-4	NE	NE	NE	NE	NE	<5	<5	<5	<5	<5	<5
1,2,3,7,8-PeCDF	57117-41-6	NE	NE	NE	NE	NE	<5	<5	<5	<5	<5	<5
2,3,4,6,7,8-HxCDF	60851-34-5	NE	NE	NE	NE	NE	<5	<5	<5	<5	<5	<5
2,3,4,7,8-PeCDF	57117-31-4	NE	NE	NE	NE	NE	<5	11	<5	<5	<5	<5
<b>2,3,7,8-TCDD</b>	<b>1746-01-6</b>	<b>22</b>	<b>15</b>	<b>4.8</b>	<b>0.059</b>	<b>NE</b>	<b>47</b>	<b>130</b>	<b>12</b>	<b>7.5</b>	<1	<1
2,3,7,8-TCDF	51207-31-9	NE	NE	NE	NE	NE	250	770	16	12	1.3	<1
OCDD	3268-87-9	NE	NE	NE	NE	NE	1100	2400	2600	1700	280	19
OCDF	39001-02-0	NE	NE	NE	NE	NE	15	43	89	53	<10	<10
<b>TEQ</b>	<b>E17134024</b>	<b>22</b>	<b>15</b>	<b>4.8</b>	<b>0.059</b>	<b>3.15</b>	<b>74</b>	<b>220</b>	<b>17</b>	<b>11</b>	<b>0.42</b>	<b>0.019</b>
Total HpCDD	37871-00-4	NE	NE	NE	NE	NE	180	420	270	110	8.6	<5
Total HpCDF	38998-75-3	NE	NE	NE	NE	NE	20	<5	44	23	<5	<5
<b>Total HxCDD</b>	<b>34465-46-8</b>	<b>470</b>	<b>NE</b>	<b>100</b>	<b>17</b>	<b>NE</b>	<b>28</b>	<b>75</b>	<b>18</b>	<b>16</b>	<5	<5
Total HxCDF	55684-94-1	NE	NE	NE	NE	NE	5	38	<5	<5	<5	<5
Total PeCDD	36088-22-9	NE	NE	NE	NE	NE	15	27	<5	<5	<5	<5
Total PeCDF	30402-15-4	NE	NE	NE	NE	NE	32	110	9.7	6.4	<5	<5
Total TCDD	41903-57-5	NE	NE	NE	NE	NE	88	220	14	7.5	<1	<1
Total TCDF	30402-14-3	NE	NE	NE	NE	NE	560	1700	84	51	5.5	<1

Notes:

Sample locations are shown within attached Figures located within the Appendix of this Report.

Sample ID Methodology: Location-sample location number-medium-sample depth

Complete laboratory results are included in the Appendix of this Report

All results are in nanograms per kilogram (ng/Kg) dry weight.

Listed EPA Regional Screening Tables (RSLs) are dated May 2018 (carcinogenic risk of 1x10<sup>-6</sup> and non-carcinogenic hazard of 1.0).

	Highlighted cell indicate exceedences of all of the listed EPA Regional Screening Levels (RSLs)
	Highlighted cell indicates an exceedance of the EPA Maximum Contaminant Level (MCL) Groundwater Protection SSL
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	Highlighted Cell indicates an exceedance of the EPA Risk-Based Groundwater Protection SSL

Red number indicates an exceedance of the EPA Region IV Ecological Risk Assessment Supplemental Guidance (2018) -

Table 3 - Soil Screening Value for Hazardous Waste Sites

Lab qualifiers are shown on each respective lab report.

NE - Not Established

TWHL - Temporary Wastewater Holding Lagoon

SL - Sludge Lagoon

WHL - Wastewater Holding Lagoon

WWD - Wastewater Ditch

Table 5  
 Summary of Dioxins/Furans Data  
 Wastewater Lagoon Sludge  
 New Indy  
 Catawba, SC  
 S&ME Job Number 4213-18-087  
 SCDHEC VCC No. 18-6120-VOC

Lab Sample ID		EPA Regional Screening Levels					Wastewater Holding Lagoon 1							
		Industrial Soil	MCL-Based	Residential Soil	Risk-Based	Region IV Ecological SSLs	WHL1-1-SU-1	WHL1-2-SU-1	WHL1-3-SU-2	WHL1-4-SU-1	WHL1-5-SU-2	WHL1-6-SU-1	WHL1-7-SU-2	WHL1-8-SU-1
Compound	CAS	Concentration, ng/Kg					Concentration, ng/Kg							
1,2,3,4,6,7,8-HpCDD	35822-46-9	NE	NE	NE	NE	NE	160	310	45	14	24	110	39	190
1,2,3,4,6,7,8-HpCDF	67562-39-4	NE	NE	NE	NE	NE	<18	<75	5.6	<5	<5	13	<5	37
1,2,3,4,7,8,9-HpCDF	55673-89-7	NE	NE	NE	NE	NE	<5	<5	<5	<5	<5	<5	<5	<5
1,2,3,4,7,8-HxCDD	39227-28-6	NE	NE	NE	NE	NE	<5	5.5	<5	<5	<5	<5	<5	<5
1,2,3,4,7,8-HxCDF	70648-26-9	NE	NE	NE	NE	NE	<5	<5	<5	<5	<5	<5	<5	<5
1,2,3,6,7,8-HxCDD	57653-85-7	NE	NE	NE	NE	NE	<5	17	<5	<5	<5	5.4	<5	12
1,2,3,6,7,8-HxCDF	57117-44-9	NE	NE	NE	NE	NE	<5	<5	<5	<5	<5	<5	<5	<5
1,2,3,7,8,9-HxCDD	19408-74-3	NE	NE	NE	NE	NE	<5	6.7	<5	<5	<5	<5	<5	5.2
1,2,3,7,8,9-HxCDF	72918-21-9	NE	NE	NE	NE	NE	<5	<5	<5	<5	<5	<5	<5	<5
1,2,3,7,8-PeCDD	40321-76-4	NE	NE	NE	NE	NE	<5	<16	<5	<5	<5	<5	<5	<8
1,2,3,7,8-PeCDF	57117-41-6	NE	NE	NE	NE	NE	<5	17	<5	<5	<5	<5	<5	<14
2,3,4,6,7,8-HxCDF	60851-34-5	NE	NE	NE	NE	NE	<5	5	<5	<5	<5	<5	<5	<5
2,3,4,7,8-PeCDF	57117-31-4	NE	NE	NE	NE	NE	5.5	21	<5	<5	<5	5.1	<5	20
<b>2,3,7,8-TCDD</b>	<b>1746-01-6</b>	<b>22</b>	<b>15</b>	<b>4.8</b>	<b>0.059</b>	<b>NE</b>	<b>34</b>	<b>370</b>	<b>16</b>	<b>8.7</b>	<b>17</b>	<b>72</b>	<b>4.1</b>	<b>220</b>
2,3,7,8-TCDF	51207-31-9	NE	NE	NE	NE	NE	140	1500	47	25	54	310	<27	1300
OCDD	3268-87-9	NE	NE	NE	NE	NE	2800	4400	2000	350	800	1700	2800	4100
OCDF	39001-02-0	NE	NE	NE	NE	NE	110	190	21	<10	<10	22	<10	110
<b>TEQ</b>	<b>E17134024</b>	<b>22</b>	<b>15</b>	<b>4.8</b>	<b>0.059</b>	<b>3.15</b>	<b>55</b>	<b>550</b>	<b>23</b>	<b>12</b>	<b>24</b>	<b>110</b>	<b>9.9</b>	<b>370</b>
Total HpCDD	37871-00-4	NE	NE	NE	NE	NE	420	310	110	40	71	220	79	430
Total HpCDF	38998-75-3	NE	NE	NE	NE	NE	<5	<5	19	<5	<5	13	<5	110
<b>Total HxCDD</b>	<b>34465-46-8</b>	<b>470</b>	<b>NE</b>	<b>100</b>	<b>17</b>	<b>NE</b>	<b>35</b>	<b>140</b>	<b>16</b>	<b>&lt;5</b>	<b>6</b>	<b>42</b>	<b>14</b>	<b>83</b>
Total HxCDF	55684-94-1	NE	NE	NE	NE	NE	20	75	<5	<5	<5	17	<5	55
Total PeCDD	36088-22-9	NE	NE	NE	NE	NE	5.6	55	<5	<5	<5	22	6.2	34
Total PeCDF	30402-15-4	NE	NE	NE	NE	NE	58	270	10	5.2	7.8	62	24	120
Total TCDD	41903-57-5	NE	NE	NE	NE	NE	41	440	22	14	20	110	30	260
Total TCDF	30402-14-3	NE	NE	NE	NE	NE	300	2500	120	68	110	660	110	2400

Notes:

Sample locations are shown within attached Figures located within the Appendix of this Report.

Sample ID Methodology: Location-sample location number-medium-sample depth

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All results are in nanograms per kilogram (ng/Kg) dry weight.

Listed EPA Regional Screening Tables (RSLs) are dated May 2018 (carcinogenic risk of 1x10<sup>-6</sup> and non-carcinogenic hazard of 1.0).

	Highlighted cell indicate exceedences of all of the listed EPA Regional Screening Levels (RSLs)
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Table 3 - Soil Screening Value for Hazardous Waste Sites

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NE - Not Established

TWHL - Temporary Wastewater Holding Lagoon

SL - Sludge Lagoon

WHL - Wastewater Holding Lagoon

WWD - Wastewater Ditch

Table 5  
 Summary of Dioxins/Furans Data  
 Wastewater Lagoon Sludge  
 New Indy  
 Catawba, SC  
 S&ME Job Number 4213-18-087  
 SCDHEC VCC No. 18-6120-VOC

Lab Sample ID		EPA Regional Screening Levels					Wastewater Holding Lagoon 2				Wastewater Ditch
		Industrial Soil	MCL-Based	Residential Soil	Risk-Based	Region IV Ecological SSLs	WHL2-1-SU-3	WHL2-2-SU-3	WHL2-3-SU-2	WHL2-4-SU-1	WWD-1
Compound	CAS	Concentration, ng/Kg					Concentration, ng/Kg				ng/kg
1,2,3,4,6,7,8-HpCDD	35822-46-9	NE	NE	NE	NE	NE	28	<5	<5	14	8.9
1,2,3,4,6,7,8-HpCDF	67562-39-4	NE	NE	NE	NE	NE	<5	<5	<5	<5	<5
1,2,3,4,7,8,9-HpCDF	55673-89-7	NE	NE	NE	NE	NE	<5	<5	<5	<5	<5
1,2,3,4,7,8-HxCDD	39227-28-6	NE	NE	NE	NE	NE	<5	<5	<5	<5	<5
1,2,3,4,7,8-HxCDF	70648-26-9	NE	NE	NE	NE	NE	<5	<5	<5	<5	<5
1,2,3,6,7,8-HxCDD	57653-85-7	NE	NE	NE	NE	NE	<5	<5	<5	<5	<5
1,2,3,6,7,8-HxCDF	57117-44-9	NE	NE	NE	NE	NE	<5	<5	<5	<5	<5
1,2,3,7,8,9-HxCDD	19408-74-3	NE	NE	NE	NE	NE	<5	<5	<5	<5	<5
1,2,3,7,8,9-HxCDF	72918-21-9	NE	NE	NE	NE	NE	<5	<5	<5	<5	<5
1,2,3,7,8-PeCDD	40321-76-4	NE	NE	NE	NE	NE	<5	<5	<5	<5	<5
1,2,3,7,8-PeCDF	57117-41-6	NE	NE	NE	NE	NE	<5	<5	<5	<5	<5
2,3,4,6,7,8-HxCDF	60851-34-5	NE	NE	NE	NE	NE	<5	<5	<5	<5	<5
2,3,4,7,8-PeCDF	57117-31-4	NE	NE	NE	NE	NE	<5	<5	<5	<5	<5
<b>2,3,7,8-TCDD</b>	<b>1746-01-6</b>	<b>22</b>	<b>15</b>	<b>4.8</b>	<b>0.059</b>	<b>NE</b>	<1	<1	<1	<1	<b>1.4</b>
2,3,7,8-TCDF	51207-31-9	NE	NE	NE	NE	NE	<1	<1	<1	<1	<5.9
OCDD	3268-87-9	NE	NE	NE	NE	NE	2300	130	210	2000	400
OCDF	39001-02-0	NE	NE	NE	NE	NE	<10	<10	<10	<10	<10
<b>TEQ</b>	<b>E17134024</b>	<b>22</b>	<b>15</b>	<b>4.8</b>	<b>0.059</b>	<b>3.15</b>	<b>2.6</b>	<b>0.13</b>	<b>0.21</b>	<b>2.2</b>	<b>2.4</b>
Total HpCDD	37871-00-4	NE	NE	NE	NE	NE	120	<5	6.9	30	20
Total HpCDF	38998-75-3	NE	NE	NE	NE	NE	<5	<5	<5	<5	<5
<b>Total HxCDD</b>	<b>34465-46-8</b>	<b>470</b>	<b>NE</b>	<b>100</b>	<b>17</b>	<b>NE</b>	8.5	<5	<5	<5	<5
Total HxCDF	55684-94-1	NE	NE	NE	NE	NE	<5	<5	<5	<5	<5
Total PeCDD	36088-22-9	NE	NE	NE	NE	NE	<5	<5	<5	<5	<5
Total PeCDF	30402-15-4	NE	NE	NE	NE	NE	<5	<5	<5	<5	8.9
Total TCDD	41903-57-5	NE	NE	NE	NE	NE	<1	<1	<1	<1	30
Total TCDF	30402-14-3	NE	NE	NE	NE	NE	3.6	<1	<1	<1	77

Notes:

Sample locations are shown within attached Figures located within the Appendix of this Report.

Sample ID Methodology: Location-sample location number-medium-sample depth

Complete laboratory results are included in the Appendix of this Report

All results are in nanograms per kilogram (ng/Kg) dry weight.

Listed EPA Regional Screening Tables (RSLs) are dated May 2018 (carcinogenic risk of 1x10<sup>-6</sup> and non-carcinogenic hazard of 1.0).

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NE - Not Established

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SL - Sludge Lagoon

WHL - Wastewater Holding Lagoon

WWD - Wastewater Ditch



Table 6  
 Summary of Wastewater Lagoon Sludge  
 Analytical Data (Non-Dioxin)  
 New Indy  
 Catawba, SC  
 S&ME Job Number 4213-18-087  
 SCDHEC VCC No. 18-6120-VOC

Client Sample ID	EPA Regional Screening Levels						Sludge Lagoon 1 Samples																			
	Industrial Soil	Residential Soil	MCL-Based	Risk-Based	Maximum Background Metals Concentration	SL1-1-SU-5	SL1-1-SU-10	SL1-1-SU-14	SL1-1-SU-20	SL1-2-SU-14	SL1-2-SU-18	SL1-3-SU-4	SL1-3-SU-8	SL1-3-SU-12	SL1-3-SU-16	SL1-3-SU-20	SL1-3-SU-24	SL1-4-SU-8	SL1-4-SU-12	SL1-4-SU-15	SL1-5-SU-6	SL1-5-SU-10	SL1-6-SU-8	SL1-6-SU-11		
						L1113939-12	L1113939-11	L1113939-14	L1113939-13	L1113939-10	L1113939-07	L1113939-09	L1113939-17	L1113939-18	L1113939-08	L1113939-02	L1113939-01	L1113939-15	L1113939-06	L1113939-03	L1113939-05	L1113939-16	L1113939-20	L1113939-19		
Lab Sample ID	Date Collected																									
Analyte	CAS							Concentration (mg/kg)																		
Metals																										
ALUMINIUM	7429-90-5	1100000	77000	NE	30000	100000	65400	56200	104000	31800	9150	5710	76800	42900	71100	57900	10900	6020	5520	6370	6270	33800	64200	8910	5960	
ARSENIC	7440-38-2	3	0.68	0.29	0.0015	11	<15.2	12.6	16.8	<5.00	<13.1	<12.7	<18.1	<10.1	<12.3	<11.1	<12.2	<12.5	<17.9	<11.4	<10.2	<7.56	21.6	<11.4	<12.2	
BARIUM	7440-39-3	220000	15000	82	160	353	164	151	346	87.4	84.9	86.1	121	114	225	214	91.4	77	89.2	157	170	231	100	82.2	89.1	
BERYLLIUM	7440-41-7	2300	160	3.2	19	0.17	<1.52	<1.03	<1.41	0.723	<1.31	<1.27	<1.81	<1.01	<1.23	<1.11	<1.22	<1.25	<1.79	<1.14	<1.02	0.832	<0.892	<1.14	<1.22	
CADMIUM	7440-43-9	980	71	0.38	0.69	2.2	<3.79	<2.57	<3.51	<1.25	<3.27	<3.18	<4.52	<2.52	<3.09	<2.78	<3.06	<3.11	<4.47	<2.86	2.93	<1.89	<2.23	<2.84	<3.04	
CALCIUM	7440-70-2	NE	NE	NE	NE	2500	4320	4350	7380	71100	114000	73100	6430	9200	28800	34100	76700	111000	67600	120000	143000	42100	7760	131000	66700	
CHROMIUM	7440-47-3	NE	NE	180000	NE	41	81.9	74.5	114	51.5	28.7	23	79.5	55.2	92.9	81.6	36.5	44.7	19.3	18.8	19.6	80.7	122	32.9	22.3	
COBALT	7440-48-4	350	23	NE	0.27	5.3	18.6	19.4	13.7	10.8	<6.54	<6.35	13.1	14.2	15	12.4	<6.12	<6.23	<8.95	<5.72	<5.08	17.7	17	<5.68	<6.09	
COPPER	7440-50-8	47000	3100	46	28	34.7	63.9	59.1	73.5	42.9	59.2	72.2	56.6	46.5	84.7	76	64.8	57.5	89	122	150	68.4	75.5	49.1	73	
IRON	7439-89-6	820000	55000	NE	350	28467	40100	42100	36800	28600	7900	6770	40000	32600	40600	33700	6170	4290	3830	4810	6070	40400	39700	3820	4010	
LEAD	7439-92-1	800	400	14	NE	17.6	26.5	27.1	20.4	50.8	41.6	64.2	20.3	21.5	29.8	30.7	53.8	43.5	65.9	118	104	28	32.5	36.2	56.1	
MAGNESIUM	7439-95-4	NE	NE	NE	NE	2700	3580	3490	2790	2470	1590	966	2820	2890	4820	4280	1130	848	<895	732	781	6530	2460	854	727	
MANGANESE	7439-96-5	26000	1800	NE	28	235	2590	3150	1900	229	664	999	1930	2330	2400	2200	924	751	770	1150	1570	2180	735	780	962	
NICKEL	7440-02-0	22000	1500	NE	26	14.9	17.7	17.4	16.4	17.1	16	18.1	<18.1	12.8	21.5	19.9	16.8	19.4	20	25.9	23.6	24.7	22	15.4	16.5	
POTASSIUM	7440-09-7	NE	NE	NE	NE	5500	1290	1180	976	965	<654	<635	<905	988	1110	866	<612	<623	<895	<572	<508	1370	1150	<568	<609	
SODIUM	7440-23-5	NE	NE	NE	NE	1900	788	636	1300	2140	2170	1660	1150	855	1850	1850	3670	6530	2630	2300	2680	3560	5020	14000	7940	
VANADIUM	7440-62-2	5800	390	NE	86	120	110	118	132	107	36.9	31.4	103	85.9	116	95.6	38.8	36.5	45.1	40.8	36.4	92.1	121	34.3	30.9	
ZINC	7440-66-6	350000	23000	NE	370	52	155	139	102	69.5	417	686	267	130	212	208	432	367	762	1280	1020	165	125	270	628	
MERCURY	7439-97-6	46	11	0.1	0.033	0.18	<0.152	<0.103	<0.141	0.0699	0.161	0.528	<0.181	<0.101	0.15	0.121	0.2	0.171	0.789	2.98	2.37	<0.0756	<0.0892	0.129	0.274	
Volatile Organic Compounds (VOCs)																										
ACETONE	67-64-1	670000	61000	NE	2.9	NA	0.674	<0.232	0.481	<0.0625	4.4	3.72	0.786	0.195	0.347	2.07	1.34	4.34	0.47	1.53	0.497	0.248	0.145	0.761	2.39	
BENZENE	71-43-2	5.1	1.2	0.0026	0.0023	NA	0.011	<0.00927	<0.00703	<0.00250	0.0113	0.0101	0.0211	<0.00505	<0.00617	<0.00780	<0.00674	0.01	<0.00895	<0.00629	<0.00508	<0.00382	<0.00477	<0.00568	<0.0487	
CARBON DISULFIDE	75-15-0	3500	770	NE	0.24	NA	<0.105	<0.116	<0.0879	0.0427	0.152	0.463	<0.155	<0.0631	0.122	0.24	<0.0845	<0.122	<0.112	0.144	0.114	0.0678	0.0667	0.073	<0.609	
ETHYLBENZENE	100-41-4	25	5.8	0.78	0.0017	NA	<0.0208	<0.0232	<0.0176	<0.00625	<0.0216	<0.0159	<0.0309	<0.0126	<0.0154	<0.0195	<0.0168	<0.0244	<0.0224	<0.0157	<0.0127	<0.00952	<0.0120	<0.0142	<0.122	
ISOPROPYLBENZENE	98-82-8	9900	1900	NE	0.74	NA	<0.0208	<0.0232	<0.0176	0.0224	0.281	0.177	<0.0309	<0.0126	<0.0154	<0.0195	0.174	0.293	0.126	0.139	<0.0127	<0.00952	<0.0120	0.142	0.162	
2-BUTANONE (MEK)	78-93-3	190000	27000	NE	1.2	NA	<0.208	<0.232	<0.176	<0.0625	<0.216	0.194	<0.309	<0.126	<0.154	<0.195	<0.168	<0.244	<0.224	<0.157	<0.127	<0.0952	<0.120	<0.142	<1.22	
METHYL ACETATE	79-20-9	1200000	78000	NE	4.1	NA	1.14	1.44	0.839	0.359	2.63	1.9	1.94	0.522	0.489	1.59	1.45	4.59	0.798	1.12	0.5	0.575	0.605	0.999	1.66	
METHYL CYCLOHEXANE	108-87-2	NE	NE	NE	NE	NA	<0.0417	<0.0463	<0.0351	0.0245	0.489	0.283	<0.0620	<0.0252	0.0314	0.0415	0.347	0.581	0.239	0.275	<0.0254	<0.0191	<0.0239	0.386	0.394	
TETRACHLOROETHENE	127-18-4	100	24	0.0023	0.0051	NA	<0.0208	<0.0232	<0.0176	<0.00625	<0.0216	<0.0159	<0.0309	<0.0126	<0.0154	<0.0195	0.0872	0.509	<0.0224	<0.0157	<0.0127	<0.00952	<0.0120	<0.0142	<0.122	
TOLUENE	108-88-3	47000	4900	0.69	0.76	NA	<0.0417	<0.0463	<0.0351	<0.0125	0.0953	0.0486	0.111	0.0351	<0.0309	<0.0390	0.0423	0.0838	<0.0447	0.0338	0.0266	<0.0191	<0.0239	<0.0284	<0.243	
TRICHLOROETHENE	79-01-6	6	0.94	0.0018	0.00018	NA	<0.00834	<0.00927	<0.00703	<0.00250	<0.00863	<0.00635	<0.0124	<0.00505	<0.00617	<0.00780	<0.00674	0.0164	<0.00895	<0.00629	<0.00508	<0.00382	<0.00477	<0.00568	<0.0487	
Semi-Volatile Organic Compounds (SVOCs)																										
ACENAPHTHENE	83-32-9	45000	3600	NE	5.5	NA	<0.252	<0.171	<0.234	<0.0833	<0.218	<0.212	<0.301	<0.168	<0.206	<3.71	<0.204	<0.207	<59.6	<0.190	<0.169	<0.631	<0.149	<0.189	<2.03	
FLUORANTHENE	206-44-0	30000	2400	NE	89	NA	<0.252	<0.171	<0.234	<0.0833	<0.218	<0.212	<0.301	<0.168	<0.206	<3.71	<0.204	<0.207	<59.6	<0.190	<0.169	<0.631	<0.149	<0.189	<2.03	
FLUORENE	86-73-7	30000	2400	NE	5.4	NA	<0.252	<0.171	<0.234	<0.0833	<0.218	1.05	<0.301	<0.168	<0.206	<3.71	0.882	0.885	<59.6	0.669	<0.169	<0.631	<0.149	0.42	<2.03	
2-METHYLNAPHTHALENE	91-57-6	3000	240	NE	0.19	NA	<0.252	<0.171	<0.234	0.81	4.87	15.4	<0.301	<0.168	<0.206	<3.71	14.3	13.3	<59.6	12.8	8.17	<0.631	<0.149	3.98	6.06	
NAPHTHALENE	91-20-3	17	3.8	NE	0.00054	NA	<0.252	<0.171	<0.234	<0.0833	<0.218	<0.212	<0.301	<0.168	<0.206	<3.71	<0.204	<0.207	<59.6	<0.190	<0.169	<0.631	<0.149	<0.189	<2.03	
PHENANTHRENE	85-01-8	NE	NE	NE	NE	NA	<0.252	<0.171	<0.234	<0.0833	<0.218	0.655	<0.301	<0.168	<0.206	<3.71	0.54	0.494	<59.6	0.436	0.357	<0.631	<0.149	0.244	<2.03	
ACENAPHTHENE	83-32-9	45000	3600	NE	5.5	NA	<0.0455	<0.0309	<0.0422	<0.0150	0.0785	0.343	<0.0543	<0.0303	<0.0370	<0.0334	<0.0367	<0.0374	<0.0537	0.48	<0.0305	<0.0227	<0.0268	<0.0341	<0.0365	
FLUORANTHENE	206-44-0	30000	2400	NE	89	NA	<0.0455	<0.0309	<0.0422	<0.0150	0.0392	0.0381	<0.0543	<0.0303	<0.0370	<0.0334	<0.0367	<0.0374	<0.0537	0.0371	0.0352	<0.0227	<0.0268	<0.0341	0.0627	
FLUORENE	86-73-7	30000	2400	NE	5.4	NA	<0.0455	<0.0309	<0.0422	0.0705	0.121															

Table 6  
 Summary of Wastewater Lagoon Sludge  
 Analytical Data (Non-Dioxin)  
 New Indy  
 Catawba, SC  
 S&ME Job Number 4213-18-087  
 SCDHEC VCC No. 18-6120-VOC

Lab Sample ID	Client Sample ID	Date Collected	Screening Levels					Sludge Lagoon 2						Temporary Wastewater Holding Lagoon						Wastewater Holding Lagoon 1						Wastewater Holding Lagoon 2			
			Industrial Soil	Residential Soil	MCL-Based	Risk-Based	Maximum Background Metals Concentration	L1111579-05	L1111579-06	L1111579-01	L1111579-02	L1111579-03	L1111579-04	L1111579-07	L1111579-08	L1111579-09	L1111579-10	L1111579-11	L1111579-12	L1111579-13	L1111579-14	L1111579-16	L1111579-17	L1111579-18	L1111579-19				
Analyte	CAS																												
		Concentration (mg/kg)																											
Metals																													
ALUMINUM	7429-90-5	1100000	77000	NE	30000	100000	50800	31100	42000	25600	7830	27600	26500	17500	19200	17600	16100	22600	13100	10300	21100	12100	32300	30500					
BARIUM	7440-39-3	220000	15000	82	160	353	1090	657	156	89.8	37.4	109	409	86.1	249	227	88.8	164	436	188	125	72.3	146	153					
BERYLLIUM	7440-41-7	2300	160	3.2	19	0.17	<0.690	<0.805	2.13	1.01	0.354	1.2	<0.563	0.46	<0.493	0.64	<0.265	0.698	<1.82	<0.418	0.552	0.453	1.56	1.46					
CADMIUM	7440-43-9	980	71	0.38	0.69	2.2	<1.73	<2.01	<1.23	<1.06	<0.672	<0.659	<1.41	1.22	3.02	<1.22	<0.661	<1.34	<4.56	<1.04	<0.843	<0.616	<0.752	<0.733					
CALCIUM	7440-70-2	NE	NE	NE	NE	2500	130000	152000	3500	2800	2480	1150	6940	9660	8270	7970	2570	9370	64500	9150	6120	1270	1440	1240					
CHROMIUM	7440-47-3	NE	NE	180000	NE	41	56.8	40.8	36.6	26.1	7.74	30	18.7	30	19.9	37	14.6	30	30.8	18.8	16.5	10.7	43.9	36.4					
COBALT	7440-48-4	350	23	NE	0.27	5.3	3.5	<4.02	31.5	24.2	6.85	12.1	6.6	9.52	7.45	8.13	4.52	9.67	<9.12	6.19	9.59	6.26	18.7	25.9					
COPPER	7440-50-8	47000	3100	46	28	34.7	26	26	32	20.1	4.9	16.6	57.3	51.5	54.7	30.1	17	35.9	52.6	25.8	33.3	21.6	25	21					
IRON	7439-89-6	820000	55000	NE	350	28467	4790	3570	48100	34400	5500	29100	13500	21100	15000	31500	23100	19900	3480	11200	28100	14300	40200	38600					
LEAD	7439-92-1	800	400	14	NE	17.6	23	23.9	19.6	13.6	3.13	9.42	31.9	31.4	23.7	17.1	8.04	22.5	11.9	19.3	8.24	8.04	18.2	21.8					
MAGNESIUM	7439-95-4	NE	NE	NE	NE	2700	3050	2830	2180	1270	576	4450	1160	1460	1340	1580	602	3320	2770	1100	1980	1150	1610	2840					
MANGANESE	7439-96-5	26000	1800	NE	28	235	735	687	471	413	230	292	375	285	315	442	223	420	1230	252	512	393	412	855					
NICKEL	7440-02-0	22000	1500	NE	26	14.9	10.2	12.1	19.5	13.5	4.07	17.1	16	16.6	13.2	13.7	6.07	14.9	21	7.92	10.2	4.96	13.9	16.2					
POTASSIUM	7440-09-7	NE	NE	NE	NE	5500	483	<402	1460	744	420	2400	578	449	593	848	420	2040	1240	573	1230	691	1280	2020					
SELENIUM	7782-49-2	5800	390	0.26	0.52	3.6	9.88	<8.05	<4.92	<4.23	<2.69	<2.64	<5.63	<3.53	<4.93	<4.88	<2.65	<5.36	<18.2	<4.18	<3.37	<2.46	3.54	3.23					
SODIUM	7440-23-5	NE	NE	NE	NE	1900	3920	4680	263	<211	<134	216	1120	1220	1420	1150	376	1720	5260	1390	312	227	376	353					
VANADIUM	7440-62-2	5800	390	NE	86	120	59.6	41.6	97.7	65.2	15.6	62.6	90.2	103	59.1	65.6	43.9	48.7	28.4	60.9	68.8	38.4	90.3	81.5					
ZINC	7440-66-6	350000	23000	NE	370	52	282	271	83	72.4	14.1	51	622	375	1230	977	165	1290	1300	638	99.7	33	56.9	76.8					
MERCURY	7439-97-6	46	11	0.1	0.033	0.18	0.256	0.331	0.106	0.0544	0.0367	0.0453	0.319	0.0855	0.127	0.41	0.091	0.478	0.228	0.148	0.05	0.0324	0.0509	0.0625					
Volatile Organic Compounds (VOCs)																													
ACETONE	67-64-1	670000	61000	NE	2.9	NA	0.174	0.339	0.152	0.141	0.0564	<0.0329	0.202	0.266	0.304	0.243	<0.259	0.853	0.645	0.28	0.116	<0.0308	0.0806	0.181					
BENZENE	71-43-2	5.1	1.2	0.0026	0.00023	NA	<0.00449	<0.00499	<0.00298	<0.00211	<0.00134	<0.00132	<0.00298	0.00251	<0.00247	<0.00246	<0.0104	<0.00418	<0.00912	<0.00255	<0.00169	<0.00123	<0.00150	<0.00358					
CARBON DISULFIDE	75-15-0	3500	770	NE	0.24	NA	<0.0559	<0.0624	<0.0372	<0.0264	0.0457	<0.0165	<0.0372	<0.0282	<0.0308	0.0324	<0.130	<0.0522	<0.114	0.033	<0.0211	<0.0154	<0.0188	<0.0447					
CHLOROFORM	67-66-3	1.4	0.32	0.022	0.000061	NA	<0.0112	0.0301	<0.00743	<0.00528	<0.00336	<0.00329	0.00927	<0.00565	<0.00617	0.0131	<0.0259	<0.0104	<0.0228	<0.00637	<0.00421	<0.00308	<0.00376	<0.00894					
2-BUTANONE (MEK)	78-93-3	190000	27000	NE	1.2	NA	<0.112	<0.125	0.0853	0.0757	0.0352	<0.0329	0.158	0.129	0.128	0.116	<0.259	0.212	0.378	0.0919	0.0609	<0.0308	0.0416	0.131					
METHYL ACETATE	79-20-9	1200000	78000	NE	4.1	NA	0.735	0.763	0.368	0.284	0.233	<0.00659	0.97	0.953	0.644	0.554	1.37	1.3	3.02	0.531	0.26	0.159	0.209	0.558					
METHYL CYCLOHEXANE	108-87-2	NE	NE	NE	NE	NA	<0.0224	<0.0249	<0.0149	<0.0106	<0.00672	<0.00659	<0.0149	<0.0113	<0.0123	<0.0123	<0.0519	<0.0209	<0.0456	<0.0127	<0.00843	<0.00616	0.00765	<0.0179					
TOLUENE	108-88-3	47000	4900	0.69	0.76	NA	0.0641	0.123	0.0213	<0.0106	<0.00672	0.00673	0.0292	0.0408	<0.0123	0.0563	<0.0519	0.0358	0.0594	0.094	<0.00843	0.00639	<0.00752	<0.0179					
Semi-Volatile Organic Compounds (SVOCs)																													
ACENAPHTHENE	83-32-9	45000	3600	NE	5.5	NA	<0.0207	<0.0241	<0.0148	<0.0127	<0.00806	<0.00791	<0.0169	0.0277	<0.0148	<0.0146	<0.00794	<0.0161	<0.0547	<0.0125	<0.0101	<0.00739	<0.00903	<0.00880					
FLUORANTHENE	206-44-0	30000	2400	NE	89	NA	<0.0207	<0.0241	<0.0148	<0.0127	<0.00806	<0.00791	<0.0169	0.0206	<0.0148	<0.0146	<0.00794	<0.0161	0.0626	<0.0125	<0.0101	<0.00739	<0.00903	<0.00880					
FLUORENE	86-73-7	30000	2400	NE	5.4	NA	<0.0207	<0.0241	<0.0148	<0.0127	<0.00806	<0.00791	<0.0169	0.0272	<0.0148	<0.0146	<0.00794	<0.0161	<0.0547	<0.0125	<0.0101	<0.00739	<0.00903	<0.00880					
PHENANTHRENE	85-01-8	NE	NE	NE	NE	NA	<0.0207	<0.0241	<0.0148	<0.0127	<0.00806	<0.00791	<0.0169	0.0295	<0.0148	<0.0146	<0.00794	<0.0161	<0.0547	<0.0125	<0.0101	<0.00739	<0.00903	<0.00880					
1-METHYLNAPHTHALENE	90-12-0	73	18	NE	0.006	NA	<0.0690	0.0833	<0.0492	<0.0423	<0.0269	<0.0264	<0.0563	0.0551	<0.0493	<0.0488	<0.0265	<0.0536	<0.182	<0.0418	<0.0337	<0.0246	<0.0301	<0.0293					
2-METHYLNAPHTHALENE	91-57-6	3000	240	NE	0.19	NA	<0.0690	0.117	<0.0492	<0.0423	<0.0269	<0.0264	<0.0563	0.0634	<0.0493	<0.0488	<0.0265	<0.0536	<0.182	<0.0418	<0.0337	<0.0246	<0.0301	<0.0293					

Notes:

Only analytes with at least one detection above laboratory detection limits are shown.

Sample locations are shown within attached Figure.

Sample ID Methodology: Location-sample location number-medium-sample depth

Complete laboratory results are included in the Appendix of this Report

- All results are in milligrams per kilogram (mg/kg) dry weight.

- Listed EPA Regional Screening Tables (RSLs) are dated May 2018 (carcinogenic risk of 1x10<sup>-6</sup> and non-carcinogenic hazard of 1.0).

	Highlighted cell indicate exceedences of all of the listed EPA Regional Screening Levels (RSLs)
	Highlighted cell indicates an exceedance of the EPA Maximum Contaminant Level (MCL) Groundwater Protection SSL
	Highlighted cell indicate exceedences of the Residential RSL as well as both Groundwater Protection Site Screening Levels (SSLs)
	Highlighted Cell indicates an exceedance of the EPA Risk-Based Groundwater Protection SSL

Red Numbers exceeds maximum background metals concentration. Background metals concentrations are summarized in Table 4.

Lab qualifiers are shown on each respective lab report.

NE - Not Established

NA - Not Applicable

SU - Sludge

SL - Soil



Table 6  
 Summary of Wastewater Lagoon Sludge  
 Analytical Data (Non-Dioxin)  
 New Indy  
 Catawba, SC  
 S&ME Job Number 4213-18-087  
 SCDHEC VCC No. 18-6120-VOC

			Screening Levels					WWD-1
Lab Sample ID			Industrial Soil	Residential Soil	MCL-Based	Risk-Based	Maximum Background Metals Concentration	L1115323-01
Client Sample ID								SL2-1-SU-2
Date Collected								06/18/2019
Method	Analyte	CAS						(mg/kg)
<b>Metals</b>								
6010D	ALUMINUM	7429-90-5	1100000	77000	NE	30000	100000	17500
6010D	BARIUM	7440-39-3	220000	15000	82	160	353	307
6010D	CALCIUM	7440-70-2	NE	NE	NE	NE	2500	190000
6010D	CHROMIUM	7440-47-3	NE	NE	180000	NE	41	32.1
6010D	COBALT	7440-48-4	350	23	NE	0.27	5.3	14
6010D	COPPER	7440-50-8	47000	3100	46	28	34.7	51.1
6010D	IRON	7439-89-6	820000	55000	NE	350	28467	13100
6010D	LEAD	7439-92-1	800	400	14	NE	17.6	6.57
6010D	MAGNESIUM	7439-95-4	NE	NE	NE	NE	2700	6550
6010D	MANGANESE	7439-96-5	26000	1800	NE	28	235	1190
6010D	NICKEL	7440-02-0	22000	1500	NE	26	14.9	26.4
6010D	POTASSIUM	7440-09-7	NE	NE	NE	NE	5500	9830
6010D	SODIUM	7440-23-5	NE	NE	NE	NE	1900	3250
6010D	VANADIUM	7440-62-2	5800	390	NE	86	120	31.3
6010D	ZINC	7440-66-6	350000	23000	NE	370	52	507
<b>Volatile Organic Compounds (VOCs)</b>								
8260B	ACETONE	67-64-1	670000	61000	NE	2.9	NA	2.15
8260B	METHYL ACETATE	79-20-9	1200000	78000	NE	4.1	NA	1.92
<b>Semi-Volatile Organic Compounds (SVOCs)</b>								
8270D	3&4-METHYL PHENOL	3&4-Methyl Phenol	NE	NE	NE	NE	NA	0.823
8270D	PHENOL	108-95-2	250000	19000	NE	3.3	NA	1.43
8270E-SIM	FLUORENE	86-73-7	30000	2400	NE	5.4	NA	0.0677
8270E-SIM	PHENANTHRENE	85-01-8	NE	NE	NE	NE	NA	0.061

Notes:

Only analytes with at least one detection above laboratory detection limits are shown.

Sample locations are shown within attached Figure.

Sample ID Methodology: Location-sample location number-medium-sample depth

Complete laboratory results are included in the Appendix of this Report

- All results are in milligrams per kilogram (mg/kg) dry weight.

- Listed EPA Regional Screening Tables (RSLs) are dated May 2018 (carcinogenic risk of 1x10<sup>-6</sup> and non-carcinogenic hazard of 1.0).

	Highlighted cell indicate exceedences of all of the listed EPA Regional Screening Levels (RSLs)
	Highlighted cell indicates an exceedance of the EPA Maximum Contaminant Level (MCL) Groundwater Protection SSL
	Highlighted cell indicate exceedences of the Residential RSL as well as both Groundwater Protection Site Screening Levels (SSLs)
	Highlighted Cell indicates an exceedance of the EPA Risk-Based Groundwater Protection SSL

Red Numbers exceeds maximum background metals concentration. Background metals concentrations are summarized in Table 4.

Lab qualifiers are shown on each respective lab report.

NE - Not Established

NA - Not Applicable

SU - Sludge

SL - Soil

Table 7  
Summary of Groundwater Data (Dioxins/Furans)  
New Indy  
Catawba, SC  
S&ME Job Number 4213-18-087  
SCDHEC VCC No. 18-6120-VOC

Lab Sample ID		EPA Regional Screening Levels		Groundwater Monitoring Well														
		SCDHEC MCLs	EPA RSL Tapwater	Concentration (pg/l)														
Compound	CAS	Concentration, pg/L		GW-4A	GW-4B	GW-5	GW-5B	GW-6	GW-6B	GW-9	CM-DUP-GW-1	GW-10	GW-11	GW-12	GW-13	GW-14	GW-15BR	GW-15R
				GW-9 Duplicate														
1,2,3,4,6,7,8-HpCDD	35822-46-9	NE	NE	<50	<50	<50	<50	<50	<50	<50	150	<50	<50	<50	<50	<50	<50	<50
1,2,3,4,6,7,8-HpCDF	67562-39-4	NE	NE	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50
1,2,3,4,7,8,9-HpCDF	55673-89-7	NE	NE	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50
1,2,3,4,7,8-HxCDD	39227-28-6	NE	NE	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50
1,2,3,4,7,8-HxCDF	70648-26-9	NE	NE	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50
1,2,3,6,7,8-HxCDD	57653-85-7	NE	NE	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50
1,2,3,6,7,8-HxCDF	57117-44-9	NE	NE	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50
1,2,3,7,8,9-HxCDD	19408-74-3	NE	NE	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50
1,2,3,7,8,9-HxCDF	72918-21-9	NE	NE	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50
1,2,3,7,8-PeCDD	40321-76-4	NE	NE	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50
1,2,3,7,8-PeCDF	57117-41-6	NE	NE	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50
2,3,4,6,7,8-HxCDF	60851-34-5	NE	NE	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50
2,3,4,7,8-PeCDF	57117-31-4	NE	NE	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50
<b>2,3,7,8-TCDD</b>	<b>1746-01-6</b>	<b>30</b>	<b>0.12</b>	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
2,3,7,8-TCDF	51207-31-9	NE	NE	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
OCDD	3268-87-9	NE	NE	<100	<100	<100	<100	<100	<100	<100	1100	<100	<100	<100	<100	<100	<100	<100
OCDF	39001-02-0	NE	NE	<100	<100	<100	<100	<100	<100	<100	160	<100	<100	<100	<100	<100	<100	<100
<b>TEQ</b>	<b>E17134024</b>	<b>30</b>	<b>0.12</b>	<0	<0	<0	<0	<0	<0	<0	2.8	<0	<0	<0	<0	<0	<0	<0
Total HpCDD	37871-00-4	NE	NE	<50	<50	<50	<50	<50	<50	<50	230	<50	<50	<50	<50	<50	<50	<50
Total HpCDF	38998-75-3	NE	NE	<50	<50	<50	<50	<50	<50	<50	74	<50	<50	<50	<50	<50	<50	<50
<b>Total HxCDD</b>	<b>34465-46-8</b>	NE	<b>13</b>	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50
Total HxCDF	55684-94-1	NE	NE	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50
Total PeCDD	36088-22-9	NE	NE	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50
Total PeCDF	30402-15-4	NE	NE	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50
Total TCDD	41903-57-5	NE	NE	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
Total TCDF	30402-14-3	NE	NE	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10

Notes:

Sample locations are shown within attached Figures located within the Appendix of this Report.  
Complete laboratory results are included in the Appendix of this Report  
All results are in picograms per liter.  
Listed EPA Regional Screening Tables (RSLs) are dated May 2018 (carcinogenic risk of 1x10<sup>-6</sup> and non-carcinogenic hazard of 1.0).

	Highlighted cell indicate exceedences SCDHEC Maximum Contaminant Levels (MCLs)
	Highlighted cell indicates an exceedance of the EPA Risk Screening Levels for Tapwater

Lab qualifers are shown on each respective lab report.  
NE - Not Established

Table 7  
 Summary of Groundwater Data (Dioxins/Furans)  
 New Indy  
 Catawba, SC  
 S&ME Job Number 4213-18-087  
 SCDHEC VCC No. 18-6120-VOC

Lab Sample ID		EPA Regional Screening Levels		Groundwater Monitoring Well												
		SCDHEC MCLs	EPA RSL Tapwater	Concentration (pg/l)												
Compound	CAS	Concentration, pg/L		GW-16	GW-17	GW-18	R2-MW-1	R2-MW-2	R2-MW-3	R2-MW-4	R2-MW-5	R2-MW-6	R43-MW-1	R43-MW-2	CM-DUP-GW-2	R43-MW-3
1,2,3,4,6,7,8-HpCDD	35822-46-9	NE	NE	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50
1,2,3,4,6,7,8-HpCDF	67562-39-4	NE	NE	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50
1,2,3,4,7,8,9-HpCDF	55673-89-7	NE	NE	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50
1,2,3,4,7,8-HxCDD	39227-28-6	NE	NE	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50
1,2,3,4,7,8-HxCDF	70648-26-9	NE	NE	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50
1,2,3,6,7,8-HxCDD	57653-85-7	NE	NE	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50
1,2,3,6,7,8-HxCDF	57117-44-9	NE	NE	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50
1,2,3,7,8,9-HxCDD	19408-74-3	NE	NE	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50
1,2,3,7,8,9-HxCDF	72918-21-9	NE	NE	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50
1,2,3,7,8-PeCDD	40321-76-4	NE	NE	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50
1,2,3,7,8-PeCDF	57117-41-6	NE	NE	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50
2,3,4,6,7,8-HxCDF	60851-34-5	NE	NE	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50
2,3,4,7,8-PeCDF	57117-31-4	NE	NE	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50
<b>2,3,7,8-TCDD</b>	<b>1746-01-6</b>	<b>30</b>	<b>0.12</b>	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
2,3,7,8-TCDF	51207-31-9	NE	NE	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
OCDD	3268-87-9	NE	NE	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100
OCDF	39001-02-0	NE	NE	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100
<b>TEQ</b>	<b>E17134024</b>	<b>30</b>	<b>0.12</b>	<0	<0	<0	<0	<0	<0	<0	<0	<0	<0	<0	<0	<0
Total HpCDD	37871-00-4	NE	NE	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50
Total HpCDF	38998-75-3	NE	NE	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50
<b>Total HxCDD</b>	<b>34465-46-8</b>	NE	<b>13</b>	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50
Total HxCDF	55684-94-1	NE	NE	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50
Total PeCDD	36088-22-9	NE	NE	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50
Total PeCDF	30402-15-4	NE	NE	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50
Total TCDD	41903-57-5	NE	NE	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
Total TCDF	30402-14-3	NE	NE	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10

Notes:

Sample locations are shown within attached Figures located within the Appendix of this Report.  
 Complete laboratory results are included in the Appendix of this Report  
 All results are in picograms per liter.  
 Listed EPA Regional Screening Tables (RSLs) are dated May 2018 (carcinogenic risk of 1x10<sup>-6</sup> and non-carcinogenic hazard of 1.0).

	Highlighted cell indicate exceedences SCDHEC Maximum Contaminant Levels (MCLs)
	Highlighted cell indicates an exceedance of the EPA Risk Screening Levels for Tapwater

Lab qualifers are shown on each respective lab report.

NE - Not Established

Table 8  
Summary of Groundwater  
Analytical Data (Non-Dioxin)  
New Indy  
Catawba, SC  
S&ME Job Number 4213-18-087  
SCDHEC VCC No. 18-6120-VOC

Lab Sample ID		Screening Levels		Concentration (mg/l)									
		SCDHEC MCLS	EPA RSL Tapwater	L1117439-05	L1117439-03	L1117439-13	L1117439-14	L1117439-06	L1117439-11	L1117439-01	L1117439-04	L1119444-05	
Client Sample ID				GW-4A	GW-4B	GW-5	GW-5B	GW-6	GW-6B	GW-9	CM-DUP-GW-1 (GW-9)	GW-10	
Date Collected				07/10/2019	07/10/2019	07/10/2019	07/10/2019	07/09/2019	07/09/2019	07/10/2019	07/10/2019	07/15/2019	
Method	CAS												
<b>Metals</b>													
CYANIDE	57-12-5	0.2	0.0015	0.00541	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	
ALUMINUM	7429-90-5	NE	20	<0.200	<0.200	<0.200	<0.200	<0.200	<0.200	<0.200	<0.200	0.255	
BARIIUM	7440-39-3	2	3.8	0.0248	0.0087	0.258	0.0346	0.559	0.00711	0.722	0.724	0.417	
BERYLLIUM	7440-41-7	0.004	0.025	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	
CALCIUM	7440-70-2	NE	NE	11.8	12.2	115	12.9	71.7	45.9	15.8	15.7	1.31	
COBALT	7440-48-4	NE	0.006	<0.0100	<0.0100	<0.0100	<0.0100	0.0149	<0.0100	<0.0100	<0.0100	0.0422	
COPPER	7440-50-8	1.3	0.8	<0.0100	<0.0100	<0.0100	<0.0100	0.0382	<0.0100	<0.0100	<0.0100	<0.0100	
IRON	7439-89-6	0.3	14	<0.100	<0.100	3.12	13.8	46	<0.100	0.284	0.374	<0.100	
LEAD	7439-92-1	0.015	0.015	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	
MAGNESIUM	7439-95-4	NE	NE	4.53	5.14	39.7	5.04	38.9	4.89	11	11.1	1.05	
MANGANESE	7439-96-5	0.05	0.43	<0.0100	<0.0100	4.58	0.342	2.51	0.0353	0.496	0.51	1.35	
NICKEL	7440-02-0	NE	0.39	<0.0100	<0.0100	<0.0100	<0.0100	0.0155	<0.0100	0.0453	0.0456	<0.0100	
POTASSIUM	7440-09-7	NE	NE	<1.00	1.24	5.58	2.26	3.9	3.74	5.31	5.39	2.27	
SELENIUM	7782-49-2	0.05	0.1	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	
SODIUM	7440-23-5	NE	NE	4.65	6.02	89.1	10.5	62.9	20.8	120	121	160	
VANADIUM	7440-62-2	NE	0.086	<0.0200	<0.0200	<0.0200	<0.0200	<0.0200	<0.0200	<0.0200	<0.0200	<0.0200	
ZINC	7440-66-6	5	6	<0.0500	<0.0500	<0.0500	0.198	<0.0500	<0.0500	0.0634	0.0638	<0.0500	
<b>Volatile Organic Compounds (VOCs)</b>													
CHLOROBENZENE	108-90-7	0.1	0.078	<0.00100	<0.00100	<0.00100	<0.00100	<0.00100	<0.00100	0.00169	0.00183	<0.00100	
CHLOROFORM	67-66-3	0.08	0.00022	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	0.078	0.0801	<0.00500	
1,4-DICHLOROBENZENE	106-46-7	0.075	0.00048	<0.00100	<0.00100	<0.00100	<0.00100	<0.00100	<0.00100	0.00161	0.00192	<0.00100	
1,1-DICHLOROETHENE	75-35-4	0.007	0.28	<0.00100	<0.00100	<0.00100	<0.00100	<0.00100	<0.00100	0.00205	0.00191	<0.00100	
TOLUENE	108-88-3	1	1.1	<0.00100	<0.00100	<0.00100	<0.00100	<0.00100	<0.00100	<0.00100	<0.00100	<0.00100	
1,2,4-TRICHLOROBENZENE	120-82-1	0.07	0.0012	<0.00100	<0.00100	<0.00100	<0.00100	<0.00100	<0.00100	0.00143	0.0017	<0.00100	
TRICHLOROETHENE	79-01-6	0.005	0.00049	<0.00100	<0.00100	<0.00100	<0.00100	<0.00100	<0.00100	0.00136	0.00133	<0.00100	
XYLENES, TOTAL	1330-20-7	10	0.19	<0.00300	<0.00300	<0.00300	<0.00300	<0.00300	<0.00300	<0.00300	<0.00300	<0.00300	
<b>Semi-Volatile Organic Compounds (SVOCs)</b>													
ACENAPHTHENE	83-32-9	NE	0.53	<0.0000500	<0.0000520	<0.0000500	<0.0000500	<0.0000500	<0.0000500	0.000107	<0.0000500	<0.0000500	
FLUORENE	86-73-7	NE	0.29	<0.0000500	<0.0000520	<0.0000500	<0.0000500	<0.0000500	<0.0000500	<0.0000500	<0.0000500	<0.0000500	
NAPHTHALENE	91-20-3	NE	0.00017	<0.000250	<0.000260	<0.000250	<0.000250	<0.000250	<0.000250	0.000712	0.000437	<0.000250	

Only analytes with at least one detection above laboratory detection limits are shown.

Sample locations are shown within attached Figure.

Sample ID Methodology: Location-sample location number-medium-sample depth

Complete laboratory results are included in the Appendix of this Report

- All results are in milligrams per liter (mg/l).

- Listed EPA Regional Screening Tables (RSLs) are dated May 2018 (carcinogenic risk of 1x10<sup>-6</sup> and non-carcinogenic hazard of 1.0 ).

	Highlighted cell indicate exceedences SCDHEC Maximum Contaminant Levels (MCLS)
	Highlighted cell indicates an exceedance of the EPA Risk Screening Levels for Tapwater

Lab qualifers are shown on each respective lab report.

NE - Not Established

NA - Not Applicable

Table 8  
 Summary of Groundwater  
 Analytical Data (Non-Dioxin)  
 New Indy  
 Catawba, SC  
 S&ME Job Number 4213-18-087  
 SCDHEC VCC No. 18-6120-VOC

Lab Sample ID		Screening Levels		L1117439-12	L1118284-07	L1119444-04	L1118284-08	L1118284-01	L1118284-02	L1117439-02	L1118284-03	L1118284-04
		SCDHEC MCLS	EPA RSL Tapwater	GW-11	GW-12	GW-13	GW-14	GW-15R	GW-15BR	GW-16	GW-17	GW-18
Client Sample ID				07/09/2019	07/11/2019	07/15/2019	07/12/2019	07/12/2019	07/12/2019	07/10/2019	07/11/2019	07/11/2019
Date Collected		Concentration (mg/l)										
Method	CAS											
<b>Metals</b>												
CYANIDE	57-12-5	0.2	0.0015	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500
ALUMINUM	7429-90-5	NE	20	0.237	<0.200	<0.200	0.506	<0.200	<0.200	<0.200	<0.200	<0.200
BARIUM	7440-39-3	2	3.8	0.0717	0.025	0.0798	0.866	0.0845	0.129	0.0575	0.0453	0.382
BERYLLIUM	7440-41-7	0.004	0.025	<0.00200	<0.00200	<0.00200	0.00304	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200
CALCIUM	7440-70-2	NE	NE	13.6	6.02	138	24.9	17.2	169	41.8	11.9	67.6
COBALT	7440-48-4	NE	0.006	<0.0100	<0.0100	<0.0100	0.128	0.0314	<0.0100	<0.0100	<0.0100	0.0115
COPPER	7440-50-8	1.3	0.8	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100
IRON	7439-89-6	0.3	14	0.345	<0.100	3.15	0.57	<0.100	<0.100	47.2	6.85	20.2
LEAD	7439-92-1	0.015	0.015	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500
MAGNESIUM	7439-95-4	NE	NE	7.59	<1.00	68.9	38.4	1.17	79.7	7.92	14	44.9
MANGANESE	7439-96-5	0.05	0.43	0.138	<0.0100	9.44	1.32	0.523	0.277	0.97	0.716	15.5
NICKEL	7440-02-0	NE	0.39	<0.0100	<0.0100	0.0208	0.0274	<0.0100	<0.0100	<0.0100	<0.0100	0.0276
POTASSIUM	7440-09-7	NE	NE	1	<1.00	4.05	1.12	1.41	8.41	3.54	<1.00	1.45
SELENIUM	7782-49-2	0.05	0.1	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100
SODIUM	7440-23-5	NE	NE	15.3	4.47	130	74.7	143	107	173	118	103
VANADIUM	7440-62-2	NE	0.086	<0.0200	<0.0200	<0.0200	<0.0200	<0.0200	<0.0200	<0.0200	<0.0200	<0.0200
ZINC	7440-66-6	5	6	<0.0500	<0.0500	<0.0500	0.144	<0.0500	<0.0500	<0.0500	<0.0500	<0.0500
<b>Volatile Organic Compounds (VOCs)</b>												
CHLOROBENZENE	108-90-7	0.1	0.078	<0.00100	<0.00100	<0.00100	<0.00100	<0.00100	<0.00100	<0.00100	<0.00100	<0.00100
CHLOROFORM	67-66-3	0.08	0.00022	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500
1,4-DICHLOROBENZENE	106-46-7	0.075	0.00048	<0.00100	<0.00100	<0.00100	<0.00100	<0.00100	<0.00100	<0.00100	<0.00100	<0.00100
1,1-DICHLOROETHENE	75-35-4	0.007	0.28	<0.00100	<0.00100	<0.00100	<0.00100	<0.00100	<0.00100	<0.00100	<0.00100	<0.00100
TOLUENE	108-88-3	1	1.1	<0.00100	<0.00100	<0.00100	<0.00100	<0.00100	<0.00100	<0.00100	<0.00100	<0.00100
1,2,4-TRICHLOROBENZENE	120-82-1	0.07	0.0012	<0.00100	<0.00100	<0.00100	<0.00100	<0.00100	<0.00100	<0.00100	<0.00100	<0.00100
TRICHLOROETHENE	79-01-6	0.005	0.00049	<0.00100	<0.00100	<0.00100	<0.00100	<0.00100	<0.00100	<0.00100	<0.00100	<0.00100
XYLENES, TOTAL	1330-20-7	10	0.19	<0.00300	<0.00300	<0.00300	<0.00300	<0.00300	<0.00300	<0.00300	<0.00300	<0.00300
<b>Semi-Volatile Organic Compounds (SVOCs)</b>												
ACENAPHTHENE	83-32-9	NE	0.53	<0.0000500	<0.0000500	<0.0000500	<0.0000500	<0.0000500	<0.0000500	0.0000503	<0.0000500	<0.0000500
FLUORENE	86-73-7	NE	0.29	<0.0000500	<0.0000500	<0.0000500	<0.0000500	<0.0000500	<0.0000500	0.0000763	<0.0000500	<0.0000500
NAPHTHALENE	91-20-3	NE	0.00017	<0.000250	<0.000250	0.00028	<0.000250	<0.000250	<0.000250	<0.000250	<0.000250	<0.000250

Only analytes with at least one detection above laboratory detection limits are shown.  
 Sample locations are shown within attached Figure.  
 Sample ID Methodology: Location-sample location number-medium-sample depth  
 Complete laboratory results are included in the Appendix of this Report  
 - All results are in milligrams per liter (mg/l).  
 - Listed EPA Regional Screening Tables (RSLs) are dated May 2018 (carcinogenic risk of 1x10<sup>-6</sup> and non-carcinogenic hazard of 1.0 ).

	Highlighted cell indicate exceedences SCDHEC Maximum Contaminant Levels (MCLS)
	Highlighted cell indicates an exceedance of the EPA Risk Screening Levels for Tapwater

Lab qualifers are shown on each respective lab report.  
 NE - Not Established  
 NA - Not Applicable

Table 8  
 Summary of Groundwater  
 Analytical Data (Non-Dioxin)  
 New Indy  
 Catawba, SC  
 S&ME Job Number 4213-18-087  
 SCDHEC VCC No. 18-6120-VOC

Lab Sample ID		Screening Levels		Concentration (mg/l)									
		SCDHEC MCLS	EPA RSL Tapwater	L1118284-05	L1117439-10	L1117439-09	L1117439-08	L1117439-07	L1118284-06	L1119444-03	L1119444-02	R43-MW-2	L1119444-01
Client Sample ID				R2-MW-1	R2-MW-2	R2-MW-3	R2-MW-4	R2-MW-5	R2-MW-6	R43-MW-1	R43-MW-2	CM-DUP-GW-2	R43-MW-3
Date Collected				07/11/2019	07/09/2019	07/09/2019	07/09/2019	07/09/2019	07/11/2019	07/15/2019	07/16/2019	07/16/2019	
Method	CAS												
<b>Metals</b>													
CYANIDE	57-12-5	0.2	0.0015	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500
ALUMINUM	7429-90-5	NE	20	<0.200	<0.200	0.205	<0.200	<0.200	<0.200	1.06	<0.200	0.229	<0.200
BARIUM	7440-39-3	2	3.8	0.257	0.757	1.19	0.0429	0.115	0.125	0.0504	0.0222	0.423	0.0281
BERYLLIUM	7440-41-7	0.004	0.025	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200
CALCIUM	7440-70-2	NE	NE	120	183	194	7.2	17.3	39.1	9.95	<1.00	1.29	1.42
COBALT	7440-48-4	NE	0.006	0.0391	0.0185	0.0139	<0.0100	0.0433	0.0144	<0.0100	<0.0100	0.0422	<0.0100
COPPER	7440-50-8	1.3	<0.8	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100
IRON	7439-89-6	0.3	14	0.52	37.3	53.5	<0.100	0.229	8.62	1.62	0.393	<0.100	<0.100
LEAD	7439-92-1	0.015	0.015	<0.00500	<0.00500	0.00649	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500
MAGNESIUM	7439-95-4	NE	NE	84	88.2	74.9	3.65	16	16.4	2.13	<1.00	1.09	<1.00
MANGANESE	7439-96-5	0.05	0.43	4.9	3.68	8.74	0.985	4.06	4.39	0.86	0.269	1.37	0.653
NICKEL	7440-02-0	NE	0.39	0.0672	0.0936	0.102	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100
POTASSIUM	7440-09-7	NE	NE	3.02	15.9	12.9	<1.00	1.03	3.89	3.76	1.13	2.29	3.77
SELENIUM	7782-49-2	0.05	0.1	<0.0100	<0.0100	0.0117	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100
SODIUM	7440-23-5	NE	NE	326	482	492	54.1	108	91.5	362	298	162	534
VANADIUM	7440-62-2	NE	0.086	<0.0200	<0.0200	0.021	<0.0200	<0.0200	<0.0200	<0.0200	<0.0200	<0.0200	<0.0200
ZINC	7440-66-6	5	6	<0.0500	<0.0500	<0.0500	<0.0500	<0.0500	<0.0500	<0.0500	<0.0500	<0.0500	<0.0500
<b>Volatile Organic Compounds (VOCs)</b>													
CHLOROBENZENE	108-90-7	0.1	0.078	<0.00100	<0.00100	<0.00100	<0.00100	<0.00100	<0.00100	<0.00100	<0.00100	<0.00100	<0.00100
CHLOROFORM	67-66-3	0.08	0.00022	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500
1,4-DICHLOROBENZENE	106-46-7	0.075	0.00048	<0.00100	<0.00100	<0.00100	<0.00100	<0.00100	<0.00100	<0.00100	<0.00100	<0.00100	<0.00100
1,1-DICHLOROETHENE	75-35-4	0.007	0.28	<0.00100	<0.00100	<0.00100	<0.00100	<0.00100	<0.00100	<0.00100	<0.00100	<0.00100	<0.00100
TOLUENE	108-88-3	1	1.1	0.0036	<0.00100	<0.00100	<0.00100	<0.00100	<0.00100	<0.00100	<0.00100	<0.00100	<0.00100
1,2,4-TRICHLOROBENZENE	120-82-1	0.07	0.0012	<0.00100	<0.00100	<0.00100	<0.00100	<0.00100	<0.00100	<0.00100	<0.00100	<0.00100	<0.00100
TRICHLOROETHENE	79-01-6	0.005	0.00049	<0.00100	<0.00100	<0.00100	<0.00100	<0.00100	<0.00100	<0.00100	<0.00100	<0.00100	<0.00100
XYLENES, TOTAL	1330-20-7	10	0.19	0.0042	<0.00300	<0.00300	<0.00300	<0.00300	<0.00300	<0.00300	<0.00300	<0.00300	<0.00300
<b>Semi-Volatile Organic Compounds (SVOCs)</b>													
ACENAPHTHENE	83-32-9	NE	0.53	<0.0000500	<0.0000500	<0.0000500	<0.0000500	<0.0000500	<0.0000500	<0.0000500	<0.0000500	<0.0000500	<0.0000500
FLUORENE	86-73-7	NE	0.29	<0.0000500	6.27E-05	<0.0000500	<0.0000500	<0.0000500	<0.0000500	<0.0000500	0.0000611	<0.0000500	<0.0000500
NAPHTHALENE	91-20-3	NE	0.0017	<0.000250	<0.000250	<0.000250	<0.000250	<0.000250	<0.000250	<0.000250	<0.000250	<0.000250	<0.000250

Only analytes with at least one detection above laboratory detection limits are shown.  
 Sample locations are shown within attached Figure.  
 Sample ID Methodology: Location-sample location number-medium-sample depth  
 Complete laboratory results are included in the Appendix of this Report  
 - All results are in milligrams per liter (mg/l).  
 - Listed EPA Regional Screening Tables (RSLs) are dated May 2018 (carcinogenic risk of 1x10<sup>-6</sup> and non-carcinogenic hazard of 1.0 ).

	Highlighted cell indicate exceedences SCDHEC Maximum Contaminant Levels (MCLs)
	Highlighted cell indicates an exceedance of the EPA Risk Screening Levels for Tapwater

Lab qualifiers are shown on each respective lab report.  
 NE - Not Established  
 NA - Not Applicable

## **Appendix A – Laboratory Analytical Reports – Sludge Samples**



## S&ME Inc. - Spartanburg SC

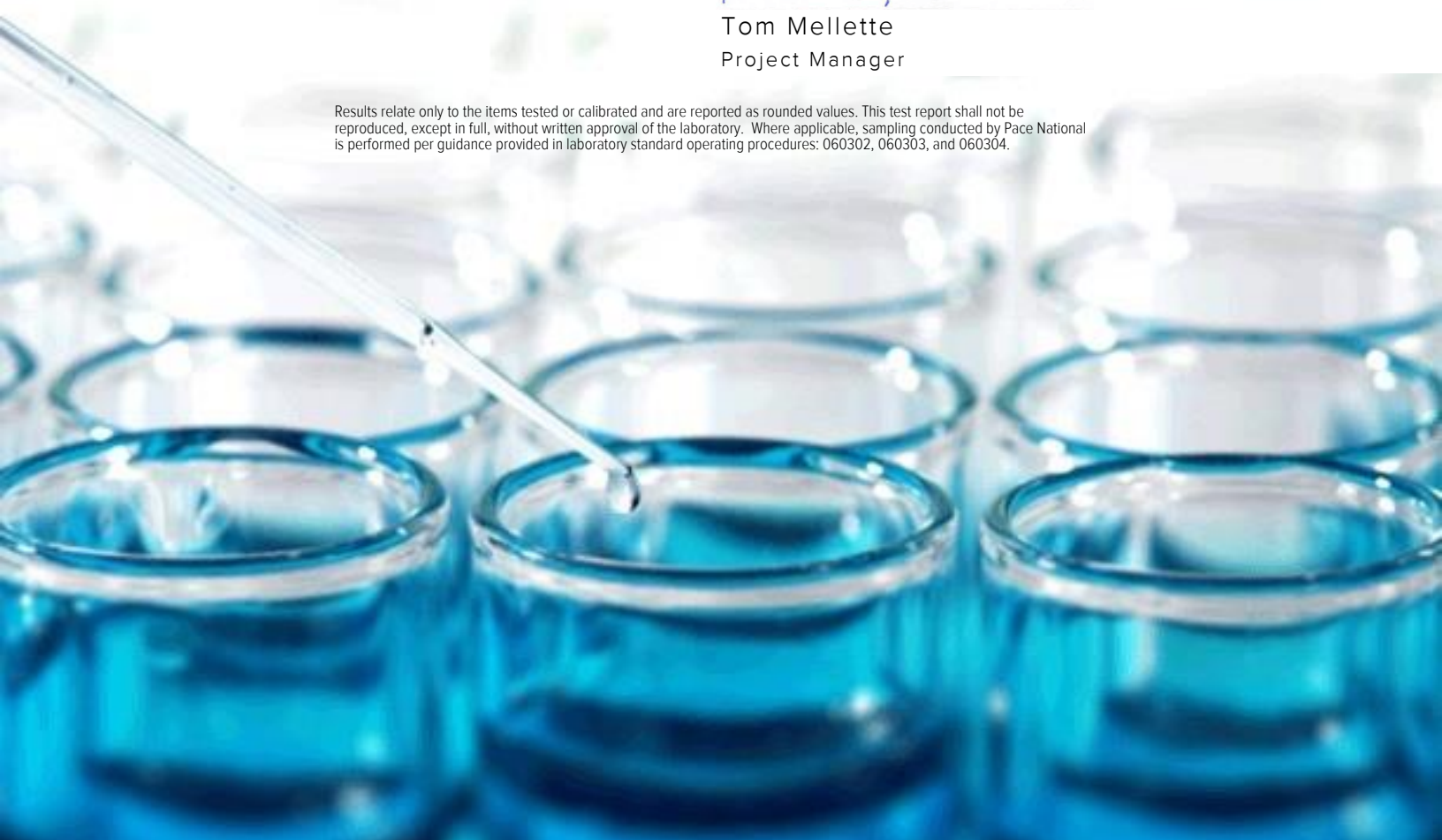
Sample Delivery Group: L111515  
Samples Received: 06/21/2019  
Project Number: 4213-18-087  
Description: Project Columbia  
Site: COLUMBIA  
Report To: Scott Dacus  
301 Zima Park Drive  
Spartanburg, SC 29301

Entire Report Reviewed By:



Tom Mellette  
Project Manager

Results relate only to the items tested or calibrated and are reported as rounded values. This test report shall not be reproduced, except in full, without written approval of the laboratory. Where applicable, sampling conducted by Pace National is performed per guidance provided in laboratory standard operating procedures: 060302, 060303, and 060304.







<b>Cp: Cover Page</b>	<b>1</b>	<b><sup>1</sup>Cp</b>
<b>Tc: Table of Contents</b>	<b>2</b>	
<b>Ss: Sample Summary</b>	<b>3</b>	<b><sup>2</sup>Tc</b>
<b>Cn: Case Narrative</b>	<b>6</b>	
<b>Gl: Glossary of Terms</b>	<b>7</b>	<b><sup>3</sup>Ss</b>
<b>Al: Accreditations &amp; Locations</b>	<b>8</b>	<b><sup>4</sup>Cn</b>
<b>Sc: Sample Chain of Custody</b>	<b>9</b>	<b><sup>5</sup>Gl</b>
		<b><sup>6</sup>Al</b>
		<b><sup>7</sup>Sc</b>

# SAMPLE SUMMARY

TWHL-1-SU-1 L111515-01 Solid				Collected by Scott Dacus	Collected date/time 06/18/19 10:47	Received date/time 06/21/19 08:45
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Subcontracted Analyses	WG1300945	1	07/17/19 00:00	07/17/19 00:00	CBM	Minneapolis, MN 55414
TWHL-2-SU-1 L111515-02 Solid				Collected by Scott Dacus	Collected date/time 06/18/19 10:15	Received date/time 06/21/19 08:45
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Subcontracted Analyses	WG1300945	1	07/17/19 00:00	07/17/19 00:00	CBM	Minneapolis, MN 55414
TWHL-3-SU-1 L111515-03 Solid				Collected by Scott Dacus	Collected date/time 06/18/19 12:50	Received date/time 06/21/19 08:45
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Subcontracted Analyses	WG1300945	1	07/17/19 00:00	07/17/19 00:00	CBM	Minneapolis, MN 55414
TWHL-4-SU-1 L111515-04 Solid				Collected by Scott Dacus	Collected date/time 06/18/19 13:20	Received date/time 06/21/19 08:45
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Subcontracted Analyses	WG1300945	1	07/17/19 00:00	07/17/19 00:00	CBM	Minneapolis, MN 55414
SL2-1-SU-2 L111515-05 Solid				Collected by Scott Dacus	Collected date/time 06/18/19 14:20	Received date/time 06/21/19 08:45
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Subcontracted Analyses	WG1300945	1	07/17/19 00:00	07/17/19 00:00	CBM	Minneapolis, MN 55414
SL2-2-SU-2 L111515-06 Solid				Collected by Scott Dacus	Collected date/time 06/18/19 14:45	Received date/time 06/21/19 08:45
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Subcontracted Analyses	WG1300945	1	07/17/19 00:00	07/17/19 00:00	CBM	Minneapolis, MN 55414
WHL1-1-SU-1 L111515-07 Solid				Collected by Scott Dacus	Collected date/time 06/19/19 09:15	Received date/time 06/21/19 08:45
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Subcontracted Analyses	WG1300945	1	07/17/19 00:00	07/17/19 00:00	CBM	Minneapolis, MN 55414
WHL1-2-SU-1 L111515-08 Solid				Collected by Scott Dacus	Collected date/time 06/19/19 09:35	Received date/time 06/21/19 08:45
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Subcontracted Analyses	WG1300945	1	07/17/19 00:00	07/17/19 00:00	CBM	Minneapolis, MN 55414

1 Cp

2 Tc

3 Ss

4 Cn

5 Gl

6 Al

7 Sc

# SAMPLE SUMMARY



WHL1-3-SU-2 L111515-09 Solid				Collected by Scott Dacus	Collected date/time 06/19/19 12:25	Received date/time 06/21/19 08:45
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Subcontracted Analyses	WG1300945	1	07/17/19 00:00	07/17/19 00:00	CBM	Minneapolis, MN 55414
WHL1-4-SU-1 L111515-10 Solid				Collected by Scott Dacus	Collected date/time 06/19/19 09:53	Received date/time 06/21/19 08:45
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Subcontracted Analyses	WG1300945	1	07/17/19 00:00	07/17/19 00:00	CBM	Minneapolis, MN 55414
WHL1-5-SU-2 L111515-11 Solid				Collected by Scott Dacus	Collected date/time 06/19/19 13:00	Received date/time 06/21/19 08:45
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Subcontracted Analyses	WG1300945	1	07/17/19 00:00	07/17/19 00:00	CBM	Minneapolis, MN 55414
WHL1-6-SU-1 L111515-12 Solid				Collected by Scott Dacus	Collected date/time 06/19/19 10:15	Received date/time 06/21/19 08:45
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Subcontracted Analyses	WG1300945	1	07/17/19 00:00	07/17/19 00:00	CBM	Minneapolis, MN 55414
WHL1-7-SU-2 L111515-13 Solid				Collected by Scott Dacus	Collected date/time 06/19/19 10:52	Received date/time 06/21/19 08:45
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Subcontracted Analyses	WG1300945	1	07/17/19 00:00	07/17/19 00:00	CBM	Minneapolis, MN 55414
WHL1-8-SU-1 L111515-14 Solid				Collected by Scott Dacus	Collected date/time 06/19/19 10:30	Received date/time 06/21/19 08:45
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Subcontracted Analyses	WG1300945	1	07/17/19 00:00	07/17/19 00:00	CBM	Minneapolis, MN 55414
CM-DUP-SU-1 L111515-15 Solid				Collected by Scott Dacus	Collected date/time 06/19/19 00:00	Received date/time 06/21/19 08:45
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Subcontracted Analyses	WG1300945	1	07/17/19 00:00	07/17/19 00:00	CBM	Minneapolis, MN 55414
WHL2-1-SU-3 L111515-16 Solid				Collected by Scott Dacus	Collected date/time 06/20/19 08:50	Received date/time 06/21/19 08:45
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Subcontracted Analyses	WG1300945	1	07/17/19 00:00	07/17/19 00:00	CBM	Minneapolis, MN 55414

1 Cp

2 Tc

3 Ss

4 Cn

5 Gl

6 Al

7 Sc

# SAMPLE SUMMARY

## WHL2-2-SU-3 L111515-17 Solid

Collected by  
Scott Dacus      Collected date/time  
06/20/19 09:20      Received date/time  
06/21/19 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Subcontracted Analyses	WG1300945	1	07/17/19 00:00	07/17/19 00:00	CBM	Minneapolis, MN 55414

<sup>1</sup> Cp

<sup>2</sup> Tc

<sup>3</sup> Ss

<sup>4</sup> Cn

<sup>5</sup> Gl

<sup>6</sup> Al

<sup>7</sup> Sc

## WHL2-3-SU-2 L111515-18 Solid

Collected by  
Scott Dacus      Collected date/time  
06/20/19 09:45      Received date/time  
06/21/19 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Subcontracted Analyses	WG1300945	1	07/17/19 00:00	07/17/19 00:00	CBM	Minneapolis, MN 55414

## WHL2-4-SU-1 L111515-19 Solid

Collected by  
Scott Dacus      Collected date/time  
06/20/19 10:10      Received date/time  
06/21/19 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Subcontracted Analyses	WG1300945	1	07/17/19 00:00	07/17/19 00:00	CBM	Minneapolis, MN 55414

## CM-EB-SU-1 L111515-20 GW

Collected by  
Scott Dacus      Collected date/time  
06/18/19 13:50      Received date/time  
06/21/19 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Subcontracted Analyses	WG1300945	1	07/17/19 00:00	07/17/19 00:00	CBM	Minneapolis, MN 55414

## CM-FB-SU-1 L111515-21 GW

Collected by  
Scott Dacus      Collected date/time  
06/18/19 14:20      Received date/time  
06/21/19 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Subcontracted Analyses	WG1300945	1	07/17/19 00:00	07/17/19 00:00	CBM	Minneapolis, MN 55414



All sample aliquots were received at the correct temperature, in the proper containers, with the appropriate preservatives, and within method specified holding times, unless qualified or notated within the report. Where applicable, all MDL (LOD) and RDL (LOQ) values reported for environmental samples have been corrected for the dilution factor used in the analysis. All Method and Batch Quality Control are within established criteria except where addressed in this case narrative, a non-conformance form or properly qualified within the sample results. By my digital signature below, I affirm to the best of my knowledge, all problems/anomalies observed by the laboratory as having the potential to affect the quality of the data have been identified by the laboratory, and no information or data have been knowingly withheld that would affect the quality of the data.

Tom Mellette  
Project Manager

- <sup>1</sup> Cp
- <sup>2</sup> Tc
- <sup>3</sup> Ss
- <sup>4</sup> Cn
- <sup>5</sup> Gl
- <sup>6</sup> Al
- <sup>7</sup> Sc

### Project Narrative

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L1111515 -01, -02, -03, -04, -05, -06, -07, -08, -09, -10, -11, -12, -13, -14, -15, -16, -17, -18, -19, -20, -21 contains subout data that is included after the chain of custody.



Guide to Reading and Understanding Your Laboratory Report

The information below is designed to better explain the various terms used in your report of analytical results from the Laboratory. This is not intended as a comprehensive explanation, and if you have additional questions please contact your project representative.

Abbreviations and Definitions

SDG	Sample Delivery Group.
Uncertainty (Radiochemistry)	Confidence level of 2 sigma.
Case Narrative (Cn)	A brief discussion about the included sample results, including a discussion of any non-conformances to protocol observed either at sample receipt by the laboratory from the field or during the analytical process. If present, there will be a section in the Case Narrative to discuss the meaning of any data qualifiers used in the report.
Quality Control Summary (Qc)	This section of the report includes the results of the laboratory quality control analyses required by procedure or analytical methods to assist in evaluating the validity of the results reported for your samples. These analyses are not being performed on your samples typically, but on laboratory generated material.
Sample Chain of Custody (Sc)	This is the document created in the field when your samples were initially collected. This is used to verify the time and date of collection, the person collecting the samples, and the analyses that the laboratory is requested to perform. This chain of custody also documents all persons (excluding commercial shippers) that have had control or possession of the samples from the time of collection until delivery to the laboratory for analysis.
Sample Results (Sr)	This section of your report will provide the results of all testing performed on your samples. These results are provided by sample ID and are separated by the analyses performed on each sample. The header line of each analysis section for each sample will provide the name and method number for the analysis reported.
Sample Summary (Ss)	This section of the Analytical Report defines the specific analyses performed for each sample ID, including the dates and times of preparation and/or analysis.

- 1 Cp
- 2 Tc
- 3 Ss
- 4 Cn
- 5 Gl
- 6 Al
- 7 Sc

Qualifier Description

The remainder of this page intentionally left blank, there are no qualifiers applied to this SDG.



Pace National is the only environmental laboratory accredited/certified to support your work nationwide from one location. One phone call, one point of contact, one laboratory. No other lab is as accessible or prepared to handle your needs throughout the country. Our capacity and capability from our single location laboratory is comparable to the collective totals of the network laboratories in our industry. The most significant benefit to our one location design is the design of our laboratory campus. The model is conducive to accelerated productivity, decreasing turn-around time, and preventing cross contamination, thus protecting sample integrity. Our focus on premium quality and prompt service allows us to be YOUR LAB OF CHOICE.

\* Not all certifications held by the laboratory are applicable to the results reported in the attached report.  
 \* Accreditation is only applicable to the test methods specified on each scope of accreditation held by Pace National.

## State Accreditations

Alabama	40660	Nebraska	NE-OS-15-05
Alaska	17-026	Nevada	TN-03-2002-34
Arizona	AZ0612	New Hampshire	2975
Arkansas	88-0469	New Jersey-NELAP	TN002
California	2932	New Mexico <sup>1</sup>	n/a
Colorado	TN00003	New York	11742
Connecticut	PH-0197	North Carolina	Env375
Florida	E87487	North Carolina <sup>1</sup>	DW21704
Georgia	NELAP	North Carolina <sup>3</sup>	41
Georgia <sup>1</sup>	923	North Dakota	R-140
Idaho	TN00003	Ohio-VAP	CL0069
Illinois	200008	Oklahoma	9915
Indiana	C-TN-01	Oregon	TN200002
Iowa	364	Pennsylvania	68-02979
Kansas	E-10277	Rhode Island	LA000356
Kentucky <sup>1,6</sup>	90010	South Carolina	84004
Kentucky <sup>2</sup>	16	South Dakota	n/a
Louisiana	AI30792	Tennessee <sup>1,4</sup>	2006
Louisiana <sup>1</sup>	LA180010	Texas	T104704245-18-15
Maine	TN0002	Texas <sup>5</sup>	LAB0152
Maryland	324	Utah	TN00003
Massachusetts	M-TN003	Vermont	VT2006
Michigan	9958	Virginia	460132
Minnesota	047-999-395	Washington	C847
Mississippi	TN00003	West Virginia	233
Missouri	340	Wisconsin	9980939910
Montana	CERT0086	Wyoming	A2LA

1 Cp

2 Tc

3 Ss

4 Cn

5 Gl

6 AI

7 Sc

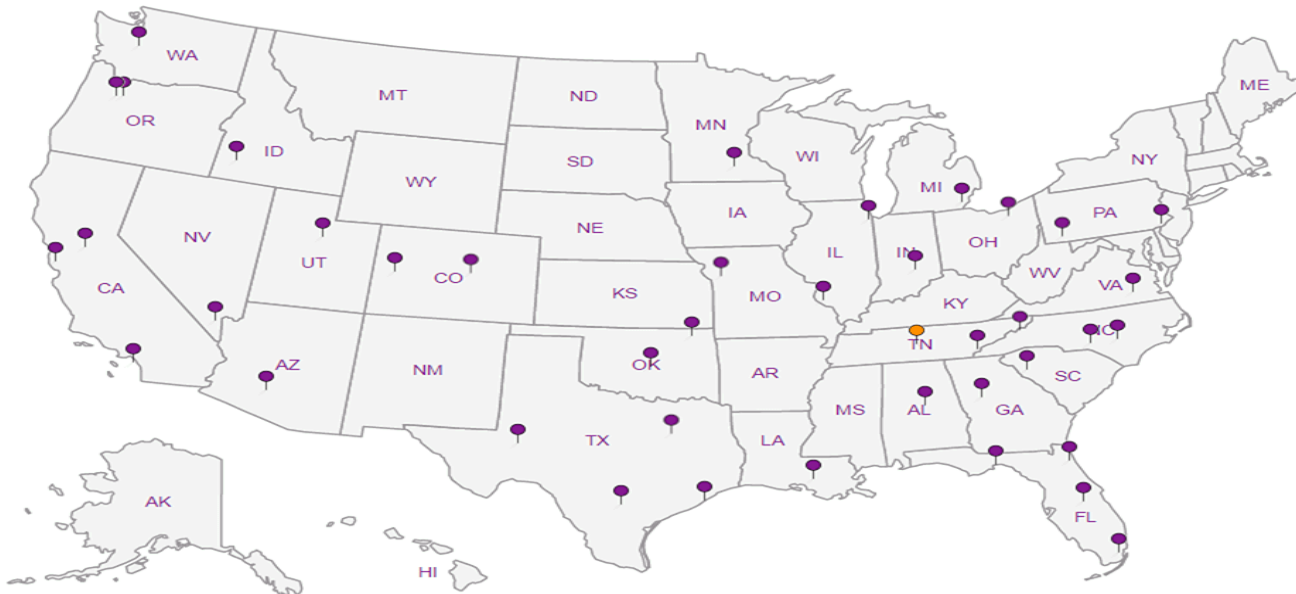
## Third Party Federal Accreditations

A2LA – ISO 17025	1461.01	AIHA-LAP,LLC EMLAP	100789
A2LA – ISO 17025 <sup>5</sup>	1461.02	DOD	1461.01
Canada	1461.01	USDA	P330-15-00234
EPA-Crypto	TN00003		

<sup>1</sup> Drinking Water <sup>2</sup> Underground Storage Tanks <sup>3</sup> Aquatic Toxicity <sup>4</sup> Chemical/Microbiological <sup>5</sup> Mold <sup>6</sup> Wastewater n/a Accreditation not applicable

## Our Locations


Pace National has sixty-four client support centers that provide sample pickup and/or the delivery of sampling supplies. If you would like assistance from one of our support offices, please contact our main office. Pace National performs all testing at our central laboratory.



**S&ME Inc. - Spartanburg SC**  
 301 Zima Park Drive  
 Spartanburg, SC 29301

Billing Information:  
**Accounts Payable**  
 301 Zima Park Drive  
 Spartanburg, SC 29301

Pres	Chk	Analysis / Container / Preservative									

Chain of Custody Page 1 of 3  
  
 Pace Analytical®  
 National Center for Testing & Innovation

Report to:  
**Scott Dacus**

Email To: [sdacus@smeinc.com](mailto:sdacus@smeinc.com)

Project Description: **PROJECT COLUMBIA**

City/State Collected: **SC**

Phone: **864-574-2360**  
 Fax: **864-576-8730**


Client Project #  
**4213-18-087**

Lab Project #  
**SMESPAR-4213-18-087**

Collected by (print):  
**SCOTT DACUS**

Site/Facility ID #

P.O. #  
**4213-18-087**

Collected by (signature):  
  
 Immediately Packed on ice N  Y

**Rush?** (Lab MUST Be Notified)  
 Same Day  Five Day  
 Next Day  5 Day (Rad Only)  
 Two Day  10 Day (Rad Only)  
 Three Day

Quote #  
 Date Results Needed

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No. of Cntrs
-----------	-----------	----------	-------	------	------	--------------

TWHL-1-SU-1	GRAB	SS		6/18/19	1047	1
TWHL-2-SU-1		SS			1015	1
TWHL-3-SU-1		SS			1250	1
TWHL-4-SU-1		SS			1320	1
SL2-1-SU-2		SS			1420	1
SL2-2-SU-2		SS			1445	1
WHL1-1-SU-1		SS		6/19/19	0915	1
WHL1-2-SU-1		SS			0935	1
WHL1-3-SU-2		SS			1225	1
WHL1-4-SU-1		SS			0953	1

SV8290 1L-Amb-NoPres

Sub (Dioxin + TS) 4ozClr-NoPres

12065 Lebanon Rd  
 Mount Juliet, TN 37122  
 Phone: 615-758-5858  
 Phone: 800-767-5859  
 Fax: 615-758-5859



L# **L1111515**  
**J043**

Acctnum: **SMESPAR**  
 Template: **T137919**  
 Prelogin: **P708994**  
 TSR: **690 - Tom Mellette**  
 PB: **76 5-14-19**

Shipped Via: **FedEX Ground**


\* Matrix:  
 SS - Soil AIR - Air F - Filter  
 GW - Groundwater B - Bioassay  
 WW - WasteWater  
 DW - Drinking Water  
 OT - Other

Remarks:  
**RAD SCREEN: <0.5 mR/hr** pH \_\_\_\_\_ Temp \_\_\_\_\_  
 Flow \_\_\_\_\_ Other \_\_\_\_\_

Samples returned via:  
 UPS  FedEx  Courier

Tracking # **4882 8631 6339**

Sample Receipt Checklist  
 COC Seal Present/Intact:  NP  N  
 COC Signed/Accurate:  N  N  
 Bottles arrive intact:  N  N  
 Correct bottles used:  N  N  
 Sufficient volume sent:  N  N  
 If Applicable  
 VOA Zero Headspace:  Y  N  
 Preservation Correct/Checked:  Y  N

Relinquished by: (Signature)  


Date: **6/20/19** Time: **1730**

Received by: (Signature)

Trip Blank Received: Yes  No   
 HCL / MeOH TBR

Relinquished by: (Signature)

Date: \_\_\_\_\_ Time: \_\_\_\_\_

Received by: (Signature)

Temp: **14.0-14.5°C** Bottles Received: **24**

If preservation required by Login: Date/Time

Relinquished by: (Signature)

Date: \_\_\_\_\_ Time: \_\_\_\_\_

Received for lab by: (Signature)  


Date: **6/21/19** Time: **0845**

Hold: \_\_\_\_\_ Condition: **NCF / OK**



**S&ME Inc. - Spartanburg SC**

301 Zima Park Drive  
Spartanburg, SC 29301

Billing Information:  
Accounts Payable  
301 Zima Park Drive  
Spartanburg, SC 29301

Report to:  
**Scott Dacus**

Email To: sdacus@smeinc.com

Project Description: **PROJECT COLUMBIA**

City/State Collected: **SC**

Phone: 864-574-2360  
Fax: 864-576-8730

Client Project #  
**4213-18-087**

Lab Project #  
**SMESPAR-4213-18-087**

Collected by (print):  
**SCOTT DACUS**

Site/Facility ID #

P.O. #  
**4213-18-087**

Collected by (signature):  
*[Signature]*

**Rush?** (Lab MUST Be Notified)  
 Same Day  Five Day  
 Next Day  5 Day (Rad Only)  
 Two Day  10 Day (Rad Only)  
 Three Day

Quote #  
Date Results Needed

Immediately Packed on Ice N \_\_\_ Y

Pres Chk

Analysis / Container / Preservative

Chain of Custody Page 2 of 3



12065 Lebanon Rd  
Mount Juliet, TN 37122  
Phone: 615-758-5858  
Phone: 800-767-5859  
Fax: 615-758-5859



L # **L1111515**

Table #

Acctnum: **SMESPAR**

Template: **T137919**

Prelogin: **P708994**

TSR: 690 - Tom Mellette

PB: **76 5-14-19**

Shipped Via: **FedEX Ground**

Remarks Sample # (lab only)

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No. of Cntrs	SV8290 1L-Amb-NoPres	Sub (Dioxin + TS) 4ozClr-NoPres												
WHL1-5-SV-2	GRAB	SS		6/19/19	1300	1		X												-11
WHL1-6-SV-1		SS			1015	1		X												12
WHL1-7-SV-2		SS			1052	1		X												13
WHL1-8-SV-1		SS			1030	1		X												14
CM-DUP-SV-1		SS				1		X												15
WHL2-1-SV-3		SS		6/20/19	0850	1		X												16
WHL2-2-SV-3		SS			0920	1		X												17
WHL2-3-SV-2		SS			0945	1		X												18
WHL2-4-SV-2		SS			1010	1		X												19
		SS				1		X												

\* Matrix:  
 SS - Soil AIR - Air F - Filter  
 GW - Groundwater B - Bioassay  
 WW - WasteWater  
 DW - Drinking Water  
 OT - Other

Remarks:  
 RAD SCREEN: <0.5 mR/hr  
 pH \_\_\_\_\_ Temp \_\_\_\_\_  
 Flow \_\_\_\_\_ Other \_\_\_\_\_  
 Samples returned via:  
 UPS  FedEx  Courier \_\_\_\_\_  
 Tracking # **S2ML**

Sample Receipt Checklist  
 COC Seal Present/Intact:  NP  N  
 COC Signed/Accurate:   N  
 Bottles arrive intact:   N  
 Correct bottles used:   N  
 Sufficient volume sent:   N  
 If Applicable  
 VOA Zero Headspace:  Y  N  
 Preservation Correct/Checked:  Y  N

Relinquished by: (Signature) <i>[Signature]</i>	Date: <b>6/20/19</b>	Time: <b>1730</b>	Received by: (Signature) <i>[Signature]</i>	Trip Blank Received: Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	HCL / MeOH TBR
Relinquished by: (Signature)	Date:	Time:	Received by: (Signature)	Temp: °C <b>14.0-15.5</b>	Bottles Received: <b>24</b>
Relinquished by: (Signature)	Date:	Time:	Received for lab by: (Signature) <i>[Signature]</i>	Date: <b>6/21/19</b>	Time: <b>0845</b>
				Hold:	Condition: NCF <b>10K</b>

**S&ME Inc. - Spartanburg SC**

301 Zima Park Drive  
Spartanburg, SC 29301

Billing Information:  
Accounts Payable  
301 Zima Park Drive  
Spartanburg, SC 29301

Report to:  
**Scott Dacus**

Email To: sdacus@smeinc.com

Project Description: **PROJECT COLUMBIA**

City/State Collected: **SC**

Phone: **864-574-2360**  
Fax: **864-576-8730**

Client Project #  
**4213-18-087**

Lab Project #  
**SMESPAR-4213-18-087**

Collected by (print):  
**SCOTT DACUS**

Site/Facility ID #

P.O. #  
**4213-18-087**

Collected by (signature):  
*[Signature]*

**Rush?** (Lab MUST Be Notified)  
 Same Day  Five Day  
 Next Day  5 Day (Rad Only)  
 Two Day  10 Day (Rad Only)  
 Three Day

Quote #  
Date Results Needed

Immediately Packed on Ice N  Y

No. of Cntrs

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No. of Cntrs	SV8290 1L-Amb-NoPres	Sub (Dioxin + TS) 4ozClr-NoPres	Analysis / Container / Preservative	Chain of Custody
		SS				1	X			
		SS				1	X			
		SS				1	X			
		SS				1	X			
CM-EB-SU-1	GRAB	GW		6/19/19	1350	2	X			-20
CM-FB-SU-1	GRAB	GW		6/19/19	1420	2	X			21
		GW				2	X			
		GW				2	X			

\* Matrix:  
SS - Soil AIR - Air F - Filter  
GW - Groundwater B - Bioassay  
WW - WasteWater  
DW - Drinking Water  
OT - Other

Remarks:

**RAD SCREEN: < 0.5 mR/hr**

pH 7 Temp \_\_\_\_\_  
Flow \_\_\_\_\_ Other \_\_\_\_\_

Samples returned via:  
 UPS  FedEx  Courier

Tracking # **Same**

**Sample Receipt Checklist**  
 COC Seal Present/Intact:  Y  N  
 COC Signed/Accurate:  Y  N  
 Bottles arrive intact:  Y  N  
 Correct bottles used:  Y  N  
 Sufficient volume sent:  Y  N  
 If Applicable  
 VOA Zero Headspace:  Y  N  
 Preservation Correct/Checked:  Y  N

Relinquished by: (Signature) *[Signature]* Date: **6/20/19** Time: **1730**

Received by: (Signature) *[Signature]* Trip Blank Received: Yes/No  HCL/MeOH TBR

Relinquished by: (Signature) Date: Time: Received by: (Signature) Temp: **24.0** °C Bottles Received: **24**

If preservation required by Login: Date/Time

Relinquished by: (Signature) Date: Time: Received for lab by: (Signature) *[Signature]* Date: **6/21/19** Time: **0845**

Hold: Condition: **NCF / OK**



12065 Lebanon Rd  
Mount Juliet, TN 37122  
Phone: 615-758-5858  
Phone: 800-767-5859  
Fax: 615-758-5859



L # **L1111515**

Table #

Acctnum: **SMESPAR**

Template: **T137919**

Prelogin: **P708994**

TSR: **690 - Tom Mellette**

PB: **TB 5-14-19**

Shipped Via: **FedEX Ground**

Remarks Sample # (lab only)

**Report Prepared for:**

Benita Miller  
Pace Analytical National  
12065 Lebanon Road  
Mount Juliet TN 37122

**REPORT OF  
LABORATORY  
ANALYSIS FOR  
PCDD/PCDF**

**Report Information:**

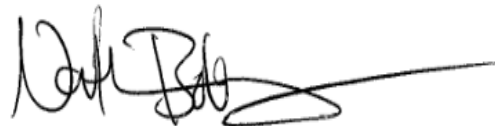
**Pace Project #: 10480689**  
**Sample Receipt Date: 06/25/2019**  
**Client Project #: L1111515: WG1300945**  
**Client Sub PO #: L1111515**  
**State Cert #: 74003**

**Invoicing & Reporting Options:**

The report provided has been invoiced as a Level 2 PCDD/PCDF Report. If an upgrade of this report package is requested, an additional charge may be applied.

Please review the attached invoice for accuracy and forward any questions to Nathan Boberg, your Pace Project Manager.

**This report has been reviewed by:**



July 17, 2019

Nathan Boberg, Project Manager  
612-360-0728  
(612) 607-6444 (fax)  
nathan.boberg@pacelabs.com

**Report Prepared Date:**

July 17, 2019



**Report of Laboratory Analysis**

This report should not be reproduced, except in full, without the written consent of Pace Analytical Services, Inc.

The results relate only to the samples included in this report.



## **DISCUSSION**

This report presents the results from the analyses performed on twenty-one samples submitted by a representative of Pace Analytical National. The samples were analyzed for the presence or absence of polychlorodibenzo-p-dioxins (PCDDs) and polychlorodibenzofurans (PCDFs) using a modified version of USEPA Method 8290. Estimated Maximum Possible Concentration (EMPC) values were treated as positives in the toxic equivalence calculations. The reporting limits were set to correspond to the lowest calibration points and nominal 10-gram or 1-Liter sample amounts, and the sensitivity was verified by signal-to-noise measurements. The quantitation limits, adjusted for sample extraction amount, may be somewhat higher or lower than the reporting limits provided in this report.

Second column confirmation analyses of 2,3,7,8-TCDF values obtained from the primary (DB5-MS) column are performed only when specifically requested for a project and only when the values are above the concentration of the lowest calibration standard. Typical resolution for this isomer using the DB5-MS column ranges from 25-30%.

The recoveries of the isotopically-labeled PCDD/PCDF internal standards in the sample extracts ranged from 26-97%. Except for twelve low values, which were flagged "R" on the results tables, the labeled internal standard recoveries obtained for this project were within the 40-135% target range specified in Method 8290. Also, since the quantification of the native 2,3,7,8-substituted congeners was based on isotope dilution, the data were automatically corrected for recovery and accurate values were obtained.

Values were flagged "I" where incorrect isotope ratios were obtained or "P" where polychlorinated diphenyl ethers were present. Concentrations below the calibration range were flagged "J" and should be regarded as estimates. Concentrations above the calibration range were flagged "E" and should also be regarded as estimates. In cases where the estimated detection limit (EDL) values were above the standard reporting limits, the EDLs were provided and flagged "A".

A laboratory method blank was prepared and analyzed with each sample batch as part of our routine quality control procedures. The results show the blanks to be free of PCDDs and PCDFs at the reporting limits.

Laboratory spike samples were also prepared using clean reference matrix that had been fortified with native standard materials. The results show that the spiked native compounds were recovered at 86-116% with relative percent differences of 2.7-7.3%. These results were within the target ranges for the method. Matrix spikes were prepared with the solid sample batches using sample materials from separate projects; results from these analyses will be provided upon request. Matrix spikes were not prepared with the water sample batch.

The responses obtained for selected labeled and native congeners in calibration standard analysis F190703B\_22 were outside the target ranges. As specified in our procedures for this method, the averages of the daily response factors for these compounds were used in the calculations for the samples from this runshift. The affected values were flagged "Y" on the results tables.

## **REPORT OF LABORATORY ANALYSIS**

This report shall not be reproduced, except in full,  
without the written consent of Pace Analytical Services, Inc.

## Minnesota Laboratory Certifications

Authority	Certificate #	Authority	Certificate #
A2LA	2926.01	Minnesota - Pet	1240
Alabama	40770	Mississippi	MN00064
Alaska - DW	MN00064	Missouri - DW	10100
Alaska - UST	17-009	Montana	CERT0092
Arizona	AZ0014	Nebraska	NE-OS-18-06
Arkansas - DW	MN00064	Nevada	MN00064
Arkansas - WW	88-0680	New Hampshire	2081
CNMI Saipan	MP0003	New Jersey (NE)	MN002
California	2929	New York	11647
Colorado	MN00064	North Carolina	27700
Connecticut	PH-0256	North Carolina -	27700
EPA Region 8+	via MN 027-053	North Carolina -	530
Florida (NELAP)	E87605	North Dakota	R-036
Georgia	959	Ohio - DW	41244
Guam	17-001r	Ohio - VAP	CL101
Hawaii	MN00064	Oklahoma	9507
Idaho	MN00064	Oregon - Primar	MN300001
Illinois	200011	Oregon - Secon	MN200001
Indiana	C-MN-01	Pennsylvania	68-00563
Iowa	368	Puerto Rico	MN00064
Kansas	E-10167	South Carolina	74003
Kentucky - DW	90062	South Dakota	NA
Kentucky - WW	90062	Tennessee	TN02818
Louisiana - DE	03086	Texas	T104704192
Louisiana - DW	MN00064	Utah (NELAP)	MN00064
Maine	MN00064	Virginia	460163
Maryland	322	Washington	C486
Massachusetts	M-MN064	West Virginia -	382
Michigan	9909	West Virginia -	9952C
Minnesota	027-053-137	Wisconsin	999407970
Minnesota - De	via MN 027-053	Wyoming - UST	2926.01

## REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,  
without the written consent of Pace Analytical Services, Inc.

# **Appendix A**

## Sample Management




# CHAIN-OF-CUSTODY / Analytical Request Document

The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed accurately.

Section A Required Client Information:		Section B Required Project Information:		Section C Invoice Information:	
Company:	Pace Analytical National	Report To:	Pace Analytical National Subout Team	Attention:	Scott Dacus
Address:	12065 Lebaron Road Mount Juliet, TN 37122	Copy To:		Company Name:	
Email:	SuboutTeam@pacenational.com	Purchase Order #:	L1111515	Address:	
Phone:	(615)773-9756	Project Name:	Project Columbia	Pace Quote:	
Requested Due Date:	8-Jul	Project #:	4213-18-087	Pace Project Manager:	Nathan Boberg
				Pace Profile #:	38076
				Regulatory Agency:	
				State / Location:	SC

ITEM #	MATRIX	CODE	COLLECTED		SAMPLE TYPE (G-GRAB C-COMP)	MATRIX CODE (see valid codes to left)	# OF CONTAINERS	PRESERVATIVES						ANALYSES TEST	Y/N	Requested Analysis Filtered (Y/N)	Resid
			START DATE	END DATE				H2SO4	HNO3	HCl	NaOH	Na2S2O3	Methanol				
1	Drinking Water	DW	18-Jun	10:47	1	SL	1										
2	Waste Water	WW	18-Jun	10:15	1	SL	1										W2
3	Product	P	18-Jun	12:50	1	SL	1										W3
4	Soil/Solid	SL	18-Jun	13:20	1	SL	1										W4
5	Oil	OL	18-Jun	14:20	1	SL	1										W5
6	Wipe	WP	18-Jun	14:45	1	SL	1										W6
7	Air	AR	19-Jun	9:15	1	SL	1										W7
8	Other	OT	19-Jun	9:35	1	SL	1										W8
9	Tissue	TS	19-Jun	12:25	1	SL	1										W9
10			19-Jun	9:53	1	SL	1										010
11			19-Jun	13:00	1	SL	1										011
12			19-Jun	10:15	1	SL	1										012

**WO#: 10480689**



10480689

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS
	Benita Miller	24-Jun	9:49	<i>Benita Miller</i>	6/25/19	0450	Y Y Y
Pace Analytical National Batch: WG1300945							
Pace Analytical National SDGs: L1111515							
Location: Minneapolis, MN 55414							
COUNTY YORK, STATE SC							







**Sample Condition Upon Receipt**

Client Name:

Pace National

Project #:

**WO# : 10480689**

PM: NB3

Due Date: 07/08/19

CLIENT: ESC\_TN

Courier:  Fed Ex  UPS  USPS  Client  
 Pace  SpeedDee  Commercial See Exception

Tracking Number: 1082 5985 3669

Custody Seal on Cooler/Box Present?  Yes  No Seals Intact?  Yes  No Biological Tissue Frozen?  Yes  No  N/A

Packing Material:  Bubble Wrap  Bubble Bags  None  Other: PB Temp Blank?  Yes  No

Thermometer:  T1(0461)  T2(1336)  T3(0459)  T4(0254)  T5(0489) Type of Ice:  Wet  Blue  None  Dry  Melted

Note: Each West Virginia Sample must have temp taken (no temp blanks)

Temp should be above freezing to 6°C	Cooler Temp Read w/temp blank: <u>2.5, 2.6</u> °C	Average Corrected Temp (no temp blank only): <u>        </u> °C	See Exceptions <input type="checkbox"/>
Correction Factor: <u>1.0</u>	Cooler Temp Corrected w/temp blank: <u>2.5 2.6</u> °C		

USDA Regulated Soil: (  N/A, water sample/Other: \_\_\_\_\_ )

Date/Initials of Person Examining Contents: CEG 8/25/19

Did samples originate in a quarantine zone within the United States: AL, AR, CA, FL, GA, ID, LA, MS, NC, NM, NY, OK, OR, SC, TN, TX or VA (check maps)?  Yes  No  
 Did samples originate from a foreign source (internationally, including Hawaii and Puerto Rico)?  Yes  No

If Yes to either question, fill out a Regulated Soil Checklist (F-MN-Q-338) and include with SCUR/COC paperwork.

	COMMENTS:
Chain of Custody Present and Filled Out? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	1.
Chain of Custody Relinquished? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	2.
Sampler Name and/or Signature on COC? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	3.
Samples Arrived within Hold Time? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	4.
Short Hold Time Analysis (<72 hr)? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	5. <input type="checkbox"/> Fecal Coliform <input type="checkbox"/> HPC <input type="checkbox"/> Total Coliform/E coli <input type="checkbox"/> BOD/cBOD <input type="checkbox"/> Hex Chrome <input type="checkbox"/> Turbidity <input type="checkbox"/> Nitrate <input type="checkbox"/> Nitrite <input type="checkbox"/> Orthophos <input type="checkbox"/> Other
Rush Turn Around Time Requested? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	6.
Sufficient Volume? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	7.
Correct Containers Used? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	8.
-Pace Containers Used? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
Containers Intact? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	9.
Field Filtered Volume Received for Dissolved Tests? <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	10. Is sediment visible in the dissolved container? <input type="checkbox"/> Yes <input type="checkbox"/> No
Is sufficient information available to reconcile the samples to the COC? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	11. If no, write ID/ Date/Time on Container Below: <input type="checkbox"/> See Exception
Matrix: <input type="checkbox"/> Water <input checked="" type="checkbox"/> Soil <input type="checkbox"/> Oil <input type="checkbox"/> Other	
All containers needing acid/base preservation have been checked? <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	12. Sample #
All containers needing preservation are found to be in compliance with EPA recommendation? (HNO <sub>3</sub> , H <sub>2</sub> SO <sub>4</sub> , <2pH, NaOH >9 Sulfide, NaOH >12 Cyanide) <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	<input type="checkbox"/> NaOH <input type="checkbox"/> HNO <sub>3</sub> <input type="checkbox"/> H <sub>2</sub> SO <sub>4</sub> <input type="checkbox"/> Zinc Acetate
Exceptions: VOA, Coliform, TOC/DOC Oil and Grease, DRO/8015 (water) and Dioxin/PFAS <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	Positive for Res. Chlorine? <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> See Exception pH Paper Lot# <input type="checkbox"/>
	Res. Chlorine 0-6 Roll 0-6 Strip 0-14 Strip
Headspace in VOA Vials (greater than 6mm)? <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	13. <input type="checkbox"/> See Exception
Trip Blank Present? <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	14.
Trip Blank Custody Seals Present? <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	Pace Trip Blank Lot # (if purchased): <u>N/A</u>


**CLIENT NOTIFICATION/RESOLUTION**

Person Contacted: \_\_\_\_\_ Date/Time: \_\_\_\_\_ Field Data Required?  Yes  No  
 Comments/Resolution: Sample ID WHL 1-B-SU-1 was not logged in sequential order upon receipt. Sample date should not be impacted

Project Manager Review: [Signature] Date: 7/11/19

Note: Whenever there is a discrepancy affecting North Carolina compliance samples, a copy of this form will be sent to the North Carolina DEHNR Certification Office (i.e. out of hold incorrect preservative, out of temp, incorrect containers).

Labeled by: \_\_\_\_\_

	Document Name: <b>Regulated Soil Checklist</b>	Document Revised: 13Feb2018 Page 1 of 2
	Document No.: <b>F-MN-Q-338-Rev.06</b>	Issuing Authority: Pace Minnesota Quality Office

**USDA REGULATED SOIL CHECKLIST**

**To Be Completed by SR Staff:**

WO: \_\_\_\_\_ Date: 6/25/19 Initials: CEG

Sample Origin (circle one): DOMESTIC QUARANTINED FOREIGN

(Note: soil samples from Hawaii, Guam, Puerto Rico and the US Virgin Islands are considered to be of a Foreign Source)

If Domestic, circle State of Origin: AL AR CA FL GA LA MS NC NM NY OK OR SC TN TX VA

(Includes: IFA, SOD, Golden Nematode, Karnal Bunt and Witchweed)

List County: York

(USDA Permit/Compliance Agreement authorizes movement of samples from these domestic regulated zones)

If Quarantined, circle State of Origin: FL ID TX CA

List County: \_\_\_\_\_

(Includes Fruit Fly, Giant African Snail and Pale Cyst Nematode)

**(Movement is not authorized for Pale Cyst Nematode [ID or Giant African Snail [FL], remaining quarantines require additional paperwork)**


If Foreign, list Country of Origin: \_\_\_\_\_

**(Movement from some Canadian Provinces is not allowed. Refer to CS-232 Regulated Soil Flow Chart)**

REQUIREMENT	ACTION	COMPLETED
PPQ-530 Paperwork must be included for any samples from counties with a Fruit Fly Quarantine in TX. Refer to <b>MN-S063</b> through <b>MN-S065</b>	Scan PPQ-530 to the corresponding Project folder on the x drive. If PPQ-530 is not present, contact the Waste Coordinator and do not continue processing samples.	YES NO <u>N/A</u>
Samples from ID may not be moved from the quarantined region. Refer to <b>MN-S055</b>	If samples originated in a quarantined zone, contact the Waste Coordinator and do not continue processing samples.	YES NO <u>N/A</u>
Samples from Giant African Snail Quarantine in FL may not be moved from the quarantined region. Refer to <b>MN-S068</b>	If samples originated in a quarantined zone, contact the Waste Coordinator and do not continue processing samples.	YES NO <u>N/A</u>

REQUIREMENT	ACTION	COMPLETED
"Special Handling" stickers are to be placed on all samples.	Did "special handling" stickers get placed on all sample containers?	<u>YES</u> NO
Samples must be segregated and stored in designated bins, shelves and coolers.	Were samples placed in a designated cooler, containers and shelves?	<u>YES</u> NO
Samples must be double contained to prevent accidental release.	Were there any signs of breakage or leakage (check for broken glass and/or loose soil in the cooler)? <i>If NO, ice and melt water can be disposed of by normal process (down the drain).</i>	YES <u>NO</u>
	If <b>YES</b> , were ice and melt water separated from the cooler and disposed of properly? <b>Any broken glass and/or loose soil are to be bagged and placed in a USDA Regulated satellite container or active drum (see Waste Coordinator).</b> <b>Ice and melt water should be baked at a temperature range of 121-154°F for 2 hours and then cooled before going down the drain.</b>	YES NO <u>N/A</u>
Equipment and supplies that have come into contact samples must be decontaminated.	Was the cooler(s) and/or countertop(s) decontaminated using either a fresh 10% bleach solution or 70% ethanol? <i>(Gloves and other lab supplies will be bagged and placed in the USDA Regulated satellite container or active drum).</i>	<u>YES</u> NO

Comments: \_\_\_\_\_

	Document Name: <b>Regulated Soil Checklist</b>	Document Revised: 13Feb2018 Page 2 of 2
	Document No.: <b>F-MN-Q-338-Rev.06</b>	Issuing Authority: Pace Minnesota Quality Office

**To Be Completed by PM and/or PC:**

Sample Analysis to be conducted (circle all that apply):

MN

Subcontract Lab

Name of Subcontract Lab (s):

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

REQUIREMENT	ACTION	COMPLETED
Permission to ship untreated soil must be on file prior to shipping to any subcontract lab, including IR Pace Labs.	Go to: J:\SHARE\PRJ_MGR\10_Client Services Department Documents\Regulated Soils Permits – if permission to ship letter is not there, contact the Waste Coordinator.	YES NO N/A
Shipment must include a valid copy of the receiving lab's permit as well as permission to ship letter.	Is a copy of all needed paperwork included with the COC? Do <b>NOT</b> ship samples until all necessary paperwork is compiled.	YES NO N/A

Comments:

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

Project Manager Signature:

\_\_\_\_\_

Date:

\_\_\_\_\_

## Reporting Flags

- A = Reporting Limit based on signal to noise
- B = Less than 10x higher than method blank level
- C = Result obtained from confirmation analysis
- D = Result obtained from analysis of diluted sample
- E = Exceeds calibration range
- I = Interference present
- J = Estimated value
- L = Suppressive interference, analyte may be biased low
- Nn = Value obtained from additional analysis
- P = PCDE Interference
- R = Recovery outside target range
- S = Peak saturated
- U = Analyte not detected
- V = Result verified by confirmation analysis
- X = %D Exceeds limits
- Y = Calculated using average of daily RFs
- \* = See Discussion

### REPORT OF LABORATORY ANALYSIS

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# **Appendix B**

## Sample Analysis Summary



### Method 8290 Sample Analysis Results

Client - Pace Analytical National

Client's Sample ID	TWHL-1-SU-1		
Lab Sample ID	10480689001		
Filename	F190703B_05		
Injected By	SMT		
Total Amount Extracted	10.2 g	Matrix	Solid
% Moisture	70.6	Dilution	NA
Dry Weight Extracted	3.00 g	Collected	06/18/2019 10:47
ICAL ID	F190620	Received	06/25/2019 09:50
CCal Filename(s)	F190703B_01 & F190703B_22	Extracted	06/28/2019 15:25
Method Blank ID	BLANK-71541	Analyzed	07/03/2019 19:30

Native Isomers	Conc ng/Kg	EMPC ng/Kg	RL ng/Kg	Internal Standards	ng's Added	Percent Recovery
2,3,7,8-TCDF	16	----	1.0	2,3,7,8-TCDF-13C	2.00	52
Total TCDF	84	----	1.0	2,3,7,8-TCDD-13C	2.00	58
				1,2,3,7,8-PeCDF-13C	2.00	68 Y
2,3,7,8-TCDD	12	----	1.0	2,3,4,7,8-PeCDF-13C	2.00	62 Y
Total TCDD	14	----	1.0	1,2,3,7,8-PeCDD-13C	2.00	61
				1,2,3,4,7,8-HxCDF-13C	2.00	48
1,2,3,7,8-PeCDF	ND	----	5.0	1,2,3,6,7,8-HxCDF-13C	2.00	49
2,3,4,7,8-PeCDF	ND	----	5.0	2,3,4,6,7,8-HxCDF-13C	2.00	50
Total PeCDF	9.7	----	5.0 J	1,2,3,7,8,9-HxCDF-13C	2.00	65 Y
				1,2,3,4,7,8-HxCDD-13C	2.00	57
1,2,3,7,8-PeCDD	ND	----	5.0	1,2,3,6,7,8-HxCDD-13C	2.00	54
Total PeCDD	ND	----	5.0	1,2,3,4,6,7,8-HpCDF-13C	2.00	61
				1,2,3,4,7,8,9-HpCDF-13C	2.00	59
1,2,3,4,7,8-HxCDF	ND	----	5.0	1,2,3,4,6,7,8-HpCDD-13C	2.00	63
1,2,3,6,7,8-HxCDF	ND	----	5.0	OCDD-13C	4.00	52
2,3,4,6,7,8-HxCDF	ND	----	5.0			
1,2,3,7,8,9-HxCDF	ND	----	5.0	1,2,3,4-TCDD-13C	2.00	NA
Total HxCDF	ND	----	5.0	1,2,3,7,8,9-HxCDD-13C	2.00	NA
1,2,3,4,7,8-HxCDD	ND	----	5.0	2,3,7,8-TCDD-37Cl4	0.20	135
1,2,3,6,7,8-HxCDD	ND	----	5.0			
1,2,3,7,8,9-HxCDD	ND	----	5.0			
Total HxCDD	18	----	5.0			
1,2,3,4,6,7,8-HpCDF	11	----	5.0 J	Total 2,3,7,8-TCDD		
1,2,3,4,7,8,9-HpCDF	ND	----	5.0	Equivalence: 17 ng/Kg		
Total HpCDF	44	----	5.0	(Lower-bound - Using ITE Factors)		
1,2,3,4,6,7,8-HpCDD	72	----	5.0			
Total HpCDD	270	----	5.0			
OCDF	89	----	10 Y			
OCDD	2600	----	10			

Conc = Concentration (Totals include 2,3,7,8-substituted isomers).  
EMPC = Estimated Maximum Possible Concentration  
RL = Reporting Limit

ND = Not Detected  
NA = Not Applicable  
NC = Not Calculated

Results reported on a dry weight basis and are valid to no more than 2 significant figures.

J = Estimated value

Y = Calculated using average of daily RFs

## REPORT OF LABORATORY ANALYSIS

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### Method 8290 Sample Analysis Results

Client - Pace Analytical National

Client's Sample ID	TWHL-2-SU-1			
Lab Sample ID	10480689002			
Filename	F190703B_09			
Injected By	SMT			
Total Amount Extracted	10.3 g	Matrix	Solid	
% Moisture	57.6	Dilution	NA	
Dry Weight Extracted	4.37 g	Collected	06/18/2019 10:15	
ICAL ID	F190620	Received	06/25/2019 09:50	
CCal Filename(s)	F190703B_01 & F190703B_22	Extracted	06/28/2019 15:25	
Method Blank ID	BLANK-71541	Analyzed	07/03/2019 22:08	

Native Isomers	Conc ng/Kg	EMPC ng/Kg	RL ng/Kg	Internal Standards	ng's Added	Percent Recovery
2,3,7,8-TCDF	12	----	1.0	2,3,7,8-TCDF-13C	2.00	41
Total TCDF	51	----	1.0	2,3,7,8-TCDD-13C	2.00	46
				1,2,3,7,8-PeCDF-13C	2.00	53 Y
2,3,7,8-TCDD	7.5	----	1.0	2,3,4,7,8-PeCDF-13C	2.00	50 Y
Total TCDD	7.5	----	1.0	1,2,3,7,8-PeCDD-13C	2.00	47
				1,2,3,4,7,8-HxCDF-13C	2.00	37 R
1,2,3,7,8-PeCDF	ND	----	5.0	1,2,3,6,7,8-HxCDF-13C	2.00	38 R
2,3,4,7,8-PeCDF	ND	----	5.0	2,3,4,6,7,8-HxCDF-13C	2.00	38 R
Total PeCDF	6.4	----	5.0 J	1,2,3,7,8,9-HxCDF-13C	2.00	49 Y
				1,2,3,4,7,8-HxCDD-13C	2.00	45
1,2,3,7,8-PeCDD	ND	----	5.0	1,2,3,6,7,8-HxCDD-13C	2.00	41
Total PeCDD	ND	----	5.0	1,2,3,4,6,7,8-HpCDF-13C	2.00	41
				1,2,3,4,7,8,9-HpCDF-13C	2.00	41
1,2,3,4,7,8-HxCDF	ND	----	5.0	1,2,3,4,6,7,8-HpCDD-13C	2.00	45
1,2,3,6,7,8-HxCDF	ND	----	5.0	OCDD-13C	4.00	36 R
2,3,4,6,7,8-HxCDF	ND	----	5.0			
1,2,3,7,8,9-HxCDF	ND	----	5.0	1,2,3,4-TCDD-13C	2.00	NA
Total HxCDF	ND	----	5.0	1,2,3,7,8,9-HxCDD-13C	2.00	NA
1,2,3,4,7,8-HxCDD	ND	----	5.0	2,3,7,8-TCDD-37Cl4	0.20	125
1,2,3,6,7,8-HxCDD	ND	----	5.0			
1,2,3,7,8,9-HxCDD	ND	----	5.0			
Total HxCDD	16	----	5.0			
1,2,3,4,6,7,8-HpCDF	6.1	----	5.0 J	Total 2,3,7,8-TCDD		
1,2,3,4,7,8,9-HpCDF	ND	----	5.0	Equivalence: 11 ng/Kg		
Total HpCDF	23	----	5.0	(Lower-bound - Using ITE Factors)		
1,2,3,4,6,7,8-HpCDD	45	----	5.0			
Total HpCDD	110	----	5.0			
OCDF	53	----	10 Y			
OCDD	1700	----	10			

Conc = Concentration (Totals include 2,3,7,8-substituted isomers).  
EMPC = Estimated Maximum Possible Concentration  
RL = Reporting Limit

ND = Not Detected  
NA = Not Applicable  
NC = Not Calculated

Results reported on a dry weight basis and are valid to no more than 2 significant figures.  
J = Estimated value  
R = Recovery outside target range  
Y = Calculated using average of daily RfFs

## REPORT OF LABORATORY ANALYSIS

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### Method 8290 Sample Analysis Results

Client - Pace Analytical National

Client's Sample ID	TWHL-3-SU-1		
Lab Sample ID	10480689003		
Filename	F190703B_10		
Injected By	SMT		
Total Amount Extracted	10.3 g	Matrix	Solid
% Moisture	36.8	Dilution	NA
Dry Weight Extracted	6.53 g	Collected	06/18/2019 12:50
ICAL ID	F190620	Received	06/25/2019 09:50
CCal Filename(s)	F190703B_01 & F190703B_22	Extracted	06/28/2019 15:25
Method Blank ID	BLANK-71541	Analyzed	07/03/2019 22:48

Native Isomers	Conc ng/Kg	EMPC ng/Kg	RL ng/Kg	Internal Standards	ng's Added	Percent Recovery
2,3,7,8-TCDF	1.3	----	1.0 J	2,3,7,8-TCDF-13C	2.00	55
Total TCDF	5.5	----	1.0	2,3,7,8-TCDD-13C	2.00	59
				1,2,3,7,8-PeCDF-13C	2.00	72 Y
2,3,7,8-TCDD	ND	----	1.0	2,3,4,7,8-PeCDF-13C	2.00	66 Y
Total TCDD	ND	----	1.0	1,2,3,7,8-PeCDD-13C	2.00	62
				1,2,3,4,7,8-HxCDF-13C	2.00	50
1,2,3,7,8-PeCDF	ND	----	5.0	1,2,3,6,7,8-HxCDF-13C	2.00	51
2,3,4,7,8-PeCDF	ND	----	5.0	2,3,4,6,7,8-HxCDF-13C	2.00	52
Total PeCDF	ND	----	5.0	1,2,3,7,8,9-HxCDF-13C	2.00	64 Y
				1,2,3,4,7,8-HxCDD-13C	2.00	57
1,2,3,7,8-PeCDD	ND	----	5.0	1,2,3,6,7,8-HxCDD-13C	2.00	53
Total PeCDD	ND	----	5.0	1,2,3,4,6,7,8-HpCDF-13C	2.00	59
				1,2,3,4,7,8,9-HpCDF-13C	2.00	53
1,2,3,4,7,8-HxCDF	ND	----	5.0	1,2,3,4,6,7,8-HpCDD-13C	2.00	55
1,2,3,6,7,8-HxCDF	ND	----	5.0	OCDD-13C	4.00	47
2,3,4,6,7,8-HxCDF	ND	----	5.0			
1,2,3,7,8,9-HxCDF	ND	----	5.0	1,2,3,4-TCDD-13C	2.00	NA
Total HxCDF	ND	----	5.0	1,2,3,7,8,9-HxCDD-13C	2.00	NA
1,2,3,4,7,8-HxCDD	ND	----	5.0	2,3,7,8-TCDD-37Cl4	0.20	135
1,2,3,6,7,8-HxCDD	ND	----	5.0			
1,2,3,7,8,9-HxCDD	ND	----	5.0			
Total HxCDD	ND	----	5.0			
1,2,3,4,6,7,8-HpCDF	ND	----	5.0	Total 2,3,7,8-TCDD		
1,2,3,4,7,8,9-HpCDF	ND	----	5.0	Equivalence: 0.42 ng/Kg		
Total HpCDF	ND	----	5.0	(Lower-bound - Using ITE Factors)		
1,2,3,4,6,7,8-HpCDD	ND	----	5.0			
Total HpCDD	8.6	----	5.0			
OCDF	ND	----	10 Y			
OCDD	280	----	10			

Conc = Concentration (Totals include 2,3,7,8-substituted isomers).  
EMPC = Estimated Maximum Possible Concentration  
RL = Reporting Limit

ND = Not Detected  
NA = Not Applicable  
NC = Not Calculated

Results reported on a dry weight basis and are valid to no more than 2 significant figures.

J = Estimated value

Y = Calculated using average of daily RfFs

## REPORT OF LABORATORY ANALYSIS

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### Method 8290 Sample Analysis Results

Client - Pace Analytical National

Client's Sample ID	TWHL-4-SU-1		
Lab Sample ID	10480689004		
Filename	F190703B_11		
Injected By	SMT		
Total Amount Extracted	10.1 g	Matrix	Solid
% Moisture	22.7	Dilution	NA
Dry Weight Extracted	7.83 g	Collected	06/18/2019 13:20
ICAL ID	F190620	Received	06/25/2019 09:50
CCal Filename(s)	F190703B_01 & F190703B_22	Extracted	06/28/2019 15:25
Method Blank ID	BLANK-71541	Analyzed	07/03/2019 23:27

Native Isomers	Conc ng/Kg	EMPC ng/Kg	RL ng/Kg	Internal Standards	ng's Added	Percent Recovery
2,3,7,8-TCDF	ND	----	1.0	2,3,7,8-TCDF-13C	2.00	52
Total TCDF	ND	----	1.0	2,3,7,8-TCDD-13C	2.00	57
				1,2,3,7,8-PeCDF-13C	2.00	67 Y
2,3,7,8-TCDD	ND	----	1.0	2,3,4,7,8-PeCDF-13C	2.00	59 Y
Total TCDD	ND	----	1.0	1,2,3,7,8-PeCDD-13C	2.00	57
				1,2,3,4,7,8-HxCDF-13C	2.00	51
1,2,3,7,8-PeCDF	ND	----	5.0	1,2,3,6,7,8-HxCDF-13C	2.00	53
2,3,4,7,8-PeCDF	ND	----	5.0	2,3,4,6,7,8-HxCDF-13C	2.00	52
Total PeCDF	ND	----	5.0	1,2,3,7,8,9-HxCDF-13C	2.00	63 Y
				1,2,3,4,7,8-HxCDD-13C	2.00	58
1,2,3,7,8-PeCDD	ND	----	5.0	1,2,3,6,7,8-HxCDD-13C	2.00	55
Total PeCDD	ND	----	5.0	1,2,3,4,6,7,8-HpCDF-13C	2.00	59
				1,2,3,4,7,8,9-HpCDF-13C	2.00	50
1,2,3,4,7,8-HxCDF	ND	----	5.0	1,2,3,4,6,7,8-HpCDD-13C	2.00	55
1,2,3,6,7,8-HxCDF	ND	----	5.0	OCDD-13C	4.00	45
2,3,4,6,7,8-HxCDF	ND	----	5.0			
1,2,3,7,8,9-HxCDF	ND	----	5.0	1,2,3,4-TCDD-13C	2.00	NA
Total HxCDF	ND	----	5.0	1,2,3,7,8,9-HxCDD-13C	2.00	NA
1,2,3,4,7,8-HxCDD	ND	----	5.0	2,3,7,8-TCDD-37Cl4	0.20	147
1,2,3,6,7,8-HxCDD	ND	----	5.0			
1,2,3,7,8,9-HxCDD	ND	----	5.0			
Total HxCDD	ND	----	5.0			
1,2,3,4,6,7,8-HpCDF	ND	----	5.0	Total 2,3,7,8-TCDD		
1,2,3,4,7,8,9-HpCDF	ND	----	5.0	Equivalence: 0.019 ng/Kg		
Total HpCDF	ND	----	5.0	(Lower-bound - Using ITE Factors)		
1,2,3,4,6,7,8-HpCDD	ND	----	5.0			
Total HpCDD	ND	----	5.0			
OCDF	ND	----	10 Y			
OCDD	19	----	10			

Conc = Concentration (Totals include 2,3,7,8-substituted isomers).  
EMPC = Estimated Maximum Possible Concentration  
RL = Reporting Limit

ND = Not Detected  
NA = Not Applicable  
NC = Not Calculated

Results reported on a dry weight basis and are valid to no more than 2 significant figures.  
Y = Calculated using average of daily RFs

## REPORT OF LABORATORY ANALYSIS

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### Method 8290 Sample Analysis Results

Client - Pace Analytical National

Client's Sample ID	SL2-1-SU-2		
Lab Sample ID	10480689005		
Filename	F190703B_12		
Injected By	SMT		
Total Amount Extracted	10.3 g	Matrix	Solid
% Moisture	65.9	Dilution	NA
Dry Weight Extracted	3.52 g	Collected	06/18/2019 14:20
ICAL ID	F190620	Received	06/25/2019 09:50
CCal Filename(s)	F190703B_01 & F190703B_22	Extracted	06/28/2019 15:25
Method Blank ID	BLANK-71541	Analyzed	07/04/2019 00:07

Native Isomers	Conc ng/Kg	EMPC ng/Kg	RL ng/Kg	Internal Standards	ng's Added	Percent Recovery
2,3,7,8-TCDF	250	----	1.0	2,3,7,8-TCDF-13C	2.00	47
Total TCDF	560	----	1.0	2,3,7,8-TCDD-13C	2.00	52
				1,2,3,7,8-PeCDF-13C	2.00	63 Y
2,3,7,8-TCDD	47	----	1.0	2,3,4,7,8-PeCDF-13C	2.00	59 Y
Total TCDD	88	----	1.0	1,2,3,7,8-PeCDD-13C	2.00	56
				1,2,3,4,7,8-HxCDF-13C	2.00	43
1,2,3,7,8-PeCDF	ND	----	5.0	1,2,3,6,7,8-HxCDF-13C	2.00	43
2,3,4,7,8-PeCDF	ND	----	5.0	2,3,4,6,7,8-HxCDF-13C	2.00	43
Total PeCDF	32	----	5.0	1,2,3,7,8,9-HxCDF-13C	2.00	55 Y
				1,2,3,4,7,8-HxCDD-13C	2.00	51
1,2,3,7,8-PeCDD	ND	----	5.0	1,2,3,6,7,8-HxCDD-13C	2.00	45
Total PeCDD	15	----	5.0	1,2,3,4,6,7,8-HpCDF-13C	2.00	47
				1,2,3,4,7,8,9-HpCDF-13C	2.00	47
1,2,3,4,7,8-HxCDF	ND	----	5.0	1,2,3,4,6,7,8-HpCDD-13C	2.00	49
1,2,3,6,7,8-HxCDF	ND	----	5.0	OCDD-13C	4.00	40
2,3,4,6,7,8-HxCDF	ND	----	5.0			
1,2,3,7,8,9-HxCDF	ND	----	5.0	1,2,3,4-TCDD-13C	2.00	NA
Total HxCDF	5.0	----	5.0 J	1,2,3,7,8,9-HxCDD-13C	2.00	NA
1,2,3,4,7,8-HxCDD	ND	----	5.0	2,3,7,8-TCDD-37Cl4	0.20	128
1,2,3,6,7,8-HxCDD	ND	----	5.0			
1,2,3,7,8,9-HxCDD	ND	----	5.0			
Total HxCDD	28	----	5.0			
1,2,3,4,6,7,8-HpCDF	5.9	----	5.0 J	Total 2,3,7,8-TCDD		
1,2,3,4,7,8,9-HpCDF	ND	----	5.0	Equivalence: 74 ng/Kg		
Total HpCDF	20	----	5.0	(Lower-bound - Using ITE Factors)		
1,2,3,4,6,7,8-HpCDD	78	----	5.0			
Total HpCDD	180	----	5.0			
OCDF	15	----	10 JY			
OCDD	1100	----	10			

Conc = Concentration (Totals include 2,3,7,8-substituted isomers).  
 EMPC = Estimated Maximum Possible Concentration  
 RL = Reporting Limit

ND = Not Detected  
 NA = Not Applicable  
 NC = Not Calculated

Results reported on a dry weight basis and are valid to no more than 2 significant figures.  
 J = Estimated value  
 Y = Calculated using average of daily RFs

## REPORT OF LABORATORY ANALYSIS

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**Method 8290 Sample Analysis Results**

Client - Pace Analytical National

Client's Sample ID	SL2-2-SU-2			
Lab Sample ID	10480689006			
Filename	F190703B_13			
Injected By	SMT			
Total Amount Extracted	10.1 g	Matrix	Solid	
% Moisture	78.9	Dilution	NA	
Dry Weight Extracted	2.14 g	Collected	06/18/2019 14:45	
ICAL ID	F190620	Received	06/25/2019 09:50	
CCal Filename(s)	F190703B_01 & F190703B_22	Extracted	06/28/2019 15:25	
Method Blank ID	BLANK-71541	Analyzed	07/04/2019 00:46	

Native Isomers	Conc ng/Kg	EMPC ng/Kg	RL ng/Kg	Internal Standards	ng's Added	Percent Recovery
2,3,7,8-TCDF	770	----	1.0	2,3,7,8-TCDF-13C	2.00	50
Total TCDF	1700	----	1.0	2,3,7,8-TCDD-13C	2.00	56
				1,2,3,7,8-PeCDF-13C	2.00	68 Y
2,3,7,8-TCDD	130	----	1.0	2,3,4,7,8-PeCDF-13C	2.00	64 Y
Total TCDD	220	----	1.0	1,2,3,7,8-PeCDD-13C	2.00	61
				1,2,3,4,7,8-HxCDF-13C	2.00	43
1,2,3,7,8-PeCDF	----	5.6	5.0 U	1,2,3,6,7,8-HxCDF-13C	2.00	46
2,3,4,7,8-PeCDF	11	----	5.0 J	2,3,4,6,7,8-HxCDF-13C	2.00	44
Total PeCDF	110	----	5.0	1,2,3,7,8,9-HxCDF-13C	2.00	57 Y
				1,2,3,4,7,8-HxCDD-13C	2.00	48
1,2,3,7,8-PeCDD	ND	----	5.0	1,2,3,6,7,8-HxCDD-13C	2.00	55
Total PeCDD	27	----	5.0	1,2,3,4,6,7,8-HpCDF-13C	2.00	30 R
				1,2,3,4,7,8,9-HpCDF-13C	2.00	45
1,2,3,4,7,8-HxCDF	ND	----	5.0	1,2,3,4,6,7,8-HpCDD-13C	2.00	34 R
1,2,3,6,7,8-HxCDF	ND	----	5.0	OCDD-13C	4.00	54
2,3,4,6,7,8-HxCDF	ND	----	5.0			
1,2,3,7,8,9-HxCDF	ND	----	5.0	1,2,3,4-TCDD-13C	2.00	NA
Total HxCDF	38	----	5.0	1,2,3,7,8,9-HxCDD-13C	2.00	NA
1,2,3,4,7,8-HxCDD	ND	----	5.0	2,3,7,8-TCDD-37Cl4	0.20	143
1,2,3,6,7,8-HxCDD	7.1	----	5.0 J			
1,2,3,7,8,9-HxCDD	ND	----	5.0			
Total HxCDD	75	----	5.0			
1,2,3,4,6,7,8-HpCDF	----	25	5.0 I	Total 2,3,7,8-TCDD		
1,2,3,4,7,8,9-HpCDF	ND	----	5.0	Equivalence: 220 ng/Kg		
Total HpCDF	ND	----	5.0	(Lower-bound - Using ITE Factors)		
1,2,3,4,6,7,8-HpCDD	150	----	5.0			
Total HpCDD	420	----	5.0			
OCDF	43	----	10 JY			
OCDD	2400	----	10			

Conc = Concentration (Totals include 2,3,7,8-substituted isomers).  
EMPC = Estimated Maximum Possible Concentration  
RL = Reporting Limit

ND = Not Detected  
NA = Not Applicable  
NC = Not Calculated

Results reported on a dry weight basis and are valid to no more than 2 significant figures.

J = Estimated value  
R = Recovery outside target range  
I = Interference present  
Y = Calculated using average of daily RFs

**REPORT OF LABORATORY ANALYSIS**

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### Method 8290 Sample Analysis Results

Client - Pace Analytical National

Client's Sample ID	WHL1-1-SU-1		
Lab Sample ID	10480689007		
Filename	F190703B_14		
Injected By	SMT		
Total Amount Extracted	10.2 g	Matrix	Solid
% Moisture	71.4	Dilution	NA
Dry Weight Extracted	2.91 g	Collected	06/19/2019 09:15
ICAL ID	F190620	Received	06/25/2019 09:50
CCal Filename(s)	F190703B_01 & F190703B_22	Extracted	06/28/2019 15:25
Method Blank ID	BLANK-71541	Analyzed	07/04/2019 01:26

Native Isomers	Conc ng/Kg	EMPC ng/Kg	RL ng/Kg	Internal Standards	ng's Added	Percent Recovery
2,3,7,8-TCDF	140	----	1.0	2,3,7,8-TCDF-13C	2.00	48
Total TCDF	300	----	1.0	2,3,7,8-TCDD-13C	2.00	53
				1,2,3,7,8-PeCDF-13C	2.00	61 Y
2,3,7,8-TCDD	34	----	1.0	2,3,4,7,8-PeCDF-13C	2.00	56 Y
Total TCDD	41	----	1.0	1,2,3,7,8-PeCDD-13C	2.00	53
				1,2,3,4,7,8-HxCDF-13C	2.00	41
1,2,3,7,8-PeCDF	ND	----	5.0	1,2,3,6,7,8-HxCDF-13C	2.00	43
2,3,4,7,8-PeCDF	5.5	----	5.0 J	2,3,4,6,7,8-HxCDF-13C	2.00	42
Total PeCDF	58	----	5.0	1,2,3,7,8,9-HxCDF-13C	2.00	55 Y
				1,2,3,4,7,8-HxCDD-13C	2.00	50
1,2,3,7,8-PeCDD	ND	----	5.0	1,2,3,6,7,8-HxCDD-13C	2.00	48
Total PeCDD	5.6	----	5.0 J	1,2,3,4,6,7,8-HpCDF-13C	2.00	43
				1,2,3,4,7,8,9-HpCDF-13C	2.00	44
1,2,3,4,7,8-HxCDF	ND	----	5.0	1,2,3,4,6,7,8-HpCDD-13C	2.00	46
1,2,3,6,7,8-HxCDF	ND	----	5.0	OCDD-13C	4.00	40
2,3,4,6,7,8-HxCDF	ND	----	5.0			
1,2,3,7,8,9-HxCDF	ND	----	5.0	1,2,3,4-TCDD-13C	2.00	NA
Total HxCDF	20	----	5.0	1,2,3,7,8,9-HxCDD-13C	2.00	NA
1,2,3,4,7,8-HxCDD	ND	----	5.0	2,3,7,8-TCDD-37Cl4	0.20	124
1,2,3,6,7,8-HxCDD	ND	----	5.0			
1,2,3,7,8,9-HxCDD	ND	----	5.0			
Total HxCDD	35	----	5.0			
1,2,3,4,6,7,8-HpCDF	----	18	5.0 I	Total 2,3,7,8-TCDD		
1,2,3,4,7,8,9-HpCDF	ND	----	5.0	Equivalence: 55 ng/Kg		
Total HpCDF	ND	----	5.0	(Lower-bound - Using ITE Factors)		
1,2,3,4,6,7,8-HpCDD	160	----	5.0			
Total HpCDD	420	----	5.0			
OCDF	110	----	10 Y			
OCDD	2800	----	10			

Conc = Concentration (Totals include 2,3,7,8-substituted isomers).  
EMPC = Estimated Maximum Possible Concentration  
RL = Reporting Limit

ND = Not Detected  
NA = Not Applicable  
NC = Not Calculated

Results reported on a dry weight basis and are valid to no more than 2 significant figures.  
J = Estimated value  
I = Interference present  
Y = Calculated using average of daily RFs

## REPORT OF LABORATORY ANALYSIS

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**Method 8290 Sample Analysis Results**

Client - Pace Analytical National

Client's Sample ID	WHL1-2-SU-1			
Lab Sample ID	10480689008			
Filename	F190703B_15			
Injected By	SMT			
Total Amount Extracted	10.1 g	Matrix	Solid	
% Moisture	76.1	Dilution	NA	
Dry Weight Extracted	2.42 g	Collected	06/19/2019 09:35	
ICAL ID	F190620	Received	06/25/2019 09:50	
CCal Filename(s)	F190703B_01 & F190703B_22	Extracted	06/28/2019 15:25	
Method Blank ID	BLANK-71541	Analyzed	07/04/2019 02:05	

Native Isomers	Conc ng/Kg	EMPC ng/Kg	RL ng/Kg	Internal Standards	ng's Added	Percent Recovery
2,3,7,8-TCDF	1500	----	1.0	2,3,7,8-TCDF-13C	2.00	56
Total TCDF	2500	----	1.0	2,3,7,8-TCDD-13C	2.00	67
				1,2,3,7,8-PeCDF-13C	2.00	87 Y
2,3,7,8-TCDD	370	----	1.0	2,3,4,7,8-PeCDF-13C	2.00	81 Y
Total TCDD	440	----	1.0	1,2,3,7,8-PeCDD-13C	2.00	82
				1,2,3,4,7,8-HxCDF-13C	2.00	56
1,2,3,7,8-PeCDF	17	----	5.0 J	1,2,3,6,7,8-HxCDF-13C	2.00	58
2,3,4,7,8-PeCDF	21	----	5.0	2,3,4,6,7,8-HxCDF-13C	2.00	55
Total PeCDF	270	----	5.0	1,2,3,7,8,9-HxCDF-13C	2.00	74 Y
				1,2,3,4,7,8-HxCDD-13C	2.00	60
1,2,3,7,8-PeCDD	----	16	5.0 U	1,2,3,6,7,8-HxCDD-13C	2.00	63
Total PeCDD	55	----	5.0	1,2,3,4,6,7,8-HpCDF-13C	2.00	30 R
				1,2,3,4,7,8,9-HpCDF-13C	2.00	45
1,2,3,4,7,8-HxCDF	ND	----	5.0	1,2,3,4,6,7,8-HpCDD-13C	2.00	43
1,2,3,6,7,8-HxCDF	ND	----	5.0	OCDD-13C	4.00	54
2,3,4,6,7,8-HxCDF	5.0	----	5.0 J			
1,2,3,7,8,9-HxCDF	ND	----	5.0	1,2,3,4-TCDD-13C	2.00	NA
Total HxCDF	75	----	5.0	1,2,3,7,8,9-HxCDD-13C	2.00	NA
1,2,3,4,7,8-HxCDD	5.5	----	5.0 J	2,3,7,8-TCDD-37Cl4	0.20	162
1,2,3,6,7,8-HxCDD	17	----	5.0 J			
1,2,3,7,8,9-HxCDD	6.7	----	5.0 J			
Total HxCDD	140	----	5.0			
1,2,3,4,6,7,8-HpCDF	----	75	5.2 IA	Total 2,3,7,8-TCDD		
1,2,3,4,7,8,9-HpCDF	ND	----	5.3 A	Equivalence: 550 ng/Kg		
Total HpCDF	ND	----	5.2	(Lower-bound - Using ITE Factors)		
1,2,3,4,6,7,8-HpCDD	310	----	5.0			
Total HpCDD	310	----	5.0			
OCDF	190	----	10 Y			
OCDD	4400	----	10			

Conc = Concentration (Totals include 2,3,7,8-substituted isomers).  
EMPC = Estimated Maximum Possible Concentration  
RL = Reporting Limit

ND = Not Detected  
NA = Not Applicable  
NC = Not Calculated

Results reported on a dry weight basis and are valid to no more than 2 significant figures.

J = Estimated value  
A = Reporting Limit based on signal to noise  
R = Recovery outside target range  
I = Interference present  
Y = Calculated using average of daily RFs

**REPORT OF LABORATORY ANALYSIS**

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### Method 8290 Sample Analysis Results

Client - Pace Analytical National

Client's Sample ID	WHL1-3-SU-2		
Lab Sample ID	10480689009		
Filename	F190703B_16		
Injected By	SMT		
Total Amount Extracted	10.3 g	Matrix	Solid
% Moisture	35.5	Dilution	NA
Dry Weight Extracted	6.64 g	Collected	06/19/2019 12:25
ICAL ID	F190620	Received	06/25/2019 09:50
CCal Filename(s)	F190703B_01 & F190703B_22	Extracted	06/28/2019 15:25
Method Blank ID	BLANK-71541	Analyzed	07/04/2019 02:45

Native Isomers	Conc ng/Kg	EMPC ng/Kg	RL ng/Kg	Internal Standards	ng's Added	Percent Recovery
2,3,7,8-TCDF	47	----	1.0	2,3,7,8-TCDF-13C	2.00	47
Total TCDF	120	----	1.0	2,3,7,8-TCDD-13C	2.00	54
				1,2,3,7,8-PeCDF-13C	2.00	58 Y
2,3,7,8-TCDD	16	----	1.0	2,3,4,7,8-PeCDF-13C	2.00	54 Y
Total TCDD	22	----	1.0	1,2,3,7,8-PeCDD-13C	2.00	53
				1,2,3,4,7,8-HxCDF-13C	2.00	41
1,2,3,7,8-PeCDF	ND	----	5.0	1,2,3,6,7,8-HxCDF-13C	2.00	41
2,3,4,7,8-PeCDF	ND	----	5.0	2,3,4,6,7,8-HxCDF-13C	2.00	40
Total PeCDF	10	----	5.0	1,2,3,7,8,9-HxCDF-13C	2.00	52 Y
				1,2,3,4,7,8-HxCDD-13C	2.00	50
1,2,3,7,8-PeCDD	ND	----	5.0	1,2,3,6,7,8-HxCDD-13C	2.00	46
Total PeCDD	ND	----	5.0	1,2,3,4,6,7,8-HpCDF-13C	2.00	43
				1,2,3,4,7,8,9-HpCDF-13C	2.00	40
1,2,3,4,7,8-HxCDF	ND	----	5.0	1,2,3,4,6,7,8-HpCDD-13C	2.00	48
1,2,3,6,7,8-HxCDF	ND	----	5.0	OCDD-13C	4.00	34 R
2,3,4,6,7,8-HxCDF	ND	----	5.0			
1,2,3,7,8,9-HxCDF	ND	----	5.0	1,2,3,4-TCDD-13C	2.00	NA
Total HxCDF	ND	----	5.0	1,2,3,7,8,9-HxCDD-13C	2.00	NA
1,2,3,4,7,8-HxCDD	ND	----	5.0	2,3,7,8-TCDD-37Cl4	0.20	130
1,2,3,6,7,8-HxCDD	ND	----	5.0			
1,2,3,7,8,9-HxCDD	ND	----	5.0			
Total HxCDD	16	----	5.0			
1,2,3,4,6,7,8-HpCDF	5.6	----	5.0 J	Total 2,3,7,8-TCDD		
1,2,3,4,7,8,9-HpCDF	ND	----	5.0	Equivalence: 23 ng/Kg		
Total HpCDF	19	----	5.0	(Lower-bound - Using ITE Factors)		
1,2,3,4,6,7,8-HpCDD	45	----	5.0			
Total HpCDD	110	----	5.0			
OCDF	21	----	10 Y			
OCDD	2000	----	10			

Conc = Concentration (Totals include 2,3,7,8-substituted isomers).  
EMPC = Estimated Maximum Possible Concentration  
RL = Reporting Limit

ND = Not Detected  
NA = Not Applicable  
NC = Not Calculated

Results reported on a dry weight basis and are valid to no more than 2 significant figures.  
J = Estimated value  
R = Recovery outside target range  
Y = Calculated using average of daily Rf's

## REPORT OF LABORATORY ANALYSIS

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### Method 8290 Sample Analysis Results

Client - Pace Analytical National

Client's Sample ID	WHL1-4-SU-1		
Lab Sample ID	10480689010		
Filename	F190706A_03		
Injected By	BAL		
Total Amount Extracted	13.0 g	Matrix	Solid
% Moisture	65.3	Dilution	NA
Dry Weight Extracted	4.52 g	Collected	06/19/2019 09:53
ICAL ID	F190620	Received	06/25/2019 09:50
CCal Filename(s)	F190705B_18 & F190706A_16	Extracted	07/02/2019 15:15
Method Blank ID	BLANK-71594	Analyzed	07/06/2019 12:08

Native Isomers	Conc ng/Kg	EMPC ng/Kg	RL ng/Kg	Internal Standards	ng's Added	Percent Recovery
2,3,7,8-TCDF	25	----	1.0	2,3,7,8-TCDF-13C	2.00	65
Total TCDF	68	----	1.0	2,3,7,8-TCDD-13C	2.00	63
				1,2,3,7,8-PeCDF-13C	2.00	57
2,3,7,8-TCDD	8.7	----	1.0	2,3,4,7,8-PeCDF-13C	2.00	60
Total TCDD	14	----	1.0	1,2,3,7,8-PeCDD-13C	2.00	71
				1,2,3,4,7,8-HxCDF-13C	2.00	46
1,2,3,7,8-PeCDF	ND	----	5.0	1,2,3,6,7,8-HxCDF-13C	2.00	47
2,3,4,7,8-PeCDF	ND	----	5.0	2,3,4,6,7,8-HxCDF-13C	2.00	49
Total PeCDF	5.2	----	5.0 J	1,2,3,7,8,9-HxCDF-13C	2.00	50
				1,2,3,4,7,8-HxCDD-13C	2.00	55
1,2,3,7,8-PeCDD	ND	----	5.0	1,2,3,6,7,8-HxCDD-13C	2.00	55
Total PeCDD	ND	----	5.0	1,2,3,4,6,7,8-HpCDF-13C	2.00	58
				1,2,3,4,7,8,9-HpCDF-13C	2.00	58
1,2,3,4,7,8-HxCDF	ND	----	5.0	1,2,3,4,6,7,8-HpCDD-13C	2.00	55
1,2,3,6,7,8-HxCDF	ND	----	5.0	OCDD-13C	4.00	59
2,3,4,6,7,8-HxCDF	ND	----	5.0			
1,2,3,7,8,9-HxCDF	ND	----	5.0	1,2,3,4-TCDD-13C	2.00	NA
Total HxCDF	ND	----	5.0	1,2,3,7,8,9-HxCDD-13C	2.00	NA
1,2,3,4,7,8-HxCDD	ND	----	5.0	2,3,7,8-TCDD-37Cl4	0.20	84
1,2,3,6,7,8-HxCDD	ND	----	5.0			
1,2,3,7,8,9-HxCDD	ND	----	5.0			
Total HxCDD	ND	----	5.0			
1,2,3,4,6,7,8-HpCDF	ND	----	5.0	Total 2,3,7,8-TCDD		
1,2,3,4,7,8,9-HpCDF	ND	----	5.0	Equivalence: 12 ng/Kg		
Total HpCDF	ND	----	5.0	(Lower-bound - Using ITE Factors)		
1,2,3,4,6,7,8-HpCDD	14	----	5.0			
Total HpCDD	40	----	5.0			
OCDF	ND	----	10			
OCDD	350	----	10			

Conc = Concentration (Totals include 2,3,7,8-substituted isomers).  
EMPC = Estimated Maximum Possible Concentration  
RL = Reporting Limit

ND = Not Detected  
NA = Not Applicable  
NC = Not Calculated

Results reported on a dry weight basis and are valid to no more than 2 significant figures.  
J = Estimated value

## REPORT OF LABORATORY ANALYSIS

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### Method 8290 Sample Analysis Results

Client - Pace Analytical National

Client's Sample ID	WHL1-5-SU-2		
Lab Sample ID	10480689011		
Filename	F190706A_04		
Injected By	BAL		
Total Amount Extracted	13.7 g	Matrix	Solid
% Moisture	62.0	Dilution	NA
Dry Weight Extracted	5.20 g	Collected	06/19/2019 13:00
ICAL ID	F190620	Received	06/25/2019 09:50
CCal Filename(s)	F190705B_18 & F190706A_16	Extracted	07/02/2019 15:15
Method Blank ID	BLANK-71594	Analyzed	07/06/2019 12:47

Native Isomers	Conc ng/Kg	EMPC ng/Kg	RL ng/Kg	Internal Standards	ng's Added	Percent Recovery
2,3,7,8-TCDF	54	----	1.0	2,3,7,8-TCDF-13C	2.00	63
Total TCDF	110	----	1.0	2,3,7,8-TCDD-13C	2.00	66
				1,2,3,7,8-PeCDF-13C	2.00	58
2,3,7,8-TCDD	17	----	1.0	2,3,4,7,8-PeCDF-13C	2.00	58
Total TCDD	20	----	1.0	1,2,3,7,8-PeCDD-13C	2.00	75
				1,2,3,4,7,8-HxCDF-13C	2.00	49
1,2,3,7,8-PeCDF	ND	----	5.0	1,2,3,6,7,8-HxCDF-13C	2.00	50
2,3,4,7,8-PeCDF	ND	----	5.0	2,3,4,6,7,8-HxCDF-13C	2.00	52
Total PeCDF	7.8	----	5.0 J	1,2,3,7,8,9-HxCDF-13C	2.00	54
				1,2,3,4,7,8-HxCDD-13C	2.00	60
1,2,3,7,8-PeCDD	ND	----	5.0	1,2,3,6,7,8-HxCDD-13C	2.00	56
Total PeCDD	ND	----	5.0	1,2,3,4,6,7,8-HpCDF-13C	2.00	63
				1,2,3,4,7,8,9-HpCDF-13C	2.00	68
1,2,3,4,7,8-HxCDF	ND	----	5.0	1,2,3,4,6,7,8-HpCDD-13C	2.00	68
1,2,3,6,7,8-HxCDF	ND	----	5.0	OCDD-13C	4.00	71
2,3,4,6,7,8-HxCDF	ND	----	5.0			
1,2,3,7,8,9-HxCDF	ND	----	5.0	1,2,3,4-TCDD-13C	2.00	NA
Total HxCDF	ND	----	5.0	1,2,3,7,8,9-HxCDD-13C	2.00	NA
1,2,3,4,7,8-HxCDD	ND	----	5.0	2,3,7,8-TCDD-37Cl4	0.20	80
1,2,3,6,7,8-HxCDD	ND	----	5.0			
1,2,3,7,8,9-HxCDD	ND	----	5.0			
Total HxCDD	6.0	----	5.0 J			
1,2,3,4,6,7,8-HpCDF	ND	----	5.0	Total 2,3,7,8-TCDD		
1,2,3,4,7,8,9-HpCDF	ND	----	5.0	Equivalence: 24 ng/Kg		
Total HpCDF	ND	----	5.0	(Lower-bound - Using ITE Factors)		
1,2,3,4,6,7,8-HpCDD	24	----	5.0			
Total HpCDD	71	----	5.0			
OCDF	ND	----	10			
OCDD	800	----	10			

Conc = Concentration (Totals include 2,3,7,8-substituted isomers).  
 EMPC = Estimated Maximum Possible Concentration  
 RL = Reporting Limit

ND = Not Detected  
 NA = Not Applicable  
 NC = Not Calculated

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 J = Estimated value

## REPORT OF LABORATORY ANALYSIS

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### Method 8290 Sample Analysis Results

Client - Pace Analytical National

Client's Sample ID	WHL1-6-SU-1			
Lab Sample ID	10480689012			
Filename	F190706A_05			
Injected By	BAL			
Total Amount Extracted	12.3 g	Matrix	Solid	
% Moisture	68.3	Dilution	NA	
Dry Weight Extracted	3.92 g	Collected	06/19/2019 10:15	
ICAL ID	F190620	Received	06/25/2019 09:50	
CCal Filename(s)	F190705B_18 & F190706A_16	Extracted	07/02/2019 15:15	
Method Blank ID	BLANK-71594	Analyzed	07/06/2019 13:27	

Native Isomers	Conc ng/Kg	EMPC ng/Kg	RL ng/Kg	Internal Standards	ng's Added	Percent Recovery
2,3,7,8-TCDF	310	----	1.0	2,3,7,8-TCDF-13C	2.00	63
Total TCDF	660	----	1.0	2,3,7,8-TCDD-13C	2.00	69
				1,2,3,7,8-PeCDF-13C	2.00	61
2,3,7,8-TCDD	72	----	1.0	2,3,4,7,8-PeCDF-13C	2.00	63
Total TCDD	110	----	1.0	1,2,3,7,8-PeCDD-13C	2.00	80
				1,2,3,4,7,8-HxCDF-13C	2.00	52
1,2,3,7,8-PeCDF	ND	----	5.0	1,2,3,6,7,8-HxCDF-13C	2.00	50
2,3,4,7,8-PeCDF	5.1	----	5.0 J	2,3,4,6,7,8-HxCDF-13C	2.00	52
Total PeCDF	62	----	5.0	1,2,3,7,8,9-HxCDF-13C	2.00	53
				1,2,3,4,7,8-HxCDD-13C	2.00	63
1,2,3,7,8-PeCDD	ND	----	5.0	1,2,3,6,7,8-HxCDD-13C	2.00	56
Total PeCDD	22	----	5.0	1,2,3,4,6,7,8-HpCDF-13C	2.00	62
				1,2,3,4,7,8,9-HpCDF-13C	2.00	66
1,2,3,4,7,8-HxCDF	ND	----	5.0	1,2,3,4,6,7,8-HpCDD-13C	2.00	71
1,2,3,6,7,8-HxCDF	ND	----	5.0	OCDD-13C	4.00	68
2,3,4,6,7,8-HxCDF	ND	----	5.0			
1,2,3,7,8,9-HxCDF	ND	----	5.0	1,2,3,4-TCDD-13C	2.00	NA
Total HxCDF	17	----	5.0	1,2,3,7,8,9-HxCDD-13C	2.00	NA
1,2,3,4,7,8-HxCDD	ND	----	5.0	2,3,7,8-TCDD-37Cl4	0.20	86
1,2,3,6,7,8-HxCDD	5.4	----	5.0 J			
1,2,3,7,8,9-HxCDD	ND	----	5.0			
Total HxCDD	42	----	5.0			
1,2,3,4,6,7,8-HpCDF	13	----	5.0	Total 2,3,7,8-TCDD		
1,2,3,4,7,8,9-HpCDF	ND	----	5.0	Equivalence: 110 ng/Kg		
Total HpCDF	13	----	5.0	(Lower-bound - Using ITE Factors)		
1,2,3,4,6,7,8-HpCDD	110	----	5.0			
Total HpCDD	220	----	5.0			
OCDF	22	----	10 J			
OCDD	1700	----	10			

Conc = Concentration (Totals include 2,3,7,8-substituted isomers).  
 EMPC = Estimated Maximum Possible Concentration  
 RL = Reporting Limit

ND = Not Detected  
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## REPORT OF LABORATORY ANALYSIS

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### Method 8290 Sample Analysis Results

Client - Pace Analytical National

Client's Sample ID	WHL1-7-SU-2		
Lab Sample ID	10480689013		
Filename	F190706A_06		
Injected By	BAL		
Total Amount Extracted	39.2 g	Matrix	Solid
% Moisture	89.7	Dilution	NA
Dry Weight Extracted	4.04 g	Collected	06/19/2019 10:52
ICAL ID	F190620	Received	06/25/2019 09:50
CCal Filename(s)	F190705B_18 & F190706A_16	Extracted	07/02/2019 15:15
Method Blank ID	BLANK-71594	Analyzed	07/06/2019 14:07

Native Isomers	Conc ng/Kg	EMPC ng/Kg	RL ng/Kg	Internal Standards	ng's Added	Percent Recovery
2,3,7,8-TCDF	----	27	1.0 P	2,3,7,8-TCDF-13C	2.00	65
Total TCDF	110	----	1.0	2,3,7,8-TCDD-13C	2.00	71
				1,2,3,7,8-PeCDF-13C	2.00	63
2,3,7,8-TCDD	4.1	----	1.0	2,3,4,7,8-PeCDF-13C	2.00	65
Total TCDD	30	----	1.0	1,2,3,7,8-PeCDD-13C	2.00	84
				1,2,3,4,7,8-HxCDF-13C	2.00	55
1,2,3,7,8-PeCDF	ND	----	5.0	1,2,3,6,7,8-HxCDF-13C	2.00	55
2,3,4,7,8-PeCDF	ND	----	5.0	2,3,4,6,7,8-HxCDF-13C	2.00	55
Total PeCDF	24	----	5.0	1,2,3,7,8,9-HxCDF-13C	2.00	55
				1,2,3,4,7,8-HxCDD-13C	2.00	65
1,2,3,7,8-PeCDD	ND	----	5.0	1,2,3,6,7,8-HxCDD-13C	2.00	55
Total PeCDD	6.2	----	5.0 J	1,2,3,4,6,7,8-HpCDF-13C	2.00	52
				1,2,3,4,7,8,9-HpCDF-13C	2.00	54
1,2,3,4,7,8-HxCDF	ND	----	5.0	1,2,3,4,6,7,8-HpCDD-13C	2.00	59
1,2,3,6,7,8-HxCDF	ND	----	5.0	OCDD-13C	4.00	44
2,3,4,6,7,8-HxCDF	ND	----	5.0			
1,2,3,7,8,9-HxCDF	ND	----	5.0	1,2,3,4-TCDD-13C	2.00	NA
Total HxCDF	ND	----	5.0	1,2,3,7,8,9-HxCDD-13C	2.00	NA
1,2,3,4,7,8-HxCDD	ND	----	5.0	2,3,7,8-TCDD-37Cl4	0.20	84
1,2,3,6,7,8-HxCDD	ND	----	5.0			
1,2,3,7,8,9-HxCDD	ND	----	5.0			
Total HxCDD	14	----	5.0			
1,2,3,4,6,7,8-HpCDF	ND	----	5.0	Total 2,3,7,8-TCDD		
1,2,3,4,7,8,9-HpCDF	ND	----	5.0	Equivalence: 9.9 ng/Kg		
Total HpCDF	ND	----	5.0	(Lower-bound - Using ITE Factors)		
1,2,3,4,6,7,8-HpCDD	39	----	5.0			
Total HpCDD	79	----	5.0			
OCDF	ND	----	10			
OCDD	2800	----	10			

Conc = Concentration (Totals include 2,3,7,8-substituted isomers).  
 EMPC = Estimated Maximum Possible Concentration  
 RL = Reporting Limit

ND = Not Detected  
 NA = Not Applicable  
 NC = Not Calculated

Results reported on a dry weight basis and are valid to no more than 2 significant figures.  
 J = Estimated value  
 P = PCDE Interference

## REPORT OF LABORATORY ANALYSIS

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**Method 8290 Sample Analysis Results**

Client - Pace Analytical National

Client's Sample ID	CM-DUP-SU-1			
Lab Sample ID	10480689014			
Filename	F190706A_07			
Injected By	BAL			
Total Amount Extracted	13.4 g	Matrix	Solid	
% Moisture	60.5	Dilution	NA	
Dry Weight Extracted	5.30 g	Collected	06/19/2019 00:01	
ICAL ID	F190620	Received	06/25/2019 09:50	
CCal Filename(s)	F190705B_18 & F190706A_16	Extracted	07/02/2019 15:15	
Method Blank ID	BLANK-71594	Analyzed	07/06/2019 14:46	

Native Isomers	Conc ng/Kg	EMPC ng/Kg	RL ng/Kg	Internal Standards	ng's Added	Percent Recovery
2,3,7,8-TCDF	320	----	1.0	2,3,7,8-TCDF-13C	2.00	59
Total TCDF	610	----	1.0	2,3,7,8-TCDD-13C	2.00	62
				1,2,3,7,8-PeCDF-13C	2.00	54
2,3,7,8-TCDD	51	----	1.0	2,3,4,7,8-PeCDF-13C	2.00	55
Total TCDD	62	----	1.0	1,2,3,7,8-PeCDD-13C	2.00	69
				1,2,3,4,7,8-HxCDF-13C	2.00	46
1,2,3,7,8-PeCDF	ND	----	5.0	1,2,3,6,7,8-HxCDF-13C	2.00	46
2,3,4,7,8-PeCDF	5.2	----	5.0 J	2,3,4,6,7,8-HxCDF-13C	2.00	47
Total PeCDF	40	----	5.0	1,2,3,7,8,9-HxCDF-13C	2.00	47
				1,2,3,4,7,8-HxCDD-13C	2.00	56
1,2,3,7,8-PeCDD	ND	----	5.0	1,2,3,6,7,8-HxCDD-13C	2.00	48
Total PeCDD	ND	----	5.0	1,2,3,4,6,7,8-HpCDF-13C	2.00	49
				1,2,3,4,7,8,9-HpCDF-13C	2.00	50
1,2,3,4,7,8-HxCDF	ND	----	5.0	1,2,3,4,6,7,8-HpCDD-13C	2.00	54
1,2,3,6,7,8-HxCDF	ND	----	5.0	OCDD-13C	4.00	42
2,3,4,6,7,8-HxCDF	ND	----	5.0			
1,2,3,7,8,9-HxCDF	ND	----	5.0	1,2,3,4-TCDD-13C	2.00	NA
Total HxCDF	13	----	5.0	1,2,3,7,8,9-HxCDD-13C	2.00	NA
1,2,3,4,7,8-HxCDD	ND	----	5.0	2,3,7,8-TCDD-37Cl4	0.20	70
1,2,3,6,7,8-HxCDD	ND	----	5.0			
1,2,3,7,8,9-HxCDD	ND	----	5.0			
Total HxCDD	20	----	5.0			
1,2,3,4,6,7,8-HpCDF	13	----	5.0	Total 2,3,7,8-TCDD		
1,2,3,4,7,8,9-HpCDF	ND	----	5.0	Equivalence: 89 ng/Kg		
Total HpCDF	37	----	5.0	(Lower-bound - Using ITE Factors)		
1,2,3,4,6,7,8-HpCDD	90	----	5.0			
Total HpCDD	190	----	5.0			
OCDF	31	----	10			
OCDD	2000	----	10			

Conc = Concentration (Totals include 2,3,7,8-substituted isomers).  
EMPC = Estimated Maximum Possible Concentration  
RL = Reporting Limit

ND = Not Detected  
NA = Not Applicable  
NC = Not Calculated

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**REPORT OF LABORATORY ANALYSIS**

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**Method 8290 Sample Analysis Results**

Client - Pace Analytical National

Client's Sample ID	WHL2-1-SU-3		
Lab Sample ID	10480689015		
Filename	F190706A_08		
Injected By	BAL		
Total Amount Extracted	13.5 g	Matrix	Solid
% Moisture	42.8	Dilution	NA
Dry Weight Extracted	7.73 g	Collected	06/20/2019 08:50
ICAL ID	F190620	Received	06/25/2019 09:50
CCal Filename(s)	F190705B_18 & F190706A_16	Extracted	07/02/2019 15:15
Method Blank ID	BLANK-71594	Analyzed	07/06/2019 15:26

Native Isomers	Conc ng/Kg	EMPC ng/Kg	RL ng/Kg	Internal Standards	ng's Added	Percent Recovery
2,3,7,8-TCDF	ND	----	1.0	2,3,7,8-TCDF-13C	2.00	66
Total TCDF	3.6	----	1.0	2,3,7,8-TCDD-13C	2.00	71
				1,2,3,7,8-PeCDF-13C	2.00	61
2,3,7,8-TCDD	ND	----	1.0	2,3,4,7,8-PeCDF-13C	2.00	61
Total TCDD	ND	----	1.0	1,2,3,7,8-PeCDD-13C	2.00	77
				1,2,3,4,7,8-HxCDF-13C	2.00	54
1,2,3,7,8-PeCDF	ND	----	5.0	1,2,3,6,7,8-HxCDF-13C	2.00	54
2,3,4,7,8-PeCDF	ND	----	5.0	2,3,4,6,7,8-HxCDF-13C	2.00	56
Total PeCDF	ND	----	5.0	1,2,3,7,8,9-HxCDF-13C	2.00	59
				1,2,3,4,7,8-HxCDD-13C	2.00	64
1,2,3,7,8-PeCDD	ND	----	5.0	1,2,3,6,7,8-HxCDD-13C	2.00	59
Total PeCDD	ND	----	5.0	1,2,3,4,6,7,8-HpCDF-13C	2.00	62
				1,2,3,4,7,8,9-HpCDF-13C	2.00	65
1,2,3,4,7,8-HxCDF	ND	----	5.0	1,2,3,4,6,7,8-HpCDD-13C	2.00	68
1,2,3,6,7,8-HxCDF	ND	----	5.0	OCDD-13C	4.00	60
2,3,4,6,7,8-HxCDF	ND	----	5.0			
1,2,3,7,8,9-HxCDF	ND	----	5.0	1,2,3,4-TCDD-13C	2.00	NA
Total HxCDF	ND	----	5.0	1,2,3,7,8,9-HxCDD-13C	2.00	NA
1,2,3,4,7,8-HxCDD	ND	----	5.0	2,3,7,8-TCDD-37Cl4	0.20	82
1,2,3,6,7,8-HxCDD	ND	----	5.0			
1,2,3,7,8,9-HxCDD	ND	----	5.0			
Total HxCDD	8.5	----	5.0			
1,2,3,4,6,7,8-HpCDF	ND	----	5.0	Total 2,3,7,8-TCDD		
1,2,3,4,7,8,9-HpCDF	ND	----	5.0	Equivalence: 2.6 ng/Kg		
Total HpCDF	ND	----	5.0	(Lower-bound - Using ITE Factors)		
1,2,3,4,6,7,8-HpCDD	28	----	5.0			
Total HpCDD	120	----	5.0			
OCDF	ND	----	10			
OCDD	2300	----	10			

Conc = Concentration (Totals include 2,3,7,8-substituted isomers).  
EMPC = Estimated Maximum Possible Concentration  
RL = Reporting Limit

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NC = Not Calculated

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**REPORT OF LABORATORY ANALYSIS**

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### Method 8290 Sample Analysis Results

Client - Pace Analytical National

Client's Sample ID	WHL2-2-SU-3		
Lab Sample ID	10480689016		
Filename	F190706A_09		
Injected By	BAL		
Total Amount Extracted	12.9 g	Matrix	Solid
% Moisture	32.5	Dilution	NA
Dry Weight Extracted	8.71 g	Collected	06/20/2019 09:20
ICAL ID	F190620	Received	06/25/2019 09:50
CCal Filename(s)	F190705B_18 & F190706A_16	Extracted	07/02/2019 15:15
Method Blank ID	BLANK-71594	Analyzed	07/06/2019 16:05

Native Isomers	Conc ng/Kg	EMPC ng/Kg	RL ng/Kg	Internal Standards	ng's Added	Percent Recovery
2,3,7,8-TCDF	ND	----	1.0	2,3,7,8-TCDF-13C	2.00	67
Total TCDF	ND	----	1.0	2,3,7,8-TCDD-13C	2.00	69
				1,2,3,7,8-PeCDF-13C	2.00	59
2,3,7,8-TCDD	ND	----	1.0	2,3,4,7,8-PeCDF-13C	2.00	60
Total TCDD	ND	----	1.0	1,2,3,7,8-PeCDD-13C	2.00	75
				1,2,3,4,7,8-HxCDF-13C	2.00	54
1,2,3,7,8-PeCDF	ND	----	5.0	1,2,3,6,7,8-HxCDF-13C	2.00	55
2,3,4,7,8-PeCDF	ND	----	5.0	2,3,4,6,7,8-HxCDF-13C	2.00	57
Total PeCDF	ND	----	5.0	1,2,3,7,8,9-HxCDF-13C	2.00	57
				1,2,3,4,7,8-HxCDD-13C	2.00	64
1,2,3,7,8-PeCDD	ND	----	5.0	1,2,3,6,7,8-HxCDD-13C	2.00	61
Total PeCDD	ND	----	5.0	1,2,3,4,6,7,8-HpCDF-13C	2.00	65
				1,2,3,4,7,8,9-HpCDF-13C	2.00	71
1,2,3,4,7,8-HxCDF	ND	----	5.0	1,2,3,4,6,7,8-HpCDD-13C	2.00	70
1,2,3,6,7,8-HxCDF	ND	----	5.0	OCDD-13C	4.00	65
2,3,4,6,7,8-HxCDF	ND	----	5.0			
1,2,3,7,8,9-HxCDF	ND	----	5.0	1,2,3,4-TCDD-13C	2.00	NA
Total HxCDF	ND	----	5.0	1,2,3,7,8,9-HxCDD-13C	2.00	NA
1,2,3,4,7,8-HxCDD	ND	----	5.0	2,3,7,8-TCDD-37Cl4	0.20	87
1,2,3,6,7,8-HxCDD	ND	----	5.0			
1,2,3,7,8,9-HxCDD	ND	----	5.0			
Total HxCDD	ND	----	5.0			
1,2,3,4,6,7,8-HpCDF	ND	----	5.0	Total 2,3,7,8-TCDD		
1,2,3,4,7,8,9-HpCDF	ND	----	5.0	Equivalence: 0.13 ng/Kg		
Total HpCDF	ND	----	5.0	(Lower-bound - Using ITE Factors)		
1,2,3,4,6,7,8-HpCDD	ND	----	5.0			
Total HpCDD	ND	----	5.0			
OCDF	ND	----	10			
OCDD	130	----	10			

Conc = Concentration (Totals include 2,3,7,8-substituted isomers).  
 EMPC = Estimated Maximum Possible Concentration  
 RL = Reporting Limit

ND = Not Detected  
 NA = Not Applicable  
 NC = Not Calculated

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## REPORT OF LABORATORY ANALYSIS

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### Method 8290 Sample Analysis Results

Client - Pace Analytical National

Client's Sample ID	WHL2-3-SU-2		
Lab Sample ID	10480689017		
Filename	F190706A_10		
Injected By	BAL		
Total Amount Extracted	14.1 g	Matrix	Solid
% Moisture	28.4	Dilution	NA
Dry Weight Extracted	10.1 g	Collected	06/20/2019 09:45
ICAL ID	F190620	Received	06/25/2019 09:50
CCal Filename(s)	F190705B_18 & F190706A_16	Extracted	07/02/2019 15:15
Method Blank ID	BLANK-71594	Analyzed	07/06/2019 16:45

Native Isomers	Conc ng/Kg	EMPC ng/Kg	RL ng/Kg	Internal Standards	ng's Added	Percent Recovery
2,3,7,8-TCDF	ND	----	1.0	2,3,7,8-TCDF-13C	2.00	66
Total TCDF	ND	----	1.0	2,3,7,8-TCDD-13C	2.00	68
				1,2,3,7,8-PeCDF-13C	2.00	60
2,3,7,8-TCDD	ND	----	1.0	2,3,4,7,8-PeCDF-13C	2.00	59
Total TCDD	ND	----	1.0	1,2,3,7,8-PeCDD-13C	2.00	73
				1,2,3,4,7,8-HxCDF-13C	2.00	52
1,2,3,7,8-PeCDF	ND	----	5.0	1,2,3,6,7,8-HxCDF-13C	2.00	53
2,3,4,7,8-PeCDF	ND	----	5.0	2,3,4,6,7,8-HxCDF-13C	2.00	53
Total PeCDF	ND	----	5.0	1,2,3,7,8,9-HxCDF-13C	2.00	56
				1,2,3,4,7,8-HxCDD-13C	2.00	62
1,2,3,7,8-PeCDD	ND	----	5.0	1,2,3,6,7,8-HxCDD-13C	2.00	58
Total PeCDD	ND	----	5.0	1,2,3,4,6,7,8-HpCDF-13C	2.00	62
				1,2,3,4,7,8,9-HpCDF-13C	2.00	66
1,2,3,4,7,8-HxCDF	ND	----	5.0	1,2,3,4,6,7,8-HpCDD-13C	2.00	67
1,2,3,6,7,8-HxCDF	ND	----	5.0	OCDD-13C	4.00	63
2,3,4,6,7,8-HxCDF	ND	----	5.0			
1,2,3,7,8,9-HxCDF	ND	----	5.0	1,2,3,4-TCDD-13C	2.00	NA
Total HxCDF	ND	----	5.0	1,2,3,7,8,9-HxCDD-13C	2.00	NA
1,2,3,4,7,8-HxCDD	ND	----	5.0	2,3,7,8-TCDD-37Cl4	0.20	80
1,2,3,6,7,8-HxCDD	ND	----	5.0			
1,2,3,7,8,9-HxCDD	ND	----	5.0			
Total HxCDD	ND	----	5.0			
1,2,3,4,6,7,8-HpCDF	ND	----	5.0	Total 2,3,7,8-TCDD		
1,2,3,4,7,8,9-HpCDF	ND	----	5.0	Equivalence: 0.21 ng/Kg		
Total HpCDF	ND	----	5.0	(Lower-bound - Using ITE Factors)		
1,2,3,4,6,7,8-HpCDD	ND	----	5.0			
Total HpCDD	6.9	----	5.0			
OCDF	ND	----	10			
OCDD	210	----	10			

Conc = Concentration (Totals include 2,3,7,8-substituted isomers).  
EMPC = Estimated Maximum Possible Concentration  
RL = Reporting Limit

ND = Not Detected  
NA = Not Applicable  
NC = Not Calculated

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## REPORT OF LABORATORY ANALYSIS

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### Method 8290 Sample Analysis Results

Client - Pace Analytical National

Client's Sample ID	WHL2-4-SU-1		
Lab Sample ID	10480689018		
Filename	F190706A_11		
Injected By	BAL		
Total Amount Extracted	13.3 g	Matrix	Solid
% Moisture	32.0	Dilution	NA
Dry Weight Extracted	9.03 g	Collected	06/20/2019 10:10
ICAL ID	F190620	Received	06/25/2019 09:50
CCal Filename(s)	F190705B_18 & F190706A_16	Extracted	07/02/2019 15:15
Method Blank ID	BLANK-71594	Analyzed	07/06/2019 17:24

Native Isomers	Conc ng/Kg	EMPC ng/Kg	RL ng/Kg	Internal Standards	ng's Added	Percent Recovery
2,3,7,8-TCDF	ND	----	1.0	2,3,7,8-TCDF-13C	2.00	69
Total TCDF	ND	----	1.0	2,3,7,8-TCDD-13C	2.00	71
				1,2,3,7,8-PeCDF-13C	2.00	61
2,3,7,8-TCDD	ND	----	1.0	2,3,4,7,8-PeCDF-13C	2.00	63
Total TCDD	ND	----	1.0	1,2,3,7,8-PeCDD-13C	2.00	78
				1,2,3,4,7,8-HxCDF-13C	2.00	59
1,2,3,7,8-PeCDF	ND	----	5.0	1,2,3,6,7,8-HxCDF-13C	2.00	60
2,3,4,7,8-PeCDF	ND	----	5.0	2,3,4,6,7,8-HxCDF-13C	2.00	60
Total PeCDF	ND	----	5.0	1,2,3,7,8,9-HxCDF-13C	2.00	63
				1,2,3,4,7,8-HxCDD-13C	2.00	68
1,2,3,7,8-PeCDD	ND	----	5.0	1,2,3,6,7,8-HxCDD-13C	2.00	64
Total PeCDD	ND	----	5.0	1,2,3,4,6,7,8-HpCDF-13C	2.00	72
				1,2,3,4,7,8,9-HpCDF-13C	2.00	71
1,2,3,4,7,8-HxCDF	ND	----	5.0	1,2,3,4,6,7,8-HpCDD-13C	2.00	76
1,2,3,6,7,8-HxCDF	ND	----	5.0	OCDD-13C	4.00	69
2,3,4,6,7,8-HxCDF	ND	----	5.0			
1,2,3,7,8,9-HxCDF	ND	----	5.0	1,2,3,4-TCDD-13C	2.00	NA
Total HxCDF	ND	----	5.0	1,2,3,7,8,9-HxCDD-13C	2.00	NA
1,2,3,4,7,8-HxCDD	ND	----	5.0	2,3,7,8-TCDD-37Cl4	0.20	85
1,2,3,6,7,8-HxCDD	ND	----	5.0			
1,2,3,7,8,9-HxCDD	ND	----	5.0			
Total HxCDD	ND	----	5.0			
1,2,3,4,6,7,8-HpCDF	ND	----	5.0	Total 2,3,7,8-TCDD		
1,2,3,4,7,8,9-HpCDF	ND	----	5.0	Equivalence: 2.2 ng/Kg		
Total HpCDF	ND	----	5.0	(Lower-bound - Using ITE Factors)		
1,2,3,4,6,7,8-HpCDD	14	----	5.0			
Total HpCDD	30	----	5.0			
OCDF	ND	----	10			
OCDD	2000	----	10			

Conc = Concentration (Totals include 2,3,7,8-substituted isomers).  
 EMPC = Estimated Maximum Possible Concentration  
 RL = Reporting Limit

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 NC = Not Calculated

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**Method 8290 Sample Analysis Results**

Client - Pace Analytical National

Client's Sample ID	CM-EB-SU-1		
Lab Sample ID	10480689019		
Filename	F190708A_13		
Injected By	SMT		
Total Amount Extracted	1060 mL	Matrix	Water
% Moisture	NA	Dilution	NA
Dry Weight Extracted	NA	Collected	06/18/2019 13:50
ICAL ID	F190620	Received	06/25/2019 09:50
CCal Filename(s)	F190707A_20 & F190708A_19	Extracted	07/03/2019 11:08
Method Blank ID	BLANK-71614	Analyzed	07/08/2019 11:22

Native Isomers	Conc pg/L	EMPC pg/L	RL pg/L	Internal Standards	ng's Added	Percent Recovery
2,3,7,8-TCDF	ND	----	10	2,3,7,8-TCDF-13C	2.00	86
Total TCDF	ND	----	10	2,3,7,8-TCDD-13C	2.00	83
				1,2,3,7,8-PeCDF-13C	2.00	83
2,3,7,8-TCDD	ND	----	10	2,3,4,7,8-PeCDF-13C	2.00	85
Total TCDD	ND	----	10	1,2,3,7,8-PeCDD-13C	2.00	96
				1,2,3,4,7,8-HxCDF-13C	2.00	74
1,2,3,7,8-PeCDF	ND	----	50	1,2,3,6,7,8-HxCDF-13C	2.00	76
2,3,4,7,8-PeCDF	ND	----	50	2,3,4,6,7,8-HxCDF-13C	2.00	80
Total PeCDF	ND	----	50	1,2,3,7,8,9-HxCDF-13C	2.00	83
				1,2,3,4,7,8-HxCDD-13C	2.00	73
1,2,3,7,8-PeCDD	ND	----	50	1,2,3,6,7,8-HxCDD-13C	2.00	70
Total PeCDD	ND	----	50	1,2,3,4,6,7,8-HpCDF-13C	2.00	65
				1,2,3,4,7,8,9-HpCDF-13C	2.00	70
1,2,3,4,7,8-HxCDF	ND	----	50	1,2,3,4,6,7,8-HpCDD-13C	2.00	74
1,2,3,6,7,8-HxCDF	ND	----	50	OCDD-13C	4.00	69
2,3,4,6,7,8-HxCDF	ND	----	50			
1,2,3,7,8,9-HxCDF	ND	----	50	1,2,3,4-TCDD-13C	2.00	NA
Total HxCDF	ND	----	50	1,2,3,7,8,9-HxCDD-13C	2.00	NA
1,2,3,4,7,8-HxCDD	ND	----	50	2,3,7,8-TCDD-37Cl4	0.20	96
1,2,3,6,7,8-HxCDD	ND	----	50			
1,2,3,7,8,9-HxCDD	ND	----	50			
Total HxCDD	ND	----	50			
1,2,3,4,6,7,8-HpCDF	ND	----	50	Total 2,3,7,8-TCDD		
1,2,3,4,7,8,9-HpCDF	ND	----	50	Equivalence: 0.00 pg/L		
Total HpCDF	ND	----	50	(Lower-bound - Using ITE Factors)		
1,2,3,4,6,7,8-HpCDD	ND	----	50			
Total HpCDD	ND	----	50			
OCDF	ND	----	100			
OCDD	ND	----	100			

Conc = Concentration (Totals include 2,3,7,8-substituted isomers).  
EMPC = Estimated Maximum Possible Concentration  
RL = Reporting Limit

ND = Not Detected  
NA = Not Applicable  
NC = Not Calculated

**REPORT OF LABORATORY ANALYSIS**

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### Method 8290 Sample Analysis Results

Client - Pace Analytical National

Client's Sample ID	CM-FB-SU-1		
Lab Sample ID	10480689020		
Filename	F190708A_14		
Injected By	SMT		
Total Amount Extracted	1020 mL	Matrix	Water
% Moisture	NA	Dilution	NA
Dry Weight Extracted	NA	Collected	06/18/2019 14:20
ICAL ID	F190620	Received	06/25/2019 09:50
CCal Filename(s)	F190707A_20 & F190708A_19	Extracted	07/03/2019 11:08
Method Blank ID	BLANK-71614	Analyzed	07/08/2019 12:01

Native Isomers	Conc pg/L	EMPC pg/L	RL pg/L	Internal Standards	ng's Added	Percent Recovery
2,3,7,8-TCDF	ND	----	10	2,3,7,8-TCDF-13C	2.00	87
Total TCDF	ND	----	10	2,3,7,8-TCDD-13C	2.00	85
				1,2,3,7,8-PeCDF-13C	2.00	84
2,3,7,8-TCDD	ND	----	10	2,3,4,7,8-PeCDF-13C	2.00	84
Total TCDD	ND	----	10	1,2,3,7,8-PeCDD-13C	2.00	97
				1,2,3,4,7,8-HxCDF-13C	2.00	76
1,2,3,7,8-PeCDF	ND	----	50	1,2,3,6,7,8-HxCDF-13C	2.00	78
2,3,4,7,8-PeCDF	ND	----	50	2,3,4,6,7,8-HxCDF-13C	2.00	82
Total PeCDF	ND	----	50	1,2,3,7,8,9-HxCDF-13C	2.00	88
				1,2,3,4,7,8-HxCDD-13C	2.00	76
1,2,3,7,8-PeCDD	ND	----	50	1,2,3,6,7,8-HxCDD-13C	2.00	72
Total PeCDD	ND	----	50	1,2,3,4,6,7,8-HpCDF-13C	2.00	70
				1,2,3,4,7,8,9-HpCDF-13C	2.00	76
1,2,3,4,7,8-HxCDF	ND	----	50	1,2,3,4,6,7,8-HpCDD-13C	2.00	80
1,2,3,6,7,8-HxCDF	ND	----	50	OCDD-13C	4.00	76
2,3,4,6,7,8-HxCDF	ND	----	50			
1,2,3,7,8,9-HxCDF	ND	----	50	1,2,3,4-TCDD-13C	2.00	NA
Total HxCDF	ND	----	50	1,2,3,7,8,9-HxCDD-13C	2.00	NA
1,2,3,4,7,8-HxCDD	ND	----	50	2,3,7,8-TCDD-37Cl4	0.20	98
1,2,3,6,7,8-HxCDD	ND	----	50			
1,2,3,7,8,9-HxCDD	ND	----	50			
Total HxCDD	ND	----	50			
1,2,3,4,6,7,8-HpCDF	ND	----	50	Total 2,3,7,8-TCDD		
1,2,3,4,7,8,9-HpCDF	ND	----	50	Equivalence: 0.00 pg/L		
Total HpCDF	ND	----	50	(Lower-bound - Using ITE Factors)		
1,2,3,4,6,7,8-HpCDD	ND	----	50			
Total HpCDD	ND	----	50			
OCDF	ND	----	100			
OCDD	ND	----	100			

Conc = Concentration (Totals include 2,3,7,8-substituted isomers).  
 EMPC = Estimated Maximum Possible Concentration  
 RL = Reporting Limit

ND = Not Detected  
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## REPORT OF LABORATORY ANALYSIS

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### Method 8290 Sample Analysis Results

Client - Pace Analytical National

Client's Sample ID	WHL1-8-SU-1		
Lab Sample ID	10480689021		
Filename	F190716A_08		
Injected By	SMT		
Total Amount Extracted	18.3 g	Matrix	Solid
% Moisture	65.9	Dilution	NA
Dry Weight Extracted	6.24 g	Collected	06/19/2019 10:30
ICAL ID	F190620	Received	06/25/2019 09:50
CCal Filename(s)	F190715B_27 & F190716A_18	Extracted	07/12/2019 17:50
Method Blank ID	BLANK-71804	Analyzed	07/16/2019 14:58

Native Isomers	Conc ng/Kg	EMPC ng/Kg	RL ng/Kg		Internal Standards	ng's Added	Percent Recovery
2,3,7,8-TCDF	1300	----	1.0	E	2,3,7,8-TCDF-13C	2.00	53
Total TCDF	2400	----	1.0	E	2,3,7,8-TCDD-13C	2.00	57
					1,2,3,7,8-PeCDF-13C	2.00	59
2,3,7,8-TCDD	220	----	1.0		2,3,4,7,8-PeCDF-13C	2.00	59
Total TCDD	260	----	1.0		1,2,3,7,8-PeCDD-13C	2.00	70
					1,2,3,4,7,8-HxCDF-13C	2.00	48
1,2,3,7,8-PeCDF	----	14	5.0	P	1,2,3,6,7,8-HxCDF-13C	2.00	50
2,3,4,7,8-PeCDF	20	----	5.0		2,3,4,6,7,8-HxCDF-13C	2.00	47
Total PeCDF	120	----	5.0		1,2,3,7,8,9-HxCDF-13C	2.00	44
					1,2,3,4,7,8-HxCDD-13C	2.00	52
1,2,3,7,8-PeCDD	----	8.3	5.0	I	1,2,3,6,7,8-HxCDD-13C	2.00	44
Total PeCDD	34	----	5.0		1,2,3,4,6,7,8-HpCDF-13C	2.00	33 R
					1,2,3,4,7,8,9-HpCDF-13C	2.00	31 R
1,2,3,4,7,8-HxCDF	ND	----	5.0		1,2,3,4,6,7,8-HpCDD-13C	2.00	35 R
1,2,3,6,7,8-HxCDF	ND	----	5.0		OCDD-13C	4.00	26 R
2,3,4,6,7,8-HxCDF	ND	----	5.0				
1,2,3,7,8,9-HxCDF	ND	----	5.0		1,2,3,4-TCDD-13C	2.00	NA
Total HxCDF	55	----	5.0		1,2,3,7,8,9-HxCDD-13C	2.00	NA
1,2,3,4,7,8-HxCDD	ND	----	5.0		2,3,7,8-TCDD-37Cl4	0.20	67
1,2,3,6,7,8-HxCDD	12	----	5.0				
1,2,3,7,8,9-HxCDD	5.2	----	5.0	J			
Total HxCDD	83	----	5.0				
1,2,3,4,6,7,8-HpCDF	37	----	5.0		Total 2,3,7,8-TCDD		
1,2,3,4,7,8,9-HpCDF	ND	----	5.0		Equivalence: 370 ng/Kg		
Total HpCDF	110	----	5.0		(Lower-bound - Using ITE Factors)		
1,2,3,4,6,7,8-HpCDD	190	----	5.0				
Total HpCDD	430	----	5.0				
OCDF	110	----	10				
OCDD	4100	----	10				

Conc = Concentration (Totals include 2,3,7,8-substituted isomers).  
 EMPC = Estimated Maximum Possible Concentration  
 RL = Reporting Limit

ND = Not Detected  
 NA = Not Applicable  
 NC = Not Calculated

Results reported on a dry weight basis and are valid to no more than 2 significant figures.

J = Estimated value  
 R = Recovery outside target range  
 P = PCDE Interference  
 E = Exceeds calibration range  
 I = Interference present

## REPORT OF LABORATORY ANALYSIS

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**Method 8290 Blank Analysis Results**

Lab Sample Name	DFBLKHA	Matrix	Solid
Lab Sample ID	BLANK-71541	Dilution	NA
Filename	F190702A_04	Extracted	06/28/2019 15:25
Total Amount Extracted	10.1 g	Analyzed	07/02/2019 13:24
ICAL ID	F190620	Injected By	SMT
CCal Filename(s)	F190702A_02 & F190702A_21		

Native Isomers	Conc ng/Kg	EMPC ng/Kg	RL ng/Kg	Internal Standards	ng's Added	Percent Recovery
2,3,7,8-TCDF	ND	----	1.0	2,3,7,8-TCDF-13C	2.00	54
Total TCDF	ND	----	1.0	2,3,7,8-TCDD-13C	2.00	51
				1,2,3,7,8-PeCDF-13C	2.00	46
2,3,7,8-TCDD	ND	----	1.0	2,3,4,7,8-PeCDF-13C	2.00	43
Total TCDD	ND	----	1.0	1,2,3,7,8-PeCDD-13C	2.00	45
				1,2,3,4,7,8-HxCDF-13C	2.00	53
1,2,3,7,8-PeCDF	ND	----	5.0	1,2,3,6,7,8-HxCDF-13C	2.00	56
2,3,4,7,8-PeCDF	ND	----	5.0	2,3,4,6,7,8-HxCDF-13C	2.00	53
Total PeCDF	ND	----	5.0	1,2,3,7,8,9-HxCDF-13C	2.00	51
				1,2,3,4,7,8-HxCDD-13C	2.00	47
1,2,3,7,8-PeCDD	ND	----	5.0	1,2,3,6,7,8-HxCDD-13C	2.00	47
Total PeCDD	ND	----	5.0	1,2,3,4,6,7,8-HpCDF-13C	2.00	62
				1,2,3,4,7,8,9-HpCDF-13C	2.00	57
1,2,3,4,7,8-HxCDF	ND	----	5.0	1,2,3,4,6,7,8-HpCDD-13C	2.00	61
1,2,3,6,7,8-HxCDF	ND	----	5.0	OCDD-13C	4.00	62
2,3,4,6,7,8-HxCDF	ND	----	5.0			
1,2,3,7,8,9-HxCDF	ND	----	5.0	1,2,3,4-TCDD-13C	2.00	NA
Total HxCDF	ND	----	5.0	1,2,3,7,8,9-HxCDD-13C	2.00	NA
1,2,3,4,7,8-HxCDD	ND	----	5.0	2,3,7,8-TCDD-37Cl4	0.20	136
1,2,3,6,7,8-HxCDD	ND	----	5.0			
1,2,3,7,8,9-HxCDD	ND	----	5.0			
Total HxCDD	ND	----	5.0			
1,2,3,4,6,7,8-HpCDF	ND	----	5.0	Total 2,3,7,8-TCDD		
1,2,3,4,7,8,9-HpCDF	ND	----	5.0	Equivalence: 0.00 ng/Kg		
Total HpCDF	ND	----	5.0	(Lower-bound - Using ITE Factors)		
1,2,3,4,6,7,8-HpCDD	ND	----	5.0			
Total HpCDD	ND	----	5.0			
OCDF	ND	----	10			
OCDD	ND	----	10			

Conc = Concentration (Totals include 2,3,7,8-substituted isomers).

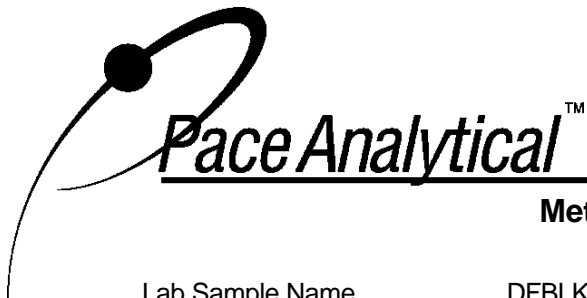
EMPC = Estimated Maximum Possible Concentration

RL = Reporting Limit

Results reported on a total weight basis and are valid to no more than 2 significant figures.

**REPORT OF LABORATORY ANALYSIS**

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### Method 8290 Blank Analysis Results

Lab Sample Name	DFBLKHR	Matrix	Solid
Lab Sample ID	BLANK-71594	Dilution	NA
Filename	F190707A_06	Extracted	07/02/2019 15:15
Total Amount Extracted	20.4 g	Analyzed	07/07/2019 17:34
ICAL ID	F190620	Injected By	BAL
CCal Filename(s)	F190707A_03 & F190707A_20		

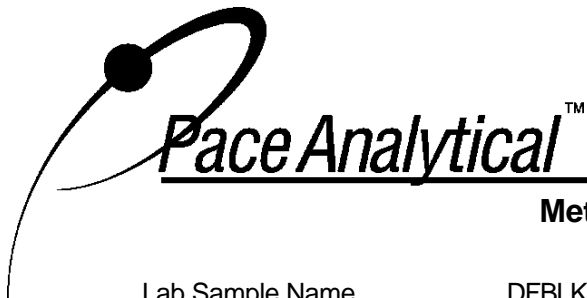
Native Isomers	Conc ng/Kg	EMPC ng/Kg	RL ng/Kg	Internal Standards	ng's Added	Percent Recovery
2,3,7,8-TCDF	ND	----	1.0	2,3,7,8-TCDF-13C	2.00	74
Total TCDF	ND	----	1.0	2,3,7,8-TCDD-13C	2.00	73
				1,2,3,7,8-PeCDF-13C	2.00	78
2,3,7,8-TCDD	ND	----	1.0	2,3,4,7,8-PeCDF-13C	2.00	80
Total TCDD	ND	----	1.0	1,2,3,7,8-PeCDD-13C	2.00	91
				1,2,3,4,7,8-HxCDF-13C	2.00	68
1,2,3,7,8-PeCDF	ND	----	5.0	1,2,3,6,7,8-HxCDF-13C	2.00	70
2,3,4,7,8-PeCDF	ND	----	5.0	2,3,4,6,7,8-HxCDF-13C	2.00	71
Total PeCDF	ND	----	5.0	1,2,3,7,8,9-HxCDF-13C	2.00	71
				1,2,3,4,7,8-HxCDD-13C	2.00	68
1,2,3,7,8-PeCDD	ND	----	5.0	1,2,3,6,7,8-HxCDD-13C	2.00	60
Total PeCDD	ND	----	5.0	1,2,3,4,6,7,8-HpCDF-13C	2.00	70
				1,2,3,4,7,8,9-HpCDF-13C	2.00	74
1,2,3,4,7,8-HxCDF	ND	----	5.0	1,2,3,4,6,7,8-HpCDD-13C	2.00	79
1,2,3,6,7,8-HxCDF	ND	----	5.0	OCDD-13C	4.00	78
2,3,4,6,7,8-HxCDF	ND	----	5.0			
1,2,3,7,8,9-HxCDF	ND	----	5.0	1,2,3,4-TCDD-13C	2.00	NA
Total HxCDF	ND	----	5.0	1,2,3,7,8,9-HxCDD-13C	2.00	NA
1,2,3,4,7,8-HxCDD	ND	----	5.0	2,3,7,8-TCDD-37Cl4	0.20	86
1,2,3,6,7,8-HxCDD	ND	----	5.0			
1,2,3,7,8,9-HxCDD	ND	----	5.0			
Total HxCDD	ND	----	5.0			
1,2,3,4,6,7,8-HpCDF	ND	----	5.0	Total 2,3,7,8-TCDD		
1,2,3,4,7,8,9-HpCDF	ND	----	5.0	Equivalence: 0.00 ng/Kg		
Total HpCDF	ND	----	5.0	(Lower-bound - Using ITE Factors)		
1,2,3,4,6,7,8-HpCDD	ND	----	5.0			
Total HpCDD	ND	----	5.0			
OCDF	ND	----	10			
OCDD	ND	----	10			

Conc = Concentration (Totals include 2,3,7,8-substituted isomers).  
 EMPC = Estimated Maximum Possible Concentration  
 RL = Reporting Limit

Results reported on a total weight basis and are valid to no more than 2 significant figures.

## REPORT OF LABORATORY ANALYSIS

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### Method 8290 Blank Analysis Results

Lab Sample Name	DFBLKH	Matrix	Water
Lab Sample ID	BLANK-71614	Dilution	NA
Filename	F190708A_10	Extracted	07/03/2019 11:08
Total Amount Extracted	957 mL	Analyzed	07/08/2019 09:23
ICAL ID	F190620	Injected By	SMT
CCal Filename(s)	F190707A_20 & F190708A_19		

Native Isomers	Conc pg/L	EMPC pg/L	RL pg/L	Internal Standards	ng's Added	Percent Recovery
2,3,7,8-TCDF	ND	----	10	2,3,7,8-TCDF-13C	2.00	91
Total TCDF	ND	----	10	2,3,7,8-TCDD-13C	2.00	87
				1,2,3,7,8-PeCDF-13C	2.00	91
2,3,7,8-TCDD	ND	----	10	2,3,4,7,8-PeCDF-13C	2.00	94
Total TCDD	ND	----	10	1,2,3,7,8-PeCDD-13C	2.00	108
				1,2,3,4,7,8-HxCDF-13C	2.00	81
1,2,3,7,8-PeCDF	ND	----	50	1,2,3,6,7,8-HxCDF-13C	2.00	82
2,3,4,7,8-PeCDF	ND	----	50	2,3,4,6,7,8-HxCDF-13C	2.00	87
Total PeCDF	ND	----	50	1,2,3,7,8,9-HxCDF-13C	2.00	93
				1,2,3,4,7,8-HxCDD-13C	2.00	80
1,2,3,7,8-PeCDD	ND	----	50	1,2,3,6,7,8-HxCDD-13C	2.00	76
Total PeCDD	ND	----	50	1,2,3,4,6,7,8-HpCDF-13C	2.00	79
				1,2,3,4,7,8,9-HpCDF-13C	2.00	86
1,2,3,4,7,8-HxCDF	ND	----	50	1,2,3,4,6,7,8-HpCDD-13C	2.00	90
1,2,3,6,7,8-HxCDF	ND	----	50	OCDD-13C	4.00	89
2,3,4,6,7,8-HxCDF	ND	----	50			
1,2,3,7,8,9-HxCDF	ND	----	50	1,2,3,4-TCDD-13C	2.00	NA
Total HxCDF	ND	----	50	1,2,3,7,8,9-HxCDD-13C	2.00	NA
1,2,3,4,7,8-HxCDD	ND	----	50	2,3,7,8-TCDD-37Cl4	0.20	111
1,2,3,6,7,8-HxCDD	ND	----	50			
1,2,3,7,8,9-HxCDD	ND	----	50			
Total HxCDD	ND	----	50			
1,2,3,4,6,7,8-HpCDF	ND	----	50	Total 2,3,7,8-TCDD		
1,2,3,4,7,8,9-HpCDF	ND	----	50	Equivalence: 0.00 pg/L		
Total HpCDF	ND	----	50	(Lower-bound - Using ITE Factors)		
1,2,3,4,6,7,8-HpCDD	ND	----	50			
Total HpCDD	ND	----	50			
OCDF	ND	----	100			
OCDD	ND	----	100			

Conc = Concentration (Totals include 2,3,7,8-substituted isomers).  
EMPC = Estimated Maximum Possible Concentration  
RL = Reporting Limit

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**Method 8290 Blank Analysis Results**

Lab Sample Name	DFBLKJU	Matrix	Solid
Lab Sample ID	BLANK-71804	Dilution	NA
Filename	F190716A_03	Extracted	07/12/2019 17:50
Total Amount Extracted	10.2 g	Analyzed	07/16/2019 10:59
ICAL ID	F190620	Injected By	SMT
CCal Filename(s)	F190715B_27 & F190716A_18		

Native Isomers	Conc ng/Kg	EMPC ng/Kg	RL ng/Kg	Internal Standards	ng's Added	Percent Recovery
2,3,7,8-TCDF	ND	----	1.0	2,3,7,8-TCDF-13C	2.00	83
Total TCDF	ND	----	1.0	2,3,7,8-TCDD-13C	2.00	84
				1,2,3,7,8-PeCDF-13C	2.00	84
2,3,7,8-TCDD	ND	----	1.0	2,3,4,7,8-PeCDF-13C	2.00	83
Total TCDD	ND	----	1.0	1,2,3,7,8-PeCDD-13C	2.00	99
				1,2,3,4,7,8-HxCDF-13C	2.00	77
1,2,3,7,8-PeCDF	ND	----	5.0	1,2,3,6,7,8-HxCDF-13C	2.00	83
2,3,4,7,8-PeCDF	ND	----	5.0	2,3,4,6,7,8-HxCDF-13C	2.00	79
Total PeCDF	ND	----	5.0	1,2,3,7,8,9-HxCDF-13C	2.00	75
				1,2,3,4,7,8-HxCDD-13C	2.00	80
1,2,3,7,8-PeCDD	ND	----	5.0	1,2,3,6,7,8-HxCDD-13C	2.00	77
Total PeCDD	ND	----	5.0	1,2,3,4,6,7,8-HpCDF-13C	2.00	82
				1,2,3,4,7,8,9-HpCDF-13C	2.00	78
1,2,3,4,7,8-HxCDF	ND	----	5.0	1,2,3,4,6,7,8-HpCDD-13C	2.00	93
1,2,3,6,7,8-HxCDF	ND	----	5.0	OCDD-13C	4.00	79
2,3,4,6,7,8-HxCDF	ND	----	5.0			
1,2,3,7,8,9-HxCDF	ND	----	5.0	1,2,3,4-TCDD-13C	2.00	NA
Total HxCDF	ND	----	5.0	1,2,3,7,8,9-HxCDD-13C	2.00	NA
1,2,3,4,7,8-HxCDD	ND	----	5.0	2,3,7,8-TCDD-37Cl4	0.20	88
1,2,3,6,7,8-HxCDD	ND	----	5.0			
1,2,3,7,8,9-HxCDD	ND	----	5.0			
Total HxCDD	ND	----	5.0			
1,2,3,4,6,7,8-HpCDF	ND	----	5.0	Total 2,3,7,8-TCDD		
1,2,3,4,7,8,9-HpCDF	ND	----	5.0	Equivalence: 0.00 ng/Kg		
Total HpCDF	ND	----	5.0	(Lower-bound - Using ITE Factors)		
1,2,3,4,6,7,8-HpCDD	ND	----	5.0			
Total HpCDD	ND	----	5.0			
OCDF	ND	----	10			
OCDD	ND	----	10			

Conc = Concentration (Totals include 2,3,7,8-substituted isomers).

EMPC = Estimated Maximum Possible Concentration

RL = Reporting Limit

Results reported on a total weight basis and are valid to no more than 2 significant figures.

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**Method 8290 Laboratory Control Spike Results**

Lab Sample ID	LCS-71542	Matrix	Solid
Filename	F190702A_19	Dilution	NA
Total Amount Extracted	10.2 g	Extracted	06/28/2019 15:25
ICAL ID	F190620	Analyzed	07/02/2019 23:17
CCal Filename(s)	F190702A_02 & F190702A_21	Injected By	SMT
Method Blank ID	BLANK-71541		

Native Isomers	Qs (ng)	Qm (ng)	% Rec.	Internal Standards	ng's Added	Percent Recovery
2,3,7,8-TCDF	0.20	0.18	90	2,3,7,8-TCDF-13C	2.0	51
Total TCDF				2,3,7,8-TCDD-13C	2.0	47
				1,2,3,7,8-PeCDF-13C	2.0	47
2,3,7,8-TCDD	0.20	0.21	103	2,3,4,7,8-PeCDF-13C	2.0	43
Total TCDD				1,2,3,7,8-PeCDD-13C	2.0	49
				1,2,3,4,7,8-HxCDF-13C	2.0	51
1,2,3,7,8-PeCDF	1.0	0.97	97	1,2,3,6,7,8-HxCDF-13C	2.0	54
2,3,4,7,8-PeCDF	1.0	1.00	100	2,3,4,6,7,8-HxCDF-13C	2.0	50
Total PeCDF				1,2,3,7,8,9-HxCDF-13C	2.0	49
				1,2,3,4,7,8-HxCDD-13C	2.0	50
1,2,3,7,8-PeCDD	1.0	0.87	87	1,2,3,6,7,8-HxCDD-13C	2.0	45
Total PeCDD				1,2,3,4,6,7,8-HpCDF-13C	2.0	74
				1,2,3,4,7,8,9-HpCDF-13C	2.0	66
1,2,3,4,7,8-HxCDF	1.0	1.1	108	1,2,3,4,6,7,8-HpCDD-13C	2.0	74
1,2,3,6,7,8-HxCDF	1.0	0.96	96	OCDD-13C	4.0	75
2,3,4,6,7,8-HxCDF	1.0	0.97	97			
1,2,3,7,8,9-HxCDF	1.0	0.91	91	1,2,3,4-TCDD-13C	2.0	NA
Total HxCDF				1,2,3,7,8,9-HxCDD-13C	2.0	NA
1,2,3,4,7,8-HxCDD	1.0	0.98	98	2,3,7,8-TCDD-37Cl4	0.20	113
1,2,3,6,7,8-HxCDD	1.0	1.1	111			
1,2,3,7,8,9-HxCDD	1.0	1.0	101			
Total HxCDD						
1,2,3,4,6,7,8-HpCDF	1.0	1.0	101			
1,2,3,4,7,8,9-HpCDF	1.0	1.0	102			
Total HpCDF						
1,2,3,4,6,7,8-HpCDD	1.0	0.93	93			
Total HpCDD						
OCDF	2.0	1.9	96			
OCDD	2.0	2.1	106			

Qs = Quantity Spiked  
Qm = Quantity Measured  
Rec. = Recovery (Expressed as Percent)  
R = Recovery outside of target range

Y = RF averaging used in calculations  
Nn = Value obtained from additional analysis  
NA = Not Applicable  
\* = See Discussion

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### Method 8290 Laboratory Control Spike Results

Lab Sample ID	LCS-71595	Matrix	Solid
Filename	F190707A_04	Dilution	NA
Total Amount Extracted	20.0 g	Extracted	07/02/2019 15:15
ICAL ID	F190620	Analyzed	07/07/2019 16:15
CCal Filename(s)	F190707A_03 & F190707A_20	Injected By	BAL
Method Blank ID	BLANK-71594		

Native Isomers	Qs (ng)	Qm (ng)	% Rec.	Internal Standards	ng's Added	Percent Recovery
2,3,7,8-TCDF	0.20	0.21	104	2,3,7,8-TCDF-13C	2.0	72
Total TCDF				2,3,7,8-TCDD-13C	2.0	69
				1,2,3,7,8-PeCDF-13C	2.0	75
2,3,7,8-TCDD	0.20	0.22	109	2,3,4,7,8-PeCDF-13C	2.0	77
Total TCDD				1,2,3,7,8-PeCDD-13C	2.0	88
				1,2,3,4,7,8-HxCDF-13C	2.0	65
1,2,3,7,8-PeCDF	1.0	1.1	107	1,2,3,6,7,8-HxCDF-13C	2.0	66
2,3,4,7,8-PeCDF	1.0	1.1	108	2,3,4,6,7,8-HxCDF-13C	2.0	69
Total PeCDF				1,2,3,7,8,9-HxCDF-13C	2.0	70
				1,2,3,4,7,8-HxCDD-13C	2.0	68
1,2,3,7,8-PeCDD	1.0	0.93	93	1,2,3,6,7,8-HxCDD-13C	2.0	60
Total PeCDD				1,2,3,4,6,7,8-HpCDF-13C	2.0	69
				1,2,3,4,7,8,9-HpCDF-13C	2.0	70
1,2,3,4,7,8-HxCDF	1.0	1.1	114	1,2,3,4,6,7,8-HpCDD-13C	2.0	78
1,2,3,6,7,8-HxCDF	1.0	1.1	107	OCDD-13C	4.0	75
2,3,4,6,7,8-HxCDF	1.0	1.00	100			
1,2,3,7,8,9-HxCDF	1.0	1.0	103	1,2,3,4-TCDD-13C	2.0	NA
Total HxCDF				1,2,3,7,8,9-HxCDD-13C	2.0	NA
1,2,3,4,7,8-HxCDD	1.0	1.0	103	2,3,7,8-TCDD-37Cl4	0.20	84
1,2,3,6,7,8-HxCDD	1.0	1.2	116			
1,2,3,7,8,9-HxCDD	1.0	1.1	109			
Total HxCDD						
1,2,3,4,6,7,8-HpCDF	1.0	1.0	103			
1,2,3,4,7,8,9-HpCDF	1.0	1.0	102			
Total HpCDF						
1,2,3,4,6,7,8-HpCDD	1.0	1.0	101			
Total HpCDD						
OCDF	2.0	2.2	109			
OCDD	2.0	2.2	111			

Qs = Quantity Spiked  
 Qm = Quantity Measured  
 Rec. = Recovery (Expressed as Percent)  
 R = Recovery outside of target range

Y = RF averaging used in calculations  
 Nn = Value obtained from additional analysis  
 NA = Not Applicable  
 \* = See Discussion

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**Method 8290 Laboratory Control Spike Results**

Lab Sample ID	LCS-71615	Matrix	Water
Filename	F190708A_15	Dilution	NA
Total Amount Extracted	934 mL	Extracted	07/03/2019 11:08
ICAL ID	F190620	Analyzed	07/08/2019 12:41
CCal Filename(s)	F190707A_20 & F190708A_19	Injected By	SMT
Method Blank ID	BLANK-71614		

Native Isomers	Qs (ng)	Qm (ng)	% Rec.	Internal Standards	ng's Added	Percent Recovery
2,3,7,8-TCDF	0.20	0.19	97	2,3,7,8-TCDF-13C	2.0	83
Total TCDF				2,3,7,8-TCDD-13C	2.0	79
				1,2,3,7,8-PeCDF-13C	2.0	79
2,3,7,8-TCDD	0.20	0.20	99	2,3,4,7,8-PeCDF-13C	2.0	80
Total TCDD				1,2,3,7,8-PeCDD-13C	2.0	90
				1,2,3,4,7,8-HxCDF-13C	2.0	70
1,2,3,7,8-PeCDF	1.0	0.97	97	1,2,3,6,7,8-HxCDF-13C	2.0	72
2,3,4,7,8-PeCDF	1.0	1.0	101	2,3,4,6,7,8-HxCDF-13C	2.0	77
Total PeCDF				1,2,3,7,8,9-HxCDF-13C	2.0	81
				1,2,3,4,7,8-HxCDD-13C	2.0	70
1,2,3,7,8-PeCDD	1.0	0.87	87	1,2,3,6,7,8-HxCDD-13C	2.0	65
Total PeCDD				1,2,3,4,6,7,8-HpCDF-13C	2.0	65
				1,2,3,4,7,8,9-HpCDF-13C	2.0	75
1,2,3,4,7,8-HxCDF	1.0	1.0	102	1,2,3,4,6,7,8-HpCDD-13C	2.0	77
1,2,3,6,7,8-HxCDF	1.0	0.97	97	OCDD-13C	4.0	74
2,3,4,6,7,8-HxCDF	1.0	0.92	92			
1,2,3,7,8,9-HxCDF	1.0	0.94	94	1,2,3,4-TCDD-13C	2.0	NA
Total HxCDF				1,2,3,7,8,9-HxCDD-13C	2.0	NA
1,2,3,4,7,8-HxCDD	1.0	1.00	100	2,3,7,8-TCDD-37Cl4	0.20	102
1,2,3,6,7,8-HxCDD	1.0	1.1	110			
1,2,3,7,8,9-HxCDD	1.0	1.1	109			
Total HxCDD						
1,2,3,4,6,7,8-HpCDF	1.0	0.98	98			
1,2,3,4,7,8,9-HpCDF	1.0	0.95	95			
Total HpCDF						
1,2,3,4,6,7,8-HpCDD	1.0	0.98	98			
Total HpCDD						
OCDF	2.0	1.9	97			
OCDD	2.0	2.1	103			

Qs = Quantity Spiked  
Qm = Quantity Measured  
Rec. = Recovery (Expressed as Percent)  
R = Recovery outside of target range

Y = RF averaging used in calculations  
Nn = Value obtained from additional analysis  
NA = Not Applicable  
\* = See Discussion

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### Method 8290 Laboratory Control Spike Results

Lab Sample ID	LCS-71805	Matrix	Solid
Filename	F190716A_12	Dilution	NA
Total Amount Extracted	10.1 g	Extracted	07/12/2019 17:50
ICAL ID	F190620	Analyzed	07/16/2019 17:34
CCal Filename(s)	F190715B_27 & F190716A_18	Injected By	SMT
Method Blank ID	BLANK-71804		

Native Isomers	Qs (ng)	Qm (ng)	% Rec.	Internal Standards	ng's Added	Percent Recovery
2,3,7,8-TCDF	0.20	0.18	88	2,3,7,8-TCDF-13C	2.0	69
Total TCDF				2,3,7,8-TCDD-13C	2.0	66
				1,2,3,7,8-PeCDF-13C	2.0	76
2,3,7,8-TCDD	0.20	0.19	96	2,3,4,7,8-PeCDF-13C	2.0	74
Total TCDD				1,2,3,7,8-PeCDD-13C	2.0	87
				1,2,3,4,7,8-HxCDF-13C	2.0	61
1,2,3,7,8-PeCDF	1.0	0.93	93	1,2,3,6,7,8-HxCDF-13C	2.0	66
2,3,4,7,8-PeCDF	1.0	0.98	98	2,3,4,6,7,8-HxCDF-13C	2.0	63
Total PeCDF				1,2,3,7,8,9-HxCDF-13C	2.0	58
				1,2,3,4,7,8-HxCDD-13C	2.0	65
1,2,3,7,8-PeCDD	1.0	0.86	86	1,2,3,6,7,8-HxCDD-13C	2.0	60
Total PeCDD				1,2,3,4,6,7,8-HpCDF-13C	2.0	60
				1,2,3,4,7,8,9-HpCDF-13C	2.0	52
1,2,3,4,7,8-HxCDF	1.0	0.99	99	1,2,3,4,6,7,8-HpCDD-13C	2.0	64
1,2,3,6,7,8-HxCDF	1.0	0.97	97	OCDD-13C	4.0	48
2,3,4,6,7,8-HxCDF	1.0	0.89	89			
1,2,3,7,8,9-HxCDF	1.0	0.92	92	1,2,3,4-TCDD-13C	2.0	NA
Total HxCDF				1,2,3,7,8,9-HxCDD-13C	2.0	NA
1,2,3,4,7,8-HxCDD	1.0	0.96	96	2,3,7,8-TCDD-37Cl4	0.20	70
1,2,3,6,7,8-HxCDD	1.0	1.1	107			
1,2,3,7,8,9-HxCDD	1.0	0.99	99			
Total HxCDD						
1,2,3,4,6,7,8-HpCDF	1.0	0.99	99			
1,2,3,4,7,8,9-HpCDF	1.0	1.0	100			
Total HpCDF						
1,2,3,4,6,7,8-HpCDD	1.0	0.93	93			
Total HpCDD						
OCDF	2.0	1.8	92			
OCDD	2.0	2.1	105			

Qs = Quantity Spiked  
Qm = Quantity Measured  
Rec. = Recovery (Expressed as Percent)  
R = Recovery outside of target range

Y = RF averaging used in calculations  
Nn = Value obtained from additional analysis  
NA = Not Applicable  
\* = See Discussion

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### Method 8290 Laboratory Control Spike Results

Lab Sample ID	LCSD-71616	Matrix	Water
Filename	F190708A_16	Dilution	NA
Total Amount Extracted	939 mL	Extracted	07/03/2019 11:08
ICAL ID	F190620	Analyzed	07/08/2019 13:20
CCal Filename(s)	F190707A_20 & F190708A_19	Injected By	SMT
Method Blank ID	BLANK-71614		

Native Isomers	Qs (ng)	Qm (ng)	% Rec.	Internal Standards	ng's Added	Percent Recovery
2,3,7,8-TCDF	0.20	0.20	100	2,3,7,8-TCDF-13C	2.0	83
Total TCDF				2,3,7,8-TCDD-13C	2.0	80
				1,2,3,7,8-PeCDF-13C	2.0	82
2,3,7,8-TCDD	0.20	0.21	103	2,3,4,7,8-PeCDF-13C	2.0	82
Total TCDD				1,2,3,7,8-PeCDD-13C	2.0	94
				1,2,3,4,7,8-HxCDF-13C	2.0	74
1,2,3,7,8-PeCDF	1.0	1.0	103	1,2,3,6,7,8-HxCDF-13C	2.0	76
2,3,4,7,8-PeCDF	1.0	1.1	108	2,3,4,6,7,8-HxCDF-13C	2.0	79
Total PeCDF				1,2,3,7,8,9-HxCDF-13C	2.0	82
				1,2,3,4,7,8-HxCDD-13C	2.0	74
1,2,3,7,8-PeCDD	1.0	0.90	90	1,2,3,6,7,8-HxCDD-13C	2.0	69
Total PeCDD				1,2,3,4,6,7,8-HpCDF-13C	2.0	68
				1,2,3,4,7,8,9-HpCDF-13C	2.0	79
1,2,3,4,7,8-HxCDF	1.0	1.1	107	1,2,3,4,6,7,8-HpCDD-13C	2.0	80
1,2,3,6,7,8-HxCDF	1.0	1.0	104	OCDD-13C	4.0	77
2,3,4,6,7,8-HxCDF	1.0	0.99	99			
1,2,3,7,8,9-HxCDF	1.0	1.0	101	1,2,3,4-TCDD-13C	2.0	NA
Total HxCDF				1,2,3,7,8,9-HxCDD-13C	2.0	NA
1,2,3,4,7,8-HxCDD	1.0	1.1	107	2,3,7,8-TCDD-37Cl4	0.20	100
1,2,3,6,7,8-HxCDD	1.0	1.1	113			
1,2,3,7,8,9-HxCDD	1.0	1.1	113			
Total HxCDD						
1,2,3,4,6,7,8-HpCDF	1.0	1.0	102			
1,2,3,4,7,8,9-HpCDF	1.0	1.0	101			
Total HpCDF						
1,2,3,4,6,7,8-HpCDD	1.0	1.0	101			
Total HpCDD						
OCDF	2.0	2.1	104			
OCDD	2.0	2.2	108			

Qs = Quantity Spiked  
 Qm = Quantity Measured  
 Rec. = Recovery (Expressed as Percent)  
 R = Recovery outside of target range

Y = RF averaging used in calculations  
 Nn = Value obtained from additional analysis  
 NA = Not Applicable  
 \* = See Discussion

## REPORT OF LABORATORY ANALYSIS

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**Method 8290**

**Spike Recovery Relative Percent Difference (RPD) Results**

Client Pace Analytical National

Spike 1 ID LCS-71615  
 Spike 1 Filename F190708A\_15

Spike 2 ID LCSD-71616  
 Spike 2 Filename F190708A\_16

Compound	Spike 1 %REC	Spike 2 %REC	%RPD
2,3,7,8-TCDF	97	100	3.0
2,3,7,8-TCDD	99	103	4.0
1,2,3,7,8-PeCDF	97	103	6.0
2,3,4,7,8-PeCDF	101	108	6.7
1,2,3,7,8-PeCDD	87	90	3.4
1,2,3,4,7,8-HxCDF	102	107	4.8
1,2,3,6,7,8-HxCDF	97	104	7.0
2,3,4,6,7,8-HxCDF	92	99	7.3
1,2,3,7,8,9-HxCDF	94	101	7.2
1,2,3,4,7,8-HxCDD	100	107	6.8
1,2,3,6,7,8-HxCDD	110	113	2.7
1,2,3,7,8,9-HxCDD	109	113	3.6
1,2,3,4,6,7,8-HpCDF	98	102	4.0
1,2,3,4,7,8,9-HpCDF	95	101	6.1
1,2,3,4,6,7,8-HpCDD	98	101	3.0
OCDF	97	104	7.0
OCDD	103	108	4.7

%REC = Percent Recovered

RPD = The difference between the two values divided by the mean value

**REPORT OF LABORATORY ANALYSIS**

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## S&ME Inc. - Spartanburg SC

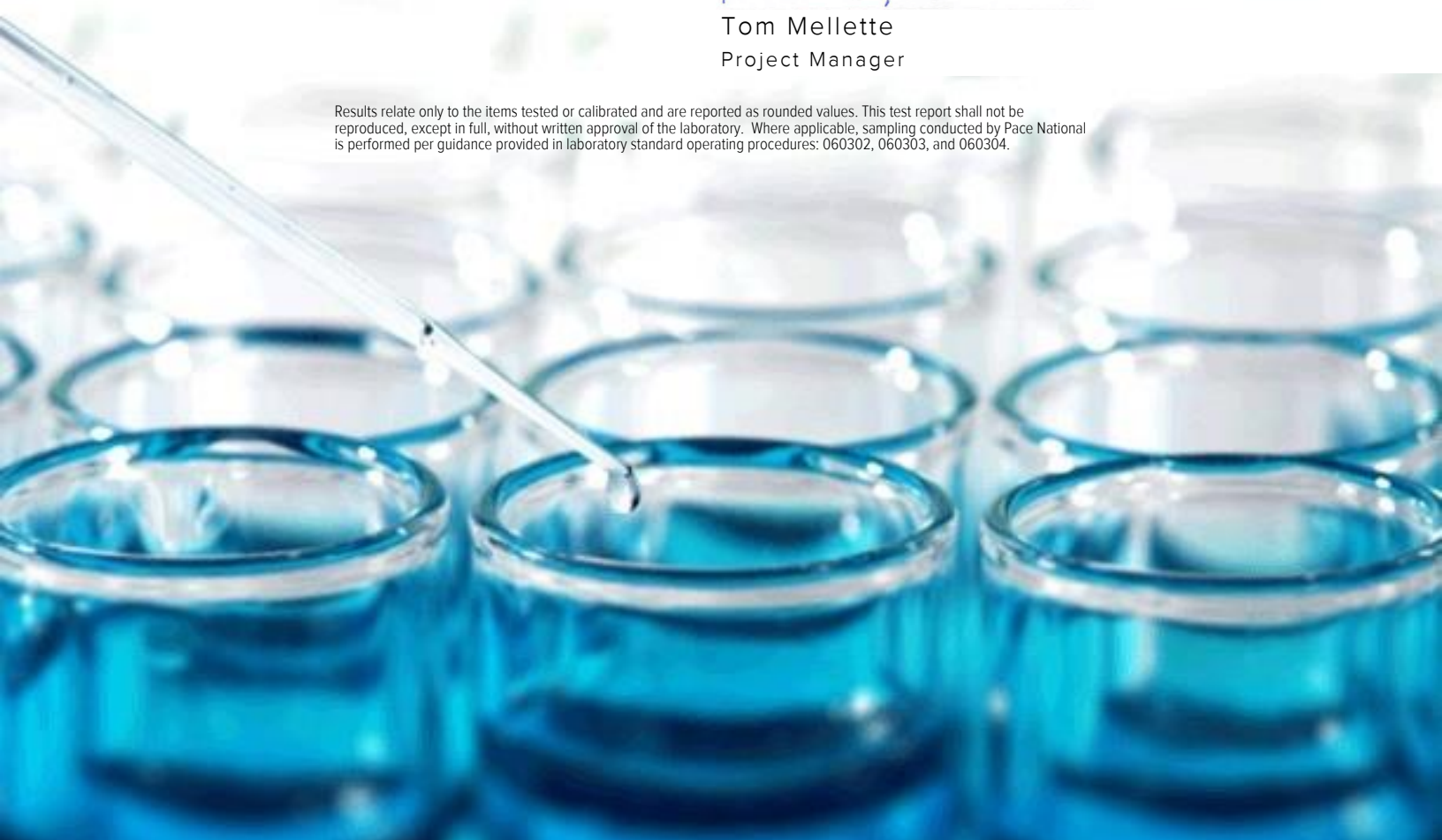
Sample Delivery Group: L111579  
Samples Received: 06/21/2019  
Project Number: 4213-18-087  
Description: Project Columbia  
Site: COLUMBIA  
Report To: Scott Dacus  
301 Zima Park Drive  
Spartanburg, SC 29301

Entire Report Reviewed By:



Tom Mellette  
Project Manager

Results relate only to the items tested or calibrated and are reported as rounded values. This test report shall not be reproduced, except in full, without written approval of the laboratory. Where applicable, sampling conducted by Pace National is performed per guidance provided in laboratory standard operating procedures: 060302, 060303, and 060304.





<b>Cp: Cover Page</b>	<b>1</b>
<b>Tc: Table of Contents</b>	<b>2</b>
<b>Ss: Sample Summary</b>	<b>4</b>
<b>Cn: Case Narrative</b>	<b>10</b>
<b>Sr: Sample Results</b>	<b>11</b>
TWHL-1-SU-1 L1111579-01	11
TWHL-2-SU-1 L1111579-02	16
TWHL-3-SU-1 L1111579-03	21
TWHL-4-SU-1 L1111579-04	26
SL2-1-SU-2 L1111579-05	31
SL2-2-SU-2 L1111579-06	36
WHL1-1-SU-1 L1111579-07	41
WHL1-2-SU-1 L1111579-08	46
WHL1-3-SU-2 L1111579-09	51
WHL1-4-SU-1 L1111579-10	56
WHL1-5-SU-2 L1111579-11	61
WHL1-6-SU-1 L1111579-12	66
WHL1-7-SU-2 L1111579-13	71
WHL1-8-SU-1 L1111579-14	76
CM-DUP-SU-1 L1111579-15	81
WHL2-1-SU-3 L1111579-16	86
WHL2-2-SU-3 L1111579-17	91
WHL2-3-SU-2 L1111579-18	96
WHL2-4-SU-1 L1111579-19	101
CM-EB-SU-1 L1111579-20	106
CM-FB-SU-1 L1111579-21	111
TRIP BLANK L1111579-22	116
<b>Qc: Quality Control Summary</b>	<b>117</b>
Total Solids by Method 2540 G-2011	117
Wet Chemistry by Method 4500CN E-2011	121
Wet Chemistry by Method 9012B	122
Mercury by Method 7470A	126
Mercury by Method 7471B	127
Metals (ICP) by Method 6010D	128
Volatile Organic Compounds (GC/MS) by Method 8260B	132
Pesticides (GC) by Method 8081B	138
Polychlorinated Biphenyls (GC) by Method 8082 A	142
Semi Volatile Organic Compounds (GC/MS) by Method 8270D	144
Semi Volatile Organic Compounds (GC/MS) by Method 8270E-SIM	160
<b>Gl: Glossary of Terms</b>	<b>166</b>

1 Cp
2 Tc
3 Ss
4 Cn
5 Sr
6 Qc
7 Gl
8 Al
9 Sc





AI: Accreditations & Locations

168

Sc: Sample Chain of Custody

169

<sup>1</sup>Cp

<sup>2</sup>Tc

<sup>3</sup>Ss

<sup>4</sup>Cn

<sup>5</sup>Sr

<sup>6</sup>Qc

<sup>7</sup>Gl

<sup>8</sup>Al

<sup>9</sup>Sc

# SAMPLE SUMMARY



## TWHL-1-SU-1 L111579-01 Solid

Collected by  
Scott Davis  
Collected date/time  
06/18/19 10:47  
Received date/time  
06/21/19 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1301897	1	06/26/19 14:01	06/26/19 14:16	KBC	Mt. Juliet, TN
Wet Chemistry by Method 9012B	WG1304908	1	07/02/19 16:16	07/02/19 19:48	JER	Mt. Juliet, TN
Mercury by Method 7471B	WG1301944	1	06/25/19 22:20	06/26/19 12:26	ABL	Mt. Juliet, TN
Metals (ICP) by Method 6010D	WG1301970	1	06/26/19 06:59	06/27/19 22:38	CCE	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1302136	1.21	06/18/19 10:47	06/26/19 10:14	JHH	Mt. Juliet, TN
Pesticides (GC) by Method 8081B	WG1302000	1	06/26/19 11:53	06/26/19 18:00	LEL	Mt. Juliet, TN
Polychlorinated Biphenyls (GC) by Method 8082 A	WG1302000	1	06/26/19 11:53	06/26/19 18:10	MTJ	Mt. Juliet, TN
Semi Volatile Organic Compounds (GC/MS) by Method 8270D	WG1303241	10	06/28/19 11:26	06/29/19 05:44	LEA	Mt. Juliet, TN
Semi Volatile Organic Compounds (GC/MS) by Method 8270E-SIM	WG1302016	1	06/27/19 05:27	06/27/19 13:52	DMG	Mt. Juliet, TN

1  
Cp

2  
Tc

3  
Ss

4  
Cn

5  
Sr

6  
Qc

7  
Gl

8  
Al

9  
Sc

## TWHL-2-SU-1 L111579-02 Solid

Collected by  
Scott Davis  
Collected date/time  
06/18/19 10:15  
Received date/time  
06/21/19 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1301897	1	06/26/19 14:01	06/26/19 14:16	KBC	Mt. Juliet, TN
Wet Chemistry by Method 9012B	WG1304908	1	07/02/19 16:16	07/02/19 19:49	JER	Mt. Juliet, TN
Mercury by Method 7471B	WG1301944	1	06/25/19 22:20	06/26/19 12:29	ABL	Mt. Juliet, TN
Metals (ICP) by Method 6010D	WG1301970	1	06/26/19 06:59	06/27/19 22:47	CCE	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1302136	1	06/18/19 10:15	06/26/19 10:33	JHH	Mt. Juliet, TN
Pesticides (GC) by Method 8081B	WG1302000	1	06/26/19 11:53	06/26/19 18:37	LEL	Mt. Juliet, TN
Polychlorinated Biphenyls (GC) by Method 8082 A	WG1302000	1	06/26/19 11:53	06/26/19 18:48	MTJ	Mt. Juliet, TN
Semi Volatile Organic Compounds (GC/MS) by Method 8270D	WG1303241	1	06/28/19 11:26	06/29/19 02:31	LEA	Mt. Juliet, TN
Semi Volatile Organic Compounds (GC/MS) by Method 8270E-SIM	WG1302016	1	06/27/19 05:27	06/27/19 14:13	DMG	Mt. Juliet, TN

## TWHL-3-SU-1 L111579-03 Solid

Collected by  
Scott Davis  
Collected date/time  
06/18/19 12:50  
Received date/time  
06/21/19 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1301897	1	06/26/19 14:01	06/26/19 14:16	KBC	Mt. Juliet, TN
Wet Chemistry by Method 9012B	WG1304908	1	07/02/19 16:16	07/02/19 19:50	JER	Mt. Juliet, TN
Mercury by Method 7471B	WG1301944	1	06/25/19 22:20	06/26/19 12:31	ABL	Mt. Juliet, TN
Metals (ICP) by Method 6010D	WG1301970	1	06/26/19 06:59	06/27/19 22:49	CCE	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1302136	1	06/18/19 12:50	06/26/19 10:52	JHH	Mt. Juliet, TN
Pesticides (GC) by Method 8081B	WG1302000	1	06/26/19 11:53	06/26/19 18:50	LEL	Mt. Juliet, TN
Polychlorinated Biphenyls (GC) by Method 8082 A	WG1302000	1	06/26/19 11:53	06/26/19 19:00	MTJ	Mt. Juliet, TN
Semi Volatile Organic Compounds (GC/MS) by Method 8270D	WG1303241	10	06/28/19 11:26	06/29/19 06:23	LEA	Mt. Juliet, TN
Semi Volatile Organic Compounds (GC/MS) by Method 8270E-SIM	WG1302016	1	06/27/19 05:27	06/27/19 15:19	DMG	Mt. Juliet, TN

## TWHL-4-SU-1 L111579-04 Solid

Collected by  
Scott Davis  
Collected date/time  
06/18/19 13:20  
Received date/time  
06/21/19 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1301897	1	06/26/19 14:01	06/26/19 14:16	KBC	Mt. Juliet, TN
Wet Chemistry by Method 9012B	WG1304908	1	07/02/19 16:16	07/02/19 19:52	JER	Mt. Juliet, TN
Mercury by Method 7471B	WG1301944	1	06/25/19 22:20	06/26/19 12:33	ABL	Mt. Juliet, TN
Metals (ICP) by Method 6010D	WG1301970	1	06/26/19 06:59	06/27/19 22:52	CCE	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1302136	1	06/18/19 13:20	06/26/19 11:11	JHH	Mt. Juliet, TN
Pesticides (GC) by Method 8081B	WG1302000	1	06/26/19 11:53	06/26/19 19:02	LEL	Mt. Juliet, TN
Polychlorinated Biphenyls (GC) by Method 8082 A	WG1302000	1	06/26/19 11:53	06/26/19 19:13	MTJ	Mt. Juliet, TN
Semi Volatile Organic Compounds (GC/MS) by Method 8270D	WG1303241	1	06/28/19 11:26	06/29/19 02:51	LEA	Mt. Juliet, TN
Semi Volatile Organic Compounds (GC/MS) by Method 8270E-SIM	WG1302016	1	06/27/19 05:27	06/27/19 15:40	DMG	Mt. Juliet, TN

# SAMPLE SUMMARY



## SL2-1-SU-2 L1111579-05 Solid

Collected by  
Scott Davis  
Collected date/time  
06/18/19 14:20  
Received date/time  
06/21/19 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1301897	1	06/26/19 14:01	06/26/19 14:16	KBC	Mt. Juliet, TN
Wet Chemistry by Method 9012B	WG1304908	1	07/02/19 16:16	07/02/19 19:53	JER	Mt. Juliet, TN
Mercury by Method 7471B	WG1301944	1	06/25/19 22:20	06/26/19 12:35	ABL	Mt. Juliet, TN
Metals (ICP) by Method 6010D	WG1301970	1	06/26/19 06:59	06/27/19 22:55	CCE	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1302136	1.3	06/18/19 14:20	06/26/19 11:30	JHH	Mt. Juliet, TN
Pesticides (GC) by Method 8081B	WG1302000	1	06/26/19 11:53	06/26/19 19:15	LEL	Mt. Juliet, TN
Polychlorinated Biphenyls (GC) by Method 8082 A	WG1302000	1	06/26/19 11:53	06/26/19 19:25	MTJ	Mt. Juliet, TN
Semi Volatile Organic Compounds (GC/MS) by Method 8270D	WG1303241	5	06/28/19 11:26	06/29/19 08:38	LEA	Mt. Juliet, TN
Semi Volatile Organic Compounds (GC/MS) by Method 8270E-SIM	WG1302016	1	06/27/19 05:27	06/27/19 16:02	DMG	Mt. Juliet, TN

1  
Cp

2  
Tc

3  
Ss

4  
Cn

5  
Sr

6  
Qc

7  
Gl

8  
Al

9  
Sc

## SL2-2-SU-2 L1111579-06 Solid

Collected by  
Scott Davis  
Collected date/time  
06/18/19 14:45  
Received date/time  
06/21/19 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1302166	1	06/26/19 13:58	06/26/19 14:08	KBC	Mt. Juliet, TN
Wet Chemistry by Method 9012B	WG1303457	1	06/28/19 16:26	07/01/19 11:54	JER	Mt. Juliet, TN
Mercury by Method 7471B	WG1301944	1	06/25/19 22:20	06/26/19 12:42	ABL	Mt. Juliet, TN
Metals (ICP) by Method 6010D	WG1301970	1	06/26/19 06:59	06/27/19 22:22	CCE	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1302136	1.24	06/18/19 14:45	06/26/19 11:48	JHH	Mt. Juliet, TN
Pesticides (GC) by Method 8081B	WG1302000	1	06/26/19 11:53	06/26/19 19:27	LEL	Mt. Juliet, TN
Polychlorinated Biphenyls (GC) by Method 8082 A	WG1302000	1	06/26/19 11:53	06/26/19 19:37	MTJ	Mt. Juliet, TN
Semi Volatile Organic Compounds (GC/MS) by Method 8270D	WG1303241	5	06/28/19 11:26	06/29/19 08:58	LEA	Mt. Juliet, TN
Semi Volatile Organic Compounds (GC/MS) by Method 8270E-SIM	WG1302016	1	06/27/19 05:27	06/27/19 16:23	DMG	Mt. Juliet, TN

## WHL1-1-SU-1 L1111579-07 Solid

Collected by  
Scott Davis  
Collected date/time  
06/19/19 09:15  
Received date/time  
06/21/19 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1302166	1	06/26/19 13:58	06/26/19 14:08	KBC	Mt. Juliet, TN
Wet Chemistry by Method 9012B	WG1304908	1	07/02/19 16:16	07/02/19 19:59	JER	Mt. Juliet, TN
Mercury by Method 7471B	WG1301944	1	06/25/19 22:20	06/26/19 12:44	ABL	Mt. Juliet, TN
Metals (ICP) by Method 6010D	WG1301970	1	06/26/19 06:59	06/27/19 22:58	CCE	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1302136	1.06	06/19/19 09:15	06/26/19 12:07	JHH	Mt. Juliet, TN
Pesticides (GC) by Method 8081B	WG1302000	1	06/26/19 11:53	06/26/19 19:40	LEL	Mt. Juliet, TN
Polychlorinated Biphenyls (GC) by Method 8082 A	WG1302000	1	06/26/19 11:53	06/26/19 19:50	MTJ	Mt. Juliet, TN
Semi Volatile Organic Compounds (GC/MS) by Method 8270D	WG1303241	10	06/28/19 11:26	06/29/19 07:21	LEA	Mt. Juliet, TN
Semi Volatile Organic Compounds (GC/MS) by Method 8270E-SIM	WG1302016	1	06/27/19 05:27	06/27/19 16:44	DMG	Mt. Juliet, TN

## WHL1-2-SU-1 L1111579-08 Solid

Collected by  
Scott Davis  
Collected date/time  
06/19/19 09:35  
Received date/time  
06/21/19 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1302166	1	06/26/19 13:58	06/26/19 14:08	KBC	Mt. Juliet, TN
Wet Chemistry by Method 9012B	WG1304908	1	07/02/19 16:16	07/02/19 20:00	JER	Mt. Juliet, TN
Mercury by Method 7471B	WG1301944	1	06/25/19 22:20	06/26/19 12:46	ABL	Mt. Juliet, TN
Metals (ICP) by Method 6010D	WG1301970	1	06/26/19 06:59	06/27/19 23:00	CCE	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1302136	1.28	06/19/19 09:35	06/26/19 12:26	JHH	Mt. Juliet, TN
Pesticides (GC) by Method 8081B	WG1302000	1	06/26/19 11:53	06/26/19 19:52	LEL	Mt. Juliet, TN
Polychlorinated Biphenyls (GC) by Method 8082 A	WG1302000	1	06/26/19 11:53	06/26/19 20:02	MTJ	Mt. Juliet, TN
Semi Volatile Organic Compounds (GC/MS) by Method 8270D	WG1303241	100	06/28/19 11:26	06/29/19 07:59	LEA	Mt. Juliet, TN
Semi Volatile Organic Compounds (GC/MS) by Method 8270E-SIM	WG1302016	1	06/27/19 05:27	06/27/19 17:05	DMG	Mt. Juliet, TN

# SAMPLE SUMMARY



## WHL1-3-SU-2 L1111579-09 Solid

Collected by  
Scott Davis  
Collected date/time  
06/19/19 12:25  
Received date/time  
06/21/19 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1302167	1	06/26/19 11:25	06/26/19 11:35	KBC	Mt. Juliet, TN
Wet Chemistry by Method 9012B	WG1304908	1	07/02/19 16:16	07/02/19 20:01	JER	Mt. Juliet, TN
Mercury by Method 7471B	WG1301944	1	06/25/19 22:20	06/26/19 12:48	ABL	Mt. Juliet, TN
Metals (ICP) by Method 6010D	WG1301970	1	06/26/19 06:59	06/27/19 23:03	CCE	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1302136	1	06/19/19 12:25	06/26/19 12:45	JHH	Mt. Juliet, TN
Pesticides (GC) by Method 8081B	WG1302000	1	06/26/19 11:53	06/26/19 20:04	LEL	Mt. Juliet, TN
Polychlorinated Biphenyls (GC) by Method 8082 A	WG1302000	1	06/26/19 11:53	06/26/19 20:15	MTJ	Mt. Juliet, TN
Semi Volatile Organic Compounds (GC/MS) by Method 8270D	WG1303241	10	06/28/19 11:26	06/29/19 04:47	LEA	Mt. Juliet, TN
Semi Volatile Organic Compounds (GC/MS) by Method 8270E-SIM	WG1302016	1	06/27/19 05:27	06/27/19 17:26	DMG	Mt. Juliet, TN

1  
Cp

2  
Tc

3  
Ss

4  
Cn

5  
Sr

6  
Qc

7  
Gl

8  
Al

9  
Sc

## WHL1-4-SU-1 L1111579-10 Solid

Collected by  
Scott Davis  
Collected date/time  
06/19/19 09:53  
Received date/time  
06/21/19 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1302167	1	06/26/19 11:25	06/26/19 11:35	KBC	Mt. Juliet, TN
Wet Chemistry by Method 9012B	WG1304908	1	07/02/19 16:16	07/02/19 20:02	JER	Mt. Juliet, TN
Mercury by Method 7471B	WG1301944	1	06/25/19 22:20	06/26/19 12:51	ABL	Mt. Juliet, TN
Metals (ICP) by Method 6010D	WG1301970	1	06/26/19 06:59	06/27/19 23:06	CCE	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1302136	1.01	06/19/19 09:53	06/26/19 13:04	JHH	Mt. Juliet, TN
Pesticides (GC) by Method 8081B	WG1302000	1	06/26/19 11:53	06/26/19 20:17	LEL	Mt. Juliet, TN
Polychlorinated Biphenyls (GC) by Method 8082 A	WG1302000	1	06/26/19 11:53	06/26/19 20:27	MTJ	Mt. Juliet, TN
Semi Volatile Organic Compounds (GC/MS) by Method 8270D	WG1303241	10	06/28/19 11:26	06/29/19 05:06	LEA	Mt. Juliet, TN
Semi Volatile Organic Compounds (GC/MS) by Method 8270E-SIM	WG1302016	1	06/27/19 05:27	06/27/19 17:47	DMG	Mt. Juliet, TN

## WHL1-5-SU-2 L1111579-11 Solid

Collected by  
Scott Davis  
Collected date/time  
06/19/19 13:00  
Received date/time  
06/21/19 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1302167	1	06/26/19 11:25	06/26/19 11:35	KBC	Mt. Juliet, TN
Wet Chemistry by Method 9012B	WG1304908	1	07/02/19 16:16	07/02/19 20:04	JER	Mt. Juliet, TN
Mercury by Method 7471B	WG1301944	1	06/25/19 22:20	06/26/19 12:53	ABL	Mt. Juliet, TN
Metals (ICP) by Method 6010D	WG1301970	1	06/26/19 06:59	06/27/19 23:09	CCE	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1302136	7.84	06/19/19 13:00	06/26/19 13:24	JHH	Mt. Juliet, TN
Pesticides (GC) by Method 8081B	WG1302000	1	06/26/19 11:53	06/26/19 20:29	LEL	Mt. Juliet, TN
Polychlorinated Biphenyls (GC) by Method 8082 A	WG1302000	1	06/26/19 11:53	06/26/19 20:40	MTJ	Mt. Juliet, TN
Semi Volatile Organic Compounds (GC/MS) by Method 8270D	WG1303241	5	06/28/19 11:26	06/29/19 09:17	LEA	Mt. Juliet, TN
Semi Volatile Organic Compounds (GC/MS) by Method 8270E-SIM	WG1302016	1	06/27/19 05:27	06/27/19 18:08	DMG	Mt. Juliet, TN

## WHL1-6-SU-1 L1111579-12 Solid

Collected by  
Scott Davis  
Collected date/time  
06/19/19 10:15  
Received date/time  
06/21/19 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1302167	1	06/26/19 11:25	06/26/19 11:35	KBC	Mt. Juliet, TN
Wet Chemistry by Method 9012B	WG1304908	1	07/02/19 16:16	07/02/19 20:05	JER	Mt. Juliet, TN
Mercury by Method 7471B	WG1301944	1	06/25/19 22:20	06/26/19 12:55	ABL	Mt. Juliet, TN
Metals (ICP) by Method 6010D	WG1301970	1	06/26/19 06:59	06/27/19 23:11	CCE	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1302136	1.56	06/19/19 10:15	06/26/19 13:43	JHH	Mt. Juliet, TN
Pesticides (GC) by Method 8081B	WG1302000	1	06/26/19 11:53	06/26/19 20:42	LEL	Mt. Juliet, TN
Polychlorinated Biphenyls (GC) by Method 8082 A	WG1302000	1	06/26/19 11:53	06/26/19 20:52	MTJ	Mt. Juliet, TN
Semi Volatile Organic Compounds (GC/MS) by Method 8270D	WG1303241	10	06/28/19 11:26	06/29/19 04:27	LEA	Mt. Juliet, TN
Semi Volatile Organic Compounds (GC/MS) by Method 8270E-SIM	WG1302016	1	06/27/19 05:27	06/27/19 18:29	DMG	Mt. Juliet, TN



# SAMPLE SUMMARY

## WHL1-7-SU-2 L1111579-13 Solid

Collected by  
Scott Davis  
Collected date/time  
06/19/19 10:52  
Received date/time  
06/21/19 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1302167	1	06/26/19 11:25	06/26/19 11:35	KBC	Mt. Juliet, TN
Wet Chemistry by Method 9012B	WG1304908	1	07/02/19 16:16	07/02/19 20:08	JER	Mt. Juliet, TN
Mercury by Method 7471B	WG1301944	1	06/25/19 22:20	06/26/19 12:57	ABL	Mt. Juliet, TN
Metals (ICP) by Method 6010D	WG1301970	1	06/26/19 06:59	06/27/19 23:20	CCE	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1302136	1	06/19/19 10:52	06/26/19 14:02	JHH	Mt. Juliet, TN
Pesticides (GC) by Method 8081B	WG1302000	1	06/26/19 11:53	06/26/19 20:54	LEL	Mt. Juliet, TN
Polychlorinated Biphenyls (GC) by Method 8082 A	WG1302000	1	06/26/19 11:53	06/26/19 21:05	MTJ	Mt. Juliet, TN
Semi Volatile Organic Compounds (GC/MS) by Method 8270D	WG1303241	5	06/28/19 11:26	06/29/19 03:29	LEA	Mt. Juliet, TN
Semi Volatile Organic Compounds (GC/MS) by Method 8270E-SIM	WG1302016	1	06/27/19 05:27	06/27/19 18:51	DMG	Mt. Juliet, TN

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

## WHL1-8-SU-1 L1111579-14 Solid

Collected by  
Scott Davis  
Collected date/time  
06/19/19 10:30  
Received date/time  
06/21/19 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1302167	1	06/26/19 11:25	06/26/19 11:35	KBC	Mt. Juliet, TN
Wet Chemistry by Method 9012B	WG1305501	1	07/03/19 14:27	07/05/19 10:12	JER	Mt. Juliet, TN
Mercury by Method 7471B	WG1301944	1	06/25/19 22:20	06/26/19 12:59	ABL	Mt. Juliet, TN
Metals (ICP) by Method 6010D	WG1301970	1	06/26/19 06:59	06/27/19 23:22	CCE	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1302136	1.22	06/19/19 10:30	06/26/19 14:21	JHH	Mt. Juliet, TN
Pesticides (GC) by Method 8081B	WG1302000	1	06/26/19 11:53	06/26/19 21:07	LEL	Mt. Juliet, TN
Polychlorinated Biphenyls (GC) by Method 8082 A	WG1302000	1	06/26/19 11:53	06/26/19 21:17	MTJ	Mt. Juliet, TN
Semi Volatile Organic Compounds (GC/MS) by Method 8270D	WG1303241	10	06/28/19 11:26	06/29/19 06:04	LEA	Mt. Juliet, TN
Semi Volatile Organic Compounds (GC/MS) by Method 8270E-SIM	WG1302016	1	06/27/19 05:27	06/27/19 19:12	DMG	Mt. Juliet, TN

## CM-DUP-SU-1 L1111579-15 Solid

Collected by  
Scott Davis  
Collected date/time  
06/19/19 00:00  
Received date/time  
06/21/19 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1302167	1	06/26/19 11:25	06/26/19 11:35	KBC	Mt. Juliet, TN
Wet Chemistry by Method 9012B	WG1305501	1	07/03/19 14:27	07/05/19 10:13	JER	Mt. Juliet, TN
Mercury by Method 7471B	WG1301944	1	06/25/19 22:20	06/26/19 13:02	ABL	Mt. Juliet, TN
Metals (ICP) by Method 6010D	WG1301970	1	06/26/19 06:59	06/27/19 23:25	CCE	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1302136	1.04	06/19/19 00:00	06/26/19 14:40	JHH	Mt. Juliet, TN
Pesticides (GC) by Method 8081B	WG1302000	1	06/26/19 11:53	06/26/19 21:19	LEL	Mt. Juliet, TN
Polychlorinated Biphenyls (GC) by Method 8082 A	WG1302000	1	06/26/19 11:53	06/26/19 21:30	MTJ	Mt. Juliet, TN
Semi Volatile Organic Compounds (GC/MS) by Method 8270D	WG1303241	5	06/28/19 11:26	07/01/19 14:52	JNJ	Mt. Juliet, TN
Semi Volatile Organic Compounds (GC/MS) by Method 8270E-SIM	WG1302016	1	06/27/19 05:27	06/27/19 19:33	DMG	Mt. Juliet, TN

## WHL2-1-SU-3 L1111579-16 Solid

Collected by  
Scott Davis  
Collected date/time  
06/20/19 08:50  
Received date/time  
06/21/19 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1302167	1	06/26/19 11:25	06/26/19 11:35	KBC	Mt. Juliet, TN
Wet Chemistry by Method 9012B	WG1305501	1	07/03/19 14:27	07/05/19 10:14	JER	Mt. Juliet, TN
Mercury by Method 7471B	WG1301944	1	06/25/19 22:20	06/26/19 13:08	ABL	Mt. Juliet, TN
Metals (ICP) by Method 6010D	WG1301970	1	06/26/19 06:59	06/27/19 23:28	CCE	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1302136	1	06/20/19 08:50	06/26/19 14:59	JHH	Mt. Juliet, TN
Pesticides (GC) by Method 8081B	WG1302000	1	06/26/19 11:53	06/26/19 21:31	LEL	Mt. Juliet, TN
Polychlorinated Biphenyls (GC) by Method 8082 A	WG1302000	1	06/26/19 11:53	06/26/19 21:42	MTJ	Mt. Juliet, TN
Semi Volatile Organic Compounds (GC/MS) by Method 8270D	WG1303241	10	06/28/19 11:26	06/29/19 09:37	LEA	Mt. Juliet, TN
Semi Volatile Organic Compounds (GC/MS) by Method 8270E-SIM	WG1302016	1	06/27/19 05:27	06/27/19 19:54	DMG	Mt. Juliet, TN

# SAMPLE SUMMARY

## WHL2-2-SU-3 L111579-17 Solid

Collected by  
Scott Davis  
Collected date/time  
06/20/19 09:20  
Received date/time  
06/21/19 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1302167	1	06/26/19 11:25	06/26/19 11:35	KBC	Mt. Juliet, TN
Wet Chemistry by Method 9012B	WG1305501	1	07/03/19 14:27	07/05/19 10:15	JER	Mt. Juliet, TN
Mercury by Method 7471B	WG1301944	1	06/25/19 22:20	06/26/19 13:10	ABL	Mt. Juliet, TN
Metals (ICP) by Method 6010D	WG1301970	1	06/26/19 06:59	06/27/19 23:31	CCE	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1302136	1	06/20/19 09:20	06/26/19 15:18	JHH	Mt. Juliet, TN
Pesticides (GC) by Method 8081B	WG1302000	1	06/26/19 11:53	06/26/19 21:44	LEL	Mt. Juliet, TN
Polychlorinated Biphenyls (GC) by Method 8082 A	WG1302000	1	06/26/19 11:53	06/26/19 21:55	MTJ	Mt. Juliet, TN
Semi Volatile Organic Compounds (GC/MS) by Method 8270D	WG1303241	10	06/28/19 11:26	06/29/19 06:42	LEA	Mt. Juliet, TN
Semi Volatile Organic Compounds (GC/MS) by Method 8270E-SIM	WG1302016	1	06/27/19 05:27	06/27/19 20:15	DMG	Mt. Juliet, TN

1  
Cp

2  
Tc

3  
Ss

4  
Cn

5  
Sr

6  
Qc

7  
Gl

8  
Al

9  
Sc

## WHL2-3-SU-2 L111579-18 Solid

Collected by  
Scott Davis  
Collected date/time  
06/20/19 09:45  
Received date/time  
06/21/19 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1302167	1	06/26/19 11:25	06/26/19 11:35	KBC	Mt. Juliet, TN
Wet Chemistry by Method 9012B	WG1305501	1	07/03/19 14:27	07/05/19 10:16	JER	Mt. Juliet, TN
Mercury by Method 7471B	WG1301944	1	06/25/19 22:20	06/26/19 13:13	ABL	Mt. Juliet, TN
Metals (ICP) by Method 6010D	WG1301970	1	06/26/19 06:59	06/27/19 23:34	CCE	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1302136	1	06/20/19 09:45	06/26/19 15:37	JHH	Mt. Juliet, TN
Pesticides (GC) by Method 8081B	WG1302000	1	06/26/19 11:53	06/26/19 21:56	LEL	Mt. Juliet, TN
Polychlorinated Biphenyls (GC) by Method 8082 A	WG1302000	1	06/26/19 11:53	06/26/19 22:07	MTJ	Mt. Juliet, TN
Semi Volatile Organic Compounds (GC/MS) by Method 8270D	WG1303241	10	06/28/19 11:26	06/29/19 07:01	LEA	Mt. Juliet, TN
Semi Volatile Organic Compounds (GC/MS) by Method 8270E-SIM	WG1302016	1	06/27/19 05:27	06/27/19 20:36	DMG	Mt. Juliet, TN

## WHL2-4-SU-1 L111579-19 Solid

Collected by  
Scott Davis  
Collected date/time  
06/20/19 10:10  
Received date/time  
06/21/19 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1302168	1	06/26/19 11:09	06/26/19 11:17	KBC	Mt. Juliet, TN
Wet Chemistry by Method 9012B	WG1305501	1	07/03/19 14:27	07/05/19 10:17	JER	Mt. Juliet, TN
Mercury by Method 7471B	WG1301944	1	06/25/19 22:20	06/26/19 13:15	ABL	Mt. Juliet, TN
Metals (ICP) by Method 6010D	WG1301970	1	06/26/19 06:59	06/27/19 23:37	CCE	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1302136	2.44	06/20/19 10:10	06/26/19 15:56	JHH	Mt. Juliet, TN
Pesticides (GC) by Method 8081B	WG1302000	1	06/26/19 11:53	06/26/19 22:09	LEL	Mt. Juliet, TN
Polychlorinated Biphenyls (GC) by Method 8082 A	WG1302000	1	06/26/19 11:53	06/26/19 22:20	MTJ	Mt. Juliet, TN
Semi Volatile Organic Compounds (GC/MS) by Method 8270D	WG1303241	5	06/28/19 11:26	06/29/19 03:10	LEA	Mt. Juliet, TN
Semi Volatile Organic Compounds (GC/MS) by Method 8270E-SIM	WG1302017	1	06/27/19 05:15	06/27/19 14:34	DMG	Mt. Juliet, TN

## CM-EB-SU-1 L111579-20 GW

Collected by  
Scott Davis  
Collected date/time  
06/19/19 13:50  
Received date/time  
06/21/19 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Wet Chemistry by Method 4500CN E-2011	WG1305505	1	07/03/19 08:23	07/03/19 14:15	JER	Mt. Juliet, TN
Mercury by Method 7470A	WG1300834	1	06/25/19 17:35	06/27/19 13:20	ABL	Mt. Juliet, TN
Metals (ICP) by Method 6010D	WG1300319	1	06/24/19 13:49	06/24/19 17:49	EL	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1302380	1	06/26/19 16:28	06/26/19 16:28	BMB	Mt. Juliet, TN
Pesticides (GC) by Method 8081B	WG1300784	1	06/26/19 16:36	06/27/19 09:41	LEL	Mt. Juliet, TN
Polychlorinated Biphenyls (GC) by Method 8082 A	WG1300784	1	06/26/19 16:36	06/27/19 23:43	RAH	Mt. Juliet, TN
Semi Volatile Organic Compounds (GC/MS) by Method 8270D	WG1301750	1	06/26/19 22:15	06/28/19 16:15	JNJ	Mt. Juliet, TN
Semi Volatile Organic Compounds (GC/MS) by Method 8270E-SIM	WG1300785	1	06/25/19 16:18	06/26/19 09:14	AAT	Mt. Juliet, TN

# SAMPLE SUMMARY

## CM-FB-SU-1 L1111579-21 GW

Collected by: Scott Davis  
 Collected date/time: 06/19/19 14:20  
 Received date/time: 06/21/19 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Wet Chemistry by Method 4500CN E-2011	WG1305505	1	07/03/19 08:23	07/03/19 14:16	JER	Mt. Juliet, TN
Mercury by Method 7470A	WG1300834	1	06/25/19 17:35	06/27/19 13:30	ABL	Mt. Juliet, TN
Metals (ICP) by Method 6010D	WG1300319	1	06/24/19 13:49	06/24/19 17:51	EL	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1302380	1	06/26/19 16:48	06/26/19 16:48	BMB	Mt. Juliet, TN
Pesticides (GC) by Method 8081B	WG1300784	1	06/26/19 16:36	06/27/19 09:55	LEL	Mt. Juliet, TN
Polychlorinated Biphenyls (GC) by Method 8082 A	WG1300784	1	06/26/19 16:36	06/27/19 23:56	RAH	Mt. Juliet, TN
Semi Volatile Organic Compounds (GC/MS) by Method 8270D	WG1301753	1.01	06/26/19 16:55	06/28/19 13:56	JNJ	Mt. Juliet, TN
Semi Volatile Organic Compounds (GC/MS) by Method 8270E-SIM	WG1300785	1.02	06/25/19 16:18	06/26/19 09:37	AAT	Mt. Juliet, TN

- 1 Cp
- 2 Tc
- 3 Ss
- 4 Cn
- 5 Sr
- 6 Qc
- 7 Gl
- 8 Al
- 9 Sc

## TRIP BLANK L1111579-22 GW

Collected by: Scott Davis  
 Collected date/time: 06/19/19 00:00  
 Received date/time: 06/21/19 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1302380	1	06/26/19 17:08	06/26/19 17:08	BMB	Mt. Juliet, TN



All sample aliquots were received at the correct temperature, in the proper containers, with the appropriate preservatives, and within method specified holding times, unless qualified or notated within the report. Where applicable, all MDL (LOD) and RDL (LOQ) values reported for environmental samples have been corrected for the dilution factor used in the analysis. All Method and Batch Quality Control are within established criteria except where addressed in this case narrative, a non-conformance form or properly qualified within the sample results. By my digital signature below, I affirm to the best of my knowledge, all problems/anomalies observed by the laboratory as having the potential to affect the quality of the data have been identified by the laboratory, and no information or data have been knowingly withheld that would affect the quality of the data.

Tom Mellette  
Project Manager

- <sup>1</sup> Cp
- <sup>2</sup> Tc
- <sup>3</sup> Ss
- <sup>4</sup> Cn
- <sup>5</sup> Sr
- <sup>6</sup> Qc
- <sup>7</sup> Gl
- <sup>8</sup> Al
- <sup>9</sup> Sc





Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	40.6		1	06/26/2019 14:16	<a href="#">WG1301897</a>

1 Cp

2 Tc

Wet Chemistry by Method 9012B

Analyte	Result (dry)	Qualifier	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg		date / time	
Cyanide	ND		0.615	1	07/02/2019 19:48	<a href="#">WG1304908</a>

3 Ss

4 Cn

Mercury by Method 7471B

Analyte	Result (dry)	Qualifier	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg		date / time	
Mercury	0.106	<u>B</u>	0.0492	1	06/26/2019 12:26	<a href="#">WG1301944</a>

5 Sr

6 Qc

Metals (ICP) by Method 6010D

Analyte	Result (dry)	Qualifier	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg		date / time	
Aluminum	42000		24.6	1	06/27/2019 22:38	<a href="#">WG1301970</a>
Antimony	ND		4.92	1	06/27/2019 22:38	<a href="#">WG1301970</a>
Arsenic	ND		4.92	1	06/27/2019 22:38	<a href="#">WG1301970</a>
Barium	156		1.23	1	06/27/2019 22:38	<a href="#">WG1301970</a>
Beryllium	2.13		0.492	1	06/27/2019 22:38	<a href="#">WG1301970</a>
Cadmium	ND		1.23	1	06/27/2019 22:38	<a href="#">WG1301970</a>
Calcium	3500		246	1	06/27/2019 22:38	<a href="#">WG1301970</a>
Chromium	36.6		2.46	1	06/27/2019 22:38	<a href="#">WG1301970</a>
Cobalt	31.5		2.46	1	06/27/2019 22:38	<a href="#">WG1301970</a>
Copper	32.0		4.92	1	06/27/2019 22:38	<a href="#">WG1301970</a>
Iron	48100		24.6	1	06/27/2019 22:38	<a href="#">WG1301970</a>
Lead	19.6		1.23	1	06/27/2019 22:38	<a href="#">WG1301970</a>
Magnesium	2180		246	1	06/27/2019 22:38	<a href="#">WG1301970</a>
Manganese	471		2.46	1	06/27/2019 22:38	<a href="#">WG1301970</a>
Nickel	19.5		4.92	1	06/27/2019 22:38	<a href="#">WG1301970</a>
Potassium	1460		246	1	06/27/2019 22:38	<a href="#">WG1301970</a>
Selenium	ND		4.92	1	06/27/2019 22:38	<a href="#">WG1301970</a>
Silver	ND		2.46	1	06/27/2019 22:38	<a href="#">WG1301970</a>
Sodium	263	<u>B</u>	246	1	06/27/2019 22:38	<a href="#">WG1301970</a>
Thallium	ND		4.92	1	06/27/2019 22:38	<a href="#">WG1301970</a>
Vanadium	97.7		4.92	1	06/27/2019 22:38	<a href="#">WG1301970</a>
Zinc	83.0		12.3	1	06/27/2019 22:38	<a href="#">WG1301970</a>

7 Gl

8 Al

9 Sc

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result (dry)	Qualifier	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg		date / time	
Acetone	0.152		0.0743	1.21	06/26/2019 10:14	<a href="#">WG1302136</a>
Benzene	ND		0.00298	1.21	06/26/2019 10:14	<a href="#">WG1302136</a>
Bromochloromethane	ND		0.0149	1.21	06/26/2019 10:14	<a href="#">WG1302136</a>
Bromodichloromethane	ND		0.00743	1.21	06/26/2019 10:14	<a href="#">WG1302136</a>
Bromoform	ND		0.0743	1.21	06/26/2019 10:14	<a href="#">WG1302136</a>
Bromomethane	ND		0.0372	1.21	06/26/2019 10:14	<a href="#">WG1302136</a>
Carbon disulfide	ND		0.0372	1.21	06/26/2019 10:14	<a href="#">WG1302136</a>
Carbon tetrachloride	ND		0.0149	1.21	06/26/2019 10:14	<a href="#">WG1302136</a>
Chlorobenzene	ND		0.00743	1.21	06/26/2019 10:14	<a href="#">WG1302136</a>
Chlorodibromomethane	ND		0.00743	1.21	06/26/2019 10:14	<a href="#">WG1302136</a>
Chloroethane	ND		0.0149	1.21	06/26/2019 10:14	<a href="#">WG1302136</a>
Chloroform	ND		0.00743	1.21	06/26/2019 10:14	<a href="#">WG1302136</a>
Chloromethane	ND		0.0372	1.21	06/26/2019 10:14	<a href="#">WG1302136</a>



Collected date/time: 06/18/19 10:47

L111579

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result (dry) mg/kg	Qualifier	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Cyclohexane	ND		0.00743	1.21	06/26/2019 10:14	WG1302136
1,2-Dibromo-3-Chloropropane	ND		0.0743	1.21	06/26/2019 10:14	WG1302136
1,2-Dibromoethane	ND		0.00743	1.21	06/26/2019 10:14	WG1302136
Dichlorodifluoromethane	ND	J3	0.00743	1.21	06/26/2019 10:14	WG1302136
1,1-Dichloroethane	ND		0.00743	1.21	06/26/2019 10:14	WG1302136
1,2-Dichloroethane	ND		0.00743	1.21	06/26/2019 10:14	WG1302136
1,2-Dichlorobenzene	ND		0.0149	1.21	06/26/2019 10:14	WG1302136
1,3-Dichlorobenzene	ND		0.0149	1.21	06/26/2019 10:14	WG1302136
1,4-Dichlorobenzene	ND		0.0149	1.21	06/26/2019 10:14	WG1302136
1,1-Dichloroethene	ND		0.00743	1.21	06/26/2019 10:14	WG1302136
cis-1,2-Dichloroethene	ND		0.00743	1.21	06/26/2019 10:14	WG1302136
trans-1,2-Dichloroethene	ND		0.0149	1.21	06/26/2019 10:14	WG1302136
1,2-Dichloropropane	ND		0.0149	1.21	06/26/2019 10:14	WG1302136
cis-1,3-Dichloropropene	ND		0.00743	1.21	06/26/2019 10:14	WG1302136
trans-1,3-Dichloropropene	ND		0.0149	1.21	06/26/2019 10:14	WG1302136
Ethylbenzene	ND		0.00743	1.21	06/26/2019 10:14	WG1302136
2-Hexanone	ND		0.0743	1.21	06/26/2019 10:14	WG1302136
Isopropylbenzene	ND		0.00743	1.21	06/26/2019 10:14	WG1302136
2-Butanone (MEK)	0.0853	B	0.0743	1.21	06/26/2019 10:14	WG1302136
Methyl Acetate	0.368		0.0149	1.21	06/26/2019 10:14	WG1302136
Methyl Cyclohexane	ND		0.0149	1.21	06/26/2019 10:14	WG1302136
Methylene Chloride	ND		0.0743	1.21	06/26/2019 10:14	WG1302136
4-Methyl-2-pentanone (MIBK)	ND		0.0743	1.21	06/26/2019 10:14	WG1302136
Methyl tert-butyl ether	ND		0.00298	1.21	06/26/2019 10:14	WG1302136
Styrene	ND		0.0372	1.21	06/26/2019 10:14	WG1302136
1,1,2,2-Tetrachloroethane	ND		0.00743	1.21	06/26/2019 10:14	WG1302136
Tetrachloroethene	ND		0.00743	1.21	06/26/2019 10:14	WG1302136
Toluene	0.0213		0.0149	1.21	06/26/2019 10:14	WG1302136
1,2,3-Trichlorobenzene	ND		0.00743	1.21	06/26/2019 10:14	WG1302136
1,2,4-Trichlorobenzene	ND		0.0372	1.21	06/26/2019 10:14	WG1302136
1,1,1-Trichloroethane	ND		0.00743	1.21	06/26/2019 10:14	WG1302136
1,1,2-Trichloroethane	ND		0.00743	1.21	06/26/2019 10:14	WG1302136
Trichloroethene	ND		0.00298	1.21	06/26/2019 10:14	WG1302136
Trichlorofluoromethane	ND		0.00743	1.21	06/26/2019 10:14	WG1302136
1,1,2-Trichlorotrifluoroethane	ND		0.00743	1.21	06/26/2019 10:14	WG1302136
Vinyl chloride	ND		0.00743	1.21	06/26/2019 10:14	WG1302136
Xylenes, Total	ND		0.0193	1.21	06/26/2019 10:14	WG1302136
(S) Toluene-d8	100		75.0-131		06/26/2019 10:14	WG1302136
(S) 4-Bromofluorobenzene	92.5		67.0-138		06/26/2019 10:14	WG1302136
(S) 1,2-Dichloroethane-d4	102		70.0-130		06/26/2019 10:14	WG1302136

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

Pesticides (GC) by Method 8081B

Analyte	Result (dry) mg/kg	Qualifier	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Aldrin	ND	J3	0.0492	1	06/26/2019 18:00	WG1302000
Alpha BHC	ND		0.0492	1	06/26/2019 18:00	WG1302000
Beta BHC	ND		0.0492	1	06/26/2019 18:00	WG1302000
Delta BHC	ND		0.0492	1	06/26/2019 18:00	WG1302000
Gamma BHC	ND		0.0492	1	06/26/2019 18:00	WG1302000
Chlordane	ND		0.492	1	06/26/2019 18:00	WG1302000
4,4-DDD	ND	J3	0.0492	1	06/26/2019 18:00	WG1302000
4,4-DDE	ND	J3	0.0492	1	06/26/2019 18:00	WG1302000
4,4-DDT	ND	J3	0.0492	1	06/26/2019 18:00	WG1302000
Dieldrin	ND	J3	0.0492	1	06/26/2019 18:00	WG1302000
Endosulfan I	ND	J3	0.0492	1	06/26/2019 18:00	WG1302000
Endosulfan II	ND		0.0492	1	06/26/2019 18:00	WG1302000



Collected date/time: 06/18/19 10:47

L1111579

Pesticides (GC) by Method 8081B

Analyte	Result (dry) mg/kg	Qualifier	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Endosulfan sulfate	ND		0.0492	1	06/26/2019 18:00	<a href="#">WG1302000</a>
Endrin	ND	J3	0.0492	1	06/26/2019 18:00	<a href="#">WG1302000</a>
Endrin aldehyde	ND		0.0492	1	06/26/2019 18:00	<a href="#">WG1302000</a>
Endrin ketone	ND		0.0492	1	06/26/2019 18:00	<a href="#">WG1302000</a>
Heptachlor	ND	J3	0.0492	1	06/26/2019 18:00	<a href="#">WG1302000</a>
Heptachlor epoxide	ND		0.0492	1	06/26/2019 18:00	<a href="#">WG1302000</a>
Hexachlorobenzene	ND	J3	0.0492	1	06/26/2019 18:00	<a href="#">WG1302000</a>
Methoxychlor	ND		0.0492	1	06/26/2019 18:00	<a href="#">WG1302000</a>
Toxaphene	ND		0.985	1	06/26/2019 18:00	<a href="#">WG1302000</a>
(S) Decachlorobiphenyl	87.4		10.0-135		06/26/2019 18:00	<a href="#">WG1302000</a>
(S) Tetrachloro-m-xylene	97.2		10.0-139		06/26/2019 18:00	<a href="#">WG1302000</a>

- 1 Cp
- 2 Tc
- 3 Ss
- 4 Cn
- 5 Sr
- 6 Qc
- 7 Gl
- 8 Al
- 9 Sc

Polychlorinated Biphenyls (GC) by Method 8082 A

Analyte	Result (dry) mg/kg	Qualifier	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
PCB 1016	ND	J4	0.0418	1	06/26/2019 18:10	<a href="#">WG1302000</a>
PCB 1221	ND		0.0418	1	06/26/2019 18:10	<a href="#">WG1302000</a>
PCB 1232	ND		0.0418	1	06/26/2019 18:10	<a href="#">WG1302000</a>
PCB 1242	ND		0.0418	1	06/26/2019 18:10	<a href="#">WG1302000</a>
PCB 1248	ND		0.0418	1	06/26/2019 18:10	<a href="#">WG1302000</a>
PCB 1254	ND		0.0418	1	06/26/2019 18:10	<a href="#">WG1302000</a>
PCB 1260	ND	J4	0.0418	1	06/26/2019 18:10	<a href="#">WG1302000</a>
(S) Decachlorobiphenyl	76.9		10.0-135		06/26/2019 18:10	<a href="#">WG1302000</a>
(S) Tetrachloro-m-xylene	81.0		10.0-139		06/26/2019 18:10	<a href="#">WG1302000</a>

Semi Volatile Organic Compounds (GC/MS) by Method 8270D

Analyte	Result (dry) mg/kg	Qualifier	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Acenaphthene	ND		0.812	10	06/29/2019 05:44	<a href="#">WG1303241</a>
Acenaphthylene	ND		0.812	10	06/29/2019 05:44	<a href="#">WG1303241</a>
Acetophenone	ND		8.20	10	06/29/2019 05:44	<a href="#">WG1303241</a>
Anthracene	ND		0.812	10	06/29/2019 05:44	<a href="#">WG1303241</a>
Atrazine	ND		8.20	10	06/29/2019 05:44	<a href="#">WG1303241</a>
Benzaldehyde	ND		8.20	10	06/29/2019 05:44	<a href="#">WG1303241</a>
Benzo(a)anthracene	ND		0.812	10	06/29/2019 05:44	<a href="#">WG1303241</a>
Benzo(b)fluoranthene	ND		0.812	10	06/29/2019 05:44	<a href="#">WG1303241</a>
Benzo(k)fluoranthene	ND		0.812	10	06/29/2019 05:44	<a href="#">WG1303241</a>
Benzo(g,h,i)perylene	ND		0.812	10	06/29/2019 05:44	<a href="#">WG1303241</a>
Benzo(a)pyrene	ND		0.812	10	06/29/2019 05:44	<a href="#">WG1303241</a>
Biphenyl	ND		8.20	10	06/29/2019 05:44	<a href="#">WG1303241</a>
Bis(2-chloroethoxy)methane	ND	J4	8.20	10	06/29/2019 05:44	<a href="#">WG1303241</a>
Bis(2-chloroethyl)ether	ND		8.20	10	06/29/2019 05:44	<a href="#">WG1303241</a>
Bis(2-chloroisopropyl)ether	ND	J4	8.20	10	06/29/2019 05:44	<a href="#">WG1303241</a>
4-Bromophenyl-phenylether	ND		8.20	10	06/29/2019 05:44	<a href="#">WG1303241</a>
Caprolactam	ND		8.20	10	06/29/2019 05:44	<a href="#">WG1303241</a>
Carbazole	ND		8.20	10	06/29/2019 05:44	<a href="#">WG1303241</a>
4-Chloroaniline	ND	J4	8.20	10	06/29/2019 05:44	<a href="#">WG1303241</a>
2-Chloronaphthalene	ND		0.812	10	06/29/2019 05:44	<a href="#">WG1303241</a>
4-Chlorophenyl-phenylether	ND		8.20	10	06/29/2019 05:44	<a href="#">WG1303241</a>
Chrysene	ND		0.812	10	06/29/2019 05:44	<a href="#">WG1303241</a>
Dibenz(a,h)anthracene	ND		0.812	10	06/29/2019 05:44	<a href="#">WG1303241</a>
Dibenzofuran	ND		8.20	10	06/29/2019 05:44	<a href="#">WG1303241</a>
3,3-Dichlorobenzidine	ND		8.20	10	06/29/2019 05:44	<a href="#">WG1303241</a>
2,4-Dinitrotoluene	ND		8.20	10	06/29/2019 05:44	<a href="#">WG1303241</a>
2,6-Dinitrotoluene	ND		8.20	10	06/29/2019 05:44	<a href="#">WG1303241</a>



Collected date/time: 06/18/19 10:47

L111579

Semi Volatile Organic Compounds (GC/MS) by Method 8270D

Analyte	Result (dry) mg/kg	Qualifier	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Fluoranthene	ND		0.812	10	06/29/2019 05:44	WG1303241
Fluorene	ND		0.812	10	06/29/2019 05:44	WG1303241
Hexachlorobenzene	ND		8.20	10	06/29/2019 05:44	WG1303241
Hexachloro-1,3-butadiene	ND	J4	8.20	10	06/29/2019 05:44	WG1303241
Hexachlorocyclopentadiene	ND	JO	8.20	10	06/29/2019 05:44	WG1303241
Hexachloroethane	ND		8.20	10	06/29/2019 05:44	WG1303241
Indeno(1,2,3-cd)pyrene	ND		0.812	10	06/29/2019 05:44	WG1303241
Isophorone	ND	J4	8.20	10	06/29/2019 05:44	WG1303241
2-Methylnaphthalene	ND	J4	0.812	10	06/29/2019 05:44	WG1303241
Naphthalene	ND	J4	0.812	10	06/29/2019 05:44	WG1303241
2-Nitroaniline	ND		8.20	10	06/29/2019 05:44	WG1303241
3-Nitroaniline	ND		8.20	10	06/29/2019 05:44	WG1303241
4-Nitroaniline	ND		8.20	10	06/29/2019 05:44	WG1303241
Nitrobenzene	ND	J4	8.20	10	06/29/2019 05:44	WG1303241
n-Nitrosodiphenylamine	ND		8.20	10	06/29/2019 05:44	WG1303241
n-Nitrosodi-n-propylamine	ND		8.20	10	06/29/2019 05:44	WG1303241
Phenanthrene	ND		0.812	10	06/29/2019 05:44	WG1303241
Benzylbutyl phthalate	ND		8.20	10	06/29/2019 05:44	WG1303241
Bis(2-ethylhexyl)phthalate	ND		8.20	10	06/29/2019 05:44	WG1303241
Di-n-butyl phthalate	ND		8.20	10	06/29/2019 05:44	WG1303241
Diethyl phthalate	ND		8.20	10	06/29/2019 05:44	WG1303241
Dimethyl phthalate	ND		8.20	10	06/29/2019 05:44	WG1303241
Di-n-octyl phthalate	ND		8.20	10	06/29/2019 05:44	WG1303241
Pyrene	ND		0.812	10	06/29/2019 05:44	WG1303241
1,2,4,5-Tetrachlorobenzene	ND		8.20	10	06/29/2019 05:44	WG1303241
4-Chloro-3-methylphenol	ND		8.20	10	06/29/2019 05:44	WG1303241
2-Chlorophenol	ND		8.20	10	06/29/2019 05:44	WG1303241
2-Methylphenol	ND		8.20	10	06/29/2019 05:44	WG1303241
3&4-Methyl Phenol	ND		8.20	10	06/29/2019 05:44	WG1303241
2,4-Dichlorophenol	ND		8.20	10	06/29/2019 05:44	WG1303241
2,4-Dimethylphenol	ND	JO J4	8.20	10	06/29/2019 05:44	WG1303241
4,6-Dinitro-2-methylphenol	ND		8.20	10	06/29/2019 05:44	WG1303241
2,4-Dinitrophenol	ND		8.20	10	06/29/2019 05:44	WG1303241
2-Nitrophenol	ND		8.20	10	06/29/2019 05:44	WG1303241
4-Nitrophenol	ND		8.20	10	06/29/2019 05:44	WG1303241
Pentachlorophenol	ND		8.20	10	06/29/2019 05:44	WG1303241
Phenol	ND		8.20	10	06/29/2019 05:44	WG1303241
2,4,5-Trichlorophenol	ND		8.20	10	06/29/2019 05:44	WG1303241
2,4,6-Trichlorophenol	ND		8.20	10	06/29/2019 05:44	WG1303241
(S) 2-Fluorophenol	102		12.0-120		06/29/2019 05:44	WG1303241
(S) Phenol-d5	89.1		10.0-120		06/29/2019 05:44	WG1303241
(S) Nitrobenzene-d5	79.1		10.0-122		06/29/2019 05:44	WG1303241
(S) 2-Fluorobiphenyl	70.6		15.0-120		06/29/2019 05:44	WG1303241
(S) 2,4,6-Tribromophenol	80.3		10.0-127		06/29/2019 05:44	WG1303241
(S) p-Terphenyl-d14	86.1		10.0-120		06/29/2019 05:44	WG1303241

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

Sample Narrative:

L111579-01 WG1303241: Dilution due to matrix impact during extract concentration procedure

Semi Volatile Organic Compounds (GC/MS) by Method 8270E-SIM

Analyte	Result (dry) mg/kg	Qualifier	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Anthracene	ND		0.0148	1	06/27/2019 13:52	WG1302106
Acenaphthene	ND		0.0148	1	06/27/2019 13:52	WG1302106
Acenaphthylene	ND		0.0148	1	06/27/2019 13:52	WG1302106
Benzo(a)anthracene	ND		0.0148	1	06/27/2019 13:52	WG1302106





Collected date/time: 06/18/19 10:47

L1111579

Semi Volatile Organic Compounds (GC/MS) by Method 8270E-SIM

Analyte	Result (dry) mg/kg	Qualifier	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Benzo(a)pyrene	ND		0.0148	1	06/27/2019 13:52	<a href="#">WG1302016</a>
Benzo(b)fluoranthene	ND		0.0148	1	06/27/2019 13:52	<a href="#">WG1302016</a>
Benzo(g,h,i)perylene	ND		0.0148	1	06/27/2019 13:52	<a href="#">WG1302016</a>
Benzo(k)fluoranthene	ND		0.0148	1	06/27/2019 13:52	<a href="#">WG1302016</a>
Chrysene	ND		0.0148	1	06/27/2019 13:52	<a href="#">WG1302016</a>
Dibenz(a,h)anthracene	ND		0.0148	1	06/27/2019 13:52	<a href="#">WG1302016</a>
Fluoranthene	ND		0.0148	1	06/27/2019 13:52	<a href="#">WG1302016</a>
Fluorene	ND		0.0148	1	06/27/2019 13:52	<a href="#">WG1302016</a>
Indeno(1,2,3-cd)pyrene	ND		0.0148	1	06/27/2019 13:52	<a href="#">WG1302016</a>
Naphthalene	ND		0.0492	1	06/27/2019 13:52	<a href="#">WG1302016</a>
Phenanthrene	ND		0.0148	1	06/27/2019 13:52	<a href="#">WG1302016</a>
Pyrene	ND		0.0148	1	06/27/2019 13:52	<a href="#">WG1302016</a>
1-Methylnaphthalene	ND		0.0492	1	06/27/2019 13:52	<a href="#">WG1302016</a>
2-Methylnaphthalene	ND		0.0492	1	06/27/2019 13:52	<a href="#">WG1302016</a>
(S) p-Terphenyl-d14	43.4		23.0-120		06/27/2019 13:52	<a href="#">WG1302016</a>
(S) Nitrobenzene-d5	69.6		14.0-149		06/27/2019 13:52	<a href="#">WG1302016</a>
(S) 2-Fluorobiphenyl	24.2	<u>J2</u>	34.0-125		06/27/2019 13:52	<a href="#">WG1302016</a>

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc



Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	47.3		1	06/26/2019 14:16	<a href="#">WG1301897</a>

1 Cp

2 Tc

Wet Chemistry by Method 9012B

Analyte	Result (dry)	Qualifier	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg		date / time	
Cyanide	ND		0.528	1	07/02/2019 19:49	<a href="#">WG1304908</a>

3 Ss

4 Cn

Mercury by Method 7471B

Analyte	Result (dry)	Qualifier	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg		date / time	
Mercury	0.0544	<u>B</u>	0.0423	1	06/26/2019 12:29	<a href="#">WG1301944</a>

5 Sr

6 Qc

Metals (ICP) by Method 6010D

Analyte	Result (dry)	Qualifier	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg		date / time	
Aluminum	25600		21.1	1	06/27/2019 22:47	<a href="#">WG1301970</a>
Antimony	ND		4.23	1	06/27/2019 22:47	<a href="#">WG1301970</a>
Arsenic	ND		4.23	1	06/27/2019 22:47	<a href="#">WG1301970</a>
Barium	89.8		1.06	1	06/27/2019 22:47	<a href="#">WG1301970</a>
Beryllium	1.01		0.423	1	06/27/2019 22:47	<a href="#">WG1301970</a>
Cadmium	ND		1.06	1	06/27/2019 22:47	<a href="#">WG1301970</a>
Calcium	2800		211	1	06/27/2019 22:47	<a href="#">WG1301970</a>
Chromium	26.1		2.11	1	06/27/2019 22:47	<a href="#">WG1301970</a>
Cobalt	24.2		2.11	1	06/27/2019 22:47	<a href="#">WG1301970</a>
Copper	20.1		4.23	1	06/27/2019 22:47	<a href="#">WG1301970</a>
Iron	34400		21.1	1	06/27/2019 22:47	<a href="#">WG1301970</a>
Lead	13.6		1.06	1	06/27/2019 22:47	<a href="#">WG1301970</a>
Magnesium	1270		211	1	06/27/2019 22:47	<a href="#">WG1301970</a>
Manganese	413		2.11	1	06/27/2019 22:47	<a href="#">WG1301970</a>
Nickel	13.5		4.23	1	06/27/2019 22:47	<a href="#">WG1301970</a>
Potassium	744		211	1	06/27/2019 22:47	<a href="#">WG1301970</a>
Selenium	ND		4.23	1	06/27/2019 22:47	<a href="#">WG1301970</a>
Silver	ND		2.11	1	06/27/2019 22:47	<a href="#">WG1301970</a>
Sodium	ND		211	1	06/27/2019 22:47	<a href="#">WG1301970</a>
Thallium	ND		4.23	1	06/27/2019 22:47	<a href="#">WG1301970</a>
Vanadium	65.2		4.23	1	06/27/2019 22:47	<a href="#">WG1301970</a>
Zinc	72.4		10.6	1	06/27/2019 22:47	<a href="#">WG1301970</a>

7 Gl

8 Al

9 Sc

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result (dry)	Qualifier	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg		date / time	
Acetone	0.141		0.0528	1	06/26/2019 10:33	<a href="#">WG1302136</a>
Benzene	ND		0.00211	1	06/26/2019 10:33	<a href="#">WG1302136</a>
Bromochloromethane	ND		0.0106	1	06/26/2019 10:33	<a href="#">WG1302136</a>
Bromodichloromethane	ND		0.00528	1	06/26/2019 10:33	<a href="#">WG1302136</a>
Bromoform	ND		0.0528	1	06/26/2019 10:33	<a href="#">WG1302136</a>
Bromomethane	ND		0.0264	1	06/26/2019 10:33	<a href="#">WG1302136</a>
Carbon disulfide	ND		0.0264	1	06/26/2019 10:33	<a href="#">WG1302136</a>
Carbon tetrachloride	ND		0.0106	1	06/26/2019 10:33	<a href="#">WG1302136</a>
Chlorobenzene	ND		0.00528	1	06/26/2019 10:33	<a href="#">WG1302136</a>
Chlorodibromomethane	ND		0.00528	1	06/26/2019 10:33	<a href="#">WG1302136</a>
Chloroethane	ND		0.0106	1	06/26/2019 10:33	<a href="#">WG1302136</a>
Chloroform	ND		0.00528	1	06/26/2019 10:33	<a href="#">WG1302136</a>
Chloromethane	ND		0.0264	1	06/26/2019 10:33	<a href="#">WG1302136</a>



Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result (dry) mg/kg	Qualifier	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Cyclohexane	ND		0.00528	1	06/26/2019 10:33	WG1302136
1,2-Dibromo-3-Chloropropane	ND		0.0528	1	06/26/2019 10:33	WG1302136
1,2-Dibromoethane	ND		0.00528	1	06/26/2019 10:33	WG1302136
Dichlorodifluoromethane	ND	J3	0.00528	1	06/26/2019 10:33	WG1302136
1,1-Dichloroethane	ND		0.00528	1	06/26/2019 10:33	WG1302136
1,2-Dichloroethane	ND		0.00528	1	06/26/2019 10:33	WG1302136
1,2-Dichlorobenzene	ND		0.0106	1	06/26/2019 10:33	WG1302136
1,3-Dichlorobenzene	ND		0.0106	1	06/26/2019 10:33	WG1302136
1,4-Dichlorobenzene	ND		0.0106	1	06/26/2019 10:33	WG1302136
1,1-Dichloroethene	ND		0.00528	1	06/26/2019 10:33	WG1302136
cis-1,2-Dichloroethene	ND		0.00528	1	06/26/2019 10:33	WG1302136
trans-1,2-Dichloroethene	ND		0.0106	1	06/26/2019 10:33	WG1302136
1,2-Dichloropropane	ND		0.0106	1	06/26/2019 10:33	WG1302136
cis-1,3-Dichloropropene	ND		0.00528	1	06/26/2019 10:33	WG1302136
trans-1,3-Dichloropropene	ND		0.0106	1	06/26/2019 10:33	WG1302136
Ethylbenzene	ND		0.00528	1	06/26/2019 10:33	WG1302136
2-Hexanone	ND		0.0528	1	06/26/2019 10:33	WG1302136
Isopropylbenzene	ND		0.00528	1	06/26/2019 10:33	WG1302136
2-Butanone (MEK)	0.0757	B	0.0528	1	06/26/2019 10:33	WG1302136
Methyl Acetate	0.284		0.0106	1	06/26/2019 10:33	WG1302136
Methyl Cyclohexane	ND		0.0106	1	06/26/2019 10:33	WG1302136
Methylene Chloride	ND		0.0528	1	06/26/2019 10:33	WG1302136
4-Methyl-2-pentanone (MIBK)	ND		0.0528	1	06/26/2019 10:33	WG1302136
Methyl tert-butyl ether	ND		0.00211	1	06/26/2019 10:33	WG1302136
Styrene	ND		0.0264	1	06/26/2019 10:33	WG1302136
1,1,2,2-Tetrachloroethane	ND		0.00528	1	06/26/2019 10:33	WG1302136
Tetrachloroethene	ND		0.00528	1	06/26/2019 10:33	WG1302136
Toluene	ND		0.0106	1	06/26/2019 10:33	WG1302136
1,2,3-Trichlorobenzene	ND		0.00528	1	06/26/2019 10:33	WG1302136
1,2,4-Trichlorobenzene	ND		0.0264	1	06/26/2019 10:33	WG1302136
1,1,1-Trichloroethane	ND		0.00528	1	06/26/2019 10:33	WG1302136
1,1,2-Trichloroethane	ND		0.00528	1	06/26/2019 10:33	WG1302136
Trichloroethene	ND		0.00211	1	06/26/2019 10:33	WG1302136
Trichlorofluoromethane	ND		0.00528	1	06/26/2019 10:33	WG1302136
1,1,2-Trichlorotrifluoroethane	ND		0.00528	1	06/26/2019 10:33	WG1302136
Vinyl chloride	ND		0.00528	1	06/26/2019 10:33	WG1302136
Xylenes, Total	ND		0.0137	1	06/26/2019 10:33	WG1302136
(S) Toluene-d8	99.3		75.0-131		06/26/2019 10:33	WG1302136
(S) 4-Bromofluorobenzene	95.2		67.0-138		06/26/2019 10:33	WG1302136
(S) 1,2-Dichloroethane-d4	103		70.0-130		06/26/2019 10:33	WG1302136

1  
Cp

2  
Tc

3  
Ss

4  
Cn

5  
Sr

6  
Qc

7  
Gl

8  
Al

9  
Sc

Pesticides (GC) by Method 8081B

Analyte	Result (dry) mg/kg	Qualifier	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Aldrin	ND		0.0423	1	06/26/2019 18:37	WG1302000
Alpha BHC	ND		0.0423	1	06/26/2019 18:37	WG1302000
Beta BHC	ND		0.0423	1	06/26/2019 18:37	WG1302000
Delta BHC	ND		0.0423	1	06/26/2019 18:37	WG1302000
Gamma BHC	ND		0.0423	1	06/26/2019 18:37	WG1302000
Chlordane	ND		0.423	1	06/26/2019 18:37	WG1302000
4,4-DDD	ND		0.0423	1	06/26/2019 18:37	WG1302000
4,4-DDE	ND		0.0423	1	06/26/2019 18:37	WG1302000
4,4-DDT	ND		0.0423	1	06/26/2019 18:37	WG1302000
Dieldrin	ND		0.0423	1	06/26/2019 18:37	WG1302000
Endosulfan I	ND		0.0423	1	06/26/2019 18:37	WG1302000
Endosulfan II	ND		0.0423	1	06/26/2019 18:37	WG1302000



Collected date/time: 06/18/19 10:15

L1111579

Pesticides (GC) by Method 8081B

Analyte	Result (dry) mg/kg	Qualifier	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Endosulfan sulfate	ND		0.0423	1	06/26/2019 18:37	<a href="#">WG1302000</a>
Endrin	ND		0.0423	1	06/26/2019 18:37	<a href="#">WG1302000</a>
Endrin aldehyde	ND		0.0423	1	06/26/2019 18:37	<a href="#">WG1302000</a>
Endrin ketone	ND		0.0423	1	06/26/2019 18:37	<a href="#">WG1302000</a>
Heptachlor	ND		0.0423	1	06/26/2019 18:37	<a href="#">WG1302000</a>
Heptachlor epoxide	ND		0.0423	1	06/26/2019 18:37	<a href="#">WG1302000</a>
Hexachlorobenzene	ND		0.0423	1	06/26/2019 18:37	<a href="#">WG1302000</a>
Methoxychlor	ND		0.0423	1	06/26/2019 18:37	<a href="#">WG1302000</a>
Toxaphene	ND		0.845	1	06/26/2019 18:37	<a href="#">WG1302000</a>
(S) Decachlorobiphenyl	81.5		10.0-135		06/26/2019 18:37	<a href="#">WG1302000</a>
(S) Tetrachloro-m-xylene	88.9		10.0-139		06/26/2019 18:37	<a href="#">WG1302000</a>

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

Polychlorinated Biphenyls (GC) by Method 8082 A

Analyte	Result (dry) mg/kg	Qualifier	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
PCB 1016	ND	J4	0.0359	1	06/26/2019 18:48	<a href="#">WG1302000</a>
PCB 1221	ND		0.0359	1	06/26/2019 18:48	<a href="#">WG1302000</a>
PCB 1232	ND		0.0359	1	06/26/2019 18:48	<a href="#">WG1302000</a>
PCB 1242	ND		0.0359	1	06/26/2019 18:48	<a href="#">WG1302000</a>
PCB 1248	ND		0.0359	1	06/26/2019 18:48	<a href="#">WG1302000</a>
PCB 1254	ND		0.0359	1	06/26/2019 18:48	<a href="#">WG1302000</a>
PCB 1260	ND	J4	0.0359	1	06/26/2019 18:48	<a href="#">WG1302000</a>
(S) Decachlorobiphenyl	76.8		10.0-135		06/26/2019 18:48	<a href="#">WG1302000</a>
(S) Tetrachloro-m-xylene	81.2		10.0-139		06/26/2019 18:48	<a href="#">WG1302000</a>

Semi Volatile Organic Compounds (GC/MS) by Method 8270D

Analyte	Result (dry) mg/kg	Qualifier	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Acenaphthene	ND		0.0697	1	06/29/2019 02:31	<a href="#">WG1303241</a>
Acenaphthylene	ND		0.0697	1	06/29/2019 02:31	<a href="#">WG1303241</a>
Acetophenone	ND		0.704	1	06/29/2019 02:31	<a href="#">WG1303241</a>
Anthracene	ND		0.0697	1	06/29/2019 02:31	<a href="#">WG1303241</a>
Atrazine	ND		0.704	1	06/29/2019 02:31	<a href="#">WG1303241</a>
Benzaldehyde	ND		0.704	1	06/29/2019 02:31	<a href="#">WG1303241</a>
Benzo(a)anthracene	ND		0.0697	1	06/29/2019 02:31	<a href="#">WG1303241</a>
Benzo(b)fluoranthene	ND		0.0697	1	06/29/2019 02:31	<a href="#">WG1303241</a>
Benzo(k)fluoranthene	ND		0.0697	1	06/29/2019 02:31	<a href="#">WG1303241</a>
Benzo(g,h,i)perylene	ND		0.0697	1	06/29/2019 02:31	<a href="#">WG1303241</a>
Benzo(a)pyrene	ND		0.0697	1	06/29/2019 02:31	<a href="#">WG1303241</a>
Biphenyl	ND		0.704	1	06/29/2019 02:31	<a href="#">WG1303241</a>
Bis(2-chloroethoxy)methane	ND	J4	0.704	1	06/29/2019 02:31	<a href="#">WG1303241</a>
Bis(2-chloroethyl)ether	ND		0.704	1	06/29/2019 02:31	<a href="#">WG1303241</a>
Bis(2-chloroisopropyl)ether	ND	J4	0.704	1	06/29/2019 02:31	<a href="#">WG1303241</a>
4-Bromophenyl-phenylether	ND		0.704	1	06/29/2019 02:31	<a href="#">WG1303241</a>
Caprolactam	ND		0.704	1	06/29/2019 02:31	<a href="#">WG1303241</a>
Carbazole	ND		0.704	1	06/29/2019 02:31	<a href="#">WG1303241</a>
4-Chloroaniline	ND	J4	0.704	1	06/29/2019 02:31	<a href="#">WG1303241</a>
2-Chloronaphthalene	ND		0.0697	1	06/29/2019 02:31	<a href="#">WG1303241</a>
4-Chlorophenyl-phenylether	ND		0.704	1	06/29/2019 02:31	<a href="#">WG1303241</a>
Chrysene	ND		0.0697	1	06/29/2019 02:31	<a href="#">WG1303241</a>
Dibenz(a,h)anthracene	ND		0.0697	1	06/29/2019 02:31	<a href="#">WG1303241</a>
Dibenzofuran	ND		0.704	1	06/29/2019 02:31	<a href="#">WG1303241</a>
3,3-Dichlorobenzidine	ND		0.704	1	06/29/2019 02:31	<a href="#">WG1303241</a>
2,4-Dinitrotoluene	ND		0.704	1	06/29/2019 02:31	<a href="#">WG1303241</a>
2,6-Dinitrotoluene	ND		0.704	1	06/29/2019 02:31	<a href="#">WG1303241</a>



Collected date/time: 06/18/19 10:15

L111579

Semi Volatile Organic Compounds (GC/MS) by Method 8270D

Analyte	Result (dry) mg/kg	Qualifier	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Fluoranthene	ND		0.0697	1	06/29/2019 02:31	WG1303241
Fluorene	ND		0.0697	1	06/29/2019 02:31	WG1303241
Hexachlorobenzene	ND		0.704	1	06/29/2019 02:31	WG1303241
Hexachloro-1,3-butadiene	ND	J4	0.704	1	06/29/2019 02:31	WG1303241
Hexachlorocyclopentadiene	ND	JO	0.704	1	06/29/2019 02:31	WG1303241
Hexachloroethane	ND		0.704	1	06/29/2019 02:31	WG1303241
Indeno(1,2,3-cd)pyrene	ND		0.0697	1	06/29/2019 02:31	WG1303241
Isophorone	ND	J4	0.704	1	06/29/2019 02:31	WG1303241
2-Methylnaphthalene	ND	J4	0.0697	1	06/29/2019 02:31	WG1303241
Naphthalene	ND	J4	0.0697	1	06/29/2019 02:31	WG1303241
2-Nitroaniline	ND		0.704	1	06/29/2019 02:31	WG1303241
3-Nitroaniline	ND		0.704	1	06/29/2019 02:31	WG1303241
4-Nitroaniline	ND		0.704	1	06/29/2019 02:31	WG1303241
Nitrobenzene	ND	J4	0.704	1	06/29/2019 02:31	WG1303241
n-Nitrosodiphenylamine	ND		0.704	1	06/29/2019 02:31	WG1303241
n-Nitrosodi-n-propylamine	ND		0.704	1	06/29/2019 02:31	WG1303241
Phenanthrene	ND		0.0697	1	06/29/2019 02:31	WG1303241
Benzylbutyl phthalate	ND		0.704	1	06/29/2019 02:31	WG1303241
Bis(2-ethylhexyl)phthalate	ND		0.704	1	06/29/2019 02:31	WG1303241
Di-n-butyl phthalate	ND		0.704	1	06/29/2019 02:31	WG1303241
Diethyl phthalate	ND		0.704	1	06/29/2019 02:31	WG1303241
Dimethyl phthalate	ND		0.704	1	06/29/2019 02:31	WG1303241
Di-n-octyl phthalate	ND		0.704	1	06/29/2019 02:31	WG1303241
Pyrene	ND		0.0697	1	06/29/2019 02:31	WG1303241
1,2,4,5-Tetrachlorobenzene	ND		0.704	1	06/29/2019 02:31	WG1303241
4-Chloro-3-methylphenol	ND		0.704	1	06/29/2019 02:31	WG1303241
2-Chlorophenol	ND		0.704	1	06/29/2019 02:31	WG1303241
2-Methylphenol	ND		0.704	1	06/29/2019 02:31	WG1303241
3&4-Methyl Phenol	ND		0.704	1	06/29/2019 02:31	WG1303241
2,4-Dichlorophenol	ND		0.704	1	06/29/2019 02:31	WG1303241
2,4-Dimethylphenol	ND	JO J4	0.704	1	06/29/2019 02:31	WG1303241
4,6-Dinitro-2-methylphenol	ND		0.704	1	06/29/2019 02:31	WG1303241
2,4-Dinitrophenol	ND		0.704	1	06/29/2019 02:31	WG1303241
2-Nitrophenol	ND		0.704	1	06/29/2019 02:31	WG1303241
4-Nitrophenol	ND		0.704	1	06/29/2019 02:31	WG1303241
Pentachlorophenol	ND		0.704	1	06/29/2019 02:31	WG1303241
Phenol	ND		0.704	1	06/29/2019 02:31	WG1303241
2,4,5-Trichlorophenol	ND		0.704	1	06/29/2019 02:31	WG1303241
2,4,6-Trichlorophenol	ND		0.704	1	06/29/2019 02:31	WG1303241
(S) 2-Fluorophenol	39.5		12.0-120		06/29/2019 02:31	WG1303241
(S) Phenol-d5	35.5		10.0-120		06/29/2019 02:31	WG1303241
(S) Nitrobenzene-d5	27.6		10.0-122		06/29/2019 02:31	WG1303241
(S) 2-Fluorobiphenyl	25.9		15.0-120		06/29/2019 02:31	WG1303241
(S) 2,4,6-Tribromophenol	26.6		10.0-127		06/29/2019 02:31	WG1303241
(S) p-Terphenyl-d14	30.5		10.0-120		06/29/2019 02:31	WG1303241

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

Semi Volatile Organic Compounds (GC/MS) by Method 8270E-SIM

Analyte	Result (dry) mg/kg	Qualifier	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Anthracene	ND	J3	0.0127	1	06/27/2019 14:13	WG1302016
Acenaphthene	ND		0.0127	1	06/27/2019 14:13	WG1302016
Acenaphthylene	ND		0.0127	1	06/27/2019 14:13	WG1302016
Benzo(a)anthracene	ND	J3	0.0127	1	06/27/2019 14:13	WG1302016
Benzo(a)pyrene	ND	J3	0.0127	1	06/27/2019 14:13	WG1302016
Benzo(b)fluoranthene	ND	J3	0.0127	1	06/27/2019 14:13	WG1302016
Benzo(g,h,i)perylene	ND	J3	0.0127	1	06/27/2019 14:13	WG1302016





Collected date/time: 06/18/19 10:15

L1111579

Semi Volatile Organic Compounds (GC/MS) by Method 8270E-SIM

Analyte	Result (dry) mg/kg	Qualifier	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Benzo(k)fluoranthene	ND	<u>J3</u>	0.0127	1	06/27/2019 14:13	<a href="#">WG1302016</a>
Chrysene	ND		0.0127	1	06/27/2019 14:13	<a href="#">WG1302016</a>
Dibenz(a,h)anthracene	ND		0.0127	1	06/27/2019 14:13	<a href="#">WG1302016</a>
Fluoranthene	ND	<u>J3</u>	0.0127	1	06/27/2019 14:13	<a href="#">WG1302016</a>
Fluorene	ND	<u>J3</u>	0.0127	1	06/27/2019 14:13	<a href="#">WG1302016</a>
Indeno(1,2,3-cd)pyrene	ND	<u>J3</u>	0.0127	1	06/27/2019 14:13	<a href="#">WG1302016</a>
Naphthalene	ND		0.0423	1	06/27/2019 14:13	<a href="#">WG1302016</a>
Phenanthrene	ND	<u>J3</u>	0.0127	1	06/27/2019 14:13	<a href="#">WG1302016</a>
Pyrene	ND	<u>J3</u>	0.0127	1	06/27/2019 14:13	<a href="#">WG1302016</a>
1-Methylnaphthalene	ND		0.0423	1	06/27/2019 14:13	<a href="#">WG1302016</a>
2-Methylnaphthalene	ND		0.0423	1	06/27/2019 14:13	<a href="#">WG1302016</a>
(S) p-Terphenyl-d14	35.9		23.0-120		06/27/2019 14:13	<a href="#">WG1302016</a>
(S) Nitrobenzene-d5	90.1		14.0-149		06/27/2019 14:13	<a href="#">WG1302016</a>
(S) 2-Fluorobiphenyl	33.5	<u>J2</u>	34.0-125		06/27/2019 14:13	<a href="#">WG1302016</a>

- 1 Cp
- 2 Tc
- 3 Ss
- 4 Cn
- 5 Sr
- 6 Qc
- 7 Gl
- 8 Al
- 9 Sc



Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	74.4		1	06/26/2019 14:16	<a href="#">WG1301897</a>

Wet Chemistry by Method 9012B

Analyte	Result (dry)	Qualifier	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg		date / time	
Cyanide	ND		0.336	1	07/02/2019 19:50	<a href="#">WG1304908</a>

Mercury by Method 7471B

Analyte	Result (dry)	Qualifier	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg		date / time	
Mercury	0.0367	<u>B</u>	0.0269	1	06/26/2019 12:31	<a href="#">WG1301944</a>

Metals (ICP) by Method 6010D

Analyte	Result (dry)	Qualifier	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg		date / time	
Aluminum	7830		13.4	1	06/27/2019 22:49	<a href="#">WG1301970</a>
Antimony	ND		2.69	1	06/27/2019 22:49	<a href="#">WG1301970</a>
Arsenic	ND		2.69	1	06/27/2019 22:49	<a href="#">WG1301970</a>
Barium	37.4		0.672	1	06/27/2019 22:49	<a href="#">WG1301970</a>
Beryllium	0.354		0.269	1	06/27/2019 22:49	<a href="#">WG1301970</a>
Cadmium	ND		0.672	1	06/27/2019 22:49	<a href="#">WG1301970</a>
Calcium	2480		134	1	06/27/2019 22:49	<a href="#">WG1301970</a>
Chromium	7.74		1.34	1	06/27/2019 22:49	<a href="#">WG1301970</a>
Cobalt	6.85		1.34	1	06/27/2019 22:49	<a href="#">WG1301970</a>
Copper	4.90		2.69	1	06/27/2019 22:49	<a href="#">WG1301970</a>
Iron	5500		13.4	1	06/27/2019 22:49	<a href="#">WG1301970</a>
Lead	3.13		0.672	1	06/27/2019 22:49	<a href="#">WG1301970</a>
Magnesium	576		134	1	06/27/2019 22:49	<a href="#">WG1301970</a>
Manganese	230		1.34	1	06/27/2019 22:49	<a href="#">WG1301970</a>
Nickel	4.07		2.69	1	06/27/2019 22:49	<a href="#">WG1301970</a>
Potassium	420		134	1	06/27/2019 22:49	<a href="#">WG1301970</a>
Selenium	ND		2.69	1	06/27/2019 22:49	<a href="#">WG1301970</a>
Silver	ND		1.34	1	06/27/2019 22:49	<a href="#">WG1301970</a>
Sodium	ND		134	1	06/27/2019 22:49	<a href="#">WG1301970</a>
Thallium	ND		2.69	1	06/27/2019 22:49	<a href="#">WG1301970</a>
Vanadium	15.6		2.69	1	06/27/2019 22:49	<a href="#">WG1301970</a>
Zinc	14.1		6.72	1	06/27/2019 22:49	<a href="#">WG1301970</a>

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result (dry)	Qualifier	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg		date / time	
Acetone	0.0564		0.0336	1	06/26/2019 10:52	<a href="#">WG1302136</a>
Benzene	ND		0.00134	1	06/26/2019 10:52	<a href="#">WG1302136</a>
Bromochloromethane	ND		0.00672	1	06/26/2019 10:52	<a href="#">WG1302136</a>
Bromodichloromethane	ND		0.00336	1	06/26/2019 10:52	<a href="#">WG1302136</a>
Bromoform	ND		0.0336	1	06/26/2019 10:52	<a href="#">WG1302136</a>
Bromomethane	ND		0.0168	1	06/26/2019 10:52	<a href="#">WG1302136</a>
Carbon disulfide	0.0457		0.0168	1	06/26/2019 10:52	<a href="#">WG1302136</a>
Carbon tetrachloride	ND		0.00672	1	06/26/2019 10:52	<a href="#">WG1302136</a>
Chlorobenzene	ND		0.00336	1	06/26/2019 10:52	<a href="#">WG1302136</a>
Chlorodibromomethane	ND		0.00336	1	06/26/2019 10:52	<a href="#">WG1302136</a>
Chloroethane	ND		0.00672	1	06/26/2019 10:52	<a href="#">WG1302136</a>
Chloroform	ND		0.00336	1	06/26/2019 10:52	<a href="#">WG1302136</a>
Chloromethane	ND		0.0168	1	06/26/2019 10:52	<a href="#">WG1302136</a>

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc



Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result (dry) mg/kg	Qualifier	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Cyclohexane	ND		0.00336	1	06/26/2019 10:52	WG1302136
1,2-Dibromo-3-Chloropropane	ND		0.0336	1	06/26/2019 10:52	WG1302136
1,2-Dibromoethane	ND		0.00336	1	06/26/2019 10:52	WG1302136
Dichlorodifluoromethane	ND	J3	0.00336	1	06/26/2019 10:52	WG1302136
1,1-Dichloroethane	ND		0.00336	1	06/26/2019 10:52	WG1302136
1,2-Dichloroethane	ND		0.00336	1	06/26/2019 10:52	WG1302136
1,2-Dichlorobenzene	ND		0.00672	1	06/26/2019 10:52	WG1302136
1,3-Dichlorobenzene	ND		0.00672	1	06/26/2019 10:52	WG1302136
1,4-Dichlorobenzene	ND		0.00672	1	06/26/2019 10:52	WG1302136
1,1-Dichloroethene	ND		0.00336	1	06/26/2019 10:52	WG1302136
cis-1,2-Dichloroethene	ND		0.00336	1	06/26/2019 10:52	WG1302136
trans-1,2-Dichloroethene	ND		0.00672	1	06/26/2019 10:52	WG1302136
1,2-Dichloropropane	ND		0.00672	1	06/26/2019 10:52	WG1302136
cis-1,3-Dichloropropene	ND		0.00336	1	06/26/2019 10:52	WG1302136
trans-1,3-Dichloropropene	ND		0.00672	1	06/26/2019 10:52	WG1302136
Ethylbenzene	ND		0.00336	1	06/26/2019 10:52	WG1302136
2-Hexanone	ND		0.0336	1	06/26/2019 10:52	WG1302136
Isopropylbenzene	ND		0.00336	1	06/26/2019 10:52	WG1302136
2-Butanone (MEK)	0.0352	B	0.0336	1	06/26/2019 10:52	WG1302136
Methyl Acetate	0.233		0.00672	1	06/26/2019 10:52	WG1302136
Methyl Cyclohexane	ND		0.00672	1	06/26/2019 10:52	WG1302136
Methylene Chloride	ND		0.0336	1	06/26/2019 10:52	WG1302136
4-Methyl-2-pentanone (MIBK)	ND		0.0336	1	06/26/2019 10:52	WG1302136
Methyl tert-butyl ether	ND		0.00134	1	06/26/2019 10:52	WG1302136
Styrene	ND		0.0168	1	06/26/2019 10:52	WG1302136
1,1,2,2-Tetrachloroethane	ND		0.00336	1	06/26/2019 10:52	WG1302136
Tetrachloroethene	ND		0.00336	1	06/26/2019 10:52	WG1302136
Toluene	ND		0.00672	1	06/26/2019 10:52	WG1302136
1,2,3-Trichlorobenzene	ND		0.00336	1	06/26/2019 10:52	WG1302136
1,2,4-Trichlorobenzene	ND		0.0168	1	06/26/2019 10:52	WG1302136
1,1,1-Trichloroethane	ND		0.00336	1	06/26/2019 10:52	WG1302136
1,1,2-Trichloroethane	ND		0.00336	1	06/26/2019 10:52	WG1302136
Trichloroethene	ND		0.00134	1	06/26/2019 10:52	WG1302136
Trichlorofluoromethane	ND		0.00336	1	06/26/2019 10:52	WG1302136
1,1,2-Trichlorotrifluoroethane	ND		0.00336	1	06/26/2019 10:52	WG1302136
Vinyl chloride	ND		0.00336	1	06/26/2019 10:52	WG1302136
Xylenes, Total	ND		0.00873	1	06/26/2019 10:52	WG1302136
(S) Toluene-d8	102		75.0-131		06/26/2019 10:52	WG1302136
(S) 4-Bromofluorobenzene	95.8		67.0-138		06/26/2019 10:52	WG1302136
(S) 1,2-Dichloroethane-d4	103		70.0-130		06/26/2019 10:52	WG1302136

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

Pesticides (GC) by Method 8081B

Analyte	Result (dry) mg/kg	Qualifier	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Aldrin	ND		0.0269	1	06/26/2019 18:50	WG1302000
Alpha BHC	ND		0.0269	1	06/26/2019 18:50	WG1302000
Beta BHC	ND		0.0269	1	06/26/2019 18:50	WG1302000
Delta BHC	ND		0.0269	1	06/26/2019 18:50	WG1302000
Gamma BHC	ND		0.0269	1	06/26/2019 18:50	WG1302000
Chlordane	ND		0.269	1	06/26/2019 18:50	WG1302000
4,4-DDD	ND		0.0269	1	06/26/2019 18:50	WG1302000
4,4-DDE	ND		0.0269	1	06/26/2019 18:50	WG1302000
4,4-DDT	ND		0.0269	1	06/26/2019 18:50	WG1302000
Dieldrin	ND		0.0269	1	06/26/2019 18:50	WG1302000
Endosulfan I	ND		0.0269	1	06/26/2019 18:50	WG1302000
Endosulfan II	ND		0.0269	1	06/26/2019 18:50	WG1302000



Pesticides (GC) by Method 8081B

Analyte	Result (dry) mg/kg	Qualifier	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Endosulfan sulfate	ND		0.0269	1	06/26/2019 18:50	<a href="#">WG1302000</a>
Endrin	ND		0.0269	1	06/26/2019 18:50	<a href="#">WG1302000</a>
Endrin aldehyde	ND		0.0269	1	06/26/2019 18:50	<a href="#">WG1302000</a>
Endrin ketone	ND		0.0269	1	06/26/2019 18:50	<a href="#">WG1302000</a>
Heptachlor	ND		0.0269	1	06/26/2019 18:50	<a href="#">WG1302000</a>
Heptachlor epoxide	ND		0.0269	1	06/26/2019 18:50	<a href="#">WG1302000</a>
Hexachlorobenzene	ND		0.0269	1	06/26/2019 18:50	<a href="#">WG1302000</a>
Methoxychlor	ND		0.0269	1	06/26/2019 18:50	<a href="#">WG1302000</a>
Toxaphene	ND		0.537	1	06/26/2019 18:50	<a href="#">WG1302000</a>
(S) Decachlorobiphenyl	85.1		10.0-135		06/26/2019 18:50	<a href="#">WG1302000</a>
(S) Tetrachloro-m-xylene	91.8		10.0-139		06/26/2019 18:50	<a href="#">WG1302000</a>

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

Polychlorinated Biphenyls (GC) by Method 8082 A

Analyte	Result (dry) mg/kg	Qualifier	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
PCB 1016	ND	J4	0.0228	1	06/26/2019 19:00	<a href="#">WG1302000</a>
PCB 1221	ND		0.0228	1	06/26/2019 19:00	<a href="#">WG1302000</a>
PCB 1232	ND		0.0228	1	06/26/2019 19:00	<a href="#">WG1302000</a>
PCB 1242	ND		0.0228	1	06/26/2019 19:00	<a href="#">WG1302000</a>
PCB 1248	ND		0.0228	1	06/26/2019 19:00	<a href="#">WG1302000</a>
PCB 1254	ND		0.0228	1	06/26/2019 19:00	<a href="#">WG1302000</a>
PCB 1260	ND	J4	0.0228	1	06/26/2019 19:00	<a href="#">WG1302000</a>
(S) Decachlorobiphenyl	86.9		10.0-135		06/26/2019 19:00	<a href="#">WG1302000</a>
(S) Tetrachloro-m-xylene	92.4		10.0-139		06/26/2019 19:00	<a href="#">WG1302000</a>

Semi Volatile Organic Compounds (GC/MS) by Method 8270D

Analyte	Result (dry) mg/kg	Qualifier	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Acenaphthene	ND		0.443	10	06/29/2019 06:23	<a href="#">WG1303241</a>
Acenaphthylene	ND		0.443	10	06/29/2019 06:23	<a href="#">WG1303241</a>
Acetophenone	ND		4.47	10	06/29/2019 06:23	<a href="#">WG1303241</a>
Anthracene	ND		0.443	10	06/29/2019 06:23	<a href="#">WG1303241</a>
Atrazine	ND		4.47	10	06/29/2019 06:23	<a href="#">WG1303241</a>
Benzaldehyde	ND		4.47	10	06/29/2019 06:23	<a href="#">WG1303241</a>
Benzo(a)anthracene	ND		0.443	10	06/29/2019 06:23	<a href="#">WG1303241</a>
Benzo(b)fluoranthene	ND		0.443	10	06/29/2019 06:23	<a href="#">WG1303241</a>
Benzo(k)fluoranthene	ND		0.443	10	06/29/2019 06:23	<a href="#">WG1303241</a>
Benzo(g,h,i)perylene	ND		0.443	10	06/29/2019 06:23	<a href="#">WG1303241</a>
Benzo(a)pyrene	ND		0.443	10	06/29/2019 06:23	<a href="#">WG1303241</a>
Biphenyl	ND		4.47	10	06/29/2019 06:23	<a href="#">WG1303241</a>
Bis(2-chloroethoxy)methane	ND	J4	4.47	10	06/29/2019 06:23	<a href="#">WG1303241</a>
Bis(2-chloroethyl)ether	ND		4.47	10	06/29/2019 06:23	<a href="#">WG1303241</a>
Bis(2-chloroisopropyl)ether	ND	J4	4.47	10	06/29/2019 06:23	<a href="#">WG1303241</a>
4-Bromophenyl-phenylether	ND		4.47	10	06/29/2019 06:23	<a href="#">WG1303241</a>
Caprolactam	ND		4.47	10	06/29/2019 06:23	<a href="#">WG1303241</a>
Carbazole	ND		4.47	10	06/29/2019 06:23	<a href="#">WG1303241</a>
4-Chloroaniline	ND	J4	4.47	10	06/29/2019 06:23	<a href="#">WG1303241</a>
2-Chloronaphthalene	ND		0.443	10	06/29/2019 06:23	<a href="#">WG1303241</a>
4-Chlorophenyl-phenylether	ND		4.47	10	06/29/2019 06:23	<a href="#">WG1303241</a>
Chrysene	ND		0.443	10	06/29/2019 06:23	<a href="#">WG1303241</a>
Dibenz(a,h)anthracene	ND		0.443	10	06/29/2019 06:23	<a href="#">WG1303241</a>
Dibenzofuran	ND		4.47	10	06/29/2019 06:23	<a href="#">WG1303241</a>
3,3-Dichlorobenzidine	ND		4.47	10	06/29/2019 06:23	<a href="#">WG1303241</a>
2,4-Dinitrotoluene	ND		4.47	10	06/29/2019 06:23	<a href="#">WG1303241</a>
2,6-Dinitrotoluene	ND		4.47	10	06/29/2019 06:23	<a href="#">WG1303241</a>



Collected date/time: 06/18/19 12:50

L111579

Semi Volatile Organic Compounds (GC/MS) by Method 8270D

Analyte	Result (dry) mg/kg	Qualifier	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Fluoranthene	ND		0.443	10	06/29/2019 06:23	WG1303241
Fluorene	ND		0.443	10	06/29/2019 06:23	WG1303241
Hexachlorobenzene	ND		4.47	10	06/29/2019 06:23	WG1303241
Hexachloro-1,3-butadiene	ND	J4	4.47	10	06/29/2019 06:23	WG1303241
Hexachlorocyclopentadiene	ND	JO	4.47	10	06/29/2019 06:23	WG1303241
Hexachloroethane	ND		4.47	10	06/29/2019 06:23	WG1303241
Indeno(1,2,3-cd)pyrene	ND		0.443	10	06/29/2019 06:23	WG1303241
Isophorone	ND	J4	4.47	10	06/29/2019 06:23	WG1303241
2-Methylnaphthalene	ND	J4	0.443	10	06/29/2019 06:23	WG1303241
Naphthalene	ND	J4	0.443	10	06/29/2019 06:23	WG1303241
2-Nitroaniline	ND		4.47	10	06/29/2019 06:23	WG1303241
3-Nitroaniline	ND		4.47	10	06/29/2019 06:23	WG1303241
4-Nitroaniline	ND		4.47	10	06/29/2019 06:23	WG1303241
Nitrobenzene	ND	J4	4.47	10	06/29/2019 06:23	WG1303241
n-Nitrosodiphenylamine	ND		4.47	10	06/29/2019 06:23	WG1303241
n-Nitrosodi-n-propylamine	ND		4.47	10	06/29/2019 06:23	WG1303241
Phenanthrene	ND		0.443	10	06/29/2019 06:23	WG1303241
Benzylbutyl phthalate	ND		4.47	10	06/29/2019 06:23	WG1303241
Bis(2-ethylhexyl)phthalate	ND		4.47	10	06/29/2019 06:23	WG1303241
Di-n-butyl phthalate	ND		4.47	10	06/29/2019 06:23	WG1303241
Diethyl phthalate	ND		4.47	10	06/29/2019 06:23	WG1303241
Dimethyl phthalate	ND		4.47	10	06/29/2019 06:23	WG1303241
Di-n-octyl phthalate	ND		4.47	10	06/29/2019 06:23	WG1303241
Pyrene	ND		0.443	10	06/29/2019 06:23	WG1303241
1,2,4,5-Tetrachlorobenzene	ND		4.47	10	06/29/2019 06:23	WG1303241
4-Chloro-3-methylphenol	ND		4.47	10	06/29/2019 06:23	WG1303241
2-Chlorophenol	ND		4.47	10	06/29/2019 06:23	WG1303241
2-Methylphenol	ND		4.47	10	06/29/2019 06:23	WG1303241
3&4-Methyl Phenol	ND		4.47	10	06/29/2019 06:23	WG1303241
2,4-Dichlorophenol	ND		4.47	10	06/29/2019 06:23	WG1303241
2,4-Dimethylphenol	ND	JO J4	4.47	10	06/29/2019 06:23	WG1303241
4,6-Dinitro-2-methylphenol	ND		4.47	10	06/29/2019 06:23	WG1303241
2,4-Dinitrophenol	ND		4.47	10	06/29/2019 06:23	WG1303241
2-Nitrophenol	ND		4.47	10	06/29/2019 06:23	WG1303241
4-Nitrophenol	ND		4.47	10	06/29/2019 06:23	WG1303241
Pentachlorophenol	ND		4.47	10	06/29/2019 06:23	WG1303241
Phenol	ND		4.47	10	06/29/2019 06:23	WG1303241
2,4,5-Trichlorophenol	ND		4.47	10	06/29/2019 06:23	WG1303241
2,4,6-Trichlorophenol	ND		4.47	10	06/29/2019 06:23	WG1303241
(S) 2-Fluorophenol	102		12.0-120		06/29/2019 06:23	WG1303241
(S) Phenol-d5	93.1		10.0-120		06/29/2019 06:23	WG1303241
(S) Nitrobenzene-d5	89.3		10.0-122		06/29/2019 06:23	WG1303241
(S) 2-Fluorobiphenyl	86.9		15.0-120		06/29/2019 06:23	WG1303241
(S) 2,4,6-Tribromophenol	74.8		10.0-127		06/29/2019 06:23	WG1303241
(S) p-Terphenyl-d14	92.1		10.0-120		06/29/2019 06:23	WG1303241

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

Sample Narrative:

L111579-03 WG1303241: Dilution due to matrix impact during extract concentration procedure

Semi Volatile Organic Compounds (GC/MS) by Method 8270E-SIM

Analyte	Result (dry) mg/kg	Qualifier	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Anthracene	ND		0.00806	1	06/27/2019 15:19	WG1302016
Acenaphthene	ND		0.00806	1	06/27/2019 15:19	WG1302016
Acenaphthylene	ND		0.00806	1	06/27/2019 15:19	WG1302016
Benzo(a)anthracene	ND		0.00806	1	06/27/2019 15:19	WG1302016





Collected date/time: 06/18/19 12:50

L1111579

Semi Volatile Organic Compounds (GC/MS) by Method 8270E-SIM

Analyte	Result (dry) mg/kg	Qualifier	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Benzo(a)pyrene	ND		0.00806	1	06/27/2019 15:19	<a href="#">WG1302016</a>
Benzo(b)fluoranthene	ND		0.00806	1	06/27/2019 15:19	<a href="#">WG1302016</a>
Benzo(g,h,i)perylene	ND		0.00806	1	06/27/2019 15:19	<a href="#">WG1302016</a>
Benzo(k)fluoranthene	ND		0.00806	1	06/27/2019 15:19	<a href="#">WG1302016</a>
Chrysene	ND		0.00806	1	06/27/2019 15:19	<a href="#">WG1302016</a>
Dibenz(a,h)anthracene	ND		0.00806	1	06/27/2019 15:19	<a href="#">WG1302016</a>
Fluoranthene	ND		0.00806	1	06/27/2019 15:19	<a href="#">WG1302016</a>
Fluorene	ND		0.00806	1	06/27/2019 15:19	<a href="#">WG1302016</a>
Indeno(1,2,3-cd)pyrene	ND		0.00806	1	06/27/2019 15:19	<a href="#">WG1302016</a>
Naphthalene	ND		0.0269	1	06/27/2019 15:19	<a href="#">WG1302016</a>
Phenanthrene	ND		0.00806	1	06/27/2019 15:19	<a href="#">WG1302016</a>
Pyrene	ND		0.00806	1	06/27/2019 15:19	<a href="#">WG1302016</a>
1-Methylnaphthalene	ND		0.0269	1	06/27/2019 15:19	<a href="#">WG1302016</a>
2-Methylnaphthalene	ND		0.0269	1	06/27/2019 15:19	<a href="#">WG1302016</a>
(S) p-Terphenyl-d14	33.8		23.0-120		06/27/2019 15:19	<a href="#">WG1302016</a>
(S) Nitrobenzene-d5	72.9		14.0-149		06/27/2019 15:19	<a href="#">WG1302016</a>
(S) 2-Fluorobiphenyl	32.2	<u>J2</u>	34.0-125		06/27/2019 15:19	<a href="#">WG1302016</a>

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc



Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	75.9		1	06/26/2019 14:16	<a href="#">WG1301897</a>

Wet Chemistry by Method 9012B

Analyte	Result (dry)	Qualifier	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg		date / time	
Cyanide	ND		0.329	1	07/02/2019 19:52	<a href="#">WG1304908</a>

Mercury by Method 7471B

Analyte	Result (dry)	Qualifier	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg		date / time	
Mercury	0.0453	<u>B</u>	0.0264	1	06/26/2019 12:33	<a href="#">WG1301944</a>

Metals (ICP) by Method 6010D

Analyte	Result (dry)	Qualifier	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg		date / time	
Aluminum	27600		13.2	1	06/27/2019 22:52	<a href="#">WG1301970</a>
Antimony	ND		2.64	1	06/27/2019 22:52	<a href="#">WG1301970</a>
Arsenic	ND		2.64	1	06/27/2019 22:52	<a href="#">WG1301970</a>
Barium	109		0.659	1	06/27/2019 22:52	<a href="#">WG1301970</a>
Beryllium	1.20		0.264	1	06/27/2019 22:52	<a href="#">WG1301970</a>
Cadmium	ND		0.659	1	06/27/2019 22:52	<a href="#">WG1301970</a>
Calcium	1150		132	1	06/27/2019 22:52	<a href="#">WG1301970</a>
Chromium	30.0		1.32	1	06/27/2019 22:52	<a href="#">WG1301970</a>
Cobalt	12.1		1.32	1	06/27/2019 22:52	<a href="#">WG1301970</a>
Copper	16.6		2.64	1	06/27/2019 22:52	<a href="#">WG1301970</a>
Iron	29100		13.2	1	06/27/2019 22:52	<a href="#">WG1301970</a>
Lead	9.42		0.659	1	06/27/2019 22:52	<a href="#">WG1301970</a>
Magnesium	4450		132	1	06/27/2019 22:52	<a href="#">WG1301970</a>
Manganese	292		1.32	1	06/27/2019 22:52	<a href="#">WG1301970</a>
Nickel	17.1		2.64	1	06/27/2019 22:52	<a href="#">WG1301970</a>
Potassium	2400		132	1	06/27/2019 22:52	<a href="#">WG1301970</a>
Selenium	ND		2.64	1	06/27/2019 22:52	<a href="#">WG1301970</a>
Silver	ND		1.32	1	06/27/2019 22:52	<a href="#">WG1301970</a>
Sodium	216	<u>B</u>	132	1	06/27/2019 22:52	<a href="#">WG1301970</a>
Thallium	ND		2.64	1	06/27/2019 22:52	<a href="#">WG1301970</a>
Vanadium	62.6		2.64	1	06/27/2019 22:52	<a href="#">WG1301970</a>
Zinc	51.0		6.59	1	06/27/2019 22:52	<a href="#">WG1301970</a>

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result (dry)	Qualifier	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg		date / time	
Acetone	ND		0.0329	1	06/26/2019 11:11	<a href="#">WG1302136</a>
Benzene	ND		0.00132	1	06/26/2019 11:11	<a href="#">WG1302136</a>
Bromochloromethane	ND		0.00659	1	06/26/2019 11:11	<a href="#">WG1302136</a>
Bromodichloromethane	ND		0.00329	1	06/26/2019 11:11	<a href="#">WG1302136</a>
Bromoform	ND		0.0329	1	06/26/2019 11:11	<a href="#">WG1302136</a>
Bromomethane	ND		0.0165	1	06/26/2019 11:11	<a href="#">WG1302136</a>
Carbon disulfide	ND		0.0165	1	06/26/2019 11:11	<a href="#">WG1302136</a>
Carbon tetrachloride	ND		0.00659	1	06/26/2019 11:11	<a href="#">WG1302136</a>
Chlorobenzene	ND		0.00329	1	06/26/2019 11:11	<a href="#">WG1302136</a>
Chlorodibromomethane	ND		0.00329	1	06/26/2019 11:11	<a href="#">WG1302136</a>
Chloroethane	ND		0.00659	1	06/26/2019 11:11	<a href="#">WG1302136</a>
Chloroform	ND		0.00329	1	06/26/2019 11:11	<a href="#">WG1302136</a>
Chloromethane	ND		0.0165	1	06/26/2019 11:11	<a href="#">WG1302136</a>

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc



Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result (dry) mg/kg	Qualifier	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Cyclohexane	ND		0.00329	1	06/26/2019 11:11	WG1302136
1,2-Dibromo-3-Chloropropane	ND		0.0329	1	06/26/2019 11:11	WG1302136
1,2-Dibromoethane	ND		0.00329	1	06/26/2019 11:11	WG1302136
Dichlorodifluoromethane	ND	J3	0.00329	1	06/26/2019 11:11	WG1302136
1,1-Dichloroethane	ND		0.00329	1	06/26/2019 11:11	WG1302136
1,2-Dichloroethane	ND		0.00329	1	06/26/2019 11:11	WG1302136
1,2-Dichlorobenzene	ND		0.00659	1	06/26/2019 11:11	WG1302136
1,3-Dichlorobenzene	ND		0.00659	1	06/26/2019 11:11	WG1302136
1,4-Dichlorobenzene	ND		0.00659	1	06/26/2019 11:11	WG1302136
1,1-Dichloroethene	ND		0.00329	1	06/26/2019 11:11	WG1302136
cis-1,2-Dichloroethene	ND		0.00329	1	06/26/2019 11:11	WG1302136
trans-1,2-Dichloroethene	ND		0.00659	1	06/26/2019 11:11	WG1302136
1,2-Dichloropropane	ND		0.00659	1	06/26/2019 11:11	WG1302136
cis-1,3-Dichloropropene	ND		0.00329	1	06/26/2019 11:11	WG1302136
trans-1,3-Dichloropropene	ND		0.00659	1	06/26/2019 11:11	WG1302136
Ethylbenzene	ND		0.00329	1	06/26/2019 11:11	WG1302136
2-Hexanone	ND		0.0329	1	06/26/2019 11:11	WG1302136
Isopropylbenzene	ND		0.00329	1	06/26/2019 11:11	WG1302136
2-Butanone (MEK)	ND		0.0329	1	06/26/2019 11:11	WG1302136
Methyl Acetate	ND		0.00659	1	06/26/2019 11:11	WG1302136
Methyl Cyclohexane	ND		0.00659	1	06/26/2019 11:11	WG1302136
Methylene Chloride	ND		0.0329	1	06/26/2019 11:11	WG1302136
4-Methyl-2-pentanone (MIBK)	ND		0.0329	1	06/26/2019 11:11	WG1302136
Methyl tert-butyl ether	ND		0.00132	1	06/26/2019 11:11	WG1302136
Styrene	ND		0.0165	1	06/26/2019 11:11	WG1302136
1,1,2,2-Tetrachloroethane	ND		0.00329	1	06/26/2019 11:11	WG1302136
Tetrachloroethene	ND		0.00329	1	06/26/2019 11:11	WG1302136
Toluene	0.00673		0.00659	1	06/26/2019 11:11	WG1302136
1,2,3-Trichlorobenzene	ND		0.00329	1	06/26/2019 11:11	WG1302136
1,2,4-Trichlorobenzene	ND		0.0165	1	06/26/2019 11:11	WG1302136
1,1,1-Trichloroethane	ND		0.00329	1	06/26/2019 11:11	WG1302136
1,1,2-Trichloroethane	ND		0.00329	1	06/26/2019 11:11	WG1302136
Trichloroethene	ND		0.00132	1	06/26/2019 11:11	WG1302136
Trichlorofluoromethane	ND		0.00329	1	06/26/2019 11:11	WG1302136
1,1,2-Trichlorotrifluoroethane	ND		0.00329	1	06/26/2019 11:11	WG1302136
Vinyl chloride	ND		0.00329	1	06/26/2019 11:11	WG1302136
Xylenes, Total	ND		0.00857	1	06/26/2019 11:11	WG1302136
(S) Toluene-d8	102		75.0-131		06/26/2019 11:11	WG1302136
(S) 4-Bromofluorobenzene	92.6		67.0-138		06/26/2019 11:11	WG1302136
(S) 1,2-Dichloroethane-d4	102		70.0-130		06/26/2019 11:11	WG1302136

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

Pesticides (GC) by Method 8081B

Analyte	Result (dry) mg/kg	Qualifier	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Aldrin	ND		0.0264	1	06/26/2019 19:02	WG1302000
Alpha BHC	ND		0.0264	1	06/26/2019 19:02	WG1302000
Beta BHC	ND		0.0264	1	06/26/2019 19:02	WG1302000
Delta BHC	ND		0.0264	1	06/26/2019 19:02	WG1302000
Gamma BHC	ND		0.0264	1	06/26/2019 19:02	WG1302000
Chlordane	ND		0.264	1	06/26/2019 19:02	WG1302000
4,4-DDD	ND		0.0264	1	06/26/2019 19:02	WG1302000
4,4-DDE	ND		0.0264	1	06/26/2019 19:02	WG1302000
4,4-DDT	ND		0.0264	1	06/26/2019 19:02	WG1302000
Dieldrin	ND		0.0264	1	06/26/2019 19:02	WG1302000
Endosulfan I	ND		0.0264	1	06/26/2019 19:02	WG1302000
Endosulfan II	ND		0.0264	1	06/26/2019 19:02	WG1302000



Pesticides (GC) by Method 8081B

Analyte	Result (dry) mg/kg	Qualifier	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Endosulfan sulfate	ND		0.0264	1	06/26/2019 19:02	<a href="#">WG1302000</a>
Endrin	ND		0.0264	1	06/26/2019 19:02	<a href="#">WG1302000</a>
Endrin aldehyde	ND		0.0264	1	06/26/2019 19:02	<a href="#">WG1302000</a>
Endrin ketone	ND		0.0264	1	06/26/2019 19:02	<a href="#">WG1302000</a>
Heptachlor	ND		0.0264	1	06/26/2019 19:02	<a href="#">WG1302000</a>
Heptachlor epoxide	ND		0.0264	1	06/26/2019 19:02	<a href="#">WG1302000</a>
Hexachlorobenzene	ND		0.0264	1	06/26/2019 19:02	<a href="#">WG1302000</a>
Methoxychlor	ND		0.0264	1	06/26/2019 19:02	<a href="#">WG1302000</a>
Toxaphene	ND		0.527	1	06/26/2019 19:02	<a href="#">WG1302000</a>
(S) Decachlorobiphenyl	85.5		10.0-135		06/26/2019 19:02	<a href="#">WG1302000</a>
(S) Tetrachloro-m-xylene	92.2		10.0-139		06/26/2019 19:02	<a href="#">WG1302000</a>

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

Polychlorinated Biphenyls (GC) by Method 8082 A

Analyte	Result (dry) mg/kg	Qualifier	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
PCB 1016	ND	J4	0.0224	1	06/26/2019 19:13	<a href="#">WG1302000</a>
PCB 1221	ND		0.0224	1	06/26/2019 19:13	<a href="#">WG1302000</a>
PCB 1232	ND		0.0224	1	06/26/2019 19:13	<a href="#">WG1302000</a>
PCB 1242	ND		0.0224	1	06/26/2019 19:13	<a href="#">WG1302000</a>
PCB 1248	ND		0.0224	1	06/26/2019 19:13	<a href="#">WG1302000</a>
PCB 1254	ND		0.0224	1	06/26/2019 19:13	<a href="#">WG1302000</a>
PCB 1260	ND	J4	0.0224	1	06/26/2019 19:13	<a href="#">WG1302000</a>
(S) Decachlorobiphenyl	77.8		10.0-135		06/26/2019 19:13	<a href="#">WG1302000</a>
(S) Tetrachloro-m-xylene	84.0		10.0-139		06/26/2019 19:13	<a href="#">WG1302000</a>

Semi Volatile Organic Compounds (GC/MS) by Method 8270D

Analyte	Result (dry) mg/kg	Qualifier	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Acenaphthene	ND		0.0435	1	06/29/2019 02:51	<a href="#">WG1303241</a>
Acenaphthylene	ND		0.0435	1	06/29/2019 02:51	<a href="#">WG1303241</a>
Acetophenone	ND		0.439	1	06/29/2019 02:51	<a href="#">WG1303241</a>
Anthracene	ND		0.0435	1	06/29/2019 02:51	<a href="#">WG1303241</a>
Atrazine	ND		0.439	1	06/29/2019 02:51	<a href="#">WG1303241</a>
Benzaldehyde	ND		0.439	1	06/29/2019 02:51	<a href="#">WG1303241</a>
Benzo(a)anthracene	ND		0.0435	1	06/29/2019 02:51	<a href="#">WG1303241</a>
Benzo(b)fluoranthene	ND		0.0435	1	06/29/2019 02:51	<a href="#">WG1303241</a>
Benzo(k)fluoranthene	ND		0.0435	1	06/29/2019 02:51	<a href="#">WG1303241</a>
Benzo(g,h,i)perylene	ND		0.0435	1	06/29/2019 02:51	<a href="#">WG1303241</a>
Benzo(a)pyrene	ND		0.0435	1	06/29/2019 02:51	<a href="#">WG1303241</a>
Biphenyl	ND		0.439	1	06/29/2019 02:51	<a href="#">WG1303241</a>
Bis(2-chloroethoxy)methane	ND	J4	0.439	1	06/29/2019 02:51	<a href="#">WG1303241</a>
Bis(2-chloroethyl)ether	ND		0.439	1	06/29/2019 02:51	<a href="#">WG1303241</a>
Bis(2-chloroisopropyl)ether	ND	J4	0.439	1	06/29/2019 02:51	<a href="#">WG1303241</a>
4-Bromophenyl-phenylether	ND		0.439	1	06/29/2019 02:51	<a href="#">WG1303241</a>
Caprolactam	ND		0.439	1	06/29/2019 02:51	<a href="#">WG1303241</a>
Carbazole	ND		0.439	1	06/29/2019 02:51	<a href="#">WG1303241</a>
4-Chloroaniline	ND	J4	0.439	1	06/29/2019 02:51	<a href="#">WG1303241</a>
2-Chloronaphthalene	ND		0.0435	1	06/29/2019 02:51	<a href="#">WG1303241</a>
4-Chlorophenyl-phenylether	ND		0.439	1	06/29/2019 02:51	<a href="#">WG1303241</a>
Chrysene	ND		0.0435	1	06/29/2019 02:51	<a href="#">WG1303241</a>
Dibenz(a,h)anthracene	ND		0.0435	1	06/29/2019 02:51	<a href="#">WG1303241</a>
Dibenzofuran	ND		0.439	1	06/29/2019 02:51	<a href="#">WG1303241</a>
3,3-Dichlorobenzidine	ND		0.439	1	06/29/2019 02:51	<a href="#">WG1303241</a>
2,4-Dinitrotoluene	ND		0.439	1	06/29/2019 02:51	<a href="#">WG1303241</a>
2,6-Dinitrotoluene	ND		0.439	1	06/29/2019 02:51	<a href="#">WG1303241</a>



Collected date/time: 06/18/19 13:20

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Semi Volatile Organic Compounds (GC/MS) by Method 8270D

Analyte	Result (dry) mg/kg	Qualifier	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Fluoranthene	ND		0.0435	1	06/29/2019 02:51	WG1303241
Fluorene	ND		0.0435	1	06/29/2019 02:51	WG1303241
Hexachlorobenzene	ND		0.439	1	06/29/2019 02:51	WG1303241
Hexachloro-1,3-butadiene	ND	J4	0.439	1	06/29/2019 02:51	WG1303241
Hexachlorocyclopentadiene	ND	JO	0.439	1	06/29/2019 02:51	WG1303241
Hexachloroethane	ND		0.439	1	06/29/2019 02:51	WG1303241
Indeno(1,2,3-cd)pyrene	ND		0.0435	1	06/29/2019 02:51	WG1303241
Isophorone	ND	J4	0.439	1	06/29/2019 02:51	WG1303241
2-Methylnaphthalene	ND	J4	0.0435	1	06/29/2019 02:51	WG1303241
Naphthalene	ND	J4	0.0435	1	06/29/2019 02:51	WG1303241
2-Nitroaniline	ND		0.439	1	06/29/2019 02:51	WG1303241
3-Nitroaniline	ND		0.439	1	06/29/2019 02:51	WG1303241
4-Nitroaniline	ND		0.439	1	06/29/2019 02:51	WG1303241
Nitrobenzene	ND	J4	0.439	1	06/29/2019 02:51	WG1303241
n-Nitrosodiphenylamine	ND		0.439	1	06/29/2019 02:51	WG1303241
n-Nitrosodi-n-propylamine	ND		0.439	1	06/29/2019 02:51	WG1303241
Phenanthrene	ND		0.0435	1	06/29/2019 02:51	WG1303241
Benzylbutyl phthalate	ND		0.439	1	06/29/2019 02:51	WG1303241
Bis(2-ethylhexyl)phthalate	ND		0.439	1	06/29/2019 02:51	WG1303241
Di-n-butyl phthalate	ND		0.439	1	06/29/2019 02:51	WG1303241
Diethyl phthalate	ND		0.439	1	06/29/2019 02:51	WG1303241
Dimethyl phthalate	ND		0.439	1	06/29/2019 02:51	WG1303241
Di-n-octyl phthalate	ND		0.439	1	06/29/2019 02:51	WG1303241
Pyrene	ND		0.0435	1	06/29/2019 02:51	WG1303241
1,2,4,5-Tetrachlorobenzene	ND		0.439	1	06/29/2019 02:51	WG1303241
4-Chloro-3-methylphenol	ND		0.439	1	06/29/2019 02:51	WG1303241
2-Chlorophenol	ND		0.439	1	06/29/2019 02:51	WG1303241
2-Methylphenol	ND		0.439	1	06/29/2019 02:51	WG1303241
3&4-Methyl Phenol	ND		0.439	1	06/29/2019 02:51	WG1303241
2,4-Dichlorophenol	ND		0.439	1	06/29/2019 02:51	WG1303241
2,4-Dimethylphenol	ND	JO J4	0.439	1	06/29/2019 02:51	WG1303241
4,6-Dinitro-2-methylphenol	ND		0.439	1	06/29/2019 02:51	WG1303241
2,4-Dinitrophenol	ND		0.439	1	06/29/2019 02:51	WG1303241
2-Nitrophenol	ND		0.439	1	06/29/2019 02:51	WG1303241
4-Nitrophenol	ND		0.439	1	06/29/2019 02:51	WG1303241
Pentachlorophenol	ND		0.439	1	06/29/2019 02:51	WG1303241
Phenol	ND		0.439	1	06/29/2019 02:51	WG1303241
2,4,5-Trichlorophenol	ND		0.439	1	06/29/2019 02:51	WG1303241
2,4,6-Trichlorophenol	ND		0.439	1	06/29/2019 02:51	WG1303241
(S) 2-Fluorophenol	85.9		12.0-120		06/29/2019 02:51	WG1303241
(S) Phenol-d5	82.4		10.0-120		06/29/2019 02:51	WG1303241
(S) Nitrobenzene-d5	59.1		10.0-122		06/29/2019 02:51	WG1303241
(S) 2-Fluorobiphenyl	56.3		15.0-120		06/29/2019 02:51	WG1303241
(S) 2,4,6-Tribromophenol	65.8		10.0-127		06/29/2019 02:51	WG1303241
(S) p-Terphenyl-d14	73.1		10.0-120		06/29/2019 02:51	WG1303241

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

Semi Volatile Organic Compounds (GC/MS) by Method 8270E-SIM

Analyte	Result (dry) mg/kg	Qualifier	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Anthracene	ND		0.00791	1	06/27/2019 15:40	WG1302016
Acenaphthene	ND		0.00791	1	06/27/2019 15:40	WG1302016
Acenaphthylene	ND		0.00791	1	06/27/2019 15:40	WG1302016
Benzo(a)anthracene	ND		0.00791	1	06/27/2019 15:40	WG1302016
Benzo(a)pyrene	ND		0.00791	1	06/27/2019 15:40	WG1302016
Benzo(b)fluoranthene	ND		0.00791	1	06/27/2019 15:40	WG1302016
Benzo(g,h,i)perylene	ND		0.00791	1	06/27/2019 15:40	WG1302016





Collected date/time: 06/18/19 13:20

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Semi Volatile Organic Compounds (GC/MS) by Method 8270E-SIM

Analyte	Result (dry) mg/kg	Qualifier	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Benzo(k)fluoranthene	ND		0.00791	1	06/27/2019 15:40	<a href="#">WG1302016</a>
Chrysene	ND		0.00791	1	06/27/2019 15:40	<a href="#">WG1302016</a>
Dibenz(a,h)anthracene	ND		0.00791	1	06/27/2019 15:40	<a href="#">WG1302016</a>
Fluoranthene	ND		0.00791	1	06/27/2019 15:40	<a href="#">WG1302016</a>
Fluorene	ND		0.00791	1	06/27/2019 15:40	<a href="#">WG1302016</a>
Indeno(1,2,3-cd)pyrene	ND		0.00791	1	06/27/2019 15:40	<a href="#">WG1302016</a>
Naphthalene	ND		0.0264	1	06/27/2019 15:40	<a href="#">WG1302016</a>
Phenanthrene	ND		0.00791	1	06/27/2019 15:40	<a href="#">WG1302016</a>
Pyrene	ND		0.00791	1	06/27/2019 15:40	<a href="#">WG1302016</a>
1-Methylnaphthalene	ND		0.0264	1	06/27/2019 15:40	<a href="#">WG1302016</a>
2-Methylnaphthalene	ND		0.0264	1	06/27/2019 15:40	<a href="#">WG1302016</a>
(S) p-Terphenyl-d14	67.0		23.0-120		06/27/2019 15:40	<a href="#">WG1302016</a>
(S) Nitrobenzene-d5	66.9		14.0-149		06/27/2019 15:40	<a href="#">WG1302016</a>
(S) 2-Fluorobiphenyl	56.4		34.0-125		06/27/2019 15:40	<a href="#">WG1302016</a>

- 1 Cp
- 2 Tc
- 3 Ss
- 4 Cn
- 5 Sr
- 6 Qc
- 7 Gl
- 8 Al
- 9 Sc



## Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	29.0		1	06/26/2019 14:16	<a href="#">WG1301897</a>

## Wet Chemistry by Method 9012B

Analyte	Result (dry)	Qualifier	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg		date / time	
Cyanide	ND		0.863	1	07/02/2019 19:53	<a href="#">WG1304908</a>

## Mercury by Method 7471B

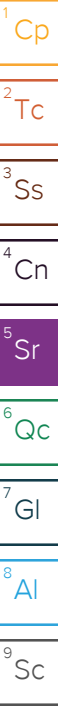
Analyte	Result (dry)	Qualifier	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg		date / time	
Mercury	0.256	<u>B</u>	0.0690	1	06/26/2019 12:35	<a href="#">WG1301944</a>

## Metals (ICP) by Method 6010D

Analyte	Result (dry)	Qualifier	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg		date / time	
Aluminum	50800		34.5	1	06/27/2019 22:55	<a href="#">WG1301970</a>
Antimony	ND		6.90	1	06/27/2019 22:55	<a href="#">WG1301970</a>
Arsenic	ND		6.90	1	06/27/2019 22:55	<a href="#">WG1301970</a>
Barium	1090		1.73	1	06/27/2019 22:55	<a href="#">WG1301970</a>
Beryllium	ND		0.690	1	06/27/2019 22:55	<a href="#">WG1301970</a>
Cadmium	ND		1.73	1	06/27/2019 22:55	<a href="#">WG1301970</a>
Calcium	130000		345	1	06/27/2019 22:55	<a href="#">WG1301970</a>
Chromium	56.8		3.45	1	06/27/2019 22:55	<a href="#">WG1301970</a>
Cobalt	3.50		3.45	1	06/27/2019 22:55	<a href="#">WG1301970</a>
Copper	26.0		6.90	1	06/27/2019 22:55	<a href="#">WG1301970</a>
Iron	4790		34.5	1	06/27/2019 22:55	<a href="#">WG1301970</a>
Lead	23.0		1.73	1	06/27/2019 22:55	<a href="#">WG1301970</a>
Magnesium	3050		345	1	06/27/2019 22:55	<a href="#">WG1301970</a>
Manganese	735		3.45	1	06/27/2019 22:55	<a href="#">WG1301970</a>
Nickel	10.2		6.90	1	06/27/2019 22:55	<a href="#">WG1301970</a>
Potassium	483		345	1	06/27/2019 22:55	<a href="#">WG1301970</a>
Selenium	9.88		6.90	1	06/27/2019 22:55	<a href="#">WG1301970</a>
Silver	ND		3.45	1	06/27/2019 22:55	<a href="#">WG1301970</a>
Sodium	3920		345	1	06/27/2019 22:55	<a href="#">WG1301970</a>
Thallium	ND		6.90	1	06/27/2019 22:55	<a href="#">WG1301970</a>
Vanadium	59.6		6.90	1	06/27/2019 22:55	<a href="#">WG1301970</a>
Zinc	282		17.3	1	06/27/2019 22:55	<a href="#">WG1301970</a>

## Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result (dry)	Qualifier	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg		date / time	
Acetone	0.174		0.112	1.3	06/26/2019 11:30	<a href="#">WG1302136</a>
Benzene	ND		0.00449	1.3	06/26/2019 11:30	<a href="#">WG1302136</a>
Bromochloromethane	ND		0.0224	1.3	06/26/2019 11:30	<a href="#">WG1302136</a>
Bromodichloromethane	ND		0.0112	1.3	06/26/2019 11:30	<a href="#">WG1302136</a>
Bromoform	ND		0.112	1.3	06/26/2019 11:30	<a href="#">WG1302136</a>
Bromomethane	ND		0.0559	1.3	06/26/2019 11:30	<a href="#">WG1302136</a>
Carbon disulfide	ND		0.0559	1.3	06/26/2019 11:30	<a href="#">WG1302136</a>
Carbon tetrachloride	ND		0.0224	1.3	06/26/2019 11:30	<a href="#">WG1302136</a>
Chlorobenzene	ND		0.0112	1.3	06/26/2019 11:30	<a href="#">WG1302136</a>
Chlorodibromomethane	ND		0.0112	1.3	06/26/2019 11:30	<a href="#">WG1302136</a>
Chloroethane	ND		0.0224	1.3	06/26/2019 11:30	<a href="#">WG1302136</a>
Chloroform	ND		0.0112	1.3	06/26/2019 11:30	<a href="#">WG1302136</a>
Chloromethane	ND		0.0559	1.3	06/26/2019 11:30	<a href="#">WG1302136</a>



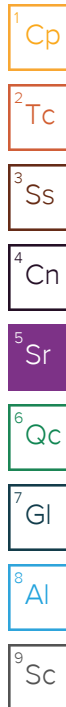


Collected date/time: 06/18/19 14:20

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## Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result (dry) mg/kg	Qualifier	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Cyclohexane	ND		0.0112	1.3	06/26/2019 11:30	WG1302136
1,2-Dibromo-3-Chloropropane	ND		0.112	1.3	06/26/2019 11:30	WG1302136
1,2-Dibromoethane	ND		0.0112	1.3	06/26/2019 11:30	WG1302136
Dichlorodifluoromethane	ND	J3	0.0112	1.3	06/26/2019 11:30	WG1302136
1,1-Dichloroethane	ND		0.0112	1.3	06/26/2019 11:30	WG1302136
1,2-Dichloroethane	ND		0.0112	1.3	06/26/2019 11:30	WG1302136
1,2-Dichlorobenzene	ND		0.0224	1.3	06/26/2019 11:30	WG1302136
1,3-Dichlorobenzene	ND		0.0224	1.3	06/26/2019 11:30	WG1302136
1,4-Dichlorobenzene	ND		0.0224	1.3	06/26/2019 11:30	WG1302136
1,1-Dichloroethene	ND		0.0112	1.3	06/26/2019 11:30	WG1302136
cis-1,2-Dichloroethene	ND		0.0112	1.3	06/26/2019 11:30	WG1302136
trans-1,2-Dichloroethene	ND		0.0224	1.3	06/26/2019 11:30	WG1302136
1,2-Dichloropropane	ND		0.0224	1.3	06/26/2019 11:30	WG1302136
cis-1,3-Dichloropropene	ND		0.0112	1.3	06/26/2019 11:30	WG1302136
trans-1,3-Dichloropropene	ND		0.0224	1.3	06/26/2019 11:30	WG1302136
Ethylbenzene	ND		0.0112	1.3	06/26/2019 11:30	WG1302136
2-Hexanone	ND		0.112	1.3	06/26/2019 11:30	WG1302136
Isopropylbenzene	ND		0.0112	1.3	06/26/2019 11:30	WG1302136
2-Butanone (MEK)	ND		0.112	1.3	06/26/2019 11:30	WG1302136
Methyl Acetate	0.735		0.0224	1.3	06/26/2019 11:30	WG1302136
Methyl Cyclohexane	ND		0.0224	1.3	06/26/2019 11:30	WG1302136
Methylene Chloride	ND		0.112	1.3	06/26/2019 11:30	WG1302136
4-Methyl-2-pentanone (MIBK)	ND		0.112	1.3	06/26/2019 11:30	WG1302136
Methyl tert-butyl ether	ND		0.00449	1.3	06/26/2019 11:30	WG1302136
Styrene	ND		0.0559	1.3	06/26/2019 11:30	WG1302136
1,1,2,2-Tetrachloroethane	ND		0.0112	1.3	06/26/2019 11:30	WG1302136
Tetrachloroethene	ND		0.0112	1.3	06/26/2019 11:30	WG1302136
Toluene	0.0641		0.0224	1.3	06/26/2019 11:30	WG1302136
1,2,3-Trichlorobenzene	ND		0.0112	1.3	06/26/2019 11:30	WG1302136
1,2,4-Trichlorobenzene	ND		0.0559	1.3	06/26/2019 11:30	WG1302136
1,1,1-Trichloroethane	ND		0.0112	1.3	06/26/2019 11:30	WG1302136
1,1,2-Trichloroethane	ND		0.0112	1.3	06/26/2019 11:30	WG1302136
Trichloroethene	ND		0.00449	1.3	06/26/2019 11:30	WG1302136
Trichlorofluoromethane	ND		0.0112	1.3	06/26/2019 11:30	WG1302136
1,1,2-Trichlorotrifluoroethane	ND		0.0112	1.3	06/26/2019 11:30	WG1302136
Vinyl chloride	ND		0.0112	1.3	06/26/2019 11:30	WG1302136
Xylenes, Total	ND		0.0292	1.3	06/26/2019 11:30	WG1302136
(S) Toluene-d8	103		75.0-131		06/26/2019 11:30	WG1302136
(S) 4-Bromofluorobenzene	96.2		67.0-138		06/26/2019 11:30	WG1302136
(S) 1,2-Dichloroethane-d4	96.5		70.0-130		06/26/2019 11:30	WG1302136



## Pesticides (GC) by Method 8081B

Analyte	Result (dry) mg/kg	Qualifier	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Aldrin	ND		0.0690	1	06/26/2019 19:15	WG1302000
Alpha BHC	ND		0.0690	1	06/26/2019 19:15	WG1302000
Beta BHC	ND		0.0690	1	06/26/2019 19:15	WG1302000
Delta BHC	ND		0.0690	1	06/26/2019 19:15	WG1302000
Gamma BHC	ND		0.0690	1	06/26/2019 19:15	WG1302000
Chlordane	ND		0.690	1	06/26/2019 19:15	WG1302000
4,4-DDD	ND		0.0690	1	06/26/2019 19:15	WG1302000
4,4-DDE	ND		0.0690	1	06/26/2019 19:15	WG1302000
4,4-DDT	ND		0.0690	1	06/26/2019 19:15	WG1302000
Dieldrin	ND		0.0690	1	06/26/2019 19:15	WG1302000
Endosulfan I	ND		0.0690	1	06/26/2019 19:15	WG1302000
Endosulfan II	ND		0.0690	1	06/26/2019 19:15	WG1302000



Collected date/time: 06/18/19 14:20

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## Pesticides (GC) by Method 8081B

Analyte	Result (dry) mg/kg	Qualifier	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Endosulfan sulfate	ND		0.0690	1	06/26/2019 19:15	<a href="#">WG1302000</a>
Endrin	ND		0.0690	1	06/26/2019 19:15	<a href="#">WG1302000</a>
Endrin aldehyde	ND		0.0690	1	06/26/2019 19:15	<a href="#">WG1302000</a>
Endrin ketone	ND		0.0690	1	06/26/2019 19:15	<a href="#">WG1302000</a>
Heptachlor	ND		0.0690	1	06/26/2019 19:15	<a href="#">WG1302000</a>
Heptachlor epoxide	ND		0.0690	1	06/26/2019 19:15	<a href="#">WG1302000</a>
Hexachlorobenzene	ND		0.0690	1	06/26/2019 19:15	<a href="#">WG1302000</a>
Methoxychlor	ND		0.0690	1	06/26/2019 19:15	<a href="#">WG1302000</a>
Toxaphene	ND		1.38	1	06/26/2019 19:15	<a href="#">WG1302000</a>
(S) Decachlorobiphenyl	73.7		10.0-135		06/26/2019 19:15	<a href="#">WG1302000</a>
(S) Tetrachloro-m-xylene	79.3		10.0-139		06/26/2019 19:15	<a href="#">WG1302000</a>

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

## Polychlorinated Biphenyls (GC) by Method 8082 A

Analyte	Result (dry) mg/kg	Qualifier	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
PCB 1016	ND	J4	0.0587	1	06/26/2019 19:25	<a href="#">WG1302000</a>
PCB 1221	ND		0.0587	1	06/26/2019 19:25	<a href="#">WG1302000</a>
PCB 1232	ND		0.0587	1	06/26/2019 19:25	<a href="#">WG1302000</a>
PCB 1242	ND		0.0587	1	06/26/2019 19:25	<a href="#">WG1302000</a>
PCB 1248	ND		0.0587	1	06/26/2019 19:25	<a href="#">WG1302000</a>
PCB 1254	ND		0.0587	1	06/26/2019 19:25	<a href="#">WG1302000</a>
PCB 1260	ND	J4	0.0587	1	06/26/2019 19:25	<a href="#">WG1302000</a>
(S) Decachlorobiphenyl	63.9		10.0-135		06/26/2019 19:25	<a href="#">WG1302000</a>
(S) Tetrachloro-m-xylene	67.4		10.0-139		06/26/2019 19:25	<a href="#">WG1302000</a>

7 Gl

8 Al

9 Sc

## Semi Volatile Organic Compounds (GC/MS) by Method 8270D

Analyte	Result (dry) mg/kg	Qualifier	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Acenaphthene	ND		0.569	5	06/29/2019 08:38	<a href="#">WG1303241</a>
Acenaphthylene	ND		0.569	5	06/29/2019 08:38	<a href="#">WG1303241</a>
Acetophenone	ND		5.76	5	06/29/2019 08:38	<a href="#">WG1303241</a>
Anthracene	ND		0.569	5	06/29/2019 08:38	<a href="#">WG1303241</a>
Atrazine	ND		5.76	5	06/29/2019 08:38	<a href="#">WG1303241</a>
Benzaldehyde	ND		5.76	5	06/29/2019 08:38	<a href="#">WG1303241</a>
Benzo(a)anthracene	ND		0.569	5	06/29/2019 08:38	<a href="#">WG1303241</a>
Benzo(b)fluoranthene	ND		0.569	5	06/29/2019 08:38	<a href="#">WG1303241</a>
Benzo(k)fluoranthene	ND		0.569	5	06/29/2019 08:38	<a href="#">WG1303241</a>
Benzo(g,h,i)perylene	ND		0.569	5	06/29/2019 08:38	<a href="#">WG1303241</a>
Benzo(a)pyrene	ND		0.569	5	06/29/2019 08:38	<a href="#">WG1303241</a>
Biphenyl	ND		5.76	5	06/29/2019 08:38	<a href="#">WG1303241</a>
Bis(2-chloroethoxy)methane	ND	J4	5.76	5	06/29/2019 08:38	<a href="#">WG1303241</a>
Bis(2-chloroethyl)ether	ND		5.76	5	06/29/2019 08:38	<a href="#">WG1303241</a>
Bis(2-chloroisopropyl)ether	ND	J4	5.76	5	06/29/2019 08:38	<a href="#">WG1303241</a>
4-Bromophenyl-phenylether	ND		5.76	5	06/29/2019 08:38	<a href="#">WG1303241</a>
Caprolactam	ND		5.76	5	06/29/2019 08:38	<a href="#">WG1303241</a>
Carbazole	ND		5.76	5	06/29/2019 08:38	<a href="#">WG1303241</a>
4-Chloroaniline	ND	J4	5.76	5	06/29/2019 08:38	<a href="#">WG1303241</a>
2-Chloronaphthalene	ND		0.569	5	06/29/2019 08:38	<a href="#">WG1303241</a>
4-Chlorophenyl-phenylether	ND		5.76	5	06/29/2019 08:38	<a href="#">WG1303241</a>
Chrysene	ND		0.569	5	06/29/2019 08:38	<a href="#">WG1303241</a>
Dibenz(a,h)anthracene	ND		0.569	5	06/29/2019 08:38	<a href="#">WG1303241</a>
Dibenzofuran	ND		5.76	5	06/29/2019 08:38	<a href="#">WG1303241</a>
3,3-Dichlorobenzidine	ND		5.76	5	06/29/2019 08:38	<a href="#">WG1303241</a>
2,4-Dinitrotoluene	ND		5.76	5	06/29/2019 08:38	<a href="#">WG1303241</a>
2,6-Dinitrotoluene	ND		5.76	5	06/29/2019 08:38	<a href="#">WG1303241</a>

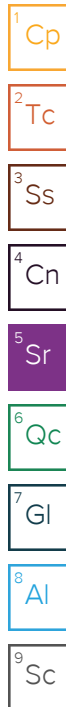


Collected date/time: 06/18/19 14:20

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## Semi Volatile Organic Compounds (GC/MS) by Method 8270D

Analyte	Result (dry) mg/kg	Qualifier	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Fluoranthene	ND		0.569	5	06/29/2019 08:38	WG1303241
Fluorene	ND		0.569	5	06/29/2019 08:38	WG1303241
Hexachlorobenzene	ND		5.76	5	06/29/2019 08:38	WG1303241
Hexachloro-1,3-butadiene	ND	J4	5.76	5	06/29/2019 08:38	WG1303241
Hexachlorocyclopentadiene	ND	JO	5.76	5	06/29/2019 08:38	WG1303241
Hexachloroethane	ND		5.76	5	06/29/2019 08:38	WG1303241
Indeno(1,2,3-cd)pyrene	ND		0.569	5	06/29/2019 08:38	WG1303241
Isophorone	ND	J4	5.76	5	06/29/2019 08:38	WG1303241
2-Methylnaphthalene	ND	J4	0.569	5	06/29/2019 08:38	WG1303241
Naphthalene	ND	J4	0.569	5	06/29/2019 08:38	WG1303241
2-Nitroaniline	ND		5.76	5	06/29/2019 08:38	WG1303241
3-Nitroaniline	ND		5.76	5	06/29/2019 08:38	WG1303241
4-Nitroaniline	ND		5.76	5	06/29/2019 08:38	WG1303241
Nitrobenzene	ND	J4	5.76	5	06/29/2019 08:38	WG1303241
n-Nitrosodiphenylamine	ND		5.76	5	06/29/2019 08:38	WG1303241
n-Nitrosodi-n-propylamine	ND		5.76	5	06/29/2019 08:38	WG1303241
Phenanthrene	ND		0.569	5	06/29/2019 08:38	WG1303241
Benzylbutyl phthalate	ND		5.76	5	06/29/2019 08:38	WG1303241
Bis(2-ethylhexyl)phthalate	ND		5.76	5	06/29/2019 08:38	WG1303241
Di-n-butyl phthalate	ND		5.76	5	06/29/2019 08:38	WG1303241
Diethyl phthalate	ND		5.76	5	06/29/2019 08:38	WG1303241
Dimethyl phthalate	ND		5.76	5	06/29/2019 08:38	WG1303241
Di-n-octyl phthalate	ND		5.76	5	06/29/2019 08:38	WG1303241
Pyrene	ND		0.569	5	06/29/2019 08:38	WG1303241
1,2,4,5-Tetrachlorobenzene	ND		5.76	5	06/29/2019 08:38	WG1303241
4-Chloro-3-methylphenol	ND		5.76	5	06/29/2019 08:38	WG1303241
2-Chlorophenol	ND		5.76	5	06/29/2019 08:38	WG1303241
2-Methylphenol	ND		5.76	5	06/29/2019 08:38	WG1303241
3&4-Methyl Phenol	ND		5.76	5	06/29/2019 08:38	WG1303241
2,4-Dichlorophenol	ND		5.76	5	06/29/2019 08:38	WG1303241
2,4-Dimethylphenol	ND	JO J4	5.76	5	06/29/2019 08:38	WG1303241
4,6-Dinitro-2-methylphenol	ND		5.76	5	06/29/2019 08:38	WG1303241
2,4-Dinitrophenol	ND		5.76	5	06/29/2019 08:38	WG1303241
2-Nitrophenol	ND		5.76	5	06/29/2019 08:38	WG1303241
4-Nitrophenol	ND		5.76	5	06/29/2019 08:38	WG1303241
Pentachlorophenol	ND		5.76	5	06/29/2019 08:38	WG1303241
Phenol	ND		5.76	5	06/29/2019 08:38	WG1303241
2,4,5-Trichlorophenol	ND		5.76	5	06/29/2019 08:38	WG1303241
2,4,6-Trichlorophenol	ND		5.76	5	06/29/2019 08:38	WG1303241
(S) 2-Fluorophenol	77.0		12.0-120		06/29/2019 08:38	WG1303241
(S) Phenol-d5	70.2		10.0-120		06/29/2019 08:38	WG1303241
(S) Nitrobenzene-d5	62.3		10.0-122		06/29/2019 08:38	WG1303241
(S) 2-Fluorobiphenyl	53.7		15.0-120		06/29/2019 08:38	WG1303241
(S) 2,4,6-Tribromophenol	57.8		10.0-127		06/29/2019 08:38	WG1303241
(S) p-Terphenyl-d14	55.2		10.0-120		06/29/2019 08:38	WG1303241



## Sample Narrative:

L111579-05 WG1303241: Dilution due to matrix.

## Semi Volatile Organic Compounds (GC/MS) by Method 8270E-SIM

Analyte	Result (dry) mg/kg	Qualifier	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Anthracene	ND		0.0207	1	06/27/2019 16:02	WG1302016
Acenaphthene	ND		0.0207	1	06/27/2019 16:02	WG1302016
Acenaphthylene	ND		0.0207	1	06/27/2019 16:02	WG1302016
Benzo(a)anthracene	ND		0.0207	1	06/27/2019 16:02	WG1302016





## Semi Volatile Organic Compounds (GC/MS) by Method 8270E-SIM

Analyte	Result (dry) mg/kg	Qualifier	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Benzo(a)pyrene	ND		0.0207	1	06/27/2019 16:02	<a href="#">WG1302016</a>
Benzo(b)fluoranthene	ND		0.0207	1	06/27/2019 16:02	<a href="#">WG1302016</a>
Benzo(g,h,i)perylene	ND		0.0207	1	06/27/2019 16:02	<a href="#">WG1302016</a>
Benzo(k)fluoranthene	ND		0.0207	1	06/27/2019 16:02	<a href="#">WG1302016</a>
Chrysene	ND		0.0207	1	06/27/2019 16:02	<a href="#">WG1302016</a>
Dibenz(a,h)anthracene	ND		0.0207	1	06/27/2019 16:02	<a href="#">WG1302016</a>
Fluoranthene	ND		0.0207	1	06/27/2019 16:02	<a href="#">WG1302016</a>
Fluorene	ND		0.0207	1	06/27/2019 16:02	<a href="#">WG1302016</a>
Indeno(1,2,3-cd)pyrene	ND		0.0207	1	06/27/2019 16:02	<a href="#">WG1302016</a>
Naphthalene	ND		0.0690	1	06/27/2019 16:02	<a href="#">WG1302016</a>
Phenanthrene	ND		0.0207	1	06/27/2019 16:02	<a href="#">WG1302016</a>
Pyrene	ND		0.0207	1	06/27/2019 16:02	<a href="#">WG1302016</a>
1-Methylnaphthalene	ND		0.0690	1	06/27/2019 16:02	<a href="#">WG1302016</a>
2-Methylnaphthalene	ND		0.0690	1	06/27/2019 16:02	<a href="#">WG1302016</a>
(S) p-Terphenyl-d14	69.4		23.0-120		06/27/2019 16:02	<a href="#">WG1302016</a>
(S) Nitrobenzene-d5	65.6		14.0-149		06/27/2019 16:02	<a href="#">WG1302016</a>
(S) 2-Fluorobiphenyl	40.4		34.0-125		06/27/2019 16:02	<a href="#">WG1302016</a>

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc



## Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	24.9		1	06/26/2019 14:08	<a href="#">WG1302166</a>

## Wet Chemistry by Method 9012B

Analyte	Result (dry)	Qualifier	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg		date / time	
Cyanide	ND		1.01	1	07/01/2019 11:54	<a href="#">WG1303457</a>

## Sample Narrative:

L1111579-06 WG1303457: Samples confirmed with Out of hold run.

## Mercury by Method 7471B

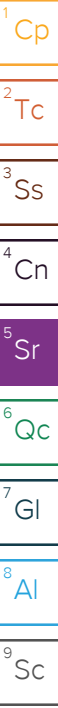
Analyte	Result (dry)	Qualifier	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg		date / time	
Mercury	0.331	<u>B</u>	0.0805	1	06/26/2019 12:42	<a href="#">WG1301944</a>

## Metals (ICP) by Method 6010D

Analyte	Result (dry)	Qualifier	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg		date / time	
Aluminum	31100	<u>V</u>	40.2	1	06/27/2019 22:22	<a href="#">WG1301970</a>
Antimony	ND		8.05	1	06/27/2019 22:22	<a href="#">WG1301970</a>
Arsenic	ND		8.05	1	06/27/2019 22:22	<a href="#">WG1301970</a>
Barium	657	<u>J3 J6</u>	2.01	1	06/27/2019 22:22	<a href="#">WG1301970</a>
Beryllium	ND		0.805	1	06/27/2019 22:22	<a href="#">WG1301970</a>
Cadmium	ND		2.01	1	06/27/2019 22:22	<a href="#">WG1301970</a>
Calcium	152000	<u>O1 V</u>	402	1	06/27/2019 22:22	<a href="#">WG1301970</a>
Chromium	40.8	<u>O1</u>	4.02	1	06/27/2019 22:22	<a href="#">WG1301970</a>
Cobalt	ND		4.02	1	06/27/2019 22:22	<a href="#">WG1301970</a>
Copper	26.0		8.05	1	06/27/2019 22:22	<a href="#">WG1301970</a>
Iron	3570		40.2	1	06/27/2019 22:22	<a href="#">WG1301970</a>
Lead	23.9		2.01	1	06/27/2019 22:22	<a href="#">WG1301970</a>
Magnesium	2830	<u>O1</u>	402	1	06/27/2019 22:22	<a href="#">WG1301970</a>
Manganese	687	<u>J6 O1</u>	4.02	1	06/27/2019 22:22	<a href="#">WG1301970</a>
Nickel	12.1		8.05	1	06/27/2019 22:22	<a href="#">WG1301970</a>
Potassium	ND		402	1	06/27/2019 22:22	<a href="#">WG1301970</a>
Selenium	ND		8.05	1	06/27/2019 22:22	<a href="#">WG1301970</a>
Silver	ND		4.02	1	06/27/2019 22:22	<a href="#">WG1301970</a>
Sodium	4680		402	1	06/27/2019 22:22	<a href="#">WG1301970</a>
Thallium	ND		8.05	1	06/27/2019 22:22	<a href="#">WG1301970</a>
Vanadium	41.6		8.05	1	06/27/2019 22:22	<a href="#">WG1301970</a>
Zinc	271	<u>O1</u>	20.1	1	06/27/2019 22:22	<a href="#">WG1301970</a>

## Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result (dry)	Qualifier	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg		date / time	
Acetone	0.339		0.125	1.24	06/26/2019 11:48	<a href="#">WG1302136</a>
Benzene	ND		0.00499	1.24	06/26/2019 11:48	<a href="#">WG1302136</a>
Bromochloromethane	ND		0.0249	1.24	06/26/2019 11:48	<a href="#">WG1302136</a>
Bromodichloromethane	ND		0.0125	1.24	06/26/2019 11:48	<a href="#">WG1302136</a>
Bromoform	ND		0.125	1.24	06/26/2019 11:48	<a href="#">WG1302136</a>
Bromomethane	ND		0.0624	1.24	06/26/2019 11:48	<a href="#">WG1302136</a>
Carbon disulfide	ND		0.0624	1.24	06/26/2019 11:48	<a href="#">WG1302136</a>
Carbon tetrachloride	ND		0.0249	1.24	06/26/2019 11:48	<a href="#">WG1302136</a>
Chlorobenzene	ND		0.0125	1.24	06/26/2019 11:48	<a href="#">WG1302136</a>
Chlorodibromomethane	ND		0.0125	1.24	06/26/2019 11:48	<a href="#">WG1302136</a>





## Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result (dry) mg/kg	Qualifier	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Chloroethane	ND		0.0249	1.24	06/26/2019 11:48	WG1302136
Chloroform	0.0301		0.0125	1.24	06/26/2019 11:48	WG1302136
Chloromethane	ND		0.0624	1.24	06/26/2019 11:48	WG1302136
Cyclohexane	ND		0.0125	1.24	06/26/2019 11:48	WG1302136
1,2-Dibromo-3-Chloropropane	ND		0.125	1.24	06/26/2019 11:48	WG1302136
1,2-Dibromoethane	ND		0.0125	1.24	06/26/2019 11:48	WG1302136
Dichlorodifluoromethane	ND	J3	0.0125	1.24	06/26/2019 11:48	WG1302136
1,1-Dichloroethane	ND		0.0125	1.24	06/26/2019 11:48	WG1302136
1,2-Dichloroethane	ND		0.0125	1.24	06/26/2019 11:48	WG1302136
1,2-Dichlorobenzene	ND		0.0249	1.24	06/26/2019 11:48	WG1302136
1,3-Dichlorobenzene	ND		0.0249	1.24	06/26/2019 11:48	WG1302136
1,4-Dichlorobenzene	ND		0.0249	1.24	06/26/2019 11:48	WG1302136
1,1-Dichloroethene	ND		0.0125	1.24	06/26/2019 11:48	WG1302136
cis-1,2-Dichloroethene	ND		0.0125	1.24	06/26/2019 11:48	WG1302136
trans-1,2-Dichloroethene	ND		0.0249	1.24	06/26/2019 11:48	WG1302136
1,2-Dichloropropane	ND		0.0249	1.24	06/26/2019 11:48	WG1302136
cis-1,3-Dichloropropene	ND		0.0125	1.24	06/26/2019 11:48	WG1302136
trans-1,3-Dichloropropene	ND		0.0249	1.24	06/26/2019 11:48	WG1302136
Ethylbenzene	ND		0.0125	1.24	06/26/2019 11:48	WG1302136
2-Hexanone	ND		0.125	1.24	06/26/2019 11:48	WG1302136
Isopropylbenzene	ND		0.0125	1.24	06/26/2019 11:48	WG1302136
2-Butanone (MEK)	ND		0.125	1.24	06/26/2019 11:48	WG1302136
Methyl Acetate	0.763		0.0249	1.24	06/26/2019 11:48	WG1302136
Methyl Cyclohexane	ND		0.0249	1.24	06/26/2019 11:48	WG1302136
Methylene Chloride	ND		0.125	1.24	06/26/2019 11:48	WG1302136
4-Methyl-2-pentanone (MIBK)	ND		0.125	1.24	06/26/2019 11:48	WG1302136
Methyl tert-butyl ether	ND		0.00499	1.24	06/26/2019 11:48	WG1302136
Styrene	ND		0.0624	1.24	06/26/2019 11:48	WG1302136
1,1,2,2-Tetrachloroethane	ND		0.0125	1.24	06/26/2019 11:48	WG1302136
Tetrachloroethene	ND		0.0125	1.24	06/26/2019 11:48	WG1302136
Toluene	0.123		0.0249	1.24	06/26/2019 11:48	WG1302136
1,2,3-Trichlorobenzene	ND		0.0125	1.24	06/26/2019 11:48	WG1302136
1,2,4-Trichlorobenzene	ND		0.0624	1.24	06/26/2019 11:48	WG1302136
1,1,1-Trichloroethane	ND		0.0125	1.24	06/26/2019 11:48	WG1302136
1,1,2-Trichloroethane	ND		0.0125	1.24	06/26/2019 11:48	WG1302136
Trichloroethene	ND		0.00499	1.24	06/26/2019 11:48	WG1302136
Trichlorofluoromethane	ND		0.0125	1.24	06/26/2019 11:48	WG1302136
1,1,2-Trichlorotrifluoroethane	ND		0.0125	1.24	06/26/2019 11:48	WG1302136
Vinyl chloride	ND		0.0125	1.24	06/26/2019 11:48	WG1302136
Xylenes, Total	ND		0.0324	1.24	06/26/2019 11:48	WG1302136
(S) Toluene-d8	101		75.0-131		06/26/2019 11:48	WG1302136
(S) 4-Bromofluorobenzene	101		67.0-138		06/26/2019 11:48	WG1302136
(S) 1,2-Dichloroethane-d4	102		70.0-130		06/26/2019 11:48	WG1302136

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

## Pesticides (GC) by Method 8081B

Analyte	Result (dry) mg/kg	Qualifier	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Aldrin	ND		0.0805	1	06/26/2019 19:27	WG1302000
Alpha BHC	ND		0.0805	1	06/26/2019 19:27	WG1302000
Beta BHC	ND		0.0805	1	06/26/2019 19:27	WG1302000
Delta BHC	ND		0.0805	1	06/26/2019 19:27	WG1302000
Gamma BHC	ND		0.0805	1	06/26/2019 19:27	WG1302000
Chlordane	ND		0.805	1	06/26/2019 19:27	WG1302000
4,4-DDD	ND		0.0805	1	06/26/2019 19:27	WG1302000
4,4-DDE	ND		0.0805	1	06/26/2019 19:27	WG1302000
4,4-DDT	ND		0.0805	1	06/26/2019 19:27	WG1302000



Collected date/time: 06/18/19 14:45

L1111579

## Pesticides (GC) by Method 8081B

Analyte	Result (dry) mg/kg	Qualifier	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Dieldrin	ND		0.0805	1	06/26/2019 19:27	<a href="#">WG1302000</a>
Endosulfan I	ND		0.0805	1	06/26/2019 19:27	<a href="#">WG1302000</a>
Endosulfan II	ND		0.0805	1	06/26/2019 19:27	<a href="#">WG1302000</a>
Endosulfan sulfate	ND		0.0805	1	06/26/2019 19:27	<a href="#">WG1302000</a>
Endrin	ND		0.0805	1	06/26/2019 19:27	<a href="#">WG1302000</a>
Endrin aldehyde	ND		0.0805	1	06/26/2019 19:27	<a href="#">WG1302000</a>
Endrin ketone	ND		0.0805	1	06/26/2019 19:27	<a href="#">WG1302000</a>
Heptachlor	ND		0.0805	1	06/26/2019 19:27	<a href="#">WG1302000</a>
Heptachlor epoxide	ND		0.0805	1	06/26/2019 19:27	<a href="#">WG1302000</a>
Hexachlorobenzene	ND		0.0805	1	06/26/2019 19:27	<a href="#">WG1302000</a>
Methoxychlor	ND		0.0805	1	06/26/2019 19:27	<a href="#">WG1302000</a>
Toxaphene	ND		1.61	1	06/26/2019 19:27	<a href="#">WG1302000</a>
(S) Decachlorobiphenyl	79.7		10.0-135		06/26/2019 19:27	<a href="#">WG1302000</a>
(S) Tetrachloro-m-xylene	84.5		10.0-139		06/26/2019 19:27	<a href="#">WG1302000</a>

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

## Polychlorinated Biphenyls (GC) by Method 8082 A

Analyte	Result (dry) mg/kg	Qualifier	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
PCB 1016	ND	J4	0.0684	1	06/26/2019 19:37	<a href="#">WG1302000</a>
PCB 1221	ND		0.0684	1	06/26/2019 19:37	<a href="#">WG1302000</a>
PCB 1232	ND		0.0684	1	06/26/2019 19:37	<a href="#">WG1302000</a>
PCB 1242	ND		0.0684	1	06/26/2019 19:37	<a href="#">WG1302000</a>
PCB 1248	ND		0.0684	1	06/26/2019 19:37	<a href="#">WG1302000</a>
PCB 1254	ND		0.0684	1	06/26/2019 19:37	<a href="#">WG1302000</a>
PCB 1260	ND	J4	0.0684	1	06/26/2019 19:37	<a href="#">WG1302000</a>
(S) Decachlorobiphenyl	79.6		10.0-135		06/26/2019 19:37	<a href="#">WG1302000</a>
(S) Tetrachloro-m-xylene	80.5		10.0-139		06/26/2019 19:37	<a href="#">WG1302000</a>

## Semi Volatile Organic Compounds (GC/MS) by Method 8270D

Analyte	Result (dry) mg/kg	Qualifier	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Acenaphthene	ND		0.664	5	06/29/2019 08:58	<a href="#">WG1303241</a>
Acenaphthylene	ND		0.664	5	06/29/2019 08:58	<a href="#">WG1303241</a>
Acetophenone	ND		6.72	5	06/29/2019 08:58	<a href="#">WG1303241</a>
Anthracene	ND		0.664	5	06/29/2019 08:58	<a href="#">WG1303241</a>
Atrazine	ND		6.72	5	06/29/2019 08:58	<a href="#">WG1303241</a>
Benzaldehyde	ND		6.72	5	06/29/2019 08:58	<a href="#">WG1303241</a>
Benzo(a)anthracene	ND		0.664	5	06/29/2019 08:58	<a href="#">WG1303241</a>
Benzo(b)fluoranthene	ND		0.664	5	06/29/2019 08:58	<a href="#">WG1303241</a>
Benzo(k)fluoranthene	ND		0.664	5	06/29/2019 08:58	<a href="#">WG1303241</a>
Benzo(g,h,i)perylene	ND		0.664	5	06/29/2019 08:58	<a href="#">WG1303241</a>
Benzo(a)pyrene	ND		0.664	5	06/29/2019 08:58	<a href="#">WG1303241</a>
Biphenyl	ND		6.72	5	06/29/2019 08:58	<a href="#">WG1303241</a>
Bis(2-chloroethoxy)methane	ND	J4	6.72	5	06/29/2019 08:58	<a href="#">WG1303241</a>
Bis(2-chloroethyl)ether	ND		6.72	5	06/29/2019 08:58	<a href="#">WG1303241</a>
Bis(2-chloroisopropyl)ether	ND	J4	6.72	5	06/29/2019 08:58	<a href="#">WG1303241</a>
4-Bromophenyl-phenylether	ND		6.72	5	06/29/2019 08:58	<a href="#">WG1303241</a>
Caprolactam	ND		6.72	5	06/29/2019 08:58	<a href="#">WG1303241</a>
Carbazole	ND		6.72	5	06/29/2019 08:58	<a href="#">WG1303241</a>
4-Chloroaniline	ND	J4	6.72	5	06/29/2019 08:58	<a href="#">WG1303241</a>
2-Chloronaphthalene	ND		0.664	5	06/29/2019 08:58	<a href="#">WG1303241</a>
4-Chlorophenyl-phenylether	ND		6.72	5	06/29/2019 08:58	<a href="#">WG1303241</a>
Chrysene	ND		0.664	5	06/29/2019 08:58	<a href="#">WG1303241</a>
Dibenz(a,h)anthracene	ND		0.664	5	06/29/2019 08:58	<a href="#">WG1303241</a>
Dibenzofuran	ND		6.72	5	06/29/2019 08:58	<a href="#">WG1303241</a>



Collected date/time: 06/18/19 14:45

L111579

## Semi Volatile Organic Compounds (GC/MS) by Method 8270D

Analyte	Result (dry) mg/kg	Qualifier	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
3,3-Dichlorobenzidine	ND		6.72	5	06/29/2019 08:58	WG1303241
2,4-Dinitrotoluene	ND		6.72	5	06/29/2019 08:58	WG1303241
2,6-Dinitrotoluene	ND		6.72	5	06/29/2019 08:58	WG1303241
Fluoranthene	ND		0.664	5	06/29/2019 08:58	WG1303241
Fluorene	ND		0.664	5	06/29/2019 08:58	WG1303241
Hexachlorobenzene	ND		6.72	5	06/29/2019 08:58	WG1303241
Hexachloro-1,3-butadiene	ND	J4	6.72	5	06/29/2019 08:58	WG1303241
Hexachlorocyclopentadiene	ND	JO	6.72	5	06/29/2019 08:58	WG1303241
Hexachloroethane	ND		6.72	5	06/29/2019 08:58	WG1303241
Indeno(1,2,3-cd)pyrene	ND		0.664	5	06/29/2019 08:58	WG1303241
Isophorone	ND	J4	6.72	5	06/29/2019 08:58	WG1303241
2-Methylnaphthalene	ND	J4	0.664	5	06/29/2019 08:58	WG1303241
Naphthalene	ND	J4	0.664	5	06/29/2019 08:58	WG1303241
2-Nitroaniline	ND		6.72	5	06/29/2019 08:58	WG1303241
3-Nitroaniline	ND		6.72	5	06/29/2019 08:58	WG1303241
4-Nitroaniline	ND		6.72	5	06/29/2019 08:58	WG1303241
Nitrobenzene	ND	J4	6.72	5	06/29/2019 08:58	WG1303241
n-Nitrosodiphenylamine	ND		6.72	5	06/29/2019 08:58	WG1303241
n-Nitrosodi-n-propylamine	ND		6.72	5	06/29/2019 08:58	WG1303241
Phenanthrene	ND		0.664	5	06/29/2019 08:58	WG1303241
Benzylbutyl phthalate	ND		6.72	5	06/29/2019 08:58	WG1303241
Bis(2-ethylhexyl)phthalate	ND		6.72	5	06/29/2019 08:58	WG1303241
Di-n-butyl phthalate	ND		6.72	5	06/29/2019 08:58	WG1303241
Diethyl phthalate	ND		6.72	5	06/29/2019 08:58	WG1303241
Dimethyl phthalate	ND		6.72	5	06/29/2019 08:58	WG1303241
Di-n-octyl phthalate	ND		6.72	5	06/29/2019 08:58	WG1303241
Pyrene	ND		0.664	5	06/29/2019 08:58	WG1303241
1,2,4,5-Tetrachlorobenzene	ND		6.72	5	06/29/2019 08:58	WG1303241
4-Chloro-3-methylphenol	ND		6.72	5	06/29/2019 08:58	WG1303241
2-Chlorophenol	ND		6.72	5	06/29/2019 08:58	WG1303241
2-Methylphenol	ND		6.72	5	06/29/2019 08:58	WG1303241
3&4-Methyl Phenol	ND		6.72	5	06/29/2019 08:58	WG1303241
2,4-Dichlorophenol	ND		6.72	5	06/29/2019 08:58	WG1303241
2,4-Dimethylphenol	ND	JO J4	6.72	5	06/29/2019 08:58	WG1303241
4,6-Dinitro-2-methylphenol	ND		6.72	5	06/29/2019 08:58	WG1303241
2,4-Dinitrophenol	ND		6.72	5	06/29/2019 08:58	WG1303241
2-Nitrophenol	ND		6.72	5	06/29/2019 08:58	WG1303241
4-Nitrophenol	ND		6.72	5	06/29/2019 08:58	WG1303241
Pentachlorophenol	ND		6.72	5	06/29/2019 08:58	WG1303241
Phenol	ND		6.72	5	06/29/2019 08:58	WG1303241
2,4,5-Trichlorophenol	ND		6.72	5	06/29/2019 08:58	WG1303241
2,4,6-Trichlorophenol	ND		6.72	5	06/29/2019 08:58	WG1303241
(S) 2-Fluorophenol	74.1		12.0-120		06/29/2019 08:58	WG1303241
(S) Phenol-d5	72.2		10.0-120		06/29/2019 08:58	WG1303241
(S) Nitrobenzene-d5	55.9		10.0-122		06/29/2019 08:58	WG1303241
(S) 2-Fluorobiphenyl	57.2		15.0-120		06/29/2019 08:58	WG1303241
(S) 2,4,6-Tribromophenol	63.6		10.0-127		06/29/2019 08:58	WG1303241
(S) p-Terphenyl-d14	58.1		10.0-120		06/29/2019 08:58	WG1303241

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

## Sample Narrative:

L111579-06 WG1303241: Dilution due to matrix.





Collected date/time: 06/18/19 14:45

L1111579

Semi Volatile Organic Compounds (GC/MS) by Method 8270E-SIM

Analyte	Result (dry) mg/kg	Qualifier	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Anthracene	ND		0.0241	1	06/27/2019 16:23	<a href="#">WG1302016</a>
Acenaphthene	ND		0.0241	1	06/27/2019 16:23	<a href="#">WG1302016</a>
Acenaphthylene	ND		0.0241	1	06/27/2019 16:23	<a href="#">WG1302016</a>
Benzo(a)anthracene	ND		0.0241	1	06/27/2019 16:23	<a href="#">WG1302016</a>
Benzo(a)pyrene	ND		0.0241	1	06/27/2019 16:23	<a href="#">WG1302016</a>
Benzo(b)fluoranthene	ND		0.0241	1	06/27/2019 16:23	<a href="#">WG1302016</a>
Benzo(g,h,i)perylene	ND		0.0241	1	06/27/2019 16:23	<a href="#">WG1302016</a>
Benzo(k)fluoranthene	ND		0.0241	1	06/27/2019 16:23	<a href="#">WG1302016</a>
Chrysene	ND		0.0241	1	06/27/2019 16:23	<a href="#">WG1302016</a>
Dibenz(a,h)anthracene	ND		0.0241	1	06/27/2019 16:23	<a href="#">WG1302016</a>
Fluoranthene	ND		0.0241	1	06/27/2019 16:23	<a href="#">WG1302016</a>
Fluorene	ND		0.0241	1	06/27/2019 16:23	<a href="#">WG1302016</a>
Indeno(1,2,3-cd)pyrene	ND		0.0241	1	06/27/2019 16:23	<a href="#">WG1302016</a>
Naphthalene	ND		0.0805	1	06/27/2019 16:23	<a href="#">WG1302016</a>
Phenanthrene	ND		0.0241	1	06/27/2019 16:23	<a href="#">WG1302016</a>
Pyrene	ND		0.0241	1	06/27/2019 16:23	<a href="#">WG1302016</a>
1-Methylnaphthalene	0.0833		0.0805	1	06/27/2019 16:23	<a href="#">WG1302016</a>
2-Methylnaphthalene	0.117		0.0805	1	06/27/2019 16:23	<a href="#">WG1302016</a>
<i>(S) p-Terphenyl-d14</i>	25.1		23.0-120		06/27/2019 16:23	<a href="#">WG1302016</a>
<i>(S) Nitrobenzene-d5</i>	89.9		14.0-149		06/27/2019 16:23	<a href="#">WG1302016</a>
<i>(S) 2-Fluorobiphenyl</i>	35.3		34.0-125		06/27/2019 16:23	<a href="#">WG1302016</a>

- 1 Cp
- 2 Tc
- 3 Ss
- 4 Cn
- 5 Sr
- 6 Qc
- 7 Gl
- 8 Al
- 9 Sc



Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	35.5		1	06/26/2019 14:08	<a href="#">WG1302166</a>

1 Cp

2 Tc

Wet Chemistry by Method 9012B

Analyte	Result (dry)	Qualifier	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg		date / time	
Cyanide	ND		0.704	1	07/02/2019 19:59	<a href="#">WG1304908</a>

3 Ss

4 Cn

Mercury by Method 7471B

Analyte	Result (dry)	Qualifier	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg		date / time	
Mercury	0.319	<u>B</u>	0.0563	1	06/26/2019 12:44	<a href="#">WG1301944</a>

5 Sr

6 Qc

Metals (ICP) by Method 6010D

Analyte	Result (dry)	Qualifier	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg		date / time	
Aluminum	26500		28.1	1	06/27/2019 22:58	<a href="#">WG1301970</a>
Antimony	ND		5.63	1	06/27/2019 22:58	<a href="#">WG1301970</a>
Arsenic	ND		5.63	1	06/27/2019 22:58	<a href="#">WG1301970</a>
Barium	409		1.41	1	06/27/2019 22:58	<a href="#">WG1301970</a>
Beryllium	ND		0.563	1	06/27/2019 22:58	<a href="#">WG1301970</a>
Cadmium	ND		1.41	1	06/27/2019 22:58	<a href="#">WG1301970</a>
Calcium	6940		281	1	06/27/2019 22:58	<a href="#">WG1301970</a>
Chromium	18.7		2.81	1	06/27/2019 22:58	<a href="#">WG1301970</a>
Cobalt	6.60		2.81	1	06/27/2019 22:58	<a href="#">WG1301970</a>
Copper	57.3		5.63	1	06/27/2019 22:58	<a href="#">WG1301970</a>
Iron	13500		28.1	1	06/27/2019 22:58	<a href="#">WG1301970</a>
Lead	31.9		1.41	1	06/27/2019 22:58	<a href="#">WG1301970</a>
Magnesium	1160		281	1	06/27/2019 22:58	<a href="#">WG1301970</a>
Manganese	375		2.81	1	06/27/2019 22:58	<a href="#">WG1301970</a>
Nickel	16.0		5.63	1	06/27/2019 22:58	<a href="#">WG1301970</a>
Potassium	578		281	1	06/27/2019 22:58	<a href="#">WG1301970</a>
Selenium	ND		5.63	1	06/27/2019 22:58	<a href="#">WG1301970</a>
Silver	ND		2.81	1	06/27/2019 22:58	<a href="#">WG1301970</a>
Sodium	1120		281	1	06/27/2019 22:58	<a href="#">WG1301970</a>
Thallium	ND		5.63	1	06/27/2019 22:58	<a href="#">WG1301970</a>
Vanadium	90.2		5.63	1	06/27/2019 22:58	<a href="#">WG1301970</a>
Zinc	622		14.1	1	06/27/2019 22:58	<a href="#">WG1301970</a>

7 Gl

8 Al

9 Sc

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result (dry)	Qualifier	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg		date / time	
Acetone	0.202		0.0746	1.06	06/26/2019 12:07	<a href="#">WG1302136</a>
Benzene	ND		0.00298	1.06	06/26/2019 12:07	<a href="#">WG1302136</a>
Bromochloromethane	ND		0.0149	1.06	06/26/2019 12:07	<a href="#">WG1302136</a>
Bromodichloromethane	ND		0.00746	1.06	06/26/2019 12:07	<a href="#">WG1302136</a>
Bromoform	ND		0.0746	1.06	06/26/2019 12:07	<a href="#">WG1302136</a>
Bromomethane	ND		0.0372	1.06	06/26/2019 12:07	<a href="#">WG1302136</a>
Carbon disulfide	ND		0.0372	1.06	06/26/2019 12:07	<a href="#">WG1302136</a>
Carbon tetrachloride	ND		0.0149	1.06	06/26/2019 12:07	<a href="#">WG1302136</a>
Chlorobenzene	ND		0.00746	1.06	06/26/2019 12:07	<a href="#">WG1302136</a>
Chlorodibromomethane	ND		0.00746	1.06	06/26/2019 12:07	<a href="#">WG1302136</a>
Chloroethane	ND		0.0149	1.06	06/26/2019 12:07	<a href="#">WG1302136</a>
Chloroform	0.00927		0.00746	1.06	06/26/2019 12:07	<a href="#">WG1302136</a>
Chloromethane	ND		0.0372	1.06	06/26/2019 12:07	<a href="#">WG1302136</a>



Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result (dry) mg/kg	Qualifier	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Cyclohexane	ND		0.00746	1.06	06/26/2019 12:07	WG1302136
1,2-Dibromo-3-Chloropropane	ND		0.0746	1.06	06/26/2019 12:07	WG1302136
1,2-Dibromoethane	ND		0.00746	1.06	06/26/2019 12:07	WG1302136
Dichlorodifluoromethane	ND	J3	0.00746	1.06	06/26/2019 12:07	WG1302136
1,1-Dichloroethane	ND		0.00746	1.06	06/26/2019 12:07	WG1302136
1,2-Dichloroethane	ND		0.00746	1.06	06/26/2019 12:07	WG1302136
1,2-Dichlorobenzene	ND		0.0149	1.06	06/26/2019 12:07	WG1302136
1,3-Dichlorobenzene	ND		0.0149	1.06	06/26/2019 12:07	WG1302136
1,4-Dichlorobenzene	ND		0.0149	1.06	06/26/2019 12:07	WG1302136
1,1-Dichloroethene	ND		0.00746	1.06	06/26/2019 12:07	WG1302136
cis-1,2-Dichloroethene	ND		0.00746	1.06	06/26/2019 12:07	WG1302136
trans-1,2-Dichloroethene	ND		0.0149	1.06	06/26/2019 12:07	WG1302136
1,2-Dichloropropane	ND		0.0149	1.06	06/26/2019 12:07	WG1302136
cis-1,3-Dichloropropene	ND		0.00746	1.06	06/26/2019 12:07	WG1302136
trans-1,3-Dichloropropene	ND		0.0149	1.06	06/26/2019 12:07	WG1302136
Ethylbenzene	ND		0.00746	1.06	06/26/2019 12:07	WG1302136
2-Hexanone	ND		0.0746	1.06	06/26/2019 12:07	WG1302136
Isopropylbenzene	ND		0.00746	1.06	06/26/2019 12:07	WG1302136
2-Butanone (MEK)	0.158	B	0.0746	1.06	06/26/2019 12:07	WG1302136
Methyl Acetate	0.970		0.0149	1.06	06/26/2019 12:07	WG1302136
Methyl Cyclohexane	ND		0.0149	1.06	06/26/2019 12:07	WG1302136
Methylene Chloride	ND		0.0746	1.06	06/26/2019 12:07	WG1302136
4-Methyl-2-pentanone (MIBK)	ND		0.0746	1.06	06/26/2019 12:07	WG1302136
Methyl tert-butyl ether	ND		0.00298	1.06	06/26/2019 12:07	WG1302136
Styrene	ND		0.0372	1.06	06/26/2019 12:07	WG1302136
1,1,2,2-Tetrachloroethane	ND		0.00746	1.06	06/26/2019 12:07	WG1302136
Tetrachloroethene	ND		0.00746	1.06	06/26/2019 12:07	WG1302136
Toluene	0.0292		0.0149	1.06	06/26/2019 12:07	WG1302136
1,2,3-Trichlorobenzene	ND		0.00746	1.06	06/26/2019 12:07	WG1302136
1,2,4-Trichlorobenzene	ND		0.0372	1.06	06/26/2019 12:07	WG1302136
1,1,1-Trichloroethane	ND		0.00746	1.06	06/26/2019 12:07	WG1302136
1,1,2-Trichloroethane	ND		0.00746	1.06	06/26/2019 12:07	WG1302136
Trichloroethene	ND		0.00298	1.06	06/26/2019 12:07	WG1302136
Trichlorofluoromethane	ND		0.00746	1.06	06/26/2019 12:07	WG1302136
1,1,2-Trichlorotrifluoroethane	ND		0.00746	1.06	06/26/2019 12:07	WG1302136
Vinyl chloride	ND		0.00746	1.06	06/26/2019 12:07	WG1302136
Xylenes, Total	ND		0.0194	1.06	06/26/2019 12:07	WG1302136
(S) Toluene-d8	101		75.0-131		06/26/2019 12:07	WG1302136
(S) 4-Bromofluorobenzene	94.1		67.0-138		06/26/2019 12:07	WG1302136
(S) 1,2-Dichloroethane-d4	104		70.0-130		06/26/2019 12:07	WG1302136

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

Pesticides (GC) by Method 8081B

Analyte	Result (dry) mg/kg	Qualifier	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Aldrin	ND		0.0563	1	06/26/2019 19:40	WG1302000
Alpha BHC	ND		0.0563	1	06/26/2019 19:40	WG1302000
Beta BHC	ND		0.0563	1	06/26/2019 19:40	WG1302000
Delta BHC	ND		0.0563	1	06/26/2019 19:40	WG1302000
Gamma BHC	ND		0.0563	1	06/26/2019 19:40	WG1302000
Chlordane	ND		0.563	1	06/26/2019 19:40	WG1302000
4,4-DDD	ND		0.0563	1	06/26/2019 19:40	WG1302000
4,4-DDE	ND		0.0563	1	06/26/2019 19:40	WG1302000
4,4-DDT	ND		0.0563	1	06/26/2019 19:40	WG1302000
Dieldrin	ND		0.0563	1	06/26/2019 19:40	WG1302000
Endosulfan I	ND		0.0563	1	06/26/2019 19:40	WG1302000
Endosulfan II	ND		0.0563	1	06/26/2019 19:40	WG1302000



Pesticides (GC) by Method 8081B

Analyte	Result (dry) mg/kg	Qualifier	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Endosulfan sulfate	ND		0.0563	1	06/26/2019 19:40	<a href="#">WG1302000</a>
Endrin	ND		0.0563	1	06/26/2019 19:40	<a href="#">WG1302000</a>
Endrin aldehyde	ND		0.0563	1	06/26/2019 19:40	<a href="#">WG1302000</a>
Endrin ketone	ND		0.0563	1	06/26/2019 19:40	<a href="#">WG1302000</a>
Heptachlor	ND		0.0563	1	06/26/2019 19:40	<a href="#">WG1302000</a>
Heptachlor epoxide	ND		0.0563	1	06/26/2019 19:40	<a href="#">WG1302000</a>
Hexachlorobenzene	ND		0.0563	1	06/26/2019 19:40	<a href="#">WG1302000</a>
Methoxychlor	ND		0.0563	1	06/26/2019 19:40	<a href="#">WG1302000</a>
Toxaphene	ND		1.13	1	06/26/2019 19:40	<a href="#">WG1302000</a>
(S) Decachlorobiphenyl	78.7		10.0-135		06/26/2019 19:40	<a href="#">WG1302000</a>
(S) Tetrachloro-m-xylene	83.3		10.0-139		06/26/2019 19:40	<a href="#">WG1302000</a>

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

Polychlorinated Biphenyls (GC) by Method 8082 A

Analyte	Result (dry) mg/kg	Qualifier	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
PCB 1016	ND	J4	0.0478	1	06/26/2019 19:50	<a href="#">WG1302000</a>
PCB 1221	ND		0.0478	1	06/26/2019 19:50	<a href="#">WG1302000</a>
PCB 1232	ND		0.0478	1	06/26/2019 19:50	<a href="#">WG1302000</a>
PCB 1242	ND		0.0478	1	06/26/2019 19:50	<a href="#">WG1302000</a>
PCB 1248	ND		0.0478	1	06/26/2019 19:50	<a href="#">WG1302000</a>
PCB 1254	ND		0.0478	1	06/26/2019 19:50	<a href="#">WG1302000</a>
PCB 1260	ND	J4	0.0478	1	06/26/2019 19:50	<a href="#">WG1302000</a>
(S) Decachlorobiphenyl	74.2		10.0-135		06/26/2019 19:50	<a href="#">WG1302000</a>
(S) Tetrachloro-m-xylene	75.3		10.0-139		06/26/2019 19:50	<a href="#">WG1302000</a>

Semi Volatile Organic Compounds (GC/MS) by Method 8270D

Analyte	Result (dry) mg/kg	Qualifier	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Acenaphthene	ND		0.929	10	06/29/2019 07:21	<a href="#">WG1303241</a>
Acenaphthylene	ND		0.929	10	06/29/2019 07:21	<a href="#">WG1303241</a>
Acetophenone	ND		9.37	10	06/29/2019 07:21	<a href="#">WG1303241</a>
Anthracene	ND		0.929	10	06/29/2019 07:21	<a href="#">WG1303241</a>
Atrazine	ND		9.37	10	06/29/2019 07:21	<a href="#">WG1303241</a>
Benzaldehyde	ND		9.37	10	06/29/2019 07:21	<a href="#">WG1303241</a>
Benzo(a)anthracene	ND		0.929	10	06/29/2019 07:21	<a href="#">WG1303241</a>
Benzo(b)fluoranthene	ND		0.929	10	06/29/2019 07:21	<a href="#">WG1303241</a>
Benzo(k)fluoranthene	ND		0.929	10	06/29/2019 07:21	<a href="#">WG1303241</a>
Benzo(g,h,i)perylene	ND		0.929	10	06/29/2019 07:21	<a href="#">WG1303241</a>
Benzo(a)pyrene	ND		0.929	10	06/29/2019 07:21	<a href="#">WG1303241</a>
Biphenyl	ND		9.37	10	06/29/2019 07:21	<a href="#">WG1303241</a>
Bis(2-chloroethoxy)methane	ND	J4	9.37	10	06/29/2019 07:21	<a href="#">WG1303241</a>
Bis(2-chloroethyl)ether	ND		9.37	10	06/29/2019 07:21	<a href="#">WG1303241</a>
Bis(2-chloroisopropyl)ether	ND	J4	9.37	10	06/29/2019 07:21	<a href="#">WG1303241</a>
4-Bromophenyl-phenylether	ND		9.37	10	06/29/2019 07:21	<a href="#">WG1303241</a>
Caprolactam	ND		9.37	10	06/29/2019 07:21	<a href="#">WG1303241</a>
Carbazole	ND		9.37	10	06/29/2019 07:21	<a href="#">WG1303241</a>
4-Chloroaniline	ND	J4	9.37	10	06/29/2019 07:21	<a href="#">WG1303241</a>
2-Chloronaphthalene	ND		0.929	10	06/29/2019 07:21	<a href="#">WG1303241</a>
4-Chlorophenyl-phenylether	ND		9.37	10	06/29/2019 07:21	<a href="#">WG1303241</a>
Chrysene	ND		0.929	10	06/29/2019 07:21	<a href="#">WG1303241</a>
Dibenz(a,h)anthracene	ND		0.929	10	06/29/2019 07:21	<a href="#">WG1303241</a>
Dibenzofuran	ND		9.37	10	06/29/2019 07:21	<a href="#">WG1303241</a>
3,3-Dichlorobenzidine	ND		9.37	10	06/29/2019 07:21	<a href="#">WG1303241</a>
2,4-Dinitrotoluene	ND		9.37	10	06/29/2019 07:21	<a href="#">WG1303241</a>
2,6-Dinitrotoluene	ND		9.37	10	06/29/2019 07:21	<a href="#">WG1303241</a>



Collected date/time: 06/19/19 09:15

L1111579

Semi Volatile Organic Compounds (GC/MS) by Method 8270D

Analyte	Result (dry) mg/kg	Qualifier	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Fluoranthene	ND		0.929	10	06/29/2019 07:21	WG1303241
Fluorene	ND		0.929	10	06/29/2019 07:21	WG1303241
Hexachlorobenzene	ND		9.37	10	06/29/2019 07:21	WG1303241
Hexachloro-1,3-butadiene	ND	J4	9.37	10	06/29/2019 07:21	WG1303241
Hexachlorocyclopentadiene	ND	JO	9.37	10	06/29/2019 07:21	WG1303241
Hexachloroethane	ND		9.37	10	06/29/2019 07:21	WG1303241
Indeno(1,2,3-cd)pyrene	ND		0.929	10	06/29/2019 07:21	WG1303241
Isophorone	ND	J4	9.37	10	06/29/2019 07:21	WG1303241
2-Methylnaphthalene	ND	J4	0.929	10	06/29/2019 07:21	WG1303241
Naphthalene	ND	J4	0.929	10	06/29/2019 07:21	WG1303241
2-Nitroaniline	ND		9.37	10	06/29/2019 07:21	WG1303241
3-Nitroaniline	ND		9.37	10	06/29/2019 07:21	WG1303241
4-Nitroaniline	ND		9.37	10	06/29/2019 07:21	WG1303241
Nitrobenzene	ND	J4	9.37	10	06/29/2019 07:21	WG1303241
n-Nitrosodiphenylamine	ND		9.37	10	06/29/2019 07:21	WG1303241
n-Nitrosodi-n-propylamine	ND		9.37	10	06/29/2019 07:21	WG1303241
Phenanthrene	ND		0.929	10	06/29/2019 07:21	WG1303241
Benzylbutyl phthalate	ND		9.37	10	06/29/2019 07:21	WG1303241
Bis(2-ethylhexyl)phthalate	ND		9.37	10	06/29/2019 07:21	WG1303241
Di-n-butyl phthalate	ND		9.37	10	06/29/2019 07:21	WG1303241
Diethyl phthalate	ND		9.37	10	06/29/2019 07:21	WG1303241
Dimethyl phthalate	ND		9.37	10	06/29/2019 07:21	WG1303241
Di-n-octyl phthalate	ND		9.37	10	06/29/2019 07:21	WG1303241
Pyrene	ND		0.929	10	06/29/2019 07:21	WG1303241
1,2,4,5-Tetrachlorobenzene	ND		9.37	10	06/29/2019 07:21	WG1303241
4-Chloro-3-methylphenol	ND		9.37	10	06/29/2019 07:21	WG1303241
2-Chlorophenol	ND		9.37	10	06/29/2019 07:21	WG1303241
2-Methylphenol	ND		9.37	10	06/29/2019 07:21	WG1303241
3&4-Methyl Phenol	ND		9.37	10	06/29/2019 07:21	WG1303241
2,4-Dichlorophenol	ND		9.37	10	06/29/2019 07:21	WG1303241
2,4-Dimethylphenol	ND	JO J4	9.37	10	06/29/2019 07:21	WG1303241
4,6-Dinitro-2-methylphenol	ND		9.37	10	06/29/2019 07:21	WG1303241
2,4-Dinitrophenol	ND		9.37	10	06/29/2019 07:21	WG1303241
2-Nitrophenol	ND		9.37	10	06/29/2019 07:21	WG1303241
4-Nitrophenol	ND		9.37	10	06/29/2019 07:21	WG1303241
Pentachlorophenol	ND		9.37	10	06/29/2019 07:21	WG1303241
Phenol	ND		9.37	10	06/29/2019 07:21	WG1303241
2,4,5-Trichlorophenol	ND		9.37	10	06/29/2019 07:21	WG1303241
2,4,6-Trichlorophenol	ND		9.37	10	06/29/2019 07:21	WG1303241
(S) 2-Fluorophenol	89.9		12.0-120		06/29/2019 07:21	WG1303241
(S) Phenol-d5	75.4		10.0-120		06/29/2019 07:21	WG1303241
(S) Nitrobenzene-d5	73.1		10.0-122		06/29/2019 07:21	WG1303241
(S) 2-Fluorobiphenyl	61.8		15.0-120		06/29/2019 07:21	WG1303241
(S) 2,4,6-Tribromophenol	64.7		10.0-127		06/29/2019 07:21	WG1303241
(S) p-Terphenyl-d14	60.6		10.0-120		06/29/2019 07:21	WG1303241

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

Sample Narrative:

L1111579-07 WG1303241: Dilution due to matrix impact during extract concentration procedure

Semi Volatile Organic Compounds (GC/MS) by Method 8270E-SIM

Analyte	Result (dry) mg/kg	Qualifier	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Anthracene	ND		0.0169	1	06/27/2019 16:44	WG1302016
Acenaphthene	ND		0.0169	1	06/27/2019 16:44	WG1302016
Acenaphthylene	ND		0.0169	1	06/27/2019 16:44	WG1302016
Benzo(a)anthracene	ND		0.0169	1	06/27/2019 16:44	WG1302016





Semi Volatile Organic Compounds (GC/MS) by Method 8270E-SIM

Analyte	Result (dry) mg/kg	Qualifier	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Benzo(a)pyrene	ND		0.0169	1	06/27/2019 16:44	<a href="#">WG1302016</a>
Benzo(b)fluoranthene	ND		0.0169	1	06/27/2019 16:44	<a href="#">WG1302016</a>
Benzo(g,h,i)perylene	ND		0.0169	1	06/27/2019 16:44	<a href="#">WG1302016</a>
Benzo(k)fluoranthene	ND		0.0169	1	06/27/2019 16:44	<a href="#">WG1302016</a>
Chrysene	ND		0.0169	1	06/27/2019 16:44	<a href="#">WG1302016</a>
Dibenz(a,h)anthracene	ND		0.0169	1	06/27/2019 16:44	<a href="#">WG1302016</a>
Fluoranthene	ND		0.0169	1	06/27/2019 16:44	<a href="#">WG1302016</a>
Fluorene	ND		0.0169	1	06/27/2019 16:44	<a href="#">WG1302016</a>
Indeno(1,2,3-cd)pyrene	ND		0.0169	1	06/27/2019 16:44	<a href="#">WG1302016</a>
Naphthalene	ND		0.0563	1	06/27/2019 16:44	<a href="#">WG1302016</a>
Phenanthrene	ND		0.0169	1	06/27/2019 16:44	<a href="#">WG1302016</a>
Pyrene	ND		0.0169	1	06/27/2019 16:44	<a href="#">WG1302016</a>
1-Methylnaphthalene	ND		0.0563	1	06/27/2019 16:44	<a href="#">WG1302016</a>
2-Methylnaphthalene	ND		0.0563	1	06/27/2019 16:44	<a href="#">WG1302016</a>
<i>(S) p-Terphenyl-d14</i>	68.0		23.0-120		06/27/2019 16:44	<a href="#">WG1302016</a>
<i>(S) Nitrobenzene-d5</i>	58.4		14.0-149		06/27/2019 16:44	<a href="#">WG1302016</a>
<i>(S) 2-Fluorobiphenyl</i>	53.6		34.0-125		06/27/2019 16:44	<a href="#">WG1302016</a>

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc



Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	56.7		1	06/26/2019 14:08	<a href="#">WG1302166</a>

1 Cp

2 Tc

Wet Chemistry by Method 9012B

Analyte	Result (dry)	Qualifier	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg		date / time	
Cyanide	ND		0.441	1	07/02/2019 20:00	<a href="#">WG1304908</a>

3 Ss

4 Cn

Mercury by Method 7471B

Analyte	Result (dry)	Qualifier	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg		date / time	
Mercury	0.0855	<u>B</u>	0.0353	1	06/26/2019 12:46	<a href="#">WG1301944</a>

5 Sr

6 Qc

Metals (ICP) by Method 6010D

Analyte	Result (dry)	Qualifier	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg		date / time	
Aluminum	17500		17.6	1	06/27/2019 23:00	<a href="#">WG1301970</a>
Antimony	ND		3.53	1	06/27/2019 23:00	<a href="#">WG1301970</a>
Arsenic	ND		3.53	1	06/27/2019 23:00	<a href="#">WG1301970</a>
Barium	86.1		0.882	1	06/27/2019 23:00	<a href="#">WG1301970</a>
Beryllium	0.460		0.353	1	06/27/2019 23:00	<a href="#">WG1301970</a>
Cadmium	1.22		0.882	1	06/27/2019 23:00	<a href="#">WG1301970</a>
Calcium	9660		176	1	06/27/2019 23:00	<a href="#">WG1301970</a>
Chromium	30.0		1.76	1	06/27/2019 23:00	<a href="#">WG1301970</a>
Cobalt	9.52		1.76	1	06/27/2019 23:00	<a href="#">WG1301970</a>
Copper	51.5		3.53	1	06/27/2019 23:00	<a href="#">WG1301970</a>
Iron	21100		17.6	1	06/27/2019 23:00	<a href="#">WG1301970</a>
Lead	31.4		0.882	1	06/27/2019 23:00	<a href="#">WG1301970</a>
Magnesium	1460		176	1	06/27/2019 23:00	<a href="#">WG1301970</a>
Manganese	285		1.76	1	06/27/2019 23:00	<a href="#">WG1301970</a>
Nickel	16.6		3.53	1	06/27/2019 23:00	<a href="#">WG1301970</a>
Potassium	449		176	1	06/27/2019 23:00	<a href="#">WG1301970</a>
Selenium	ND		3.53	1	06/27/2019 23:00	<a href="#">WG1301970</a>
Silver	ND		1.76	1	06/27/2019 23:00	<a href="#">WG1301970</a>
Sodium	1220		176	1	06/27/2019 23:00	<a href="#">WG1301970</a>
Thallium	ND		3.53	1	06/27/2019 23:00	<a href="#">WG1301970</a>
Vanadium	103		3.53	1	06/27/2019 23:00	<a href="#">WG1301970</a>
Zinc	375		8.82	1	06/27/2019 23:00	<a href="#">WG1301970</a>

7 Gl

8 Al

9 Sc

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result (dry)	Qualifier	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg		date / time	
Acetone	0.266		0.0565	1.28	06/26/2019 12:26	<a href="#">WG1302136</a>
Benzene	0.00251		0.00226	1.28	06/26/2019 12:26	<a href="#">WG1302136</a>
Bromochloromethane	ND		0.0113	1.28	06/26/2019 12:26	<a href="#">WG1302136</a>
Bromodichloromethane	ND		0.00565	1.28	06/26/2019 12:26	<a href="#">WG1302136</a>
Bromoform	ND		0.0565	1.28	06/26/2019 12:26	<a href="#">WG1302136</a>
Bromomethane	ND		0.0282	1.28	06/26/2019 12:26	<a href="#">WG1302136</a>
Carbon disulfide	ND		0.0282	1.28	06/26/2019 12:26	<a href="#">WG1302136</a>
Carbon tetrachloride	ND		0.0113	1.28	06/26/2019 12:26	<a href="#">WG1302136</a>
Chlorobenzene	ND		0.00565	1.28	06/26/2019 12:26	<a href="#">WG1302136</a>
Chlorodibromomethane	ND		0.00565	1.28	06/26/2019 12:26	<a href="#">WG1302136</a>
Chloroethane	ND		0.0113	1.28	06/26/2019 12:26	<a href="#">WG1302136</a>
Chloroform	ND		0.00565	1.28	06/26/2019 12:26	<a href="#">WG1302136</a>
Chloromethane	ND		0.0282	1.28	06/26/2019 12:26	<a href="#">WG1302136</a>



Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result (dry) mg/kg	Qualifier	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Cyclohexane	ND		0.00565	1.28	06/26/2019 12:26	WG1302136
1,2-Dibromo-3-Chloropropane	ND		0.0565	1.28	06/26/2019 12:26	WG1302136
1,2-Dibromoethane	ND		0.00565	1.28	06/26/2019 12:26	WG1302136
Dichlorodifluoromethane	ND	J3	0.00565	1.28	06/26/2019 12:26	WG1302136
1,1-Dichloroethane	ND		0.00565	1.28	06/26/2019 12:26	WG1302136
1,2-Dichloroethane	ND		0.00565	1.28	06/26/2019 12:26	WG1302136
1,2-Dichlorobenzene	ND		0.0113	1.28	06/26/2019 12:26	WG1302136
1,3-Dichlorobenzene	ND		0.0113	1.28	06/26/2019 12:26	WG1302136
1,4-Dichlorobenzene	ND		0.0113	1.28	06/26/2019 12:26	WG1302136
1,1-Dichloroethene	ND		0.00565	1.28	06/26/2019 12:26	WG1302136
cis-1,2-Dichloroethene	ND		0.00565	1.28	06/26/2019 12:26	WG1302136
trans-1,2-Dichloroethene	ND		0.0113	1.28	06/26/2019 12:26	WG1302136
1,2-Dichloropropane	ND		0.0113	1.28	06/26/2019 12:26	WG1302136
cis-1,3-Dichloropropene	ND		0.00565	1.28	06/26/2019 12:26	WG1302136
trans-1,3-Dichloropropene	ND		0.0113	1.28	06/26/2019 12:26	WG1302136
Ethylbenzene	ND		0.00565	1.28	06/26/2019 12:26	WG1302136
2-Hexanone	ND		0.0565	1.28	06/26/2019 12:26	WG1302136
Isopropylbenzene	ND		0.00565	1.28	06/26/2019 12:26	WG1302136
2-Butanone (MEK)	0.129	B	0.0565	1.28	06/26/2019 12:26	WG1302136
Methyl Acetate	0.953		0.0113	1.28	06/26/2019 12:26	WG1302136
Methyl Cyclohexane	ND		0.0113	1.28	06/26/2019 12:26	WG1302136
Methylene Chloride	ND		0.0565	1.28	06/26/2019 12:26	WG1302136
4-Methyl-2-pentanone (MIBK)	ND		0.0565	1.28	06/26/2019 12:26	WG1302136
Methyl tert-butyl ether	ND		0.00226	1.28	06/26/2019 12:26	WG1302136
Styrene	ND		0.0282	1.28	06/26/2019 12:26	WG1302136
1,1,2,2-Tetrachloroethane	ND		0.00565	1.28	06/26/2019 12:26	WG1302136
Tetrachloroethene	ND		0.00565	1.28	06/26/2019 12:26	WG1302136
Toluene	0.0408		0.0113	1.28	06/26/2019 12:26	WG1302136
1,2,3-Trichlorobenzene	ND		0.00565	1.28	06/26/2019 12:26	WG1302136
1,2,4-Trichlorobenzene	ND		0.0282	1.28	06/26/2019 12:26	WG1302136
1,1,1-Trichloroethane	ND		0.00565	1.28	06/26/2019 12:26	WG1302136
1,1,2-Trichloroethane	ND		0.00565	1.28	06/26/2019 12:26	WG1302136
Trichloroethene	ND		0.00226	1.28	06/26/2019 12:26	WG1302136
Trichlorofluoromethane	ND		0.00565	1.28	06/26/2019 12:26	WG1302136
1,1,2-Trichlorotrifluoroethane	ND		0.00565	1.28	06/26/2019 12:26	WG1302136
Vinyl chloride	ND		0.00565	1.28	06/26/2019 12:26	WG1302136
Xylenes, Total	ND		0.0147	1.28	06/26/2019 12:26	WG1302136
(S) Toluene-d8	102		75.0-131		06/26/2019 12:26	WG1302136
(S) 4-Bromofluorobenzene	97.1		67.0-138		06/26/2019 12:26	WG1302136
(S) 1,2-Dichloroethane-d4	104		70.0-130		06/26/2019 12:26	WG1302136

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

Pesticides (GC) by Method 8081B

Analyte	Result (dry) mg/kg	Qualifier	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Aldrin	ND		0.0353	1	06/26/2019 19:52	WG1302000
Alpha BHC	ND		0.0353	1	06/26/2019 19:52	WG1302000
Beta BHC	ND		0.0353	1	06/26/2019 19:52	WG1302000
Delta BHC	ND		0.0353	1	06/26/2019 19:52	WG1302000
Gamma BHC	ND		0.0353	1	06/26/2019 19:52	WG1302000
Chlordane	ND		0.353	1	06/26/2019 19:52	WG1302000
4,4-DDD	ND		0.0353	1	06/26/2019 19:52	WG1302000
4,4-DDE	ND		0.0353	1	06/26/2019 19:52	WG1302000
4,4-DDT	ND		0.0353	1	06/26/2019 19:52	WG1302000
Dieldrin	ND		0.0353	1	06/26/2019 19:52	WG1302000
Endosulfan I	ND		0.0353	1	06/26/2019 19:52	WG1302000
Endosulfan II	ND		0.0353	1	06/26/2019 19:52	WG1302000



Pesticides (GC) by Method 8081B

Analyte	Result (dry) mg/kg	Qualifier	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Endosulfan sulfate	ND		0.0353	1	06/26/2019 19:52	<a href="#">WG1302000</a>
Endrin	ND		0.0353	1	06/26/2019 19:52	<a href="#">WG1302000</a>
Endrin aldehyde	ND		0.0353	1	06/26/2019 19:52	<a href="#">WG1302000</a>
Endrin ketone	ND		0.0353	1	06/26/2019 19:52	<a href="#">WG1302000</a>
Heptachlor	ND		0.0353	1	06/26/2019 19:52	<a href="#">WG1302000</a>
Heptachlor epoxide	ND		0.0353	1	06/26/2019 19:52	<a href="#">WG1302000</a>
Hexachlorobenzene	ND		0.0353	1	06/26/2019 19:52	<a href="#">WG1302000</a>
Methoxychlor	ND		0.0353	1	06/26/2019 19:52	<a href="#">WG1302000</a>
Toxaphene	ND		0.706	1	06/26/2019 19:52	<a href="#">WG1302000</a>
(S) Decachlorobiphenyl	74.3		10.0-135		06/26/2019 19:52	<a href="#">WG1302000</a>
(S) Tetrachloro-m-xylene	85.1		10.0-139		06/26/2019 19:52	<a href="#">WG1302000</a>

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

Polychlorinated Biphenyls (GC) by Method 8082 A

Analyte	Result (dry) mg/kg	Qualifier	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
PCB 1016	ND	J4	0.0300	1	06/26/2019 20:02	<a href="#">WG1302000</a>
PCB 1221	ND		0.0300	1	06/26/2019 20:02	<a href="#">WG1302000</a>
PCB 1232	ND		0.0300	1	06/26/2019 20:02	<a href="#">WG1302000</a>
PCB 1242	ND		0.0300	1	06/26/2019 20:02	<a href="#">WG1302000</a>
PCB 1248	ND		0.0300	1	06/26/2019 20:02	<a href="#">WG1302000</a>
PCB 1254	ND		0.0300	1	06/26/2019 20:02	<a href="#">WG1302000</a>
PCB 1260	ND	J4	0.0300	1	06/26/2019 20:02	<a href="#">WG1302000</a>
(S) Decachlorobiphenyl	69.0		10.0-135		06/26/2019 20:02	<a href="#">WG1302000</a>
(S) Tetrachloro-m-xylene	73.7		10.0-139		06/26/2019 20:02	<a href="#">WG1302000</a>

Semi Volatile Organic Compounds (GC/MS) by Method 8270D

Analyte	Result (dry) mg/kg	Qualifier	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Acenaphthene	ND		5.82	100	06/29/2019 07:59	<a href="#">WG1303241</a>
Acenaphthylene	ND		5.82	100	06/29/2019 07:59	<a href="#">WG1303241</a>
Acetophenone	ND		58.8	100	06/29/2019 07:59	<a href="#">WG1303241</a>
Anthracene	ND		5.82	100	06/29/2019 07:59	<a href="#">WG1303241</a>
Atrazine	ND		58.8	100	06/29/2019 07:59	<a href="#">WG1303241</a>
Benzaldehyde	ND		58.8	100	06/29/2019 07:59	<a href="#">WG1303241</a>
Benzo(a)anthracene	ND		5.82	100	06/29/2019 07:59	<a href="#">WG1303241</a>
Benzo(b)fluoranthene	ND		5.82	100	06/29/2019 07:59	<a href="#">WG1303241</a>
Benzo(k)fluoranthene	ND		5.82	100	06/29/2019 07:59	<a href="#">WG1303241</a>
Benzo(g,h,i)perylene	ND		5.82	100	06/29/2019 07:59	<a href="#">WG1303241</a>
Benzo(a)pyrene	ND		5.82	100	06/29/2019 07:59	<a href="#">WG1303241</a>
Biphenyl	ND		58.8	100	06/29/2019 07:59	<a href="#">WG1303241</a>
Bis(2-chloroethoxy)methane	ND	J4	58.8	100	06/29/2019 07:59	<a href="#">WG1303241</a>
Bis(2-chloroethyl)ether	ND		58.8	100	06/29/2019 07:59	<a href="#">WG1303241</a>
Bis(2-chloroisopropyl)ether	ND	J4	58.8	100	06/29/2019 07:59	<a href="#">WG1303241</a>
4-Bromophenyl-phenylether	ND		58.8	100	06/29/2019 07:59	<a href="#">WG1303241</a>
Caprolactam	ND		58.8	100	06/29/2019 07:59	<a href="#">WG1303241</a>
Carbazole	ND		58.8	100	06/29/2019 07:59	<a href="#">WG1303241</a>
4-Chloroaniline	ND	J4	58.8	100	06/29/2019 07:59	<a href="#">WG1303241</a>
2-Chloronaphthalene	ND		5.82	100	06/29/2019 07:59	<a href="#">WG1303241</a>
4-Chlorophenyl-phenylether	ND		58.8	100	06/29/2019 07:59	<a href="#">WG1303241</a>
Chrysene	ND		5.82	100	06/29/2019 07:59	<a href="#">WG1303241</a>
Dibenz(a,h)anthracene	ND		5.82	100	06/29/2019 07:59	<a href="#">WG1303241</a>
Dibenzofuran	ND		58.8	100	06/29/2019 07:59	<a href="#">WG1303241</a>
3,3-Dichlorobenzidine	ND		58.8	100	06/29/2019 07:59	<a href="#">WG1303241</a>
2,4-Dinitrotoluene	ND		58.8	100	06/29/2019 07:59	<a href="#">WG1303241</a>
2,6-Dinitrotoluene	ND		58.8	100	06/29/2019 07:59	<a href="#">WG1303241</a>



Semi Volatile Organic Compounds (GC/MS) by Method 8270D

Analyte	Result (dry) mg/kg	Qualifier	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Fluoranthene	ND		5.82	100	06/29/2019 07:59	WG1303241
Fluorene	ND		5.82	100	06/29/2019 07:59	WG1303241
Hexachlorobenzene	ND		58.8	100	06/29/2019 07:59	WG1303241
Hexachloro-1,3-butadiene	ND	J4	58.8	100	06/29/2019 07:59	WG1303241
Hexachlorocyclopentadiene	ND	JO	58.8	100	06/29/2019 07:59	WG1303241
Hexachloroethane	ND		58.8	100	06/29/2019 07:59	WG1303241
Indeno(1,2,3-cd)pyrene	ND		5.82	100	06/29/2019 07:59	WG1303241
Isophorone	ND	J4	58.8	100	06/29/2019 07:59	WG1303241
2-Methylnaphthalene	ND	J4	5.82	100	06/29/2019 07:59	WG1303241
Naphthalene	ND	J4	5.82	100	06/29/2019 07:59	WG1303241
2-Nitroaniline	ND		58.8	100	06/29/2019 07:59	WG1303241
3-Nitroaniline	ND		58.8	100	06/29/2019 07:59	WG1303241
4-Nitroaniline	ND		58.8	100	06/29/2019 07:59	WG1303241
Nitrobenzene	ND	J4	58.8	100	06/29/2019 07:59	WG1303241
n-Nitrosodiphenylamine	ND		58.8	100	06/29/2019 07:59	WG1303241
n-Nitrosodi-n-propylamine	ND		58.8	100	06/29/2019 07:59	WG1303241
Phenanthrene	ND		5.82	100	06/29/2019 07:59	WG1303241
Benzylbutyl phthalate	ND		58.8	100	06/29/2019 07:59	WG1303241
Bis(2-ethylhexyl)phthalate	ND		58.8	100	06/29/2019 07:59	WG1303241
Di-n-butyl phthalate	ND		58.8	100	06/29/2019 07:59	WG1303241
Diethyl phthalate	ND		58.8	100	06/29/2019 07:59	WG1303241
Dimethyl phthalate	ND		58.8	100	06/29/2019 07:59	WG1303241
Di-n-octyl phthalate	ND		58.8	100	06/29/2019 07:59	WG1303241
Pyrene	ND		5.82	100	06/29/2019 07:59	WG1303241
1,2,4,5-Tetrachlorobenzene	ND		58.8	100	06/29/2019 07:59	WG1303241
4-Chloro-3-methylphenol	ND		58.8	100	06/29/2019 07:59	WG1303241
2-Chlorophenol	ND		58.8	100	06/29/2019 07:59	WG1303241
2-Methylphenol	ND		58.8	100	06/29/2019 07:59	WG1303241
3&4-Methyl Phenol	ND		58.8	100	06/29/2019 07:59	WG1303241
2,4-Dichlorophenol	ND		58.8	100	06/29/2019 07:59	WG1303241
2,4-Dimethylphenol	ND	JO J4	58.8	100	06/29/2019 07:59	WG1303241
4,6-Dinitro-2-methylphenol	ND		58.8	100	06/29/2019 07:59	WG1303241
2,4-Dinitrophenol	ND		58.8	100	06/29/2019 07:59	WG1303241
2-Nitrophenol	ND		58.8	100	06/29/2019 07:59	WG1303241
4-Nitrophenol	ND		58.8	100	06/29/2019 07:59	WG1303241
Pentachlorophenol	ND		58.8	100	06/29/2019 07:59	WG1303241
Phenol	ND		58.8	100	06/29/2019 07:59	WG1303241
2,4,5-Trichlorophenol	ND		58.8	100	06/29/2019 07:59	WG1303241
2,4,6-Trichlorophenol	ND		58.8	100	06/29/2019 07:59	WG1303241
(S) 2-Fluorophenol	72.8	J7	12.0-120		06/29/2019 07:59	WG1303241
(S) Phenol-d5	66.6	J7	10.0-120		06/29/2019 07:59	WG1303241
(S) Nitrobenzene-d5	171	J7	10.0-122		06/29/2019 07:59	WG1303241
(S) 2-Fluorobiphenyl	67.8	J7	15.0-120		06/29/2019 07:59	WG1303241
(S) 2,4,6-Tribromophenol	50.2	J7	10.0-127		06/29/2019 07:59	WG1303241
(S) p-Terphenyl-d14	65.3	J7	10.0-120		06/29/2019 07:59	WG1303241

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

Sample Narrative:

L111579-08 WG1303241: Dilution due to matrix.

Semi Volatile Organic Compounds (GC/MS) by Method 8270E-SIM

Analyte	Result (dry) mg/kg	Qualifier	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Anthracene	ND		0.0106	1	06/27/2019 17:05	WG1302106
Acenaphthene	0.0277		0.0106	1	06/27/2019 17:05	WG1302106
Acenaphthylene	ND		0.0106	1	06/27/2019 17:05	WG1302106
Benzo(a)anthracene	ND		0.0106	1	06/27/2019 17:05	WG1302106





Semi Volatile Organic Compounds (GC/MS) by Method 8270E-SIM

Analyte	Result (dry) mg/kg	Qualifier	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Benzo(a)pyrene	ND		0.0106	1	06/27/2019 17:05	<a href="#">WG1302016</a>
Benzo(b)fluoranthene	ND		0.0106	1	06/27/2019 17:05	<a href="#">WG1302016</a>
Benzo(g,h,i)perylene	ND		0.0106	1	06/27/2019 17:05	<a href="#">WG1302016</a>
Benzo(k)fluoranthene	ND		0.0106	1	06/27/2019 17:05	<a href="#">WG1302016</a>
Chrysene	ND		0.0106	1	06/27/2019 17:05	<a href="#">WG1302016</a>
Dibenz(a,h)anthracene	ND		0.0106	1	06/27/2019 17:05	<a href="#">WG1302016</a>
Fluoranthene	0.0206		0.0106	1	06/27/2019 17:05	<a href="#">WG1302016</a>
Fluorene	0.0272		0.0106	1	06/27/2019 17:05	<a href="#">WG1302016</a>
Indeno(1,2,3-cd)pyrene	ND		0.0106	1	06/27/2019 17:05	<a href="#">WG1302016</a>
Naphthalene	ND		0.0353	1	06/27/2019 17:05	<a href="#">WG1302016</a>
Phenanthrene	0.0295		0.0106	1	06/27/2019 17:05	<a href="#">WG1302016</a>
Pyrene	ND		0.0106	1	06/27/2019 17:05	<a href="#">WG1302016</a>
1-Methylnaphthalene	0.0551		0.0353	1	06/27/2019 17:05	<a href="#">WG1302016</a>
2-Methylnaphthalene	0.0634		0.0353	1	06/27/2019 17:05	<a href="#">WG1302016</a>
(S) p-Terphenyl-d14	46.0		23.0-120		06/27/2019 17:05	<a href="#">WG1302016</a>
(S) Nitrobenzene-d5	43.5		14.0-149		06/27/2019 17:05	<a href="#">WG1302016</a>
(S) 2-Fluorobiphenyl	44.7		34.0-125		06/27/2019 17:05	<a href="#">WG1302016</a>

- 1 Cp
- 2 Tc
- 3 Ss
- 4 Cn
- 5 Sr
- 6 Qc
- 7 Gl
- 8 Al
- 9 Sc



Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	40.5		1	06/26/2019 11:35	<a href="#">WG1302167</a>

Wet Chemistry by Method 9012B

Analyte	Result (dry)	Qualifier	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg		date / time	
Cyanide	ND		0.617	1	07/02/2019 20:01	<a href="#">WG1304908</a>

Mercury by Method 7471B

Analyte	Result (dry)	Qualifier	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg		date / time	
Mercury	0.127	<u>B</u>	0.0493	1	06/26/2019 12:48	<a href="#">WG1301944</a>

Metals (ICP) by Method 6010D

Analyte	Result (dry)	Qualifier	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg		date / time	
Aluminum	19200		24.7	1	06/27/2019 23:03	<a href="#">WG1301970</a>
Antimony	ND		4.93	1	06/27/2019 23:03	<a href="#">WG1301970</a>
Arsenic	ND		4.93	1	06/27/2019 23:03	<a href="#">WG1301970</a>
Barium	249		1.23	1	06/27/2019 23:03	<a href="#">WG1301970</a>
Beryllium	ND		0.493	1	06/27/2019 23:03	<a href="#">WG1301970</a>
Cadmium	3.02		1.23	1	06/27/2019 23:03	<a href="#">WG1301970</a>
Calcium	8270		247	1	06/27/2019 23:03	<a href="#">WG1301970</a>
Chromium	19.9		2.47	1	06/27/2019 23:03	<a href="#">WG1301970</a>
Cobalt	7.45		2.47	1	06/27/2019 23:03	<a href="#">WG1301970</a>
Copper	54.7		4.93	1	06/27/2019 23:03	<a href="#">WG1301970</a>
Iron	15000		24.7	1	06/27/2019 23:03	<a href="#">WG1301970</a>
Lead	23.7		1.23	1	06/27/2019 23:03	<a href="#">WG1301970</a>
Magnesium	1340		247	1	06/27/2019 23:03	<a href="#">WG1301970</a>
Manganese	315		2.47	1	06/27/2019 23:03	<a href="#">WG1301970</a>
Nickel	13.2		4.93	1	06/27/2019 23:03	<a href="#">WG1301970</a>
Potassium	593		247	1	06/27/2019 23:03	<a href="#">WG1301970</a>
Selenium	ND		4.93	1	06/27/2019 23:03	<a href="#">WG1301970</a>
Silver	ND		2.47	1	06/27/2019 23:03	<a href="#">WG1301970</a>
Sodium	1420		247	1	06/27/2019 23:03	<a href="#">WG1301970</a>
Thallium	ND		4.93	1	06/27/2019 23:03	<a href="#">WG1301970</a>
Vanadium	59.1		4.93	1	06/27/2019 23:03	<a href="#">WG1301970</a>
Zinc	1230		12.3	1	06/27/2019 23:03	<a href="#">WG1301970</a>

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result (dry)	Qualifier	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg		date / time	
Acetone	0.304		0.0617	1	06/26/2019 12:45	<a href="#">WG1302136</a>
Benzene	ND		0.00247	1	06/26/2019 12:45	<a href="#">WG1302136</a>
Bromochloromethane	ND		0.0123	1	06/26/2019 12:45	<a href="#">WG1302136</a>
Bromodichloromethane	ND		0.00617	1	06/26/2019 12:45	<a href="#">WG1302136</a>
Bromoform	ND		0.0617	1	06/26/2019 12:45	<a href="#">WG1302136</a>
Bromomethane	ND		0.0308	1	06/26/2019 12:45	<a href="#">WG1302136</a>
Carbon disulfide	ND		0.0308	1	06/26/2019 12:45	<a href="#">WG1302136</a>
Carbon tetrachloride	ND		0.0123	1	06/26/2019 12:45	<a href="#">WG1302136</a>
Chlorobenzene	ND		0.00617	1	06/26/2019 12:45	<a href="#">WG1302136</a>
Chlorodibromomethane	ND		0.00617	1	06/26/2019 12:45	<a href="#">WG1302136</a>
Chloroethane	ND		0.0123	1	06/26/2019 12:45	<a href="#">WG1302136</a>
Chloroform	ND		0.00617	1	06/26/2019 12:45	<a href="#">WG1302136</a>
Chloromethane	ND		0.0308	1	06/26/2019 12:45	<a href="#">WG1302136</a>

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc



Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result (dry) mg/kg	Qualifier	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Cyclohexane	ND		0.00617	1	06/26/2019 12:45	WG1302136
1,2-Dibromo-3-Chloropropane	ND		0.0617	1	06/26/2019 12:45	WG1302136
1,2-Dibromoethane	ND		0.00617	1	06/26/2019 12:45	WG1302136
Dichlorodifluoromethane	ND	J3	0.00617	1	06/26/2019 12:45	WG1302136
1,1-Dichloroethane	ND		0.00617	1	06/26/2019 12:45	WG1302136
1,2-Dichloroethane	ND		0.00617	1	06/26/2019 12:45	WG1302136
1,2-Dichlorobenzene	ND		0.0123	1	06/26/2019 12:45	WG1302136
1,3-Dichlorobenzene	ND		0.0123	1	06/26/2019 12:45	WG1302136
1,4-Dichlorobenzene	ND		0.0123	1	06/26/2019 12:45	WG1302136
1,1-Dichloroethene	ND		0.00617	1	06/26/2019 12:45	WG1302136
cis-1,2-Dichloroethene	ND		0.00617	1	06/26/2019 12:45	WG1302136
trans-1,2-Dichloroethene	ND		0.0123	1	06/26/2019 12:45	WG1302136
1,2-Dichloropropane	ND		0.0123	1	06/26/2019 12:45	WG1302136
cis-1,3-Dichloropropene	ND		0.00617	1	06/26/2019 12:45	WG1302136
trans-1,3-Dichloropropene	ND		0.0123	1	06/26/2019 12:45	WG1302136
Ethylbenzene	ND		0.00617	1	06/26/2019 12:45	WG1302136
2-Hexanone	ND		0.0617	1	06/26/2019 12:45	WG1302136
Isopropylbenzene	ND		0.00617	1	06/26/2019 12:45	WG1302136
2-Butanone (MEK)	0.128	B	0.0617	1	06/26/2019 12:45	WG1302136
Methyl Acetate	0.644		0.0123	1	06/26/2019 12:45	WG1302136
Methyl Cyclohexane	ND		0.0123	1	06/26/2019 12:45	WG1302136
Methylene Chloride	ND		0.0617	1	06/26/2019 12:45	WG1302136
4-Methyl-2-pentanone (MIBK)	ND		0.0617	1	06/26/2019 12:45	WG1302136
Methyl tert-butyl ether	ND		0.00247	1	06/26/2019 12:45	WG1302136
Styrene	ND		0.0308	1	06/26/2019 12:45	WG1302136
1,1,2,2-Tetrachloroethane	ND		0.00617	1	06/26/2019 12:45	WG1302136
Tetrachloroethene	ND		0.00617	1	06/26/2019 12:45	WG1302136
Toluene	ND		0.0123	1	06/26/2019 12:45	WG1302136
1,2,3-Trichlorobenzene	ND		0.00617	1	06/26/2019 12:45	WG1302136
1,2,4-Trichlorobenzene	ND		0.0308	1	06/26/2019 12:45	WG1302136
1,1,1-Trichloroethane	ND		0.00617	1	06/26/2019 12:45	WG1302136
1,1,2-Trichloroethane	ND		0.00617	1	06/26/2019 12:45	WG1302136
Trichloroethene	ND		0.00247	1	06/26/2019 12:45	WG1302136
Trichlorofluoromethane	ND		0.00617	1	06/26/2019 12:45	WG1302136
1,1,2-Trichlorotrifluoroethane	ND		0.00617	1	06/26/2019 12:45	WG1302136
Vinyl chloride	ND		0.00617	1	06/26/2019 12:45	WG1302136
Xylenes, Total	ND		0.0160	1	06/26/2019 12:45	WG1302136
(S) Toluene-d8	103		75.0-131		06/26/2019 12:45	WG1302136
(S) 4-Bromofluorobenzene	96.0		67.0-138		06/26/2019 12:45	WG1302136
(S) 1,2-Dichloroethane-d4	97.9		70.0-130		06/26/2019 12:45	WG1302136

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

Pesticides (GC) by Method 8081B

Analyte	Result (dry) mg/kg	Qualifier	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Aldrin	ND		0.0493	1	06/26/2019 20:04	WG1302000
Alpha BHC	ND		0.0493	1	06/26/2019 20:04	WG1302000
Beta BHC	ND		0.0493	1	06/26/2019 20:04	WG1302000
Delta BHC	ND		0.0493	1	06/26/2019 20:04	WG1302000
Gamma BHC	ND		0.0493	1	06/26/2019 20:04	WG1302000
Chlordane	ND		0.493	1	06/26/2019 20:04	WG1302000
4,4-DDD	ND		0.0493	1	06/26/2019 20:04	WG1302000
4,4-DDE	ND		0.0493	1	06/26/2019 20:04	WG1302000
4,4-DDT	ND		0.0493	1	06/26/2019 20:04	WG1302000
Dieldrin	ND		0.0493	1	06/26/2019 20:04	WG1302000
Endosulfan I	ND		0.0493	1	06/26/2019 20:04	WG1302000
Endosulfan II	ND		0.0493	1	06/26/2019 20:04	WG1302000



Pesticides (GC) by Method 8081B

Analyte	Result (dry) mg/kg	Qualifier	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Endosulfan sulfate	ND		0.0493	1	06/26/2019 20:04	<a href="#">WG1302000</a>
Endrin	ND		0.0493	1	06/26/2019 20:04	<a href="#">WG1302000</a>
Endrin aldehyde	ND		0.0493	1	06/26/2019 20:04	<a href="#">WG1302000</a>
Endrin ketone	ND		0.0493	1	06/26/2019 20:04	<a href="#">WG1302000</a>
Heptachlor	ND		0.0493	1	06/26/2019 20:04	<a href="#">WG1302000</a>
Heptachlor epoxide	ND		0.0493	1	06/26/2019 20:04	<a href="#">WG1302000</a>
Hexachlorobenzene	ND		0.0493	1	06/26/2019 20:04	<a href="#">WG1302000</a>
Methoxychlor	ND		0.0493	1	06/26/2019 20:04	<a href="#">WG1302000</a>
Toxaphene	ND		0.987	1	06/26/2019 20:04	<a href="#">WG1302000</a>
(S) Decachlorobiphenyl	74.1		10.0-135		06/26/2019 20:04	<a href="#">WG1302000</a>
(S) Tetrachloro-m-xylene	78.6		10.0-139		06/26/2019 20:04	<a href="#">WG1302000</a>

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

Polychlorinated Biphenyls (GC) by Method 8082 A

Analyte	Result (dry) mg/kg	Qualifier	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
PCB 1016	ND	J4	0.0419	1	06/26/2019 20:15	<a href="#">WG1302000</a>
PCB 1221	ND		0.0419	1	06/26/2019 20:15	<a href="#">WG1302000</a>
PCB 1232	ND		0.0419	1	06/26/2019 20:15	<a href="#">WG1302000</a>
PCB 1242	ND		0.0419	1	06/26/2019 20:15	<a href="#">WG1302000</a>
PCB 1248	ND		0.0419	1	06/26/2019 20:15	<a href="#">WG1302000</a>
PCB 1254	ND		0.0419	1	06/26/2019 20:15	<a href="#">WG1302000</a>
PCB 1260	ND	J4	0.0419	1	06/26/2019 20:15	<a href="#">WG1302000</a>
(S) Decachlorobiphenyl	65.8		10.0-135		06/26/2019 20:15	<a href="#">WG1302000</a>
(S) Tetrachloro-m-xylene	67.6		10.0-139		06/26/2019 20:15	<a href="#">WG1302000</a>

7 Gl

8 Al

9 Sc

Semi Volatile Organic Compounds (GC/MS) by Method 8270D

Analyte	Result (dry) mg/kg	Qualifier	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Acenaphthene	ND		0.814	10	06/29/2019 04:47	<a href="#">WG1303241</a>
Acenaphthylene	ND		0.814	10	06/29/2019 04:47	<a href="#">WG1303241</a>
Acetophenone	ND		8.21	10	06/29/2019 04:47	<a href="#">WG1303241</a>
Anthracene	ND		0.814	10	06/29/2019 04:47	<a href="#">WG1303241</a>
Atrazine	ND		8.21	10	06/29/2019 04:47	<a href="#">WG1303241</a>
Benzaldehyde	ND		8.21	10	06/29/2019 04:47	<a href="#">WG1303241</a>
Benzo(a)anthracene	ND		0.814	10	06/29/2019 04:47	<a href="#">WG1303241</a>
Benzo(b)fluoranthene	ND		0.814	10	06/29/2019 04:47	<a href="#">WG1303241</a>
Benzo(k)fluoranthene	ND		0.814	10	06/29/2019 04:47	<a href="#">WG1303241</a>
Benzo(g,h,i)perylene	ND		0.814	10	06/29/2019 04:47	<a href="#">WG1303241</a>
Benzo(a)pyrene	ND		0.814	10	06/29/2019 04:47	<a href="#">WG1303241</a>
Biphenyl	ND		8.21	10	06/29/2019 04:47	<a href="#">WG1303241</a>
Bis(2-chloroethoxy)methane	ND	J4	8.21	10	06/29/2019 04:47	<a href="#">WG1303241</a>
Bis(2-chloroethyl)ether	ND		8.21	10	06/29/2019 04:47	<a href="#">WG1303241</a>
Bis(2-chloroisopropyl)ether	ND	J4	8.21	10	06/29/2019 04:47	<a href="#">WG1303241</a>
4-Bromophenyl-phenylether	ND		8.21	10	06/29/2019 04:47	<a href="#">WG1303241</a>
Caprolactam	ND		8.21	10	06/29/2019 04:47	<a href="#">WG1303241</a>
Carbazole	ND		8.21	10	06/29/2019 04:47	<a href="#">WG1303241</a>
4-Chloroaniline	ND	J4	8.21	10	06/29/2019 04:47	<a href="#">WG1303241</a>
2-Chloronaphthalene	ND		0.814	10	06/29/2019 04:47	<a href="#">WG1303241</a>
4-Chlorophenyl-phenylether	ND		8.21	10	06/29/2019 04:47	<a href="#">WG1303241</a>
Chrysene	ND		0.814	10	06/29/2019 04:47	<a href="#">WG1303241</a>
Dibenz(a,h)anthracene	ND		0.814	10	06/29/2019 04:47	<a href="#">WG1303241</a>
Dibenzofuran	ND		8.21	10	06/29/2019 04:47	<a href="#">WG1303241</a>
3,3-Dichlorobenzidine	ND		8.21	10	06/29/2019 04:47	<a href="#">WG1303241</a>
2,4-Dinitrotoluene	ND		8.21	10	06/29/2019 04:47	<a href="#">WG1303241</a>
2,6-Dinitrotoluene	ND		8.21	10	06/29/2019 04:47	<a href="#">WG1303241</a>



Semi Volatile Organic Compounds (GC/MS) by Method 8270D

Analyte	Result (dry) mg/kg	Qualifier	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Fluoranthene	ND		0.814	10	06/29/2019 04:47	WG1303241
Fluorene	ND		0.814	10	06/29/2019 04:47	WG1303241
Hexachlorobenzene	ND		8.21	10	06/29/2019 04:47	WG1303241
Hexachloro-1,3-butadiene	ND	J4	8.21	10	06/29/2019 04:47	WG1303241
Hexachlorocyclopentadiene	ND	JO	8.21	10	06/29/2019 04:47	WG1303241
Hexachloroethane	ND		8.21	10	06/29/2019 04:47	WG1303241
Indeno(1,2,3-cd)pyrene	ND		0.814	10	06/29/2019 04:47	WG1303241
Isophorone	ND	J4	8.21	10	06/29/2019 04:47	WG1303241
2-Methylnaphthalene	ND	J4	0.814	10	06/29/2019 04:47	WG1303241
Naphthalene	ND	J4	0.814	10	06/29/2019 04:47	WG1303241
2-Nitroaniline	ND		8.21	10	06/29/2019 04:47	WG1303241
3-Nitroaniline	ND		8.21	10	06/29/2019 04:47	WG1303241
4-Nitroaniline	ND		8.21	10	06/29/2019 04:47	WG1303241
Nitrobenzene	ND	J4	8.21	10	06/29/2019 04:47	WG1303241
n-Nitrosodiphenylamine	ND		8.21	10	06/29/2019 04:47	WG1303241
n-Nitrosodi-n-propylamine	ND		8.21	10	06/29/2019 04:47	WG1303241
Phenanthrene	ND		0.814	10	06/29/2019 04:47	WG1303241
Benzylbutyl phthalate	ND		8.21	10	06/29/2019 04:47	WG1303241
Bis(2-ethylhexyl)phthalate	ND		8.21	10	06/29/2019 04:47	WG1303241
Di-n-butyl phthalate	ND		8.21	10	06/29/2019 04:47	WG1303241
Diethyl phthalate	ND		8.21	10	06/29/2019 04:47	WG1303241
Dimethyl phthalate	ND		8.21	10	06/29/2019 04:47	WG1303241
Di-n-octyl phthalate	ND		8.21	10	06/29/2019 04:47	WG1303241
Pyrene	ND		0.814	10	06/29/2019 04:47	WG1303241
1,2,4,5-Tetrachlorobenzene	ND		8.21	10	06/29/2019 04:47	WG1303241
4-Chloro-3-methylphenol	ND		8.21	10	06/29/2019 04:47	WG1303241
2-Chlorophenol	ND		8.21	10	06/29/2019 04:47	WG1303241
2-Methylphenol	ND		8.21	10	06/29/2019 04:47	WG1303241
3&4-Methyl Phenol	ND		8.21	10	06/29/2019 04:47	WG1303241
2,4-Dichlorophenol	ND		8.21	10	06/29/2019 04:47	WG1303241
2,4-Dimethylphenol	ND	JO J4	8.21	10	06/29/2019 04:47	WG1303241
4,6-Dinitro-2-methylphenol	ND		8.21	10	06/29/2019 04:47	WG1303241
2,4-Dinitrophenol	ND		8.21	10	06/29/2019 04:47	WG1303241
2-Nitrophenol	ND		8.21	10	06/29/2019 04:47	WG1303241
4-Nitrophenol	ND		8.21	10	06/29/2019 04:47	WG1303241
Pentachlorophenol	ND		8.21	10	06/29/2019 04:47	WG1303241
Phenol	ND		8.21	10	06/29/2019 04:47	WG1303241
2,4,5-Trichlorophenol	ND		8.21	10	06/29/2019 04:47	WG1303241
2,4,6-Trichlorophenol	ND		8.21	10	06/29/2019 04:47	WG1303241
(S) 2-Fluorophenol	64.2		12.0-120		06/29/2019 04:47	WG1303241
(S) Phenol-d5	59.4		10.0-120		06/29/2019 04:47	WG1303241
(S) Nitrobenzene-d5	54.7		10.0-122		06/29/2019 04:47	WG1303241
(S) 2-Fluorobiphenyl	52.8		15.0-120		06/29/2019 04:47	WG1303241
(S) 2,4,6-Tribromophenol	55.5		10.0-127		06/29/2019 04:47	WG1303241
(S) p-Terphenyl-d14	49.1		10.0-120		06/29/2019 04:47	WG1303241

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

Sample Narrative:

L111579-09 WG1303241: Dilution due to matrix.

Semi Volatile Organic Compounds (GC/MS) by Method 8270E-SIM

Analyte	Result (dry) mg/kg	Qualifier	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Anthracene	ND		0.0148	1	06/27/2019 17:26	WG1302106
Acenaphthene	ND		0.0148	1	06/27/2019 17:26	WG1302106
Acenaphthylene	ND		0.0148	1	06/27/2019 17:26	WG1302106
Benzo(a)anthracene	ND		0.0148	1	06/27/2019 17:26	WG1302106





Semi Volatile Organic Compounds (GC/MS) by Method 8270E-SIM

Analyte	Result (dry) mg/kg	Qualifier	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Benzo(a)pyrene	ND		0.0148	1	06/27/2019 17:26	<a href="#">WG1302016</a>
Benzo(b)fluoranthene	ND		0.0148	1	06/27/2019 17:26	<a href="#">WG1302016</a>
Benzo(g,h,i)perylene	ND		0.0148	1	06/27/2019 17:26	<a href="#">WG1302016</a>
Benzo(k)fluoranthene	ND		0.0148	1	06/27/2019 17:26	<a href="#">WG1302016</a>
Chrysene	ND		0.0148	1	06/27/2019 17:26	<a href="#">WG1302016</a>
Dibenz(a,h)anthracene	ND		0.0148	1	06/27/2019 17:26	<a href="#">WG1302016</a>
Fluoranthene	ND		0.0148	1	06/27/2019 17:26	<a href="#">WG1302016</a>
Fluorene	ND		0.0148	1	06/27/2019 17:26	<a href="#">WG1302016</a>
Indeno(1,2,3-cd)pyrene	ND		0.0148	1	06/27/2019 17:26	<a href="#">WG1302016</a>
Naphthalene	ND		0.0493	1	06/27/2019 17:26	<a href="#">WG1302016</a>
Phenanthrene	ND		0.0148	1	06/27/2019 17:26	<a href="#">WG1302016</a>
Pyrene	ND		0.0148	1	06/27/2019 17:26	<a href="#">WG1302016</a>
1-Methylnaphthalene	ND		0.0493	1	06/27/2019 17:26	<a href="#">WG1302016</a>
2-Methylnaphthalene	ND		0.0493	1	06/27/2019 17:26	<a href="#">WG1302016</a>
(S) p-Terphenyl-d14	77.0		23.0-120		06/27/2019 17:26	<a href="#">WG1302016</a>
(S) Nitrobenzene-d5	80.0		14.0-149		06/27/2019 17:26	<a href="#">WG1302016</a>
(S) 2-Fluorobiphenyl	59.4		34.0-125		06/27/2019 17:26	<a href="#">WG1302016</a>

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc



Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	41.0		1	06/26/2019 11:35	<a href="#">WG1302167</a>

1 Cp

2 Tc

Wet Chemistry by Method 9012B

Analyte	Result (dry)	Qualifier	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg		date / time	
Cyanide	ND		0.609	1	07/02/2019 20:02	<a href="#">WG1304908</a>

3 Ss

4 Cn

Mercury by Method 7471B

Analyte	Result (dry)	Qualifier	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg		date / time	
Mercury	0.410		0.0488	1	06/26/2019 12:51	<a href="#">WG1301944</a>

5 Sr

6 Qc

Metals (ICP) by Method 6010D

Analyte	Result (dry)	Qualifier	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg		date / time	
Aluminum	17600		24.4	1	06/27/2019 23:06	<a href="#">WG1301970</a>
Antimony	ND		4.88	1	06/27/2019 23:06	<a href="#">WG1301970</a>
Arsenic	ND		4.88	1	06/27/2019 23:06	<a href="#">WG1301970</a>
Barium	227		1.22	1	06/27/2019 23:06	<a href="#">WG1301970</a>
Beryllium	0.640		0.488	1	06/27/2019 23:06	<a href="#">WG1301970</a>
Cadmium	ND		1.22	1	06/27/2019 23:06	<a href="#">WG1301970</a>
Calcium	7970		244	1	06/27/2019 23:06	<a href="#">WG1301970</a>
Chromium	37.0		2.44	1	06/27/2019 23:06	<a href="#">WG1301970</a>
Cobalt	8.13		2.44	1	06/27/2019 23:06	<a href="#">WG1301970</a>
Copper	30.1		4.88	1	06/27/2019 23:06	<a href="#">WG1301970</a>
Iron	31500		24.4	1	06/27/2019 23:06	<a href="#">WG1301970</a>
Lead	17.1		1.22	1	06/27/2019 23:06	<a href="#">WG1301970</a>
Magnesium	1580		244	1	06/27/2019 23:06	<a href="#">WG1301970</a>
Manganese	442		2.44	1	06/27/2019 23:06	<a href="#">WG1301970</a>
Nickel	13.7		4.88	1	06/27/2019 23:06	<a href="#">WG1301970</a>
Potassium	848		244	1	06/27/2019 23:06	<a href="#">WG1301970</a>
Selenium	ND		4.88	1	06/27/2019 23:06	<a href="#">WG1301970</a>
Silver	ND		2.44	1	06/27/2019 23:06	<a href="#">WG1301970</a>
Sodium	1150		244	1	06/27/2019 23:06	<a href="#">WG1301970</a>
Thallium	ND		4.88	1	06/27/2019 23:06	<a href="#">WG1301970</a>
Vanadium	65.6		4.88	1	06/27/2019 23:06	<a href="#">WG1301970</a>
Zinc	977		12.2	1	06/27/2019 23:06	<a href="#">WG1301970</a>

7 Gl

8 Al

9 Sc

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result (dry)	Qualifier	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg		date / time	
Acetone	0.243		0.0614	1.01	06/26/2019 13:04	<a href="#">WG1302136</a>
Benzene	ND		0.00246	1.01	06/26/2019 13:04	<a href="#">WG1302136</a>
Bromochloromethane	ND		0.0123	1.01	06/26/2019 13:04	<a href="#">WG1302136</a>
Bromodichloromethane	ND		0.00614	1.01	06/26/2019 13:04	<a href="#">WG1302136</a>
Bromoform	ND		0.0614	1.01	06/26/2019 13:04	<a href="#">WG1302136</a>
Bromomethane	ND		0.0307	1.01	06/26/2019 13:04	<a href="#">WG1302136</a>
Carbon disulfide	0.0324		0.0307	1.01	06/26/2019 13:04	<a href="#">WG1302136</a>
Carbon tetrachloride	ND		0.0123	1.01	06/26/2019 13:04	<a href="#">WG1302136</a>
Chlorobenzene	ND		0.00614	1.01	06/26/2019 13:04	<a href="#">WG1302136</a>
Chlorodibromomethane	ND		0.00614	1.01	06/26/2019 13:04	<a href="#">WG1302136</a>
Chloroethane	ND		0.0123	1.01	06/26/2019 13:04	<a href="#">WG1302136</a>
Chloroform	0.0131		0.00614	1.01	06/26/2019 13:04	<a href="#">WG1302136</a>
Chloromethane	ND		0.0307	1.01	06/26/2019 13:04	<a href="#">WG1302136</a>



Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result (dry) mg/kg	Qualifier	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Cyclohexane	ND		0.00614	1.01	06/26/2019 13:04	WG1302136
1,2-Dibromo-3-Chloropropane	ND		0.0614	1.01	06/26/2019 13:04	WG1302136
1,2-Dibromoethane	ND		0.00614	1.01	06/26/2019 13:04	WG1302136
Dichlorodifluoromethane	ND	J3	0.00614	1.01	06/26/2019 13:04	WG1302136
1,1-Dichloroethane	ND		0.00614	1.01	06/26/2019 13:04	WG1302136
1,2-Dichloroethane	ND		0.00614	1.01	06/26/2019 13:04	WG1302136
1,2-Dichlorobenzene	ND		0.0123	1.01	06/26/2019 13:04	WG1302136
1,3-Dichlorobenzene	ND		0.0123	1.01	06/26/2019 13:04	WG1302136
1,4-Dichlorobenzene	ND		0.0123	1.01	06/26/2019 13:04	WG1302136
1,1-Dichloroethene	ND		0.00614	1.01	06/26/2019 13:04	WG1302136
cis-1,2-Dichloroethene	ND		0.00614	1.01	06/26/2019 13:04	WG1302136
trans-1,2-Dichloroethene	ND		0.0123	1.01	06/26/2019 13:04	WG1302136
1,2-Dichloropropane	ND		0.0123	1.01	06/26/2019 13:04	WG1302136
cis-1,3-Dichloropropene	ND		0.00614	1.01	06/26/2019 13:04	WG1302136
trans-1,3-Dichloropropene	ND		0.0123	1.01	06/26/2019 13:04	WG1302136
Ethylbenzene	ND		0.00614	1.01	06/26/2019 13:04	WG1302136
2-Hexanone	ND		0.0614	1.01	06/26/2019 13:04	WG1302136
Isopropylbenzene	ND		0.00614	1.01	06/26/2019 13:04	WG1302136
2-Butanone (MEK)	0.116	B	0.0614	1.01	06/26/2019 13:04	WG1302136
Methyl Acetate	0.554		0.0123	1.01	06/26/2019 13:04	WG1302136
Methyl Cyclohexane	ND		0.0123	1.01	06/26/2019 13:04	WG1302136
Methylene Chloride	ND		0.0614	1.01	06/26/2019 13:04	WG1302136
4-Methyl-2-pentanone (MIBK)	ND		0.0614	1.01	06/26/2019 13:04	WG1302136
Methyl tert-butyl ether	ND		0.00246	1.01	06/26/2019 13:04	WG1302136
Styrene	ND		0.0307	1.01	06/26/2019 13:04	WG1302136
1,1,2,2-Tetrachloroethane	ND		0.00614	1.01	06/26/2019 13:04	WG1302136
Tetrachloroethene	ND		0.00614	1.01	06/26/2019 13:04	WG1302136
Toluene	0.0563		0.0123	1.01	06/26/2019 13:04	WG1302136
1,2,3-Trichlorobenzene	ND		0.00614	1.01	06/26/2019 13:04	WG1302136
1,2,4-Trichlorobenzene	ND		0.0307	1.01	06/26/2019 13:04	WG1302136
1,1,1-Trichloroethane	ND		0.00614	1.01	06/26/2019 13:04	WG1302136
1,1,2-Trichloroethane	ND		0.00614	1.01	06/26/2019 13:04	WG1302136
Trichloroethene	ND		0.00246	1.01	06/26/2019 13:04	WG1302136
Trichlorofluoromethane	ND		0.00614	1.01	06/26/2019 13:04	WG1302136
1,1,2-Trichlorotrifluoroethane	ND		0.00614	1.01	06/26/2019 13:04	WG1302136
Vinyl chloride	ND		0.00614	1.01	06/26/2019 13:04	WG1302136
Xylenes, Total	ND		0.0160	1.01	06/26/2019 13:04	WG1302136
(S) Toluene-d8	103		75.0-131		06/26/2019 13:04	WG1302136
(S) 4-Bromofluorobenzene	98.5		67.0-138		06/26/2019 13:04	WG1302136
(S) 1,2-Dichloroethane-d4	103		70.0-130		06/26/2019 13:04	WG1302136

- 1 Cp
- 2 Tc
- 3 Ss
- 4 Cn
- 5 Sr
- 6 Qc
- 7 Gl
- 8 Al
- 9 Sc

Pesticides (GC) by Method 8081B

Analyte	Result (dry) mg/kg	Qualifier	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Aldrin	ND		0.0488	1	06/26/2019 20:17	WG1302000
Alpha BHC	ND		0.0488	1	06/26/2019 20:17	WG1302000
Beta BHC	ND		0.0488	1	06/26/2019 20:17	WG1302000
Delta BHC	ND		0.0488	1	06/26/2019 20:17	WG1302000
Gamma BHC	ND		0.0488	1	06/26/2019 20:17	WG1302000
Chlordane	ND		0.488	1	06/26/2019 20:17	WG1302000
4,4-DDD	ND		0.0488	1	06/26/2019 20:17	WG1302000
4,4-DDE	ND		0.0488	1	06/26/2019 20:17	WG1302000
4,4-DDT	ND		0.0488	1	06/26/2019 20:17	WG1302000
Dieldrin	ND		0.0488	1	06/26/2019 20:17	WG1302000
Endosulfan I	ND		0.0488	1	06/26/2019 20:17	WG1302000
Endosulfan II	ND		0.0488	1	06/26/2019 20:17	WG1302000



Pesticides (GC) by Method 8081B

Analyte	Result (dry) mg/kg	Qualifier	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Endosulfan sulfate	ND		0.0488	1	06/26/2019 20:17	<a href="#">WG1302000</a>
Endrin	ND		0.0488	1	06/26/2019 20:17	<a href="#">WG1302000</a>
Endrin aldehyde	ND		0.0488	1	06/26/2019 20:17	<a href="#">WG1302000</a>
Endrin ketone	ND		0.0488	1	06/26/2019 20:17	<a href="#">WG1302000</a>
Heptachlor	ND		0.0488	1	06/26/2019 20:17	<a href="#">WG1302000</a>
Heptachlor epoxide	ND		0.0488	1	06/26/2019 20:17	<a href="#">WG1302000</a>
Hexachlorobenzene	ND		0.0488	1	06/26/2019 20:17	<a href="#">WG1302000</a>
Methoxychlor	ND		0.0488	1	06/26/2019 20:17	<a href="#">WG1302000</a>
Toxaphene	ND		0.975	1	06/26/2019 20:17	<a href="#">WG1302000</a>
(S) Decachlorobiphenyl	83.5		10.0-135		06/26/2019 20:17	<a href="#">WG1302000</a>
(S) Tetrachloro-m-xylene	87.8		10.0-139		06/26/2019 20:17	<a href="#">WG1302000</a>

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

Polychlorinated Biphenyls (GC) by Method 8082 A

Analyte	Result (dry) mg/kg	Qualifier	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
PCB 1016	ND	J4	0.0414	1	06/26/2019 20:27	<a href="#">WG1302000</a>
PCB 1221	ND		0.0414	1	06/26/2019 20:27	<a href="#">WG1302000</a>
PCB 1232	ND		0.0414	1	06/26/2019 20:27	<a href="#">WG1302000</a>
PCB 1242	ND		0.0414	1	06/26/2019 20:27	<a href="#">WG1302000</a>
PCB 1248	ND		0.0414	1	06/26/2019 20:27	<a href="#">WG1302000</a>
PCB 1254	ND		0.0414	1	06/26/2019 20:27	<a href="#">WG1302000</a>
PCB 1260	ND	J4	0.0414	1	06/26/2019 20:27	<a href="#">WG1302000</a>
(S) Decachlorobiphenyl	78.4		10.0-135		06/26/2019 20:27	<a href="#">WG1302000</a>
(S) Tetrachloro-m-xylene	80.0		10.0-139		06/26/2019 20:27	<a href="#">WG1302000</a>

Semi Volatile Organic Compounds (GC/MS) by Method 8270D

Analyte	Result (dry) mg/kg	Qualifier	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Acenaphthene	ND		0.804	10	06/29/2019 05:06	<a href="#">WG1303241</a>
Acenaphthylene	ND		0.804	10	06/29/2019 05:06	<a href="#">WG1303241</a>
Acetophenone	ND		8.12	10	06/29/2019 05:06	<a href="#">WG1303241</a>
Anthracene	ND		0.804	10	06/29/2019 05:06	<a href="#">WG1303241</a>
Atrazine	ND		8.12	10	06/29/2019 05:06	<a href="#">WG1303241</a>
Benzaldehyde	ND		8.12	10	06/29/2019 05:06	<a href="#">WG1303241</a>
Benzo(a)anthracene	ND		0.804	10	06/29/2019 05:06	<a href="#">WG1303241</a>
Benzo(b)fluoranthene	ND		0.804	10	06/29/2019 05:06	<a href="#">WG1303241</a>
Benzo(k)fluoranthene	ND		0.804	10	06/29/2019 05:06	<a href="#">WG1303241</a>
Benzo(g,h,i)perylene	ND		0.804	10	06/29/2019 05:06	<a href="#">WG1303241</a>
Benzo(a)pyrene	ND		0.804	10	06/29/2019 05:06	<a href="#">WG1303241</a>
Biphenyl	ND		8.12	10	06/29/2019 05:06	<a href="#">WG1303241</a>
Bis(2-chloroethoxy)methane	ND	J4	8.12	10	06/29/2019 05:06	<a href="#">WG1303241</a>
Bis(2-chloroethyl)ether	ND		8.12	10	06/29/2019 05:06	<a href="#">WG1303241</a>
Bis(2-chloroisopropyl)ether	ND	J4	8.12	10	06/29/2019 05:06	<a href="#">WG1303241</a>
4-Bromophenyl-phenylether	ND		8.12	10	06/29/2019 05:06	<a href="#">WG1303241</a>
Caprolactam	ND		8.12	10	06/29/2019 05:06	<a href="#">WG1303241</a>
Carbazole	ND		8.12	10	06/29/2019 05:06	<a href="#">WG1303241</a>
4-Chloroaniline	ND	J4	8.12	10	06/29/2019 05:06	<a href="#">WG1303241</a>
2-Chloronaphthalene	ND		0.804	10	06/29/2019 05:06	<a href="#">WG1303241</a>
4-Chlorophenyl-phenylether	ND		8.12	10	06/29/2019 05:06	<a href="#">WG1303241</a>
Chrysene	ND		0.804	10	06/29/2019 05:06	<a href="#">WG1303241</a>
Dibenz(a,h)anthracene	ND		0.804	10	06/29/2019 05:06	<a href="#">WG1303241</a>
Dibenzofuran	ND		8.12	10	06/29/2019 05:06	<a href="#">WG1303241</a>
3,3-Dichlorobenzidine	ND		8.12	10	06/29/2019 05:06	<a href="#">WG1303241</a>
2,4-Dinitrotoluene	ND		8.12	10	06/29/2019 05:06	<a href="#">WG1303241</a>
2,6-Dinitrotoluene	ND		8.12	10	06/29/2019 05:06	<a href="#">WG1303241</a>



Semi Volatile Organic Compounds (GC/MS) by Method 8270D

Analyte	Result (dry) mg/kg	Qualifier	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Fluoranthene	ND		0.804	10	06/29/2019 05:06	WG1303241
Fluorene	ND		0.804	10	06/29/2019 05:06	WG1303241
Hexachlorobenzene	ND		8.12	10	06/29/2019 05:06	WG1303241
Hexachloro-1,3-butadiene	ND	J4	8.12	10	06/29/2019 05:06	WG1303241
Hexachlorocyclopentadiene	ND	JO	8.12	10	06/29/2019 05:06	WG1303241
Hexachloroethane	ND		8.12	10	06/29/2019 05:06	WG1303241
Indeno(1,2,3-cd)pyrene	ND		0.804	10	06/29/2019 05:06	WG1303241
Isophorone	ND	J4	8.12	10	06/29/2019 05:06	WG1303241
2-Methylnaphthalene	ND	J4	0.804	10	06/29/2019 05:06	WG1303241
Naphthalene	ND	J4	0.804	10	06/29/2019 05:06	WG1303241
2-Nitroaniline	ND		8.12	10	06/29/2019 05:06	WG1303241
3-Nitroaniline	ND		8.12	10	06/29/2019 05:06	WG1303241
4-Nitroaniline	ND		8.12	10	06/29/2019 05:06	WG1303241
Nitrobenzene	ND	J4	8.12	10	06/29/2019 05:06	WG1303241
n-Nitrosodiphenylamine	ND		8.12	10	06/29/2019 05:06	WG1303241
n-Nitrosodi-n-propylamine	ND		8.12	10	06/29/2019 05:06	WG1303241
Phenanthrene	ND		0.804	10	06/29/2019 05:06	WG1303241
Benzylbutyl phthalate	ND		8.12	10	06/29/2019 05:06	WG1303241
Bis(2-ethylhexyl)phthalate	ND		8.12	10	06/29/2019 05:06	WG1303241
Di-n-butyl phthalate	ND		8.12	10	06/29/2019 05:06	WG1303241
Diethyl phthalate	ND		8.12	10	06/29/2019 05:06	WG1303241
Dimethyl phthalate	ND		8.12	10	06/29/2019 05:06	WG1303241
Di-n-octyl phthalate	ND		8.12	10	06/29/2019 05:06	WG1303241
Pyrene	ND		0.804	10	06/29/2019 05:06	WG1303241
1,2,4,5-Tetrachlorobenzene	ND		8.12	10	06/29/2019 05:06	WG1303241
4-Chloro-3-methylphenol	ND		8.12	10	06/29/2019 05:06	WG1303241
2-Chlorophenol	ND		8.12	10	06/29/2019 05:06	WG1303241
2-Methylphenol	ND		8.12	10	06/29/2019 05:06	WG1303241
3&4-Methyl Phenol	ND		8.12	10	06/29/2019 05:06	WG1303241
2,4-Dichlorophenol	ND		8.12	10	06/29/2019 05:06	WG1303241
2,4-Dimethylphenol	ND	JO J4	8.12	10	06/29/2019 05:06	WG1303241
4,6-Dinitro-2-methylphenol	ND		8.12	10	06/29/2019 05:06	WG1303241
2,4-Dinitrophenol	ND		8.12	10	06/29/2019 05:06	WG1303241
2-Nitrophenol	ND		8.12	10	06/29/2019 05:06	WG1303241
4-Nitrophenol	ND		8.12	10	06/29/2019 05:06	WG1303241
Pentachlorophenol	ND		8.12	10	06/29/2019 05:06	WG1303241
Phenol	ND		8.12	10	06/29/2019 05:06	WG1303241
2,4,5-Trichlorophenol	ND		8.12	10	06/29/2019 05:06	WG1303241
2,4,6-Trichlorophenol	ND		8.12	10	06/29/2019 05:06	WG1303241
(S) 2-Fluorophenol	56.8		12.0-120		06/29/2019 05:06	WG1303241
(S) Phenol-d5	54.8		10.0-120		06/29/2019 05:06	WG1303241
(S) Nitrobenzene-d5	44.3		10.0-122		06/29/2019 05:06	WG1303241
(S) 2-Fluorobiphenyl	46.2		15.0-120		06/29/2019 05:06	WG1303241
(S) 2,4,6-Tribromophenol	45.7		10.0-127		06/29/2019 05:06	WG1303241
(S) p-Terphenyl-d14	39.8		10.0-120		06/29/2019 05:06	WG1303241

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

Sample Narrative:

L111579-10 WG1303241: Dilution due to matrix.

Semi Volatile Organic Compounds (GC/MS) by Method 8270E-SIM

Analyte	Result (dry) mg/kg	Qualifier	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Anthracene	ND		0.0146	1	06/27/2019 17:47	WG1302016
Acenaphthene	ND		0.0146	1	06/27/2019 17:47	WG1302016
Acenaphthylene	ND		0.0146	1	06/27/2019 17:47	WG1302016
Benzo(a)anthracene	ND		0.0146	1	06/27/2019 17:47	WG1302016





Semi Volatile Organic Compounds (GC/MS) by Method 8270E-SIM

Analyte	Result (dry) mg/kg	Qualifier	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Benzo(a)pyrene	ND		0.0146	1	06/27/2019 17:47	<a href="#">WG1302016</a>
Benzo(b)fluoranthene	ND		0.0146	1	06/27/2019 17:47	<a href="#">WG1302016</a>
Benzo(g,h,i)perylene	ND		0.0146	1	06/27/2019 17:47	<a href="#">WG1302016</a>
Benzo(k)fluoranthene	ND		0.0146	1	06/27/2019 17:47	<a href="#">WG1302016</a>
Chrysene	ND		0.0146	1	06/27/2019 17:47	<a href="#">WG1302016</a>
Dibenz(a,h)anthracene	ND		0.0146	1	06/27/2019 17:47	<a href="#">WG1302016</a>
Fluoranthene	ND		0.0146	1	06/27/2019 17:47	<a href="#">WG1302016</a>
Fluorene	ND		0.0146	1	06/27/2019 17:47	<a href="#">WG1302016</a>
Indeno(1,2,3-cd)pyrene	ND		0.0146	1	06/27/2019 17:47	<a href="#">WG1302016</a>
Naphthalene	ND		0.0488	1	06/27/2019 17:47	<a href="#">WG1302016</a>
Phenanthrene	ND		0.0146	1	06/27/2019 17:47	<a href="#">WG1302016</a>
Pyrene	ND		0.0146	1	06/27/2019 17:47	<a href="#">WG1302016</a>
1-Methylnaphthalene	ND		0.0488	1	06/27/2019 17:47	<a href="#">WG1302016</a>
2-Methylnaphthalene	ND		0.0488	1	06/27/2019 17:47	<a href="#">WG1302016</a>
(S) p-Terphenyl-d14	81.8		23.0-120		06/27/2019 17:47	<a href="#">WG1302016</a>
(S) Nitrobenzene-d5	93.0		14.0-149		06/27/2019 17:47	<a href="#">WG1302016</a>
(S) 2-Fluorobiphenyl	67.6		34.0-125		06/27/2019 17:47	<a href="#">WG1302016</a>

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc



Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	75.6		1	06/26/2019 11:35	<a href="#">WG1302167</a>

1 Cp

2 Tc

Wet Chemistry by Method 9012B

Analyte	Result (dry)	Qualifier	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg		date / time	
Cyanide	ND		0.331	1	07/02/2019 20:04	<a href="#">WG1304908</a>

3 Ss

4 Cn

Mercury by Method 7471B

Analyte	Result (dry)	Qualifier	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg		date / time	
Mercury	0.0910	<u>B</u>	0.0265	1	06/26/2019 12:53	<a href="#">WG1301944</a>

5 Sr

6 Qc

Metals (ICP) by Method 6010D

Analyte	Result (dry)	Qualifier	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg		date / time	
Aluminum	16100		13.2	1	06/27/2019 23:09	<a href="#">WG1301970</a>
Antimony	ND		2.65	1	06/27/2019 23:09	<a href="#">WG1301970</a>
Arsenic	ND		2.65	1	06/27/2019 23:09	<a href="#">WG1301970</a>
Barium	88.8		0.661	1	06/27/2019 23:09	<a href="#">WG1301970</a>
Beryllium	ND		0.265	1	06/27/2019 23:09	<a href="#">WG1301970</a>
Cadmium	ND		0.661	1	06/27/2019 23:09	<a href="#">WG1301970</a>
Calcium	2570		132	1	06/27/2019 23:09	<a href="#">WG1301970</a>
Chromium	14.6		1.32	1	06/27/2019 23:09	<a href="#">WG1301970</a>
Cobalt	4.52		1.32	1	06/27/2019 23:09	<a href="#">WG1301970</a>
Copper	17.0		2.65	1	06/27/2019 23:09	<a href="#">WG1301970</a>
Iron	23100		13.2	1	06/27/2019 23:09	<a href="#">WG1301970</a>
Lead	8.04		0.661	1	06/27/2019 23:09	<a href="#">WG1301970</a>
Magnesium	602		132	1	06/27/2019 23:09	<a href="#">WG1301970</a>
Manganese	223		1.32	1	06/27/2019 23:09	<a href="#">WG1301970</a>
Nickel	6.07		2.65	1	06/27/2019 23:09	<a href="#">WG1301970</a>
Potassium	420		132	1	06/27/2019 23:09	<a href="#">WG1301970</a>
Selenium	ND		2.65	1	06/27/2019 23:09	<a href="#">WG1301970</a>
Silver	ND		1.32	1	06/27/2019 23:09	<a href="#">WG1301970</a>
Sodium	376		132	1	06/27/2019 23:09	<a href="#">WG1301970</a>
Thallium	ND		2.65	1	06/27/2019 23:09	<a href="#">WG1301970</a>
Vanadium	43.9		2.65	1	06/27/2019 23:09	<a href="#">WG1301970</a>
Zinc	165		6.61	1	06/27/2019 23:09	<a href="#">WG1301970</a>

7 Gl

8 Al

9 Sc

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result (dry)	Qualifier	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg		date / time	
Acetone	ND		0.259	7.84	06/26/2019 13:24	<a href="#">WG1302136</a>
Benzene	ND		0.0104	7.84	06/26/2019 13:24	<a href="#">WG1302136</a>
Bromochloromethane	ND		0.0519	7.84	06/26/2019 13:24	<a href="#">WG1302136</a>
Bromodichloromethane	ND		0.0259	7.84	06/26/2019 13:24	<a href="#">WG1302136</a>
Bromoform	ND		0.259	7.84	06/26/2019 13:24	<a href="#">WG1302136</a>
Bromomethane	ND		0.130	7.84	06/26/2019 13:24	<a href="#">WG1302136</a>
Carbon disulfide	ND		0.130	7.84	06/26/2019 13:24	<a href="#">WG1302136</a>
Carbon tetrachloride	ND		0.0519	7.84	06/26/2019 13:24	<a href="#">WG1302136</a>
Chlorobenzene	ND		0.0259	7.84	06/26/2019 13:24	<a href="#">WG1302136</a>
Chlorodibromomethane	ND		0.0259	7.84	06/26/2019 13:24	<a href="#">WG1302136</a>
Chloroethane	ND		0.0519	7.84	06/26/2019 13:24	<a href="#">WG1302136</a>
Chloroform	ND		0.0259	7.84	06/26/2019 13:24	<a href="#">WG1302136</a>
Chloromethane	ND		0.130	7.84	06/26/2019 13:24	<a href="#">WG1302136</a>



Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result (dry) mg/kg	Qualifier	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Cyclohexane	ND		0.0259	7.84	06/26/2019 13:24	WG1302136
1,2-Dibromo-3-Chloropropane	ND		0.259	7.84	06/26/2019 13:24	WG1302136
1,2-Dibromoethane	ND		0.0259	7.84	06/26/2019 13:24	WG1302136
Dichlorodifluoromethane	ND	J3	0.0259	7.84	06/26/2019 13:24	WG1302136
1,1-Dichloroethane	ND		0.0259	7.84	06/26/2019 13:24	WG1302136
1,2-Dichloroethane	ND		0.0259	7.84	06/26/2019 13:24	WG1302136
1,2-Dichlorobenzene	ND		0.0519	7.84	06/26/2019 13:24	WG1302136
1,3-Dichlorobenzene	ND		0.0519	7.84	06/26/2019 13:24	WG1302136
1,4-Dichlorobenzene	ND		0.0519	7.84	06/26/2019 13:24	WG1302136
1,1-Dichloroethene	ND		0.0259	7.84	06/26/2019 13:24	WG1302136
cis-1,2-Dichloroethene	ND		0.0259	7.84	06/26/2019 13:24	WG1302136
trans-1,2-Dichloroethene	ND		0.0519	7.84	06/26/2019 13:24	WG1302136
1,2-Dichloropropane	ND		0.0519	7.84	06/26/2019 13:24	WG1302136
cis-1,3-Dichloropropene	ND		0.0259	7.84	06/26/2019 13:24	WG1302136
trans-1,3-Dichloropropene	ND		0.0519	7.84	06/26/2019 13:24	WG1302136
Ethylbenzene	ND		0.0259	7.84	06/26/2019 13:24	WG1302136
2-Hexanone	ND		0.259	7.84	06/26/2019 13:24	WG1302136
Isopropylbenzene	ND		0.0259	7.84	06/26/2019 13:24	WG1302136
2-Butanone (MEK)	ND		0.259	7.84	06/26/2019 13:24	WG1302136
Methyl Acetate	1.37		0.0519	7.84	06/26/2019 13:24	WG1302136
Methyl Cyclohexane	ND		0.0519	7.84	06/26/2019 13:24	WG1302136
Methylene Chloride	ND		0.259	7.84	06/26/2019 13:24	WG1302136
4-Methyl-2-pentanone (MIBK)	ND		0.259	7.84	06/26/2019 13:24	WG1302136
Methyl tert-butyl ether	ND		0.0104	7.84	06/26/2019 13:24	WG1302136
Styrene	ND		0.130	7.84	06/26/2019 13:24	WG1302136
1,1,2,2-Tetrachloroethane	ND		0.0259	7.84	06/26/2019 13:24	WG1302136
Tetrachloroethene	ND		0.0259	7.84	06/26/2019 13:24	WG1302136
Toluene	ND		0.0519	7.84	06/26/2019 13:24	WG1302136
1,2,3-Trichlorobenzene	ND		0.0259	7.84	06/26/2019 13:24	WG1302136
1,2,4-Trichlorobenzene	ND		0.130	7.84	06/26/2019 13:24	WG1302136
1,1,1-Trichloroethane	ND		0.0259	7.84	06/26/2019 13:24	WG1302136
1,1,2-Trichloroethane	ND		0.0259	7.84	06/26/2019 13:24	WG1302136
Trichloroethene	ND		0.0104	7.84	06/26/2019 13:24	WG1302136
Trichlorofluoromethane	ND		0.0259	7.84	06/26/2019 13:24	WG1302136
1,1,2-Trichlorotrifluoroethane	ND		0.0259	7.84	06/26/2019 13:24	WG1302136
Vinyl chloride	ND		0.0259	7.84	06/26/2019 13:24	WG1302136
Xylenes, Total	ND		0.0675	7.84	06/26/2019 13:24	WG1302136
(S) Toluene-d8	100		75.0-131		06/26/2019 13:24	WG1302136
(S) 4-Bromofluorobenzene	92.7		67.0-138		06/26/2019 13:24	WG1302136
(S) 1,2-Dichloroethane-d4	107		70.0-130		06/26/2019 13:24	WG1302136

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

Sample Narrative:

L111579-11 WG1302136: Lowest possible dilution due to limited sample volume.

Pesticides (GC) by Method 8081B

Analyte	Result (dry) mg/kg	Qualifier	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Aldrin	ND		0.0265	1	06/26/2019 20:29	WG1302000
Alpha BHC	ND		0.0265	1	06/26/2019 20:29	WG1302000
Beta BHC	ND		0.0265	1	06/26/2019 20:29	WG1302000
Delta BHC	ND		0.0265	1	06/26/2019 20:29	WG1302000
Gamma BHC	ND		0.0265	1	06/26/2019 20:29	WG1302000
Chlordane	ND		0.265	1	06/26/2019 20:29	WG1302000
4,4-DDD	ND		0.0265	1	06/26/2019 20:29	WG1302000
4,4-DDE	ND		0.0265	1	06/26/2019 20:29	WG1302000
4,4-DDT	ND		0.0265	1	06/26/2019 20:29	WG1302000



Pesticides (GC) by Method 8081B

Analyte	Result (dry) mg/kg	Qualifier	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Dieldrin	ND		0.0265	1	06/26/2019 20:29	<a href="#">WG1302000</a>
Endosulfan I	ND		0.0265	1	06/26/2019 20:29	<a href="#">WG1302000</a>
Endosulfan II	ND		0.0265	1	06/26/2019 20:29	<a href="#">WG1302000</a>
Endosulfan sulfate	ND		0.0265	1	06/26/2019 20:29	<a href="#">WG1302000</a>
Endrin	ND		0.0265	1	06/26/2019 20:29	<a href="#">WG1302000</a>
Endrin aldehyde	ND		0.0265	1	06/26/2019 20:29	<a href="#">WG1302000</a>
Endrin ketone	ND		0.0265	1	06/26/2019 20:29	<a href="#">WG1302000</a>
Heptachlor	ND		0.0265	1	06/26/2019 20:29	<a href="#">WG1302000</a>
Heptachlor epoxide	ND		0.0265	1	06/26/2019 20:29	<a href="#">WG1302000</a>
Hexachlorobenzene	ND		0.0265	1	06/26/2019 20:29	<a href="#">WG1302000</a>
Methoxychlor	ND		0.0265	1	06/26/2019 20:29	<a href="#">WG1302000</a>
Toxaphene	ND		0.529	1	06/26/2019 20:29	<a href="#">WG1302000</a>
(S) Decachlorobiphenyl	84.1		10.0-135		06/26/2019 20:29	<a href="#">WG1302000</a>
(S) Tetrachloro-m-xylene	88.6		10.0-139		06/26/2019 20:29	<a href="#">WG1302000</a>

- 1 Cp
- 2 Tc
- 3 Ss
- 4 Cn
- 5 Sr
- 6 Qc
- 7 Gl
- 8 Al
- 9 Sc

Polychlorinated Biphenyls (GC) by Method 8082 A

Analyte	Result (dry) mg/kg	Qualifier	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
PCB 1016	ND	J4	0.0225	1	06/26/2019 20:40	<a href="#">WG1302000</a>
PCB 1221	ND		0.0225	1	06/26/2019 20:40	<a href="#">WG1302000</a>
PCB 1232	ND		0.0225	1	06/26/2019 20:40	<a href="#">WG1302000</a>
PCB 1242	ND		0.0225	1	06/26/2019 20:40	<a href="#">WG1302000</a>
PCB 1248	ND		0.0225	1	06/26/2019 20:40	<a href="#">WG1302000</a>
PCB 1254	ND		0.0225	1	06/26/2019 20:40	<a href="#">WG1302000</a>
PCB 1260	ND	J4	0.0225	1	06/26/2019 20:40	<a href="#">WG1302000</a>
(S) Decachlorobiphenyl	79.0		10.0-135		06/26/2019 20:40	<a href="#">WG1302000</a>
(S) Tetrachloro-m-xylene	82.3		10.0-139		06/26/2019 20:40	<a href="#">WG1302000</a>

Semi Volatile Organic Compounds (GC/MS) by Method 8270D

Analyte	Result (dry) mg/kg	Qualifier	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Acenaphthene	ND		0.218	5	06/29/2019 09:17	<a href="#">WG1303241</a>
Acenaphthylene	ND		0.218	5	06/29/2019 09:17	<a href="#">WG1303241</a>
Acetophenone	ND		2.21	5	06/29/2019 09:17	<a href="#">WG1303241</a>
Anthracene	ND		0.218	5	06/29/2019 09:17	<a href="#">WG1303241</a>
Atrazine	ND		2.21	5	06/29/2019 09:17	<a href="#">WG1303241</a>
Benzaldehyde	ND		2.21	5	06/29/2019 09:17	<a href="#">WG1303241</a>
Benzo(a)anthracene	ND		0.218	5	06/29/2019 09:17	<a href="#">WG1303241</a>
Benzo(b)fluoranthene	ND		0.218	5	06/29/2019 09:17	<a href="#">WG1303241</a>
Benzo(k)fluoranthene	ND		0.218	5	06/29/2019 09:17	<a href="#">WG1303241</a>
Benzo(g,h,i)perylene	ND		0.218	5	06/29/2019 09:17	<a href="#">WG1303241</a>
Benzo(a)pyrene	ND		0.218	5	06/29/2019 09:17	<a href="#">WG1303241</a>
Biphenyl	ND		2.21	5	06/29/2019 09:17	<a href="#">WG1303241</a>
Bis(2-chloroethoxy)methane	ND	J4	2.21	5	06/29/2019 09:17	<a href="#">WG1303241</a>
Bis(2-chloroethyl)ether	ND		2.21	5	06/29/2019 09:17	<a href="#">WG1303241</a>
Bis(2-chloroisopropyl)ether	ND	J4	2.21	5	06/29/2019 09:17	<a href="#">WG1303241</a>
4-Bromophenyl-phenylether	ND		2.21	5	06/29/2019 09:17	<a href="#">WG1303241</a>
Caprolactam	ND		2.21	5	06/29/2019 09:17	<a href="#">WG1303241</a>
Carbazole	ND		2.21	5	06/29/2019 09:17	<a href="#">WG1303241</a>
4-Chloroaniline	ND	J4	2.21	5	06/29/2019 09:17	<a href="#">WG1303241</a>
2-Chloronaphthalene	ND		0.218	5	06/29/2019 09:17	<a href="#">WG1303241</a>
4-Chlorophenyl-phenylether	ND		2.21	5	06/29/2019 09:17	<a href="#">WG1303241</a>
Chrysene	ND		0.218	5	06/29/2019 09:17	<a href="#">WG1303241</a>
Dibenz(a,h)anthracene	ND		0.218	5	06/29/2019 09:17	<a href="#">WG1303241</a>
Dibenzofuran	ND		2.21	5	06/29/2019 09:17	<a href="#">WG1303241</a>



Collected date/time: 06/19/19 13:00

L111579

Semi Volatile Organic Compounds (GC/MS) by Method 8270D

Analyte	Result (dry) mg/kg	Qualifier	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
3,3-Dichlorobenzidine	ND		2.21	5	06/29/2019 09:17	WG1303241
2,4-Dinitrotoluene	ND		2.21	5	06/29/2019 09:17	WG1303241
2,6-Dinitrotoluene	ND		2.21	5	06/29/2019 09:17	WG1303241
Fluoranthene	ND		0.218	5	06/29/2019 09:17	WG1303241
Fluorene	ND		0.218	5	06/29/2019 09:17	WG1303241
Hexachlorobenzene	ND		2.21	5	06/29/2019 09:17	WG1303241
Hexachloro-1,3-butadiene	ND	J4	2.21	5	06/29/2019 09:17	WG1303241
Hexachlorocyclopentadiene	ND	JO	2.21	5	06/29/2019 09:17	WG1303241
Hexachloroethane	ND		2.21	5	06/29/2019 09:17	WG1303241
Indeno(1,2,3-cd)pyrene	ND		0.218	5	06/29/2019 09:17	WG1303241
Isophorone	ND	J4	2.21	5	06/29/2019 09:17	WG1303241
2-Methylnaphthalene	ND	J4	0.218	5	06/29/2019 09:17	WG1303241
Naphthalene	ND	J4	0.218	5	06/29/2019 09:17	WG1303241
2-Nitroaniline	ND		2.21	5	06/29/2019 09:17	WG1303241
3-Nitroaniline	ND		2.21	5	06/29/2019 09:17	WG1303241
4-Nitroaniline	ND		2.21	5	06/29/2019 09:17	WG1303241
Nitrobenzene	ND	J4	2.21	5	06/29/2019 09:17	WG1303241
n-Nitrosodiphenylamine	ND		2.21	5	06/29/2019 09:17	WG1303241
n-Nitrosodi-n-propylamine	ND		2.21	5	06/29/2019 09:17	WG1303241
Phenanthrene	ND		0.218	5	06/29/2019 09:17	WG1303241
Benzylbutyl phthalate	ND		2.21	5	06/29/2019 09:17	WG1303241
Bis(2-ethylhexyl)phthalate	ND		2.21	5	06/29/2019 09:17	WG1303241
Di-n-butyl phthalate	ND		2.21	5	06/29/2019 09:17	WG1303241
Diethyl phthalate	ND		2.21	5	06/29/2019 09:17	WG1303241
Dimethyl phthalate	ND		2.21	5	06/29/2019 09:17	WG1303241
Di-n-octyl phthalate	ND		2.21	5	06/29/2019 09:17	WG1303241
Pyrene	ND		0.218	5	06/29/2019 09:17	WG1303241
1,2,4,5-Tetrachlorobenzene	ND		2.21	5	06/29/2019 09:17	WG1303241
4-Chloro-3-methylphenol	ND		2.21	5	06/29/2019 09:17	WG1303241
2-Chlorophenol	ND		2.21	5	06/29/2019 09:17	WG1303241
2-Methylphenol	ND		2.21	5	06/29/2019 09:17	WG1303241
3&4-Methyl Phenol	ND		2.21	5	06/29/2019 09:17	WG1303241
2,4-Dichlorophenol	ND		2.21	5	06/29/2019 09:17	WG1303241
2,4-Dimethylphenol	ND	JO J4	2.21	5	06/29/2019 09:17	WG1303241
4,6-Dinitro-2-methylphenol	ND		2.21	5	06/29/2019 09:17	WG1303241
2,4-Dinitrophenol	ND		2.21	5	06/29/2019 09:17	WG1303241
2-Nitrophenol	ND		2.21	5	06/29/2019 09:17	WG1303241
4-Nitrophenol	ND		2.21	5	06/29/2019 09:17	WG1303241
Pentachlorophenol	ND		2.21	5	06/29/2019 09:17	WG1303241
Phenol	ND		2.21	5	06/29/2019 09:17	WG1303241
2,4,5-Trichlorophenol	ND		2.21	5	06/29/2019 09:17	WG1303241
2,4,6-Trichlorophenol	ND		2.21	5	06/29/2019 09:17	WG1303241
(S) 2-Fluorophenol	70.8		12.0-120		06/29/2019 09:17	WG1303241
(S) Phenol-d5	67.2		10.0-120		06/29/2019 09:17	WG1303241
(S) Nitrobenzene-d5	58.9		10.0-122		06/29/2019 09:17	WG1303241
(S) 2-Fluorobiphenyl	55.6		15.0-120		06/29/2019 09:17	WG1303241
(S) 2,4,6-Tribromophenol	60.1		10.0-127		06/29/2019 09:17	WG1303241
(S) p-Terphenyl-d14	52.9		10.0-120		06/29/2019 09:17	WG1303241

- 1 Cp
- 2 Tc
- 3 Ss
- 4 Cn
- 5 Sr
- 6 Qc
- 7 Gl
- 8 Al
- 9 Sc

Sample Narrative:

L111579-11 WG1303241: Dilution due to matrix.





Collected date/time: 06/19/19 13:00

L1111579

Semi Volatile Organic Compounds (GC/MS) by Method 8270E-SIM

Analyte	Result (dry) mg/kg	Qualifier	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Anthracene	ND		0.00794	1	06/27/2019 18:08	<a href="#">WG1302016</a>
Acenaphthene	ND		0.00794	1	06/27/2019 18:08	<a href="#">WG1302016</a>
Acenaphthylene	ND		0.00794	1	06/27/2019 18:08	<a href="#">WG1302016</a>
Benzo(a)anthracene	ND		0.00794	1	06/27/2019 18:08	<a href="#">WG1302016</a>
Benzo(a)pyrene	ND		0.00794	1	06/27/2019 18:08	<a href="#">WG1302016</a>
Benzo(b)fluoranthene	ND		0.00794	1	06/27/2019 18:08	<a href="#">WG1302016</a>
Benzo(g,h,i)perylene	ND		0.00794	1	06/27/2019 18:08	<a href="#">WG1302016</a>
Benzo(k)fluoranthene	ND		0.00794	1	06/27/2019 18:08	<a href="#">WG1302016</a>
Chrysene	ND		0.00794	1	06/27/2019 18:08	<a href="#">WG1302016</a>
Dibenz(a,h)anthracene	ND		0.00794	1	06/27/2019 18:08	<a href="#">WG1302016</a>
Fluoranthene	ND		0.00794	1	06/27/2019 18:08	<a href="#">WG1302016</a>
Fluorene	ND		0.00794	1	06/27/2019 18:08	<a href="#">WG1302016</a>
Indeno(1,2,3-cd)pyrene	ND		0.00794	1	06/27/2019 18:08	<a href="#">WG1302016</a>
Naphthalene	ND		0.0265	1	06/27/2019 18:08	<a href="#">WG1302016</a>
Phenanthrene	ND		0.00794	1	06/27/2019 18:08	<a href="#">WG1302016</a>
Pyrene	ND		0.00794	1	06/27/2019 18:08	<a href="#">WG1302016</a>
1-Methylnaphthalene	ND		0.0265	1	06/27/2019 18:08	<a href="#">WG1302016</a>
2-Methylnaphthalene	ND		0.0265	1	06/27/2019 18:08	<a href="#">WG1302016</a>
(S) p-Terphenyl-d14	75.0		23.0-120		06/27/2019 18:08	<a href="#">WG1302016</a>
(S) Nitrobenzene-d5	71.3		14.0-149		06/27/2019 18:08	<a href="#">WG1302016</a>
(S) 2-Fluorobiphenyl	70.2		34.0-125		06/27/2019 18:08	<a href="#">WG1302016</a>

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc



Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	37.3		1	06/26/2019 11:35	<a href="#">WG1302167</a>

1 Cp

2 Tc

Wet Chemistry by Method 9012B

Analyte	Result (dry)	Qualifier	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg		date / time	
Cyanide	ND		0.670	1	07/02/2019 20:05	<a href="#">WG1304908</a>

3 Ss

4 Cn

Mercury by Method 7471B

Analyte	Result (dry)	Qualifier	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg		date / time	
Mercury	0.478		0.0536	1	06/26/2019 12:55	<a href="#">WG1301944</a>

5 Sr

6 Qc

Metals (ICP) by Method 6010D

Analyte	Result (dry)	Qualifier	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg		date / time	
Aluminum	22600		26.8	1	06/27/2019 23:11	<a href="#">WG1301970</a>
Antimony	ND		5.36	1	06/27/2019 23:11	<a href="#">WG1301970</a>
Arsenic	ND		5.36	1	06/27/2019 23:11	<a href="#">WG1301970</a>
Barium	164		1.34	1	06/27/2019 23:11	<a href="#">WG1301970</a>
Beryllium	0.698		0.536	1	06/27/2019 23:11	<a href="#">WG1301970</a>
Cadmium	ND		1.34	1	06/27/2019 23:11	<a href="#">WG1301970</a>
Calcium	9370		268	1	06/27/2019 23:11	<a href="#">WG1301970</a>
Chromium	30.0		2.68	1	06/27/2019 23:11	<a href="#">WG1301970</a>
Cobalt	9.67		2.68	1	06/27/2019 23:11	<a href="#">WG1301970</a>
Copper	35.9		5.36	1	06/27/2019 23:11	<a href="#">WG1301970</a>
Iron	19900		26.8	1	06/27/2019 23:11	<a href="#">WG1301970</a>
Lead	22.5		1.34	1	06/27/2019 23:11	<a href="#">WG1301970</a>
Magnesium	3320		268	1	06/27/2019 23:11	<a href="#">WG1301970</a>
Manganese	420		2.68	1	06/27/2019 23:11	<a href="#">WG1301970</a>
Nickel	14.9		5.36	1	06/27/2019 23:11	<a href="#">WG1301970</a>
Potassium	2040		268	1	06/27/2019 23:11	<a href="#">WG1301970</a>
Selenium	ND		5.36	1	06/27/2019 23:11	<a href="#">WG1301970</a>
Silver	ND		2.68	1	06/27/2019 23:11	<a href="#">WG1301970</a>
Sodium	1720		268	1	06/27/2019 23:11	<a href="#">WG1301970</a>
Thallium	ND		5.36	1	06/27/2019 23:11	<a href="#">WG1301970</a>
Vanadium	48.7		5.36	1	06/27/2019 23:11	<a href="#">WG1301970</a>
Zinc	1290		13.4	1	06/27/2019 23:11	<a href="#">WG1301970</a>

7 Gl

8 Al

9 Sc

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result (dry)	Qualifier	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg		date / time	
Acetone	0.853		0.104	1.56	06/26/2019 13:43	<a href="#">WG1302136</a>
Benzene	ND		0.00418	1.56	06/26/2019 13:43	<a href="#">WG1302136</a>
Bromochloromethane	ND		0.0209	1.56	06/26/2019 13:43	<a href="#">WG1302136</a>
Bromodichloromethane	ND		0.0104	1.56	06/26/2019 13:43	<a href="#">WG1302136</a>
Bromoform	ND		0.104	1.56	06/26/2019 13:43	<a href="#">WG1302136</a>
Bromomethane	ND		0.0522	1.56	06/26/2019 13:43	<a href="#">WG1302136</a>
Carbon disulfide	ND		0.0522	1.56	06/26/2019 13:43	<a href="#">WG1302136</a>
Carbon tetrachloride	ND		0.0209	1.56	06/26/2019 13:43	<a href="#">WG1302136</a>
Chlorobenzene	ND		0.0104	1.56	06/26/2019 13:43	<a href="#">WG1302136</a>
Chlorodibromomethane	ND		0.0104	1.56	06/26/2019 13:43	<a href="#">WG1302136</a>
Chloroethane	ND		0.0209	1.56	06/26/2019 13:43	<a href="#">WG1302136</a>
Chloroform	ND		0.0104	1.56	06/26/2019 13:43	<a href="#">WG1302136</a>
Chloromethane	ND		0.0522	1.56	06/26/2019 13:43	<a href="#">WG1302136</a>



Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result (dry) mg/kg	Qualifier	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Cyclohexane	ND		0.0104	1.56	06/26/2019 13:43	WG1302136
1,2-Dibromo-3-Chloropropane	ND		0.104	1.56	06/26/2019 13:43	WG1302136
1,2-Dibromoethane	ND		0.0104	1.56	06/26/2019 13:43	WG1302136
Dichlorodifluoromethane	ND	J3	0.0104	1.56	06/26/2019 13:43	WG1302136
1,1-Dichloroethane	ND		0.0104	1.56	06/26/2019 13:43	WG1302136
1,2-Dichloroethane	ND		0.0104	1.56	06/26/2019 13:43	WG1302136
1,2-Dichlorobenzene	ND		0.0209	1.56	06/26/2019 13:43	WG1302136
1,3-Dichlorobenzene	ND		0.0209	1.56	06/26/2019 13:43	WG1302136
1,4-Dichlorobenzene	ND		0.0209	1.56	06/26/2019 13:43	WG1302136
1,1-Dichloroethene	ND		0.0104	1.56	06/26/2019 13:43	WG1302136
cis-1,2-Dichloroethene	ND		0.0104	1.56	06/26/2019 13:43	WG1302136
trans-1,2-Dichloroethene	ND		0.0209	1.56	06/26/2019 13:43	WG1302136
1,2-Dichloropropane	ND		0.0209	1.56	06/26/2019 13:43	WG1302136
cis-1,3-Dichloropropene	ND		0.0104	1.56	06/26/2019 13:43	WG1302136
trans-1,3-Dichloropropene	ND		0.0209	1.56	06/26/2019 13:43	WG1302136
Ethylbenzene	ND		0.0104	1.56	06/26/2019 13:43	WG1302136
2-Hexanone	ND		0.104	1.56	06/26/2019 13:43	WG1302136
Isopropylbenzene	ND		0.0104	1.56	06/26/2019 13:43	WG1302136
2-Butanone (MEK)	0.212	B	0.104	1.56	06/26/2019 13:43	WG1302136
Methyl Acetate	1.30		0.0209	1.56	06/26/2019 13:43	WG1302136
Methyl Cyclohexane	ND		0.0209	1.56	06/26/2019 13:43	WG1302136
Methylene Chloride	ND		0.104	1.56	06/26/2019 13:43	WG1302136
4-Methyl-2-pentanone (MIBK)	ND		0.104	1.56	06/26/2019 13:43	WG1302136
Methyl tert-butyl ether	ND		0.00418	1.56	06/26/2019 13:43	WG1302136
Styrene	ND		0.0522	1.56	06/26/2019 13:43	WG1302136
1,1,2,2-Tetrachloroethane	ND		0.0104	1.56	06/26/2019 13:43	WG1302136
Tetrachloroethene	ND		0.0104	1.56	06/26/2019 13:43	WG1302136
Toluene	0.0358		0.0209	1.56	06/26/2019 13:43	WG1302136
1,2,3-Trichlorobenzene	ND		0.0104	1.56	06/26/2019 13:43	WG1302136
1,2,4-Trichlorobenzene	ND		0.0522	1.56	06/26/2019 13:43	WG1302136
1,1,1-Trichloroethane	ND		0.0104	1.56	06/26/2019 13:43	WG1302136
1,1,2-Trichloroethane	ND		0.0104	1.56	06/26/2019 13:43	WG1302136
Trichloroethene	ND		0.00418	1.56	06/26/2019 13:43	WG1302136
Trichlorofluoromethane	ND		0.0104	1.56	06/26/2019 13:43	WG1302136
1,1,2-Trichlorotrifluoroethane	ND		0.0104	1.56	06/26/2019 13:43	WG1302136
Vinyl chloride	ND		0.0104	1.56	06/26/2019 13:43	WG1302136
Xylenes, Total	ND		0.0271	1.56	06/26/2019 13:43	WG1302136
(S) Toluene-d8	101		75.0-131		06/26/2019 13:43	WG1302136
(S) 4-Bromofluorobenzene	99.2		67.0-138		06/26/2019 13:43	WG1302136
(S) 1,2-Dichloroethane-d4	104		70.0-130		06/26/2019 13:43	WG1302136

1  
Cp

2  
Tc

3  
Ss

4  
Cn

5  
Sr

6  
Qc

7  
Gl

8  
Al

9  
Sc

Pesticides (GC) by Method 8081B

Analyte	Result (dry) mg/kg	Qualifier	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Aldrin	ND		0.0536	1	06/26/2019 20:42	WG1302000
Alpha BHC	ND		0.0536	1	06/26/2019 20:42	WG1302000
Beta BHC	ND		0.0536	1	06/26/2019 20:42	WG1302000
Delta BHC	ND		0.0536	1	06/26/2019 20:42	WG1302000
Gamma BHC	ND		0.0536	1	06/26/2019 20:42	WG1302000
Chlordane	ND		0.536	1	06/26/2019 20:42	WG1302000
4,4-DDD	ND		0.0536	1	06/26/2019 20:42	WG1302000
4,4-DDE	ND		0.0536	1	06/26/2019 20:42	WG1302000
4,4-DDT	ND		0.0536	1	06/26/2019 20:42	WG1302000
Dieldrin	ND		0.0536	1	06/26/2019 20:42	WG1302000
Endosulfan I	ND		0.0536	1	06/26/2019 20:42	WG1302000
Endosulfan II	ND		0.0536	1	06/26/2019 20:42	WG1302000



Pesticides (GC) by Method 8081B

Analyte	Result (dry) mg/kg	Qualifier	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Endosulfan sulfate	ND		0.0536	1	06/26/2019 20:42	<a href="#">WG1302000</a>
Endrin	ND		0.0536	1	06/26/2019 20:42	<a href="#">WG1302000</a>
Endrin aldehyde	ND		0.0536	1	06/26/2019 20:42	<a href="#">WG1302000</a>
Endrin ketone	ND		0.0536	1	06/26/2019 20:42	<a href="#">WG1302000</a>
Heptachlor	ND		0.0536	1	06/26/2019 20:42	<a href="#">WG1302000</a>
Heptachlor epoxide	ND		0.0536	1	06/26/2019 20:42	<a href="#">WG1302000</a>
Hexachlorobenzene	ND		0.0536	1	06/26/2019 20:42	<a href="#">WG1302000</a>
Methoxychlor	ND		0.0536	1	06/26/2019 20:42	<a href="#">WG1302000</a>
Toxaphene	ND		1.07	1	06/26/2019 20:42	<a href="#">WG1302000</a>
(S) Decachlorobiphenyl	81.6		10.0-135		06/26/2019 20:42	<a href="#">WG1302000</a>
(S) Tetrachloro-m-xylene	87.6		10.0-139		06/26/2019 20:42	<a href="#">WG1302000</a>

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

Polychlorinated Biphenyls (GC) by Method 8082 A

Analyte	Result (dry) mg/kg	Qualifier	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
PCB 1016	ND	J4	0.0455	1	06/26/2019 20:52	<a href="#">WG1302000</a>
PCB 1221	ND		0.0455	1	06/26/2019 20:52	<a href="#">WG1302000</a>
PCB 1232	ND		0.0455	1	06/26/2019 20:52	<a href="#">WG1302000</a>
PCB 1242	ND		0.0455	1	06/26/2019 20:52	<a href="#">WG1302000</a>
PCB 1248	ND		0.0455	1	06/26/2019 20:52	<a href="#">WG1302000</a>
PCB 1254	ND		0.0455	1	06/26/2019 20:52	<a href="#">WG1302000</a>
PCB 1260	ND	J4	0.0455	1	06/26/2019 20:52	<a href="#">WG1302000</a>
(S) Decachlorobiphenyl	80.2		10.0-135		06/26/2019 20:52	<a href="#">WG1302000</a>
(S) Tetrachloro-m-xylene	83.5		10.0-139		06/26/2019 20:52	<a href="#">WG1302000</a>

Semi Volatile Organic Compounds (GC/MS) by Method 8270D

Analyte	Result (dry) mg/kg	Qualifier	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Acenaphthene	ND		0.884	10	06/29/2019 04:27	<a href="#">WG1303241</a>
Acenaphthylene	ND		0.884	10	06/29/2019 04:27	<a href="#">WG1303241</a>
Acetophenone	ND		8.92	10	06/29/2019 04:27	<a href="#">WG1303241</a>
Anthracene	ND		0.884	10	06/29/2019 04:27	<a href="#">WG1303241</a>
Atrazine	ND		8.92	10	06/29/2019 04:27	<a href="#">WG1303241</a>
Benzaldehyde	ND		8.92	10	06/29/2019 04:27	<a href="#">WG1303241</a>
Benzo(a)anthracene	ND		0.884	10	06/29/2019 04:27	<a href="#">WG1303241</a>
Benzo(b)fluoranthene	ND		0.884	10	06/29/2019 04:27	<a href="#">WG1303241</a>
Benzo(k)fluoranthene	ND		0.884	10	06/29/2019 04:27	<a href="#">WG1303241</a>
Benzo(g,h,i)perylene	ND		0.884	10	06/29/2019 04:27	<a href="#">WG1303241</a>
Benzo(a)pyrene	ND		0.884	10	06/29/2019 04:27	<a href="#">WG1303241</a>
Biphenyl	ND		8.92	10	06/29/2019 04:27	<a href="#">WG1303241</a>
Bis(2-chloroethoxy)methane	ND	J4	8.92	10	06/29/2019 04:27	<a href="#">WG1303241</a>
Bis(2-chloroethyl)ether	ND		8.92	10	06/29/2019 04:27	<a href="#">WG1303241</a>
Bis(2-chloroisopropyl)ether	ND	J4	8.92	10	06/29/2019 04:27	<a href="#">WG1303241</a>
4-Bromophenyl-phenylether	ND		8.92	10	06/29/2019 04:27	<a href="#">WG1303241</a>
Caprolactam	ND		8.92	10	06/29/2019 04:27	<a href="#">WG1303241</a>
Carbazole	ND		8.92	10	06/29/2019 04:27	<a href="#">WG1303241</a>
4-Chloroaniline	ND	J4	8.92	10	06/29/2019 04:27	<a href="#">WG1303241</a>
2-Chloronaphthalene	ND		0.884	10	06/29/2019 04:27	<a href="#">WG1303241</a>
4-Chlorophenyl-phenylether	ND		8.92	10	06/29/2019 04:27	<a href="#">WG1303241</a>
Chrysene	ND		0.884	10	06/29/2019 04:27	<a href="#">WG1303241</a>
Dibenz(a,h)anthracene	ND		0.884	10	06/29/2019 04:27	<a href="#">WG1303241</a>
Dibenzofuran	ND		8.92	10	06/29/2019 04:27	<a href="#">WG1303241</a>
3,3-Dichlorobenzidine	ND		8.92	10	06/29/2019 04:27	<a href="#">WG1303241</a>
2,4-Dinitrotoluene	ND		8.92	10	06/29/2019 04:27	<a href="#">WG1303241</a>
2,6-Dinitrotoluene	ND		8.92	10	06/29/2019 04:27	<a href="#">WG1303241</a>



Semi Volatile Organic Compounds (GC/MS) by Method 8270D

Analyte	Result (dry) mg/kg	Qualifier	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Fluoranthene	ND		0.884	10	06/29/2019 04:27	WG1303241
Fluorene	ND		0.884	10	06/29/2019 04:27	WG1303241
Hexachlorobenzene	ND		8.92	10	06/29/2019 04:27	WG1303241
Hexachloro-1,3-butadiene	ND	J4	8.92	10	06/29/2019 04:27	WG1303241
Hexachlorocyclopentadiene	ND	JO	8.92	10	06/29/2019 04:27	WG1303241
Hexachloroethane	ND		8.92	10	06/29/2019 04:27	WG1303241
Indeno(1,2,3-cd)pyrene	ND		0.884	10	06/29/2019 04:27	WG1303241
Isophorone	ND	J4	8.92	10	06/29/2019 04:27	WG1303241
2-Methylnaphthalene	ND	J4	0.884	10	06/29/2019 04:27	WG1303241
Naphthalene	ND	J4	0.884	10	06/29/2019 04:27	WG1303241
2-Nitroaniline	ND		8.92	10	06/29/2019 04:27	WG1303241
3-Nitroaniline	ND		8.92	10	06/29/2019 04:27	WG1303241
4-Nitroaniline	ND		8.92	10	06/29/2019 04:27	WG1303241
Nitrobenzene	ND	J4	8.92	10	06/29/2019 04:27	WG1303241
n-Nitrosodiphenylamine	ND		8.92	10	06/29/2019 04:27	WG1303241
n-Nitrosodi-n-propylamine	ND		8.92	10	06/29/2019 04:27	WG1303241
Phenanthrene	ND		0.884	10	06/29/2019 04:27	WG1303241
Benzylbutyl phthalate	ND		8.92	10	06/29/2019 04:27	WG1303241
Bis(2-ethylhexyl)phthalate	ND		8.92	10	06/29/2019 04:27	WG1303241
Di-n-butyl phthalate	ND		8.92	10	06/29/2019 04:27	WG1303241
Diethyl phthalate	ND		8.92	10	06/29/2019 04:27	WG1303241
Dimethyl phthalate	ND		8.92	10	06/29/2019 04:27	WG1303241
Di-n-octyl phthalate	ND		8.92	10	06/29/2019 04:27	WG1303241
Pyrene	ND		0.884	10	06/29/2019 04:27	WG1303241
1,2,4,5-Tetrachlorobenzene	ND		8.92	10	06/29/2019 04:27	WG1303241
4-Chloro-3-methylphenol	ND		8.92	10	06/29/2019 04:27	WG1303241
2-Chlorophenol	ND		8.92	10	06/29/2019 04:27	WG1303241
2-Methylphenol	ND		8.92	10	06/29/2019 04:27	WG1303241
3&4-Methyl Phenol	ND		8.92	10	06/29/2019 04:27	WG1303241
2,4-Dichlorophenol	ND		8.92	10	06/29/2019 04:27	WG1303241
2,4-Dimethylphenol	ND	JO J4	8.92	10	06/29/2019 04:27	WG1303241
4,6-Dinitro-2-methylphenol	ND		8.92	10	06/29/2019 04:27	WG1303241
2,4-Dinitrophenol	ND		8.92	10	06/29/2019 04:27	WG1303241
2-Nitrophenol	ND		8.92	10	06/29/2019 04:27	WG1303241
4-Nitrophenol	ND		8.92	10	06/29/2019 04:27	WG1303241
Pentachlorophenol	ND		8.92	10	06/29/2019 04:27	WG1303241
Phenol	ND		8.92	10	06/29/2019 04:27	WG1303241
2,4,5-Trichlorophenol	ND		8.92	10	06/29/2019 04:27	WG1303241
2,4,6-Trichlorophenol	ND		8.92	10	06/29/2019 04:27	WG1303241
(S) 2-Fluorophenol	56.2		12.0-120		06/29/2019 04:27	WG1303241
(S) Phenol-d5	50.2		10.0-120		06/29/2019 04:27	WG1303241
(S) Nitrobenzene-d5	48.5		10.0-122		06/29/2019 04:27	WG1303241
(S) 2-Fluorobiphenyl	45.7		15.0-120		06/29/2019 04:27	WG1303241
(S) 2,4,6-Tribromophenol	47.2		10.0-127		06/29/2019 04:27	WG1303241
(S) p-Terphenyl-d14	42.6		10.0-120		06/29/2019 04:27	WG1303241

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

Sample Narrative:

L111579-12 WG1303241: Dilution due to matrix.

Semi Volatile Organic Compounds (GC/MS) by Method 8270E-SIM

Analyte	Result (dry) mg/kg	Qualifier	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Anthracene	ND		0.0161	1	06/27/2019 18:29	WG1302106
Acenaphthene	ND		0.0161	1	06/27/2019 18:29	WG1302106
Acenaphthylene	ND		0.0161	1	06/27/2019 18:29	WG1302106
Benzo(a)anthracene	ND		0.0161	1	06/27/2019 18:29	WG1302106





Semi Volatile Organic Compounds (GC/MS) by Method 8270E-SIM

Analyte	Result (dry) mg/kg	Qualifier	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Benzo(a)pyrene	ND		0.0161	1	06/27/2019 18:29	<a href="#">WG1302016</a>
Benzo(b)fluoranthene	ND		0.0161	1	06/27/2019 18:29	<a href="#">WG1302016</a>
Benzo(g,h,i)perylene	ND		0.0161	1	06/27/2019 18:29	<a href="#">WG1302016</a>
Benzo(k)fluoranthene	ND		0.0161	1	06/27/2019 18:29	<a href="#">WG1302016</a>
Chrysene	ND		0.0161	1	06/27/2019 18:29	<a href="#">WG1302016</a>
Dibenz(a,h)anthracene	ND		0.0161	1	06/27/2019 18:29	<a href="#">WG1302016</a>
Fluoranthene	ND		0.0161	1	06/27/2019 18:29	<a href="#">WG1302016</a>
Fluorene	ND		0.0161	1	06/27/2019 18:29	<a href="#">WG1302016</a>
Indeno(1,2,3-cd)pyrene	ND		0.0161	1	06/27/2019 18:29	<a href="#">WG1302016</a>
Naphthalene	ND		0.0536	1	06/27/2019 18:29	<a href="#">WG1302016</a>
Phenanthrene	ND		0.0161	1	06/27/2019 18:29	<a href="#">WG1302016</a>
Pyrene	ND		0.0161	1	06/27/2019 18:29	<a href="#">WG1302016</a>
1-Methylnaphthalene	ND		0.0536	1	06/27/2019 18:29	<a href="#">WG1302016</a>
2-Methylnaphthalene	ND		0.0536	1	06/27/2019 18:29	<a href="#">WG1302016</a>
<i>(S) p-Terphenyl-d14</i>	61.0		23.0-120		06/27/2019 18:29	<a href="#">WG1302016</a>
<i>(S) Nitrobenzene-d5</i>	80.9		14.0-149		06/27/2019 18:29	<a href="#">WG1302016</a>
<i>(S) 2-Fluorobiphenyl</i>	43.8		34.0-125		06/27/2019 18:29	<a href="#">WG1302016</a>

- 1 Cp
- 2 Tc
- 3 Ss
- 4 Cn
- 5 Sr
- 6 Qc
- 7 Gl
- 8 Al
- 9 Sc



Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	11.0		1	06/26/2019 11:35	<a href="#">WG1302167</a>

1 Cp

2 Tc

Wet Chemistry by Method 9012B

Analyte	Result (dry)	Qualifier	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg		date / time	
Cyanide	ND		2.28	1	07/02/2019 20:08	<a href="#">WG1304908</a>

3 Ss

4 Cn

Mercury by Method 7471B

Analyte	Result (dry)	Qualifier	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg		date / time	
Mercury	0.228	<u>B</u>	0.182	1	06/26/2019 12:57	<a href="#">WG1301944</a>

5 Sr

6 Qc

Metals (ICP) by Method 6010D

Analyte	Result (dry)	Qualifier	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg		date / time	
Aluminum	13100		91.2	1	06/27/2019 23:20	<a href="#">WG1301970</a>
Antimony	ND		18.2	1	06/27/2019 23:20	<a href="#">WG1301970</a>
Arsenic	ND		18.2	1	06/27/2019 23:20	<a href="#">WG1301970</a>
Barium	436		4.56	1	06/27/2019 23:20	<a href="#">WG1301970</a>
Beryllium	ND		1.82	1	06/27/2019 23:20	<a href="#">WG1301970</a>
Cadmium	ND		4.56	1	06/27/2019 23:20	<a href="#">WG1301970</a>
Calcium	64500		912	1	06/27/2019 23:20	<a href="#">WG1301970</a>
Chromium	30.8		9.12	1	06/27/2019 23:20	<a href="#">WG1301970</a>
Cobalt	ND		9.12	1	06/27/2019 23:20	<a href="#">WG1301970</a>
Copper	52.6		18.2	1	06/27/2019 23:20	<a href="#">WG1301970</a>
Iron	3480		91.2	1	06/27/2019 23:20	<a href="#">WG1301970</a>
Lead	11.9		4.56	1	06/27/2019 23:20	<a href="#">WG1301970</a>
Magnesium	2770		912	1	06/27/2019 23:20	<a href="#">WG1301970</a>
Manganese	1230		9.12	1	06/27/2019 23:20	<a href="#">WG1301970</a>
Nickel	21.0		18.2	1	06/27/2019 23:20	<a href="#">WG1301970</a>
Potassium	1240		912	1	06/27/2019 23:20	<a href="#">WG1301970</a>
Selenium	ND		18.2	1	06/27/2019 23:20	<a href="#">WG1301970</a>
Silver	ND		9.12	1	06/27/2019 23:20	<a href="#">WG1301970</a>
Sodium	5260		912	1	06/27/2019 23:20	<a href="#">WG1301970</a>
Thallium	ND		18.2	1	06/27/2019 23:20	<a href="#">WG1301970</a>
Vanadium	28.4	<u>B</u>	18.2	1	06/27/2019 23:20	<a href="#">WG1301970</a>
Zinc	1300		45.6	1	06/27/2019 23:20	<a href="#">WG1301970</a>

7 Gl

8 Al

9 Sc

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result (dry)	Qualifier	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg		date / time	
Acetone	0.645		0.228	1	06/26/2019 14:02	<a href="#">WG1302136</a>
Benzene	ND		0.00912	1	06/26/2019 14:02	<a href="#">WG1302136</a>
Bromochloromethane	ND		0.0456	1	06/26/2019 14:02	<a href="#">WG1302136</a>
Bromodichloromethane	ND		0.0228	1	06/26/2019 14:02	<a href="#">WG1302136</a>
Bromoform	ND		0.228	1	06/26/2019 14:02	<a href="#">WG1302136</a>
Bromomethane	ND		0.114	1	06/26/2019 14:02	<a href="#">WG1302136</a>
Carbon disulfide	ND		0.114	1	06/26/2019 14:02	<a href="#">WG1302136</a>
Carbon tetrachloride	ND		0.0456	1	06/26/2019 14:02	<a href="#">WG1302136</a>
Chlorobenzene	ND		0.0228	1	06/26/2019 14:02	<a href="#">WG1302136</a>
Chlorodibromomethane	ND		0.0228	1	06/26/2019 14:02	<a href="#">WG1302136</a>
Chloroethane	ND		0.0456	1	06/26/2019 14:02	<a href="#">WG1302136</a>
Chloroform	ND		0.0228	1	06/26/2019 14:02	<a href="#">WG1302136</a>
Chloromethane	ND		0.114	1	06/26/2019 14:02	<a href="#">WG1302136</a>



Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result (dry) mg/kg	Qualifier	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Cyclohexane	ND		0.0228	1	06/26/2019 14:02	WG1302136
1,2-Dibromo-3-Chloropropane	ND		0.228	1	06/26/2019 14:02	WG1302136
1,2-Dibromoethane	ND		0.0228	1	06/26/2019 14:02	WG1302136
Dichlorodifluoromethane	ND	J3	0.0228	1	06/26/2019 14:02	WG1302136
1,1-Dichloroethane	ND		0.0228	1	06/26/2019 14:02	WG1302136
1,2-Dichloroethane	ND		0.0228	1	06/26/2019 14:02	WG1302136
1,2-Dichlorobenzene	ND		0.0456	1	06/26/2019 14:02	WG1302136
1,3-Dichlorobenzene	ND		0.0456	1	06/26/2019 14:02	WG1302136
1,4-Dichlorobenzene	ND		0.0456	1	06/26/2019 14:02	WG1302136
1,1-Dichloroethene	ND		0.0228	1	06/26/2019 14:02	WG1302136
cis-1,2-Dichloroethene	ND		0.0228	1	06/26/2019 14:02	WG1302136
trans-1,2-Dichloroethene	ND		0.0456	1	06/26/2019 14:02	WG1302136
1,2-Dichloropropane	ND		0.0456	1	06/26/2019 14:02	WG1302136
cis-1,3-Dichloropropene	ND		0.0228	1	06/26/2019 14:02	WG1302136
trans-1,3-Dichloropropene	ND		0.0456	1	06/26/2019 14:02	WG1302136
Ethylbenzene	ND		0.0228	1	06/26/2019 14:02	WG1302136
2-Hexanone	ND		0.228	1	06/26/2019 14:02	WG1302136
Isopropylbenzene	ND		0.0228	1	06/26/2019 14:02	WG1302136
2-Butanone (MEK)	0.378	B	0.228	1	06/26/2019 14:02	WG1302136
Methyl Acetate	3.02		0.0456	1	06/26/2019 14:02	WG1302136
Methyl Cyclohexane	ND		0.0456	1	06/26/2019 14:02	WG1302136
Methylene Chloride	ND		0.228	1	06/26/2019 14:02	WG1302136
4-Methyl-2-pentanone (MIBK)	ND		0.228	1	06/26/2019 14:02	WG1302136
Methyl tert-butyl ether	ND		0.00912	1	06/26/2019 14:02	WG1302136
Styrene	ND		0.114	1	06/26/2019 14:02	WG1302136
1,1,2,2-Tetrachloroethane	ND		0.0228	1	06/26/2019 14:02	WG1302136
Tetrachloroethene	ND		0.0228	1	06/26/2019 14:02	WG1302136
Toluene	0.0594		0.0456	1	06/26/2019 14:02	WG1302136
1,2,3-Trichlorobenzene	ND		0.0228	1	06/26/2019 14:02	WG1302136
1,2,4-Trichlorobenzene	ND		0.114	1	06/26/2019 14:02	WG1302136
1,1,1-Trichloroethane	ND		0.0228	1	06/26/2019 14:02	WG1302136
1,1,2-Trichloroethane	ND		0.0228	1	06/26/2019 14:02	WG1302136
Trichloroethene	ND		0.00912	1	06/26/2019 14:02	WG1302136
Trichlorofluoromethane	ND		0.0228	1	06/26/2019 14:02	WG1302136
1,1,2-Trichlorotrifluoroethane	ND		0.0228	1	06/26/2019 14:02	WG1302136
Vinyl chloride	ND		0.0228	1	06/26/2019 14:02	WG1302136
Xylenes, Total	ND		0.0593	1	06/26/2019 14:02	WG1302136
(S) Toluene-d8	103		75.0-131		06/26/2019 14:02	WG1302136
(S) 4-Bromofluorobenzene	92.9		67.0-138		06/26/2019 14:02	WG1302136
(S) 1,2-Dichloroethane-d4	97.8		70.0-130		06/26/2019 14:02	WG1302136

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

Pesticides (GC) by Method 8081B

Analyte	Result (dry) mg/kg	Qualifier	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Aldrin	ND		0.182	1	06/26/2019 20:54	WG1302000
Alpha BHC	ND		0.182	1	06/26/2019 20:54	WG1302000
Beta BHC	ND		0.182	1	06/26/2019 20:54	WG1302000
Delta BHC	ND		0.182	1	06/26/2019 20:54	WG1302000
Gamma BHC	ND		0.182	1	06/26/2019 20:54	WG1302000
Chlordane	ND		1.82	1	06/26/2019 20:54	WG1302000
4,4-DDD	ND		0.182	1	06/26/2019 20:54	WG1302000
4,4-DDE	ND		0.182	1	06/26/2019 20:54	WG1302000
4,4-DDT	ND		0.182	1	06/26/2019 20:54	WG1302000
Dieldrin	ND		0.182	1	06/26/2019 20:54	WG1302000
Endosulfan I	ND		0.182	1	06/26/2019 20:54	WG1302000
Endosulfan II	ND		0.182	1	06/26/2019 20:54	WG1302000



Pesticides (GC) by Method 8081B

Analyte	Result (dry) mg/kg	Qualifier	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Endosulfan sulfate	ND		0.182	1	06/26/2019 20:54	<a href="#">WG1302000</a>
Endrin	ND		0.182	1	06/26/2019 20:54	<a href="#">WG1302000</a>
Endrin aldehyde	ND		0.182	1	06/26/2019 20:54	<a href="#">WG1302000</a>
Endrin ketone	ND		0.182	1	06/26/2019 20:54	<a href="#">WG1302000</a>
Heptachlor	ND		0.182	1	06/26/2019 20:54	<a href="#">WG1302000</a>
Heptachlor epoxide	ND		0.182	1	06/26/2019 20:54	<a href="#">WG1302000</a>
Hexachlorobenzene	ND		0.182	1	06/26/2019 20:54	<a href="#">WG1302000</a>
Methoxychlor	ND		0.182	1	06/26/2019 20:54	<a href="#">WG1302000</a>
Toxaphene	ND		3.65	1	06/26/2019 20:54	<a href="#">WG1302000</a>
(S) Decachlorobiphenyl	81.7		10.0-135		06/26/2019 20:54	<a href="#">WG1302000</a>
(S) Tetrachloro-m-xylene	87.4		10.0-139		06/26/2019 20:54	<a href="#">WG1302000</a>

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

Polychlorinated Biphenyls (GC) by Method 8082 A

Analyte	Result (dry) mg/kg	Qualifier	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
PCB 1016	ND	J4	0.155	1	06/26/2019 21:05	<a href="#">WG1302000</a>
PCB 1221	ND		0.155	1	06/26/2019 21:05	<a href="#">WG1302000</a>
PCB 1232	ND		0.155	1	06/26/2019 21:05	<a href="#">WG1302000</a>
PCB 1242	ND		0.155	1	06/26/2019 21:05	<a href="#">WG1302000</a>
PCB 1248	ND		0.155	1	06/26/2019 21:05	<a href="#">WG1302000</a>
PCB 1254	ND		0.155	1	06/26/2019 21:05	<a href="#">WG1302000</a>
PCB 1260	ND	J4	0.155	1	06/26/2019 21:05	<a href="#">WG1302000</a>
(S) Decachlorobiphenyl	79.3		10.0-135		06/26/2019 21:05	<a href="#">WG1302000</a>
(S) Tetrachloro-m-xylene	77.9		10.0-139		06/26/2019 21:05	<a href="#">WG1302000</a>

Semi Volatile Organic Compounds (GC/MS) by Method 8270D

Analyte	Result (dry) mg/kg	Qualifier	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Acenaphthene	ND		1.51	5	06/29/2019 03:29	<a href="#">WG1303241</a>
Acenaphthylene	ND		1.51	5	06/29/2019 03:29	<a href="#">WG1303241</a>
Acetophenone	ND		15.2	5	06/29/2019 03:29	<a href="#">WG1303241</a>
Anthracene	ND		1.51	5	06/29/2019 03:29	<a href="#">WG1303241</a>
Atrazine	ND		15.2	5	06/29/2019 03:29	<a href="#">WG1303241</a>
Benzaldehyde	ND		15.2	5	06/29/2019 03:29	<a href="#">WG1303241</a>
Benzo(a)anthracene	ND		1.51	5	06/29/2019 03:29	<a href="#">WG1303241</a>
Benzo(b)fluoranthene	ND		1.51	5	06/29/2019 03:29	<a href="#">WG1303241</a>
Benzo(k)fluoranthene	ND		1.51	5	06/29/2019 03:29	<a href="#">WG1303241</a>
Benzo(g,h,i)perylene	ND		1.51	5	06/29/2019 03:29	<a href="#">WG1303241</a>
Benzo(a)pyrene	ND		1.51	5	06/29/2019 03:29	<a href="#">WG1303241</a>
Biphenyl	ND		15.2	5	06/29/2019 03:29	<a href="#">WG1303241</a>
Bis(2-chloroethoxy)methane	ND	J4	15.2	5	06/29/2019 03:29	<a href="#">WG1303241</a>
Bis(2-chloroethyl)ether	ND		15.2	5	06/29/2019 03:29	<a href="#">WG1303241</a>
Bis(2-chloroisopropyl)ether	ND	J4	15.2	5	06/29/2019 03:29	<a href="#">WG1303241</a>
4-Bromophenyl-phenylether	ND		15.2	5	06/29/2019 03:29	<a href="#">WG1303241</a>
Caprolactam	ND		15.2	5	06/29/2019 03:29	<a href="#">WG1303241</a>
Carbazole	ND		15.2	5	06/29/2019 03:29	<a href="#">WG1303241</a>
4-Chloroaniline	ND	J4	15.2	5	06/29/2019 03:29	<a href="#">WG1303241</a>
2-Chloronaphthalene	ND		1.51	5	06/29/2019 03:29	<a href="#">WG1303241</a>
4-Chlorophenyl-phenylether	ND		15.2	5	06/29/2019 03:29	<a href="#">WG1303241</a>
Chrysene	ND		1.51	5	06/29/2019 03:29	<a href="#">WG1303241</a>
Dibenz(a,h)anthracene	ND		1.51	5	06/29/2019 03:29	<a href="#">WG1303241</a>
Dibenzofuran	ND		15.2	5	06/29/2019 03:29	<a href="#">WG1303241</a>
3,3-Dichlorobenzidine	ND		15.2	5	06/29/2019 03:29	<a href="#">WG1303241</a>
2,4-Dinitrotoluene	ND		15.2	5	06/29/2019 03:29	<a href="#">WG1303241</a>
2,6-Dinitrotoluene	ND		15.2	5	06/29/2019 03:29	<a href="#">WG1303241</a>



Semi Volatile Organic Compounds (GC/MS) by Method 8270D

Analyte	Result (dry) mg/kg	Qualifier	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Fluoranthene	ND		1.51	5	06/29/2019 03:29	WG1303241
Fluorene	ND		1.51	5	06/29/2019 03:29	WG1303241
Hexachlorobenzene	ND		15.2	5	06/29/2019 03:29	WG1303241
Hexachloro-1,3-butadiene	ND	J4	15.2	5	06/29/2019 03:29	WG1303241
Hexachlorocyclopentadiene	ND	JO	15.2	5	06/29/2019 03:29	WG1303241
Hexachloroethane	ND		15.2	5	06/29/2019 03:29	WG1303241
Indeno(1,2,3-cd)pyrene	ND		1.51	5	06/29/2019 03:29	WG1303241
Isophorone	ND	J4	15.2	5	06/29/2019 03:29	WG1303241
2-Methylnaphthalene	ND	J4	1.51	5	06/29/2019 03:29	WG1303241
Naphthalene	ND	J4	1.51	5	06/29/2019 03:29	WG1303241
2-Nitroaniline	ND		15.2	5	06/29/2019 03:29	WG1303241
3-Nitroaniline	ND		15.2	5	06/29/2019 03:29	WG1303241
4-Nitroaniline	ND		15.2	5	06/29/2019 03:29	WG1303241
Nitrobenzene	ND	J4	15.2	5	06/29/2019 03:29	WG1303241
n-Nitrosodiphenylamine	ND		15.2	5	06/29/2019 03:29	WG1303241
n-Nitrosodi-n-propylamine	ND		15.2	5	06/29/2019 03:29	WG1303241
Phenanthrene	ND		1.51	5	06/29/2019 03:29	WG1303241
Benzylbutyl phthalate	ND		15.2	5	06/29/2019 03:29	WG1303241
Bis(2-ethylhexyl)phthalate	ND		15.2	5	06/29/2019 03:29	WG1303241
Di-n-butyl phthalate	ND		15.2	5	06/29/2019 03:29	WG1303241
Diethyl phthalate	ND		15.2	5	06/29/2019 03:29	WG1303241
Dimethyl phthalate	ND		15.2	5	06/29/2019 03:29	WG1303241
Di-n-octyl phthalate	ND		15.2	5	06/29/2019 03:29	WG1303241
Pyrene	ND		1.51	5	06/29/2019 03:29	WG1303241
1,2,4,5-Tetrachlorobenzene	ND		15.2	5	06/29/2019 03:29	WG1303241
4-Chloro-3-methylphenol	ND		15.2	5	06/29/2019 03:29	WG1303241
2-Chlorophenol	ND		15.2	5	06/29/2019 03:29	WG1303241
2-Methylphenol	ND		15.2	5	06/29/2019 03:29	WG1303241
3&4-Methyl Phenol	ND		15.2	5	06/29/2019 03:29	WG1303241
2,4-Dichlorophenol	ND		15.2	5	06/29/2019 03:29	WG1303241
2,4-Dimethylphenol	ND	JO J4	15.2	5	06/29/2019 03:29	WG1303241
4,6-Dinitro-2-methylphenol	ND		15.2	5	06/29/2019 03:29	WG1303241
2,4-Dinitrophenol	ND		15.2	5	06/29/2019 03:29	WG1303241
2-Nitrophenol	ND		15.2	5	06/29/2019 03:29	WG1303241
4-Nitrophenol	ND		15.2	5	06/29/2019 03:29	WG1303241
Pentachlorophenol	ND		15.2	5	06/29/2019 03:29	WG1303241
Phenol	ND		15.2	5	06/29/2019 03:29	WG1303241
2,4,5-Trichlorophenol	ND		15.2	5	06/29/2019 03:29	WG1303241
2,4,6-Trichlorophenol	ND		15.2	5	06/29/2019 03:29	WG1303241
(S) 2-Fluorophenol	74.8		12.0-120		06/29/2019 03:29	WG1303241
(S) Phenol-d5	64.3		10.0-120		06/29/2019 03:29	WG1303241
(S) Nitrobenzene-d5	66.9		10.0-122		06/29/2019 03:29	WG1303241
(S) 2-Fluorobiphenyl	63.8		15.0-120		06/29/2019 03:29	WG1303241
(S) 2,4,6-Tribromophenol	52.3		10.0-127		06/29/2019 03:29	WG1303241
(S) p-Terphenyl-d14	67.5		10.0-120		06/29/2019 03:29	WG1303241

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

Sample Narrative:

L111579-13 WG1303241: Dilution due to matrix.

Semi Volatile Organic Compounds (GC/MS) by Method 8270E-SIM

Analyte	Result (dry) mg/kg	Qualifier	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Anthracene	ND		0.0547	1	06/27/2019 18:51	WG1302016
Acenaphthene	ND		0.0547	1	06/27/2019 18:51	WG1302016
Acenaphthylene	ND		0.0547	1	06/27/2019 18:51	WG1302016
Benzo(a)anthracene	ND		0.0547	1	06/27/2019 18:51	WG1302016





Semi Volatile Organic Compounds (GC/MS) by Method 8270E-SIM

Analyte	Result (dry) mg/kg	Qualifier	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Benzo(a)pyrene	ND		0.0547	1	06/27/2019 18:51	<a href="#">WG1302016</a>
Benzo(b)fluoranthene	ND		0.0547	1	06/27/2019 18:51	<a href="#">WG1302016</a>
Benzo(g,h,i)perylene	ND		0.0547	1	06/27/2019 18:51	<a href="#">WG1302016</a>
Benzo(k)fluoranthene	ND		0.0547	1	06/27/2019 18:51	<a href="#">WG1302016</a>
Chrysene	ND		0.0547	1	06/27/2019 18:51	<a href="#">WG1302016</a>
Dibenz(a,h)anthracene	ND		0.0547	1	06/27/2019 18:51	<a href="#">WG1302016</a>
Fluoranthene	0.0626		0.0547	1	06/27/2019 18:51	<a href="#">WG1302016</a>
Fluorene	ND		0.0547	1	06/27/2019 18:51	<a href="#">WG1302016</a>
Indeno(1,2,3-cd)pyrene	ND		0.0547	1	06/27/2019 18:51	<a href="#">WG1302016</a>
Naphthalene	ND		0.182	1	06/27/2019 18:51	<a href="#">WG1302016</a>
Phenanthrene	ND		0.0547	1	06/27/2019 18:51	<a href="#">WG1302016</a>
Pyrene	ND		0.0547	1	06/27/2019 18:51	<a href="#">WG1302016</a>
1-Methylnaphthalene	ND		0.182	1	06/27/2019 18:51	<a href="#">WG1302016</a>
2-Methylnaphthalene	ND		0.182	1	06/27/2019 18:51	<a href="#">WG1302016</a>
(S) p-Terphenyl-d14	47.0		23.0-120		06/27/2019 18:51	<a href="#">WG1302016</a>
(S) Nitrobenzene-d5	54.9		14.0-149		06/27/2019 18:51	<a href="#">WG1302016</a>
(S) 2-Fluorobiphenyl	35.8		34.0-125		06/27/2019 18:51	<a href="#">WG1302016</a>

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc



Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	47.9		1	06/26/2019 11:35	<a href="#">WG1302167</a>

- 1 Cp
- 2 Tc
- 3 Ss
- 4 Cn
- 5 Sr
- 6 Qc
- 7 Gl
- 8 Al
- 9 Sc

Wet Chemistry by Method 9012B

Analyte	Result (dry)	Qualifier	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg		date / time	
Cyanide	ND		0.522	1	07/05/2019 10:12	<a href="#">WG1305501</a>

Mercury by Method 7471B

Analyte	Result (dry)	Qualifier	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg		date / time	
Mercury	0.148	<u>B</u>	0.0418	1	06/26/2019 12:59	<a href="#">WG1301944</a>

Metals (ICP) by Method 6010D

Analyte	Result (dry)	Qualifier	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg		date / time	
Aluminum	10300		20.9	1	06/27/2019 23:22	<a href="#">WG1301970</a>
Antimony	ND		4.18	1	06/27/2019 23:22	<a href="#">WG1301970</a>
Arsenic	ND		4.18	1	06/27/2019 23:22	<a href="#">WG1301970</a>
Barium	188		1.04	1	06/27/2019 23:22	<a href="#">WG1301970</a>
Beryllium	ND		0.418	1	06/27/2019 23:22	<a href="#">WG1301970</a>
Cadmium	ND		1.04	1	06/27/2019 23:22	<a href="#">WG1301970</a>
Calcium	9150		209	1	06/27/2019 23:22	<a href="#">WG1301970</a>
Chromium	18.8		2.09	1	06/27/2019 23:22	<a href="#">WG1301970</a>
Cobalt	6.19		2.09	1	06/27/2019 23:22	<a href="#">WG1301970</a>
Copper	25.8		4.18	1	06/27/2019 23:22	<a href="#">WG1301970</a>
Iron	11200		20.9	1	06/27/2019 23:22	<a href="#">WG1301970</a>
Lead	19.3		1.04	1	06/27/2019 23:22	<a href="#">WG1301970</a>
Magnesium	1100		209	1	06/27/2019 23:22	<a href="#">WG1301970</a>
Manganese	252		2.09	1	06/27/2019 23:22	<a href="#">WG1301970</a>
Nickel	7.92		4.18	1	06/27/2019 23:22	<a href="#">WG1301970</a>
Potassium	573		209	1	06/27/2019 23:22	<a href="#">WG1301970</a>
Selenium	ND		4.18	1	06/27/2019 23:22	<a href="#">WG1301970</a>
Silver	ND		2.09	1	06/27/2019 23:22	<a href="#">WG1301970</a>
Sodium	1390		209	1	06/27/2019 23:22	<a href="#">WG1301970</a>
Thallium	ND		4.18	1	06/27/2019 23:22	<a href="#">WG1301970</a>
Vanadium	60.9		4.18	1	06/27/2019 23:22	<a href="#">WG1301970</a>
Zinc	638		10.4	1	06/27/2019 23:22	<a href="#">WG1301970</a>

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result (dry)	Qualifier	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg		date / time	
Acetone	0.280		0.0637	1.22	06/26/2019 14:21	<a href="#">WG1302136</a>
Benzene	ND		0.00255	1.22	06/26/2019 14:21	<a href="#">WG1302136</a>
Bromochloromethane	ND		0.0127	1.22	06/26/2019 14:21	<a href="#">WG1302136</a>
Bromodichloromethane	ND		0.00637	1.22	06/26/2019 14:21	<a href="#">WG1302136</a>
Bromoform	ND		0.0637	1.22	06/26/2019 14:21	<a href="#">WG1302136</a>
Bromomethane	ND		0.0318	1.22	06/26/2019 14:21	<a href="#">WG1302136</a>
Carbon disulfide	0.0330		0.0318	1.22	06/26/2019 14:21	<a href="#">WG1302136</a>
Carbon tetrachloride	ND		0.0127	1.22	06/26/2019 14:21	<a href="#">WG1302136</a>
Chlorobenzene	ND		0.00637	1.22	06/26/2019 14:21	<a href="#">WG1302136</a>
Chlorodibromomethane	ND		0.00637	1.22	06/26/2019 14:21	<a href="#">WG1302136</a>
Chloroethane	ND		0.0127	1.22	06/26/2019 14:21	<a href="#">WG1302136</a>
Chloroform	ND		0.00637	1.22	06/26/2019 14:21	<a href="#">WG1302136</a>
Chloromethane	ND		0.0318	1.22	06/26/2019 14:21	<a href="#">WG1302136</a>



Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result (dry) mg/kg	Qualifier	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Cyclohexane	ND		0.00637	1.22	06/26/2019 14:21	WG1302136
1,2-Dibromo-3-Chloropropane	ND		0.0637	1.22	06/26/2019 14:21	WG1302136
1,2-Dibromoethane	ND		0.00637	1.22	06/26/2019 14:21	WG1302136
Dichlorodifluoromethane	ND	J3	0.00637	1.22	06/26/2019 14:21	WG1302136
1,1-Dichloroethane	ND		0.00637	1.22	06/26/2019 14:21	WG1302136
1,2-Dichloroethane	ND		0.00637	1.22	06/26/2019 14:21	WG1302136
1,2-Dichlorobenzene	ND		0.0127	1.22	06/26/2019 14:21	WG1302136
1,3-Dichlorobenzene	ND		0.0127	1.22	06/26/2019 14:21	WG1302136
1,4-Dichlorobenzene	ND		0.0127	1.22	06/26/2019 14:21	WG1302136
1,1-Dichloroethene	ND		0.00637	1.22	06/26/2019 14:21	WG1302136
cis-1,2-Dichloroethene	ND		0.00637	1.22	06/26/2019 14:21	WG1302136
trans-1,2-Dichloroethene	ND		0.0127	1.22	06/26/2019 14:21	WG1302136
1,2-Dichloropropane	ND		0.0127	1.22	06/26/2019 14:21	WG1302136
cis-1,3-Dichloropropene	ND		0.00637	1.22	06/26/2019 14:21	WG1302136
trans-1,3-Dichloropropene	ND		0.0127	1.22	06/26/2019 14:21	WG1302136
Ethylbenzene	ND		0.00637	1.22	06/26/2019 14:21	WG1302136
2-Hexanone	ND		0.0637	1.22	06/26/2019 14:21	WG1302136
Isopropylbenzene	ND		0.00637	1.22	06/26/2019 14:21	WG1302136
2-Butanone (MEK)	0.0919	B	0.0637	1.22	06/26/2019 14:21	WG1302136
Methyl Acetate	0.531		0.0127	1.22	06/26/2019 14:21	WG1302136
Methyl Cyclohexane	ND		0.0127	1.22	06/26/2019 14:21	WG1302136
Methylene Chloride	ND		0.0637	1.22	06/26/2019 14:21	WG1302136
4-Methyl-2-pentanone (MIBK)	ND		0.0637	1.22	06/26/2019 14:21	WG1302136
Methyl tert-butyl ether	ND		0.00255	1.22	06/26/2019 14:21	WG1302136
Styrene	ND		0.0318	1.22	06/26/2019 14:21	WG1302136
1,1,2,2-Tetrachloroethane	ND		0.00637	1.22	06/26/2019 14:21	WG1302136
Tetrachloroethene	ND		0.00637	1.22	06/26/2019 14:21	WG1302136
Toluene	0.0940		0.0127	1.22	06/26/2019 14:21	WG1302136
1,2,3-Trichlorobenzene	ND		0.00637	1.22	06/26/2019 14:21	WG1302136
1,2,4-Trichlorobenzene	ND		0.0318	1.22	06/26/2019 14:21	WG1302136
1,1,1-Trichloroethane	ND		0.00637	1.22	06/26/2019 14:21	WG1302136
1,1,2-Trichloroethane	ND		0.00637	1.22	06/26/2019 14:21	WG1302136
Trichloroethene	ND		0.00255	1.22	06/26/2019 14:21	WG1302136
Trichlorofluoromethane	ND		0.00637	1.22	06/26/2019 14:21	WG1302136
1,1,2-Trichlorotrifluoroethane	ND		0.00637	1.22	06/26/2019 14:21	WG1302136
Vinyl chloride	ND		0.00637	1.22	06/26/2019 14:21	WG1302136
Xylenes, Total	ND		0.0166	1.22	06/26/2019 14:21	WG1302136
(S) Toluene-d8	102		75.0-131		06/26/2019 14:21	WG1302136
(S) 4-Bromofluorobenzene	95.3		67.0-138		06/26/2019 14:21	WG1302136
(S) 1,2-Dichloroethane-d4	97.2		70.0-130		06/26/2019 14:21	WG1302136

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

Pesticides (GC) by Method 8081B

Analyte	Result (dry) mg/kg	Qualifier	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Aldrin	ND		0.0418	1	06/26/2019 21:07	WG1302000
Alpha BHC	ND		0.0418	1	06/26/2019 21:07	WG1302000
Beta BHC	ND		0.0418	1	06/26/2019 21:07	WG1302000
Delta BHC	ND		0.0418	1	06/26/2019 21:07	WG1302000
Gamma BHC	ND		0.0418	1	06/26/2019 21:07	WG1302000
Chlordane	ND		0.418	1	06/26/2019 21:07	WG1302000
4,4-DDD	ND		0.0418	1	06/26/2019 21:07	WG1302000
4,4-DDE	ND		0.0418	1	06/26/2019 21:07	WG1302000
4,4-DDT	ND		0.0418	1	06/26/2019 21:07	WG1302000
Dieldrin	ND		0.0418	1	06/26/2019 21:07	WG1302000
Endosulfan I	ND		0.0418	1	06/26/2019 21:07	WG1302000
Endosulfan II	ND		0.0418	1	06/26/2019 21:07	WG1302000



Pesticides (GC) by Method 8081B

Analyte	Result (dry) mg/kg	Qualifier	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Endosulfan sulfate	ND		0.0418	1	06/26/2019 21:07	<a href="#">WG1302000</a>
Endrin	ND		0.0418	1	06/26/2019 21:07	<a href="#">WG1302000</a>
Endrin aldehyde	ND		0.0418	1	06/26/2019 21:07	<a href="#">WG1302000</a>
Endrin ketone	ND		0.0418	1	06/26/2019 21:07	<a href="#">WG1302000</a>
Heptachlor	ND		0.0418	1	06/26/2019 21:07	<a href="#">WG1302000</a>
Heptachlor epoxide	ND		0.0418	1	06/26/2019 21:07	<a href="#">WG1302000</a>
Hexachlorobenzene	ND		0.0418	1	06/26/2019 21:07	<a href="#">WG1302000</a>
Methoxychlor	ND		0.0418	1	06/26/2019 21:07	<a href="#">WG1302000</a>
Toxaphene	ND		0.836	1	06/26/2019 21:07	<a href="#">WG1302000</a>
(S) Decachlorobiphenyl	83.9		10.0-135		06/26/2019 21:07	<a href="#">WG1302000</a>
(S) Tetrachloro-m-xylene	90.0		10.0-139		06/26/2019 21:07	<a href="#">WG1302000</a>

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

Polychlorinated Biphenyls (GC) by Method 8082 A

Analyte	Result (dry) mg/kg	Qualifier	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
PCB 1016	ND	J4	0.0355	1	06/26/2019 21:17	<a href="#">WG1302000</a>
PCB 1221	ND		0.0355	1	06/26/2019 21:17	<a href="#">WG1302000</a>
PCB 1232	ND		0.0355	1	06/26/2019 21:17	<a href="#">WG1302000</a>
PCB 1242	ND		0.0355	1	06/26/2019 21:17	<a href="#">WG1302000</a>
PCB 1248	ND		0.0355	1	06/26/2019 21:17	<a href="#">WG1302000</a>
PCB 1254	ND		0.0355	1	06/26/2019 21:17	<a href="#">WG1302000</a>
PCB 1260	ND	J4	0.0355	1	06/26/2019 21:17	<a href="#">WG1302000</a>
(S) Decachlorobiphenyl	77.2		10.0-135		06/26/2019 21:17	<a href="#">WG1302000</a>
(S) Tetrachloro-m-xylene	80.1		10.0-139		06/26/2019 21:17	<a href="#">WG1302000</a>

7 Gl

8 Al

9 Sc

Semi Volatile Organic Compounds (GC/MS) by Method 8270D

Analyte	Result (dry) mg/kg	Qualifier	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Acenaphthene	ND		0.690	10	06/29/2019 06:04	<a href="#">WG1303241</a>
Acenaphthylene	ND		0.690	10	06/29/2019 06:04	<a href="#">WG1303241</a>
Acetophenone	ND		6.96	10	06/29/2019 06:04	<a href="#">WG1303241</a>
Anthracene	ND		0.690	10	06/29/2019 06:04	<a href="#">WG1303241</a>
Atrazine	ND		6.96	10	06/29/2019 06:04	<a href="#">WG1303241</a>
Benzaldehyde	ND		6.96	10	06/29/2019 06:04	<a href="#">WG1303241</a>
Benzo(a)anthracene	ND		0.690	10	06/29/2019 06:04	<a href="#">WG1303241</a>
Benzo(b)fluoranthene	ND		0.690	10	06/29/2019 06:04	<a href="#">WG1303241</a>
Benzo(k)fluoranthene	ND		0.690	10	06/29/2019 06:04	<a href="#">WG1303241</a>
Benzo(g,h,i)perylene	ND		0.690	10	06/29/2019 06:04	<a href="#">WG1303241</a>
Benzo(a)pyrene	ND		0.690	10	06/29/2019 06:04	<a href="#">WG1303241</a>
Biphenyl	ND		6.96	10	06/29/2019 06:04	<a href="#">WG1303241</a>
Bis(2-chloroethoxy)methane	ND	J4	6.96	10	06/29/2019 06:04	<a href="#">WG1303241</a>
Bis(2-chloroethyl)ether	ND		6.96	10	06/29/2019 06:04	<a href="#">WG1303241</a>
Bis(2-chloroisopropyl)ether	ND	J4	6.96	10	06/29/2019 06:04	<a href="#">WG1303241</a>
4-Bromophenyl-phenylether	ND		6.96	10	06/29/2019 06:04	<a href="#">WG1303241</a>
Caprolactam	ND		6.96	10	06/29/2019 06:04	<a href="#">WG1303241</a>
Carbazole	ND		6.96	10	06/29/2019 06:04	<a href="#">WG1303241</a>
4-Chloroaniline	ND	J4	6.96	10	06/29/2019 06:04	<a href="#">WG1303241</a>
2-Chloronaphthalene	ND		0.690	10	06/29/2019 06:04	<a href="#">WG1303241</a>
4-Chlorophenyl-phenylether	ND		6.96	10	06/29/2019 06:04	<a href="#">WG1303241</a>
Chrysene	ND		0.690	10	06/29/2019 06:04	<a href="#">WG1303241</a>
Dibenz(a,h)anthracene	ND		0.690	10	06/29/2019 06:04	<a href="#">WG1303241</a>
Dibenzofuran	ND		6.96	10	06/29/2019 06:04	<a href="#">WG1303241</a>
3,3-Dichlorobenzidine	ND		6.96	10	06/29/2019 06:04	<a href="#">WG1303241</a>
2,4-Dinitrotoluene	ND		6.96	10	06/29/2019 06:04	<a href="#">WG1303241</a>
2,6-Dinitrotoluene	ND		6.96	10	06/29/2019 06:04	<a href="#">WG1303241</a>



Semi Volatile Organic Compounds (GC/MS) by Method 8270D

Analyte	Result (dry) mg/kg	Qualifier	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Fluoranthene	ND		0.690	10	06/29/2019 06:04	WG1303241
Fluorene	ND		0.690	10	06/29/2019 06:04	WG1303241
Hexachlorobenzene	ND		6.96	10	06/29/2019 06:04	WG1303241
Hexachloro-1,3-butadiene	ND	J4	6.96	10	06/29/2019 06:04	WG1303241
Hexachlorocyclopentadiene	ND	JO	6.96	10	06/29/2019 06:04	WG1303241
Hexachloroethane	ND		6.96	10	06/29/2019 06:04	WG1303241
Indeno(1,2,3-cd)pyrene	ND		0.690	10	06/29/2019 06:04	WG1303241
Isophorone	ND	J4	6.96	10	06/29/2019 06:04	WG1303241
2-Methylnaphthalene	ND	J4	0.690	10	06/29/2019 06:04	WG1303241
Naphthalene	ND	J4	0.690	10	06/29/2019 06:04	WG1303241
2-Nitroaniline	ND		6.96	10	06/29/2019 06:04	WG1303241
3-Nitroaniline	ND		6.96	10	06/29/2019 06:04	WG1303241
4-Nitroaniline	ND		6.96	10	06/29/2019 06:04	WG1303241
Nitrobenzene	ND	J4	6.96	10	06/29/2019 06:04	WG1303241
n-Nitrosodiphenylamine	ND		6.96	10	06/29/2019 06:04	WG1303241
n-Nitrosodi-n-propylamine	ND		6.96	10	06/29/2019 06:04	WG1303241
Phenanthrene	ND		0.690	10	06/29/2019 06:04	WG1303241
Benzylbutyl phthalate	ND		6.96	10	06/29/2019 06:04	WG1303241
Bis(2-ethylhexyl)phthalate	ND		6.96	10	06/29/2019 06:04	WG1303241
Di-n-butyl phthalate	ND		6.96	10	06/29/2019 06:04	WG1303241
Diethyl phthalate	ND		6.96	10	06/29/2019 06:04	WG1303241
Dimethyl phthalate	ND		6.96	10	06/29/2019 06:04	WG1303241
Di-n-octyl phthalate	ND		6.96	10	06/29/2019 06:04	WG1303241
Pyrene	ND		0.690	10	06/29/2019 06:04	WG1303241
1,2,4,5-Tetrachlorobenzene	ND		6.96	10	06/29/2019 06:04	WG1303241
4-Chloro-3-methylphenol	ND		6.96	10	06/29/2019 06:04	WG1303241
2-Chlorophenol	ND		6.96	10	06/29/2019 06:04	WG1303241
2-Methylphenol	ND		6.96	10	06/29/2019 06:04	WG1303241
3&4-Methyl Phenol	ND		6.96	10	06/29/2019 06:04	WG1303241
2,4-Dichlorophenol	ND		6.96	10	06/29/2019 06:04	WG1303241
2,4-Dimethylphenol	ND	JO J4	6.96	10	06/29/2019 06:04	WG1303241
4,6-Dinitro-2-methylphenol	ND		6.96	10	06/29/2019 06:04	WG1303241
2,4-Dinitrophenol	ND		6.96	10	06/29/2019 06:04	WG1303241
2-Nitrophenol	ND		6.96	10	06/29/2019 06:04	WG1303241
4-Nitrophenol	ND		6.96	10	06/29/2019 06:04	WG1303241
Pentachlorophenol	ND		6.96	10	06/29/2019 06:04	WG1303241
Phenol	ND		6.96	10	06/29/2019 06:04	WG1303241
2,4,5-Trichlorophenol	ND		6.96	10	06/29/2019 06:04	WG1303241
2,4,6-Trichlorophenol	ND		6.96	10	06/29/2019 06:04	WG1303241
(S) 2-Fluorophenol	97.2		12.0-120		06/29/2019 06:04	WG1303241
(S) Phenol-d5	88.9		10.0-120		06/29/2019 06:04	WG1303241
(S) Nitrobenzene-d5	74.6		10.0-122		06/29/2019 06:04	WG1303241
(S) 2-Fluorobiphenyl	74.0		15.0-120		06/29/2019 06:04	WG1303241
(S) 2,4,6-Tribromophenol	86.1		10.0-127		06/29/2019 06:04	WG1303241
(S) p-Terphenyl-d14	79.9		10.0-120		06/29/2019 06:04	WG1303241

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

Sample Narrative:

L111579-14 WG1303241: Dilution due to matrix impact during extract concentration procedure

Semi Volatile Organic Compounds (GC/MS) by Method 8270E-SIM

Analyte	Result (dry) mg/kg	Qualifier	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Anthracene	ND		0.0125	1	06/27/2019 19:12	WG1302016
Acenaphthene	ND		0.0125	1	06/27/2019 19:12	WG1302016
Acenaphthylene	ND		0.0125	1	06/27/2019 19:12	WG1302016
Benzo(a)anthracene	ND		0.0125	1	06/27/2019 19:12	WG1302016





Semi Volatile Organic Compounds (GC/MS) by Method 8270E-SIM

Analyte	Result (dry) mg/kg	Qualifier	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Benzo(a)pyrene	ND		0.0125	1	06/27/2019 19:12	<a href="#">WG1302016</a>
Benzo(b)fluoranthene	ND		0.0125	1	06/27/2019 19:12	<a href="#">WG1302016</a>
Benzo(g,h,i)perylene	ND		0.0125	1	06/27/2019 19:12	<a href="#">WG1302016</a>
Benzo(k)fluoranthene	ND		0.0125	1	06/27/2019 19:12	<a href="#">WG1302016</a>
Chrysene	ND		0.0125	1	06/27/2019 19:12	<a href="#">WG1302016</a>
Dibenz(a,h)anthracene	ND		0.0125	1	06/27/2019 19:12	<a href="#">WG1302016</a>
Fluoranthene	ND		0.0125	1	06/27/2019 19:12	<a href="#">WG1302016</a>
Fluorene	ND		0.0125	1	06/27/2019 19:12	<a href="#">WG1302016</a>
Indeno(1,2,3-cd)pyrene	ND		0.0125	1	06/27/2019 19:12	<a href="#">WG1302016</a>
Naphthalene	ND		0.0418	1	06/27/2019 19:12	<a href="#">WG1302016</a>
Phenanthrene	ND		0.0125	1	06/27/2019 19:12	<a href="#">WG1302016</a>
Pyrene	ND		0.0125	1	06/27/2019 19:12	<a href="#">WG1302016</a>
1-Methylnaphthalene	ND		0.0418	1	06/27/2019 19:12	<a href="#">WG1302016</a>
2-Methylnaphthalene	ND		0.0418	1	06/27/2019 19:12	<a href="#">WG1302016</a>
(S) p-Terphenyl-d14	42.3		23.0-120		06/27/2019 19:12	<a href="#">WG1302016</a>
(S) Nitrobenzene-d5	75.8		14.0-149		06/27/2019 19:12	<a href="#">WG1302016</a>
(S) 2-Fluorobiphenyl	36.9		34.0-125		06/27/2019 19:12	<a href="#">WG1302016</a>

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc



Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	41.8		1	06/26/2019 11:35	<a href="#">WG1302167</a>

1 Cp

2 Tc

Wet Chemistry by Method 9012B

Analyte	Result (dry)	Qualifier	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg		date / time	
Cyanide	ND		0.598	1	07/05/2019 10:13	<a href="#">WG1305501</a>

3 Ss

4 Cn

Mercury by Method 7471B

Analyte	Result (dry)	Qualifier	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg		date / time	
Mercury	0.169	<u>B</u>	0.0479	1	06/26/2019 13:02	<a href="#">WG1301944</a>

5 Sr

6 Qc

Metals (ICP) by Method 6010D

Analyte	Result (dry)	Qualifier	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg		date / time	
Aluminum	16700		23.9	1	06/27/2019 23:25	<a href="#">WG1301970</a>
Antimony	ND		4.79	1	06/27/2019 23:25	<a href="#">WG1301970</a>
Arsenic	ND		4.79	1	06/27/2019 23:25	<a href="#">WG1301970</a>
Barium	280		1.20	1	06/27/2019 23:25	<a href="#">WG1301970</a>
Beryllium	ND		0.479	1	06/27/2019 23:25	<a href="#">WG1301970</a>
Cadmium	1.27		1.20	1	06/27/2019 23:25	<a href="#">WG1301970</a>
Calcium	8280		239	1	06/27/2019 23:25	<a href="#">WG1301970</a>
Chromium	21.3		2.39	1	06/27/2019 23:25	<a href="#">WG1301970</a>
Cobalt	8.24		2.39	1	06/27/2019 23:25	<a href="#">WG1301970</a>
Copper	39.7		4.79	1	06/27/2019 23:25	<a href="#">WG1301970</a>
Iron	20700		23.9	1	06/27/2019 23:25	<a href="#">WG1301970</a>
Lead	25.8		1.20	1	06/27/2019 23:25	<a href="#">WG1301970</a>
Magnesium	1270		239	1	06/27/2019 23:25	<a href="#">WG1301970</a>
Manganese	323		2.39	1	06/27/2019 23:25	<a href="#">WG1301970</a>
Nickel	10.2		4.79	1	06/27/2019 23:25	<a href="#">WG1301970</a>
Potassium	687		239	1	06/27/2019 23:25	<a href="#">WG1301970</a>
Selenium	ND		4.79	1	06/27/2019 23:25	<a href="#">WG1301970</a>
Silver	ND		2.39	1	06/27/2019 23:25	<a href="#">WG1301970</a>
Sodium	1050		239	1	06/27/2019 23:25	<a href="#">WG1301970</a>
Thallium	ND		4.79	1	06/27/2019 23:25	<a href="#">WG1301970</a>
Vanadium	55.6		4.79	1	06/27/2019 23:25	<a href="#">WG1301970</a>
Zinc	622		12.0	1	06/27/2019 23:25	<a href="#">WG1301970</a>

7 Gl

8 Al

9 Sc

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result (dry)	Qualifier	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg		date / time	
Acetone	0.259		0.0622	1.04	06/26/2019 14:40	<a href="#">WG1302136</a>
Benzene	ND		0.00249	1.04	06/26/2019 14:40	<a href="#">WG1302136</a>
Bromochloromethane	ND		0.0124	1.04	06/26/2019 14:40	<a href="#">WG1302136</a>
Bromodichloromethane	ND		0.00622	1.04	06/26/2019 14:40	<a href="#">WG1302136</a>
Bromoform	ND		0.0622	1.04	06/26/2019 14:40	<a href="#">WG1302136</a>
Bromomethane	ND		0.0311	1.04	06/26/2019 14:40	<a href="#">WG1302136</a>
Carbon disulfide	ND		0.0311	1.04	06/26/2019 14:40	<a href="#">WG1302136</a>
Carbon tetrachloride	ND		0.0124	1.04	06/26/2019 14:40	<a href="#">WG1302136</a>
Chlorobenzene	ND		0.00622	1.04	06/26/2019 14:40	<a href="#">WG1302136</a>
Chlorodibromomethane	ND		0.00622	1.04	06/26/2019 14:40	<a href="#">WG1302136</a>
Chloroethane	ND		0.0124	1.04	06/26/2019 14:40	<a href="#">WG1302136</a>
Chloroform	ND		0.00622	1.04	06/26/2019 14:40	<a href="#">WG1302136</a>
Chloromethane	ND		0.0311	1.04	06/26/2019 14:40	<a href="#">WG1302136</a>



Collected date/time: 06/19/19 00:00

L111579

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result (dry) mg/kg	Qualifier	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Cyclohexane	ND		0.00622	1.04	06/26/2019 14:40	WG1302136
1,2-Dibromo-3-Chloropropane	ND		0.0622	1.04	06/26/2019 14:40	WG1302136
1,2-Dibromoethane	ND		0.00622	1.04	06/26/2019 14:40	WG1302136
Dichlorodifluoromethane	ND	J3	0.00622	1.04	06/26/2019 14:40	WG1302136
1,1-Dichloroethane	ND		0.00622	1.04	06/26/2019 14:40	WG1302136
1,2-Dichloroethane	ND		0.00622	1.04	06/26/2019 14:40	WG1302136
1,2-Dichlorobenzene	ND		0.0124	1.04	06/26/2019 14:40	WG1302136
1,3-Dichlorobenzene	ND		0.0124	1.04	06/26/2019 14:40	WG1302136
1,4-Dichlorobenzene	ND		0.0124	1.04	06/26/2019 14:40	WG1302136
1,1-Dichloroethene	ND		0.00622	1.04	06/26/2019 14:40	WG1302136
cis-1,2-Dichloroethene	ND		0.00622	1.04	06/26/2019 14:40	WG1302136
trans-1,2-Dichloroethene	ND		0.0124	1.04	06/26/2019 14:40	WG1302136
1,2-Dichloropropane	ND		0.0124	1.04	06/26/2019 14:40	WG1302136
cis-1,3-Dichloropropene	ND		0.00622	1.04	06/26/2019 14:40	WG1302136
trans-1,3-Dichloropropene	ND		0.0124	1.04	06/26/2019 14:40	WG1302136
Ethylbenzene	ND		0.00622	1.04	06/26/2019 14:40	WG1302136
2-Hexanone	ND		0.0622	1.04	06/26/2019 14:40	WG1302136
Isopropylbenzene	ND		0.00622	1.04	06/26/2019 14:40	WG1302136
2-Butanone (MEK)	0.101	B	0.0622	1.04	06/26/2019 14:40	WG1302136
Methyl Acetate	0.515		0.0124	1.04	06/26/2019 14:40	WG1302136
Methyl Cyclohexane	0.0163		0.0124	1.04	06/26/2019 14:40	WG1302136
Methylene Chloride	ND		0.0622	1.04	06/26/2019 14:40	WG1302136
4-Methyl-2-pentanone (MIBK)	ND		0.0622	1.04	06/26/2019 14:40	WG1302136
Methyl tert-butyl ether	ND		0.00249	1.04	06/26/2019 14:40	WG1302136
Styrene	ND		0.0311	1.04	06/26/2019 14:40	WG1302136
1,1,2,2-Tetrachloroethane	ND		0.00622	1.04	06/26/2019 14:40	WG1302136
Tetrachloroethene	ND		0.00622	1.04	06/26/2019 14:40	WG1302136
Toluene	0.0539		0.0124	1.04	06/26/2019 14:40	WG1302136
1,2,3-Trichlorobenzene	ND		0.00622	1.04	06/26/2019 14:40	WG1302136
1,2,4-Trichlorobenzene	ND		0.0311	1.04	06/26/2019 14:40	WG1302136
1,1,1-Trichloroethane	ND		0.00622	1.04	06/26/2019 14:40	WG1302136
1,1,2-Trichloroethane	ND		0.00622	1.04	06/26/2019 14:40	WG1302136
Trichloroethene	ND		0.00249	1.04	06/26/2019 14:40	WG1302136
Trichlorofluoromethane	ND		0.00622	1.04	06/26/2019 14:40	WG1302136
1,1,2-Trichlorotrifluoroethane	ND		0.00622	1.04	06/26/2019 14:40	WG1302136
Vinyl chloride	ND		0.00622	1.04	06/26/2019 14:40	WG1302136
Xylenes, Total	ND		0.0162	1.04	06/26/2019 14:40	WG1302136
(S) Toluene-d8	101		75.0-131		06/26/2019 14:40	WG1302136
(S) 4-Bromofluorobenzene	92.3		67.0-138		06/26/2019 14:40	WG1302136
(S) 1,2-Dichloroethane-d4	102		70.0-130		06/26/2019 14:40	WG1302136

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

Pesticides (GC) by Method 8081B

Analyte	Result (dry) mg/kg	Qualifier	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Aldrin	ND		0.0479	1	06/26/2019 21:19	WG1302000
Alpha BHC	ND		0.0479	1	06/26/2019 21:19	WG1302000
Beta BHC	ND		0.0479	1	06/26/2019 21:19	WG1302000
Delta BHC	ND		0.0479	1	06/26/2019 21:19	WG1302000
Gamma BHC	ND		0.0479	1	06/26/2019 21:19	WG1302000
Chlordane	ND		0.479	1	06/26/2019 21:19	WG1302000
4,4-DDD	ND		0.0479	1	06/26/2019 21:19	WG1302000
4,4-DDE	ND		0.0479	1	06/26/2019 21:19	WG1302000
4,4-DDT	ND		0.0479	1	06/26/2019 21:19	WG1302000
Dieldrin	ND		0.0479	1	06/26/2019 21:19	WG1302000
Endosulfan I	ND		0.0479	1	06/26/2019 21:19	WG1302000
Endosulfan II	ND		0.0479	1	06/26/2019 21:19	WG1302000



Collected date/time: 06/19/19 00:00

L1111579

Pesticides (GC) by Method 8081B

Analyte	Result (dry) mg/kg	Qualifier	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Endosulfan sulfate	ND		0.0479	1	06/26/2019 21:19	<a href="#">WG1302000</a>
Endrin	ND		0.0479	1	06/26/2019 21:19	<a href="#">WG1302000</a>
Endrin aldehyde	ND		0.0479	1	06/26/2019 21:19	<a href="#">WG1302000</a>
Endrin ketone	ND		0.0479	1	06/26/2019 21:19	<a href="#">WG1302000</a>
Heptachlor	ND		0.0479	1	06/26/2019 21:19	<a href="#">WG1302000</a>
Heptachlor epoxide	ND		0.0479	1	06/26/2019 21:19	<a href="#">WG1302000</a>
Hexachlorobenzene	ND		0.0479	1	06/26/2019 21:19	<a href="#">WG1302000</a>
Methoxychlor	ND		0.0479	1	06/26/2019 21:19	<a href="#">WG1302000</a>
Toxaphene	ND		0.957	1	06/26/2019 21:19	<a href="#">WG1302000</a>
(S) Decachlorobiphenyl	84.7		10.0-135		06/26/2019 21:19	<a href="#">WG1302000</a>
(S) Tetrachloro-m-xylene	92.2		10.0-139		06/26/2019 21:19	<a href="#">WG1302000</a>

- 1 Cp
- 2 Tc
- 3 Ss
- 4 Cn
- 5 Sr
- 6 Qc
- 7 Gl
- 8 Al
- 9 Sc

Polychlorinated Biphenyls (GC) by Method 8082 A

Analyte	Result (dry) mg/kg	Qualifier	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
PCB 1016	ND	J4	0.0407	1	06/26/2019 21:30	<a href="#">WG1302000</a>
PCB 1221	ND		0.0407	1	06/26/2019 21:30	<a href="#">WG1302000</a>
PCB 1232	ND		0.0407	1	06/26/2019 21:30	<a href="#">WG1302000</a>
PCB 1242	ND		0.0407	1	06/26/2019 21:30	<a href="#">WG1302000</a>
PCB 1248	ND		0.0407	1	06/26/2019 21:30	<a href="#">WG1302000</a>
PCB 1254	ND		0.0407	1	06/26/2019 21:30	<a href="#">WG1302000</a>
PCB 1260	ND	J4	0.0407	1	06/26/2019 21:30	<a href="#">WG1302000</a>
(S) Decachlorobiphenyl	90.4		10.0-135		06/26/2019 21:30	<a href="#">WG1302000</a>
(S) Tetrachloro-m-xylene	89.4		10.0-139		06/26/2019 21:30	<a href="#">WG1302000</a>

Semi Volatile Organic Compounds (GC/MS) by Method 8270D

Analyte	Result (dry) mg/kg	Qualifier	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Acenaphthene	ND		0.400	5	07/01/2019 14:52	<a href="#">WG1303241</a>
Acenaphthylene	ND		0.400	5	07/01/2019 14:52	<a href="#">WG1303241</a>
Acetophenone	ND	J3 J6	4.00	5	07/01/2019 14:52	<a href="#">WG1303241</a>
Anthracene	ND		0.400	5	07/01/2019 14:52	<a href="#">WG1303241</a>
Atrazine	ND	J6	4.00	5	07/01/2019 14:52	<a href="#">WG1303241</a>
Benzaldehyde	ND	J5	4.00	5	07/01/2019 14:52	<a href="#">WG1303241</a>
Benzo(a)anthracene	ND		0.400	5	07/01/2019 14:52	<a href="#">WG1303241</a>
Benzo(b)fluoranthene	ND		0.400	5	07/01/2019 14:52	<a href="#">WG1303241</a>
Benzo(k)fluoranthene	ND		0.400	5	07/01/2019 14:52	<a href="#">WG1303241</a>
Benzo(g,h,i)perylene	ND		0.400	5	07/01/2019 14:52	<a href="#">WG1303241</a>
Benzo(a)pyrene	ND		0.400	5	07/01/2019 14:52	<a href="#">WG1303241</a>
Biphenyl	ND		4.00	5	07/01/2019 14:52	<a href="#">WG1303241</a>
Bis(2-chlorethoxy)methane	ND	J4	4.00	5	07/01/2019 14:52	<a href="#">WG1303241</a>
Bis(2-chloroethyl)ether	ND		4.00	5	07/01/2019 14:52	<a href="#">WG1303241</a>
Bis(2-chloroisopropyl)ether	ND	J4	4.00	5	07/01/2019 14:52	<a href="#">WG1303241</a>
4-Bromophenyl-phenylether	ND		4.00	5	07/01/2019 14:52	<a href="#">WG1303241</a>
Caprolactam	ND		4.00	5	07/01/2019 14:52	<a href="#">WG1303241</a>
Carbazole	ND		4.00	5	07/01/2019 14:52	<a href="#">WG1303241</a>
4-Chloroaniline	ND	J4	4.00	5	07/01/2019 14:52	<a href="#">WG1303241</a>
2-Chloronaphthalene	ND		0.400	5	07/01/2019 14:52	<a href="#">WG1303241</a>
4-Chlorophenyl-phenylether	ND		4.00	5	07/01/2019 14:52	<a href="#">WG1303241</a>
Chrysene	ND		0.400	5	07/01/2019 14:52	<a href="#">WG1303241</a>
Dibenz(a,h)anthracene	ND		0.400	5	07/01/2019 14:52	<a href="#">WG1303241</a>
Dibenzofuran	ND		4.00	5	07/01/2019 14:52	<a href="#">WG1303241</a>
3,3-Dichlorobenzidine	ND		4.00	5	07/01/2019 14:52	<a href="#">WG1303241</a>
2,4-Dinitrotoluene	ND		4.00	5	07/01/2019 14:52	<a href="#">WG1303241</a>
2,6-Dinitrotoluene	ND		4.00	5	07/01/2019 14:52	<a href="#">WG1303241</a>



Collected date/time: 06/19/19 00:00

L1111579

Semi Volatile Organic Compounds (GC/MS) by Method 8270D

Analyte	Result (dry) mg/kg	Qualifier	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Fluoranthene	ND		0.400	5	07/01/2019 14:52	WG1303241
Fluorene	ND		0.400	5	07/01/2019 14:52	WG1303241
Hexachlorobenzene	ND		4.00	5	07/01/2019 14:52	WG1303241
Hexachloro-1,3-butadiene	ND	J4	4.00	5	07/01/2019 14:52	WG1303241
Hexachlorocyclopentadiene	ND	J6	4.00	5	07/01/2019 14:52	WG1303241
Hexachloroethane	ND		4.00	5	07/01/2019 14:52	WG1303241
Indeno(1,2,3-cd)pyrene	ND		0.400	5	07/01/2019 14:52	WG1303241
Isophorone	ND	J4	4.00	5	07/01/2019 14:52	WG1303241
2-Methylnaphthalene	ND	J4	0.400	5	07/01/2019 14:52	WG1303241
Naphthalene	ND	J4	0.400	5	07/01/2019 14:52	WG1303241
2-Nitroaniline	ND		4.00	5	07/01/2019 14:52	WG1303241
3-Nitroaniline	ND		4.00	5	07/01/2019 14:52	WG1303241
4-Nitroaniline	ND		4.00	5	07/01/2019 14:52	WG1303241
Nitrobenzene	ND	J4	4.00	5	07/01/2019 14:52	WG1303241
n-Nitrosodiphenylamine	ND	J6	4.00	5	07/01/2019 14:52	WG1303241
n-Nitrosodi-n-propylamine	ND		4.00	5	07/01/2019 14:52	WG1303241
Phenanthrene	ND		0.400	5	07/01/2019 14:52	WG1303241
Benzylbutyl phthalate	ND		4.00	5	07/01/2019 14:52	WG1303241
Bis(2-ethylhexyl)phthalate	ND		4.00	5	07/01/2019 14:52	WG1303241
Di-n-butyl phthalate	ND		4.00	5	07/01/2019 14:52	WG1303241
Diethyl phthalate	ND		4.00	5	07/01/2019 14:52	WG1303241
Dimethyl phthalate	ND		4.00	5	07/01/2019 14:52	WG1303241
Di-n-octyl phthalate	ND		4.00	5	07/01/2019 14:52	WG1303241
Pyrene	ND		0.400	5	07/01/2019 14:52	WG1303241
1,2,4,5-Tetrachlorobenzene	ND		4.00	5	07/01/2019 14:52	WG1303241
4-Chloro-3-methylphenol	ND		4.00	5	07/01/2019 14:52	WG1303241
2-Chlorophenol	ND		4.00	5	07/01/2019 14:52	WG1303241
2-Methylphenol	ND		4.00	5	07/01/2019 14:52	WG1303241
3&4-Methyl Phenol	ND		4.00	5	07/01/2019 14:52	WG1303241
2,4-Dichlorophenol	ND		4.00	5	07/01/2019 14:52	WG1303241
2,4-Dimethylphenol	ND	J4	4.00	5	07/01/2019 14:52	WG1303241
4,6-Dinitro-2-methylphenol	ND	J6	4.00	5	07/01/2019 14:52	WG1303241
2,4-Dinitrophenol	ND	J6	4.00	5	07/01/2019 14:52	WG1303241
2-Nitrophenol	ND		4.00	5	07/01/2019 14:52	WG1303241
4-Nitrophenol	ND		4.00	5	07/01/2019 14:52	WG1303241
Pentachlorophenol	ND		4.00	5	07/01/2019 14:52	WG1303241
Phenol	ND		4.00	5	07/01/2019 14:52	WG1303241
2,4,5-Trichlorophenol	ND		4.00	5	07/01/2019 14:52	WG1303241
2,4,6-Trichlorophenol	ND		4.00	5	07/01/2019 14:52	WG1303241
(S) 2-Fluorophenol	78.7		12.0-120		07/01/2019 14:52	WG1303241
(S) Phenol-d5	71.6		10.0-120		07/01/2019 14:52	WG1303241
(S) Nitrobenzene-d5	64.7		10.0-122		07/01/2019 14:52	WG1303241
(S) 2-Fluorobiphenyl	56.9		15.0-120		07/01/2019 14:52	WG1303241
(S) 2,4,6-Tribromophenol	73.7		10.0-127		07/01/2019 14:52	WG1303241
(S) p-Terphenyl-d14	70.0		10.0-120		07/01/2019 14:52	WG1303241

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

Sample Narrative:

L1111579-15 WG1303241: Dilution due to matrix.

Semi Volatile Organic Compounds (GC/MS) by Method 8270E-SIM

Analyte	Result (dry) mg/kg	Qualifier	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Anthracene	ND		0.0144	1	06/27/2019 19:33	WG1302016
Acenaphthene	ND		0.0144	1	06/27/2019 19:33	WG1302016
Acenaphthylene	ND		0.0144	1	06/27/2019 19:33	WG1302016
Benzo(a)anthracene	ND		0.0144	1	06/27/2019 19:33	WG1302016





Collected date/time: 06/19/19 00:00

L1111579

Semi Volatile Organic Compounds (GC/MS) by Method 8270E-SIM

Analyte	Result (dry) mg/kg	Qualifier	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Benzo(a)pyrene	ND		0.0144	1	06/27/2019 19:33	<a href="#">WG1302016</a>
Benzo(b)fluoranthene	ND		0.0144	1	06/27/2019 19:33	<a href="#">WG1302016</a>
Benzo(g,h,i)perylene	ND		0.0144	1	06/27/2019 19:33	<a href="#">WG1302016</a>
Benzo(k)fluoranthene	ND		0.0144	1	06/27/2019 19:33	<a href="#">WG1302016</a>
Chrysene	ND		0.0144	1	06/27/2019 19:33	<a href="#">WG1302016</a>
Dibenz(a,h)anthracene	ND		0.0144	1	06/27/2019 19:33	<a href="#">WG1302016</a>
Fluoranthene	ND		0.0144	1	06/27/2019 19:33	<a href="#">WG1302016</a>
Fluorene	ND		0.0144	1	06/27/2019 19:33	<a href="#">WG1302016</a>
Indeno(1,2,3-cd)pyrene	ND		0.0144	1	06/27/2019 19:33	<a href="#">WG1302016</a>
Naphthalene	ND		0.0479	1	06/27/2019 19:33	<a href="#">WG1302016</a>
Phenanthrene	ND		0.0144	1	06/27/2019 19:33	<a href="#">WG1302016</a>
Pyrene	ND		0.0144	1	06/27/2019 19:33	<a href="#">WG1302016</a>
1-Methylnaphthalene	ND		0.0479	1	06/27/2019 19:33	<a href="#">WG1302016</a>
2-Methylnaphthalene	ND		0.0479	1	06/27/2019 19:33	<a href="#">WG1302016</a>
(S) p-Terphenyl-d14	29.4		23.0-120		06/27/2019 19:33	<a href="#">WG1302016</a>
(S) Nitrobenzene-d5	62.8		14.0-149		06/27/2019 19:33	<a href="#">WG1302016</a>
(S) 2-Fluorobiphenyl	25.4	<u>J2</u>	34.0-125		06/27/2019 19:33	<a href="#">WG1302016</a>

1  
Cp

2  
Tc

3  
Ss

4  
Cn

5  
Sr

6  
Qc

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Gl

8  
Al

9  
Sc



Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	59.3		1	06/26/2019 11:35	<a href="#">WG1302167</a>

Wet Chemistry by Method 9012B

Analyte	Result (dry)	Qualifier	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg		date / time	
Cyanide	ND		0.421	1	07/05/2019 10:14	<a href="#">WG1305501</a>

Mercury by Method 7471B

Analyte	Result (dry)	Qualifier	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg		date / time	
Mercury	0.0500	<u>B</u>	0.0337	1	06/26/2019 13:08	<a href="#">WG1301944</a>

Metals (ICP) by Method 6010D

Analyte	Result (dry)	Qualifier	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg		date / time	
Aluminum	21100		16.9	1	06/27/2019 23:28	<a href="#">WG1301970</a>
Antimony	ND		3.37	1	06/27/2019 23:28	<a href="#">WG1301970</a>
Arsenic	ND		3.37	1	06/27/2019 23:28	<a href="#">WG1301970</a>
Barium	125		0.843	1	06/27/2019 23:28	<a href="#">WG1301970</a>
Beryllium	0.552		0.337	1	06/27/2019 23:28	<a href="#">WG1301970</a>
Cadmium	ND		0.843	1	06/27/2019 23:28	<a href="#">WG1301970</a>
Calcium	6120		169	1	06/27/2019 23:28	<a href="#">WG1301970</a>
Chromium	16.5		1.69	1	06/27/2019 23:28	<a href="#">WG1301970</a>
Cobalt	9.59		1.69	1	06/27/2019 23:28	<a href="#">WG1301970</a>
Copper	33.3		3.37	1	06/27/2019 23:28	<a href="#">WG1301970</a>
Iron	28100		16.9	1	06/27/2019 23:28	<a href="#">WG1301970</a>
Lead	8.24		0.843	1	06/27/2019 23:28	<a href="#">WG1301970</a>
Magnesium	1980		169	1	06/27/2019 23:28	<a href="#">WG1301970</a>
Manganese	512		1.69	1	06/27/2019 23:28	<a href="#">WG1301970</a>
Nickel	10.2		3.37	1	06/27/2019 23:28	<a href="#">WG1301970</a>
Potassium	1230		169	1	06/27/2019 23:28	<a href="#">WG1301970</a>
Selenium	ND		3.37	1	06/27/2019 23:28	<a href="#">WG1301970</a>
Silver	ND		1.69	1	06/27/2019 23:28	<a href="#">WG1301970</a>
Sodium	312		169	1	06/27/2019 23:28	<a href="#">WG1301970</a>
Thallium	ND		3.37	1	06/27/2019 23:28	<a href="#">WG1301970</a>
Vanadium	68.8		3.37	1	06/27/2019 23:28	<a href="#">WG1301970</a>
Zinc	99.7		8.43	1	06/27/2019 23:28	<a href="#">WG1301970</a>

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result (dry)	Qualifier	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg		date / time	
Acetone	0.116		0.0421	1	06/26/2019 14:59	<a href="#">WG1302136</a>
Benzene	ND		0.00169	1	06/26/2019 14:59	<a href="#">WG1302136</a>
Bromochloromethane	ND		0.00843	1	06/26/2019 14:59	<a href="#">WG1302136</a>
Bromodichloromethane	ND		0.00421	1	06/26/2019 14:59	<a href="#">WG1302136</a>
Bromoform	ND		0.0421	1	06/26/2019 14:59	<a href="#">WG1302136</a>
Bromomethane	ND		0.0211	1	06/26/2019 14:59	<a href="#">WG1302136</a>
Carbon disulfide	ND		0.0211	1	06/26/2019 14:59	<a href="#">WG1302136</a>
Carbon tetrachloride	ND		0.00843	1	06/26/2019 14:59	<a href="#">WG1302136</a>
Chlorobenzene	ND		0.00421	1	06/26/2019 14:59	<a href="#">WG1302136</a>
Chlorodibromomethane	ND		0.00421	1	06/26/2019 14:59	<a href="#">WG1302136</a>
Chloroethane	ND		0.00843	1	06/26/2019 14:59	<a href="#">WG1302136</a>
Chloroform	ND		0.00421	1	06/26/2019 14:59	<a href="#">WG1302136</a>
Chloromethane	ND		0.0211	1	06/26/2019 14:59	<a href="#">WG1302136</a>

- 1 Cp
- 2 Tc
- 3 Ss
- 4 Cn
- 5 Sr
- 6 Qc
- 7 Gl
- 8 Al
- 9 Sc



Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result (dry) mg/kg	Qualifier	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Cyclohexane	ND		0.00421	1	06/26/2019 14:59	WG1302136
1,2-Dibromo-3-Chloropropane	ND		0.0421	1	06/26/2019 14:59	WG1302136
1,2-Dibromoethane	ND		0.00421	1	06/26/2019 14:59	WG1302136
Dichlorodifluoromethane	ND	J3	0.00421	1	06/26/2019 14:59	WG1302136
1,1-Dichloroethane	ND		0.00421	1	06/26/2019 14:59	WG1302136
1,2-Dichloroethane	ND		0.00421	1	06/26/2019 14:59	WG1302136
1,2-Dichlorobenzene	ND		0.00843	1	06/26/2019 14:59	WG1302136
1,3-Dichlorobenzene	ND		0.00843	1	06/26/2019 14:59	WG1302136
1,4-Dichlorobenzene	ND		0.00843	1	06/26/2019 14:59	WG1302136
1,1-Dichloroethene	ND		0.00421	1	06/26/2019 14:59	WG1302136
cis-1,2-Dichloroethene	ND		0.00421	1	06/26/2019 14:59	WG1302136
trans-1,2-Dichloroethene	ND		0.00843	1	06/26/2019 14:59	WG1302136
1,2-Dichloropropane	ND		0.00843	1	06/26/2019 14:59	WG1302136
cis-1,3-Dichloropropene	ND		0.00421	1	06/26/2019 14:59	WG1302136
trans-1,3-Dichloropropene	ND		0.00843	1	06/26/2019 14:59	WG1302136
Ethylbenzene	ND		0.00421	1	06/26/2019 14:59	WG1302136
2-Hexanone	ND		0.0421	1	06/26/2019 14:59	WG1302136
Isopropylbenzene	ND		0.00421	1	06/26/2019 14:59	WG1302136
2-Butanone (MEK)	0.0609	B	0.0421	1	06/26/2019 14:59	WG1302136
Methyl Acetate	0.260		0.00843	1	06/26/2019 14:59	WG1302136
Methyl Cyclohexane	ND		0.00843	1	06/26/2019 14:59	WG1302136
Methylene Chloride	ND		0.0421	1	06/26/2019 14:59	WG1302136
4-Methyl-2-pentanone (MIBK)	ND		0.0421	1	06/26/2019 14:59	WG1302136
Methyl tert-butyl ether	ND		0.00169	1	06/26/2019 14:59	WG1302136
Styrene	ND		0.0211	1	06/26/2019 14:59	WG1302136
1,1,2,2-Tetrachloroethane	ND		0.00421	1	06/26/2019 14:59	WG1302136
Tetrachloroethene	ND		0.00421	1	06/26/2019 14:59	WG1302136
Toluene	ND		0.00843	1	06/26/2019 14:59	WG1302136
1,2,3-Trichlorobenzene	ND		0.00421	1	06/26/2019 14:59	WG1302136
1,2,4-Trichlorobenzene	ND		0.0211	1	06/26/2019 14:59	WG1302136
1,1,1-Trichloroethane	ND		0.00421	1	06/26/2019 14:59	WG1302136
1,1,2-Trichloroethane	ND		0.00421	1	06/26/2019 14:59	WG1302136
Trichloroethene	ND		0.00169	1	06/26/2019 14:59	WG1302136
Trichlorofluoromethane	ND		0.00421	1	06/26/2019 14:59	WG1302136
1,1,2-Trichlorotrifluoroethane	ND		0.00421	1	06/26/2019 14:59	WG1302136
Vinyl chloride	ND		0.00421	1	06/26/2019 14:59	WG1302136
Xylenes, Total	ND		0.0110	1	06/26/2019 14:59	WG1302136
(S) Toluene-d8	103		75.0-131		06/26/2019 14:59	WG1302136
(S) 4-Bromofluorobenzene	92.4		67.0-138		06/26/2019 14:59	WG1302136
(S) 1,2-Dichloroethane-d4	102		70.0-130		06/26/2019 14:59	WG1302136

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

Pesticides (GC) by Method 8081B

Analyte	Result (dry) mg/kg	Qualifier	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Aldrin	ND		0.0337	1	06/26/2019 21:31	WG1302000
Alpha BHC	ND		0.0337	1	06/26/2019 21:31	WG1302000
Beta BHC	ND		0.0337	1	06/26/2019 21:31	WG1302000
Delta BHC	ND		0.0337	1	06/26/2019 21:31	WG1302000
Gamma BHC	ND		0.0337	1	06/26/2019 21:31	WG1302000
Chlordane	ND		0.337	1	06/26/2019 21:31	WG1302000
4,4-DDD	ND		0.0337	1	06/26/2019 21:31	WG1302000
4,4-DDE	ND		0.0337	1	06/26/2019 21:31	WG1302000
4,4-DDT	ND		0.0337	1	06/26/2019 21:31	WG1302000
Dieldrin	ND		0.0337	1	06/26/2019 21:31	WG1302000
Endosulfan I	ND		0.0337	1	06/26/2019 21:31	WG1302000
Endosulfan II	ND		0.0337	1	06/26/2019 21:31	WG1302000



Pesticides (GC) by Method 8081B

Analyte	Result (dry) mg/kg	Qualifier	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Endosulfan sulfate	ND		0.0337	1	06/26/2019 21:31	<a href="#">WG1302000</a>
Endrin	ND		0.0337	1	06/26/2019 21:31	<a href="#">WG1302000</a>
Endrin aldehyde	ND		0.0337	1	06/26/2019 21:31	<a href="#">WG1302000</a>
Endrin ketone	ND		0.0337	1	06/26/2019 21:31	<a href="#">WG1302000</a>
Heptachlor	ND		0.0337	1	06/26/2019 21:31	<a href="#">WG1302000</a>
Heptachlor epoxide	ND		0.0337	1	06/26/2019 21:31	<a href="#">WG1302000</a>
Hexachlorobenzene	ND		0.0337	1	06/26/2019 21:31	<a href="#">WG1302000</a>
Methoxychlor	ND		0.0337	1	06/26/2019 21:31	<a href="#">WG1302000</a>
Toxaphene	ND		0.674	1	06/26/2019 21:31	<a href="#">WG1302000</a>
(S) Decachlorobiphenyl	76.0		10.0-135		06/26/2019 21:31	<a href="#">WG1302000</a>
(S) Tetrachloro-m-xylene	82.0		10.0-139		06/26/2019 21:31	<a href="#">WG1302000</a>

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

Polychlorinated Biphenyls (GC) by Method 8082 A

Analyte	Result (dry) mg/kg	Qualifier	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
PCB 1016	ND	J4	0.0286	1	06/26/2019 21:42	<a href="#">WG1302000</a>
PCB 1221	ND		0.0286	1	06/26/2019 21:42	<a href="#">WG1302000</a>
PCB 1232	ND		0.0286	1	06/26/2019 21:42	<a href="#">WG1302000</a>
PCB 1242	ND		0.0286	1	06/26/2019 21:42	<a href="#">WG1302000</a>
PCB 1248	ND		0.0286	1	06/26/2019 21:42	<a href="#">WG1302000</a>
PCB 1254	ND		0.0286	1	06/26/2019 21:42	<a href="#">WG1302000</a>
PCB 1260	ND	J4	0.0286	1	06/26/2019 21:42	<a href="#">WG1302000</a>
(S) Decachlorobiphenyl	68.4		10.0-135		06/26/2019 21:42	<a href="#">WG1302000</a>
(S) Tetrachloro-m-xylene	75.2		10.0-139		06/26/2019 21:42	<a href="#">WG1302000</a>

Semi Volatile Organic Compounds (GC/MS) by Method 8270D

Analyte	Result (dry) mg/kg	Qualifier	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Acenaphthene	ND		0.556	10	06/29/2019 09:37	<a href="#">WG1303241</a>
Acenaphthylene	ND		0.556	10	06/29/2019 09:37	<a href="#">WG1303241</a>
Acetophenone	ND		5.61	10	06/29/2019 09:37	<a href="#">WG1303241</a>
Anthracene	ND		0.556	10	06/29/2019 09:37	<a href="#">WG1303241</a>
Atrazine	ND		5.61	10	06/29/2019 09:37	<a href="#">WG1303241</a>
Benzaldehyde	ND		5.61	10	06/29/2019 09:37	<a href="#">WG1303241</a>
Benzo(a)anthracene	ND		0.556	10	06/29/2019 09:37	<a href="#">WG1303241</a>
Benzo(b)fluoranthene	ND		0.556	10	06/29/2019 09:37	<a href="#">WG1303241</a>
Benzo(k)fluoranthene	ND		0.556	10	06/29/2019 09:37	<a href="#">WG1303241</a>
Benzo(g,h,i)perylene	ND		0.556	10	06/29/2019 09:37	<a href="#">WG1303241</a>
Benzo(a)pyrene	ND		0.556	10	06/29/2019 09:37	<a href="#">WG1303241</a>
Biphenyl	ND		5.61	10	06/29/2019 09:37	<a href="#">WG1303241</a>
Bis(2-chloroethoxy)methane	ND	J4	5.61	10	06/29/2019 09:37	<a href="#">WG1303241</a>
Bis(2-chloroethyl)ether	ND		5.61	10	06/29/2019 09:37	<a href="#">WG1303241</a>
Bis(2-chloroisopropyl)ether	ND	J4	5.61	10	06/29/2019 09:37	<a href="#">WG1303241</a>
4-Bromophenyl-phenylether	ND		5.61	10	06/29/2019 09:37	<a href="#">WG1303241</a>
Caprolactam	ND		5.61	10	06/29/2019 09:37	<a href="#">WG1303241</a>
Carbazole	ND		5.61	10	06/29/2019 09:37	<a href="#">WG1303241</a>
4-Chloroaniline	ND	J4	5.61	10	06/29/2019 09:37	<a href="#">WG1303241</a>
2-Chloronaphthalene	ND		0.556	10	06/29/2019 09:37	<a href="#">WG1303241</a>
4-Chlorophenyl-phenylether	ND		5.61	10	06/29/2019 09:37	<a href="#">WG1303241</a>
Chrysene	ND		0.556	10	06/29/2019 09:37	<a href="#">WG1303241</a>
Dibenz(a,h)anthracene	ND		0.556	10	06/29/2019 09:37	<a href="#">WG1303241</a>
Dibenzofuran	ND		5.61	10	06/29/2019 09:37	<a href="#">WG1303241</a>
3,3-Dichlorobenzidine	ND		5.61	10	06/29/2019 09:37	<a href="#">WG1303241</a>
2,4-Dinitrotoluene	ND		5.61	10	06/29/2019 09:37	<a href="#">WG1303241</a>
2,6-Dinitrotoluene	ND		5.61	10	06/29/2019 09:37	<a href="#">WG1303241</a>



Collected date/time: 06/20/19 08:50

L111579

Semi Volatile Organic Compounds (GC/MS) by Method 8270D

Analyte	Result (dry) mg/kg	Qualifier	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Fluoranthene	ND		0.556	10	06/29/2019 09:37	WG1303241
Fluorene	ND		0.556	10	06/29/2019 09:37	WG1303241
Hexachlorobenzene	ND		5.61	10	06/29/2019 09:37	WG1303241
Hexachloro-1,3-butadiene	ND	J4	5.61	10	06/29/2019 09:37	WG1303241
Hexachlorocyclopentadiene	ND	JO	5.61	10	06/29/2019 09:37	WG1303241
Hexachloroethane	ND		5.61	10	06/29/2019 09:37	WG1303241
Indeno(1,2,3-cd)pyrene	ND		0.556	10	06/29/2019 09:37	WG1303241
Isophorone	ND	J4	5.61	10	06/29/2019 09:37	WG1303241
2-Methylnaphthalene	ND	J4	0.556	10	06/29/2019 09:37	WG1303241
Naphthalene	ND	J4	0.556	10	06/29/2019 09:37	WG1303241
2-Nitroaniline	ND		5.61	10	06/29/2019 09:37	WG1303241
3-Nitroaniline	ND		5.61	10	06/29/2019 09:37	WG1303241
4-Nitroaniline	ND		5.61	10	06/29/2019 09:37	WG1303241
Nitrobenzene	ND	J4	5.61	10	06/29/2019 09:37	WG1303241
n-Nitrosodiphenylamine	ND		5.61	10	06/29/2019 09:37	WG1303241
n-Nitrosodi-n-propylamine	ND		5.61	10	06/29/2019 09:37	WG1303241
Phenanthrene	ND		0.556	10	06/29/2019 09:37	WG1303241
Benzylbutyl phthalate	ND		5.61	10	06/29/2019 09:37	WG1303241
Bis(2-ethylhexyl)phthalate	ND		5.61	10	06/29/2019 09:37	WG1303241
Di-n-butyl phthalate	ND		5.61	10	06/29/2019 09:37	WG1303241
Diethyl phthalate	ND		5.61	10	06/29/2019 09:37	WG1303241
Dimethyl phthalate	ND		5.61	10	06/29/2019 09:37	WG1303241
Di-n-octyl phthalate	ND		5.61	10	06/29/2019 09:37	WG1303241
Pyrene	ND		0.556	10	06/29/2019 09:37	WG1303241
1,2,4,5-Tetrachlorobenzene	ND		5.61	10	06/29/2019 09:37	WG1303241
4-Chloro-3-methylphenol	ND		5.61	10	06/29/2019 09:37	WG1303241
2-Chlorophenol	ND		5.61	10	06/29/2019 09:37	WG1303241
2-Methylphenol	ND		5.61	10	06/29/2019 09:37	WG1303241
3&4-Methyl Phenol	ND		5.61	10	06/29/2019 09:37	WG1303241
2,4-Dichlorophenol	ND		5.61	10	06/29/2019 09:37	WG1303241
2,4-Dimethylphenol	ND	JO J4	5.61	10	06/29/2019 09:37	WG1303241
4,6-Dinitro-2-methylphenol	ND		5.61	10	06/29/2019 09:37	WG1303241
2,4-Dinitrophenol	ND		5.61	10	06/29/2019 09:37	WG1303241
2-Nitrophenol	ND		5.61	10	06/29/2019 09:37	WG1303241
4-Nitrophenol	ND		5.61	10	06/29/2019 09:37	WG1303241
Pentachlorophenol	ND		5.61	10	06/29/2019 09:37	WG1303241
Phenol	ND		5.61	10	06/29/2019 09:37	WG1303241
2,4,5-Trichlorophenol	ND		5.61	10	06/29/2019 09:37	WG1303241
2,4,6-Trichlorophenol	ND		5.61	10	06/29/2019 09:37	WG1303241
(S) 2-Fluorophenol	101		12.0-120		06/29/2019 09:37	WG1303241
(S) Phenol-d5	89.0		10.0-120		06/29/2019 09:37	WG1303241
(S) Nitrobenzene-d5	76.5		10.0-122		06/29/2019 09:37	WG1303241
(S) 2-Fluorobiphenyl	74.6		15.0-120		06/29/2019 09:37	WG1303241
(S) 2,4,6-Tribromophenol	79.1		10.0-127		06/29/2019 09:37	WG1303241
(S) p-Terphenyl-d14	78.0		10.0-120		06/29/2019 09:37	WG1303241

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

Sample Narrative:

L111579-16 WG1303241: Dilution due to matrix impact during extract concentration procedure

Semi Volatile Organic Compounds (GC/MS) by Method 8270E-SIM

Analyte	Result (dry) mg/kg	Qualifier	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Anthracene	ND		0.0101	1	06/27/2019 19:54	WG1302016
Acenaphthene	ND		0.0101	1	06/27/2019 19:54	WG1302016
Acenaphthylene	ND		0.0101	1	06/27/2019 19:54	WG1302016
Benzo(a)anthracene	ND		0.0101	1	06/27/2019 19:54	WG1302016





Semi Volatile Organic Compounds (GC/MS) by Method 8270E-SIM

Analyte	Result (dry) mg/kg	Qualifier	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Benzo(a)pyrene	ND		0.0101	1	06/27/2019 19:54	<a href="#">WG1302016</a>
Benzo(b)fluoranthene	ND		0.0101	1	06/27/2019 19:54	<a href="#">WG1302016</a>
Benzo(g,h,i)perylene	ND		0.0101	1	06/27/2019 19:54	<a href="#">WG1302016</a>
Benzo(k)fluoranthene	ND		0.0101	1	06/27/2019 19:54	<a href="#">WG1302016</a>
Chrysene	ND		0.0101	1	06/27/2019 19:54	<a href="#">WG1302016</a>
Dibenz(a,h)anthracene	ND		0.0101	1	06/27/2019 19:54	<a href="#">WG1302016</a>
Fluoranthene	ND		0.0101	1	06/27/2019 19:54	<a href="#">WG1302016</a>
Fluorene	ND		0.0101	1	06/27/2019 19:54	<a href="#">WG1302016</a>
Indeno(1,2,3-cd)pyrene	ND		0.0101	1	06/27/2019 19:54	<a href="#">WG1302016</a>
Naphthalene	ND		0.0337	1	06/27/2019 19:54	<a href="#">WG1302016</a>
Phenanthrene	ND		0.0101	1	06/27/2019 19:54	<a href="#">WG1302016</a>
Pyrene	ND		0.0101	1	06/27/2019 19:54	<a href="#">WG1302016</a>
1-Methylnaphthalene	ND		0.0337	1	06/27/2019 19:54	<a href="#">WG1302016</a>
2-Methylnaphthalene	ND		0.0337	1	06/27/2019 19:54	<a href="#">WG1302016</a>
(S) p-Terphenyl-d14	37.0		23.0-120		06/27/2019 19:54	<a href="#">WG1302016</a>
(S) Nitrobenzene-d5	61.1		14.0-149		06/27/2019 19:54	<a href="#">WG1302016</a>
(S) 2-Fluorobiphenyl	33.6	<u>J2</u>	34.0-125		06/27/2019 19:54	<a href="#">WG1302016</a>

1  
Cp

2  
Tc

3  
Ss

4  
Cn

5  
Sr

6  
Qc

7  
Gl

8  
Al

9  
Sc



Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	81.1		1	06/26/2019 11:35	<a href="#">WG1302167</a>

- 1 Cp
- 2 Tc
- 3 Ss
- 4 Cn
- 5 Sr
- 6 Qc
- 7 Gl
- 8 Al
- 9 Sc

Wet Chemistry by Method 9012B

Analyte	Result (dry)	Qualifier	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg		date / time	
Cyanide	ND		0.308	1	07/05/2019 10:15	<a href="#">WG1305501</a>

Mercury by Method 7471B

Analyte	Result (dry)	Qualifier	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg		date / time	
Mercury	0.0324	<u>B</u>	0.0246	1	06/26/2019 13:10	<a href="#">WG1301944</a>

Metals (ICP) by Method 6010D

Analyte	Result (dry)	Qualifier	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg		date / time	
Aluminum	12100		12.3	1	06/27/2019 23:31	<a href="#">WG1301970</a>
Antimony	ND		2.46	1	06/27/2019 23:31	<a href="#">WG1301970</a>
Arsenic	ND		2.46	1	06/27/2019 23:31	<a href="#">WG1301970</a>
Barium	72.3		0.616	1	06/27/2019 23:31	<a href="#">WG1301970</a>
Beryllium	0.453		0.246	1	06/27/2019 23:31	<a href="#">WG1301970</a>
Cadmium	ND		0.616	1	06/27/2019 23:31	<a href="#">WG1301970</a>
Calcium	1270		123	1	06/27/2019 23:31	<a href="#">WG1301970</a>
Chromium	10.7		1.23	1	06/27/2019 23:31	<a href="#">WG1301970</a>
Cobalt	6.26		1.23	1	06/27/2019 23:31	<a href="#">WG1301970</a>
Copper	21.6		2.46	1	06/27/2019 23:31	<a href="#">WG1301970</a>
Iron	14300		12.3	1	06/27/2019 23:31	<a href="#">WG1301970</a>
Lead	8.04		0.616	1	06/27/2019 23:31	<a href="#">WG1301970</a>
Magnesium	1150		123	1	06/27/2019 23:31	<a href="#">WG1301970</a>
Manganese	393		1.23	1	06/27/2019 23:31	<a href="#">WG1301970</a>
Nickel	4.96		2.46	1	06/27/2019 23:31	<a href="#">WG1301970</a>
Potassium	691		123	1	06/27/2019 23:31	<a href="#">WG1301970</a>
Selenium	ND		2.46	1	06/27/2019 23:31	<a href="#">WG1301970</a>
Silver	ND		1.23	1	06/27/2019 23:31	<a href="#">WG1301970</a>
Sodium	227		123	1	06/27/2019 23:31	<a href="#">WG1301970</a>
Thallium	ND		2.46	1	06/27/2019 23:31	<a href="#">WG1301970</a>
Vanadium	38.4		2.46	1	06/27/2019 23:31	<a href="#">WG1301970</a>
Zinc	33.0		6.16	1	06/27/2019 23:31	<a href="#">WG1301970</a>

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result (dry)	Qualifier	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg		date / time	
Acetone	ND		0.0308	1	06/26/2019 15:18	<a href="#">WG1302136</a>
Benzene	ND		0.00123	1	06/26/2019 15:18	<a href="#">WG1302136</a>
Bromochloromethane	ND		0.00616	1	06/26/2019 15:18	<a href="#">WG1302136</a>
Bromodichloromethane	ND		0.00308	1	06/26/2019 15:18	<a href="#">WG1302136</a>
Bromoform	ND		0.0308	1	06/26/2019 15:18	<a href="#">WG1302136</a>
Bromomethane	ND		0.0154	1	06/26/2019 15:18	<a href="#">WG1302136</a>
Carbon disulfide	ND		0.0154	1	06/26/2019 15:18	<a href="#">WG1302136</a>
Carbon tetrachloride	ND		0.00616	1	06/26/2019 15:18	<a href="#">WG1302136</a>
Chlorobenzene	ND		0.00308	1	06/26/2019 15:18	<a href="#">WG1302136</a>
Chlorodibromomethane	ND		0.00308	1	06/26/2019 15:18	<a href="#">WG1302136</a>
Chloroethane	ND		0.00616	1	06/26/2019 15:18	<a href="#">WG1302136</a>
Chloroform	ND		0.00308	1	06/26/2019 15:18	<a href="#">WG1302136</a>
Chloromethane	ND		0.0154	1	06/26/2019 15:18	<a href="#">WG1302136</a>



Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result (dry) mg/kg	Qualifier	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Cyclohexane	ND		0.00308	1	06/26/2019 15:18	WG1302136
1,2-Dibromo-3-Chloropropane	ND		0.0308	1	06/26/2019 15:18	WG1302136
1,2-Dibromoethane	ND		0.00308	1	06/26/2019 15:18	WG1302136
Dichlorodifluoromethane	ND	J3	0.00308	1	06/26/2019 15:18	WG1302136
1,1-Dichloroethane	ND		0.00308	1	06/26/2019 15:18	WG1302136
1,2-Dichloroethane	ND		0.00308	1	06/26/2019 15:18	WG1302136
1,2-Dichlorobenzene	ND		0.00616	1	06/26/2019 15:18	WG1302136
1,3-Dichlorobenzene	ND		0.00616	1	06/26/2019 15:18	WG1302136
1,4-Dichlorobenzene	ND		0.00616	1	06/26/2019 15:18	WG1302136
1,1-Dichloroethene	ND		0.00308	1	06/26/2019 15:18	WG1302136
cis-1,2-Dichloroethene	ND		0.00308	1	06/26/2019 15:18	WG1302136
trans-1,2-Dichloroethene	ND		0.00616	1	06/26/2019 15:18	WG1302136
1,2-Dichloropropane	ND		0.00616	1	06/26/2019 15:18	WG1302136
cis-1,3-Dichloropropene	ND		0.00308	1	06/26/2019 15:18	WG1302136
trans-1,3-Dichloropropene	ND		0.00616	1	06/26/2019 15:18	WG1302136
Ethylbenzene	ND		0.00308	1	06/26/2019 15:18	WG1302136
2-Hexanone	ND		0.0308	1	06/26/2019 15:18	WG1302136
Isopropylbenzene	ND		0.00308	1	06/26/2019 15:18	WG1302136
2-Butanone (MEK)	ND		0.0308	1	06/26/2019 15:18	WG1302136
Methyl Acetate	0.159		0.00616	1	06/26/2019 15:18	WG1302136
Methyl Cyclohexane	ND		0.00616	1	06/26/2019 15:18	WG1302136
Methylene Chloride	ND		0.0308	1	06/26/2019 15:18	WG1302136
4-Methyl-2-pentanone (MIBK)	ND		0.0308	1	06/26/2019 15:18	WG1302136
Methyl tert-butyl ether	ND		0.00123	1	06/26/2019 15:18	WG1302136
Styrene	ND		0.0154	1	06/26/2019 15:18	WG1302136
1,1,2,2-Tetrachloroethane	ND		0.00308	1	06/26/2019 15:18	WG1302136
Tetrachloroethene	ND		0.00308	1	06/26/2019 15:18	WG1302136
Toluene	0.00639		0.00616	1	06/26/2019 15:18	WG1302136
1,2,3-Trichlorobenzene	ND		0.00308	1	06/26/2019 15:18	WG1302136
1,2,4-Trichlorobenzene	ND		0.0154	1	06/26/2019 15:18	WG1302136
1,1,1-Trichloroethane	ND		0.00308	1	06/26/2019 15:18	WG1302136
1,1,2-Trichloroethane	ND		0.00308	1	06/26/2019 15:18	WG1302136
Trichloroethene	ND		0.00123	1	06/26/2019 15:18	WG1302136
Trichlorofluoromethane	ND		0.00308	1	06/26/2019 15:18	WG1302136
1,1,2-Trichlorotrifluoroethane	ND		0.00308	1	06/26/2019 15:18	WG1302136
Vinyl chloride	ND		0.00308	1	06/26/2019 15:18	WG1302136
Xylenes, Total	ND		0.00801	1	06/26/2019 15:18	WG1302136
(S) Toluene-d8	103		75.0-131		06/26/2019 15:18	WG1302136
(S) 4-Bromofluorobenzene	90.7		67.0-138		06/26/2019 15:18	WG1302136
(S) 1,2-Dichloroethane-d4	101		70.0-130		06/26/2019 15:18	WG1302136

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

Pesticides (GC) by Method 8081B

Analyte	Result (dry) mg/kg	Qualifier	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Aldrin	ND		0.0246	1	06/26/2019 21:44	WG1302000
Alpha BHC	ND		0.0246	1	06/26/2019 21:44	WG1302000
Beta BHC	ND		0.0246	1	06/26/2019 21:44	WG1302000
Delta BHC	ND		0.0246	1	06/26/2019 21:44	WG1302000
Gamma BHC	ND		0.0246	1	06/26/2019 21:44	WG1302000
Chlordane	ND		0.246	1	06/26/2019 21:44	WG1302000
4,4-DDD	ND		0.0246	1	06/26/2019 21:44	WG1302000
4,4-DDE	ND		0.0246	1	06/26/2019 21:44	WG1302000
4,4-DDT	ND		0.0246	1	06/26/2019 21:44	WG1302000
Dieldrin	ND		0.0246	1	06/26/2019 21:44	WG1302000
Endosulfan I	ND		0.0246	1	06/26/2019 21:44	WG1302000
Endosulfan II	ND		0.0246	1	06/26/2019 21:44	WG1302000



Pesticides (GC) by Method 8081B

Analyte	Result (dry) mg/kg	Qualifier	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Endosulfan sulfate	ND		0.0246	1	06/26/2019 21:44	<a href="#">WG1302000</a>
Endrin	ND		0.0246	1	06/26/2019 21:44	<a href="#">WG1302000</a>
Endrin aldehyde	ND		0.0246	1	06/26/2019 21:44	<a href="#">WG1302000</a>
Endrin ketone	ND		0.0246	1	06/26/2019 21:44	<a href="#">WG1302000</a>
Heptachlor	ND		0.0246	1	06/26/2019 21:44	<a href="#">WG1302000</a>
Heptachlor epoxide	ND		0.0246	1	06/26/2019 21:44	<a href="#">WG1302000</a>
Hexachlorobenzene	ND		0.0246	1	06/26/2019 21:44	<a href="#">WG1302000</a>
Methoxychlor	ND		0.0246	1	06/26/2019 21:44	<a href="#">WG1302000</a>
Toxaphene	ND		0.493	1	06/26/2019 21:44	<a href="#">WG1302000</a>
(S) Decachlorobiphenyl	79.2		10.0-135		06/26/2019 21:44	<a href="#">WG1302000</a>
(S) Tetrachloro-m-xylene	84.7		10.0-139		06/26/2019 21:44	<a href="#">WG1302000</a>

- 1 Cp
- 2 Tc
- 3 Ss
- 4 Cn
- 5 Sr
- 6 Qc
- 7 Gl
- 8 Al
- 9 Sc

Polychlorinated Biphenyls (GC) by Method 8082 A

Analyte	Result (dry) mg/kg	Qualifier	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
PCB 1016	ND	J4	0.0209	1	06/26/2019 21:55	<a href="#">WG1302000</a>
PCB 1221	ND		0.0209	1	06/26/2019 21:55	<a href="#">WG1302000</a>
PCB 1232	ND		0.0209	1	06/26/2019 21:55	<a href="#">WG1302000</a>
PCB 1242	ND		0.0209	1	06/26/2019 21:55	<a href="#">WG1302000</a>
PCB 1248	ND		0.0209	1	06/26/2019 21:55	<a href="#">WG1302000</a>
PCB 1254	ND		0.0209	1	06/26/2019 21:55	<a href="#">WG1302000</a>
PCB 1260	ND	J4	0.0209	1	06/26/2019 21:55	<a href="#">WG1302000</a>
(S) Decachlorobiphenyl	76.7		10.0-135		06/26/2019 21:55	<a href="#">WG1302000</a>
(S) Tetrachloro-m-xylene	81.5		10.0-139		06/26/2019 21:55	<a href="#">WG1302000</a>

Semi Volatile Organic Compounds (GC/MS) by Method 8270D

Analyte	Result (dry) mg/kg	Qualifier	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Acenaphthene	ND		0.407	10	06/29/2019 06:42	<a href="#">WG1303241</a>
Acenaphthylene	ND		0.407	10	06/29/2019 06:42	<a href="#">WG1303241</a>
Acetophenone	ND		4.10	10	06/29/2019 06:42	<a href="#">WG1303241</a>
Anthracene	ND		0.407	10	06/29/2019 06:42	<a href="#">WG1303241</a>
Atrazine	ND		4.10	10	06/29/2019 06:42	<a href="#">WG1303241</a>
Benzaldehyde	ND		4.10	10	06/29/2019 06:42	<a href="#">WG1303241</a>
Benzo(a)anthracene	ND		0.407	10	06/29/2019 06:42	<a href="#">WG1303241</a>
Benzo(b)fluoranthene	ND		0.407	10	06/29/2019 06:42	<a href="#">WG1303241</a>
Benzo(k)fluoranthene	ND		0.407	10	06/29/2019 06:42	<a href="#">WG1303241</a>
Benzo(g,h,i)perylene	ND		0.407	10	06/29/2019 06:42	<a href="#">WG1303241</a>
Benzo(a)pyrene	ND		0.407	10	06/29/2019 06:42	<a href="#">WG1303241</a>
Biphenyl	ND		4.10	10	06/29/2019 06:42	<a href="#">WG1303241</a>
Bis(2-chloroethoxy)methane	ND	J4	4.10	10	06/29/2019 06:42	<a href="#">WG1303241</a>
Bis(2-chloroethyl)ether	ND		4.10	10	06/29/2019 06:42	<a href="#">WG1303241</a>
Bis(2-chloroisopropyl)ether	ND	J4	4.10	10	06/29/2019 06:42	<a href="#">WG1303241</a>
4-Bromophenyl-phenylether	ND		4.10	10	06/29/2019 06:42	<a href="#">WG1303241</a>
Caprolactam	ND		4.10	10	06/29/2019 06:42	<a href="#">WG1303241</a>
Carbazole	ND		4.10	10	06/29/2019 06:42	<a href="#">WG1303241</a>
4-Chloroaniline	ND	J4	4.10	10	06/29/2019 06:42	<a href="#">WG1303241</a>
2-Chloronaphthalene	ND		0.407	10	06/29/2019 06:42	<a href="#">WG1303241</a>
4-Chlorophenyl-phenylether	ND		4.10	10	06/29/2019 06:42	<a href="#">WG1303241</a>
Chrysene	ND		0.407	10	06/29/2019 06:42	<a href="#">WG1303241</a>
Dibenz(a,h)anthracene	ND		0.407	10	06/29/2019 06:42	<a href="#">WG1303241</a>
Dibenzofuran	ND		4.10	10	06/29/2019 06:42	<a href="#">WG1303241</a>
3,3-Dichlorobenzidine	ND		4.10	10	06/29/2019 06:42	<a href="#">WG1303241</a>
2,4-Dinitrotoluene	ND		4.10	10	06/29/2019 06:42	<a href="#">WG1303241</a>
2,6-Dinitrotoluene	ND		4.10	10	06/29/2019 06:42	<a href="#">WG1303241</a>



Semi Volatile Organic Compounds (GC/MS) by Method 8270D

Analyte	Result (dry) mg/kg	Qualifier	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Fluoranthene	ND		0.407	10	06/29/2019 06:42	WG1303241
Fluorene	ND		0.407	10	06/29/2019 06:42	WG1303241
Hexachlorobenzene	ND		4.10	10	06/29/2019 06:42	WG1303241
Hexachloro-1,3-butadiene	ND	J4	4.10	10	06/29/2019 06:42	WG1303241
Hexachlorocyclopentadiene	ND	JO	4.10	10	06/29/2019 06:42	WG1303241
Hexachloroethane	ND		4.10	10	06/29/2019 06:42	WG1303241
Indeno(1,2,3-cd)pyrene	ND		0.407	10	06/29/2019 06:42	WG1303241
Isophorone	ND	J4	4.10	10	06/29/2019 06:42	WG1303241
2-Methylnaphthalene	ND	J4	0.407	10	06/29/2019 06:42	WG1303241
Naphthalene	ND	J4	0.407	10	06/29/2019 06:42	WG1303241
2-Nitroaniline	ND		4.10	10	06/29/2019 06:42	WG1303241
3-Nitroaniline	ND		4.10	10	06/29/2019 06:42	WG1303241
4-Nitroaniline	ND		4.10	10	06/29/2019 06:42	WG1303241
Nitrobenzene	ND	J4	4.10	10	06/29/2019 06:42	WG1303241
n-Nitrosodiphenylamine	ND		4.10	10	06/29/2019 06:42	WG1303241
n-Nitrosodi-n-propylamine	ND		4.10	10	06/29/2019 06:42	WG1303241
Phenanthrene	ND		0.407	10	06/29/2019 06:42	WG1303241
Benzylbutyl phthalate	ND		4.10	10	06/29/2019 06:42	WG1303241
Bis(2-ethylhexyl)phthalate	ND		4.10	10	06/29/2019 06:42	WG1303241
Di-n-butyl phthalate	ND		4.10	10	06/29/2019 06:42	WG1303241
Diethyl phthalate	ND		4.10	10	06/29/2019 06:42	WG1303241
Dimethyl phthalate	ND		4.10	10	06/29/2019 06:42	WG1303241
Di-n-octyl phthalate	ND		4.10	10	06/29/2019 06:42	WG1303241
Pyrene	ND		0.407	10	06/29/2019 06:42	WG1303241
1,2,4,5-Tetrachlorobenzene	ND		4.10	10	06/29/2019 06:42	WG1303241
4-Chloro-3-methylphenol	ND		4.10	10	06/29/2019 06:42	WG1303241
2-Chlorophenol	ND		4.10	10	06/29/2019 06:42	WG1303241
2-Methylphenol	ND		4.10	10	06/29/2019 06:42	WG1303241
3&4-Methyl Phenol	ND		4.10	10	06/29/2019 06:42	WG1303241
2,4-Dichlorophenol	ND		4.10	10	06/29/2019 06:42	WG1303241
2,4-Dimethylphenol	ND	JO J4	4.10	10	06/29/2019 06:42	WG1303241
4,6-Dinitro-2-methylphenol	ND		4.10	10	06/29/2019 06:42	WG1303241
2,4-Dinitrophenol	ND		4.10	10	06/29/2019 06:42	WG1303241
2-Nitrophenol	ND		4.10	10	06/29/2019 06:42	WG1303241
4-Nitrophenol	ND		4.10	10	06/29/2019 06:42	WG1303241
Pentachlorophenol	ND		4.10	10	06/29/2019 06:42	WG1303241
Phenol	ND		4.10	10	06/29/2019 06:42	WG1303241
2,4,5-Trichlorophenol	ND		4.10	10	06/29/2019 06:42	WG1303241
2,4,6-Trichlorophenol	ND		4.10	10	06/29/2019 06:42	WG1303241
(S) 2-Fluorophenol	83.4		12.0-120		06/29/2019 06:42	WG1303241
(S) Phenol-d5	76.8		10.0-120		06/29/2019 06:42	WG1303241
(S) Nitrobenzene-d5	66.3		10.0-122		06/29/2019 06:42	WG1303241
(S) 2-Fluorobiphenyl	60.1		15.0-120		06/29/2019 06:42	WG1303241
(S) 2,4,6-Tribromophenol	58.7		10.0-127		06/29/2019 06:42	WG1303241
(S) p-Terphenyl-d14	64.4		10.0-120		06/29/2019 06:42	WG1303241

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

Sample Narrative:

L111579-17 WG1303241: Dilution due to matrix impact during extract concentration procedure

Semi Volatile Organic Compounds (GC/MS) by Method 8270E-SIM

Analyte	Result (dry) mg/kg	Qualifier	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Anthracene	ND		0.00739	1	06/27/2019 20:15	WG1302016
Acenaphthene	ND		0.00739	1	06/27/2019 20:15	WG1302016
Acenaphthylene	ND		0.00739	1	06/27/2019 20:15	WG1302016
Benzo(a)anthracene	ND		0.00739	1	06/27/2019 20:15	WG1302016





Collected date/time: 06/20/19 09:20

L1111579

Semi Volatile Organic Compounds (GC/MS) by Method 8270E-SIM

Analyte	Result (dry) mg/kg	Qualifier	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Benzo(a)pyrene	ND		0.00739	1	06/27/2019 20:15	<a href="#">WG1302016</a>
Benzo(b)fluoranthene	ND		0.00739	1	06/27/2019 20:15	<a href="#">WG1302016</a>
Benzo(g,h,i)perylene	ND		0.00739	1	06/27/2019 20:15	<a href="#">WG1302016</a>
Benzo(k)fluoranthene	ND		0.00739	1	06/27/2019 20:15	<a href="#">WG1302016</a>
Chrysene	ND		0.00739	1	06/27/2019 20:15	<a href="#">WG1302016</a>
Dibenz(a,h)anthracene	ND		0.00739	1	06/27/2019 20:15	<a href="#">WG1302016</a>
Fluoranthene	ND		0.00739	1	06/27/2019 20:15	<a href="#">WG1302016</a>
Fluorene	ND		0.00739	1	06/27/2019 20:15	<a href="#">WG1302016</a>
Indeno(1,2,3-cd)pyrene	ND		0.00739	1	06/27/2019 20:15	<a href="#">WG1302016</a>
Naphthalene	ND		0.0246	1	06/27/2019 20:15	<a href="#">WG1302016</a>
Phenanthrene	ND		0.00739	1	06/27/2019 20:15	<a href="#">WG1302016</a>
Pyrene	ND		0.00739	1	06/27/2019 20:15	<a href="#">WG1302016</a>
1-Methylnaphthalene	ND		0.0246	1	06/27/2019 20:15	<a href="#">WG1302016</a>
2-Methylnaphthalene	ND		0.0246	1	06/27/2019 20:15	<a href="#">WG1302016</a>
(S) p-Terphenyl-d14	31.2		23.0-120		06/27/2019 20:15	<a href="#">WG1302016</a>
(S) Nitrobenzene-d5	65.0		14.0-149		06/27/2019 20:15	<a href="#">WG1302016</a>
(S) 2-Fluorobiphenyl	33.3	<u>J2</u>	34.0-125		06/27/2019 20:15	<a href="#">WG1302016</a>

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc



Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	66.5		1	06/26/2019 11:35	<a href="#">WG1302167</a>

1 Cp

2 Tc

Wet Chemistry by Method 9012B

Analyte	Result (dry)	Qualifier	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg		date / time	
Cyanide	ND		0.376	1	07/05/2019 10:16	<a href="#">WG1305501</a>

3 Ss

4 Cn

Mercury by Method 7471B

Analyte	Result (dry)	Qualifier	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg		date / time	
Mercury	0.0509	B	0.0301	1	06/26/2019 13:13	<a href="#">WG1301944</a>

5 Sr

6 Qc

Metals (ICP) by Method 6010D

Analyte	Result (dry)	Qualifier	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg		date / time	
Aluminum	32300		15.0	1	06/27/2019 23:34	<a href="#">WG1301970</a>
Antimony	ND		3.01	1	06/27/2019 23:34	<a href="#">WG1301970</a>
Arsenic	ND		3.01	1	06/27/2019 23:34	<a href="#">WG1301970</a>
Barium	146		0.752	1	06/27/2019 23:34	<a href="#">WG1301970</a>
Beryllium	1.56		0.301	1	06/27/2019 23:34	<a href="#">WG1301970</a>
Cadmium	ND		0.752	1	06/27/2019 23:34	<a href="#">WG1301970</a>
Calcium	1440		150	1	06/27/2019 23:34	<a href="#">WG1301970</a>
Chromium	43.9		1.50	1	06/27/2019 23:34	<a href="#">WG1301970</a>
Cobalt	18.7		1.50	1	06/27/2019 23:34	<a href="#">WG1301970</a>
Copper	25.0		3.01	1	06/27/2019 23:34	<a href="#">WG1301970</a>
Iron	40200		15.0	1	06/27/2019 23:34	<a href="#">WG1301970</a>
Lead	18.2		0.752	1	06/27/2019 23:34	<a href="#">WG1301970</a>
Magnesium	1610		150	1	06/27/2019 23:34	<a href="#">WG1301970</a>
Manganese	412		1.50	1	06/27/2019 23:34	<a href="#">WG1301970</a>
Nickel	13.9		3.01	1	06/27/2019 23:34	<a href="#">WG1301970</a>
Potassium	1280		150	1	06/27/2019 23:34	<a href="#">WG1301970</a>
Selenium	3.54		3.01	1	06/27/2019 23:34	<a href="#">WG1301970</a>
Silver	ND		1.50	1	06/27/2019 23:34	<a href="#">WG1301970</a>
Sodium	376		150	1	06/27/2019 23:34	<a href="#">WG1301970</a>
Thallium	ND		3.01	1	06/27/2019 23:34	<a href="#">WG1301970</a>
Vanadium	90.3		3.01	1	06/27/2019 23:34	<a href="#">WG1301970</a>
Zinc	56.9		7.52	1	06/27/2019 23:34	<a href="#">WG1301970</a>

7 Gl

8 Al

9 Sc

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result (dry)	Qualifier	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg		date / time	
Acetone	0.0806		0.0376	1	06/26/2019 15:37	<a href="#">WG1302136</a>
Benzene	ND		0.00150	1	06/26/2019 15:37	<a href="#">WG1302136</a>
Bromochloromethane	ND		0.00752	1	06/26/2019 15:37	<a href="#">WG1302136</a>
Bromodichloromethane	ND		0.00376	1	06/26/2019 15:37	<a href="#">WG1302136</a>
Bromoform	ND		0.0376	1	06/26/2019 15:37	<a href="#">WG1302136</a>
Bromomethane	ND		0.0188	1	06/26/2019 15:37	<a href="#">WG1302136</a>
Carbon disulfide	ND		0.0188	1	06/26/2019 15:37	<a href="#">WG1302136</a>
Carbon tetrachloride	ND		0.00752	1	06/26/2019 15:37	<a href="#">WG1302136</a>
Chlorobenzene	ND		0.00376	1	06/26/2019 15:37	<a href="#">WG1302136</a>
Chlorodibromomethane	ND		0.00376	1	06/26/2019 15:37	<a href="#">WG1302136</a>
Chloroethane	ND		0.00752	1	06/26/2019 15:37	<a href="#">WG1302136</a>
Chloroform	ND		0.00376	1	06/26/2019 15:37	<a href="#">WG1302136</a>
Chloromethane	ND		0.0188	1	06/26/2019 15:37	<a href="#">WG1302136</a>



Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result (dry) mg/kg	Qualifier	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Cyclohexane	ND		0.00376	1	06/26/2019 15:37	WG1302136
1,2-Dibromo-3-Chloropropane	ND		0.0376	1	06/26/2019 15:37	WG1302136
1,2-Dibromoethane	ND		0.00376	1	06/26/2019 15:37	WG1302136
Dichlorodifluoromethane	ND	J3	0.00376	1	06/26/2019 15:37	WG1302136
1,1-Dichloroethane	ND		0.00376	1	06/26/2019 15:37	WG1302136
1,2-Dichloroethane	ND		0.00376	1	06/26/2019 15:37	WG1302136
1,2-Dichlorobenzene	ND		0.00752	1	06/26/2019 15:37	WG1302136
1,3-Dichlorobenzene	ND		0.00752	1	06/26/2019 15:37	WG1302136
1,4-Dichlorobenzene	ND		0.00752	1	06/26/2019 15:37	WG1302136
1,1-Dichloroethene	ND		0.00376	1	06/26/2019 15:37	WG1302136
cis-1,2-Dichloroethene	ND		0.00376	1	06/26/2019 15:37	WG1302136
trans-1,2-Dichloroethene	ND		0.00752	1	06/26/2019 15:37	WG1302136
1,2-Dichloropropane	ND		0.00752	1	06/26/2019 15:37	WG1302136
cis-1,3-Dichloropropene	ND		0.00376	1	06/26/2019 15:37	WG1302136
trans-1,3-Dichloropropene	ND		0.00752	1	06/26/2019 15:37	WG1302136
Ethylbenzene	ND		0.00376	1	06/26/2019 15:37	WG1302136
2-Hexanone	ND		0.0376	1	06/26/2019 15:37	WG1302136
Isopropylbenzene	ND		0.00376	1	06/26/2019 15:37	WG1302136
2-Butanone (MEK)	0.0416	B	0.0376	1	06/26/2019 15:37	WG1302136
Methyl Acetate	0.209		0.00752	1	06/26/2019 15:37	WG1302136
Methyl Cyclohexane	0.00765		0.00752	1	06/26/2019 15:37	WG1302136
Methylene Chloride	ND		0.0376	1	06/26/2019 15:37	WG1302136
4-Methyl-2-pentanone (MIBK)	ND		0.0376	1	06/26/2019 15:37	WG1302136
Methyl tert-butyl ether	ND		0.00150	1	06/26/2019 15:37	WG1302136
Styrene	ND		0.0188	1	06/26/2019 15:37	WG1302136
1,1,2,2-Tetrachloroethane	ND		0.00376	1	06/26/2019 15:37	WG1302136
Tetrachloroethene	ND		0.00376	1	06/26/2019 15:37	WG1302136
Toluene	ND		0.00752	1	06/26/2019 15:37	WG1302136
1,2,3-Trichlorobenzene	ND		0.00376	1	06/26/2019 15:37	WG1302136
1,2,4-Trichlorobenzene	ND		0.0188	1	06/26/2019 15:37	WG1302136
1,1,1-Trichloroethane	ND		0.00376	1	06/26/2019 15:37	WG1302136
1,1,2-Trichloroethane	ND		0.00376	1	06/26/2019 15:37	WG1302136
Trichloroethene	ND		0.00150	1	06/26/2019 15:37	WG1302136
Trichlorofluoromethane	ND		0.00376	1	06/26/2019 15:37	WG1302136
1,1,2-Trichlorotrifluoroethane	ND		0.00376	1	06/26/2019 15:37	WG1302136
Vinyl chloride	ND		0.00376	1	06/26/2019 15:37	WG1302136
Xylenes, Total	ND		0.00978	1	06/26/2019 15:37	WG1302136
(S) Toluene-d8	99.6		75.0-131		06/26/2019 15:37	WG1302136
(S) 4-Bromofluorobenzene	91.0		67.0-138		06/26/2019 15:37	WG1302136
(S) 1,2-Dichloroethane-d4	98.5		70.0-130		06/26/2019 15:37	WG1302136

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

Pesticides (GC) by Method 8081B

Analyte	Result (dry) mg/kg	Qualifier	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Aldrin	ND		0.0301	1	06/26/2019 21:56	WG1302000
Alpha BHC	ND		0.0301	1	06/26/2019 21:56	WG1302000
Beta BHC	ND		0.0301	1	06/26/2019 21:56	WG1302000
Delta BHC	ND		0.0301	1	06/26/2019 21:56	WG1302000
Gamma BHC	ND		0.0301	1	06/26/2019 21:56	WG1302000
Chlordane	ND		0.301	1	06/26/2019 21:56	WG1302000
4,4-DDD	ND		0.0301	1	06/26/2019 21:56	WG1302000
4,4-DDE	ND		0.0301	1	06/26/2019 21:56	WG1302000
4,4-DDT	ND		0.0301	1	06/26/2019 21:56	WG1302000
Dieldrin	ND		0.0301	1	06/26/2019 21:56	WG1302000
Endosulfan I	ND		0.0301	1	06/26/2019 21:56	WG1302000
Endosulfan II	ND		0.0301	1	06/26/2019 21:56	WG1302000



Pesticides (GC) by Method 8081B

Analyte	Result (dry) mg/kg	Qualifier	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Endosulfan sulfate	ND		0.0301	1	06/26/2019 21:56	<a href="#">WG1302000</a>
Endrin	ND		0.0301	1	06/26/2019 21:56	<a href="#">WG1302000</a>
Endrin aldehyde	ND		0.0301	1	06/26/2019 21:56	<a href="#">WG1302000</a>
Endrin ketone	ND		0.0301	1	06/26/2019 21:56	<a href="#">WG1302000</a>
Heptachlor	ND		0.0301	1	06/26/2019 21:56	<a href="#">WG1302000</a>
Heptachlor epoxide	ND		0.0301	1	06/26/2019 21:56	<a href="#">WG1302000</a>
Hexachlorobenzene	ND		0.0301	1	06/26/2019 21:56	<a href="#">WG1302000</a>
Methoxychlor	ND		0.0301	1	06/26/2019 21:56	<a href="#">WG1302000</a>
Toxaphene	ND		0.602	1	06/26/2019 21:56	<a href="#">WG1302000</a>
(S) Decachlorobiphenyl	86.1		10.0-135		06/26/2019 21:56	<a href="#">WG1302000</a>
(S) Tetrachloro-m-xylene	91.0		10.0-139		06/26/2019 21:56	<a href="#">WG1302000</a>

1  
Cp

2  
Tc

3  
Ss

4  
Cn

5  
Sr

6  
Qc

7  
Gl

8  
Al

9  
Sc

Polychlorinated Biphenyls (GC) by Method 8082 A

Analyte	Result (dry) mg/kg	Qualifier	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
PCB 1016	ND	J4	0.0256	1	06/26/2019 22:07	<a href="#">WG1302000</a>
PCB 1221	ND		0.0256	1	06/26/2019 22:07	<a href="#">WG1302000</a>
PCB 1232	ND		0.0256	1	06/26/2019 22:07	<a href="#">WG1302000</a>
PCB 1242	ND		0.0256	1	06/26/2019 22:07	<a href="#">WG1302000</a>
PCB 1248	ND		0.0256	1	06/26/2019 22:07	<a href="#">WG1302000</a>
PCB 1254	ND		0.0256	1	06/26/2019 22:07	<a href="#">WG1302000</a>
PCB 1260	ND	J4	0.0256	1	06/26/2019 22:07	<a href="#">WG1302000</a>
(S) Decachlorobiphenyl	71.9		10.0-135		06/26/2019 22:07	<a href="#">WG1302000</a>
(S) Tetrachloro-m-xylene	83.3		10.0-139		06/26/2019 22:07	<a href="#">WG1302000</a>

Semi Volatile Organic Compounds (GC/MS) by Method 8270D

Analyte	Result (dry) mg/kg	Qualifier	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Acenaphthene	ND		0.497	10	06/29/2019 07:01	<a href="#">WG1303241</a>
Acenaphthylene	ND		0.497	10	06/29/2019 07:01	<a href="#">WG1303241</a>
Acetophenone	ND		5.01	10	06/29/2019 07:01	<a href="#">WG1303241</a>
Anthracene	ND		0.497	10	06/29/2019 07:01	<a href="#">WG1303241</a>
Atrazine	ND		5.01	10	06/29/2019 07:01	<a href="#">WG1303241</a>
Benzaldehyde	ND		5.01	10	06/29/2019 07:01	<a href="#">WG1303241</a>
Benzo(a)anthracene	ND		0.497	10	06/29/2019 07:01	<a href="#">WG1303241</a>
Benzo(b)fluoranthene	ND		0.497	10	06/29/2019 07:01	<a href="#">WG1303241</a>
Benzo(k)fluoranthene	ND		0.497	10	06/29/2019 07:01	<a href="#">WG1303241</a>
Benzo(g,h,i)perylene	ND		0.497	10	06/29/2019 07:01	<a href="#">WG1303241</a>
Benzo(a)pyrene	ND		0.497	10	06/29/2019 07:01	<a href="#">WG1303241</a>
Biphenyl	ND		5.01	10	06/29/2019 07:01	<a href="#">WG1303241</a>
Bis(2-chloroethoxy)methane	ND	J4	5.01	10	06/29/2019 07:01	<a href="#">WG1303241</a>
Bis(2-chloroethyl)ether	ND		5.01	10	06/29/2019 07:01	<a href="#">WG1303241</a>
Bis(2-chloroisopropyl)ether	ND	J4	5.01	10	06/29/2019 07:01	<a href="#">WG1303241</a>
4-Bromophenyl-phenylether	ND		5.01	10	06/29/2019 07:01	<a href="#">WG1303241</a>
Caprolactam	ND		5.01	10	06/29/2019 07:01	<a href="#">WG1303241</a>
Carbazole	ND		5.01	10	06/29/2019 07:01	<a href="#">WG1303241</a>
4-Chloroaniline	ND	J4	5.01	10	06/29/2019 07:01	<a href="#">WG1303241</a>
2-Chloronaphthalene	ND		0.497	10	06/29/2019 07:01	<a href="#">WG1303241</a>
4-Chlorophenyl-phenylether	ND		5.01	10	06/29/2019 07:01	<a href="#">WG1303241</a>
Chrysene	ND		0.497	10	06/29/2019 07:01	<a href="#">WG1303241</a>
Dibenz(a,h)anthracene	ND		0.497	10	06/29/2019 07:01	<a href="#">WG1303241</a>
Dibenzofuran	ND		5.01	10	06/29/2019 07:01	<a href="#">WG1303241</a>
3,3-Dichlorobenzidine	ND		5.01	10	06/29/2019 07:01	<a href="#">WG1303241</a>
2,4-Dinitrotoluene	ND		5.01	10	06/29/2019 07:01	<a href="#">WG1303241</a>
2,6-Dinitrotoluene	ND		5.01	10	06/29/2019 07:01	<a href="#">WG1303241</a>



Semi Volatile Organic Compounds (GC/MS) by Method 8270D

Analyte	Result (dry) mg/kg	Qualifier	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Fluoranthene	ND		0.497	10	06/29/2019 07:01	WG1303241
Fluorene	ND		0.497	10	06/29/2019 07:01	WG1303241
Hexachlorobenzene	ND		5.01	10	06/29/2019 07:01	WG1303241
Hexachloro-1,3-butadiene	ND	J4	5.01	10	06/29/2019 07:01	WG1303241
Hexachlorocyclopentadiene	ND	JO	5.01	10	06/29/2019 07:01	WG1303241
Hexachloroethane	ND		5.01	10	06/29/2019 07:01	WG1303241
Indeno(1,2,3-cd)pyrene	ND		0.497	10	06/29/2019 07:01	WG1303241
Isophorone	ND	J4	5.01	10	06/29/2019 07:01	WG1303241
2-Methylnaphthalene	ND	J4	0.497	10	06/29/2019 07:01	WG1303241
Naphthalene	ND	J4	0.497	10	06/29/2019 07:01	WG1303241
2-Nitroaniline	ND		5.01	10	06/29/2019 07:01	WG1303241
3-Nitroaniline	ND		5.01	10	06/29/2019 07:01	WG1303241
4-Nitroaniline	ND		5.01	10	06/29/2019 07:01	WG1303241
Nitrobenzene	ND	J4	5.01	10	06/29/2019 07:01	WG1303241
n-Nitrosodiphenylamine	ND		5.01	10	06/29/2019 07:01	WG1303241
n-Nitrosodi-n-propylamine	ND		5.01	10	06/29/2019 07:01	WG1303241
Phenanthrene	ND		0.497	10	06/29/2019 07:01	WG1303241
Benzylbutyl phthalate	ND		5.01	10	06/29/2019 07:01	WG1303241
Bis(2-ethylhexyl)phthalate	ND		5.01	10	06/29/2019 07:01	WG1303241
Di-n-butyl phthalate	ND		5.01	10	06/29/2019 07:01	WG1303241
Diethyl phthalate	ND		5.01	10	06/29/2019 07:01	WG1303241
Dimethyl phthalate	ND		5.01	10	06/29/2019 07:01	WG1303241
Di-n-octyl phthalate	ND		5.01	10	06/29/2019 07:01	WG1303241
Pyrene	ND		0.497	10	06/29/2019 07:01	WG1303241
1,2,4,5-Tetrachlorobenzene	ND		5.01	10	06/29/2019 07:01	WG1303241
4-Chloro-3-methylphenol	ND		5.01	10	06/29/2019 07:01	WG1303241
2-Chlorophenol	ND		5.01	10	06/29/2019 07:01	WG1303241
2-Methylphenol	ND		5.01	10	06/29/2019 07:01	WG1303241
3&4-Methyl Phenol	ND		5.01	10	06/29/2019 07:01	WG1303241
2,4-Dichlorophenol	ND		5.01	10	06/29/2019 07:01	WG1303241
2,4-Dimethylphenol	ND	JO J4	5.01	10	06/29/2019 07:01	WG1303241
4,6-Dinitro-2-methylphenol	ND		5.01	10	06/29/2019 07:01	WG1303241
2,4-Dinitrophenol	ND		5.01	10	06/29/2019 07:01	WG1303241
2-Nitrophenol	ND		5.01	10	06/29/2019 07:01	WG1303241
4-Nitrophenol	ND		5.01	10	06/29/2019 07:01	WG1303241
Pentachlorophenol	ND		5.01	10	06/29/2019 07:01	WG1303241
Phenol	ND		5.01	10	06/29/2019 07:01	WG1303241
2,4,5-Trichlorophenol	ND		5.01	10	06/29/2019 07:01	WG1303241
2,4,6-Trichlorophenol	ND		5.01	10	06/29/2019 07:01	WG1303241
(S) 2-Fluorophenol	109		12.0-120		06/29/2019 07:01	WG1303241
(S) Phenol-d5	94.4		10.0-120		06/29/2019 07:01	WG1303241
(S) Nitrobenzene-d5	82.5		10.0-122		06/29/2019 07:01	WG1303241
(S) 2-Fluorobiphenyl	71.0		15.0-120		06/29/2019 07:01	WG1303241
(S) 2,4,6-Tribromophenol	80.4		10.0-127		06/29/2019 07:01	WG1303241
(S) p-Terphenyl-d14	78.2		10.0-120		06/29/2019 07:01	WG1303241

- 1 Cp
- 2 Tc
- 3 Ss
- 4 Cn
- 5 Sr
- 6 Qc
- 7 Gl
- 8 Al
- 9 Sc

Sample Narrative:

L111579-18 WG1303241: Dilution due to matrix impact during extract concentration procedure

Semi Volatile Organic Compounds (GC/MS) by Method 8270E-SIM

Analyte	Result (dry) mg/kg	Qualifier	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Anthracene	ND		0.00903	1	06/27/2019 20:36	WG1302016
Acenaphthene	ND		0.00903	1	06/27/2019 20:36	WG1302016
Acenaphthylene	ND		0.00903	1	06/27/2019 20:36	WG1302016
Benzo(a)anthracene	ND		0.00903	1	06/27/2019 20:36	WG1302016





Collected date/time: 06/20/19 09:45

L1111579

Semi Volatile Organic Compounds (GC/MS) by Method 8270E-SIM

Analyte	Result (dry) mg/kg	Qualifier	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Benzo(a)pyrene	ND		0.00903	1	06/27/2019 20:36	<a href="#">WG1302016</a>
Benzo(b)fluoranthene	ND		0.00903	1	06/27/2019 20:36	<a href="#">WG1302016</a>
Benzo(g,h,i)perylene	ND		0.00903	1	06/27/2019 20:36	<a href="#">WG1302016</a>
Benzo(k)fluoranthene	ND		0.00903	1	06/27/2019 20:36	<a href="#">WG1302016</a>
Chrysene	ND		0.00903	1	06/27/2019 20:36	<a href="#">WG1302016</a>
Dibenz(a,h)anthracene	ND		0.00903	1	06/27/2019 20:36	<a href="#">WG1302016</a>
Fluoranthene	ND		0.00903	1	06/27/2019 20:36	<a href="#">WG1302016</a>
Fluorene	ND		0.00903	1	06/27/2019 20:36	<a href="#">WG1302016</a>
Indeno(1,2,3-cd)pyrene	ND		0.00903	1	06/27/2019 20:36	<a href="#">WG1302016</a>
Naphthalene	ND		0.0301	1	06/27/2019 20:36	<a href="#">WG1302016</a>
Phenanthrene	ND		0.00903	1	06/27/2019 20:36	<a href="#">WG1302016</a>
Pyrene	ND		0.00903	1	06/27/2019 20:36	<a href="#">WG1302016</a>
1-Methylnaphthalene	ND		0.0301	1	06/27/2019 20:36	<a href="#">WG1302016</a>
2-Methylnaphthalene	ND		0.0301	1	06/27/2019 20:36	<a href="#">WG1302016</a>
<i>(S) p-Terphenyl-d14</i>	45.4		23.0-120		06/27/2019 20:36	<a href="#">WG1302016</a>
<i>(S) Nitrobenzene-d5</i>	72.0		14.0-149		06/27/2019 20:36	<a href="#">WG1302016</a>
<i>(S) 2-Fluorobiphenyl</i>	40.2		34.0-125		06/27/2019 20:36	<a href="#">WG1302016</a>

- 1 Cp
- 2 Tc
- 3 Ss
- 4 Cn
- 5 Sr
- 6 Qc
- 7 Gl
- 8 Al
- 9 Sc



Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	68.2		1	06/26/2019 11:17	<a href="#">WG1302168</a>

1 Cp

2 Tc

Wet Chemistry by Method 9012B

Analyte	Result (dry)	Qualifier	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg		date / time	
Cyanide	ND		0.367	1	07/05/2019 10:17	<a href="#">WG1305501</a>

3 Ss

4 Cn

Mercury by Method 7471B

Analyte	Result (dry)	Qualifier	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg		date / time	
Mercury	0.0625	<u>B</u>	0.0293	1	06/26/2019 13:15	<a href="#">WG1301944</a>

5 Sr

6 Qc

Metals (ICP) by Method 6010D

Analyte	Result (dry)	Qualifier	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg		date / time	
Aluminum	30500		14.7	1	06/27/2019 23:37	<a href="#">WG1301970</a>
Antimony	ND		2.93	1	06/27/2019 23:37	<a href="#">WG1301970</a>
Arsenic	ND		2.93	1	06/27/2019 23:37	<a href="#">WG1301970</a>
Barium	153		0.733	1	06/27/2019 23:37	<a href="#">WG1301970</a>
Beryllium	1.46		0.293	1	06/27/2019 23:37	<a href="#">WG1301970</a>
Cadmium	ND		0.733	1	06/27/2019 23:37	<a href="#">WG1301970</a>
Calcium	1240		147	1	06/27/2019 23:37	<a href="#">WG1301970</a>
Chromium	36.4		1.47	1	06/27/2019 23:37	<a href="#">WG1301970</a>
Cobalt	25.9		1.47	1	06/27/2019 23:37	<a href="#">WG1301970</a>
Copper	21.0		2.93	1	06/27/2019 23:37	<a href="#">WG1301970</a>
Iron	38600		14.7	1	06/27/2019 23:37	<a href="#">WG1301970</a>
Lead	21.8		0.733	1	06/27/2019 23:37	<a href="#">WG1301970</a>
Magnesium	2840		147	1	06/27/2019 23:37	<a href="#">WG1301970</a>
Manganese	855		1.47	1	06/27/2019 23:37	<a href="#">WG1301970</a>
Nickel	16.2		2.93	1	06/27/2019 23:37	<a href="#">WG1301970</a>
Potassium	2020		147	1	06/27/2019 23:37	<a href="#">WG1301970</a>
Selenium	3.23		2.93	1	06/27/2019 23:37	<a href="#">WG1301970</a>
Silver	ND		1.47	1	06/27/2019 23:37	<a href="#">WG1301970</a>
Sodium	353		147	1	06/27/2019 23:37	<a href="#">WG1301970</a>
Thallium	ND		2.93	1	06/27/2019 23:37	<a href="#">WG1301970</a>
Vanadium	81.5		2.93	1	06/27/2019 23:37	<a href="#">WG1301970</a>
Zinc	76.8		7.33	1	06/27/2019 23:37	<a href="#">WG1301970</a>

7 Gl

8 Al

9 Sc

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result (dry)	Qualifier	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg		date / time	
Acetone	0.181		0.0894	2.44	06/26/2019 15:56	<a href="#">WG1302136</a>
Benzene	ND		0.00358	2.44	06/26/2019 15:56	<a href="#">WG1302136</a>
Bromochloromethane	ND		0.0179	2.44	06/26/2019 15:56	<a href="#">WG1302136</a>
Bromodichloromethane	ND		0.00894	2.44	06/26/2019 15:56	<a href="#">WG1302136</a>
Bromoform	ND		0.0894	2.44	06/26/2019 15:56	<a href="#">WG1302136</a>
Bromomethane	ND		0.0447	2.44	06/26/2019 15:56	<a href="#">WG1302136</a>
Carbon disulfide	ND		0.0447	2.44	06/26/2019 15:56	<a href="#">WG1302136</a>
Carbon tetrachloride	ND		0.0179	2.44	06/26/2019 15:56	<a href="#">WG1302136</a>
Chlorobenzene	ND		0.00894	2.44	06/26/2019 15:56	<a href="#">WG1302136</a>
Chlorodibromomethane	ND		0.00894	2.44	06/26/2019 15:56	<a href="#">WG1302136</a>
Chloroethane	ND		0.0179	2.44	06/26/2019 15:56	<a href="#">WG1302136</a>
Chloroform	ND		0.00894	2.44	06/26/2019 15:56	<a href="#">WG1302136</a>
Chloromethane	ND		0.0447	2.44	06/26/2019 15:56	<a href="#">WG1302136</a>



Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result (dry) mg/kg	Qualifier	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Cyclohexane	ND		0.00894	2.44	06/26/2019 15:56	WG1302136
1,2-Dibromo-3-Chloropropane	ND		0.0894	2.44	06/26/2019 15:56	WG1302136
1,2-Dibromoethane	ND		0.00894	2.44	06/26/2019 15:56	WG1302136
Dichlorodifluoromethane	ND	J3	0.00894	2.44	06/26/2019 15:56	WG1302136
1,1-Dichloroethane	ND		0.00894	2.44	06/26/2019 15:56	WG1302136
1,2-Dichloroethane	ND		0.00894	2.44	06/26/2019 15:56	WG1302136
1,2-Dichlorobenzene	ND		0.0179	2.44	06/26/2019 15:56	WG1302136
1,3-Dichlorobenzene	ND		0.0179	2.44	06/26/2019 15:56	WG1302136
1,4-Dichlorobenzene	ND		0.0179	2.44	06/26/2019 15:56	WG1302136
1,1-Dichloroethene	ND		0.00894	2.44	06/26/2019 15:56	WG1302136
cis-1,2-Dichloroethene	ND		0.00894	2.44	06/26/2019 15:56	WG1302136
trans-1,2-Dichloroethene	ND		0.0179	2.44	06/26/2019 15:56	WG1302136
1,2-Dichloropropane	ND		0.0179	2.44	06/26/2019 15:56	WG1302136
cis-1,3-Dichloropropene	ND		0.00894	2.44	06/26/2019 15:56	WG1302136
trans-1,3-Dichloropropene	ND		0.0179	2.44	06/26/2019 15:56	WG1302136
Ethylbenzene	ND		0.00894	2.44	06/26/2019 15:56	WG1302136
2-Hexanone	ND		0.0894	2.44	06/26/2019 15:56	WG1302136
Isopropylbenzene	ND		0.00894	2.44	06/26/2019 15:56	WG1302136
2-Butanone (MEK)	0.131	B	0.0894	2.44	06/26/2019 15:56	WG1302136
Methyl Acetate	0.558		0.0179	2.44	06/26/2019 15:56	WG1302136
Methyl Cyclohexane	ND		0.0179	2.44	06/26/2019 15:56	WG1302136
Methylene Chloride	ND		0.0894	2.44	06/26/2019 15:56	WG1302136
4-Methyl-2-pentanone (MIBK)	ND		0.0894	2.44	06/26/2019 15:56	WG1302136
Methyl tert-butyl ether	ND		0.00358	2.44	06/26/2019 15:56	WG1302136
Styrene	ND		0.0447	2.44	06/26/2019 15:56	WG1302136
1,1,2,2-Tetrachloroethane	ND		0.00894	2.44	06/26/2019 15:56	WG1302136
Tetrachloroethene	ND		0.00894	2.44	06/26/2019 15:56	WG1302136
Toluene	ND		0.0179	2.44	06/26/2019 15:56	WG1302136
1,2,3-Trichlorobenzene	ND		0.00894	2.44	06/26/2019 15:56	WG1302136
1,2,4-Trichlorobenzene	ND		0.0447	2.44	06/26/2019 15:56	WG1302136
1,1,1-Trichloroethane	ND		0.00894	2.44	06/26/2019 15:56	WG1302136
1,1,2-Trichloroethane	ND		0.00894	2.44	06/26/2019 15:56	WG1302136
Trichloroethene	ND		0.00358	2.44	06/26/2019 15:56	WG1302136
Trichlorofluoromethane	ND		0.00894	2.44	06/26/2019 15:56	WG1302136
1,1,2-Trichlorotrifluoroethane	ND		0.00894	2.44	06/26/2019 15:56	WG1302136
Vinyl chloride	ND		0.00894	2.44	06/26/2019 15:56	WG1302136
Xylenes, Total	ND		0.0233	2.44	06/26/2019 15:56	WG1302136
(S) Toluene-d8	104		75.0-131		06/26/2019 15:56	WG1302136
(S) 4-Bromofluorobenzene	92.8		67.0-138		06/26/2019 15:56	WG1302136
(S) 1,2-Dichloroethane-d4	104		70.0-130		06/26/2019 15:56	WG1302136

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

Sample Narrative:

L1111579-19 WG1302136: Lowest possible dilution due to limited sample volume.

Pesticides (GC) by Method 8081B

Analyte	Result (dry) mg/kg	Qualifier	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Aldrin	ND		0.0293	1	06/26/2019 22:09	WG1302000
Alpha BHC	ND		0.0293	1	06/26/2019 22:09	WG1302000
Beta BHC	ND		0.0293	1	06/26/2019 22:09	WG1302000
Delta BHC	ND		0.0293	1	06/26/2019 22:09	WG1302000
Gamma BHC	ND		0.0293	1	06/26/2019 22:09	WG1302000
Chlordane	ND		0.293	1	06/26/2019 22:09	WG1302000
4,4-DDD	ND		0.0293	1	06/26/2019 22:09	WG1302000
4,4-DDE	ND		0.0293	1	06/26/2019 22:09	WG1302000
4,4-DDT	ND		0.0293	1	06/26/2019 22:09	WG1302000



Pesticides (GC) by Method 8081B

Analyte	Result (dry) mg/kg	Qualifier	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Dieldrin	ND		0.0293	1	06/26/2019 22:09	<a href="#">WG1302000</a>
Endosulfan I	ND		0.0293	1	06/26/2019 22:09	<a href="#">WG1302000</a>
Endosulfan II	ND		0.0293	1	06/26/2019 22:09	<a href="#">WG1302000</a>
Endosulfan sulfate	ND		0.0293	1	06/26/2019 22:09	<a href="#">WG1302000</a>
Endrin	ND		0.0293	1	06/26/2019 22:09	<a href="#">WG1302000</a>
Endrin aldehyde	ND		0.0293	1	06/26/2019 22:09	<a href="#">WG1302000</a>
Endrin ketone	ND		0.0293	1	06/26/2019 22:09	<a href="#">WG1302000</a>
Heptachlor	ND		0.0293	1	06/26/2019 22:09	<a href="#">WG1302000</a>
Heptachlor epoxide	ND		0.0293	1	06/26/2019 22:09	<a href="#">WG1302000</a>
Hexachlorobenzene	ND		0.0293	1	06/26/2019 22:09	<a href="#">WG1302000</a>
Methoxychlor	ND		0.0293	1	06/26/2019 22:09	<a href="#">WG1302000</a>
Toxaphene	ND		0.586	1	06/26/2019 22:09	<a href="#">WG1302000</a>
(S) Decachlorobiphenyl	83.9		10.0-135		06/26/2019 22:09	<a href="#">WG1302000</a>
(S) Tetrachloro-m-xylene	88.2		10.0-139		06/26/2019 22:09	<a href="#">WG1302000</a>

- 1 Cp
- 2 Tc
- 3 Ss
- 4 Cn
- 5 Sr
- 6 Qc
- 7 Gl
- 8 Al
- 9 Sc

Polychlorinated Biphenyls (GC) by Method 8082 A

Analyte	Result (dry) mg/kg	Qualifier	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
PCB 1016	ND	J4	0.0249	1	06/26/2019 22:20	<a href="#">WG1302000</a>
PCB 1221	ND		0.0249	1	06/26/2019 22:20	<a href="#">WG1302000</a>
PCB 1232	ND		0.0249	1	06/26/2019 22:20	<a href="#">WG1302000</a>
PCB 1242	ND		0.0249	1	06/26/2019 22:20	<a href="#">WG1302000</a>
PCB 1248	ND		0.0249	1	06/26/2019 22:20	<a href="#">WG1302000</a>
PCB 1254	ND		0.0249	1	06/26/2019 22:20	<a href="#">WG1302000</a>
PCB 1260	ND	J4	0.0249	1	06/26/2019 22:20	<a href="#">WG1302000</a>
(S) Decachlorobiphenyl	79.7		10.0-135		06/26/2019 22:20	<a href="#">WG1302000</a>
(S) Tetrachloro-m-xylene	87.6		10.0-139		06/26/2019 22:20	<a href="#">WG1302000</a>

Semi Volatile Organic Compounds (GC/MS) by Method 8270D

Analyte	Result (dry) mg/kg	Qualifier	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Acenaphthene	ND		0.242	5	06/29/2019 03:10	<a href="#">WG1303241</a>
Acenaphthylene	ND		0.242	5	06/29/2019 03:10	<a href="#">WG1303241</a>
Acetophenone	ND		2.45	5	06/29/2019 03:10	<a href="#">WG1303241</a>
Anthracene	ND		0.242	5	06/29/2019 03:10	<a href="#">WG1303241</a>
Atrazine	ND		2.45	5	06/29/2019 03:10	<a href="#">WG1303241</a>
Benzaldehyde	ND		2.45	5	06/29/2019 03:10	<a href="#">WG1303241</a>
Benzo(a)anthracene	ND		0.242	5	06/29/2019 03:10	<a href="#">WG1303241</a>
Benzo(b)fluoranthene	ND		0.242	5	06/29/2019 03:10	<a href="#">WG1303241</a>
Benzo(k)fluoranthene	ND		0.242	5	06/29/2019 03:10	<a href="#">WG1303241</a>
Benzo(g,h,i)perylene	ND		0.242	5	06/29/2019 03:10	<a href="#">WG1303241</a>
Benzo(a)pyrene	ND		0.242	5	06/29/2019 03:10	<a href="#">WG1303241</a>
Biphenyl	ND		2.45	5	06/29/2019 03:10	<a href="#">WG1303241</a>
Bis(2-chloroethoxy)methane	ND	J4	2.45	5	06/29/2019 03:10	<a href="#">WG1303241</a>
Bis(2-chloroethyl)ether	ND		2.45	5	06/29/2019 03:10	<a href="#">WG1303241</a>
Bis(2-chloroisopropyl)ether	ND	J4	2.45	5	06/29/2019 03:10	<a href="#">WG1303241</a>
4-Bromophenyl-phenylether	ND		2.45	5	06/29/2019 03:10	<a href="#">WG1303241</a>
Caprolactam	ND		2.45	5	06/29/2019 03:10	<a href="#">WG1303241</a>
Carbazole	ND		2.45	5	06/29/2019 03:10	<a href="#">WG1303241</a>
4-Chloroaniline	ND	J4	2.45	5	06/29/2019 03:10	<a href="#">WG1303241</a>
2-Chloronaphthalene	ND		0.242	5	06/29/2019 03:10	<a href="#">WG1303241</a>
4-Chlorophenyl-phenylether	ND		2.45	5	06/29/2019 03:10	<a href="#">WG1303241</a>
Chrysene	ND		0.242	5	06/29/2019 03:10	<a href="#">WG1303241</a>
Dibenz(a,h)anthracene	ND		0.242	5	06/29/2019 03:10	<a href="#">WG1303241</a>
Dibenzofuran	ND		2.45	5	06/29/2019 03:10	<a href="#">WG1303241</a>



Collected date/time: 06/20/19 10:10

L111579

Semi Volatile Organic Compounds (GC/MS) by Method 8270D

Analyte	Result (dry) mg/kg	Qualifier	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
3,3-Dichlorobenzidine	ND		2.45	5	06/29/2019 03:10	WG1303241
2,4-Dinitrotoluene	ND		2.45	5	06/29/2019 03:10	WG1303241
2,6-Dinitrotoluene	ND		2.45	5	06/29/2019 03:10	WG1303241
Fluoranthene	ND		0.242	5	06/29/2019 03:10	WG1303241
Fluorene	ND		0.242	5	06/29/2019 03:10	WG1303241
Hexachlorobenzene	ND		2.45	5	06/29/2019 03:10	WG1303241
Hexachloro-1,3-butadiene	ND	J4	2.45	5	06/29/2019 03:10	WG1303241
Hexachlorocyclopentadiene	ND	JO	2.45	5	06/29/2019 03:10	WG1303241
Hexachloroethane	ND		2.45	5	06/29/2019 03:10	WG1303241
Indeno(1,2,3-cd)pyrene	ND		0.242	5	06/29/2019 03:10	WG1303241
Isophorone	ND	J4	2.45	5	06/29/2019 03:10	WG1303241
2-Methylnaphthalene	ND	J4	0.242	5	06/29/2019 03:10	WG1303241
Naphthalene	ND	J4	0.242	5	06/29/2019 03:10	WG1303241
2-Nitroaniline	ND		2.45	5	06/29/2019 03:10	WG1303241
3-Nitroaniline	ND		2.45	5	06/29/2019 03:10	WG1303241
4-Nitroaniline	ND		2.45	5	06/29/2019 03:10	WG1303241
Nitrobenzene	ND	J4	2.45	5	06/29/2019 03:10	WG1303241
n-Nitrosodiphenylamine	ND		2.45	5	06/29/2019 03:10	WG1303241
n-Nitrosodi-n-propylamine	ND		2.45	5	06/29/2019 03:10	WG1303241
Phenanthrene	ND		0.242	5	06/29/2019 03:10	WG1303241
Benzylbutyl phthalate	ND		2.45	5	06/29/2019 03:10	WG1303241
Bis(2-ethylhexyl)phthalate	ND		2.45	5	06/29/2019 03:10	WG1303241
Di-n-butyl phthalate	ND		2.45	5	06/29/2019 03:10	WG1303241
Diethyl phthalate	ND		2.45	5	06/29/2019 03:10	WG1303241
Dimethyl phthalate	ND		2.45	5	06/29/2019 03:10	WG1303241
Di-n-octyl phthalate	ND		2.45	5	06/29/2019 03:10	WG1303241
Pyrene	ND		0.242	5	06/29/2019 03:10	WG1303241
1,2,4,5-Tetrachlorobenzene	ND		2.45	5	06/29/2019 03:10	WG1303241
4-Chloro-3-methylphenol	ND		2.45	5	06/29/2019 03:10	WG1303241
2-Chlorophenol	ND		2.45	5	06/29/2019 03:10	WG1303241
2-Methylphenol	ND		2.45	5	06/29/2019 03:10	WG1303241
3&4-Methyl Phenol	ND		2.45	5	06/29/2019 03:10	WG1303241
2,4-Dichlorophenol	ND		2.45	5	06/29/2019 03:10	WG1303241
2,4-Dimethylphenol	ND	JO J4	2.45	5	06/29/2019 03:10	WG1303241
4,6-Dinitro-2-methylphenol	ND		2.45	5	06/29/2019 03:10	WG1303241
2,4-Dinitrophenol	ND		2.45	5	06/29/2019 03:10	WG1303241
2-Nitrophenol	ND		2.45	5	06/29/2019 03:10	WG1303241
4-Nitrophenol	ND		2.45	5	06/29/2019 03:10	WG1303241
Pentachlorophenol	ND		2.45	5	06/29/2019 03:10	WG1303241
Phenol	ND		2.45	5	06/29/2019 03:10	WG1303241
2,4,5-Trichlorophenol	ND		2.45	5	06/29/2019 03:10	WG1303241
2,4,6-Trichlorophenol	ND		2.45	5	06/29/2019 03:10	WG1303241
(S) 2-Fluorophenol	90.2		12.0-120		06/29/2019 03:10	WG1303241
(S) Phenol-d5	84.4		10.0-120		06/29/2019 03:10	WG1303241
(S) Nitrobenzene-d5	76.8		10.0-122		06/29/2019 03:10	WG1303241
(S) 2-Fluorobiphenyl	76.5		15.0-120		06/29/2019 03:10	WG1303241
(S) 2,4,6-Tribromophenol	77.1		10.0-127		06/29/2019 03:10	WG1303241
(S) p-Terphenyl-d14	91.4		10.0-120		06/29/2019 03:10	WG1303241

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

Sample Narrative:

L111579-19 WG1303241: Dilution due to matrix.



Semi Volatile Organic Compounds (GC/MS) by Method 8270E-SIM

Analyte	Result (dry) mg/kg	Qualifier	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Anthracene	ND		0.00880	1	06/27/2019 14:34	<a href="#">WG1302017</a>
Acenaphthene	ND		0.00880	1	06/27/2019 14:34	<a href="#">WG1302017</a>
Acenaphthylene	ND		0.00880	1	06/27/2019 14:34	<a href="#">WG1302017</a>
Benzo(a)anthracene	ND		0.00880	1	06/27/2019 14:34	<a href="#">WG1302017</a>
Benzo(a)pyrene	ND		0.00880	1	06/27/2019 14:34	<a href="#">WG1302017</a>
Benzo(b)fluoranthene	ND		0.00880	1	06/27/2019 14:34	<a href="#">WG1302017</a>
Benzo(g,h,i)perylene	ND		0.00880	1	06/27/2019 14:34	<a href="#">WG1302017</a>
Benzo(k)fluoranthene	ND		0.00880	1	06/27/2019 14:34	<a href="#">WG1302017</a>
Chrysene	ND		0.00880	1	06/27/2019 14:34	<a href="#">WG1302017</a>
Dibenz(a,h)anthracene	ND		0.00880	1	06/27/2019 14:34	<a href="#">WG1302017</a>
Fluoranthene	ND		0.00880	1	06/27/2019 14:34	<a href="#">WG1302017</a>
Fluorene	ND		0.00880	1	06/27/2019 14:34	<a href="#">WG1302017</a>
Indeno(1,2,3-cd)pyrene	ND		0.00880	1	06/27/2019 14:34	<a href="#">WG1302017</a>
Naphthalene	ND		0.0293	1	06/27/2019 14:34	<a href="#">WG1302017</a>
Phenanthrene	ND		0.00880	1	06/27/2019 14:34	<a href="#">WG1302017</a>
Pyrene	ND		0.00880	1	06/27/2019 14:34	<a href="#">WG1302017</a>
1-Methylnaphthalene	ND		0.0293	1	06/27/2019 14:34	<a href="#">WG1302017</a>
2-Methylnaphthalene	ND		0.0293	1	06/27/2019 14:34	<a href="#">WG1302017</a>
(S) p-Terphenyl-d14	54.8		23.0-120		06/27/2019 14:34	<a href="#">WG1302017</a>
(S) Nitrobenzene-d5	80.0		14.0-149		06/27/2019 14:34	<a href="#">WG1302017</a>
(S) 2-Fluorobiphenyl	52.4		34.0-125		06/27/2019 14:34	<a href="#">WG1302017</a>

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc





Wet Chemistry by Method 4500CN E-2011

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	ug/l		ug/l		date / time	
Cyanide	ND		5.00	1	07/03/2019 14:15	<a href="#">WG1305505</a>

Mercury by Method 7470A

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	ug/l		ug/l		date / time	
Mercury	ND		0.200	1	06/27/2019 13:20	<a href="#">WG1300834</a>

Metals (ICP) by Method 6010D

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	ug/l		ug/l		date / time	
Aluminum	ND		200	1	06/24/2019 17:49	<a href="#">WG1300319</a>
Antimony	ND		10.0	1	06/24/2019 17:49	<a href="#">WG1300319</a>
Arsenic	ND		10.0	1	06/24/2019 17:49	<a href="#">WG1300319</a>
Barium	ND		5.00	1	06/24/2019 17:49	<a href="#">WG1300319</a>
Beryllium	ND		2.00	1	06/24/2019 17:49	<a href="#">WG1300319</a>
Cadmium	ND		2.00	1	06/24/2019 17:49	<a href="#">WG1300319</a>
Calcium	ND		1000	1	06/24/2019 17:49	<a href="#">WG1300319</a>
Chromium	ND		10.0	1	06/24/2019 17:49	<a href="#">WG1300319</a>
Cobalt	ND		10.0	1	06/24/2019 17:49	<a href="#">WG1300319</a>
Copper	ND		10.0	1	06/24/2019 17:49	<a href="#">WG1300319</a>
Iron	ND		100	1	06/24/2019 17:49	<a href="#">WG1300319</a>
Lead	ND		5.00	1	06/24/2019 17:49	<a href="#">WG1300319</a>
Magnesium	ND		1000	1	06/24/2019 17:49	<a href="#">WG1300319</a>
Manganese	ND		10.0	1	06/24/2019 17:49	<a href="#">WG1300319</a>
Nickel	ND		10.0	1	06/24/2019 17:49	<a href="#">WG1300319</a>
Potassium	ND		1000	1	06/24/2019 17:49	<a href="#">WG1300319</a>
Selenium	ND		10.0	1	06/24/2019 17:49	<a href="#">WG1300319</a>
Silver	ND		5.00	1	06/24/2019 17:49	<a href="#">WG1300319</a>
Sodium	ND		1000	1	06/24/2019 17:49	<a href="#">WG1300319</a>
Thallium	ND		10.0	1	06/24/2019 17:49	<a href="#">WG1300319</a>
Vanadium	ND		20.0	1	06/24/2019 17:49	<a href="#">WG1300319</a>
Zinc	ND		50.0	1	06/24/2019 17:49	<a href="#">WG1300319</a>

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	ug/l		ug/l		date / time	
Acetone	ND		50.0	1	06/26/2019 16:28	<a href="#">WG1302380</a>
Benzene	ND		1.00	1	06/26/2019 16:28	<a href="#">WG1302380</a>
Bromochloromethane	ND		1.00	1	06/26/2019 16:28	<a href="#">WG1302380</a>
Bromodichloromethane	ND		1.00	1	06/26/2019 16:28	<a href="#">WG1302380</a>
Bromoform	ND		1.00	1	06/26/2019 16:28	<a href="#">WG1302380</a>
Bromomethane	ND		5.00	1	06/26/2019 16:28	<a href="#">WG1302380</a>
Carbon disulfide	ND		1.00	1	06/26/2019 16:28	<a href="#">WG1302380</a>
Carbon tetrachloride	ND		1.00	1	06/26/2019 16:28	<a href="#">WG1302380</a>
Chlorobenzene	ND		1.00	1	06/26/2019 16:28	<a href="#">WG1302380</a>
Chlorodibromomethane	ND		1.00	1	06/26/2019 16:28	<a href="#">WG1302380</a>
Chloroethane	ND		5.00	1	06/26/2019 16:28	<a href="#">WG1302380</a>
Chloroform	ND		5.00	1	06/26/2019 16:28	<a href="#">WG1302380</a>
Chloromethane	ND		2.50	1	06/26/2019 16:28	<a href="#">WG1302380</a>
Cyclohexane	ND		1.00	1	06/26/2019 16:28	<a href="#">WG1302380</a>
1,2-Dibromo-3-Chloropropane	ND		5.00	1	06/26/2019 16:28	<a href="#">WG1302380</a>
1,2-Dibromoethane	ND		1.00	1	06/26/2019 16:28	<a href="#">WG1302380</a>
1,2-Dichlorobenzene	ND		1.00	1	06/26/2019 16:28	<a href="#">WG1302380</a>
1,3-Dichlorobenzene	ND		1.00	1	06/26/2019 16:28	<a href="#">WG1302380</a>

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc



Collected date/time: 06/19/19 13:50

L1111579

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result ug/l	Qualifier	RDL ug/l	Dilution	Analysis date / time	Batch
1,4-Dichlorobenzene	ND		1.00	1	06/26/2019 16:28	<a href="#">WG1302380</a>
Dichlorodifluoromethane	ND		5.00	1	06/26/2019 16:28	<a href="#">WG1302380</a>
1,1-Dichloroethane	ND		1.00	1	06/26/2019 16:28	<a href="#">WG1302380</a>
1,2-Dichloroethane	ND		1.00	1	06/26/2019 16:28	<a href="#">WG1302380</a>
1,1-Dichloroethene	ND		1.00	1	06/26/2019 16:28	<a href="#">WG1302380</a>
cis-1,2-Dichloroethene	ND		1.00	1	06/26/2019 16:28	<a href="#">WG1302380</a>
trans-1,2-Dichloroethene	ND		1.00	1	06/26/2019 16:28	<a href="#">WG1302380</a>
1,2-Dichloropropane	ND		1.00	1	06/26/2019 16:28	<a href="#">WG1302380</a>
cis-1,3-Dichloropropene	ND		1.00	1	06/26/2019 16:28	<a href="#">WG1302380</a>
trans-1,3-Dichloropropene	ND		1.00	1	06/26/2019 16:28	<a href="#">WG1302380</a>
Ethylbenzene	ND		1.00	1	06/26/2019 16:28	<a href="#">WG1302380</a>
2-Hexanone	ND		10.0	1	06/26/2019 16:28	<a href="#">WG1302380</a>
Isopropylbenzene	ND		1.00	1	06/26/2019 16:28	<a href="#">WG1302380</a>
2-Butanone (MEK)	ND		10.0	1	06/26/2019 16:28	<a href="#">WG1302380</a>
Methyl Acetate	ND		20.0	1	06/26/2019 16:28	<a href="#">WG1302380</a>
Methyl Cyclohexane	ND		1.00	1	06/26/2019 16:28	<a href="#">WG1302380</a>
Methylene Chloride	ND		5.00	1	06/26/2019 16:28	<a href="#">WG1302380</a>
4-Methyl-2-pentanone (MIBK)	ND		10.0	1	06/26/2019 16:28	<a href="#">WG1302380</a>
Methyl tert-butyl ether	ND		1.00	1	06/26/2019 16:28	<a href="#">WG1302380</a>
Styrene	ND		1.00	1	06/26/2019 16:28	<a href="#">WG1302380</a>
1,1,2,2-Tetrachloroethane	ND		1.00	1	06/26/2019 16:28	<a href="#">WG1302380</a>
Tetrachloroethene	ND		1.00	1	06/26/2019 16:28	<a href="#">WG1302380</a>
Toluene	ND		1.00	1	06/26/2019 16:28	<a href="#">WG1302380</a>
1,2,3-Trichlorobenzene	ND		1.00	1	06/26/2019 16:28	<a href="#">WG1302380</a>
1,2,4-Trichlorobenzene	ND		1.00	1	06/26/2019 16:28	<a href="#">WG1302380</a>
1,1,1-Trichloroethane	ND		1.00	1	06/26/2019 16:28	<a href="#">WG1302380</a>
1,1,2-Trichloroethane	ND		1.00	1	06/26/2019 16:28	<a href="#">WG1302380</a>
Trichloroethene	ND		1.00	1	06/26/2019 16:28	<a href="#">WG1302380</a>
Trichlorofluoromethane	ND		5.00	1	06/26/2019 16:28	<a href="#">WG1302380</a>
1,1,2-Trichlorotrifluoroethane	ND		1.00	1	06/26/2019 16:28	<a href="#">WG1302380</a>
Vinyl chloride	ND		1.00	1	06/26/2019 16:28	<a href="#">WG1302380</a>
Xylenes, Total	ND		3.00	1	06/26/2019 16:28	<a href="#">WG1302380</a>
(S) Toluene-d8	103		80.0-120		06/26/2019 16:28	<a href="#">WG1302380</a>
(S) 4-Bromofluorobenzene	101		77.0-126		06/26/2019 16:28	<a href="#">WG1302380</a>
(S) 1,2-Dichloroethane-d4	99.7		70.0-130		06/26/2019 16:28	<a href="#">WG1302380</a>

- 1 Cp
- 2 Tc
- 3 Ss
- 4 Cn
- 5 Sr
- 6 Qc
- 7 Gl
- 8 Al
- 9 Sc

Pesticides (GC) by Method 8081B

Analyte	Result ug/l	Qualifier	RDL ug/l	Dilution	Analysis date / time	Batch
Aldrin	ND		0.0500	1	06/27/2019 09:41	<a href="#">WG1300784</a>
Alpha BHC	ND		0.0500	1	06/27/2019 09:41	<a href="#">WG1300784</a>
Beta BHC	ND		0.0500	1	06/27/2019 09:41	<a href="#">WG1300784</a>
Delta BHC	ND		0.0500	1	06/27/2019 09:41	<a href="#">WG1300784</a>
Gamma BHC	ND		0.0500	1	06/27/2019 09:41	<a href="#">WG1300784</a>
Chlordane	ND		5.00	1	06/27/2019 09:41	<a href="#">WG1300784</a>
4,4-DDD	ND		0.0500	1	06/27/2019 09:41	<a href="#">WG1300784</a>
4,4-DDE	ND		0.0500	1	06/27/2019 09:41	<a href="#">WG1300784</a>
4,4-DDT	ND	J4	0.0500	1	06/27/2019 09:41	<a href="#">WG1300784</a>
Dieldrin	ND		0.0500	1	06/27/2019 09:41	<a href="#">WG1300784</a>
Endosulfan I	ND		0.0500	1	06/27/2019 09:41	<a href="#">WG1300784</a>
Endosulfan II	ND		0.0500	1	06/27/2019 09:41	<a href="#">WG1300784</a>
Endosulfan sulfate	ND		0.0500	1	06/27/2019 09:41	<a href="#">WG1300784</a>
Endrin	ND		0.0500	1	06/27/2019 09:41	<a href="#">WG1300784</a>
Endrin aldehyde	ND		0.0500	1	06/27/2019 09:41	<a href="#">WG1300784</a>
Endrin ketone	ND	J4	0.0500	1	06/27/2019 09:41	<a href="#">WG1300784</a>
Heptachlor	ND		0.0500	1	06/27/2019 09:41	<a href="#">WG1300784</a>



Collected date/time: 06/19/19 13:50

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Pesticides (GC) by Method 8081B

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	ug/l		ug/l		date / time	
Heptachlor epoxide	ND		0.0500	1	06/27/2019 09:41	<a href="#">WG1300784</a>
Hexachlorobenzene	ND		0.0500	1	06/27/2019 09:41	<a href="#">WG1300784</a>
Methoxychlor	ND	J4	0.0500	1	06/27/2019 09:41	<a href="#">WG1300784</a>
Toxaphene	ND		0.500	1	06/27/2019 09:41	<a href="#">WG1300784</a>
(S) Decachlorobiphenyl	56.1		10.0-128		06/27/2019 09:41	<a href="#">WG1300784</a>
(S) Tetrachloro-m-xylene	85.6		10.0-127		06/27/2019 09:41	<a href="#">WG1300784</a>

- 1 Cp
- 2 Tc
- 3 Ss
- 4 Cn
- 5 Sr
- 6 Qc
- 7 Gl
- 8 Al
- 9 Sc

Polychlorinated Biphenyls (GC) by Method 8082 A

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	ug/l		ug/l		date / time	
PCB 1016	ND		0.500	1	06/27/2019 23:43	<a href="#">WG1300784</a>
PCB 1221	ND		0.500	1	06/27/2019 23:43	<a href="#">WG1300784</a>
PCB 1232	ND		0.500	1	06/27/2019 23:43	<a href="#">WG1300784</a>
PCB 1242	ND		0.500	1	06/27/2019 23:43	<a href="#">WG1300784</a>
PCB 1248	ND		0.500	1	06/27/2019 23:43	<a href="#">WG1300784</a>
PCB 1254	ND		0.500	1	06/27/2019 23:43	<a href="#">WG1300784</a>
PCB 1260	ND		0.500	1	06/27/2019 23:43	<a href="#">WG1300784</a>
(S) Decachlorobiphenyl	73.4		10.0-128		06/27/2019 23:43	<a href="#">WG1300784</a>
(S) Tetrachloro-m-xylene	98.9		10.0-127		06/27/2019 23:43	<a href="#">WG1300784</a>

Semi Volatile Organic Compounds (GC/MS) by Method 8270D

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	ug/l		ug/l		date / time	
Acenaphthene	ND	J4	1.00	1	06/28/2019 16:15	<a href="#">WG1301750</a>
Acenaphthylene	ND	J4	1.00	1	06/28/2019 16:15	<a href="#">WG1301750</a>
Acetophenone	ND	J4	10.0	1	06/28/2019 16:15	<a href="#">WG1301750</a>
Anthracene	ND	J4	1.00	1	06/28/2019 16:15	<a href="#">WG1301750</a>
Atrazine	ND	J4	10.0	1	06/28/2019 16:15	<a href="#">WG1301750</a>
Benzaldehyde	ND	J4	10.0	1	06/28/2019 16:15	<a href="#">WG1301750</a>
Benzo(a)anthracene	ND	J4	1.00	1	06/28/2019 16:15	<a href="#">WG1301750</a>
Benzo(b)fluoranthene	ND	J4	1.00	1	06/28/2019 16:15	<a href="#">WG1301750</a>
Benzo(k)fluoranthene	ND	J4	1.00	1	06/28/2019 16:15	<a href="#">WG1301750</a>
Benzo(g,h,i)perylene	ND	J4	1.00	1	06/28/2019 16:15	<a href="#">WG1301750</a>
Benzo(a)pyrene	ND	J4	1.00	1	06/28/2019 16:15	<a href="#">WG1301750</a>
Biphenyl	ND	J4	10.0	1	06/28/2019 16:15	<a href="#">WG1301750</a>
Bis(2-chlorethoxy)methane	ND	J4	10.0	1	06/28/2019 16:15	<a href="#">WG1301750</a>
Bis(2-chloroethyl)ether	ND	J4	10.0	1	06/28/2019 16:15	<a href="#">WG1301750</a>
Bis(2-chloroisopropyl)ether	ND	J4	10.0	1	06/28/2019 16:15	<a href="#">WG1301750</a>
4-Bromophenyl-phenylether	ND	J4	10.0	1	06/28/2019 16:15	<a href="#">WG1301750</a>
Caprolactam	ND	J3 J4	10.0	1	06/28/2019 16:15	<a href="#">WG1301750</a>
Carbazole	ND	J4	10.0	1	06/28/2019 16:15	<a href="#">WG1301750</a>
4-Chloroaniline	ND	J4	10.0	1	06/28/2019 16:15	<a href="#">WG1301750</a>
2-Chloronaphthalene	ND	J4	1.00	1	06/28/2019 16:15	<a href="#">WG1301750</a>
4-Chlorophenyl-phenylether	ND	J4	10.0	1	06/28/2019 16:15	<a href="#">WG1301750</a>
Chrysene	ND	J4	1.00	1	06/28/2019 16:15	<a href="#">WG1301750</a>
Dibenz(a,h)anthracene	ND	J4	1.00	1	06/28/2019 16:15	<a href="#">WG1301750</a>
Dibenzofuran	ND	J4	10.0	1	06/28/2019 16:15	<a href="#">WG1301750</a>
3,3-Dichlorobenzidine	ND	J4	10.0	1	06/28/2019 16:15	<a href="#">WG1301750</a>
2,4-Dinitrotoluene	ND	J4	10.0	1	06/28/2019 16:15	<a href="#">WG1301750</a>
2,6-Dinitrotoluene	ND	J4	10.0	1	06/28/2019 16:15	<a href="#">WG1301750</a>
Fluoranthene	ND	J4	1.00	1	06/28/2019 16:15	<a href="#">WG1301750</a>
Fluorene	ND	J4	1.00	1	06/28/2019 16:15	<a href="#">WG1301750</a>
Hexachlorobenzene	ND	J4	1.00	1	06/28/2019 16:15	<a href="#">WG1301750</a>
Hexachloro-1,3-butadiene	ND	J4	10.0	1	06/28/2019 16:15	<a href="#">WG1301750</a>
Hexachlorocyclopentadiene	ND	J4	10.0	1	06/28/2019 16:15	<a href="#">WG1301750</a>



Collected date/time: 06/19/19 13:50

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Semi Volatile Organic Compounds (GC/MS) by Method 8270D

Analyte	Result ug/l	Qualifier	RDL ug/l	Dilution	Analysis date / time	Batch
Hexachloroethane	ND	J4	10.0	1	06/28/2019 16:15	WG1301750
Indeno(1,2,3-cd)pyrene	ND	J4	1.00	1	06/28/2019 16:15	WG1301750
Isophorone	ND	J4	10.0	1	06/28/2019 16:15	WG1301750
2-Methylnaphthalene	ND	J4	1.00	1	06/28/2019 16:15	WG1301750
Naphthalene	ND	J4	1.00	1	06/28/2019 16:15	WG1301750
2-Nitroaniline	ND	J4	10.0	1	06/28/2019 16:15	WG1301750
3-Nitroaniline	ND	J4	10.0	1	06/28/2019 16:15	WG1301750
4-Nitroaniline	ND	J4	10.0	1	06/28/2019 16:15	WG1301750
Nitrobenzene	ND	J4	10.0	1	06/28/2019 16:15	WG1301750
n-Nitrosodiphenylamine	ND	J4	10.0	1	06/28/2019 16:15	WG1301750
n-Nitrosodi-n-propylamine	ND	J4	10.0	1	06/28/2019 16:15	WG1301750
Phenanthrene	ND	J4	1.00	1	06/28/2019 16:15	WG1301750
Benzylbutyl phthalate	ND	J4	3.00	1	06/28/2019 16:15	WG1301750
Bis(2-ethylhexyl)phthalate	ND	J4	3.00	1	06/28/2019 16:15	WG1301750
Di-n-butyl phthalate	ND	J4	3.00	1	06/28/2019 16:15	WG1301750
Diethyl phthalate	ND	J4	3.00	1	06/28/2019 16:15	WG1301750
Dimethyl phthalate	ND	J4	3.00	1	06/28/2019 16:15	WG1301750
Di-n-octyl phthalate	ND	J4	3.00	1	06/28/2019 16:15	WG1301750
Pyrene	ND	J4	1.00	1	06/28/2019 16:15	WG1301750
1,2,4,5-Tetrachlorobenzene	ND	J4	10.0	1	06/28/2019 16:15	WG1301750
4-Chloro-3-methylphenol	ND	J4	10.0	1	06/28/2019 16:15	WG1301750
2-Chlorophenol	ND	J4	10.0	1	06/28/2019 16:15	WG1301750
2-Methylphenol	ND	J4	10.0	1	06/28/2019 16:15	WG1301750
3&4-Methyl Phenol	ND	J4	10.0	1	06/28/2019 16:15	WG1301750
2,4-Dichlorophenol	ND	J4	10.0	1	06/28/2019 16:15	WG1301750
2,4-Dimethylphenol	ND	J0 J4	10.0	1	06/28/2019 16:15	WG1301750
4,6-Dinitro-2-methylphenol	ND	J4	10.0	1	06/28/2019 16:15	WG1301750
2,4-Dinitrophenol	ND	J4	10.0	1	06/28/2019 16:15	WG1301750
2-Nitrophenol	ND	J4	10.0	1	06/28/2019 16:15	WG1301750
4-Nitrophenol	ND	J4	10.0	1	06/28/2019 16:15	WG1301750
Pentachlorophenol	ND	J4	10.0	1	06/28/2019 16:15	WG1301750
Phenol	ND	J3 J4	10.0	1	06/28/2019 16:15	WG1301750
2,4,5-Trichlorophenol	ND	J4	10.0	1	06/28/2019 16:15	WG1301750
2,4,6-Trichlorophenol	ND	J4	10.0	1	06/28/2019 16:15	WG1301750
(S) Nitrobenzene-d5	16.3		10.0-127		06/28/2019 16:15	WG1301750
(S) 2-Fluorobiphenyl	20.4		10.0-130		06/28/2019 16:15	WG1301750
(S) p-Terphenyl-d14	38.8		10.0-128		06/28/2019 16:15	WG1301750
(S) Phenol-d5	14.5		10.0-120		06/28/2019 16:15	WG1301750
(S) 2-Fluorophenol	21.5		10.0-120		06/28/2019 16:15	WG1301750
(S) 2,4,6-Tribromophenol	37.1		10.0-155		06/28/2019 16:15	WG1301750

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

Semi Volatile Organic Compounds (GC/MS) by Method 8270E-SIM

Analyte	Result ug/l	Qualifier	RDL ug/l	Dilution	Analysis date / time	Batch
Anthracene	ND		0.0500	1	06/26/2019 09:14	WG1300785
Acenaphthene	ND		0.0500	1	06/26/2019 09:14	WG1300785
Acenaphthylene	ND		0.0500	1	06/26/2019 09:14	WG1300785
Benzo(a)anthracene	ND		0.0500	1	06/26/2019 09:14	WG1300785
Benzo(a)pyrene	ND		0.0500	1	06/26/2019 09:14	WG1300785
Benzo(b)fluoranthene	ND		0.0500	1	06/26/2019 09:14	WG1300785
Benzo(g,h,i)perylene	ND		0.0500	1	06/26/2019 09:14	WG1300785
Benzo(k)fluoranthene	ND		0.0500	1	06/26/2019 09:14	WG1300785
Chrysene	ND		0.0500	1	06/26/2019 09:14	WG1300785
Dibenz(a,h)anthracene	ND		0.0500	1	06/26/2019 09:14	WG1300785
Fluoranthene	ND		0.0500	1	06/26/2019 09:14	WG1300785
Fluorene	ND		0.0500	1	06/26/2019 09:14	WG1300785



Collected date/time: 06/19/19 13:50

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Semi Volatile Organic Compounds (GC/MS) by Method 8270E-SIM

Analyte	Result ug/l	Qualifier	RDL ug/l	Dilution	Analysis date / time	Batch
Indeno(1,2,3-cd)pyrene	ND		0.0500	1	06/26/2019 09:14	<a href="#">WG1300785</a>
Naphthalene	ND		0.250	1	06/26/2019 09:14	<a href="#">WG1300785</a>
Phenanthrene	ND		0.0500	1	06/26/2019 09:14	<a href="#">WG1300785</a>
Pyrene	ND		0.0500	1	06/26/2019 09:14	<a href="#">WG1300785</a>
<i>(S)</i> Nitrobenzene-d5	106		11.0-135		06/26/2019 09:14	<a href="#">WG1300785</a>
<i>(S)</i> 2-Fluorobiphenyl	95.0		32.0-120		06/26/2019 09:14	<a href="#">WG1300785</a>
<i>(S)</i> p-Terphenyl-d14	83.0		23.0-122		06/26/2019 09:14	<a href="#">WG1300785</a>

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc



Wet Chemistry by Method 4500CN E-2011

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	ug/l		ug/l		date / time	
Cyanide	ND		5.00	1	07/03/2019 14:16	<a href="#">WG1305505</a>

Mercury by Method 7470A

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	ug/l		ug/l		date / time	
Mercury	ND		0.200	1	06/27/2019 13:30	<a href="#">WG1300834</a>

Metals (ICP) by Method 6010D

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	ug/l		ug/l		date / time	
Aluminum	ND		200	1	06/24/2019 17:51	<a href="#">WG1300319</a>
Antimony	ND		10.0	1	06/24/2019 17:51	<a href="#">WG1300319</a>
Arsenic	ND		10.0	1	06/24/2019 17:51	<a href="#">WG1300319</a>
Barium	ND		5.00	1	06/24/2019 17:51	<a href="#">WG1300319</a>
Beryllium	ND		2.00	1	06/24/2019 17:51	<a href="#">WG1300319</a>
Cadmium	ND		2.00	1	06/24/2019 17:51	<a href="#">WG1300319</a>
Calcium	ND		1000	1	06/24/2019 17:51	<a href="#">WG1300319</a>
Chromium	ND		10.0	1	06/24/2019 17:51	<a href="#">WG1300319</a>
Cobalt	ND		10.0	1	06/24/2019 17:51	<a href="#">WG1300319</a>
Copper	ND		10.0	1	06/24/2019 17:51	<a href="#">WG1300319</a>
Iron	ND		100	1	06/24/2019 17:51	<a href="#">WG1300319</a>
Lead	ND		5.00	1	06/24/2019 17:51	<a href="#">WG1300319</a>
Magnesium	ND		1000	1	06/24/2019 17:51	<a href="#">WG1300319</a>
Manganese	ND		10.0	1	06/24/2019 17:51	<a href="#">WG1300319</a>
Nickel	ND		10.0	1	06/24/2019 17:51	<a href="#">WG1300319</a>
Potassium	ND		1000	1	06/24/2019 17:51	<a href="#">WG1300319</a>
Selenium	ND		10.0	1	06/24/2019 17:51	<a href="#">WG1300319</a>
Silver	ND		5.00	1	06/24/2019 17:51	<a href="#">WG1300319</a>
Sodium	ND		1000	1	06/24/2019 17:51	<a href="#">WG1300319</a>
Thallium	ND		10.0	1	06/24/2019 17:51	<a href="#">WG1300319</a>
Vanadium	ND		20.0	1	06/24/2019 17:51	<a href="#">WG1300319</a>
Zinc	ND		50.0	1	06/24/2019 17:51	<a href="#">WG1300319</a>

- 1 Cp
- 2 Tc
- 3 Ss
- 4 Cn
- 5 Sr
- 6 Qc
- 7 Gl
- 8 Al
- 9 Sc

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	ug/l		ug/l		date / time	
Acetone	ND		50.0	1	06/26/2019 16:48	<a href="#">WG1302380</a>
Benzene	ND		1.00	1	06/26/2019 16:48	<a href="#">WG1302380</a>
Bromochloromethane	ND		1.00	1	06/26/2019 16:48	<a href="#">WG1302380</a>
Bromodichloromethane	ND		1.00	1	06/26/2019 16:48	<a href="#">WG1302380</a>
Bromoform	ND		1.00	1	06/26/2019 16:48	<a href="#">WG1302380</a>
Bromomethane	ND		5.00	1	06/26/2019 16:48	<a href="#">WG1302380</a>
Carbon disulfide	ND		1.00	1	06/26/2019 16:48	<a href="#">WG1302380</a>
Carbon tetrachloride	ND		1.00	1	06/26/2019 16:48	<a href="#">WG1302380</a>
Chlorobenzene	ND		1.00	1	06/26/2019 16:48	<a href="#">WG1302380</a>
Chlorodibromomethane	ND		1.00	1	06/26/2019 16:48	<a href="#">WG1302380</a>
Chloroethane	ND		5.00	1	06/26/2019 16:48	<a href="#">WG1302380</a>
Chloroform	ND		5.00	1	06/26/2019 16:48	<a href="#">WG1302380</a>
Chloromethane	ND		2.50	1	06/26/2019 16:48	<a href="#">WG1302380</a>
Cyclohexane	ND		1.00	1	06/26/2019 16:48	<a href="#">WG1302380</a>
1,2-Dibromo-3-Chloropropane	ND		5.00	1	06/26/2019 16:48	<a href="#">WG1302380</a>
1,2-Dibromoethane	ND		1.00	1	06/26/2019 16:48	<a href="#">WG1302380</a>
1,2-Dichlorobenzene	ND		1.00	1	06/26/2019 16:48	<a href="#">WG1302380</a>
1,3-Dichlorobenzene	ND		1.00	1	06/26/2019 16:48	<a href="#">WG1302380</a>





Collected date/time: 06/19/19 14:20

L111579

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result ug/l	Qualifier	RDL ug/l	Dilution	Analysis date / time	Batch
1,4-Dichlorobenzene	ND		1.00	1	06/26/2019 16:48	WG1302380
Dichlorodifluoromethane	ND		5.00	1	06/26/2019 16:48	WG1302380
1,1-Dichloroethane	ND		1.00	1	06/26/2019 16:48	WG1302380
1,2-Dichloroethane	ND		1.00	1	06/26/2019 16:48	WG1302380
1,1-Dichloroethene	ND		1.00	1	06/26/2019 16:48	WG1302380
cis-1,2-Dichloroethene	ND		1.00	1	06/26/2019 16:48	WG1302380
trans-1,2-Dichloroethene	ND		1.00	1	06/26/2019 16:48	WG1302380
1,2-Dichloropropane	ND		1.00	1	06/26/2019 16:48	WG1302380
cis-1,3-Dichloropropene	ND		1.00	1	06/26/2019 16:48	WG1302380
trans-1,3-Dichloropropene	ND		1.00	1	06/26/2019 16:48	WG1302380
Ethylbenzene	ND		1.00	1	06/26/2019 16:48	WG1302380
2-Hexanone	ND		10.0	1	06/26/2019 16:48	WG1302380
Isopropylbenzene	ND		1.00	1	06/26/2019 16:48	WG1302380
2-Butanone (MEK)	ND		10.0	1	06/26/2019 16:48	WG1302380
Methyl Acetate	ND		20.0	1	06/26/2019 16:48	WG1302380
Methyl Cyclohexane	ND		1.00	1	06/26/2019 16:48	WG1302380
Methylene Chloride	ND		5.00	1	06/26/2019 16:48	WG1302380
4-Methyl-2-pentanone (MIBK)	ND		10.0	1	06/26/2019 16:48	WG1302380
Methyl tert-butyl ether	ND		1.00	1	06/26/2019 16:48	WG1302380
Styrene	ND		1.00	1	06/26/2019 16:48	WG1302380
1,1,2,2-Tetrachloroethane	ND		1.00	1	06/26/2019 16:48	WG1302380
Tetrachloroethene	ND		1.00	1	06/26/2019 16:48	WG1302380
Toluene	ND		1.00	1	06/26/2019 16:48	WG1302380
1,2,3-Trichlorobenzene	ND		1.00	1	06/26/2019 16:48	WG1302380
1,2,4-Trichlorobenzene	ND		1.00	1	06/26/2019 16:48	WG1302380
1,1,1-Trichloroethane	ND		1.00	1	06/26/2019 16:48	WG1302380
1,1,2-Trichloroethane	ND		1.00	1	06/26/2019 16:48	WG1302380
Trichloroethene	ND		1.00	1	06/26/2019 16:48	WG1302380
Trichlorofluoromethane	ND		5.00	1	06/26/2019 16:48	WG1302380
1,1,2-Trichlorotrifluoroethane	ND		1.00	1	06/26/2019 16:48	WG1302380
Vinyl chloride	ND		1.00	1	06/26/2019 16:48	WG1302380
Xylenes, Total	ND		3.00	1	06/26/2019 16:48	WG1302380
(S) Toluene-d8	98.8		80.0-120		06/26/2019 16:48	WG1302380
(S) 4-Bromofluorobenzene	99.8		77.0-126		06/26/2019 16:48	WG1302380
(S) 1,2-Dichloroethane-d4	101		70.0-130		06/26/2019 16:48	WG1302380

- 1 Cp
- 2 Tc
- 3 Ss
- 4 Cn
- 5 Sr
- 6 Qc
- 7 Gl
- 8 Al
- 9 Sc

Pesticides (GC) by Method 8081B

Analyte	Result ug/l	Qualifier	RDL ug/l	Dilution	Analysis date / time	Batch
Aldrin	ND		0.0500	1	06/27/2019 09:55	WG1300784
Alpha BHC	ND		0.0500	1	06/27/2019 09:55	WG1300784
Beta BHC	ND		0.0500	1	06/27/2019 09:55	WG1300784
Delta BHC	ND		0.0500	1	06/27/2019 09:55	WG1300784
Gamma BHC	ND		0.0500	1	06/27/2019 09:55	WG1300784
Chlordane	ND		5.00	1	06/27/2019 09:55	WG1300784
4,4-DDD	ND		0.0500	1	06/27/2019 09:55	WG1300784
4,4-DDE	ND		0.0500	1	06/27/2019 09:55	WG1300784
4,4-DDT	ND	J4	0.0500	1	06/27/2019 09:55	WG1300784
Dieldrin	ND		0.0500	1	06/27/2019 09:55	WG1300784
Endosulfan I	ND		0.0500	1	06/27/2019 09:55	WG1300784
Endosulfan II	ND		0.0500	1	06/27/2019 09:55	WG1300784
Endosulfan sulfate	ND		0.0500	1	06/27/2019 09:55	WG1300784
Endrin	ND		0.0500	1	06/27/2019 09:55	WG1300784
Endrin aldehyde	ND		0.0500	1	06/27/2019 09:55	WG1300784
Endrin ketone	ND	J4	0.0500	1	06/27/2019 09:55	WG1300784
Heptachlor	ND		0.0500	1	06/27/2019 09:55	WG1300784



Collected date/time: 06/19/19 14:20

L1111579

Pesticides (GC) by Method 8081B

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	ug/l		ug/l		date / time	
Heptachlor epoxide	ND		0.0500	1	06/27/2019 09:55	<a href="#">WG1300784</a>
Hexachlorobenzene	ND		0.0500	1	06/27/2019 09:55	<a href="#">WG1300784</a>
Methoxychlor	ND	J4	0.0500	1	06/27/2019 09:55	<a href="#">WG1300784</a>
Toxaphene	ND		0.500	1	06/27/2019 09:55	<a href="#">WG1300784</a>
(S) Decachlorobiphenyl	70.0		10.0-128		06/27/2019 09:55	<a href="#">WG1300784</a>
(S) Tetrachloro-m-xylene	87.6		10.0-127		06/27/2019 09:55	<a href="#">WG1300784</a>

- 1 Cp
- 2 Tc
- 3 Ss
- 4 Cn
- 5 Sr
- 6 Qc
- 7 Gl
- 8 Al
- 9 Sc

Polychlorinated Biphenyls (GC) by Method 8082 A

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	ug/l		ug/l		date / time	
PCB 1016	ND		0.500	1	06/27/2019 23:56	<a href="#">WG1300784</a>
PCB 1221	ND		0.500	1	06/27/2019 23:56	<a href="#">WG1300784</a>
PCB 1232	ND		0.500	1	06/27/2019 23:56	<a href="#">WG1300784</a>
PCB 1242	ND		0.500	1	06/27/2019 23:56	<a href="#">WG1300784</a>
PCB 1248	ND		0.500	1	06/27/2019 23:56	<a href="#">WG1300784</a>
PCB 1254	ND		0.500	1	06/27/2019 23:56	<a href="#">WG1300784</a>
PCB 1260	ND		0.500	1	06/27/2019 23:56	<a href="#">WG1300784</a>
(S) Decachlorobiphenyl	77.9		10.0-128		06/27/2019 23:56	<a href="#">WG1300784</a>
(S) Tetrachloro-m-xylene	85.9		10.0-127		06/27/2019 23:56	<a href="#">WG1300784</a>

Semi Volatile Organic Compounds (GC/MS) by Method 8270D

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	ug/l		ug/l		date / time	
Acenaphthene	ND	J4	1.01	1.01	06/28/2019 13:56	<a href="#">WG1301753</a>
Acenaphthylene	ND	J4	1.01	1.01	06/28/2019 13:56	<a href="#">WG1301753</a>
Acetophenone	ND	J4	10.1	1.01	06/28/2019 13:56	<a href="#">WG1301753</a>
Anthracene	ND	J4	1.01	1.01	06/28/2019 13:56	<a href="#">WG1301753</a>
Atrazine	ND	J4	10.1	1.01	06/28/2019 13:56	<a href="#">WG1301753</a>
Benzaldehyde	ND	J4	10.1	1.01	06/28/2019 13:56	<a href="#">WG1301753</a>
Benzo(a)anthracene	ND		1.01	1.01	06/28/2019 13:56	<a href="#">WG1301753</a>
Benzo(b)fluoranthene	ND	J4	1.01	1.01	06/28/2019 13:56	<a href="#">WG1301753</a>
Benzo(k)fluoranthene	ND	J4	1.01	1.01	06/28/2019 13:56	<a href="#">WG1301753</a>
Benzo(g,h,i)perylene	ND		1.01	1.01	06/28/2019 13:56	<a href="#">WG1301753</a>
Benzo(a)pyrene	ND	J4	1.01	1.01	06/28/2019 13:56	<a href="#">WG1301753</a>
Biphenyl	ND	J4	10.1	1.01	06/28/2019 13:56	<a href="#">WG1301753</a>
Bis(2-chloroethoxy)methane	ND	J4	10.1	1.01	06/28/2019 13:56	<a href="#">WG1301753</a>
Bis(2-chloroethyl)ether	ND	J4	10.1	1.01	06/28/2019 13:56	<a href="#">WG1301753</a>
Bis(2-chloroisopropyl)ether	ND	J4	10.1	1.01	06/28/2019 13:56	<a href="#">WG1301753</a>
4-Bromophenyl-phenylether	ND	J4	10.1	1.01	06/28/2019 13:56	<a href="#">WG1301753</a>
Caprolactam	ND	J4	10.1	1.01	06/28/2019 13:56	<a href="#">WG1301753</a>
Carbazole	ND	J4	10.1	1.01	06/28/2019 13:56	<a href="#">WG1301753</a>
4-Chloroaniline	ND	J4	10.1	1.01	06/28/2019 13:56	<a href="#">WG1301753</a>
2-Chloronaphthalene	ND	J4	1.01	1.01	06/28/2019 13:56	<a href="#">WG1301753</a>
4-Chlorophenyl-phenylether	ND	J4	10.1	1.01	06/28/2019 13:56	<a href="#">WG1301753</a>
Chrysene	ND	J4	1.01	1.01	06/28/2019 13:56	<a href="#">WG1301753</a>
Dibenz(a,h)anthracene	ND	J4	1.01	1.01	06/28/2019 13:56	<a href="#">WG1301753</a>
Dibenzofuran	ND	J4	10.1	1.01	06/28/2019 13:56	<a href="#">WG1301753</a>
3,3-Dichlorobenzidine	ND	J4	10.1	1.01	06/28/2019 13:56	<a href="#">WG1301753</a>
2,4-Dinitrotoluene	ND		10.1	1.01	06/28/2019 13:56	<a href="#">WG1301753</a>
2,6-Dinitrotoluene	ND	J4	10.1	1.01	06/28/2019 13:56	<a href="#">WG1301753</a>
Fluoranthene	ND	J4	1.01	1.01	06/28/2019 13:56	<a href="#">WG1301753</a>
Fluorene	ND	J4	1.01	1.01	06/28/2019 13:56	<a href="#">WG1301753</a>
Hexachlorobenzene	ND	J4	1.01	1.01	06/28/2019 13:56	<a href="#">WG1301753</a>
Hexachloro-1,3-butadiene	ND	J4	10.1	1.01	06/28/2019 13:56	<a href="#">WG1301753</a>
Hexachlorocyclopentadiene	ND	J4	10.1	1.01	06/28/2019 13:56	<a href="#">WG1301753</a>



Collected date/time: 06/19/19 14:20

L111579

Semi Volatile Organic Compounds (GC/MS) by Method 8270D

Analyte	Result ug/l	Qualifier	RDL ug/l	Dilution	Analysis date / time	Batch
Hexachloroethane	ND	J4	10.1	1.01	06/28/2019 13:56	WG1301753
Indeno(1,2,3-cd)pyrene	ND	J4	1.01	1.01	06/28/2019 13:56	WG1301753
Isophorone	ND	J4	10.1	1.01	06/28/2019 13:56	WG1301753
2-Methylnaphthalene	ND	J4	1.01	1.01	06/28/2019 13:56	WG1301753
Naphthalene	ND	J4	1.01	1.01	06/28/2019 13:56	WG1301753
2-Nitroaniline	ND	J4	10.1	1.01	06/28/2019 13:56	WG1301753
3-Nitroaniline	ND	J4	10.1	1.01	06/28/2019 13:56	WG1301753
4-Nitroaniline	ND	J4	10.1	1.01	06/28/2019 13:56	WG1301753
Nitrobenzene	ND	J4	10.1	1.01	06/28/2019 13:56	WG1301753
n-Nitrosodiphenylamine	ND	J4	10.1	1.01	06/28/2019 13:56	WG1301753
n-Nitrosodi-n-propylamine	ND	J4	10.1	1.01	06/28/2019 13:56	WG1301753
Phenanthrene	ND	J4	1.01	1.01	06/28/2019 13:56	WG1301753
Benzylbutyl phtalate	ND		3.03	1.01	06/28/2019 13:56	WG1301753
Bis(2-ethylhexyl)phtalate	ND		3.03	1.01	06/28/2019 13:56	WG1301753
Di-n-butyl phtalate	ND		3.03	1.01	06/28/2019 13:56	WG1301753
Diethyl phtalate	ND	J4	3.03	1.01	06/28/2019 13:56	WG1301753
Dimethyl phtalate	ND	J4	3.03	1.01	06/28/2019 13:56	WG1301753
Di-n-octyl phtalate	ND		3.03	1.01	06/28/2019 13:56	WG1301753
Pyrene	ND	J4	1.01	1.01	06/28/2019 13:56	WG1301753
1,2,4,5-Tetrachlorobenzene	ND	J4	10.1	1.01	06/28/2019 13:56	WG1301753
4-Chloro-3-methylphenol	ND	J4	10.1	1.01	06/28/2019 13:56	WG1301753
2-Chlorophenol	ND	J4	10.1	1.01	06/28/2019 13:56	WG1301753
2-Methylphenol	ND	J4	10.1	1.01	06/28/2019 13:56	WG1301753
3&4-Methyl Phenol	ND	J4	10.1	1.01	06/28/2019 13:56	WG1301753
2,4-Dichlorophenol	ND	J4	10.1	1.01	06/28/2019 13:56	WG1301753
2,4-Dimethylphenol	ND	J4	10.1	1.01	06/28/2019 13:56	WG1301753
4,6-Dinitro-2-methylphenol	ND		10.1	1.01	06/28/2019 13:56	WG1301753
2,4-Dinitrophenol	ND		10.1	1.01	06/28/2019 13:56	WG1301753
2-Nitrophenol	ND	J4	10.1	1.01	06/28/2019 13:56	WG1301753
4-Nitrophenol	ND	J4	10.1	1.01	06/28/2019 13:56	WG1301753
Pentachlorophenol	ND	J4	10.1	1.01	06/28/2019 13:56	WG1301753
Phenol	ND	J4	10.1	1.01	06/28/2019 13:56	WG1301753
2,4,5-Trichlorophenol	ND	J4	10.1	1.01	06/28/2019 13:56	WG1301753
2,4,6-Trichlorophenol	ND	J4	10.1	1.01	06/28/2019 13:56	WG1301753
(S) Nitrobenzene-d5	50.5		10.0-127		06/28/2019 13:56	WG1301753
(S) 2-Fluorobiphenyl	55.3		10.0-130		06/28/2019 13:56	WG1301753
(S) p-Terphenyl-d14	64.7		10.0-128		06/28/2019 13:56	WG1301753
(S) Phenol-d5	12.3		10.0-120		06/28/2019 13:56	WG1301753
(S) 2-Fluorophenol	20.8		10.0-120		06/28/2019 13:56	WG1301753
(S) 2,4,6-Tribromophenol	50.5		10.0-155		06/28/2019 13:56	WG1301753

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

Sample Narrative:

L111579-21 WG1301753: Dilution due to sample volume.

Semi Volatile Organic Compounds (GC/MS) by Method 8270E-SIM

Analyte	Result ug/l	Qualifier	RDL ug/l	Dilution	Analysis date / time	Batch
Anthracene	ND		0.0510	1.02	06/26/2019 09:37	WG1300785
Acenaphthene	ND		0.0510	1.02	06/26/2019 09:37	WG1300785
Acenaphthylene	ND		0.0510	1.02	06/26/2019 09:37	WG1300785
Benzo(a)anthracene	ND		0.0510	1.02	06/26/2019 09:37	WG1300785
Benzo(a)pyrene	ND		0.0510	1.02	06/26/2019 09:37	WG1300785
Benzo(b)fluoranthene	ND		0.0510	1.02	06/26/2019 09:37	WG1300785
Benzo(g,h,i)perylene	ND		0.0510	1.02	06/26/2019 09:37	WG1300785
Benzo(k)fluoranthene	ND		0.0510	1.02	06/26/2019 09:37	WG1300785
Chrysene	ND		0.0510	1.02	06/26/2019 09:37	WG1300785



Collected date/time: 06/19/19 14:20

L1111579

Semi Volatile Organic Compounds (GC/MS) by Method 8270E-SIM

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Dibenz(a,h)anthracene	ND		0.0510	1.02	06/26/2019 09:37	<a href="#">WG1300785</a>
Fluoranthene	ND		0.0510	1.02	06/26/2019 09:37	<a href="#">WG1300785</a>
Fluorene	ND		0.0510	1.02	06/26/2019 09:37	<a href="#">WG1300785</a>
Indeno(1,2,3-cd)pyrene	ND		0.0510	1.02	06/26/2019 09:37	<a href="#">WG1300785</a>
Naphthalene	ND		0.255	1.02	06/26/2019 09:37	<a href="#">WG1300785</a>
Phenanthrene	ND		0.0510	1.02	06/26/2019 09:37	<a href="#">WG1300785</a>
Pyrene	ND		0.0510	1.02	06/26/2019 09:37	<a href="#">WG1300785</a>
<i>(S)</i> Nitrobenzene-d5	91.7		11.0-135		06/26/2019 09:37	<a href="#">WG1300785</a>
<i>(S)</i> 2-Fluorobiphenyl	83.8		32.0-120		06/26/2019 09:37	<a href="#">WG1300785</a>
<i>(S)</i> p-Terphenyl-d14	74.5		23.0-122		06/26/2019 09:37	<a href="#">WG1300785</a>

Sample Narrative:

L1111579-21 WG1300785: Dilution due to sample volume.

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc



Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Acetone	ND		50.0	1	06/26/2019 17:08	WG1302380
Benzene	ND		1.00	1	06/26/2019 17:08	WG1302380
Bromochloromethane	ND		1.00	1	06/26/2019 17:08	WG1302380
Bromodichloromethane	ND		1.00	1	06/26/2019 17:08	WG1302380
Bromoform	ND		1.00	1	06/26/2019 17:08	WG1302380
Bromomethane	ND		5.00	1	06/26/2019 17:08	WG1302380
Carbon disulfide	ND		1.00	1	06/26/2019 17:08	WG1302380
Carbon tetrachloride	ND		1.00	1	06/26/2019 17:08	WG1302380
Chlorobenzene	ND		1.00	1	06/26/2019 17:08	WG1302380
Chlorodibromomethane	ND		1.00	1	06/26/2019 17:08	WG1302380
Chloroethane	ND		5.00	1	06/26/2019 17:08	WG1302380
Chloroform	ND		5.00	1	06/26/2019 17:08	WG1302380
Chloromethane	ND		2.50	1	06/26/2019 17:08	WG1302380
Cyclohexane	ND		1.00	1	06/26/2019 17:08	WG1302380
1,2-Dibromo-3-Chloropropane	ND		5.00	1	06/26/2019 17:08	WG1302380
1,2-Dibromoethane	ND		1.00	1	06/26/2019 17:08	WG1302380
1,2-Dichlorobenzene	ND		1.00	1	06/26/2019 17:08	WG1302380
1,3-Dichlorobenzene	ND		1.00	1	06/26/2019 17:08	WG1302380
1,4-Dichlorobenzene	ND		1.00	1	06/26/2019 17:08	WG1302380
Dichlorodifluoromethane	ND		5.00	1	06/26/2019 17:08	WG1302380
1,1-Dichloroethane	ND		1.00	1	06/26/2019 17:08	WG1302380
1,2-Dichloroethane	ND		1.00	1	06/26/2019 17:08	WG1302380
1,1-Dichloroethene	ND		1.00	1	06/26/2019 17:08	WG1302380
cis-1,2-Dichloroethene	ND		1.00	1	06/26/2019 17:08	WG1302380
trans-1,2-Dichloroethene	ND		1.00	1	06/26/2019 17:08	WG1302380
1,2-Dichloropropane	ND		1.00	1	06/26/2019 17:08	WG1302380
cis-1,3-Dichloropropene	ND		1.00	1	06/26/2019 17:08	WG1302380
trans-1,3-Dichloropropene	ND		1.00	1	06/26/2019 17:08	WG1302380
Ethylbenzene	ND		1.00	1	06/26/2019 17:08	WG1302380
2-Hexanone	ND		10.0	1	06/26/2019 17:08	WG1302380
Isopropylbenzene	ND		1.00	1	06/26/2019 17:08	WG1302380
2-Butanone (MEK)	ND		10.0	1	06/26/2019 17:08	WG1302380
Methyl Acetate	ND		20.0	1	06/26/2019 17:08	WG1302380
Methyl Cyclohexane	ND		1.00	1	06/26/2019 17:08	WG1302380
Methylene Chloride	ND		5.00	1	06/26/2019 17:08	WG1302380
4-Methyl-2-pentanone (MIBK)	ND		10.0	1	06/26/2019 17:08	WG1302380
Methyl tert-butyl ether	ND		1.00	1	06/26/2019 17:08	WG1302380
Styrene	ND		1.00	1	06/26/2019 17:08	WG1302380
1,1,2,2-Tetrachloroethane	ND		1.00	1	06/26/2019 17:08	WG1302380
Tetrachloroethene	ND		1.00	1	06/26/2019 17:08	WG1302380
Toluene	ND		1.00	1	06/26/2019 17:08	WG1302380
1,2,3-Trichlorobenzene	ND		1.00	1	06/26/2019 17:08	WG1302380
1,2,4-Trichlorobenzene	ND		1.00	1	06/26/2019 17:08	WG1302380
1,1,1-Trichloroethane	ND		1.00	1	06/26/2019 17:08	WG1302380
1,1,2-Trichloroethane	ND		1.00	1	06/26/2019 17:08	WG1302380
Trichloroethene	ND		1.00	1	06/26/2019 17:08	WG1302380
Trichlorofluoromethane	ND		5.00	1	06/26/2019 17:08	WG1302380
1,1,2-Trichlorotrifluoroethane	ND		1.00	1	06/26/2019 17:08	WG1302380
Vinyl chloride	ND		1.00	1	06/26/2019 17:08	WG1302380
Xylenes, Total	ND		3.00	1	06/26/2019 17:08	WG1302380
(S) Toluene-d8	97.0		80.0-120		06/26/2019 17:08	WG1302380
(S) 4-Bromofluorobenzene	101		77.0-126		06/26/2019 17:08	WG1302380
(S) 1,2-Dichloroethane-d4	107		70.0-130		06/26/2019 17:08	WG1302380

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc



Method Blank (MB)

(MB) R3425180-1 06/26/19 14:16

Analyte	MB Result	MB Qualifier	MB MDL	MB RDL
	%		%	%
Total Solids	0.000			

<sup>1</sup> Cp

<sup>2</sup> Tc

<sup>3</sup> Ss

<sup>4</sup> Cn

<sup>5</sup> Sr

<sup>6</sup> Qc

L1111579-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1111579-01 06/26/19 14:16 • (DUP) R3425180-3 06/26/19 14:16

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
	%	%		%		%
Total Solids	40.6	44.3	1	8.67		10

<sup>7</sup> Gl

<sup>8</sup> Al

<sup>9</sup> Sc

Laboratory Control Sample (LCS)

(LCS) R3425180-2 06/26/19 14:16

Analyte	Spike Amount	LCS Result	LCS Rec.	Rec. Limits	LCS Qualifier
	%	%	%	%	
Total Solids	50.0	50.0	100	85.0-115	





Method Blank (MB)

(MB) R3425260-1 06/26/19 14:08

Analyte	MB Result	<u>MB Qualifier</u>	MB MDL	MB RDL
	%		%	%
Total Solids	0.000			

<sup>1</sup> Cp

<sup>2</sup> Tc

<sup>3</sup> Ss

<sup>4</sup> Cn

<sup>5</sup> Sr

L1111559-98 Original Sample (OS) • Duplicate (DUP)

(OS) L1111559-98 06/26/19 14:08 • (DUP) R3425260-3 06/26/19 14:08

Analyte	Original Result	DUP Result	Dilution	DUP RPD	<u>DUP Qualifier</u>	DUP RPD Limits
	%	%		%		%
Total Solids	75.3	75.8	1	0.619		10

<sup>6</sup> Qc

Laboratory Control Sample (LCS)

(LCS) R3425260-2 06/26/19 14:08

Analyte	Spike Amount	LCS Result	LCS Rec.	Rec. Limits	<u>LCS Qualifier</u>
	%	%	%	%	
Total Solids	50.0	50.0	100	85.0-115	

<sup>7</sup> Gl

<sup>8</sup> Al

<sup>9</sup> Sc



Method Blank (MB)

(MB) R3425244-1 06/26/19 11:35

Analyte	MB Result %	MB Qualifier	MB MDL %	MB RDL %
Total Solids	0.000			

<sup>1</sup>Cp

<sup>2</sup>Tc

<sup>3</sup>Ss

<sup>4</sup>Cn

<sup>5</sup>Sr

<sup>6</sup>Qc

L1111579-11 Original Sample (OS) • Duplicate (DUP)

(OS) L1111579-11 06/26/19 11:35 • (DUP) R3425244-3 06/26/19 11:35

Analyte	Original Result %	DUP Result %	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits
Total Solids	75.6	78.9	1	4.24		10

<sup>7</sup>Gl

<sup>8</sup>Al

Laboratory Control Sample (LCS)

(LCS) R3425244-2 06/26/19 11:35

Analyte	Spike Amount %	LCS Result %	LCS Rec. %	Rec. Limits %	LCS Qualifier
Total Solids	50.0	50.0	100	85.0-115	

<sup>9</sup>Sc



Method Blank (MB)

(MB) R3425243-1 06/26/19 11:17

Analyte	MB Result	<u>MB Qualifier</u>	MB MDL	MB RDL
	%		%	%
Total Solids	0.000			

<sup>1</sup> Cp

<sup>2</sup> Tc

<sup>3</sup> Ss

<sup>4</sup> Cn

<sup>5</sup> Sr

<sup>6</sup> Qc

L1111614-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1111614-01 06/26/19 11:17 • (DUP) R3425243-3 06/26/19 11:17

Analyte	Original Result	DUP Result	Dilution	DUP RPD	<u>DUP Qualifier</u>	DUP RPD Limits
	%	%		%		%
Total Solids	79.4	79.6	1	0.275		10

<sup>7</sup> Gl

<sup>8</sup> Al

<sup>9</sup> Sc

Laboratory Control Sample (LCS)

(LCS) R3425243-2 06/26/19 11:17

Analyte	Spike Amount	LCS Result	LCS Rec.	Rec. Limits	<u>LCS Qualifier</u>
	%	%	%	%	
Total Solids	50.0	50.0	100	85.0-115	



Method Blank (MB)

(MB) R3427288-1 07/03/19 13:49

Analyte	MB Result	MB Qualifier	MB MDL	MB RDL
Cyanide	U		1.80	5.00

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

L1110802-02 Original Sample (OS) • Duplicate (DUP)

(OS) L1110802-02 07/03/19 13:55 • (DUP) R3427288-3 07/03/19 13:56

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
Cyanide	ND	2.64	1	0.000		20

L1111579-21 Original Sample (OS) • Duplicate (DUP)

(OS) L1111579-21 07/03/19 14:16 • (DUP) R3427288-8 07/03/19 14:17

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
Cyanide	ND	0.000	1	0.000		20

Laboratory Control Sample (LCS)

(LCS) R3427288-2 07/03/19 13:50

Analyte	Spike Amount	LCS Result	LCS Rec.	Rec. Limits	LCS Qualifier
Cyanide	100	102	102	85.0-115	

L1110963-02 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1110963-02 07/03/19 14:03 • (MS) R3427288-4 07/03/19 14:04 • (MSD) R3427288-5 07/03/19 14:05

Analyte	Spike Amount	Original Result	MS Result	MSD Result	MS Rec.	MSD Rec.	Dilution	Rec. Limits	MS Qualifier	MSD Qualifier	RPD	RPD Limits
Cyanide	100	ND	96.9	102	96.9	102	1	75.0-125			5.13	20

L1111420-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1111420-01 07/03/19 14:10 • (MS) R3427288-6 07/03/19 14:13 • (MSD) R3427288-7 07/03/19 14:14

Analyte	Spike Amount	Original Result	MS Result	MSD Result	MS Rec.	MSD Rec.	Dilution	Rec. Limits	MS Qualifier	MSD Qualifier	RPD	RPD Limits
Cyanide	100	ND	98.1	94.8	98.1	94.8	1	75.0-125			3.42	20



Method Blank (MB)

(MB) R3429056-1 07/01/19 11:42

Analyte	MB Result mg/kg	<u>MB Qualifier</u>	MB MDL mg/kg	MB RDL mg/kg
Cyanide	U		0.0390	0.250

<sup>1</sup>Cp

<sup>2</sup>Tc

<sup>3</sup>Ss

Laboratory Control Sample (LCS)

(LCS) R3429056-2 07/01/19 11:43

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	<u>LCS Qualifier</u>
Cyanide	2.50	2.70	108	50.0-150	

<sup>4</sup>Cn

<sup>5</sup>Sr

<sup>6</sup>Qc

<sup>7</sup>Gl

<sup>8</sup>Al

<sup>9</sup>Sc



Method Blank (MB)

(MB) R3427015-1 07/02/19 19:44

Analyte	MB Result	MB Qualifier	MB MDL	MB RDL
Cyanide	U		0.0390	0.250

<sup>1</sup> Cp

<sup>2</sup> Tc

<sup>3</sup> Ss

<sup>4</sup> Cn

<sup>5</sup> Sr

<sup>6</sup> Qc

<sup>7</sup> Gl

<sup>8</sup> Al

<sup>9</sup> Sc

L1111579-03 Original Sample (OS) • Duplicate (DUP)

(OS) L1111579-03 07/02/19 19:50 • (DUP) R3427015-3 07/02/19 19:51

Analyte	Original Result (dry)	DUP Result (dry)	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
Cyanide	ND	0.000	1	0.000		20

L1111579-10 Original Sample (OS) • Duplicate (DUP)

(OS) L1111579-10 07/02/19 20:02 • (DUP) R3427015-4 07/02/19 20:03

Analyte	Original Result (dry)	DUP Result (dry)	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
Cyanide	ND	0.000	1	0.000		20

Laboratory Control Sample (LCS)

(LCS) R3427015-2 07/02/19 19:45

Analyte	Spike Amount	LCS Result	LCS Rec.	Rec. Limits	LCS Qualifier
Cyanide	2.50	2.40	95.9	50.0-150	

L1112058-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1112058-01 07/02/19 20:09 • (MS) R3427015-5 07/02/19 20:10 • (MSD) R3427015-6 07/02/19 20:12

Analyte	Spike Amount	Original Result	MS Result	MSD Result	MS Rec.	MSD Rec.	Dilution	Rec. Limits	MS Qualifier	MSD Qualifier	RPD	RPD Limits
Cyanide	1.67	ND	1.39	1.37	79.5	78.4	1	75.0-125			1.43	20





Method Blank (MB)

(MB) R3427753-1 07/05/19 09:47

Analyte	MB Result	MB Qualifier	MB MDL	MB RDL
Cyanide	U		0.0390	0.250

<sup>1</sup> Cp

<sup>2</sup> Tc

<sup>3</sup> Ss

<sup>4</sup> Cn

<sup>5</sup> Sr

<sup>6</sup> Qc

<sup>7</sup> Gl

<sup>8</sup> Al

<sup>9</sup> Sc

L1110644-02 Original Sample (OS) • Duplicate (DUP)

(OS) L1110644-02 07/05/19 09:51 • (DUP) R3427753-3 07/05/19 09:52

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
Cyanide	ND	0.0278	.5	0.000		20

L111896-04 Original Sample (OS) • Duplicate (DUP)

(OS) L111896-04 07/05/19 10:20 • (DUP) R3427753-8 07/05/19 10:21

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
Cyanide	ND	0.0506	1	0.000		20

Laboratory Control Sample (LCS)

(LCS) R3427753-2 07/05/19 09:48

Analyte	Spike Amount	LCS Result	LCS Rec.	Rec. Limits	LCS Qualifier
Cyanide	2.50	2.37	94.8	50.0-150	

L1110795-02 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1110795-02 07/05/19 10:00 • (MS) R3427753-4 07/05/19 10:01 • (MSD) R3427753-5 07/05/19 10:02

Analyte	Spike Amount	Original Result	MS Result	MSD Result	MS Rec.	MSD Rec.	Dilution	Rec. Limits	MS Qualifier	MSD Qualifier	RPD	RPD Limits
Cyanide	1.67	ND	0.833	0.186	45.7	6.77	1	75.0-125	<u>J6</u>	<u>J3 J6</u>	127	20



L1111396-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1111396-01 07/05/19 10:06 • (MS) R3427753-6 07/05/19 10:07 • (MSD) R3427753-7 07/05/19 10:08

Analyte	Spike Amount (dry) mg/kg	Original Result (dry) mg/kg	MS Result (dry) mg/kg	MSD Result (dry) mg/kg	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Cyanide	1.71	0.440	1.53	1.38	63.6	55.2	1	75.0-125	<u>J6</u>	<u>J6</u>	9.97	20

<sup>1</sup> Cp

<sup>2</sup> Tc

<sup>3</sup> Ss

<sup>4</sup> Cn

<sup>5</sup> Sr

<sup>6</sup> Qc

<sup>7</sup> Gl

<sup>8</sup> Al

<sup>9</sup> Sc



Method Blank (MB)

(MB) R3425377-1 06/27/19 13:06

Analyte	MB Result	MB Qualifier	MB MDL	MB RDL
Mercury	U		0.0490	0.200

<sup>1</sup> Cp

<sup>2</sup> Tc

<sup>3</sup> Ss

<sup>4</sup> Cn

<sup>5</sup> Sr

<sup>6</sup> Qc

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3425377-2 06/27/19 13:08 • (LCSD) R3425377-3 06/27/19 13:11

Analyte	Spike Amount	LCS Result	LCSD Result	LCS Rec.	LCSD Rec.	Rec. Limits	LCS Qualifier	LCSD Qualifier	RPD	RPD Limits
Mercury	3.00	3.33	3.29	111	110	80.0-120			1.13	20

L1111565-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1111565-01 06/27/19 13:13 • (MS) R3425377-4 06/27/19 13:15 • (MSD) R3425377-5 06/27/19 13:18

Analyte	Spike Amount	Original Result	MS Result	MSD Result	MS Rec.	MSD Rec.	Dilution	Rec. Limits	MS Qualifier	MSD Qualifier	RPD	RPD Limits
Mercury	3.00	U	3.41	3.04	114	101	1	75.0-125			11.5	20

<sup>7</sup> Gl

<sup>8</sup> Al

<sup>9</sup> Sc



Method Blank (MB)

(MB) R3424924-1 06/26/19 12:09

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
Mercury	0.0138	<u>J</u>	0.00280	0.0200

<sup>1</sup> Cp

<sup>2</sup> Tc

<sup>3</sup> Ss

<sup>4</sup> Cn

<sup>5</sup> Sr

<sup>6</sup> Qc

<sup>7</sup> Gl

<sup>8</sup> Al

<sup>9</sup> Sc

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3424924-2 06/26/19 12:15 • (LCSD) R3424924-3 06/26/19 12:18

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCSD Result mg/kg	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Mercury	0.500	0.490	0.500	98.0	100	80.0-120			2.02	20

L1111718-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1111718-01 06/26/19 12:20 • (MS) R3424924-4 06/26/19 12:22 • (MSD) R3424924-5 06/26/19 12:24

Analyte	Spike Amount (dry) mg/kg	Original Result (dry) mg/kg	MS Result (dry) mg/kg	MSD Result (dry) mg/kg	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Mercury	0.508	0.210	0.551	0.563	67.1	69.4	1	75.0-125	<u>J6</u>	<u>J6</u>	2.08	20



Method Blank (MB)

(MB) R3424223-1 06/24/19 17:03

Analyte	MB Result	MB Qualifier	MB MDL	MB RDL
	ug/l		ug/l	ug/l
Aluminum	U		35.0	200
Antimony	U		7.50	10.0
Arsenic	U		6.50	10.0
Barium	U		1.70	5.00
Beryllium	U		0.700	2.00
Cadmium	U		0.700	2.00
Calcium	129	U	46.3	1000
Chromium	U		1.40	10.0
Cobalt	U		2.30	10.0
Copper	U		5.30	10.0
Iron	U		14.1	100
Lead	U		1.90	5.00
Magnesium	42.5	U	11.1	1000
Manganese	U		1.20	10.0
Nickel	U		4.90	10.0
Potassium	U		102	1000
Selenium	U		7.40	10.0
Silver	U		2.80	5.00
Sodium	989	U	98.5	1000
Thallium	U		6.50	10.0
Vanadium	U		2.40	20.0
Zinc	U		5.90	50.0

<sup>1</sup> Cp

<sup>2</sup> Tc

<sup>3</sup> Ss

<sup>4</sup> Cn

<sup>5</sup> Sr

<sup>6</sup> Qc

<sup>7</sup> Gl

<sup>8</sup> Al

<sup>9</sup> Sc

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3424223-2 06/24/19 17:06 • (LCSD) R3424223-3 06/24/19 17:09

Analyte	Spike Amount	LCS Result	LCSD Result	LCS Rec.	LCSD Rec.	Rec. Limits	LCS Qualifier	LCSD Qualifier	RPD	RPD Limits
	ug/l	ug/l	ug/l	%	%	%			%	%
Aluminum	10000	9670	9680	96.7	96.8	80.0-120			0.106	20
Antimony	1000	953	962	95.3	96.2	80.0-120			0.942	20
Arsenic	1000	932	935	93.2	93.5	80.0-120			0.288	20
Barium	1000	1000	1010	100	101	80.0-120			0.612	20
Beryllium	1000	984	987	98.4	98.7	80.0-120			0.245	20
Cadmium	1000	954	961	95.4	96.1	80.0-120			0.765	20
Calcium	10000	9870	9860	98.7	98.6	80.0-120			0.0699	20
Chromium	1000	950	950	95.0	95.0	80.0-120			0.0543	20
Cobalt	1000	988	995	98.8	99.5	80.0-120			0.725	20
Copper	1000	963	961	96.3	96.1	80.0-120			0.229	20
Iron	10000	9840	9820	98.4	98.2	80.0-120			0.103	20



[L111579-20,21](#)

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3424223-2 06/24/19 17:06 • (LCSD) R3424223-3 06/24/19 17:09

Analyte	Spike Amount ug/l	LCS Result ug/l	LCSD Result ug/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	<u>LCS Qualifier</u>	<u>LCSD Qualifier</u>	RPD %	RPD Limits %
Lead	1000	957	966	95.7	96.6	80.0-120			1.01	20
Magnesium	10000	9890	9930	98.9	99.3	80.0-120			0.429	20
Manganese	1000	952	953	95.2	95.3	80.0-120			0.108	20
Nickel	1000	977	984	97.7	98.4	80.0-120			0.697	20
Potassium	10000	9720	9650	97.2	96.5	80.0-120			0.766	20
Selenium	1000	932	935	93.2	93.5	80.0-120			0.350	20
Silver	200	182	182	91.2	91.0	80.0-120			0.207	20
Sodium	10000	10000	9960	100	99.6	80.0-120			0.439	20
Thallium	1000	985	966	98.5	96.6	80.0-120			2.00	20
Vanadium	1000	983	979	98.3	97.9	80.0-120			0.386	20
Zinc	1000	963	960	96.3	96.0	80.0-120			0.404	20

<sup>1</sup> Cp

<sup>2</sup> Tc

<sup>3</sup> Ss

<sup>4</sup> Cn

<sup>5</sup> Sr

<sup>6</sup> Qc

<sup>7</sup> Gl

<sup>8</sup> Al

<sup>9</sup> Sc

L111469-06 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L111469-06 06/24/19 17:12 • (MS) R3424223-5 06/24/19 17:17 • (MSD) R3424223-6 06/24/19 17:20

Analyte	Spike Amount ug/l	Original Result ug/l	MS Result ug/l	MSD Result ug/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	<u>MS Qualifier</u>	<u>MSD Qualifier</u>	RPD %	RPD Limits %
Aluminum	10000	382	10200	10200	98.0	98.6	1	75.0-125			0.631	20
Antimony	1000	U	957	968	95.7	96.8	1	75.0-125			1.15	20
Arsenic	1000	U	946	952	94.6	95.2	1	75.0-125			0.567	20
Barium	1000	553	1530	1540	98.2	98.8	1	75.0-125			0.416	20
Beryllium	1000	U	993	997	99.3	99.7	1	75.0-125			0.412	20
Cadmium	1000	U	962	968	96.2	96.8	1	75.0-125			0.653	20
Calcium	10000	41400	50600	50200	91.7	87.1	1	75.0-125			0.905	20
Chromium	1000	1.94	965	966	96.3	96.4	1	75.0-125			0.0665	20
Cobalt	1000	U	1000	1010	100	101	1	75.0-125			0.766	20
Copper	1000	U	976	976	97.6	97.6	1	75.0-125			0.0175	20
Iron	10000	25100	34900	34900	98.3	98.5	1	75.0-125			0.0643	20
Lead	1000	2.24	966	973	96.3	97.1	1	75.0-125			0.781	20
Magnesium	10000	3710	13600	13500	98.4	97.9	1	75.0-125			0.380	20
Manganese	1000	2080	2980	2970	89.5	88.8	1	75.0-125			0.246	20
Nickel	1000	U	990	996	99.0	99.6	1	75.0-125			0.622	20
Potassium	10000	3990	13700	13600	97.3	96.5	1	75.0-125			0.581	20
Selenium	1000	U	945	962	94.5	96.2	1	75.0-125			1.79	20
Silver	200	U	184	183	91.8	91.5	1	75.0-125			0.336	20
Sodium	10000	5430	15300	15200	98.7	97.2	1	75.0-125			0.960	20
Thallium	1000	U	975	964	97.5	96.4	1	75.0-125			1.20	20
Vanadium	1000	U	992	1000	99.2	100	1	75.0-125			0.783	20
Zinc	1000	U	955	959	95.5	95.9	1	75.0-125			0.370	20





Method Blank (MB)

(MB) R3425574-1 06/27/19 22:14

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
Aluminum	3.87	U	3.50	10.0
Antimony	U		0.750	2.00
Arsenic	U		0.460	2.00
Barium	U		0.170	0.500
Beryllium	U		0.0700	0.200
Cadmium	U		0.0700	0.500
Calcium	5.49	U	4.63	100
Chromium	U		0.140	1.00
Cobalt	U		0.230	1.00
Copper	U		0.530	2.00
Iron	U		1.41	10.0
Lead	U		0.190	0.500
Magnesium	U		1.11	100
Manganese	U		0.120	1.00
Nickel	U		0.490	2.00
Potassium	U		10.2	100
Selenium	U		0.620	2.00
Silver	U		0.120	1.00
Sodium	18.2	U	9.85	100
Thallium	U		0.650	2.00
Vanadium	0.879	U	0.240	2.00
Zinc	U		0.590	5.00

<sup>1</sup> Cp

<sup>2</sup> Tc

<sup>3</sup> Ss

<sup>4</sup> Cn

<sup>5</sup> Sr

<sup>6</sup> Qc

<sup>7</sup> Gl

<sup>8</sup> Al

<sup>9</sup> Sc

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3425574-2 06/27/19 22:17 • (LCSD) R3425574-3 06/27/19 22:19

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCSD Result mg/kg	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Aluminum	1000	993	1010	99.3	101	80.0-120			1.79	20
Antimony	100	96.8	96.9	96.8	96.9	80.0-120			0.161	20
Arsenic	100	93.9	95.1	93.9	95.1	80.0-120			1.29	20
Barium	100	104	105	104	105	80.0-120			1.30	20
Beryllium	100	97.4	99.0	97.4	99.0	80.0-120			1.59	20
Cadmium	100	97.8	99.1	97.8	99.1	80.0-120			1.26	20
Calcium	1000	985	1000	98.5	100	80.0-120			1.81	20
Chromium	100	96.1	97.3	96.1	97.3	80.0-120			1.21	20
Cobalt	100	99.4	101	99.4	101	80.0-120			1.61	20
Copper	100	94.8	96.1	94.8	96.1	80.0-120			1.34	20
Iron	1000	975	993	97.5	99.3	80.0-120			1.79	20



Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3425574-2 06/27/19 22:17 • (LCSD) R3425574-3 06/27/19 22:19

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCSD Result mg/kg	LCS Rec. %	LCSD Rec. %	Rec. Limits %	<u>LCS Qualifier</u>	<u>LCSD Qualifier</u>	RPD %	RPD Limits %
Lead	100	96.1	97.3	96.1	97.3	80.0-120			1.31	20
Magnesium	1000	994	1010	99.4	101	80.0-120			1.89	20
Manganese	100	95.2	96.6	95.2	96.6	80.0-120			1.49	20
Nickel	100	99.2	101	99.2	101	80.0-120			1.41	20
Potassium	1000	905	926	90.5	92.6	80.0-120			2.21	20
Selenium	100	91.7	93.2	91.7	93.2	80.0-120			1.60	20
Silver	20.0	17.3	17.6	86.4	87.9	80.0-120			1.77	20
Sodium	1000	1030	1040	103	104	80.0-120			1.04	20
Thallium	100	98.7	102	98.7	102	80.0-120			2.86	20
Vanadium	100	99.5	101	99.5	101	80.0-120			1.63	20
Zinc	100	94.2	95.2	94.2	95.2	80.0-120			1.03	20

<sup>1</sup> Cp

<sup>2</sup> Tc

<sup>3</sup> Ss

<sup>4</sup> Cn

<sup>5</sup> Sr

<sup>6</sup> Qc

<sup>7</sup> Gl

<sup>8</sup> Al

<sup>9</sup> Sc

L1111579-06 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1111579-06 06/27/19 22:22 • (MS) R3425574-6 06/27/19 22:30 • (MSD) R3425574-7 06/27/19 22:33

Analyte	Spike Amount (dry) mg/kg	Original Result (dry) mg/kg	MS Result (dry) mg/kg	MSD Result (dry) mg/kg	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	<u>MS Qualifier</u>	<u>MSD Qualifier</u>	RPD %	RPD Limits %
Aluminum	4020	31100	36100	31600	124	12.5	1	75.0-125		<u>V</u>	13.3	20
Antimony	402	ND	396	389	98.4	96.6	1	75.0-125			1.86	20
Arsenic	402	ND	403	393	100	97.8	1	75.0-125			2.37	20
Barium	402	657	1110	892	113	58.3	1	75.0-125		<u>J3 J6</u>	22.0	20
Beryllium	402	ND	407	398	101	98.9	1	75.0-125			2.33	20
Cadmium	402	ND	417	408	103	101	1	75.0-125			2.18	20
Calcium	4020	152000	136000	143000	0.000	0.000	1	75.0-125	<u>V</u>	<u>V</u>	4.95	20
Chromium	402	40.8	431	423	97.0	94.9	1	75.0-125			1.94	20
Cobalt	402	ND	422	413	104	102	1	75.0-125			2.19	20
Copper	402	26.0	428	424	100	99.0	1	75.0-125			0.891	20
Iron	4020	3570	7370	7030	94.5	86.1	1	75.0-125			4.71	20
Lead	402	23.9	423	415	99.3	97.1	1	75.0-125			2.10	20
Magnesium	4020	2830	6620	6190	94.2	83.5	1	75.0-125			6.70	20
Manganese	402	687	1010	943	79.4	63.5	1	75.0-125		<u>J6</u>	6.56	20
Nickel	402	12.1	428	417	103	101	1	75.0-125			2.41	20
Potassium	4020	ND	4300	4200	97.2	94.7	1	75.0-125			2.42	20
Selenium	402	ND	398	384	97.5	94.1	1	75.0-125			3.45	20
Silver	80.5	ND	74.8	74.2	93.0	92.1	1	75.0-125			0.881	20
Sodium	4020	4680	8500	8410	94.8	92.8	1	75.0-125			0.991	20
Thallium	402	ND	442	383	110	95.2	1	75.0-125			14.3	20
Vanadium	402	41.6	454	438	102	98.6	1	75.0-125			3.48	20
Zinc	402	271	656	613	95.8	85.1	1	75.0-125			6.73	20



Method Blank (MB)

(MB) R3425195-3 06/26/19 08:44

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
Acetone	U		0.0137	0.0250
Benzene	U		0.000400	0.00100
Bromodichloromethane	U		0.000788	0.00250
Bromochloromethane	U		0.00113	0.00500
Bromoform	U		0.00598	0.0250
Bromomethane	U		0.00370	0.0125
Carbon disulfide	U		0.00406	0.0125
Carbon tetrachloride	U		0.00108	0.00500
Chlorobenzene	U		0.000573	0.00250
Chlorodibromomethane	U		0.000450	0.00250
Chloroethane	U		0.00108	0.00500
Chloroform	U		0.000415	0.00250
Chloromethane	U		0.00139	0.0125
Cyclohexane	U		0.000508	0.00250
1,2-Dibromo-3-Chloropropane	U		0.00510	0.0250
1,2-Dibromoethane	U		0.000525	0.00250
1,2-Dichlorobenzene	U		0.00145	0.00500
1,3-Dichlorobenzene	U		0.00170	0.00500
1,4-Dichlorobenzene	U		0.00197	0.00500
Dichlorodifluoromethane	U		0.000818	0.00250
1,1-Dichloroethane	U		0.000575	0.00250
1,2-Dichloroethane	U		0.000475	0.00250
1,1-Dichloroethene	U		0.000500	0.00250
cis-1,2-Dichloroethene	U		0.000690	0.00250
trans-1,2-Dichloroethene	U		0.00143	0.00500
1,2-Dichloropropane	U		0.00127	0.00500
cis-1,3-Dichloropropene	U		0.000678	0.00250
trans-1,3-Dichloropropene	U		0.00153	0.00500
Ethylbenzene	U		0.000530	0.00250
2-Hexanone	U		0.0100	0.0250
Isopropylbenzene	U		0.000863	0.00250
2-Butanone (MEK)	0.0146	U	0.0125	0.0250
Methyl Acetate	U		0.00210	0.00500
Methyl Cyclohexane	U		0.00103	0.00500
Methylene Chloride	U		0.00664	0.0250
4-Methyl-2-pentanone (MIBK)	U		0.0100	0.0250
Methyl tert-butyl ether	U		0.000295	0.00100
Styrene	U		0.00273	0.0125
1,1,2,2-Tetrachloroethane	U		0.000390	0.00250
Tetrachloroethene	U		0.000700	0.00250

<sup>1</sup> Cp

<sup>2</sup> Tc

<sup>3</sup> Ss

<sup>4</sup> Cn

<sup>5</sup> Sr

<sup>6</sup> Qc

<sup>7</sup> Gl

<sup>8</sup> Al

<sup>9</sup> Sc



Method Blank (MB)

(MB) R3425195-3 06/26/19 08:44

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
Toluene	U		0.00125	0.00500
1,1,2-Trichlorotrifluoroethane	U		0.000675	0.00250
1,2,3-Trichlorobenzene	U		0.000625	0.00250
1,2,4-Trichlorobenzene	U		0.00482	0.0125
1,1,1-Trichloroethane	U		0.000275	0.00250
1,1,2-Trichloroethane	U		0.000883	0.00250
Trichloroethene	U		0.000400	0.00100
Trichlorofluoromethane	U		0.000500	0.00250
Vinyl chloride	U		0.000683	0.00250
Xylenes, Total	U		0.00478	0.00650
(S) Toluene-d8	101			75.0-131
(S) 4-Bromofluorobenzene	94.2			67.0-138
(S) 1,2-Dichloroethane-d4	96.2			70.0-130

<sup>1</sup> Cp

<sup>2</sup> Tc

<sup>3</sup> Ss

<sup>4</sup> Cn

<sup>5</sup> Sr

<sup>6</sup> Qc

<sup>7</sup> Gl

<sup>8</sup> Al

<sup>9</sup> Sc

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3425195-1 06/26/19 07:23 • (LCSD) R3425195-2 06/26/19 07:43

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCSD Result mg/kg	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Acetone	0.625	0.676	0.650	108	104	70.0-130			3.85	31
Benzene	0.125	0.128	0.114	102	91.1	70.0-130			11.3	20
Bromodichloromethane	0.125	0.106	0.0995	84.8	79.6	70.0-130			6.30	20
Bromoform	0.125	0.111	0.111	88.8	88.9	70.0-130			0.0468	20
Bromochloromethane	0.125	0.105	0.102	84.3	81.5	70.0-130			3.39	20
Bromomethane	0.125	0.125	0.116	99.7	92.5	70.0-130			7.44	20
Carbon tetrachloride	0.125	0.125	0.112	100	90.0	70.0-130			10.6	20
Carbon disulfide	0.125	0.121	0.102	97.1	81.8	70.0-130			17.1	20
Chlorobenzene	0.125	0.111	0.105	88.6	84.4	70.0-130			4.93	20
Chlorodibromomethane	0.125	0.109	0.104	87.3	83.6	70.0-130			4.35	20
Chloroethane	0.125	0.135	0.117	108	93.7	70.0-130			14.4	20
Chloroform	0.125	0.117	0.111	93.3	89.0	70.0-130			4.64	20
Chloromethane	0.125	0.135	0.118	108	94.5	70.0-130			13.4	20
1,2-Dibromo-3-Chloropropane	0.125	0.112	0.113	89.4	90.4	70.0-130			1.11	20
1,2-Dibromoethane	0.125	0.114	0.108	91.4	86.8	70.0-130			5.19	20
1,2-Dichlorobenzene	0.125	0.123	0.119	98.8	95.3	70.0-130			3.57	20
1,3-Dichlorobenzene	0.125	0.120	0.112	96.2	89.3	70.0-130			7.46	20
1,4-Dichlorobenzene	0.125	0.119	0.114	95.1	91.5	70.0-130			3.85	20
Dichlorodifluoromethane	0.125	0.119	0.0893	95.4	71.4	70.0-130		J3	28.7	20
1,1-Dichloroethane	0.125	0.126	0.115	101	92.0	70.0-130			9.46	20



Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3425195-1 06/26/19 07:23 • (LCSD) R3425195-2 06/26/19 07:43

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCSD Result mg/kg	LCS Rec. %	LCSD Rec. %	Rec. Limits %	<u>LCS Qualifier</u>	<u>LCSD Qualifier</u>	RPD %	RPD Limits %
1,2-Dichloroethane	0.125	0.136	0.130	109	104	70.0-130			4.72	20
1,1-Dichloroethene	0.125	0.134	0.124	107	99.1	70.0-130			7.84	20
cis-1,2-Dichloroethene	0.125	0.117	0.112	93.9	89.4	70.0-130			4.88	20
trans-1,2-Dichloroethene	0.125	0.114	0.107	90.9	85.6	70.0-130			6.00	20
1,2-Dichloropropane	0.125	0.110	0.101	88.0	80.6	70.0-130			8.80	20
cis-1,3-Dichloropropene	0.125	0.110	0.107	88.2	85.6	70.0-130			2.92	20
trans-1,3-Dichloropropene	0.125	0.120	0.113	96.2	90.5	70.0-130			6.11	20
Ethylbenzene	0.125	0.130	0.119	104	95.3	70.0-130			8.45	20
2-Hexanone	0.625	0.674	0.660	108	106	70.0-130			2.06	20
Isopropylbenzene	0.125	0.116	0.104	92.8	82.8	70.0-130			11.4	20
2-Butanone (MEK)	0.625	0.750	0.734	120	117	70.0-130			2.17	24
Methylene Chloride	0.125	0.106	0.104	84.8	82.9	70.0-130			2.22	20
4-Methyl-2-pentanone (MIBK)	0.625	0.697	0.683	112	109	70.0-130			2.10	20
Methyl tert-butyl ether	0.125	0.129	0.122	103	97.7	70.0-130			5.52	20
Styrene	0.125	0.107	0.0995	85.8	79.6	70.0-130			7.49	20
1,1,2,2-Tetrachloroethane	0.125	0.147	0.141	117	113	70.0-130			4.12	20
Tetrachloroethene	0.125	0.117	0.103	93.9	82.5	70.0-130			12.9	20
Toluene	0.125	0.126	0.116	100	92.6	70.0-130			8.18	20
1,1,2-Trichlorotrifluoroethane	0.125	0.132	0.119	105	95.2	70.0-130			10.2	20
1,2,3-Trichlorobenzene	0.125	0.113	0.110	90.5	88.2	70.0-130			2.53	20
1,2,4-Trichlorobenzene	0.125	0.122	0.118	97.4	94.2	70.0-130			3.39	20
1,1,1-Trichloroethane	0.125	0.135	0.120	108	95.7	70.0-130			11.8	20
1,1,2-Trichloroethane	0.125	0.107	0.101	85.2	80.6	70.0-130			5.57	20
Trichloroethene	0.125	0.123	0.114	98.2	91.4	70.0-130			7.19	20
Trichlorofluoromethane	0.125	0.132	0.113	106	90.3	70.0-130			15.8	20
Vinyl chloride	0.125	0.132	0.119	106	95.1	70.0-130			10.8	20
Xylenes, Total	0.375	0.325	0.300	86.7	80.0	70.0-130			8.00	20
(S) Toluene-d8				98.7	98.4	75.0-131				
(S) 4-Bromofluorobenzene				92.1	93.0	67.0-138				
(S) 1,2-Dichloroethane-d4				107	104	70.0-130				

<sup>1</sup> Cp

<sup>2</sup> Tc

<sup>3</sup> Ss

<sup>4</sup> Cn

<sup>5</sup> Sr

<sup>6</sup> Qc

<sup>7</sup> Gl

<sup>8</sup> Al

<sup>9</sup> Sc



Method Blank (MB)

(MB) R3425059-2 06/26/19 13:34

Analyte	MB Result ug/l	MB Qualifier	MB MDL ug/l	MB RDL ug/l
Acetone	U		10.0	50.0
Benzene	U		0.331	1.00
Bromodichloromethane	U		0.380	1.00
Bromochloromethane	U		0.520	1.00
Bromoform	U		0.469	1.00
Bromomethane	U		0.866	5.00
Carbon disulfide	U		0.275	1.00
Carbon tetrachloride	U		0.379	1.00
Chlorobenzene	U		0.348	1.00
Chlorodibromomethane	U		0.327	1.00
Chloroethane	U		0.453	5.00
Chloroform	U		0.324	5.00
Chloromethane	U		0.276	2.50
Cyclohexane	U		0.390	1.00
1,2-Dibromo-3-Chloropropane	U		1.33	5.00
1,2-Dichlorobenzene	U		0.349	1.00
1,2-Dibromoethane	U		0.381	1.00
1,3-Dichlorobenzene	U		0.220	1.00
1,4-Dichlorobenzene	U		0.274	1.00
Dichlorodifluoromethane	U		0.551	5.00
1,1-Dichloroethane	U		0.259	1.00
1,2-Dichloroethane	U		0.361	1.00
1,1-Dichloroethene	U		0.398	1.00
trans-1,2-Dichloroethene	U		0.396	1.00
1,2-Dichloropropane	U		0.306	1.00
cis-1,2-Dichloroethene	U		0.260	1.00
cis-1,3-Dichloropropene	U		0.418	1.00
trans-1,3-Dichloropropene	U		0.419	1.00
Ethylbenzene	U		0.384	1.00
2-Hexanone	U		3.82	10.0
Isopropylbenzene	U		0.326	1.00
Methyl Acetate	U		4.30	20.0
Methyl Cyclohexane	U		0.380	1.00
Methylene Chloride	U		1.00	5.00
2-Butanone (MEK)	U		3.93	10.0
Methyl tert-butyl ether	U		0.367	1.00
4-Methyl-2-pentanone (MIBK)	U		2.14	10.0
1,1,2,2-Tetrachloroethane	U		0.130	1.00
Tetrachloroethene	U		0.372	1.00
Toluene	U		0.412	1.00

<sup>1</sup> Cp

<sup>2</sup> Tc

<sup>3</sup> Ss

<sup>4</sup> Cn

<sup>5</sup> Sr

<sup>6</sup> Qc

<sup>7</sup> Gl

<sup>8</sup> Al

<sup>9</sup> Sc





Method Blank (MB)

(MB) R3425059-2 06/26/19 13:34

Analyte	MB Result	MB Qualifier	MB MDL	MB RDL
	ug/l		ug/l	ug/l
Styrene	U		0.307	1.00
1,2,4-Trichlorobenzene	U		0.355	1.00
1,1,1-Trichloroethane	U		0.319	1.00
1,1,2-Trichloroethane	U		0.383	1.00
Trichloroethene	U		0.398	1.00
1,1,2-Trichlorotrifluoroethane	U		0.303	1.00
Trichlorofluoromethane	U		1.20	5.00
1,2,3-Trichlorobenzene	0.410	J	0.230	1.00
Vinyl chloride	U		0.259	1.00
Xylenes, Total	U		1.06	3.00
(S) Toluene-d8	101			80.0-120
(S) 4-Bromofluorobenzene	104			77.0-126
(S) 1,2-Dichloroethane-d4	106			70.0-130

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

Laboratory Control Sample (LCS)

(LCS) R3425059-1 06/26/19 12:54

Analyte	Spike Amount	LCS Result	LCS Rec.	Rec. Limits	LCS Qualifier
	ug/l	ug/l	%	%	
Benzene	25.0	25.2	101	70.0-130	
Bromodichloromethane	25.0	22.9	91.5	70.0-130	
Bromoform	25.0	23.6	94.3	70.0-130	
Bromomethane	25.0	22.5	90.0	70.0-130	
Bromochloromethane	25.0	27.4	110	70.0-130	
Carbon tetrachloride	25.0	26.7	107	70.0-130	
Chlorobenzene	25.0	26.0	104	70.0-130	
Chlorodibromomethane	25.0	24.4	97.6	70.0-130	
Chloroethane	25.0	24.6	98.6	70.0-130	
Carbon disulfide	25.0	23.6	94.5	70.0-130	
Chloroform	25.0	26.7	107	70.0-130	
Acetone	125	117	94.0	70.0-130	
Chloromethane	25.0	21.7	86.8	70.0-130	
1,2-Dichlorobenzene	25.0	25.8	103	70.0-130	
1,3-Dichlorobenzene	25.0	25.9	104	70.0-130	
1,4-Dichlorobenzene	25.0	25.9	104	70.0-130	
Dichlorodifluoromethane	25.0	25.6	102	70.0-130	
1,1-Dichloroethane	25.0	24.8	99.1	70.0-130	
1,2-Dichloroethane	25.0	26.1	104	70.0-130	
1,1-Dichloroethene	25.0	25.2	101	70.0-130	



Laboratory Control Sample (LCS)

(LCS) R3425059-1 06/26/19 12:54

Analyte	Spike Amount ug/l	LCS Result ug/l	LCS Rec. %	Rec. Limits %	<u>LCS Qualifier</u>
trans-1,2-Dichloroethene	25.0	25.7	103	70.0-130	
1,2-Dichloropropane	25.0	25.8	103	70.0-130	
cis-1,3-Dichloropropene	25.0	25.4	102	70.0-130	
trans-1,3-Dichloropropene	25.0	22.4	89.7	70.0-130	
1,2-Dibromo-3-Chloropropane	25.0	20.5	82.1	70.0-130	
1,2-Dibromoethane	25.0	25.6	102	70.0-130	
Ethylbenzene	25.0	25.8	103	70.0-130	
2-Hexanone	125	123	98.4	70.0-130	
Methylene Chloride	25.0	24.4	97.6	70.0-130	
cis-1,2-Dichloroethene	25.0	24.1	96.5	70.0-130	
1,1,2,2-Tetrachloroethane	25.0	23.7	94.6	70.0-130	
Methyl tert-butyl ether	25.0	25.2	101	70.0-130	
Tetrachloroethene	25.0	26.4	106	70.0-130	
Toluene	25.0	25.0	100	70.0-130	
1,2,4-Trichlorobenzene	25.0	21.4	85.7	70.0-130	
1,1,1-Trichloroethane	25.0	25.8	103	70.0-130	
1,1,2-Trichloroethane	25.0	22.9	91.6	70.0-130	
Isopropylbenzene	25.0	25.1	101	70.0-130	
Trichloroethene	25.0	25.8	103	70.0-130	
2-Butanone (MEK)	125	132	106	70.0-130	
Trichlorofluoromethane	25.0	27.7	111	70.0-130	
4-Methyl-2-pentanone (MIBK)	125	123	98.7	70.0-130	
Vinyl chloride	25.0	26.3	105	70.0-130	
Xylenes, Total	75.0	77.4	103	70.0-130	
Styrene	25.0	23.9	95.6	70.0-130	
1,1,2-Trichlorotrifluoroethane	25.0	25.2	101	70.0-130	
1,2,3-Trichlorobenzene	25.0	19.1	76.5	70.0-130	
(S) Toluene-d8			98.8	80.0-120	
(S) 4-Bromofluorobenzene			101	77.0-126	
(S) 1,2-Dichloroethane-d4			109	70.0-130	

<sup>1</sup> Cp

<sup>2</sup> Tc

<sup>3</sup> Ss

<sup>4</sup> Cn

<sup>5</sup> Sr

<sup>6</sup> Qc

<sup>7</sup> Gl

<sup>8</sup> Al

<sup>9</sup> Sc



Method Blank (MB)

(MB) R3425337-2 06/27/19 08:56

Analyte	MB Result ug/l	MB Qualifier	MB MDL ug/l	MB RDL ug/l
Aldrin	U		0.00813	0.0500
Alpha BHC	U		0.0166	0.0500
Beta BHC	U		0.0184	0.0500
Delta BHC	U		0.0197	0.0500
Gamma BHC	U		0.0176	0.0500
4,4-DDD	U		0.0170	0.0500
4,4-DDE	U		0.0164	0.0500
4,4-DDT	U		0.0177	0.0500
Dieldrin	U		0.00751	0.0500
Endosulfan I	U		0.0179	0.0500
Endosulfan II	U		0.0176	0.0500
Endosulfan sulfate	U		0.0196	0.0500
Endrin	U		0.0189	0.0500
Endrin aldehyde	U		0.0142	0.0500
Endrin ketone	U		0.0170	0.0500
Heptachlor	U		0.0108	0.0500
Heptachlor epoxide	U		0.0175	0.0500
Hexachlorobenzene	U		0.0134	0.0500
Methoxychlor	U		0.0193	0.0500
Chlordane	U		0.0977	5.00
Toxaphene	U		0.168	0.500
(S) Decachlorobiphenyl	91.6			10.0-128
(S) Tetrachloro-m-xylene	96.7			10.0-127

<sup>1</sup> Cp

<sup>2</sup> Tc

<sup>3</sup> Ss

<sup>4</sup> Cn

<sup>5</sup> Sr

<sup>6</sup> Qc

<sup>7</sup> Gl

<sup>8</sup> Al

<sup>9</sup> Sc

Laboratory Control Sample (LCS)

(LCS) R3425337-1 06/27/19 08:41

Analyte	Spike Amount ug/l	LCS Result ug/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Aldrin	1.00	1.04	104	70.0-130	
Alpha BHC	1.00	1.07	107	70.0-130	
Beta BHC	1.00	0.999	99.9	70.0-130	
Delta BHC	1.00	1.09	109	70.0-130	
Gamma BHC	1.00	1.02	102	70.0-130	
4,4-DDD	1.00	1.11	111	70.0-130	
4,4-DDE	1.00	1.10	110	70.0-130	
4,4-DDT	1.00	1.32	132	70.0-130	<u>J4</u>
Dieldrin	1.00	1.08	108	70.0-130	
Endosulfan I	1.00	1.05	105	70.0-130	



Laboratory Control Sample (LCS)

(LCS) R3425337-1 06/27/19 08:41

Analyte	Spike Amount ug/l	LCS Result ug/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Endosulfan II	1.00	1.01	101	70.0-130	
Endosulfan sulfate	1.00	1.16	116	70.0-130	
Endrin	1.00	1.10	110	70.0-130	
Endrin aldehyde	1.00	1.07	107	70.0-130	
Endrin ketone	1.00	1.43	143	70.0-130	J4
Heptachlor	1.00	1.15	115	70.0-130	
Heptachlor epoxide	1.00	1.08	108	70.0-130	
Hexachlorobenzene	1.00	0.946	94.6	70.0-130	
Methoxychlor	1.00	1.65	165	70.0-130	J4
(S) Decachlorobiphenyl			91.4	10.0-128	
(S) Tetrachloro-m-xylene			106	10.0-127	

- 1 Cp
- 2 Tc
- 3 Ss
- 4 Cn
- 5 Sr
- 6 Qc
- 7 Gl
- 8 Al
- 9 Sc

L1111547-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1111547-01 06/27/19 12:38 • (MS) R3425337-3 06/27/19 12:53 • (MSD) R3425337-4 06/27/19 13:07

Analyte	Spike Amount ug/l	Original Result ug/l	MS Result ug/l	MSD Result ug/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Aldrin	1.00	U	0.895	0.811	89.5	81.1	1	35.0-126			9.85	24
Alpha BHC	1.00	U	0.981	0.904	98.1	90.4	1	55.0-133			8.17	20
Beta BHC	1.00	U	0.868	0.811	86.8	81.1	1	59.0-131			6.79	20
Delta BHC	1.00	U	0.967	0.893	96.7	89.3	1	61.0-134			7.96	20
Gamma BHC	1.00	U	0.963	0.889	96.3	88.9	1	56.0-133			7.99	20
4,4-DDD	1.00	U	1.09	0.990	109	99.0	1	59.0-138			9.62	20
4,4-DDE	1.00	U	0.901	0.832	90.1	83.2	1	58.0-131			7.96	20
4,4-DDT	1.00	U	1.11	1.04	111	104	1	43.0-147			6.51	20
Dieldrin	1.00	U	0.961	0.885	96.1	88.5	1	62.0-136			8.23	20
Endosulfan I	1.00	U	0.910	0.834	91.0	83.4	1	62.0-137			8.72	20
Endosulfan II	1.00	U	0.921	0.844	92.1	84.4	1	62.0-136			8.73	20
Endosulfan sulfate	1.00	U	1.08	0.988	108	98.8	1	60.0-139			8.90	20
Endrin	1.00	U	0.989	0.908	98.9	90.8	1	58.0-135			8.54	20
Endrin aldehyde	1.00	U	0.946	0.872	94.6	87.2	1	56.0-128			8.14	20
Endrin ketone	1.00	U	1.28	1.18	128	118	1	54.0-142			8.13	20
Heptachlor	1.00	U	1.04	0.958	104	95.8	1	37.0-134			8.21	24
Heptachlor epoxide	1.00	U	0.967	0.890	96.7	89.0	1	60.0-132			8.29	20
Hexachlorobenzene	1.00	U	0.795	0.741	79.5	74.1	1	35.0-120			7.03	25
Methoxychlor	1.00	U	1.37	1.27	137	127	1	44.0-160			7.58	22
(S) Decachlorobiphenyl					83.8	76.5		10.0-128				
(S) Tetrachloro-m-xylene					93.1	85.2		10.0-127				



Method Blank (MB)

(MB) R3425170-2 06/26/19 17:48

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
Aldrin	U		0.00135	0.0200
Alpha BHC	U		0.00136	0.0200
Beta BHC	U		0.00160	0.0200
Delta BHC	U		0.00143	0.0200
Gamma BHC	U		0.00145	0.0200
4,4-DDD	U		0.00156	0.0200
4,4-DDE	U		0.00154	0.0200
4,4-DDT	U		0.00200	0.0200
Dieldrin	U		0.00152	0.0200
Endosulfan I	U		0.00149	0.0200
Endosulfan II	U		0.00160	0.0200
Endosulfan sulfate	U		0.00151	0.0200
Endrin	U		0.00157	0.0200
Endrin aldehyde	U		0.00129	0.0200
Endrin ketone	U		0.00165	0.0200
Heptachlor	U		0.00154	0.0200
Heptachlor epoxide	U		0.00161	0.0200
Hexachlorobenzene	U		0.00124	0.0200
Methoxychlor	U		0.00178	0.0200
Chlordane	U		0.0390	0.200
Toxaphene	U		0.0360	0.400
(S) Decachlorobiphenyl	86.9			10.0-135
(S) Tetrachloro-m-xylene	98.2			10.0-139

<sup>1</sup> Cp

<sup>2</sup> Tc

<sup>3</sup> Ss

<sup>4</sup> Cn

<sup>5</sup> Sr

<sup>6</sup> Qc

<sup>7</sup> Gl

<sup>8</sup> Al

<sup>9</sup> Sc

Laboratory Control Sample (LCS)

(LCS) R3425170-1 06/26/19 17:35

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
Aldrin	0.0666	0.0519	77.9	70.0-130	
Alpha BHC	0.0666	0.0547	82.1	70.0-130	
Beta BHC	0.0666	0.0500	75.1	70.0-130	
Delta BHC	0.0666	0.0551	82.7	70.0-130	
Gamma BHC	0.0666	0.0533	80.0	70.0-130	
4,4-DDD	0.0666	0.0522	78.4	70.0-130	
4,4-DDE	0.0666	0.0567	85.1	70.0-130	
4,4-DDT	0.0666	0.0511	76.7	70.0-130	
Dieldrin	0.0666	0.0524	78.7	70.0-130	
Endosulfan I	0.0666	0.0513	77.0	70.0-130	



Laboratory Control Sample (LCS)

(LCS) R3425170-1 06/26/19 17:35

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	<u>LCS Qualifier</u>
Endosulfan II	0.0666	0.0492	73.9	70.0-130	
Endosulfan sulfate	0.0666	0.0496	74.5	70.0-130	
Endrin	0.0666	0.0511	76.7	70.0-130	
Endrin aldehyde	0.0666	0.0468	70.3	70.0-130	
Endrin ketone	0.0666	0.0627	94.1	70.0-130	
Heptachlor	0.0666	0.0542	81.4	70.0-130	
Heptachlor epoxide	0.0666	0.0521	78.2	70.0-130	
Hexachlorobenzene	0.0666	0.0579	86.9	70.0-130	
Methoxychlor	0.0666	0.0483	72.5	70.0-130	
<i>(S) Decachlorobiphenyl</i>			84.1	10.0-135	
<i>(S) Tetrachloro-m-xylene</i>			94.7	10.0-139	

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

L111579-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L111579-01 06/26/19 18:00 • (MS) R3425170-3 06/26/19 18:12 • (MSD) R3425170-4 06/26/19 18:25

Analyte	Spike Amount (dry) mg/kg	Original Result (dry) mg/kg	MS Result (dry) mg/kg	MSD Result (dry) mg/kg	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	<u>MS Qualifier</u>	<u>MSD Qualifier</u>	RPD %	RPD Limits %
Aldrin	0.164	ND	0.0867	0.110	52.9	67.3	1	20.2-150	P	J3	24.0	21
Alpha BHC	0.164	ND	0.116	0.136	70.7	82.9	1	35.3-155	P	P	15.8	20
Beta BHC	0.164	ND	0.104	0.122	63.4	74.2	1	30.4-160	P	P	15.7	21
Delta BHC	0.164	ND	0.115	0.136	70.4	82.9	1	27.8-160			16.3	22
Gamma BHC	0.164	ND	0.113	0.131	68.9	80.2	1	32.6-149	P	P	15.1	20
4,4-DDD	0.164	ND	0.0931	0.116	56.8	71.0	1	33.0-145	P	J3 P	22.3	21
4,4-DDE	0.164	ND	0.0928	0.117	56.6	71.2	1	26.3-151	P	J3 P	22.8	21
4,4-DDT	0.164	ND	0.0876	0.110	53.5	67.0	1	11.8-145	P	J3 P	22.4	21
Dieldrin	0.164	ND	0.0940	0.117	57.4	71.2	1	24.8-149	P	J3 P	21.5	20
Endosulfan I	0.164	ND	0.0935	0.116	57.1	70.9	1	20.7-152	P	J3	21.6	20
Endosulfan II	0.164	ND	0.0953	0.117	58.1	71.2	1	22.1-150	P	P	20.2	21
Endosulfan sulfate	0.164	ND	0.101	0.120	61.4	73.3	1	24.6-151	P	P	17.6	22
Endrin	0.164	ND	0.0935	0.116	57.1	70.6	1	27.3-149	P	J3 P	21.2	20
Endrin aldehyde	0.164	ND	0.0995	0.117	60.7	71.3	1	11.0-157	P		16.2	23
Endrin ketone	0.164	ND	0.131	0.153	80.0	93.1	1	28.5-148	P	P	15.1	21
Heptachlor	0.164	ND	0.0923	0.115	56.3	70.1	1	26.7-144	P	J3	21.9	20
Heptachlor epoxide	0.164	ND	0.155	0.152	94.6	92.8	1	25.2-155	P	P	1.92	20
Hexachlorobenzene	0.164	ND	0.0955	0.119	58.3	72.4	1	19.0-156	P	J3 P	21.6	20
Methoxychlor	0.164	ND	0.0852	0.104	52.0	63.5	1	10.0-164	P		20.0	22
<i>(S) Decachlorobiphenyl</i>					78.7	85.7		10.0-135				
<i>(S) Tetrachloro-m-xylene</i>					88.4	94.7		10.0-139				





Method Blank (MB)

(MB) R3425672-3 06/27/19 14:56

Analyte	MB Result	MB Qualifier	MB MDL	MB RDL
	ug/l		ug/l	ug/l
PCB 1260	U		0.120	0.500
PCB 1016	U		0.100	0.500
PCB 1221	U		0.0730	0.500
PCB 1232	U		0.0420	0.500
PCB 1242	U		0.0470	0.500
PCB 1248	U		0.0860	0.500
PCB 1254	U		0.0470	0.500
(S) Decachlorobiphenyl	99.1			10.0-128
(S) Tetrachloro-m-xylene	94.9			10.0-127

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3425672-1 06/27/19 11:56 • (LCSD) R3425672-2 06/27/19 12:10

Analyte	Spike Amount	LCS Result	LCSD Result	LCS Rec.	LCSD Rec.	Rec. Limits	LCS Qualifier	LCSD Qualifier	RPD	RPD Limits
	ug/l	ug/l	ug/l	%	%	%			%	%
PCB 1260	2.50	3.07	3.15	123	126	70.0-130			2.57	20
PCB 1016	2.50	2.06	2.21	82.4	88.4	70.0-130			7.03	20
(S) Decachlorobiphenyl				101	104	10.0-128				
(S) Tetrachloro-m-xylene				81.7	90.2	10.0-127				

7 Gl

8 Al

9 Sc



Method Blank (MB)

(MB) R3425281-1 06/26/19 17:33

Analyte	MB Result	MB Qualifier	MB MDL	MB RDL
	mg/kg		mg/kg	mg/kg
PCB 1260	U		0.00494	0.0170
PCB 1016	U		0.00350	0.0170
PCB 1221	U		0.00537	0.0170
PCB 1232	U		0.00417	0.0170
PCB 1242	U		0.00318	0.0170
PCB 1248	U		0.00315	0.0170
PCB 1254	U		0.00472	0.0170
(S) Decachlorobiphenyl	88.0			10.0-135
(S) Tetrachloro-m-xylene	82.1			10.0-139

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

Laboratory Control Sample (LCS)

(LCS) R3425281-2 06/26/19 17:46

Analyte	Spike Amount	LCS Result	LCS Rec.	Rec. Limits	LCS Qualifier
	mg/kg	mg/kg	%	%	
PCB 1260	0.167	0.102	61.1	70.0-130	J4
PCB 1016	0.167	0.112	67.1	70.0-130	J4
(S) Decachlorobiphenyl			74.6	10.0-135	
(S) Tetrachloro-m-xylene			73.7	10.0-139	

L1111579-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1111579-01 06/26/19 18:10 • (MS) R3425281-3 06/26/19 18:23 • (MSD) R3425281-4 06/26/19 18:35

Analyte	Spike Amount (dry)	Original Result (dry)	MS Result (dry)	MSD Result (dry)	MS Rec.	MSD Rec.	Dilution	Rec. Limits	MS Qualifier	MSD Qualifier	RPD	RPD Limits
	mg/kg	mg/kg	mg/kg	mg/kg	%	%		%			%	%
PCB 1260	0.411	ND	0.219	0.240	53.2	58.3	1	24.6-127	P	P	9.13	23
PCB 1016	0.411	ND	0.212	0.217	51.7	52.9	1	23.9-147			2.29	33
(S) Decachlorobiphenyl					73.7	81.5		10.0-135				
(S) Tetrachloro-m-xylene					79.6	86.8		10.0-139				



Method Blank (MB)

(MB) R3426040-3 06/28/19 10:59

Analyte	MB Result ug/l	MB Qualifier	MB MDL ug/l	MB RDL ug/l
Acenaphthene	U		0.316	1.00
Acenaphthylene	U		0.309	1.00
Acetophenone	U		2.71	10.0
Anthracene	U		0.291	1.00
Atrazine	U		1.53	10.0
Benzaldehyde	U		1.40	10.0
Benzo(a)anthracene	U		0.0975	1.00
Benzo(b)fluoranthene	U		0.0896	1.00
Benzo(k)fluoranthene	U		0.355	1.00
Benzo(g,h,i)perylene	U		0.161	1.00
Benzo(a)pyrene	U		0.340	1.00
Biphenyl	U		0.206	10.0
Bis(2-chlorethoxy)methane	U		0.329	10.0
Bis(2-chloroethyl)ether	U		1.62	10.0
Bis(2-chloroisopropyl)ether	U		0.445	10.0
4-Bromophenyl-phenylether	U		0.335	10.0
Caprolactam	U		0.583	10.0
Carbazole	U		0.162	10.0
4-Chloroaniline	U		0.382	10.0
2-Chloronaphthalene	U		0.330	1.00
4-Chlorophenyl-phenylether	U		0.303	10.0
Chrysene	U		0.332	1.00
Dibenz(a,h)anthracene	U		0.279	1.00
Dibenzofuran	U		0.338	10.0
3,3-Dichlorobenzidine	U		2.02	10.0
2,4-Dinitrotoluene	U		1.65	10.0
2,6-Dinitrotoluene	U		0.279	10.0
Fluoranthene	U		0.310	1.00
Fluorene	U		0.323	1.00
Hexachlorobenzene	U		0.341	1.00
Hexachloro-1,3-butadiene	U		0.329	10.0
Hexachlorocyclopentadiene	U		2.33	10.0
Hexachloroethane	U		0.365	10.0
Indeno(1,2,3-cd)pyrene	U		0.279	1.00
Isophorone	U		0.272	10.0
2-Methylnaphthalene	U		0.311	1.00
Naphthalene	U		0.372	1.00
2-Nitroaniline	U		1.90	10.0
3-Nitroaniline	U		0.308	10.0
4-Nitroaniline	U		0.349	10.0

<sup>1</sup> Cp

<sup>2</sup> Tc

<sup>3</sup> Ss

<sup>4</sup> Cn

<sup>5</sup> Sr

<sup>6</sup> Qc

<sup>7</sup> Gl

<sup>8</sup> Al

<sup>9</sup> Sc



Method Blank (MB)

(MB) R3426040-3 06/28/19 10:59

Analyte	MB Result	MB Qualifier	MB MDL	MB RDL
	ug/l		ug/l	ug/l
Nitrobenzene	U		0.367	10.0
n-Nitrosodiphenylamine	U		1.19	10.0
n-Nitrosodi-n-propylamine	U		0.403	10.0
Phenanthrene	U		0.366	1.00
Benzylbutyl phthalate	U		0.275	3.00
Bis(2-ethylhexyl)phthalate	U		0.709	3.00
Di-n-butyl phthalate	U		0.266	3.00
Diethyl phthalate	U		0.282	3.00
Dimethyl phthalate	U		0.283	3.00
Di-n-octyl phthalate	U		0.278	3.00
Pyrene	U		0.330	1.00
4-Chloro-3-methylphenol	U		0.263	10.0
2-Chlorophenol	U		0.283	10.0
2-Methylphenol	U		0.312	10.0
3&4-Methyl Phenol	U		0.266	10.0
2,4-Dichlorophenol	U		0.284	10.0
2,4-Dimethylphenol	U		0.624	10.0
4,6-Dinitro-2-methylphenol	U		2.62	10.0
2,4-Dinitrophenol	U		3.25	10.0
2-Nitrophenol	U		0.320	10.0
4-Nitrophenol	U		2.01	10.0
Pentachlorophenol	U		0.313	10.0
Phenol	U		0.334	10.0
1,2,4,5-Tetrachlorobenzene	U		2.41	10.0
2,4,5-Trichlorophenol	U		0.236	10.0
2,4,6-Trichlorophenol	U		0.297	10.0
(S) Nitrobenzene-d5	31.4			10.0-127
(S) 2-Fluorobiphenyl	34.7			10.0-130
(S) p-Terphenyl-d14	60.9			10.0-128
(S) Phenol-d5	22.6			10.0-120
(S) 2-Fluorophenol	33.2			10.0-120
(S) 2,4,6-Tribromophenol	51.5			10.0-155

<sup>1</sup> Cp

<sup>2</sup> Tc

<sup>3</sup> Ss

<sup>4</sup> Cn

<sup>5</sup> Sr

<sup>6</sup> Qc

<sup>7</sup> Gl

<sup>8</sup> Al

<sup>9</sup> Sc



Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3426040-1 06/28/19 10:16 • (LCSD) R3426040-2 06/28/19 10:37

Analyte	Spike Amount ug/l	LCS Result ug/l	LCSD Result ug/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Acenaphthene	50.0	11.2	10.2	22.4	20.4	70.0-130	J4	J4	9.35	20
Acenaphthylene	50.0	11.6	10.4	23.2	20.8	70.0-130	J4	J4	10.9	20
Acetophenone	50.0	11.1	9.70	22.2	19.4	70.0-130	J4	J4	13.5	20
Anthracene	50.0	22.6	22.9	45.2	45.8	70.0-130	J4	J4	1.32	20
Atrazine	50.0	31.2	31.2	62.4	62.4	70.0-130	J4	J4	0.000	20
Benzaldehyde	50.0	13.2	11.9	26.4	23.8	70.0-130	J4	J4	10.4	20
Benzo(a)anthracene	50.0	26.3	26.2	52.6	52.4	70.0-130	J4	J4	0.381	20
Benzo(b)fluoranthene	50.0	25.6	24.8	51.2	49.6	70.0-130	J4	J4	3.17	20
Benzo(k)fluoranthene	50.0	24.7	24.7	49.4	49.4	70.0-130	J4	J4	0.000	20
Benzo(g,h,i)perylene	50.0	24.8	24.2	49.6	48.4	70.0-130	J4	J4	2.45	20
Benzo(a)pyrene	50.0	24.8	24.3	49.6	48.6	70.0-130	J4	J4	2.04	20
Biphenyl	50.0	10.2	9.08	20.4	18.2	70.0-130	J4	J4	11.6	20
Bis(2-chloroethoxy)methane	50.0	12.0	10.5	24.0	21.0	70.0-130	J4	J4	13.3	20
Bis(2-chloroethyl)ether	50.0	11.5	11.2	23.0	22.4	70.0-130	J4	J4	2.64	20
Bis(2-chloroisopropyl)ether	50.0	9.10	7.93	18.2	15.9	70.0-130	J4	J4	13.7	20
4-Bromophenyl-phenylether	50.0	19.4	19.1	38.8	38.2	70.0-130	J4	J4	1.56	20
Caprolactam	50.0	10.1	14.4	20.2	28.8	70.0-130	J4	J3 J4	35.1	20
Carbazole	50.0	26.4	26.2	52.8	52.4	70.0-130	J4	J4	0.760	20
4-Chloroaniline	50.0	26.3	29.9	52.6	59.8	70.0-130	J4	J4	12.8	20
2-Chloronaphthalene	50.0	9.13	8.62	18.3	17.2	70.0-130	J4	J4	5.75	20
4-Chlorophenyl-phenylether	50.0	17.2	16.1	34.4	32.2	70.0-130	J4	J4	6.61	20
Chrysene	50.0	25.0	24.6	50.0	49.2	70.0-130	J4	J4	1.61	20
Dibenz(a,h)anthracene	50.0	25.8	24.6	51.6	49.2	70.0-130	J4	J4	4.76	20
Dibenzofuran	50.0	14.0	12.6	28.0	25.2	70.0-130	J4	J4	10.5	20
3,3-Dichlorobenzidine	100	45.7	45.4	45.7	45.4	70.0-130	J4	J4	0.659	20
2,4-Dinitrotoluene	50.0	28.2	27.6	56.4	55.2	70.0-130	J4	J4	2.15	20
2,6-Dinitrotoluene	50.0	21.9	21.3	43.8	42.6	70.0-130	J4	J4	2.78	20
Fluoranthene	50.0	26.2	26.3	52.4	52.6	70.0-130	J4	J4	0.381	20
Fluorene	50.0	16.8	16.0	33.6	32.0	70.0-130	J4	J4	4.88	20
Hexachlorobenzene	50.0	21.6	22.1	43.2	44.2	70.0-130	J4	J4	2.29	20
Hexachloro-1,3-butadiene	50.0	7.79	7.18	15.6	14.4	70.0-130	J4	J4	8.15	20
Hexachlorocyclopentadiene	50.0	7.33	7.25	14.7	14.5	70.0-130	J4	J4	1.10	20
Hexachloroethane	50.0	7.35	6.95	14.7	13.9	70.0-130	J4	J4	5.59	20
Indeno(1,2,3-cd)pyrene	50.0	25.4	24.9	50.8	49.8	70.0-130	J4	J4	1.99	20
Isophorone	50.0	15.3	13.9	30.6	27.8	70.0-130	J4	J4	9.59	20
2-Methylnaphthalene	50.0	8.39	7.82	16.8	15.6	70.0-130	J4	J4	7.03	20
Naphthalene	50.0	7.49	6.88	15.0	13.8	70.0-130	J4	J4	8.49	20
2-Nitroaniline	50.0	22.7	22.0	45.4	44.0	70.0-130	J4	J4	3.13	20
3-Nitroaniline	50.0	29.1	30.7	58.2	61.4	70.0-130	J4	J4	5.35	20
4-Nitroaniline	50.0	27.7	27.9	55.4	55.8	70.0-130	J4	J4	0.719	20

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc



Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3426040-1 06/28/19 10:16 • (LCSD) R3426040-2 06/28/19 10:37

Analyte	Spike Amount ug/l	LCS Result ug/l	LCSD Result ug/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Nitrobenzene	50.0	8.93	8.12	17.9	16.2	70.0-130	J4	J4	9.50	20
n-Nitrosodiphenylamine	50.0	18.0	18.2	36.0	36.4	70.0-130	J4	J4	1.10	20
n-Nitrosodi-n-propylamine	50.0	14.2	12.2	28.4	24.4	70.0-130	J4	J4	15.2	20
Phenanthrene	50.0	21.2	20.9	42.4	41.8	70.0-130	J4	J4	1.43	20
Benzylbutyl phthalate	50.0	28.1	26.9	56.2	53.8	70.0-130	J4	J4	4.36	20
Bis(2-ethylhexyl)phthalate	50.0	27.0	26.4	54.0	52.8	70.0-130	J4	J4	2.25	20
Di-n-butyl phthalate	50.0	29.3	28.5	58.6	57.0	70.0-130	J4	J4	2.77	20
Diethyl phthalate	50.0	28.5	28.0	57.0	56.0	70.0-130	J4	J4	1.77	20
Dimethyl phthalate	50.0	25.2	25.0	50.4	50.0	70.0-130	J4	J4	0.797	20
Di-n-octyl phthalate	50.0	28.4	27.3	56.8	54.6	70.0-130	J4	J4	3.95	20
Pyrene	50.0	22.8	22.9	45.6	45.8	70.0-130	J4	J4	0.438	20
4-Chloro-3-methylphenol	50.0	22.2	21.3	44.4	42.6	70.0-130	J4	J4	4.14	20
2-Chlorophenol	50.0	13.8	12.9	27.6	25.8	70.0-130	J4	J4	6.74	20
2-Methylphenol	50.0	16.5	17.3	33.0	34.6	70.0-130	J4	J4	4.73	20
3&4-Methyl Phenol	50.0	19.0	20.9	38.0	41.8	70.0-130	J4	J4	9.52	20
2,4-Dichlorophenol	50.0	12.9	11.9	25.8	23.8	70.0-130	J4	J4	8.06	20
2,4-Dimethylphenol	50.0	16.0	14.9	32.0	29.8	70.0-130	J4	J4	7.12	20
4,6-Dinitro-2-methylphenol	50.0	28.9	27.7	57.8	55.4	70.0-130	J4	J4	4.24	20
2,4-Dinitrophenol	50.0	32.9	31.5	65.8	63.0	70.0-130	J4	J4	4.35	20
2-Nitrophenol	50.0	9.96	8.93	19.9	17.9	70.0-130	J4	J4	10.9	20
4-Nitrophenol	50.0	13.8	16.1	27.6	32.2	70.0-130	J4	J4	15.4	20
Pentachlorophenol	50.0	25.7	24.6	51.4	49.2	70.0-130	J4	J4	4.37	20
Phenol	50.0	8.80	10.8	17.6	21.6	70.0-130	J4	J3 J4	20.4	20
1,2,4,5-Tetrachlorobenzene	50.0	9.95	9.41	19.9	18.8	70.0-130	J4	J4	5.58	20
2,4,5-Trichlorophenol	50.0	19.8	19.2	39.6	38.4	70.0-130	J4	J4	3.08	20
2,4,6-Trichlorophenol	50.0	14.7	14.5	29.4	29.0	70.0-130	J4	J4	1.37	20
(S) Nitrobenzene-d5				16.1	14.2	10.0-127				
(S) 2-Fluorobiphenyl				19.7	17.4	10.0-130				
(S) p-Terphenyl-d14				49.6	49.9	10.0-128				
(S) Phenol-d5				18.5	22.4	10.0-120				
(S) 2-Fluorophenol				24.9	29.2	10.0-120				
(S) 2,4,6-Tribromophenol				51.5	50.5	10.0-155				

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc





Method Blank (MB)

(MB) R3425797-2 06/28/19 10:13

Analyte	MB Result ug/l	MB Qualifier	MB MDL ug/l	MB RDL ug/l
Acenaphthene	U		0.316	1.00
Acenaphthylene	U		0.309	1.00
Acetophenone	U		2.71	10.0
Anthracene	U		0.291	1.00
Atrazine	U		1.53	10.0
Benzaldehyde	U		1.40	10.0
Benzo(a)anthracene	U		0.0975	1.00
Benzo(b)fluoranthene	U		0.0896	1.00
Benzo(k)fluoranthene	U		0.355	1.00
Benzo(g,h,i)perylene	U		0.161	1.00
Benzo(a)pyrene	U		0.340	1.00
Biphenyl	U		0.206	10.0
Bis(2-chlorethoxy)methane	U		0.329	10.0
Bis(2-chloroethyl)ether	U		1.62	10.0
Bis(2-chloroisopropyl)ether	U		0.445	10.0
4-Bromophenyl-phenylether	U		0.335	10.0
Caprolactam	U		0.583	10.0
Carbazole	U		0.162	10.0
4-Chloroaniline	U		0.382	10.0
2-Chloronaphthalene	U		0.330	1.00
4-Chlorophenyl-phenylether	U		0.303	10.0
Chrysene	U		0.332	1.00
Dibenz(a,h)anthracene	U		0.279	1.00
Dibenzofuran	U		0.338	10.0
3,3-Dichlorobenzidine	U		2.02	10.0
2,4-Dinitrotoluene	U		1.65	10.0
2,6-Dinitrotoluene	U		0.279	10.0
Fluoranthene	U		0.310	1.00
Fluorene	U		0.323	1.00
Hexachlorobenzene	U		0.341	1.00
Hexachloro-1,3-butadiene	U		0.329	10.0
Hexachlorocyclopentadiene	U		2.33	10.0
Hexachloroethane	U		0.365	10.0
Indeno(1,2,3-cd)pyrene	U		0.279	1.00
Isophorone	U		0.272	10.0
2-Methylnaphthalene	U		0.311	1.00
Naphthalene	U		0.372	1.00
2-Nitroaniline	U		1.90	10.0
3-Nitroaniline	U		0.308	10.0
4-Nitroaniline	U		0.349	10.0

<sup>1</sup>Cp

<sup>2</sup>Tc

<sup>3</sup>Ss

<sup>4</sup>Cn

<sup>5</sup>Sr

<sup>6</sup>Qc

<sup>7</sup>Gl

<sup>8</sup>Al

<sup>9</sup>Sc



Method Blank (MB)

(MB) R3425797-2 06/28/19 10:13

Analyte	MB Result ug/l	MB Qualifier	MB MDL ug/l	MB RDL ug/l
Nitrobenzene	U		0.367	10.0
n-Nitrosodiphenylamine	U		1.19	10.0
n-Nitrosodi-n-propylamine	U		0.403	10.0
Phenanthrene	U		0.366	1.00
Benzylbutyl phthalate	U		0.275	3.00
Bis(2-ethylhexyl)phthalate	U		0.709	3.00
Di-n-butyl phthalate	U		0.266	3.00
Diethyl phthalate	U		0.282	3.00
Dimethyl phthalate	U		0.283	3.00
Di-n-octyl phthalate	U		0.278	3.00
Pyrene	U		0.330	1.00
4-Chloro-3-methylphenol	U		0.263	10.0
2-Chlorophenol	U		0.283	10.0
2-Methylphenol	U		0.312	10.0
3&4-Methyl Phenol	U		0.266	10.0
2,4-Dichlorophenol	U		0.284	10.0
2,4-Dimethylphenol	U		0.624	10.0
4,6-Dinitro-2-methylphenol	U		2.62	10.0
2,4-Dinitrophenol	U		3.25	10.0
2-Nitrophenol	U		0.320	10.0
4-Nitrophenol	U		2.01	10.0
Pentachlorophenol	U		0.313	10.0
Phenol	U		0.334	10.0
1,2,4,5-Tetrachlorobenzene	U		2.41	10.0
2,4,5-Trichlorophenol	U		0.236	10.0
2,4,6-Trichlorophenol	U		0.297	10.0
(S) Nitrobenzene-d5	30.3			10.0-127
(S) 2-Fluorobiphenyl	32.3			10.0-130
(S) p-Terphenyl-d14	43.6			10.0-128
(S) Phenol-d5	6.30	<u>J2</u>		10.0-120
(S) 2-Fluorophenol	10.7			10.0-120
(S) 2,4,6-Tribromophenol	30.6			10.0-155

<sup>1</sup> Cp

<sup>2</sup> Tc

<sup>3</sup> Ss

<sup>4</sup> Cn

<sup>5</sup> Sr

<sup>6</sup> Qc

<sup>7</sup> Gl

<sup>8</sup> Al

<sup>9</sup> Sc



Laboratory Control Sample (LCS)

(LCS) R3425797-1 06/28/19 09:51

Analyte	Spike Amount ug/l	LCS Result ug/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Acenaphthene	50.0	26.7	53.4	70.0-130	J4
Acenaphthylene	50.0	27.7	55.4	70.0-130	J4
Acetophenone	50.0	25.9	51.8	70.0-130	J4
Anthracene	50.0	32.9	65.8	70.0-130	J4
Atrazine	50.0	30.1	60.2	70.0-130	J4
Benzaldehyde	50.0	31.0	62.0	70.0-130	J4
Benzo(a)anthracene	50.0	36.8	73.6	70.0-130	J4
Benzo(b)fluoranthene	50.0	33.8	67.6	70.0-130	J4
Benzo(k)fluoranthene	50.0	34.5	69.0	70.0-130	J4
Benzo(g,h,i)perylene	50.0	35.2	70.4	70.0-130	J4
Benzo(a)pyrene	50.0	33.6	67.2	70.0-130	J4
Biphenyl	50.0	26.3	52.6	70.0-130	J4
Bis(2-chlorethoxy)methane	50.0	22.1	44.2	70.0-130	J4
Bis(2-chloroethyl)ether	50.0	24.0	48.0	70.0-130	J4
Bis(2-chloroisopropyl)ether	50.0	23.3	46.6	70.0-130	J4
4-Bromophenyl-phenylether	50.0	29.3	58.6	70.0-130	J4
Caprolactam	50.0	7.58	15.2	70.0-130	J4
Carbazole	50.0	34.9	69.8	70.0-130	J4
4-Chloroaniline	50.0	16.8	33.6	70.0-130	J4
2-Chloronaphthalene	50.0	24.4	48.8	70.0-130	J4
4-Chlorophenyl-phenylether	50.0	28.2	56.4	70.0-130	J4
Chrysene	50.0	33.4	66.8	70.0-130	J4
Dibenz(a,h)anthracene	50.0	34.3	68.6	70.0-130	J4
Dibenzofuran	50.0	27.9	55.8	70.0-130	J4
3,3-Dichlorobenzidine	100	59.5	59.5	70.0-130	J4
2,4-Dinitrotoluene	50.0	35.1	70.2	70.0-130	J4
2,6-Dinitrotoluene	50.0	31.3	62.6	70.0-130	J4
Fluoranthene	50.0	33.5	67.0	70.0-130	J4
Fluorene	50.0	29.3	58.6	70.0-130	J4
Hexachlorobenzene	50.0	29.2	58.4	70.0-130	J4
Hexachloro-1,3-butadiene	50.0	18.6	37.2	70.0-130	J4
Hexachlorocyclopentadiene	50.0	16.3	32.6	70.0-130	J4
Hexachloroethane	50.0	20.1	40.2	70.0-130	J4
Indeno(1,2,3-cd)pyrene	50.0	33.2	66.4	70.0-130	J4
Isophorone	50.0	24.5	49.0	70.0-130	J4
2-Methylnaphthalene	50.0	21.3	42.6	70.0-130	J4
Naphthalene	50.0	21.6	43.2	70.0-130	J4
2-Nitroaniline	50.0	32.7	65.4	70.0-130	J4
3-Nitroaniline	50.0	26.9	53.8	70.0-130	J4
4-Nitroaniline	50.0	29.5	59.0	70.0-130	J4

<sup>1</sup> Cp

<sup>2</sup> Tc

<sup>3</sup> Ss

<sup>4</sup> Cn

<sup>5</sup> Sr

<sup>6</sup> Qc

<sup>7</sup> Gl

<sup>8</sup> Al

<sup>9</sup> Sc



Laboratory Control Sample (LCS)

(LCS) R3425797-1 06/28/19 09:51

Analyte	Spike Amount ug/l	LCS Result ug/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Nitrobenzene	50.0	22.2	44.4	70.0-130	J4
n-Nitrosodiphenylamine	50.0	31.4	62.8	70.0-130	J4
n-Nitrosodi-n-propylamine	50.0	25.3	50.6	70.0-130	J4
Phenanthrene	50.0	31.7	63.4	70.0-130	J4
Benzylbutyl phthalate	50.0	36.2	72.4	70.0-130	
Bis(2-ethylhexyl)phthalate	50.0	36.4	72.8	70.0-130	
Di-n-butyl phthalate	50.0	36.1	72.2	70.0-130	
Diethyl phthalate	50.0	33.9	67.8	70.0-130	J4
Dimethyl phthalate	50.0	32.7	65.4	70.0-130	J4
Di-n-octyl phthalate	50.0	36.6	73.2	70.0-130	
Pyrene	50.0	34.2	68.4	70.0-130	J4
4-Chloro-3-methylphenol	50.0	24.1	48.2	70.0-130	J4
2-Chlorophenol	50.0	18.3	36.6	70.0-130	J4
2-Methylphenol	50.0	14.1	28.2	70.0-130	J4
3&4-Methyl Phenol	50.0	15.5	31.0	70.0-130	J4
2,4-Dichlorophenol	50.0	21.4	42.8	70.0-130	J4
2,4-Dimethylphenol	50.0	20.7	41.4	70.0-130	J4
4,6-Dinitro-2-methylphenol	50.0	39.7	79.4	70.0-130	
2,4-Dinitrophenol	50.0	37.0	74.0	70.0-130	
2-Nitrophenol	50.0	25.1	50.2	70.0-130	J4
4-Nitrophenol	50.0	10.1	20.2	70.0-130	J4
Pentachlorophenol	50.0	31.1	62.2	70.0-130	J4
Phenol	50.0	5.56	11.1	70.0-130	J4
1,2,4,5-Tetrachlorobenzene	50.0	23.2	46.4	70.0-130	J4
2,4,5-Trichlorophenol	50.0	30.9	61.8	70.0-130	J4
2,4,6-Trichlorophenol	50.0	29.6	59.2	70.0-130	J4
(S) Nitrobenzene-d5			37.8	10.0-127	
(S) 2-Fluorobiphenyl			49.6	10.0-130	
(S) p-Terphenyl-d14			61.0	10.0-128	
(S) Phenol-d5			9.30	10.0-120	J2
(S) 2-Fluorophenol			15.9	10.0-120	
(S) 2,4,6-Tribromophenol			55.0	10.0-155	

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc



L1111592-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1111592-01 06/29/19 16:07 • (MS) R3426109-1 06/29/19 16:29 • (MSD) R3426109-2 06/29/19 16:51

Analyte	Spike Amount ug/l	Original Result ug/l	MS Result ug/l	MSD Result ug/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Acenaphthene	50.0	U	20.8	20.9	41.6	41.8	5	25.0-143			0.480	29
Acenaphthylene	50.0	U	21.2	20.8	42.4	41.6	5	24.0-149			1.90	29
Anthracene	50.0	U	24.4	25.2	48.8	50.4	5	27.0-145			3.23	30
Benzo(a)anthracene	50.0	U	26.8	28.6	53.6	57.2	5	30.0-138			6.50	26
Benzo(b)fluoranthene	50.0	U	24.8	25.9	49.6	51.8	5	28.0-140			4.34	31
Benzo(k)fluoranthene	50.0	U	24.9	25.8	49.8	51.6	5	28.0-140			3.55	31
Benzo(g,h,i)perylene	50.0	U	23.3	24.7	46.6	49.4	5	26.0-149			5.83	27
Benzo(a)pyrene	50.0	U	24.8	25.9	48.3	50.5	5	28.0-139			4.34	29
Bis(2-chlorethoxy)methane	50.0	U	23.3	23.4	46.6	46.8	5	19.0-135			0.428	30
Bis(2-chloroethyl)ether	50.0	U	14.2	15.1	28.4	30.2	5	10.0-126			6.14	34
Bis(2-chloroisopropyl)ether	50.0	U	14.2	15.6	28.4	31.2	5	18.0-128			9.40	35
4-Bromophenyl-phenylether	50.0	U	22.6	23.3	45.2	46.6	5	28.0-146			3.05	30
2-Chloronaphthalene	50.0	U	18.0	18.1	36.0	36.2	5	23.0-134			0.554	32
4-Chlorophenyl-phenylether	50.0	U	22.3	22.8	44.6	45.6	5	32.0-142			2.22	29
Chrysene	50.0	U	24.4	25.5	48.8	51.0	5	32.0-144			4.41	27
Dibenz(a,h)anthracene	50.0	U	23.5	24.2	47.0	48.4	5	22.0-149			2.94	29
3,3-Dichlorobenzidine	100	U	ND	ND	0.000	0.000	5	10.0-160	J6	J6	0.000	34
2,4-Dinitrotoluene	50.0	U	25.1	26.4	50.2	52.8	5	30.0-156			5.05	29
2,6-Dinitrotoluene	50.0	U	29.6	29.3	59.2	58.6	5	28.0-143			1.02	30
Fluoranthene	50.0	U	25.2	26.3	50.4	52.6	5	31.0-146			4.27	30
Fluorene	50.0	U	22.7	23.2	45.4	46.4	5	29.0-143			2.18	31
Hexachlorobenzene	50.0	U	21.3	22.0	42.6	44.0	5	29.0-144			3.23	33
Hexachloro-1,3-butadiene	50.0	U	10.6	10.5	21.2	21.0	5	18.0-122			0.948	35
Hexachlorocyclopentadiene	50.0	U	ND	ND	0.000	0.000	5	10.0-146	J6	J6	0.000	34
Hexachloroethane	50.0	U	12.2	11.6	24.4	23.2	5	12.0-120			5.04	36
Indeno(1,2,3-cd)pyrene	50.0	U	22.9	24.2	45.8	48.4	5	24.0-151			5.52	28
Isophorone	50.0	U	20.7	20.7	41.4	41.4	5	22.0-141			0.000	29
Naphthalene	50.0	U	17.6	18.4	30.0	31.6	5	19.0-125			4.44	32
Nitrobenzene	50.0	U	15.2	15.9	30.4	31.8	5	14.0-134			4.50	32
n-Nitrosodiphenylamine	50.0	U	25.4	26.4	50.8	52.8	5	16.0-160			3.86	28
n-Nitrosodi-n-propylamine	50.0	U	19.1	19.8	38.2	39.6	5	16.0-136			3.60	30
Phenanthrene	50.0	U	24.1	25.3	48.2	50.6	5	27.0-137			4.86	28
Benzylbutyl phthalate	50.0	U	28.8	30.1	57.6	60.2	5	30.0-147			4.41	27
Bis(2-ethylhexyl)phthalate	50.0	U	27.9	29.7	55.8	59.4	5	25.0-140			6.25	26
Di-n-butyl phthalate	50.0	U	28.3	29.7	56.6	59.4	5	32.0-146			4.83	27
Diethyl phthalate	50.0	U	25.7	26.4	51.4	52.8	5	34.0-149			2.69	26
Dimethyl phthalate	50.0	U	24.5	25.3	49.0	50.6	5	29.0-147			3.21	27
Di-n-octyl phthalate	50.0	U	27.5	29.2	55.0	58.4	5	24.0-146			6.00	29
Pyrene	50.0	U	26.1	27.1	52.2	54.2	5	34.0-140			3.76	27
4-Chloro-3-methylphenol	50.0	U	68.5	71.4	137	143	5	20.0-138		J5	4.15	28

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc



L1111592-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1111592-01 06/29/19 16:07 • (MS) R3426109-1 06/29/19 16:29 • (MSD) R3426109-2 06/29/19 16:51

Analyte	Spike Amount ug/l	Original Result ug/l	MS Result ug/l	MSD Result ug/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
2-Chlorophenol	50.0	U	14.1	15.3	28.2	30.6	5	11.0-120			8.16	33
2,4-Dichlorophenol	50.0	U	21.7	22.1	43.4	44.2	5	19.0-135			1.83	32
2,4-Dimethylphenol	50.0	U	24.0	24.0	48.0	48.0	5	18.0-127			0.000	31
4,6-Dinitro-2-methylphenol	50.0	U	58.7	59.8	117	120	5	10.0-160			1.86	38
2,4-Dinitrophenol	50.0	U	70.7	71.0	141	142	5	10.0-137	J5	J5	0.423	36
2-Nitrophenol	50.0	U	18.1	19.3	36.2	38.6	5	15.0-143			6.42	33
4-Nitrophenol	50.0	U	ND	11.4	0.000	22.8	5	10.0-120	J6	J3	200	31
Acetophenone	50.0	U	20.1	21.5	40.2	43.0	5	10.0-139			6.73	35
Pentachlorophenol	50.0	U	32.7	33.6	65.4	67.2	5	10.0-160			2.71	40
Phenol	50.0	U	9.05	9.50	18.1	19.0	5	10.0-120			4.85	34
Atrazine	50.0	U	22.4	24.5	44.8	49.0	5	34.0-147			8.96	28
2,4,6-Trichlorophenol	50.0	U	25.2	25.2	50.4	50.4	5	10.0-153			0.000	29
Benzaldehyde	50.0	U	23.1	24.1	46.2	48.2	5	10.0-120			4.24	40
Biphenyl	50.0	U	19.5	19.1	39.0	38.2	5	23.0-130			2.07	27
Caprolactam	50.0	U	19.5	20.0	39.0	40.0	5	10.0-120			2.53	37
Carbazole	50.0	U	27.2	28.5	51.9	54.5	5	23.0-158			4.67	26
4-Chloroaniline	50.0	U	11.2	11.7	22.4	23.4	5	10.0-137			4.37	33
Dibenzofuran	50.0	U	21.7	22.4	43.4	44.8	5	17.0-150			3.17	27
2-Methylnaphthalene	50.0	U	16.5	16.5	33.0	33.0	5	13.0-142			0.000	29
2-Nitroaniline	50.0	U	29.1	29.8	58.2	59.6	5	13.0-160			2.38	27
3-Nitroaniline	50.0	U	8.61	54.1	17.2	108	5	10.0-160		J3	145	26
4-Nitroaniline	50.0	U	15.0	16.2	30.0	32.4	5	17.0-160			7.69	29
2-Methylphenol	50.0	U	22.5	22.8	33.5	34.1	5	14.0-120			1.32	29
3&4-Methyl Phenol	50.0	7.04	25.1	26.0	36.1	37.9	5	13.0-124			3.52	26
2,4,5-Trichlorophenol	50.0	U	27.7	28.0	55.4	56.0	5	15.0-160			1.08	27
1,2,4,5-Tetrachlorobenzene	50.0	U	16.8	16.9	33.6	33.8	5	10.0-147			0.593	34
(S) Nitrobenzene-d5					39.1	43.1		10.0-127				
(S) 2-Fluorobiphenyl					35.7	36.9		10.0-130				
(S) p-Terphenyl-d14					50.8	54.8		10.0-128				
(S) Phenol-d5					16.7	16.5		10.0-120				
(S) 2-Fluorophenol					16.5	18.5		10.0-120				
(S) 2,4,6-Tribromophenol					45.1	51.0		10.0-155				

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc





Method Blank (MB)

(MB) R3425952-2 06/29/19 02:12

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
Acenaphthene	U		0.00642	0.0333
Acenaphthylene	U		0.00671	0.0333
Acetophenone	U		0.0752	0.333
Anthracene	U		0.00632	0.0333
Atrazine	U		0.0938	0.333
Benzaldehyde	U		0.0532	0.333
Benzo(a)anthracene	U		0.00428	0.0333
Benzo(b)fluoranthene	U		0.00695	0.0333
Benzo(k)fluoranthene	U		0.00582	0.0333
Benzo(g,h,i)perylene	U		0.00721	0.0333
Benzo(a)pyrene	U		0.00548	0.0333
Biphenyl	U		0.00588	0.333
Bis(2-chlorethoxy)methane	U		0.00770	0.333
Bis(2-chloroethyl)ether	U		0.00896	0.333
Bis(2-chloroisopropyl)ether	U		0.00760	0.333
4-Bromophenyl-phenylether	U		0.0114	0.333
Caprolactam	U		0.104	0.333
Carbazole	U		0.00524	0.333
4-Chloroaniline	U		0.0352	0.333
2-Chloronaphthalene	U		0.00639	0.0333
4-Chlorophenyl-phenylether	U		0.00627	0.333
Chrysene	U		0.00555	0.0333
Dibenz(a,h)anthracene	U		0.00821	0.0333
Dibenzofuran	U		0.00518	0.333
3,3-Dichlorobenzidine	U		0.0794	0.333
2,4-Dinitrotoluene	U		0.00607	0.333
2,6-Dinitrotoluene	U		0.00737	0.333
Fluoranthene	U		0.00496	0.0333
Fluorene	U		0.00682	0.0333
Hexachlorobenzene	U		0.00856	0.333
Hexachloro-1,3-butadiene	U		0.0100	0.333
Hexachlorocyclopentadiene	U		0.0587	0.333
Hexachloroethane	U		0.0134	0.333
Indeno(1,2,3-cd)pyrene	U		0.00772	0.0333
Isophorone	U		0.00522	0.333
2-Methylnaphthalene	U		0.00861	0.0333
Naphthalene	U		0.00889	0.0333
2-Nitroaniline	U		0.00755	0.333
3-Nitroaniline	U		0.00850	0.333
4-Nitroaniline	U		0.00639	0.333

<sup>1</sup> Cp

<sup>2</sup> Tc

<sup>3</sup> Ss

<sup>4</sup> Cn

<sup>5</sup> Sr

<sup>6</sup> Qc

<sup>7</sup> Gl

<sup>8</sup> Al

<sup>9</sup> Sc



Method Blank (MB)

(MB) R3425952-2 06/29/19 02:12

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
Nitrobenzene	U		0.00695	0.333
n-Nitrosodiphenylamine	U		0.0900	0.333
n-Nitrosodi-n-propylamine	U		0.00906	0.333
Phenanthrene	U		0.00528	0.0333
Benzylbutyl phthalate	U		0.0103	0.333
Bis(2-ethylhexyl)phthalate	U		0.0120	0.333
Di-n-butyl phthalate	U		0.0109	0.333
Diethyl phthalate	U		0.00691	0.333
Dimethyl phthalate	U		0.00540	0.333
Di-n-octyl phthalate	U		0.00907	0.333
Pyrene	U		0.0123	0.0333
4-Chloro-3-methylphenol	U		0.00477	0.333
2-Chlorophenol	U		0.00831	0.333
2-Methylphenol	U		0.00986	0.333
3&4-Methyl Phenol	U		0.00783	0.333
2,4-Dichlorophenol	U		0.00746	0.333
2,4-Dimethylphenol	U		0.0471	0.333
4,6-Dinitro-2-methylphenol	U		0.124	0.333
2,4-Dinitrophenol	U		0.0980	0.333
2-Nitrophenol	U		0.0130	0.333
4-Nitrophenol	U		0.0525	0.333
Pentachlorophenol	U		0.0480	0.333
Phenol	U		0.00695	0.333
1,2,4,5-Tetrachlorobenzene	U		0.0762	0.333
2,4,5-Trichlorophenol	U		0.0104	0.333
2,4,6-Trichlorophenol	U		0.00779	0.333
(S) Nitrobenzene-d5	61.9			10.0-122
(S) 2-Fluorobiphenyl	56.8			15.0-120
(S) p-Terphenyl-d14	74.5			10.0-120
(S) Phenol-d5	80.6			10.0-120
(S) 2-Fluorophenol	83.9			12.0-120
(S) 2,4,6-Tribromophenol	70.1			10.0-127

<sup>1</sup> Cp

<sup>2</sup> Tc

<sup>3</sup> Ss

<sup>4</sup> Cn

<sup>5</sup> Sr

<sup>6</sup> Qc

<sup>7</sup> Gl

<sup>8</sup> Al

<sup>9</sup> Sc



Laboratory Control Sample (LCS)

(LCS) R3425952-1 06/29/19 01:53

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
Acenaphthene	0.666	0.564	84.7	70.0-130	
Acenaphthylene	0.666	0.594	89.2	70.0-130	
Acetophenone	0.666	0.515	77.3	70.0-130	
Anthracene	0.666	0.631	94.7	70.0-130	
Atrazine	0.666	0.681	102	70.0-130	
Benzaldehyde	0.666	0.660	99.1	70.0-130	
Benzo(a)anthracene	0.666	0.712	107	70.0-130	
Benzo(b)fluoranthene	0.666	0.672	101	70.0-130	
Benzo(k)fluoranthene	0.666	0.658	98.8	70.0-130	
Benzo(g,h,i)perylene	0.666	0.710	107	70.0-130	
Benzo(a)pyrene	0.666	0.677	102	70.0-130	
Biphenyl	0.666	0.551	82.7	70.0-130	
Bis(2-chlorethoxy)methane	0.666	0.420	63.1	70.0-130	J4
Bis(2-chloroethyl)ether	0.666	0.497	74.6	70.0-130	
Bis(2-chloroisopropyl)ether	0.666	0.454	68.2	70.0-130	J4
4-Bromophenyl-phenylether	0.666	0.635	95.3	70.0-130	
Caprolactam	0.666	0.672	101	70.0-130	
Carbazole	0.666	0.644	96.7	70.0-130	
4-Chloroaniline	0.666	0.402	60.4	70.0-130	J4
2-Chloronaphthalene	0.666	0.555	83.3	70.0-130	
4-Chlorophenyl-phenylether	0.666	0.628	94.3	70.0-130	
Chrysene	0.666	0.659	98.9	70.0-130	
Dibenz(a,h)anthracene	0.666	0.717	108	70.0-130	
Dibenzofuran	0.666	0.597	89.6	70.0-130	
3,3-Dichlorobenzidine	1.33	1.33	100	70.0-130	
2,4-Dinitrotoluene	0.666	0.711	107	70.0-130	
2,6-Dinitrotoluene	0.666	0.675	101	70.0-130	
Fluoranthene	0.666	0.654	98.2	70.0-130	
Fluorene	0.666	0.613	92.0	70.0-130	
Hexachlorobenzene	0.666	0.578	86.8	70.0-130	
Hexachloro-1,3-butadiene	0.666	0.396	59.5	70.0-130	J4
Hexachlorocyclopentadiene	0.666	0.513	77.0	70.0-130	
Hexachloroethane	0.666	0.470	70.6	70.0-130	
Indeno(1,2,3-cd)pyrene	0.666	0.715	107	70.0-130	
Isophorone	0.666	0.418	62.8	70.0-130	J4
2-Methylnaphthalene	0.666	0.401	60.2	70.0-130	J4
Naphthalene	0.666	0.377	56.6	70.0-130	J4
2-Nitroaniline	0.666	0.741	111	70.0-130	
3-Nitroaniline	0.666	0.704	106	70.0-130	
4-Nitroaniline	0.666	0.724	109	70.0-130	

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc



Laboratory Control Sample (LCS)

(LCS) R3425952-1 06/29/19 01:53

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
Nitrobenzene	0.666	0.425	63.8	70.0-130	J4
n-Nitrosodiphenylamine	0.666	0.624	93.7	70.0-130	
n-Nitrosodi-n-propylamine	0.666	0.505	75.8	70.0-130	
Phenanthrene	0.666	0.629	94.4	70.0-130	
Benzylbutyl phthalate	0.666	0.761	114	70.0-130	
Bis(2-ethylhexyl)phthalate	0.666	0.764	115	70.0-130	
Di-n-butyl phthalate	0.666	0.673	101	70.0-130	
Diethyl phthalate	0.666	0.651	97.7	70.0-130	
Dimethyl phthalate	0.666	0.636	95.5	70.0-130	
Di-n-octyl phthalate	0.666	0.746	112	70.0-130	
Pyrene	0.666	0.665	99.8	70.0-130	
4-Chloro-3-methylphenol	0.666	0.530	79.6	70.0-130	
2-Chlorophenol	0.666	0.521	78.2	70.0-130	
2-Methylphenol	0.666	0.592	88.9	70.0-130	
3&4-Methyl Phenol	0.666	0.646	97.0	70.0-130	
2,4-Dichlorophenol	0.666	0.489	73.4	70.0-130	
2,4-Dimethylphenol	0.666	0.440	66.1	70.0-130	J4
4,6-Dinitro-2-methylphenol	0.666	0.714	107	70.0-130	
2,4-Dinitrophenol	0.666	0.639	95.9	70.0-130	
2-Nitrophenol	0.666	0.514	77.2	70.0-130	
4-Nitrophenol	0.666	0.702	105	70.0-130	
Pentachlorophenol	0.666	0.592	88.9	70.0-130	
Phenol	0.666	0.582	87.4	70.0-130	
1,2,4,5-Tetrachlorobenzene	0.666	0.491	73.7	70.0-130	
2,4,5-Trichlorophenol	0.666	0.716	108	70.0-130	
2,4,6-Trichlorophenol	0.666	0.754	113	70.0-130	
(S) Nitrobenzene-d5			63.1	10.0-122	
(S) 2-Fluorobiphenyl			83.2	15.0-120	
(S) p-Terphenyl-d14			107	10.0-120	
(S) Phenol-d5			88.1	10.0-120	
(S) 2-Fluorophenol			94.7	12.0-120	
(S) 2,4,6-Tribromophenol			103	10.0-127	

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc



L1111579-15 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1111579-15 07/01/19 14:52 • (MS) R3426658-1 07/01/19 15:11 • (MSD) R3426658-2 07/01/19 15:31

Analyte	Spike Amount (dry) mg/kg	Original Result (dry) mg/kg	MS Result (dry) mg/kg	MSD Result (dry) mg/kg	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Acenaphthene	1.59	ND	0.921	0.864	57.8	54.2	5	40.3-132			6.43	20
Acenaphthylene	1.59	ND	0.921	0.871	57.8	54.7	5	45.4-134			5.61	21.8
Acetophenone	1.59	ND	0.967	ND	60.7	0.000	5	37.5-121		J3 J6	200	22
Anthracene	1.59	ND	0.866	0.835	54.4	52.4	5	41.7-133			3.66	21.9
Atrazine	1.59	ND	ND	ND	0.000	0.000	5	40.8-141	J6	J6	0.000	31.4
Benzaldehyde	1.59	ND	1.54	1.31	96.7	82.0	5	10.0-85.0	J5		16.5	39.3
Benzo(a)anthracene	1.59	ND	0.972	0.974	61.0	61.1	5	35.1-129			0.246	23.1
Benzo(b)fluoranthene	1.59	ND	0.955	0.955	59.9	59.9	5	21.9-153			0.000	25.8
Benzo(k)fluoranthene	1.59	ND	0.905	0.888	56.8	55.7	5	30.6-143			1.87	26.4
Benzo(g,h,i)perylene	1.59	ND	0.737	0.737	46.2	46.2	5	10.0-141			0.000	28.6
Benzo(a)pyrene	1.59	ND	0.864	0.854	54.2	53.6	5	34.2-135			1.11	22.4
Biphenyl	1.59	ND	0.955	0.873	59.9	54.8	5	42.7-126			8.90	20.7
Bis(2-chlorethoxy)methane	1.59	ND	0.873	0.847	54.8	53.2	5	36.4-125			3.06	20
Bis(2-chloroethyl)ether	1.59	ND	0.936	0.835	58.7	52.4	5	24.8-133			11.4	34.9
Bis(2-chloroisopropyl)ether	1.59	ND	0.818	0.684	51.4	42.9	5	37.1-117			17.8	29
4-Bromophenyl-phenylether	1.59	ND	1.05	0.936	65.9	58.7	5	34.9-140			11.6	22.7
Caprolactam	1.59	ND	1.40	1.29	88.1	81.1	5	38.5-123			8.34	23.2
Carbazole	1.59	ND	0.921	0.888	57.8	55.7	5	37.3-132			3.70	21.6
4-Chloroaniline	1.59	ND	0.684	0.711	42.9	44.6	5	10.0-129			3.77	40
2-Chloronaphthalene	1.59	ND	0.950	0.857	59.6	53.8	5	38.7-127			10.3	20.8
4-Chlorophenyl-phenylether	1.59	ND	1.02	0.893	64.1	56.0	5	38.9-127			13.5	21.9
Chrysene	1.59	ND	0.933	0.895	58.6	56.2	5	35.9-131			4.19	24
Dibenz(a,h)anthracene	1.59	ND	0.787	0.809	49.4	50.8	5	10.0-142			2.70	24.8
Dibenzofuran	1.59	ND	0.967	0.873	60.7	54.8	5	39.2-130			10.1	21.3
3,3-Dichlorobenzidine	3.18	ND	1.62	1.57	50.9	49.4	5	10.0-125			3.00	40
2,4-Dinitrotoluene	1.59	ND	1.06	1.16	66.8	72.8	5	31.6-145			8.60	25.2
2,6-Dinitrotoluene	1.59	ND	1.03	1.07	64.7	67.3	5	38.1-135			3.87	23.9
Fluoranthene	1.59	ND	0.902	0.859	56.6	53.9	5	29.8-140			4.89	24.4
Fluorene	1.59	ND	0.955	0.869	59.9	54.5	5	41.8-129			9.45	21.2
Hexachlorobenzene	1.59	ND	1.06	0.967	66.5	60.7	5	34.3-121			9.21	21.2
Hexachloro-1,3-butadiene	1.59	ND	0.924	0.802	58.0	50.3	5	35.1-128			14.1	23.4
Hexachlorocyclopentadiene	1.59	ND	ND	ND	0.000	0.000	5	10.0-145	J6	J6	0.000	34.8
Hexachloroethane	1.59	ND	0.818	0.730	51.4	45.8	5	20.0-127			11.4	27.6
Indeno(1,2,3-cd)pyrene	1.59	ND	0.790	0.804	49.5	50.5	5	10.0-144			1.80	27
Isophorone	1.59	ND	0.845	0.811	53.0	50.9	5	31.7-106			4.05	20.3
2-Methylnaphthalene	1.59	ND	0.876	0.773	55.0	48.5	5	36.7-132			12.5	20
Naphthalene	1.59	ND	0.854	0.763	53.6	47.9	5	37.3-124			11.2	20.1
2-Nitroaniline	1.59	ND	1.17	1.28	73.7	80.3	5	38.6-140			8.58	22.9
3-Nitroaniline	1.59	ND	1.09	0.943	68.6	59.2	5	10.0-139			14.8	39

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc



L111579-15 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L111579-15 07/01/19 14:52 • (MS) R3426658-1 07/01/19 15:11 • (MSD) R3426658-2 07/01/19 15:31

Analyte	Spike Amount (dry) mg/kg	Original Result (dry) mg/kg	MS Result (dry) mg/kg	MSD Result (dry) mg/kg	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
4-Nitroaniline	1.59	ND	0.830	0.888	52.1	55.7	5	15.9-152			6.69	31
Nitrobenzene	1.59	ND	0.847	0.814	53.2	51.1	5	36.3-127			4.03	20.9
n-Nitrosodiphenylamine	1.59	ND	ND	ND	0.000	0.000	5	20.0-125	J6	J6	0.000	25
n-Nitrosodi-n-propylamine	1.59	ND	0.943	0.838	59.2	52.6	5	29.2-132			11.8	24.9
Phenanthrene	1.59	ND	0.957	0.881	60.1	55.3	5	41.9-131			8.33	21.4
Benzylbutyl phthalate	1.59	ND	1.14	1.10	71.5	69.2	5	22.7-155			3.20	25.2
Bis(2-ethylhexyl)phthalate	1.59	ND	1.21	1.17	76.0	73.1	5	22.6-157			3.83	33.5
Di-n-butyl phthalate	1.59	ND	1.00	0.902	62.8	56.6	5	35.6-139			10.3	22.6
Diethyl phthalate	1.59	ND	0.948	0.909	59.5	57.1	5	44.4-135			4.12	21.3
Dimethyl phthalate	1.59	ND	0.940	0.950	59.0	59.6	5	42.5-134			1.01	21.4
Di-n-octyl phthalate	1.59	ND	1.29	1.24	81.1	77.8	5	24.6-145			4.16	25.1
Pyrene	1.59	ND	1.04	1.02	65.2	63.8	5	25.5-142			2.10	23.9
4-Chloro-3-methylphenol	1.59	ND	1.01	1.01	63.2	63.4	5	35.7-139			0.237	21.2
2-Chlorophenol	1.59	ND	1.03	0.933	64.9	58.6	5	33.2-114			10.2	23.8
2-Methylphenol	1.59	ND	1.21	1.11	75.8	69.5	5	30.5-113			8.68	23.9
3&4-Methyl Phenol	1.59	ND	1.24	1.21	77.9	76.1	5	30.4-140			2.34	24.7
2,4-Dichlorophenol	1.59	ND	1.04	0.981	65.5	61.6	5	36.7-133			6.15	20.7
2,4-Dimethylphenol	1.59	ND	0.955	0.857	59.9	53.8	5	25.7-137			10.8	24.7
4,6-Dinitro-2-methylphenol	1.59	ND	ND	ND	0.000	0.000	5	10.0-149	J6	J6	0.000	40
2,4-Dinitrophenol	1.59	ND	ND	ND	0.000	0.000	5	10.0-131	J6	J6	0.000	40
2-Nitrophenol	1.59	ND	1.14	1.14	71.8	71.6	5	21.8-145			0.209	27
4-Nitrophenol	1.59	ND	1.14	1.15	71.6	72.4	5	10.0-146			1.04	26.9
Pentachlorophenol	1.59	ND	0.577	0.601	36.2	37.7	5	10.0-155			4.07	28.1
Phenol	1.59	ND	1.04	1.01	65.0	63.4	5	26.8-124			2.57	27.3
1,2,4,5-Tetrachlorobenzene	1.59	ND	1.00	0.926	62.9	58.1	5	41.3-124			7.94	21.2
2,4,5-Trichlorophenol	1.59	ND	1.26	1.33	79.3	83.2	5	37.0-138			4.81	22.9
2,4,6-Trichlorophenol	1.59	ND	1.11	1.10	69.8	69.1	5	35.1-137			1.08	23.2
(S) Nitrobenzene-d5					52.9	47.4		10.0-122				
(S) 2-Fluorobiphenyl					62.8	64.3		15.0-120				
(S) p-Terphenyl-d14					70.6	75.7		10.0-120				
(S) Phenol-d5					68.6	68.9		10.0-120				
(S) 2-Fluorophenol					71.8	73.0		12.0-120				
(S) 2,4,6-Tribromophenol					73.4	81.4		10.0-127				

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

Sample Narrative:

OS: Dilution due to matrix.





Method Blank (MB)

(MB) R3424899-3 06/26/19 08:51

Analyte	MB Result ug/l	MB Qualifier	MB MDL ug/l	MB RDL ug/l
Anthracene	U		0.00800	0.0500
Acenaphthene	U		0.0100	0.0500
Acenaphthylene	U		0.00700	0.0500
Benzo(a)anthracene	U		0.00830	0.0500
Benzo(a)pyrene	U		0.0158	0.0500
Benzo(b)fluoranthene	U		0.00212	0.0500
Benzo(g,h,i)perylene	U		0.00227	0.0500
Benzo(k)fluoranthene	U		0.0255	0.0500
Chrysene	U		0.0144	0.0500
Dibenz(a,h)anthracene	U		0.00454	0.0500
Fluoranthene	U		0.0165	0.0500
Fluorene	U		0.00898	0.0500
Indeno(1,2,3-cd)pyrene	U		0.00739	0.0500
Naphthalene	0.0491	U	0.0123	0.250
Phenanthrene	U		0.0184	0.0500
Pyrene	U		0.0155	0.0500
<i>(S) Nitrobenzene-d5</i>	103			11.0-135
<i>(S) 2-Fluorobiphenyl</i>	94.5			32.0-120
<i>(S) p-Terphenyl-d14</i>	82.5			23.0-122

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3424899-1 06/26/19 08:05 • (LCSD) R3424899-2 06/26/19 08:28

Analyte	Spike Amount ug/l	LCS Result ug/l	LCSD Result ug/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Anthracene	2.00	1.83	2.10	91.5	105	70.0-130			13.7	20
Acenaphthene	2.00	1.69	1.90	84.5	95.0	70.0-130			11.7	20
Acenaphthylene	2.00	1.69	1.92	84.5	96.0	70.0-130			12.7	20
Benzo(a)anthracene	2.00	1.72	1.86	86.0	93.0	70.0-130			7.82	20
Benzo(a)pyrene	2.00	1.71	1.91	85.5	95.5	70.0-130			11.0	20
Benzo(b)fluoranthene	2.00	1.75	1.89	87.5	94.5	70.0-130			7.69	20
Benzo(g,h,i)perylene	2.00	1.98	2.21	99.0	111	70.0-130			11.0	20
Benzo(k)fluoranthene	2.00	1.68	1.93	84.0	96.5	70.0-130			13.9	20
Chrysene	2.00	1.78	2.02	89.0	101	70.0-130			12.6	20
Dibenz(a,h)anthracene	2.00	1.88	2.09	94.0	105	70.0-130			10.6	20
Fluoranthene	2.00	1.88	2.06	94.0	103	70.0-130			9.14	20
Fluorene	2.00	1.67	1.86	83.5	93.0	70.0-130			10.8	20
Indeno(1,2,3-cd)pyrene	2.00	1.93	2.17	96.5	108	70.0-130			11.7	20
Naphthalene	2.00	1.46	1.67	73.0	83.5	70.0-130			13.4	20



Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3424899-1 06/26/19 08:05 • (LCSD) R3424899-2 06/26/19 08:28

Analyte	Spike Amount ug/l	LCS Result ug/l	LCSD Result ug/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	<u>LCS Qualifier</u>	<u>LCSD Qualifier</u>	RPD %	RPD Limits %
Phenanthrene	2.00	1.72	1.90	86.0	95.0	70.0-130			9.94	20
Pyrene	2.00	1.61	1.75	80.5	87.5	70.0-130			8.33	20
<i>(S) Nitrobenzene-d5</i>				98.0	113	11.0-135				
<i>(S) 2-Fluorobiphenyl</i>				89.5	103	32.0-120				
<i>(S) p-Terphenyl-d14</i>				82.0	89.5	23.0-122				

- 1 Cp
- 2 Tc
- 3 Ss
- 4 Cn
- 5 Sr
- 6 Qc
- 7 Gl
- 8 Al
- 9 Sc



Method Blank (MB)

(MB) R3425326-2 06/27/19 12:49

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
Anthracene	U		0.00600	0.00600
Acenaphthene	U		0.00600	0.00600
Acenaphthylene	U		0.00600	0.00600
Benzo(a)anthracene	U		0.00600	0.00600
Benzo(a)pyrene	U		0.00600	0.00600
Benzo(b)fluoranthene	U		0.00600	0.00600
Benzo(g,h,i)perylene	U		0.00600	0.00600
Benzo(k)fluoranthene	U		0.00600	0.00600
Chrysene	U		0.00600	0.00600
Dibenz(a,h)anthracene	U		0.00600	0.00600
Fluoranthene	U		0.00600	0.00600
Fluorene	U		0.00600	0.00600
Indeno(1,2,3-cd)pyrene	U		0.00600	0.00600
Naphthalene	U		0.00200	0.0200
Phenanthrene	U		0.00600	0.00600
Pyrene	U		0.00600	0.00600
1-Methylnaphthalene	U		0.00200	0.0200
2-Methylnaphthalene	U		0.00200	0.0200
<i>(S) Nitrobenzene-d5</i>	89.7			14.0-149
<i>(S) 2-Fluorobiphenyl</i>	97.2			34.0-125
<i>(S) p-Terphenyl-d14</i>	97.7			23.0-120

<sup>1</sup> Cp

<sup>2</sup> Tc

<sup>3</sup> Ss

<sup>4</sup> Cn

<sup>5</sup> Sr

<sup>6</sup> Qc

<sup>7</sup> Gl

<sup>8</sup> Al

<sup>9</sup> Sc

Laboratory Control Sample (LCS)

(LCS) R3425326-1 06/27/19 12:27

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
Anthracene	0.0800	0.0763	95.4	50.0-126	
Acenaphthene	0.0800	0.0725	90.6	50.0-120	
Acenaphthylene	0.0800	0.0726	90.8	50.0-120	
Benzo(a)anthracene	0.0800	0.0778	97.3	45.0-120	
Benzo(a)pyrene	0.0800	0.0673	84.1	42.0-120	
Benzo(b)fluoranthene	0.0800	0.0794	99.3	42.0-121	
Benzo(g,h,i)perylene	0.0800	0.0759	94.9	45.0-125	
Benzo(k)fluoranthene	0.0800	0.0722	90.3	49.0-125	
Chrysene	0.0800	0.0764	95.5	49.0-122	
Dibenz(a,h)anthracene	0.0800	0.0776	97.0	47.0-125	
Fluoranthene	0.0800	0.0780	97.5	49.0-129	
Fluorene	0.0800	0.0731	91.4	49.0-120	



Laboratory Control Sample (LCS)

(LCS) R3425326-1 06/27/19 12:27

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
Indeno(1,2,3-cd)pyrene	0.0800	0.0776	97.0	46.0-125	
Naphthalene	0.0800	0.0621	77.6	50.0-120	
Phenanthrene	0.0800	0.0762	95.3	47.0-120	
Pyrene	0.0800	0.0714	89.3	43.0-123	
1-Methylnaphthalene	0.0800	0.0651	81.4	51.0-121	
2-Methylnaphthalene	0.0800	0.0662	82.8	50.0-120	
(S) Nitrobenzene-d5			81.3	14.0-149	
(S) 2-Fluorobiphenyl			85.3	34.0-125	
(S) p-Terphenyl-d14			88.2	23.0-120	

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

L111579-02 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L111579-02 06/27/19 14:13 • (MS) R3425326-3 06/27/19 14:34 • (MSD) R3425326-4 06/27/19 14:55

Analyte	Spike Amount (dry) mg/kg	Original Result (dry) mg/kg	MS Result (dry) mg/kg	MSD Result (dry) mg/kg	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Anthracene	0.169	ND	0.0826	0.120	48.9	70.9	1	10.0-145		J3	36.7	30
Acenaphthene	0.169	ND	0.0575	0.0702	34.0	41.5	1	14.0-127			19.9	27
Acenaphthylene	0.169	ND	0.0657	0.0697	38.9	41.3	1	21.0-124			5.93	25
Benzo(a)anthracene	0.169	ND	0.0862	0.126	51.0	74.4	1	10.0-139		J3	37.3	30
Benzo(a)pyrene	0.169	ND	0.0869	0.123	51.4	72.5	1	10.0-141		J3	34.1	31
Benzo(b)fluoranthene	0.169	ND	0.0750	0.112	44.4	66.3	1	10.0-140		J3	39.5	36
Benzo(g,h,i)perylene	0.169	ND	0.0822	0.120	48.6	70.9	1	10.0-140		J3	37.2	33
Benzo(k)fluoranthene	0.169	ND	0.0951	0.131	56.3	77.5	1	10.0-137		J3	31.8	31
Chrysene	0.169	ND	0.0985	0.128	58.3	75.5	1	10.0-145			25.8	30
Dibenz(a,h)anthracene	0.169	ND	0.103	0.130	61.1	77.0	1	10.0-132			23.0	31
Fluoranthene	0.169	ND	0.0778	0.118	46.0	70.0	1	10.0-153		J3	41.4	33
Fluorene	0.169	ND	0.0672	0.0930	39.8	55.0	1	11.0-130		J3	32.2	29
Indeno(1,2,3-cd)pyrene	0.169	ND	0.0883	0.123	52.3	72.9	1	10.0-137		J3	33.0	32
Naphthalene	0.169	ND	0.0632	0.0488	37.4	28.9	1	10.0-135			25.7	27
Phenanthrene	0.169	ND	0.0746	0.109	44.1	64.4	1	10.0-144		J3	37.3	31
Pyrene	0.169	ND	0.0702	0.111	41.5	65.5	1	10.0-148		J3	44.9	35
1-Methylnaphthalene	0.169	ND	0.0560	0.0488	33.1	28.9	1	10.0-142			13.7	28
2-Methylnaphthalene	0.169	ND	0.0600	0.0516	35.5	30.5	1	10.0-137			15.2	28
(S) Nitrobenzene-d5					76.0	67.4		14.0-149				
(S) 2-Fluorobiphenyl					34.4	26.1		34.0-125		J2		
(S) p-Terphenyl-d14					63.7	57.2		23.0-120				



Method Blank (MB)

(MB) R3425378-2 06/27/19 12:44

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
Anthracene	U		0.00600	0.00600
Acenaphthene	U		0.00600	0.00600
Acenaphthylene	U		0.00600	0.00600
Benzo(a)anthracene	U		0.00600	0.00600
Benzo(a)pyrene	U		0.00600	0.00600
Benzo(b)fluoranthene	U		0.00600	0.00600
Benzo(g,h,i)perylene	U		0.00600	0.00600
Benzo(k)fluoranthene	U		0.00600	0.00600
Chrysene	U		0.00600	0.00600
Dibenz(a,h)anthracene	U		0.00600	0.00600
Fluoranthene	U		0.00600	0.00600
Fluorene	U		0.00600	0.00600
Indeno(1,2,3-cd)pyrene	U		0.00600	0.00600
Naphthalene	U		0.00200	0.0200
Phenanthrene	U		0.00600	0.00600
Pyrene	U		0.00600	0.00600
1-Methylnaphthalene	U		0.00200	0.0200
2-Methylnaphthalene	U		0.00200	0.0200
<i>(S) Nitrobenzene-d5</i>	107			14.0-149
<i>(S) 2-Fluorobiphenyl</i>	99.2			34.0-125
<i>(S) p-Terphenyl-d14</i>	83.9			23.0-120

<sup>1</sup> Cp

<sup>2</sup> Tc

<sup>3</sup> Ss

<sup>4</sup> Cn

<sup>5</sup> Sr

<sup>6</sup> Qc

<sup>7</sup> Gl

<sup>8</sup> Al

<sup>9</sup> Sc

Laboratory Control Sample (LCS)

(LCS) R3425378-1 06/27/19 12:23

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
Anthracene	0.0800	0.0783	97.9	50.0-126	
Acenaphthene	0.0800	0.0759	94.9	50.0-120	
Acenaphthylene	0.0800	0.0747	93.4	50.0-120	
Benzo(a)anthracene	0.0800	0.0730	91.3	45.0-120	
Benzo(a)pyrene	0.0800	0.0600	75.0	42.0-120	
Benzo(b)fluoranthene	0.0800	0.0662	82.8	42.0-121	
Benzo(g,h,i)perylene	0.0800	0.0644	80.5	45.0-125	
Benzo(k)fluoranthene	0.0800	0.0704	88.0	49.0-125	
Chrysene	0.0800	0.0784	98.0	49.0-122	
Dibenz(a,h)anthracene	0.0800	0.0675	84.4	47.0-125	
Fluoranthene	0.0800	0.0820	103	49.0-129	
Fluorene	0.0800	0.0766	95.8	49.0-120	



Laboratory Control Sample (LCS)

(LCS) R3425378-1 06/27/19 12:23

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	<u>LCS Qualifier</u>
Indeno(1,2,3-cd)pyrene	0.0800	0.0658	82.3	46.0-125	
Naphthalene	0.0800	0.0683	85.4	50.0-120	
Phenanthrene	0.0800	0.0716	89.5	47.0-120	
Pyrene	0.0800	0.0693	86.6	43.0-123	
1-Methylnaphthalene	0.0800	0.0695	86.9	51.0-121	
2-Methylnaphthalene	0.0800	0.0711	88.9	50.0-120	
<i>(S) Nitrobenzene-d5</i>			110	14.0-149	
<i>(S) 2-Fluorobiphenyl</i>			99.4	34.0-125	
<i>(S) p-Terphenyl-d14</i>			87.2	23.0-120	

- 1 Cp
- 2 Tc
- 3 Ss
- 4 Cn
- 5 Sr
- 6 Qc
- 7 Gl
- 8 Al
- 9 Sc

L1111600-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1111600-01 06/27/19 14:56 • (MS) R3425378-3 06/27/19 15:18 • (MSD) R3425378-4 06/27/19 15:40

Analyte	Spike Amount mg/kg	Original Result mg/kg	MS Result mg/kg	MSD Result mg/kg	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	<u>MS Qualifier</u>	<u>MSD Qualifier</u>	RPD %	RPD Limits %
Anthracene	0.0800	ND	0.0722	0.0756	90.3	94.5	1	10.0-145			4.60	30
Acenaphthene	0.0800	ND	0.0734	0.0711	91.8	88.9	1	14.0-127			3.18	27
Acenaphthylene	0.0800	ND	0.0701	0.0661	87.6	82.6	1	21.0-124			5.87	25
Benzo(a)anthracene	0.0800	ND	0.0704	0.0732	88.0	91.5	1	10.0-139			3.90	30
Benzo(a)pyrene	0.0800	ND	0.0650	0.0673	81.3	84.1	1	10.0-141			3.48	31
Benzo(b)fluoranthene	0.0800	ND	0.0594	0.0617	74.3	77.1	1	10.0-140			3.80	36
Benzo(g,h,i)perylene	0.0800	ND	0.0612	0.0631	76.5	78.9	1	10.0-140			3.06	33
Benzo(k)fluoranthene	0.0800	ND	0.0616	0.0649	77.0	81.1	1	10.0-137			5.22	31
Chrysene	0.0800	ND	0.0657	0.0677	82.1	84.6	1	10.0-145			3.00	30
Dibenz(a,h)anthracene	0.0800	ND	0.0641	0.0675	80.1	84.4	1	10.0-132			5.17	31
Fluoranthene	0.0800	ND	0.0752	0.0755	94.0	94.4	1	10.0-153			0.398	33
Fluorene	0.0800	ND	0.0745	0.0747	93.1	93.4	1	11.0-130			0.268	29
Indeno(1,2,3-cd)pyrene	0.0800	ND	0.0624	0.0647	78.0	80.9	1	10.0-137			3.62	32
Naphthalene	0.0800	ND	0.0600	0.0563	75.0	70.4	1	10.0-135			6.36	27
Phenanthrene	0.0800	ND	0.0702	0.0708	87.8	88.5	1	10.0-144			0.851	31
Pyrene	0.0800	ND	0.0753	0.0758	94.1	94.8	1	10.0-148			0.662	35
1-Methylnaphthalene	0.0800	ND	0.0640	0.0605	80.0	75.6	1	10.0-142			5.62	28
2-Methylnaphthalene	0.0800	ND	0.0620	0.0551	77.5	68.9	1	10.0-137			11.8	28
<i>(S) Nitrobenzene-d5</i>					114	129		14.0-149				
<i>(S) 2-Fluorobiphenyl</i>					86.6	86.7		34.0-125				
<i>(S) p-Terphenyl-d14</i>					87.4	92.0		23.0-120				





Guide to Reading and Understanding Your Laboratory Report

The information below is designed to better explain the various terms used in your report of analytical results from the Laboratory. This is not intended as a comprehensive explanation, and if you have additional questions please contact your project representative.

Abbreviations and Definitions

(dry)	Results are reported based on the dry weight of the sample. [this will only be present on a dry report basis for soils].
MDL	Method Detection Limit.
ND	Not detected at the Reporting Limit (or MDL where applicable).
RDL	Reported Detection Limit.
RDL (dry)	Reported Detection Limit.
Rec.	Recovery.
RPD	Relative Percent Difference.
SDG	Sample Delivery Group.
(S)	Surrogate (Surrogate Standard) - Analytes added to every blank, sample, Laboratory Control Sample/Duplicate and Matrix Spike/Duplicate; used to evaluate analytical efficiency by measuring recovery. Surrogates are not expected to be detected in all environmental media.
U	Not detected at the Reporting Limit (or MDL where applicable).
Analyte	The name of the particular compound or analysis performed. Some Analyses and Methods will have multiple analytes reported.
Dilution	If the sample matrix contains an interfering material, the sample preparation volume or weight values differ from the standard, or if concentrations of analytes in the sample are higher than the highest limit of concentration that the laboratory can accurately report, the sample may be diluted for analysis. If a value different than 1 is used in this field, the result reported has already been corrected for this factor.
Limits	These are the target % recovery ranges or % difference value that the laboratory has historically determined as normal for the method and analyte being reported. Successful QC Sample analysis will target all analytes recovered or duplicated within these ranges.
Original Sample	The non-spiked sample in the prep batch used to determine the Relative Percent Difference (RPD) from a quality control sample. The Original Sample may not be included within the reported SDG.
Qualifier	This column provides a letter and/or number designation that corresponds to additional information concerning the result reported. If a Qualifier is present, a definition per Qualifier is provided within the Glossary and Definitions page and potentially a discussion of possible implications of the Qualifier in the Case Narrative if applicable.
Result	The actual analytical final result (corrected for any sample specific characteristics) reported for your sample. If there was no measurable result returned for a specific analyte, the result in this column may state "ND" (Not Detected) or "BDL" (Below Detectable Levels). The information in the results column should always be accompanied by either an MDL (Method Detection Limit) or RDL (Reporting Detection Limit) that defines the lowest value that the laboratory could detect or report for this analyte.
Uncertainty (Radiochemistry)	Confidence level of 2 sigma.
Case Narrative (Cn)	A brief discussion about the included sample results, including a discussion of any non-conformances to protocol observed either at sample receipt by the laboratory from the field or during the analytical process. If present, there will be a section in the Case Narrative to discuss the meaning of any data qualifiers used in the report.
Quality Control Summary (Qc)	This section of the report includes the results of the laboratory quality control analyses required by procedure or analytical methods to assist in evaluating the validity of the results reported for your samples. These analyses are not being performed on your samples typically, but on laboratory generated material.
Sample Chain of Custody (Sc)	This is the document created in the field when your samples were initially collected. This is used to verify the time and date of collection, the person collecting the samples, and the analyses that the laboratory is requested to perform. This chain of custody also documents all persons (excluding commercial shippers) that have had control or possession of the samples from the time of collection until delivery to the laboratory for analysis.
Sample Results (Sr)	This section of your report will provide the results of all testing performed on your samples. These results are provided by sample ID and are separated by the analyses performed on each sample. The header line of each analysis section for each sample will provide the name and method number for the analysis reported.
Sample Summary (Ss)	This section of the Analytical Report defines the specific analyses performed for each sample ID, including the dates and times of preparation and/or analysis.

- 1 Cp
- 2 Tc
- 3 Ss
- 4 Cn
- 5 Sr
- 6 Qc
- 7 Gl
- 8 Al
- 9 Sc

Qualifier	Description
B	The same analyte is found in the associated blank.
J	The identification of the analyte is acceptable; the reported value is an estimate.
J0	J0: The identification of the analyte is acceptable, but the reported concentration is an estimate. The calibration method criteria.
J2	Surrogate recovery limits have been exceeded; values are outside lower control limits.
J3	The associated batch QC was outside the established quality control range for precision.
J4	The associated batch QC was outside the established quality control range for accuracy.
J5	The sample matrix interfered with the ability to make any accurate determination; spike value is high.
J6	The sample matrix interfered with the ability to make any accurate determination; spike value is low.
J7	Surrogate recovery cannot be used for control limit evaluation due to dilution.
O1	The analyte failed the method required serial dilution test and/or subsequent post-spike criteria. These failures indicate matrix interference.
P	RPD between the primary and confirmatory analysis exceeded 40%.



Qualifier	Description
V	The sample concentration is too high to evaluate accurate spike recoveries.

<sup>1</sup> Cp

<sup>2</sup> Tc

<sup>3</sup> Ss

<sup>4</sup> Cn

<sup>5</sup> Sr

<sup>6</sup> Qc

<sup>7</sup> Gl

<sup>8</sup> Al

<sup>9</sup> Sc



Pace National is the only environmental laboratory accredited/certified to support your work nationwide from one location. One phone call, one point of contact, one laboratory. No other lab is as accessible or prepared to handle your needs throughout the country. Our capacity and capability from our single location laboratory is comparable to the collective totals of the network laboratories in our industry. The most significant benefit to our one location design is the design of our laboratory campus. The model is conducive to accelerated productivity, decreasing turn-around time, and preventing cross contamination, thus protecting sample integrity. Our focus on premium quality and prompt service allows us to be YOUR LAB OF CHOICE.

\* Not all certifications held by the laboratory are applicable to the results reported in the attached report.  
 \* Accreditation is only applicable to the test methods specified on each scope of accreditation held by Pace National.

## State Accreditations

Alabama	40660	Nebraska	NE-OS-15-05
Alaska	17-026	Nevada	TN-03-2002-34
Arizona	AZ0612	New Hampshire	2975
Arkansas	88-0469	New Jersey-NELAP	TN002
California	2932	New Mexico <sup>1</sup>	n/a
Colorado	TN00003	New York	11742
Connecticut	PH-0197	North Carolina	Env375
Florida	E87487	North Carolina <sup>1</sup>	DW21704
Georgia	NELAP	North Carolina <sup>3</sup>	41
Georgia <sup>1</sup>	923	North Dakota	R-140
Idaho	TN00003	Ohio-VAP	CL0069
Illinois	200008	Oklahoma	9915
Indiana	C-TN-01	Oregon	TN200002
Iowa	364	Pennsylvania	68-02979
Kansas	E-10277	Rhode Island	LA000356
Kentucky <sup>1,6</sup>	90010	South Carolina	84004
Kentucky <sup>2</sup>	16	South Dakota	n/a
Louisiana	AI30792	Tennessee <sup>1,4</sup>	2006
Louisiana <sup>1</sup>	LA180010	Texas	T104704245-18-15
Maine	TN0002	Texas <sup>5</sup>	LAB0152
Maryland	324	Utah	TN00003
Massachusetts	M-TN003	Vermont	VT2006
Michigan	9958	Virginia	460132
Minnesota	047-999-395	Washington	C847
Mississippi	TN00003	West Virginia	233
Missouri	340	Wisconsin	9980939910
Montana	CERT0086	Wyoming	A2LA

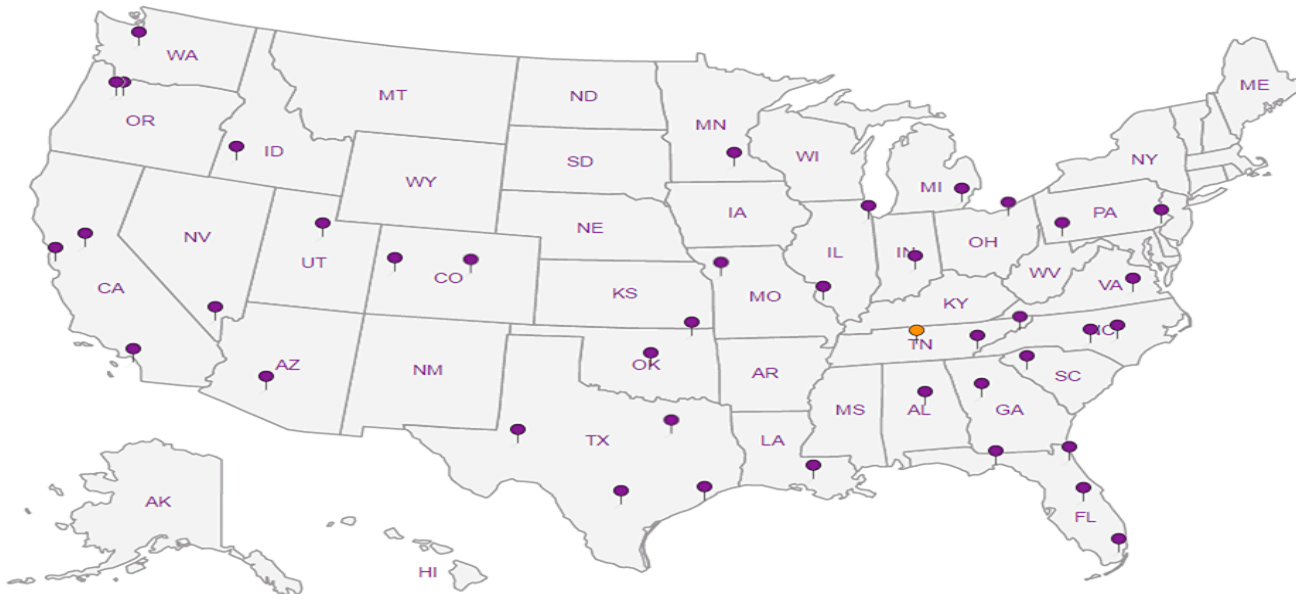
## Third Party Federal Accreditations

A2LA – ISO 17025	1461.01	AIHA-LAP,LLC EMLAP	100789
A2LA – ISO 17025 <sup>5</sup>	1461.02	DOD	1461.01
Canada	1461.01	USDA	P330-15-00234
EPA-Crypto	TN00003		

<sup>1</sup> Drinking Water <sup>2</sup> Underground Storage Tanks <sup>3</sup> Aquatic Toxicity <sup>4</sup> Chemical/Microbiological <sup>5</sup> Mold <sup>6</sup> Wastewater n/a Accreditation not applicable

## Our Locations

Pace National has sixty-four client support centers that provide sample pickup and/or the delivery of sampling supplies. If you would like assistance from one of our support offices, please contact our main office. Pace National performs all testing at our central laboratory.



1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl


8 Al

9 Sc

**S&ME Inc. - Spartanburg SC**  
 301 Zima Park Drive  
 Spartanburg, SC 29301

Billing Information:  
**Accounts Payable**  
 301 Zima Park Drive  
 Spartanburg, SC 29301

Pres Chk  
 Analysis / Container / Preservative

Chain of Custody Page 1 of 3  
  
 12065 Lebanon Rd  
 Mount Juliet, TN 37122  
 Phone: 615-758-5858  
 Phone: 800-767-5859  
 Fax: 615-758-5859

Report to:  
**Scott Dacus**

Email To: **sdacus@smeinc.com**

Project Description: **PROJECT COLUMBIA**

City/State Collected: **SC**

Phone: **864-574-2360**  
 Fax: **864-576-8730**

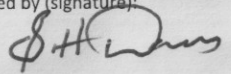
Client Project #  
**4213-18-087**

Lab Project #  
**SMESPAR-4213-18-087**

Collected by (print):  
**SCOTT DACUS**

Site/Facility ID #  
**COLUMBIA**

P.O. #  
**4213-18-087**

Collected by (signature):  
  
 Immediately Packed on Ice N  Y

**Rush?** (Lab MUST Be Notified)  
 Same Day  Five Day  
 Next Day  5 Day (Rad Only)  
 Two Day  10 Day (Rad Only)  
 Three Day

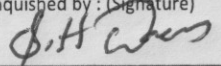
Quote #  
 Date Results Needed

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No. of Cntrs	8081/8082,8270TCL,CN 4ozClr-NoPres	TALMetals,TS,PAHSIM 4ozClr-NoPres	V8260TCLSC - BLK 40mlAmb-NoPres-BLK	V8260TCLSC 40mlAmb/MeOH5ml/Syr													
TWHL-1-SU-1	GRAB	SS		6/18/19	1047	3	X	X		X											01		
TWHL-2-SU-1		SS		↓	1015	3	X	X		X											02		
TWHL-3-SU-1		SS			1250	3	X	X		X												03	
TWHL-4-SU-1		SS			1320	3	X	X		X												04	
SL2-1-SU-2		SS			1420	3	X	X		X												05	
SL2-2-SU-2		SS			1445	3	X	X		X												06	
WHL1-1-SU-1		SS		6/19/19	0915	3	X	X		X												07	
WHL1-2-SU-1		SS		↓	0935	3	X	X		X												08	
WHL1-3-SU-2		SS			1225	3	X	X		X													09
WHL1-4-SU-1		SS			0953	3	X	X		X													10

\* Matrix:  
 SS - Soil AIR - Air F - Filter  
 GW - Groundwater B - Bioassay  
 WW - WasteWater  
 DW - Drinking Water  
 OT - Other

Remarks:  
**RAD SCREEN: <0.5 nR/hr**  
 pH \_\_\_\_\_ Temp \_\_\_\_\_  
 Flow \_\_\_\_\_ Other \_\_\_\_\_  
 Samples returned via:  
 UPS  FedEx  Courler \_\_\_\_\_  
 Tracking # \_\_\_\_\_

Sample Receipt Checklist  
 COC Seal Present/Intact:  NP  N  
 COC Signed/Accurate:   N  
 Bottles arrive intact:   N  
 Correct bottles used:   N  
 Sufficient volume sent:   N  
 If Applicable  
 VOA Zero Headspace:   N  
 Preservation Correct/Checked:   N

Relinquished by: (Signature)  


Date: **6/20/19**  
 Time: **1730**

Received by: (Signature)  
 Trip Blank Received: Yes/No  
 HCL / MeOH  
 TBR

Relinquished by: (Signature)

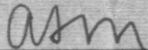
Date: \_\_\_\_\_  
 Time: \_\_\_\_\_

Received by: (Signature)

Temp: \_\_\_\_\_  
 Bottles Received: **79**

Relinquished by: (Signature)

Date: \_\_\_\_\_  
 Time: \_\_\_\_\_

Received for lab by: (Signature)  


Date: **6/21/19**  
 Time: **900**

Hold: \_\_\_\_\_  
 Condition: NCF / **OK**



**S&ME Inc. - Spartanburg SC**  
 301 Zima Park Drive  
 Spartanburg, SC 29301

Billing Information:  
**Accounts Payable**  
 301 Zima Park Drive  
 Spartanburg, SC 29301

Report to:  
**Scott Dacus**

Email To: **sdacus@smeinc.com**

Project Description: **PROJECT COLUMBIA**

City/State Collected: **SC**

Phone: **864-574-2360**  
 Fax: **864-576-8730**

Client Project #  
**4213-18-087**

Lab Project #  
**SMESPAR-4213-18-087**

Collected by (print):  
**SCOTT DACUS**

Site/Facility ID #  
**COLUMBIA**

P.O. #  
**4213-18-087**

Collected by (signature):  
*[Signature]*

**Rush?** (Lab MUST Be Notified)  
 Same Day  Five Day  
 Next Day  5 Day (Rad Only)  
 Two Day  10 Day (Rad Only)  
 Three Day

Quote #  
 Date Results Needed

Immediately Packed on Ice N  Y

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No. of Cntrs	8081/8082,8270TCL,CN 4ozClr-NoPres	TALMetals,TS,PAHSIM 4ozClr-NoPres	V8260TCLSC - BLK 40mlAmb-NoPres-Blk	V8260TCLSC 40mlAmb/MeOH5ml/Syr
WHL1-5-SV-2	GRAB	SS		6/19/19	1300	3	X	X	X	
WHL1-6-SV-1		SS			1015	3	X	X	X	
WHL1-7-SV-2		SS			1052	3	X	X	X	
WHL1-8-SV-1		SS			1030	3	X	X	X	
CM-DUP-SV-1		SS		↓		3	X	X	X	
WHL2-1-SV-3		SS		6/20/19	0850	3	X	X	X	
WHL2-2-SV-3		SS			0920	3	X	X	X	
WHL2-3-SV-2		SS			0945	3	X	X	X	
WHL2-4-SV-1		SS		↓	1010	3	X	X	X	
		SS				3	X	X	X	

\* Matrix:  
 SS - Soil AIR - Air F - Filter  
 GW - Groundwater B - Bioassay  
 WW - WasteWater  
 DW - Drinking Water  
 OT - Other

Remarks:  
 Samples returned via:  
 UPS  FedEx  Courier \_\_\_\_\_ Tracking # \_\_\_\_\_  
 pH \_\_\_\_\_ Temp \_\_\_\_\_  
 Flow \_\_\_\_\_ Other \_\_\_\_\_

Sample Receipt Checklist  
 COC Seal Present/Intact:  NP  Y  N  
 COC Signed/Accurate:  Y  N  
 Bottles arrive intact:  Y  N  
 Correct bottles used:  Y  N  
 Sufficient volume sent:  Y  N  
 If Applicable  
 VOA Zero Headspace:  Y  N  
 Preservation Correct/Checked:  Y  N

Relinquished by: (Signature)  
*[Signature]*

Date: **6/20/19** Time: **1730**

Received by: (Signature)

Trip Blank Received:  Yes /  No  
 HCL / MeOH TBR

Relinquished by: (Signature)

Date: \_\_\_\_\_ Time: \_\_\_\_\_

Received by: (Signature)

Temp: **4.20.3=4.5#002 79** °C Bottles Received:

If preservation required by Login: Date/Time

Relinquished by: (Signature)

Date: \_\_\_\_\_ Time: \_\_\_\_\_

Received for lab by: (Signature)  
*[Signature]*

Date: **6/21/19** Time: **900**

Hold: \_\_\_\_\_ Condition: **NCF / OK**

Analysis / Container / Preservative

Chain of Custody Page **2** of **3**

**Pace Analytical**  
 National Center for Testing & Innovation

12065 Lebanon Rd  
 Mount Juliet, TN 37122  
 Phone: 615-758-5858  
 Phone: 800-767-5859  
 Fax: 615-758-5859

QR Code

L# **111579**

Table #

Acctnum: **SMESPAR**  
 Template: **T150318**  
 Prelogin: **P708990**  
 TSR: **690 - Tom Mellette**  
 PB: **76 5-14-19**

Shipped Via: **FedEX Ground**

Remarks	Sample # (lab only)
	11
	12
	13
	14
	15
	16
	17
	18
	19
	20

**S&ME Inc. - Spartanburg SC**

301 Zima Park Drive  
Spartanburg, SC 29301

Billing Information:

Accounts Payable  
301 Zima Park Drive  
Spartanburg, SC 29301

Report to:  
**Scott Dacus**

Email To: sdacus@smeinc.com

Project Description: **PROJECT COLUMBIA**

City/State Collected: **SC**

Phone: 864-574-2360  
Fax: 864-576-8730

Client Project #  
**4213-18-087**

Lab Project #  
**SMESPAR-4213-18-087**

Collected by (print):  
**SCOTT DACUS**

Site/Facility ID #

P.O. #  
**4213-18-087**

Collected by (signature):  
*[Signature]*

Rush? (Lab MUST Be Notified)  
 Same Day  Five Day  
 Next Day  5 Day (Rad Only)  
 Two Day  10 Day (Rad Only)  
 Three Day

Quote #

Date Results Needed

Immediately Packed on Ice N  Y

Pres Chk

Analysis / Container / Preservative

Chain of Custody Page 3 of 3



12065 Lebanon Rd  
Mount Juliet, TN 37122  
Phone: 615-758-5858  
Phone: 800-767-5859  
Fax: 615-758-5859



L# **111579**

Table #

Acctnum: **SMESPAR**

Template: **T150328**

Prelogin: **P708989**

TSR: **690 - Tom Mellette**

PB: **76 5-14-19**

Shipped Via: **FedEX Ground**

Remarks Sample # (lab only)

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No. of Cntrs	8081/8082SC 100ml Amb NoPres	8270PAHSIMDSC 100ml Amb NoPres	8270TCLDSC 100ml Amb NoPres	CN 250mlHDPEAmb-NaOH	TAL Metals 250mlHDPE-HNO3	V8260TCLSC 40mlAmb-NoPres	V8260TCLSC- BLK 40mlAmb-NoPres-Blk	Remarks	Sample # (lab only)
<b>CM-EB-SU-1</b>	<b>GRAB</b>	<b>GW</b>		<b>6/19/19</b>	<b>1350</b>	<b>11</b>	<b>X</b>	<b>X</b>	<b>X</b>	<b>X</b>	<b>X</b>	<b>X</b>			<b>21</b>
<b>CM-FB-SU-1</b>	<b>GRAB</b>	<b>GW</b>		<b>6/19/19</b>	<b>1420</b>	<b>11</b>	<b>X</b>	<b>X</b>	<b>X</b>	<b>X</b>	<b>X</b>	<b>X</b>			<b>22</b>
		<b>GW</b>				<b>11</b>	<b>X</b>	<b>X</b>	<b>X</b>	<b>X</b>	<b>X</b>	<b>X</b>			
		<b>GW</b>				<b>11</b>	<b>X</b>	<b>X</b>	<b>X</b>	<b>X</b>	<b>X</b>	<b>X</b>			
<b>TRIP BLANK</b>		<b>GW</b>				<b>11</b>	<b>X</b>	<b>X</b>	<b>X</b>	<b>X</b>	<b>X</b>	<b>X</b>			
<b>TRIP BLANK</b>		<b>GW</b>				<b>1</b>							<b>X</b>		<b>23</b>
		<b>GW</b>				<b>1</b>							<b>X</b>		

AD GREEN: <0.5 mR/hr

pH \_\_\_\_\_ Temp \_\_\_\_\_  
Flow \_\_\_\_\_ Other \_\_\_\_\_

Sample Receipt Checklist

COC Seal Present/Intact:	NP	<input checked="" type="checkbox"/>	Y	<input type="checkbox"/>	N
COC Signed/Accurate:		<input checked="" type="checkbox"/>	Y	<input type="checkbox"/>	N
Bottles arrive intact:		<input checked="" type="checkbox"/>	Y	<input type="checkbox"/>	N
Correct bottles used:		<input checked="" type="checkbox"/>	Y	<input type="checkbox"/>	N
Sufficient volume sent:		<input checked="" type="checkbox"/>	Y	<input type="checkbox"/>	N
If Applicable					
VOA Zero Headspace:		<input checked="" type="checkbox"/>	Y	<input type="checkbox"/>	N
Preservation Correct/Checked:		<input checked="" type="checkbox"/>	Y	<input type="checkbox"/>	N

\* Matrix:  
 SS - Soil AIR - Air F - Filter  
 GW - Groundwater B - Bioassay  
 WW - WasteWater  
 DW - Drinking Water  
 OT - Other \_\_\_\_\_

Remarks:  
 Samples returned via:  
 UPS  FedEx  Courier \_\_\_\_\_

Relinquished by: (Signature) <i>[Signature]</i>	Date: <b>6/20/19</b>	Time: <b>1730</b>	Tracking #	Received by: (Signature)	Trip Blank Received: Yes/No <b>10</b> HCL / MeOH TBR	Temp: °C <b>4.2 ± 0.3 = 9.5</b>	Bottles Received: <b>79</b>	If preservation required by Login: Date/Time
Relinquished by: (Signature)	Date:	Time:		Received by: (Signature)				
Relinquished by: (Signature)	Date:	Time:		Received for lab by: (Signature) <i>[Signature]</i>	Date: <b>6/21/19</b>	Time: <b>900</b>	Hold:	Condition: NCF / <b>OK</b>



## S&ME Inc. - Spartanburg SC

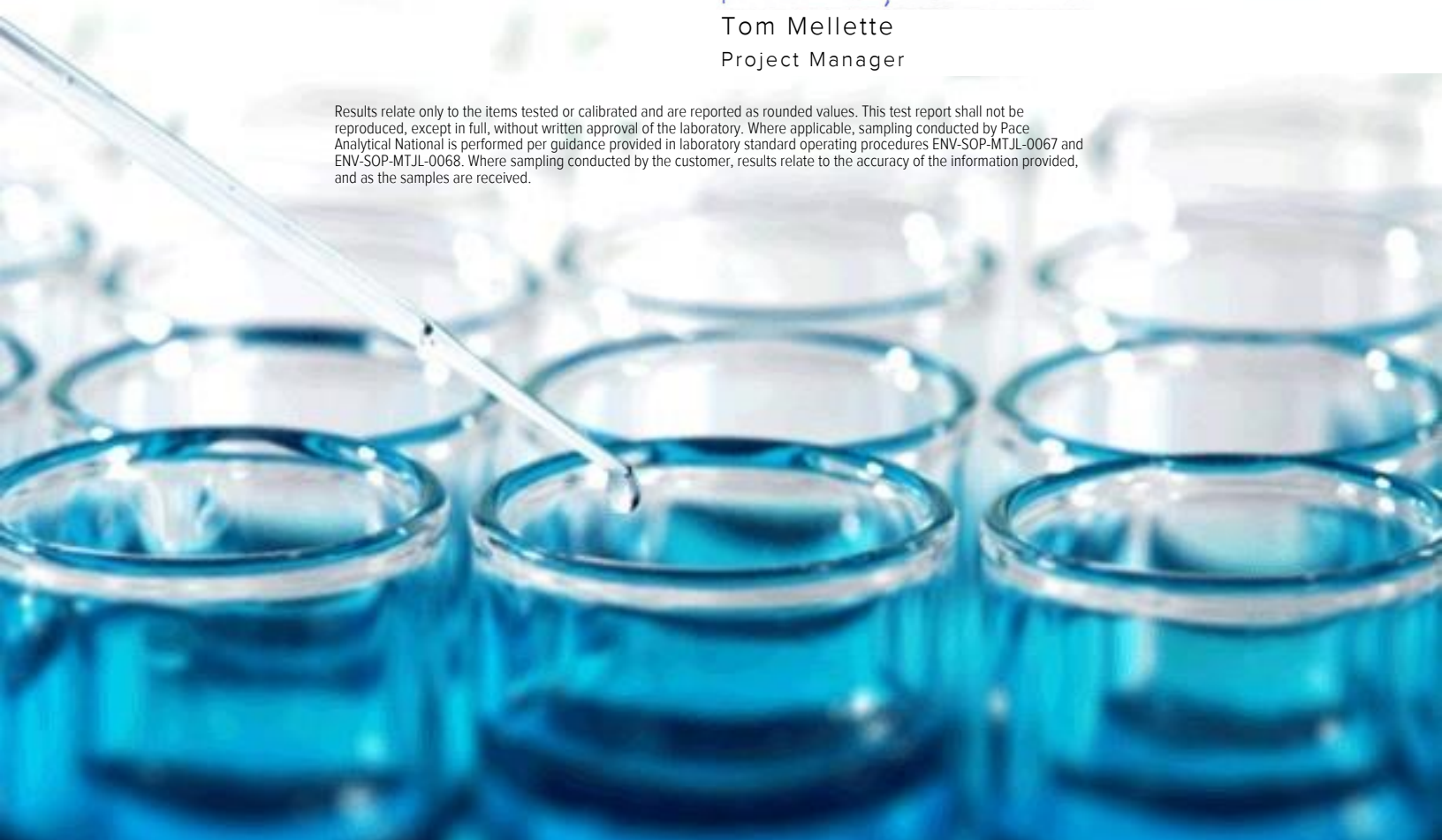
Sample Delivery Group: L1113900  
Samples Received: 06/28/2019  
Project Number: 4213-18-087  
Description: Project Columbia  
Site: COLUMBIA  
Report To: Scott Dacus  
301 Zima Park Drive  
Spartanburg, SC 29301

Entire Report Reviewed By:



Tom Mellette  
Project Manager

Results relate only to the items tested or calibrated and are reported as rounded values. This test report shall not be reproduced, except in full, without written approval of the laboratory. Where applicable, sampling conducted by Pace Analytical National is performed per guidance provided in laboratory standard operating procedures ENV-SOP-MTJL-0067 and ENV-SOP-MTJL-0068. Where sampling conducted by the customer, results relate to the accuracy of the information provided, and as the samples are received.





<b>Cp: Cover Page</b>	<b>1</b>	<b><sup>1</sup>Cp</b>
<b>Tc: Table of Contents</b>	<b>2</b>	
<b>Ss: Sample Summary</b>	<b>3</b>	<b><sup>2</sup>Tc</b>
<b>Cn: Case Narrative</b>	<b>6</b>	
<b>Gl: Glossary of Terms</b>	<b>7</b>	<b><sup>3</sup>Ss</b>
<b>Al: Accreditations &amp; Locations</b>	<b>8</b>	<b><sup>4</sup>Cn</b>
<b>Sc: Sample Chain of Custody</b>	<b>9</b>	<b><sup>5</sup>Gl</b>
		<b><sup>6</sup>Al</b>
		<b><sup>7</sup>Sc</b>

# SAMPLE SUMMARY

SL1-3-SU-24 L1113900-01 Solid

Collected by Kevin McIntyre  
 Collected date/time 06/26/19 12:12  
 Received date/time 06/28/19 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Subcontracted Analyses	WG1304458	1	07/25/19 00:00	07/25/19 00:00	CBM	Minneapolis, MN 55414

SL1-3-SU-20 L1113900-02 Solid

Collected by Kevin McIntyre  
 Collected date/time 06/26/19 12:04  
 Received date/time 06/28/19 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Subcontracted Analyses	WG1304458	1	07/25/19 00:00	07/25/19 00:00	CBM	Minneapolis, MN 55414

SL1-4-SU-15 L1113900-03 Solid

Collected by Kevin McIntyre  
 Collected date/time 06/26/19 16:05  
 Received date/time 06/28/19 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Subcontracted Analyses	WG1304458	1	07/25/19 00:00	07/25/19 00:00	CBM	Minneapolis, MN 55414

SL1-5-SU-6 L1113900-04 Solid

Collected by Kevin McIntyre  
 Collected date/time 06/26/19 13:50  
 Received date/time 06/28/19 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Subcontracted Analyses	WG1304458	1	07/25/19 00:00	07/25/19 00:00	CBM	Minneapolis, MN 55414

SL1-4-SU-12 L1113900-05 Solid

Collected by Kevin McIntyre  
 Collected date/time 06/26/19 16:00  
 Received date/time 06/28/19 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Subcontracted Analyses	WG1304458	1	07/25/19 00:00	07/25/19 00:00	CBM	Minneapolis, MN 55414

CM-DUP-SU-2 L1113900-06 Solid

Collected by Kevin McIntyre  
 Collected date/time 06/26/19 15:50  
 Received date/time 06/28/19 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Subcontracted Analyses	WG1304458	1	07/25/19 00:00	07/25/19 00:00	CBM	Minneapolis, MN 55414

SL1-3-SU-16 L1113900-07 Solid

Collected by Kevin McIntyre  
 Collected date/time 06/26/19 11:59  
 Received date/time 06/28/19 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Subcontracted Analyses	WG1304458	1	07/25/19 00:00	07/25/19 00:00	CBM	Minneapolis, MN 55414

SL1-2-SU-18 L1113900-08 Solid

Collected by Kevin McIntyre  
 Collected date/time 06/26/19 11:09  
 Received date/time 06/28/19 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Subcontracted Analyses	WG1304458	1	07/25/19 00:00	07/25/19 00:00	CBM	Minneapolis, MN 55414

1 Cp

2 Tc

3 Ss

4 Cn

5 Gl

6 Al

7 Sc

# SAMPLE SUMMARY



SL1-3-SU-4 L1113900-09 Solid				Collected by Kevin McIntyre	Collected date/time 06/26/19 11:40	Received date/time 06/28/19 08:45
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Subcontracted Analyses	WG1304458	1	07/25/19 00:00	07/25/19 00:00	CBM	Minneapolis, MN 55414
SL1-2-SU-14 L1113900-10 Solid				Collected by Kevin McIntyre	Collected date/time 06/26/19 11:00	Received date/time 06/28/19 08:45
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Subcontracted Analyses	WG1304458	1	07/25/19 00:00	07/25/19 00:00	CBM	Minneapolis, MN 55414
SL1-1-SU-10 L1113900-11 Solid				Collected by Kevin McIntyre	Collected date/time 06/26/19 09:32	Received date/time 06/28/19 08:45
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Subcontracted Analyses	WG1304458	1	07/25/19 00:00	07/25/19 00:00	CBM	Minneapolis, MN 55414
SL1-1-SU-5 L1113900-12 Solid				Collected by Kevin McIntyre	Collected date/time 06/26/19 09:20	Received date/time 06/28/19 08:45
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Subcontracted Analyses	WG1304458	1	07/25/19 00:00	07/25/19 00:00	CBM	Minneapolis, MN 55414
SL1-1-SU-20 L1113900-13 Solid				Collected by Kevin McIntyre	Collected date/time 06/26/19 09:52	Received date/time 06/28/19 08:45
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Subcontracted Analyses	WG1304458	1	07/25/19 00:00	07/25/19 00:00	CBM	Minneapolis, MN 55414
SL1-1-SU-14 L1113900-14 Solid				Collected by Kevin McIntyre	Collected date/time 06/26/19 09:40	Received date/time 06/28/19 08:45
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Subcontracted Analyses	WG1304458	1	07/25/19 00:00	07/25/19 00:00	CBM	Minneapolis, MN 55414
SL1-4-SU-8 L1113900-15 Solid				Collected by Kevin McIntyre	Collected date/time 06/26/19 15:48	Received date/time 06/28/19 08:45
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Subcontracted Analyses	WG1304458	1	07/25/19 00:00	07/25/19 00:00	CBM	Minneapolis, MN 55414
SL1-5-SU-10 L1113900-16 Solid				Collected by Kevin McIntyre	Collected date/time 06/26/19 13:58	Received date/time 06/28/19 08:45
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Subcontracted Analyses	WG1304458	1	07/25/19 00:00	07/25/19 00:00	CBM	Minneapolis, MN 55414

1 Cp

2 Tc

3 Ss

4 Cn

5 Gl

6 Al

7 Sc

# SAMPLE SUMMARY

## SL1-3-SU-8 L1113900-17 Solid

Collected by Kevin McIntyre  
Collected date/time 06/26/19 11:48  
Received date/time 06/28/19 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Subcontracted Analyses	WG1304458	1	07/25/19 00:00	07/25/19 00:00	CBM	Minneapolis, MN 55414

1  
Cp

2  
Tc

3  
Ss

4  
Cn

5  
Gl

6  
Al

7  
Sc

## SL1-3-SU-12 L1113900-18 Solid

Collected by Kevin McIntyre  
Collected date/time 06/26/19 11:53  
Received date/time 06/28/19 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Subcontracted Analyses	WG1304458	1	07/25/19 00:00	07/25/19 00:00	CBM	Minneapolis, MN 55414

## SL1-6-SU-11 L1113900-19 Solid

Collected by Kevin McIntyre  
Collected date/time 06/26/19 15:00  
Received date/time 06/28/19 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Subcontracted Analyses	WG1304458	1	07/25/19 00:00	07/25/19 00:00	CBM	Minneapolis, MN 55414

## SL1-6-SU-8 L1113900-20 Solid

Collected by Kevin McIntyre  
Collected date/time 06/26/19 14:53  
Received date/time 06/28/19 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Subcontracted Analyses	WG1304458	1	07/25/19 00:00	07/25/19 00:00	CBM	Minneapolis, MN 55414

## SL1-5-SU-20 L1113900-21 Solid

Collected by Kevin McIntyre  
Collected date/time 06/26/19 14:16  
Received date/time 06/28/19 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Subcontracted Analyses	WG1304458	1	07/25/19 00:00	07/25/19 00:00	CBM	Minneapolis, MN 55414



All sample aliquots were received at the correct temperature, in the proper containers, with the appropriate preservatives, and within method specified holding times, unless qualified or notated within the report. Where applicable, all MDL (LOD) and RDL (LOQ) values reported for environmental samples have been corrected for the dilution factor used in the analysis. All Method and Batch Quality Control are within established criteria except where addressed in this case narrative, a non-conformance form or properly qualified within the sample results. By my digital signature below, I affirm to the best of my knowledge, all problems/anomalies observed by the laboratory as having the potential to affect the quality of the data have been identified by the laboratory, and no information or data have been knowingly withheld that would affect the quality of the data.

Tom Mellette  
Project Manager

- <sup>1</sup> Cp
- <sup>2</sup> Tc
- <sup>3</sup> Ss
- <sup>4</sup> Cn
- <sup>5</sup> Gl
- <sup>6</sup> Al
- <sup>7</sup> Sc

### Project Narrative

---

L1113900 -01, -02, -03, -04, -05, -06, -07, -08, -09, -10, -11, -12, -13, -14, -15, -16, -17, -18, -19, -20, -21 contains subout data that is included after the chain of custody.





Guide to Reading and Understanding Your Laboratory Report

The information below is designed to better explain the various terms used in your report of analytical results from the Laboratory. This is not intended as a comprehensive explanation, and if you have additional questions please contact your project representative.

Results Disclaimer - Information that may be provided by the customer, and contained within this report, include Permit Limits, Project Name, Sample ID, Sample Matrix, Sample Preservation, Field Blanks, Field Spikes, Field Duplicates, On-Site Data, Sampling Collection Dates/Times, and Sampling Location. Results relate to the accuracy of this information provided, and as the samples are received.

Abbreviations and Definitions

SDG	Sample Delivery Group.
Uncertainty (Radiochemistry)	Confidence level of 2 sigma.
Case Narrative (Cn)	A brief discussion about the included sample results, including a discussion of any non-conformances to protocol observed either at sample receipt by the laboratory from the field or during the analytical process. If present, there will be a section in the Case Narrative to discuss the meaning of any data qualifiers used in the report.
Quality Control Summary (Qc)	This section of the report includes the results of the laboratory quality control analyses required by procedure or analytical methods to assist in evaluating the validity of the results reported for your samples. These analyses are not being performed on your samples typically, but on laboratory generated material.
Sample Chain of Custody (Sc)	This is the document created in the field when your samples were initially collected. This is used to verify the time and date of collection, the person collecting the samples, and the analyses that the laboratory is requested to perform. This chain of custody also documents all persons (excluding commercial shippers) that have had control or possession of the samples from the time of collection until delivery to the laboratory for analysis.
Sample Results (Sr)	This section of your report will provide the results of all testing performed on your samples. These results are provided by sample ID and are separated by the analyses performed on each sample. The header line of each analysis section for each sample will provide the name and method number for the analysis reported.
Sample Summary (Ss)	This section of the Analytical Report defines the specific analyses performed for each sample ID, including the dates and times of preparation and/or analysis.

- 1 Cp
- 2 Tc
- 3 Ss
- 4 Cn
- 5 Gl
- 6 Al
- 7 Sc

Qualifier Description

The remainder of this page intentionally left blank, there are no qualifiers applied to this SDG.



Pace National is the only environmental laboratory accredited/certified to support your work nationwide from one location. One phone call, one point of contact, one laboratory. No other lab is as accessible or prepared to handle your needs throughout the country. Our capacity and capability from our single location laboratory is comparable to the collective totals of the network laboratories in our industry. The most significant benefit to our one location design is the design of our laboratory campus. The model is conducive to accelerated productivity, decreasing turn-around time, and preventing cross contamination, thus protecting sample integrity. Our focus on premium quality and prompt service allows us to be YOUR LAB OF CHOICE.

\* Not all certifications held by the laboratory are applicable to the results reported in the attached report.  
 \* Accreditation is only applicable to the test methods specified on each scope of accreditation held by Pace National.

## State Accreditations

Alabama	40660	Nebraska	NE-OS-15-05
Alaska	17-026	Nevada	TN-03-2002-34
Arizona	AZ0612	New Hampshire	2975
Arkansas	88-0469	New Jersey-NELAP	TN002
California	2932	New Mexico <sup>1</sup>	n/a
Colorado	TN00003	New York	11742
Connecticut	PH-0197	North Carolina	Env375
Florida	E87487	North Carolina <sup>1</sup>	DW21704
Georgia	NELAP	North Carolina <sup>3</sup>	41
Georgia <sup>1</sup>	923	North Dakota	R-140
Idaho	TN00003	Ohio-VAP	CL0069
Illinois	200008	Oklahoma	9915
Indiana	C-TN-01	Oregon	TN200002
Iowa	364	Pennsylvania	68-02979
Kansas	E-10277	Rhode Island	LA000356
Kentucky <sup>1,6</sup>	90010	South Carolina	84004
Kentucky <sup>2</sup>	16	South Dakota	n/a
Louisiana	AI30792	Tennessee <sup>1,4</sup>	2006
Louisiana <sup>1</sup>	LA180010	Texas	T104704245-18-15
Maine	TN0002	Texas <sup>5</sup>	LAB0152
Maryland	324	Utah	TN00003
Massachusetts	M-TN003	Vermont	VT2006
Michigan	9958	Virginia	460132
Minnesota	047-999-395	Washington	C847
Mississippi	TN00003	West Virginia	233
Missouri	340	Wisconsin	9980939910
Montana	CERT0086	Wyoming	A2LA

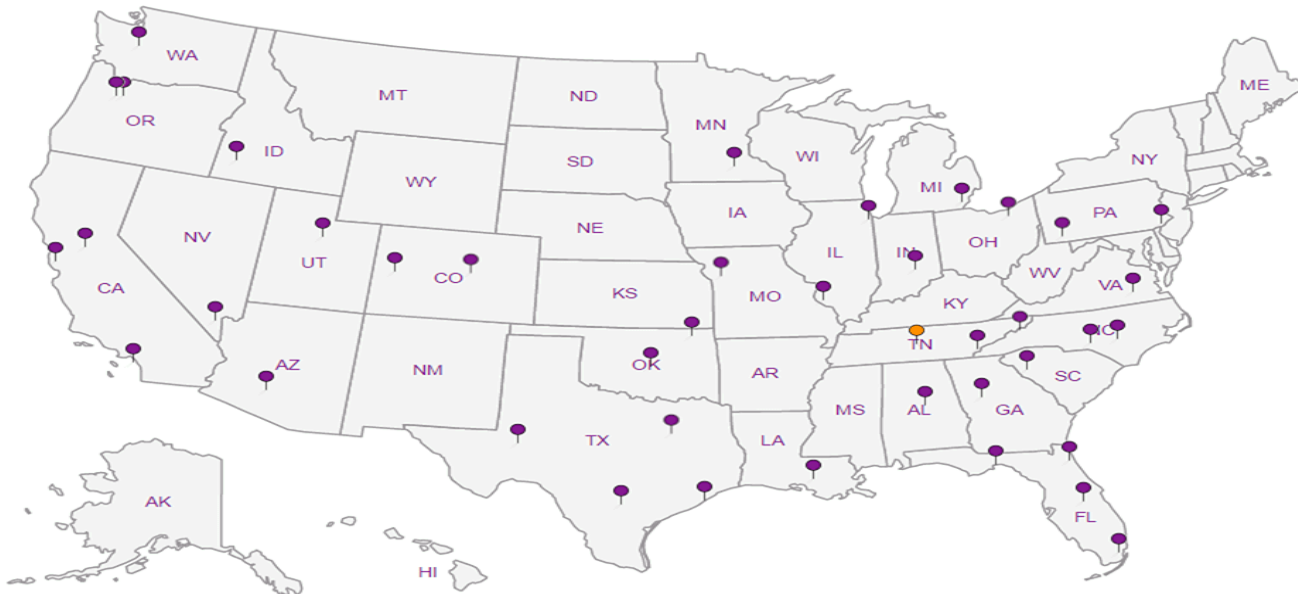
## Third Party Federal Accreditations

A2LA – ISO 17025	1461.01	AIHA-LAP,LLC EMLAP	100789
A2LA – ISO 17025 <sup>5</sup>	1461.02	DOD	1461.01
Canada	1461.01	USDA	P330-15-00234
EPA-Crypto	TN00003		

<sup>1</sup> Drinking Water <sup>2</sup> Underground Storage Tanks <sup>3</sup> Aquatic Toxicity <sup>4</sup> Chemical/Microbiological <sup>5</sup> Mold <sup>6</sup> Wastewater n/a Accreditation not applicable

## Our Locations

Pace National has sixty-four client support centers that provide sample pickup and/or the delivery of sampling supplies. If you would like assistance from one of our support offices, please contact our main office. Pace National performs all testing at our central laboratory.



1 Cp

2 Tc

3 Ss

4 Cn

5 Gl

6 Al

7 Sc

**S&ME Inc. - Spartanburg SC**

301 Zima Park Drive  
Spartanburg, SC 29301

Billing Information:  
Accounts Payable  
301 Zima Park Drive  
Spartanburg, SC 29301

Report to:  
**Scott Dacus**

Email To: sdacus@smeinc.com

Project Description: City/State Collected: **Rock Hill, SC**

Phone: **864-574-2360** Client Project # **4213-18-087** Lab Project # **SMESPAR-4213-18-087**  
Fax: **864-576-8730**

Collected by (print): Site/Facility ID # P.O. #

Collected by (signature): *Kevin McEntyre* Quote #

Immediately Packed on Ice N    Y X  
**Rush?** (Lab MUST Be Notified)  
 Same Day  Five Day  
 Next Day  5 Day (Rad Only)  
 Two Day  10 Day (Rad Only)  
 Three Day  
 Date Results Needed

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No. of Cntrs	SV8290 1L-Amb-NoPres	Sub (Dioxin + TS) 4ozCir-NoPres
SLI-3-SU-24	G	SS	24	6-26-19	1212	1	X	
SLI-3-SU-20		SS	20		1204	1	X	
SLI-4-SU-15		SS	15		1605	1	X	
SLI-5-SU-6		SS	6		1350	1	X	
SLI-4-SU-12		SS	12		1600	1	X	
CM-DUP-SU-2		SS			1550	1	X	
SLI-3-SU-16		SS	1816		1159	1	X	
SLI-2-SU-18		SS	1618		1109	1	X	
SLI-3-SU-4		SS	14		1140	1	X	
SLI-2-SU-14		SS	14		1100	1	X	

**RAD SCREEN: <0.5 mR/hr**

\* Matrix:  
SS - Soil AIR - Air F - Filter  
GW - Groundwater B - Bioassay  
WW - WasteWater  
DW - Drinking Water  
OT - Other

Remarks:  
pH \_\_\_\_\_ Temp \_\_\_\_\_  
Flow \_\_\_\_\_ Other \_\_\_\_\_  
Samples returned via:  UPS  FedEx  Courier \_\_\_\_\_  
Tracking # **4882 8631 6464**

**Sample Receipt Checklist**  
 COC Seal Present/Intact:  N  Y  N  
 COC Signed/Accurate:  Y  N  
 Bottles arrive intact:  Y  N  
 Correct bottles used:  Y  N  
 Sufficient volume sent:  Y  N  
 If Applicable  
 VOA Zero Headspace:  Y  N  
 Preservation Correct/Checked:  Y  N

Relinquished by: (Signature) <i>Kevin McEntyre</i>	Date: <b>6-27-19</b>	Time:	Received by: (Signature) <i>DIHCL</i>	Trip Blank Received: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No (HCL/MeOH TBR)	Temp: <b>17.10.1-1.8</b>	Bottles Received: <b>8/21</b>	If preservation required by Login: Date/Time
Relinquished by: (Signature)	Date:	Time:	Received by: (Signature)	Date: <b>6/28/19</b>	Time: <b>8:45</b>	Hold:	Condition: <b>NCF / OK</b>

**Pace Analytical**  
National Center for Testing & Innovation  
12065 Lebanon Rd  
Mount Juliet, TN 37122  
Phone: 615-758-5858  
Phone: 800-767-5859  
Fax: 615-758-5859




L# **L1113960**  
**1245**  
Acctnum: **SMESPAR**  
Template: **T137919**  
Prelogin: **P708994**  
TSR: **690 - Tom Mellette**  
PB: **76 5-14-19**  
Shipped Via: **FedEX Ground**

**S&ME Inc. - Spartanburg SC**  
 301 Zima Park Drive  
 Spartanburg, SC 29301

Billing Information:  
**Accounts Payable**  
 301 Zima Park Drive  
 Spartanburg, SC 29301

Pres Chk

Chain of Custody Page 2 of 2  
  
 12065 Lebanon Rd  
 Mount Juliet, TN 37122  
 Phone: 615-758-5858  
 Phone: 800-767-5859  
 Fax: 615-758-5859

Report to:  
**Scott Dacus**

Email To: sdacus@smeinc.com

Project Description:

City/State Collected: **Rock Hill, SC**

Phone: **864-574-2360**  
 Fax: **864-576-8730**

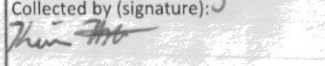
Client Project #  
**4213-18-087**

Lab Project #  
**SMESPAR-4213-18-087**

Collected by (print):  
**Kevin McIntyre**

Site/Facility ID #

P.O. #

Collected by (signature):  


**Rush?** (Lab MUST Be Notified)  
 Same Day  Five Day  
 Next Day  5 Day (Rad Only)  
 Two Day  10 Day (Rad Only)  
 Three Day

Quote #

Immediately Packed on Ice N  Y

Date Results Needed

Sample ID

Comp/Grab

Matrix \*

Depth

Date

Time

No. of Cntrs

SLI-1-SU-10  
 SLI-1-SU-5  
 SLI-1-SU-20  
 SLI-1-SU-14  
 SLI-4-SU-8  
 SLI-5-SU-10  
 SLI-3-SU-8  
 SLI-3-SU-12  
 SLI-6-SU-11  
 SLI-6-SU-8

SS  
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10  
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6-26-19  
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932  
 920  
 952  
 940  
 1548  
 1358  
 1148  
 1153  
 1500  
 1453

1  
 1  
 1  
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 1  
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 1  
 1  
 1  
 1

X  
 X  
 X  
 X  
 X  
 X  
 X  
 X  
 X  
 X

Analysis / Container / Preservative									
SV8290 1L-Amb-NoPres	Sub (Dioxin + TS) 4ozClr-NoPres								



L# **L1113900**

Table #

Acctnum: **SMESPAR**

Template: **T137919**

Prelogin: **P708994**

TSR: **690 - Tom Mellette**

PB: **76 5-14-19**

Shipped Via: **FedEX Ground**

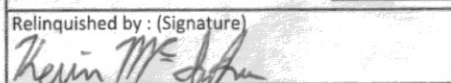
Remarks Sample # (lab only)

\* Matrix:  
 SS - Soil AIR - Air F - Filter  
 GW - Groundwater B - Bioassay  
 WW - WasteWater  
 DW - Drinking Water  
 OT - Other

Remarks:  
 Samples returned via:  
 UPS  FedEx  Courier

pH \_\_\_\_\_ Temp \_\_\_\_\_  
 Flow \_\_\_\_\_ Other \_\_\_\_\_  
 Tracking # **4882 8631 6464**

Sample Receipt Checklist  
 COC Seal Present/Intact:  NP  Y  N  
 COC Signed/Accurate:  Y  N  
 Bottles arrive intact:  Y  N  
 Correct bottles used:  Y  N  
 Sufficient volume sent:  Y  N  
 If Applicable  
 VOA Zero Headspace:  Y  N  
 Preservation Correct/Checked:  Y  N

Relinquished by: (Signature)  


Date: **6-27-19**

Time:

Received by: (Signature)  
 Trip Blank Received:  Yes  No  
**10L HCL**  HCL  MeOH  
 TBR

If preservation required by Login: Date/Time

Relinquished by: (Signature)

Date:

Time:

Received by: (Signature)  
 Temp: **17.80** °C  
 Bottles Received: **20**

Hold:

Relinquished by: (Signature)

Date:

Time:

Received for lab by: (Signature)  
**CM**  
 Date: **6/28/19** Time: **8:45**

Condition:  NCF /  OK



**Jeremy W. Watkins**



Login #: L1113900	Client: SMESPAR	Date: 6/28/19	Evaluated by: Jeremy
-------------------	-----------------	---------------	----------------------

**Non-Conformance (check applicable items)**

Sample Integrity	Chain of Custody Clarification	If Broken Container:
Parameter(s) past holding time	Login Clarification Needed	Insufficient packing material around container
Temperature not in range	Chain of custody is incomplete	Insufficient packing material inside cooler
Improper container type	Please specify Metals requested.	Improper handling by carrier (FedEx / UPS / Courier)
pH not in range.	Please specify TCLP requested.	Sample was frozen
Insufficient sample volume.	Received additional samples not listed on coc.	Container lid not intact
Sample is biphasic.	Sample ids on containers do not match ids on coc	<b>If no Chain of Custody:</b>
Vials received with headspace.	Trip Blank not received.	Received by:
Broken container	Client did not "X" analysis.	Date/Time:
Broken container:	Chain of Custody is missing	Temp./Cont. Rec./pH:
Sufficient sample remains		Carrier:
		Tracking#

**Login Comments: Received SL1-5-SU-20 (6/26/19 1416) not on COC.**

Client informed by:	Call X	Email	Voice Mail	Date: 6/28/19	Time: 1545
TSR Initials:	Client Contact: Scott Dacus				

**Run sample.**

**Notice: This communication and any attached files may contain privileged or other confidential information. If you have received this in error, please contact the sender immediately via reply email and immediately delete the message and any attachments without copying or disclosing the contents. Thank you.**

**Report Prepared for:**

Benita Miller  
Pace Analytical National  
12065 Lebanon Road  
Mount Juliet TN 37122

**REPORT OF  
LABORATORY  
ANALYSIS FOR  
PCDD/PCDF**

**Report Information:**

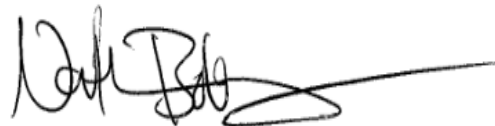
**Pace Project #: 10481757**  
**Sample Receipt Date: 07/02/2019**  
**Client Project #: L1113900: WG1304458**  
**Client Sub PO #: L1113900**  
**State Cert #: 74003**

**Invoicing & Reporting Options:**

The report provided has been invoiced as a Level 2 PCDD/PCDF Report. If an upgrade of this report package is requested, an additional charge may be applied.

Please review the attached invoice for accuracy and forward any questions to Nathan Boberg, your Pace Project Manager.

**This report has been reviewed by:**



July 25, 2019

Nathan Boberg, Project Manager  
612-360-0728  
(612) 607-6444 (fax)  
nathan.boberg@pacelabs.com

**Report Prepared Date:**

July 25, 2019



**Report of Laboratory Analysis**

This report should not be reproduced, except in full, without the written consent of Pace Analytical Services, Inc.

The results relate only to the samples included in this report.



## **DISCUSSION**

This report presents the results from the analyses performed on twenty-one samples submitted by a representative of Pace Analytical National. The samples were analyzed for the presence or absence of polychlorodibenzo-p-dioxins (PCDDs) and polychlorodibenzofurans (PCDFs) using a modified version of USEPA Method 8290. Estimated Maximum Possible Concentration (EMPC) values were treated as positives in the toxic equivalence calculations. The reporting limits were set to correspond to the lowest calibration points and a nominal 10-gram sample amount, and the sensitivity was verified by signal-to-noise measurements. The quantitation limits, adjusted for sample extraction amount, may be somewhat higher or lower than the reporting limits provided in this report.

Second column confirmation analyses of 2,3,7,8-TCDF values obtained from the primary (DB5-MS) column are performed only when specifically requested for a project and only when the values are above the concentration of the lowest calibration standard. Typical resolution for this isomer using the DB5-MS column ranges from 25-30%.

The recoveries of the isotopically-labeled PCDD/PCDF internal standards in the sample extracts ranged from 43-91%. All of the labeled internal standard recoveries obtained for this project were within the 40-135% target range specified in Method 8290. Also, since the quantification of the native 2,3,7,8-substituted congeners was based on isotope dilution, the data were automatically corrected for recovery and accurate values were obtained.

Values were flagged "I" where incorrect isotope ratios were obtained or "P" where polychlorinated diphenyl ethers were present. Concentrations below the calibration range were flagged "J" and should be regarded as estimates. Concentrations above the calibration range were flagged "E" and should also be regarded as estimates. In cases where the estimated detection limit (EDL) values were above the standard reporting limits, the EDLs were provided and flagged "A".

A laboratory method blank was prepared and analyzed with each sample batch as part of our routine quality control procedures. The results show the blanks to be free of PCDDs and PCDFs at the reporting limits.

Laboratory and matrix spike samples were also prepared using clean reference matrix or sample matrix that had been fortified with native standard materials. The results show that the spiked native compounds were generally recovered at 86-118% with relative percent differences of 0.2-9.1%. The background-subtracted recovery values obtained for OCDD in the matrix spike and matrix spike duplicate were above the 70-130% target range, possibly due to the level of this congener in the sample material. Matrix spikes were prepared with the 07/12/2019 sample batch using sample material from a separate project; results from these analyses will be provided upon request.

The responses obtained for the native TCDD and OCDF in calibration standard analysis F190716B\_20 were outside the target range. As specified in our procedures for this method, the averages of the daily response factors for these compounds were used in the calculations for the samples from this runshift. The affected values were flagged "Y" on the results tables.

## **REPORT OF LABORATORY ANALYSIS**

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## Minnesota Laboratory Certifications

Authority	Certificate #	Authority	Certificate #
A2LA	2926.01	Minnesota - Pet	1240
Alabama	40770	Mississippi	MN00064
Alaska - DW	MN00064	Missouri - DW	10100
Alaska - UST	17-009	Montana	CERT0092
Arizona	AZ0014	Nebraska	NE-OS-18-06
Arkansas - DW	MN00064	Nevada	MN00064
Arkansas - WW	88-0680	New Hampshire	2081
CNMI Saipan	MP0003	New Jersey (NE)	MN002
California	2929	New York	11647
Colorado	MN00064	North Carolina	27700
Connecticut	PH-0256	North Carolina -	27700
EPA Region 8+	via MN 027-053	North Carolina -	530
Florida (NELAP)	E87605	North Dakota	R-036
Georgia	959	Ohio - DW	41244
Guam	17-001r	Ohio - VAP	CL101
Hawaii	MN00064	Oklahoma	9507
Idaho	MN00064	Oregon - Primar	MN300001
Illinois	200011	Oregon - Secon	MN200001
Indiana	C-MN-01	Pennsylvania	68-00563
Iowa	368	Puerto Rico	MN00064
Kansas	E-10167	South Carolina	74003
Kentucky - DW	90062	South Dakota	NA
Kentucky - WW	90062	Tennessee	TN02818
Louisiana - DE	03086	Texas	T104704192
Louisiana - DW	MN00064	Utah (NELAP)	MN00064
Maine	MN00064	Virginia	460163
Maryland	322	Washington	C486
Massachusetts	M-MN064	West Virginia -	382
Michigan	9909	West Virginia -	9952C
Minnesota	027-053-137	Wisconsin	999407970
Minnesota - De	via MN 027-053	Wyoming - UST	2926.01

## REPORT OF LABORATORY ANALYSIS

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Report No.....10481757

# **Appendix A**

## Sample Management

# CHAIN-OF-CUSTODY / Analytical Request Document

The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed accurately.

Section A Required Client Information:		Section B Required Project Information:		Section C Invoice Information:	
Company:	Pace Analytical National	Report To:	Pace Analytical National Subout Team	Attention:	Scott Decus
Address:	12065 Lebanon Road	Copy To:		Company Name:	
Mount Juliet, TN 37122		Purchase Order #:	L1113900	Address:	
Email:	SuboutTeam@pacenational.com	Project Name:	NA	Pace Project Manager:	Nathan Boberg
Phone:	(615)773-9756	Project #:	4213-18-087	Pace Profile #:	38076
Requested Due Date:	17-Jul	Requested Analysis Filtered (Y/N)			

ITEM #	MATRIX	CODE	COLLECTED		SMPLE TYPE (G=GRAB C=COMP)	MATRIX CODE (see valid codes to left)	# OF CONTAINERS	PRESERVATIVES							Analyses Test Y/N	Dioxins & Furans (sv8290) + TS	Resid
			START DATE	END DATE				H2SO4	HNO3	HCl	NaOH	Na2S2O3	Methanol	Other			
1	Drinking Water	DW	26-Jun	12:12	1	SL	1										W1
2	Water	WT	26-Jun	12:04	1	SL	1										W2
3	Waste Water	WW	26-Jun	16:05	1	SL	1										W3
4	Product	P	26-Jun	13:50	1	SL	1										W4
5	Soil/Solid	SL	26-Jun	16:00	1	SL	1										W5
6	Oil	OL	26-Jun	15:50	1	SL	1										W6
7	Wipe	WP	26-Jun	11:59	1	SL	1										W7
8	Air	AR	26-Jun	11:09	1	SL	1										W8
9	Other	OT	26-Jun	11:40	1	SL	1										W9
10	Tissue	TS	26-Jun	11:00	1	SL	1										W10
11			26-Jun	9:32	1	SL	1										W11
12			26-Jun	9:20	1	SL	1										W12

**WO# : 10481757**



10481757

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS
	Benita Miller	1-Jul	9:53	Muler Pace	7-2-19	9:50	1,9 Y N Y
Pace Analytical National Batch: WG1304458							
Pace Analytical National SDGs: L1113900							
Location: Minneapolis, MN 55414							
COUNTY YORK, STATE SC							
SAMPLER NAME AND SIGNATURE				TEMP in C			
PRINT Name of SAMPLER:				Received on			
SIGNATURE of SAMPLER:				Sealed			
DATE Signed:				Cooler			
				Custody			
				(Y/N)			
				Intact			
				(Y/N)			

# CHAIN-OF-CUSTODY / Analytical Request Document

The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed accurately.


<b>Section A</b>		<b>Section B</b>		<b>Section C</b>	
<b>Client Information:</b>		<b>Required Project Information:</b>		<b>Invoice Information:</b>	
Company: Pace Analytical National	Report To: Pace Analytical National Subout Team	Attention: Scott Dacus		Company Name:	
Address: 12065 Lebanon Road Mount Juliet, TN 37122	Copy To:	Purchase Order #: L113900		Address:	
Email: SuboutTeam@pacenational.com	Project Name: NA	Pace Project Manager: Nathan Boberg		State / Location: SC	
Phone: (615)773-9756	Project #: 4213-18-087	Pace Profile #: 38076		Regulatory Agency:	
Requested Due Date: 17-Jul					

ITEM #	SAMPLE ID <small>One Character per box. (A-Z, 0-9 / , -) Sample IDs must be unique</small>	MATRIX <small>Drinking Water Water Waste Water Product Solid Oil Wipe Air Other Tissue</small>	CODE <small>DW WT WW P SL OL WP AR OT TS</small>	MATRIX CODR (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED		# OF CONTAINERS	Preservatives	Analyses Test Y/N	Dioxins & Furans (sv8290) + TS	Residual Chlorine (Y/N)	Requested Analysis Filtered (Y/N)
						START DATE TIME	END DATE TIME						
1	SL1-1-SU-20			SL			26-Jun 9:52	1	Unpreserved		X		
2	SL1-1-SU-14			SL			26-Jun 9:40	1	H2SO4		X		
3	SL1-4-SU-8			SL			26-Jun 15:48	1	HCl		X		
4	SL1-5-SU-10			SL			26-Jun 13:58	1	HNO3		X		
5	SL1-3-SU-8			SL			26-Jun 11:48	1	NaOH		X		
6	SL1-3-SU-12			SL			26-Jun 11:53	1	Metanol		X		
7	SL1-6-SU-11			SL			26-Jun 15:00	1	Na2S2O3		X		
8	SL1-6-SU-8			SL			26-Jun 14:53	1	Other		X		
9	SL1-5-SU-20			SL			26-Jun 14:16	1			X		
10													
11													
12													

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS	
							Received on	Temp in C
	Benita Miller	1-Jul	9:53	Mike K Pace	7-2-19	9:50	1.9	Y
Pace Analytical National Batch: WG1304458								Y
Pace Analytical National SDGs: L113900								N
Location: Minneapolis, MN 55414								Y

**SAMPLER NAME AND SIGNATURE**  
 PRINT Name of SAMPLER: \_\_\_\_\_  
 SIGNATURE of SAMPLER: \_\_\_\_\_  
 DATE Signed: \_\_\_\_\_

SCOUNTY YORK, STATE SC

	Document Name: <b>Sample Condition Upon Receipt Form</b>	Document Revised: 09May2019 Page 1 of 1
	Document No.: <b>F-MN-L-213-rev.28</b>	Issuing Authority: Pace Minnesota Quality Office

**Sample Condition Upon Receipt**      **Client Name:** Pace National      **Project #:** **WO# : 10481757**

**Courier:**  Fed Ex     UPS     USPS     Client  
 Pace     Speedee     Commercial    See Exception

**Tracking Number:** 1082 S987 7059   

**Custody Seal on Cooler/Box Present?**  Yes  No      **Seals Intact?**  Yes  No      **Biological Tissue Frozen?**  Yes  No  N/A

**Packing Material:**  Bubble Wrap     Bubble Bags     None     Other: \_\_\_\_\_      **Temp Blank?**  Yes     No

**Thermometer:**  T1(0461)     T2(1336)     T3(0459)  
 T4(0254)     T5(0489)      **Type of Ice:**  Wet     Blue     None     Dry     Melted

**Note: Each West Virginia Sample must have temp taken (no temp blanks)**

Temp should be above freezing to 6°C	<b>Cooler Temp Read w/temp blank:</b> <u>1.7</u> °C	<b>Average Corrected Temp (no temp blank only):</b> _____ °C	See Exceptions <input type="checkbox"/>
<b>Correction Factor:</b> <u>+0.2</u>	<b>Cooler Temp Corrected w/temp blank:</b> <u>1.9</u> °C		

**USDA Regulated Soil:** (  N/A, water sample/Other: \_\_\_\_\_ ) MK2      **Date/Initials of Person Examining Contents:** MK2 7-2-19

Did samples originate in a quarantine zone within the United States: AL, AR, CA, FL, GA, HI, IL, IN, IA, KS, KY, LA, MS, NC, NM, NY, OK, OR, SC, TN, TX or VA (check maps)?  Yes  No      Did samples originate from a foreign source (internationally, including Hawaii and Puerto Rico)?  Yes  No

**If Yes to either question, fill out a Regulated Soil Checklist (F-MN-Q-338) and include with SCUR/COC paperwork.**

	COMMENTS:
Chain of Custody Present and Filled Out? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	1.
Chain of Custody Relinquished? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	2.
Sampler Name and/or Signature on COC? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	3.
Samples Arrived within Hold Time? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	4.
<b>Short Hold Time Analysis (&lt;72 hr)?</b> <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	5. <input type="checkbox"/> Fecal Coliform <input type="checkbox"/> HPC <input type="checkbox"/> Total Coliform/E coli <input type="checkbox"/> BOD/cBOD <input type="checkbox"/> Hex Chrome <input type="checkbox"/> Turbidity <input type="checkbox"/> Nitrate <input type="checkbox"/> Nitrite <input type="checkbox"/> Orthophos <input type="checkbox"/> Other
<b>Rush Turn Around Time Requested?</b> <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	6.
Sufficient Volume? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	7.
Correct Containers Used? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	8.
-Pace Containers Used? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	
Containers Intact? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	9.
Field Filtered Volume Received for Dissolved Tests? <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	10. Is sediment visible in the dissolved container? <input type="checkbox"/> Yes <input type="checkbox"/> No
Is sufficient information available to reconcile the samples to the COC? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	11. If no, write ID/ Date/Time on Container Below: <input type="checkbox"/> See Exception
Matrix: <input type="checkbox"/> Water <input checked="" type="checkbox"/> Soil <input type="checkbox"/> Oil <input type="checkbox"/> Other	
All containers needing acid/base preservation have been checked? <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	12. Sample #
All containers needing preservation are found to be in compliance with EPA recommendation? (HNO <sub>3</sub> , H <sub>2</sub> SO <sub>4</sub> , <2pH, NaOH >9 Sulfide, NaOH >12 Cyanide) <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	<input type="checkbox"/> NaOH <input type="checkbox"/> HNO <sub>3</sub> <input type="checkbox"/> H <sub>2</sub> SO <sub>4</sub> <input type="checkbox"/> Zinc Acetate
Exceptions: VOA, Coliform, TOC/DOC Oil and Grease, DRO/8015 (water) and Dioxin/PFAS <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	Positive for Res. <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No      See Exception <input type="checkbox"/> Chlorine? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No      pH Paper Lot# <input type="checkbox"/>
	Res. Chlorine    0-6 Roll    0-6 Strip    0-14 Strip
Headspace in VOA Vials (greater than 6mm)? <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	13. <input type="checkbox"/> See Exception
Trip Blank Present? <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	14.
Trip Blank Custody Seals Present? <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	Pace Trip Blank Lot # (if purchased): _____

**CLIENT NOTIFICATION/RESOLUTION**      **Field Data Required?**  Yes  No


Person Contacted: \_\_\_\_\_      Date/Time: \_\_\_\_\_

Comments/Resolution: \_\_\_\_\_

**Project Manager Review:** William Bberg      **Date:** 7/3/19

Note: Whenever there is a discrepancy affecting North Carolina compliance samples, a copy of this form will be sent to the North Carolina DEHNR Certification Office ( i.e. out of hold, incorrect preservative, out of temp, incorrect containers).



	Document Name: <b>Regulated Soil Checklist</b>	Document Revised: 13Feb2018 Page 1 of 2
	Document No.: <b>F-MN-Q-338-Rev.06</b>	Issuing Authority: Pace Minnesota Quality Office

**USDA REGULATED SOIL CHECKLIST**

To Be Completed by SR Staff:

WO: 10481757 Date: 7-2-19 Initials: MKZ

Sample Origin (circle one):                      DOMESTIC                      QUARANTINED                      FOREIGN

(Note: soil samples from Hawaii, Guam, Puerto Rico and the US Virgin Islands are considered to be of a Foreign Source)

If Domestic, circle State of Origin:                      AL AR CA FL GA LA MS NC NM NY OK OR **60** TN TX VA

(Includes: IFA, SOD, Golden Nematode, Karnal Bunt and Witchweed)

List County: York

(USDA Permit/Compliance Agreement authorizes movement of samples from these domestic regulated zones)

If Quarantined, circle State of Origin:                      FL ID TX CA

List County: \_\_\_\_\_

(Includes Fruit Fly, Giant African Snail and Pale Cyst Nematode)

**(Movement is not authorized for Pale Cyst Nematode [ID or Giant African Snail [FL], remaining quarantines require additional paperwork)**


If Foreign, list Country of Origin: \_\_\_\_\_

**(Movement from some Canadian Provinces is not allowed. Refer to CS-232 Regulated Soil Flow Chart)**

REQUIREMENT	ACTION	COMPLETED
PPQ-530 Paperwork must be included for any samples from counties with a Fruit Fly Quarantine in TX. Refer to <b>MN-S063</b> through <b>MN-S065</b>	Scan PPQ-530 to the corresponding Project folder on the x drive.  If PPQ-530 is not present, contact the Waste Coordinator and do not continue processing samples.	YES    NO <b>N/A</b>
Samples from ID may not be moved from the quarantined region. Refer to <b>MN-S055</b>	If samples originated in a quarantined zone, contact the Waste Coordinator and do not continue processing samples.	YES    NO <b>N/A</b>
Samples from Giant African Snail Quarantine in FL may not be moved from the quarantined region. Refer to <b>MN-S068</b>	If samples originated in a quarantined zone, contact the Waste Coordinator and do not continue processing samples.	YES    NO <b>N/A</b>

REQUIREMENT	ACTION	COMPLETED
"Special Handling" stickers are to be placed on all samples.	Did "special handling" stickers get placed on all sample containers?	<b>YES</b> NO
Samples must be segregated and stored in designated bins, shelves and coolers.	Were samples placed in a designated cooler, containers and shelves?	<b>YES</b> NO
Samples must be double contained to prevent accidental release.	Were there any signs of breakage or leakage (check for broken glass and/or loose soil in the cooler)? <i>If NO, ice and melt water can be disposed of by normal process (down the drain).</i>	YES <b>NO</b>
	If <b>YES</b> , were ice and melt water separated from the cooler and disposed of properly?  <b>Any broken glass and/or loose soil are to be bagged and placed in a USDA Regulated satellite container or active drum (see Waste Coordinator).</b>  <b>Ice and melt water should be baked at a temperature range of 121-154°F for 2 hours and then cooled before going down the drain.</b>	YES    NO <b>N/A</b>
Equipment and supplies that have come into contact samples must be decontaminated.	Was the cooler(s) and/or countertop(s) decontaminated using either a fresh 10% bleach solution or 70% ethanol? ( <i>Gloves and other lab supplies will be bagged and placed in the USDA Regulated satellite container or active drum.</i> )	<b>YES</b> NO

Comments: \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

	Document Name: <b>Regulated Soil Checklist</b>	Document Revised: 13Feb2018 Page 2 of 2
	Document No.: <b>F-MN-Q-338-Rev.06</b>	Issuing Authority: Pace Minnesota Quality Office

To Be Completed by PM and/or PC:

Sample Analysis to be conducted (circle all that apply):

**MN**

Subcontract Lab

Name of Subcontract Lab (s):

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REQUIREMENT	ACTION	COMPLETED		
Permission to ship untreated soil must be on file prior to shipping to any subcontract lab, including IR Pace Labs.	Go to: J:\SHARE\PRJ_MGR\10_Client Services Department Documents\Regulated Soils Permits – if permission to ship letter is not there, contact the Waste Coordinator.	YES	NO	N/A
Shipment must include a valid copy of the receiving lab's permit as well as permission to ship letter.	Is a copy of all needed paperwork included with the COC? Do <b>NOT</b> ship samples until all necessary paperwork is compiled.	YES	NO	N/A

Comments:

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Project Manager Signature:

Nathan Bohery

Date:

7/3/19

## Reporting Flags

- A = Reporting Limit based on signal to noise
- B = Less than 10x higher than method blank level
- C = Result obtained from confirmation analysis
- D = Result obtained from analysis of diluted sample
- E = Exceeds calibration range
- I = Interference present
- J = Estimated value
- L = Suppressive interference, analyte may be biased low
- Nn = Value obtained from additional analysis
- P = PCDE Interference
- R = Recovery outside target range
- S = Peak saturated
- U = Analyte not detected
- V = Result verified by confirmation analysis
- X = %D Exceeds limits
- Y = Calculated using average of daily RFs
- \* = See Discussion

### REPORT OF LABORATORY ANALYSIS

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Report No.....10481757

# **Appendix B**

## **Sample Analysis Summary**

**Method 8290 Sample Analysis Results**

Client - Pace Analytical National

Client's Sample ID	SL1-3-SU-24			
Lab Sample ID	10481757001			
Filename	U190711B_13			
Injected By	JRH			
Total Amount Extracted	13.9 g	Matrix	Solid	
% Moisture	81.2	Dilution	NA	
Dry Weight Extracted	2.62 g	Collected	06/26/2019 12:12	
ICAL ID	U190709	Received	07/02/2019 09:50	
CCal Filename(s)	U190711A_09 & U190711B_16	Extracted	07/09/2019 17:45	
Method Blank ID	BLANK-71730	Analyzed	07/12/2019 00:37	

Native Isomers	Conc ng/Kg	EMPC ng/Kg	RL ng/Kg		Internal Standards	ng's Added	Percent Recovery
2,3,7,8-TCDF	1500	----	1.0		2,3,7,8-TCDF-13C	2.00	67
Total TCDF	3100	----	1.0		2,3,7,8-TCDD-13C	2.00	65
					1,2,3,7,8-PeCDF-13C	2.00	66
2,3,7,8-TCDD	270	----	2.5	A	2,3,4,7,8-PeCDF-13C	2.00	67
Total TCDD	300	----	2.5		1,2,3,7,8-PeCDD-13C	2.00	73
					1,2,3,4,7,8-HxCDF-13C	2.00	57
1,2,3,7,8-PeCDF	15	----	5.0	J	1,2,3,6,7,8-HxCDF-13C	2.00	62
2,3,4,7,8-PeCDF	26	----	5.0		2,3,4,6,7,8-HxCDF-13C	2.00	60
Total PeCDF	280	----	5.0		1,2,3,7,8,9-HxCDF-13C	2.00	58
					1,2,3,4,7,8-HxCDD-13C	2.00	54
1,2,3,7,8-PeCDD	16	----	5.0	J	1,2,3,6,7,8-HxCDD-13C	2.00	58
Total PeCDD	75	----	5.0		1,2,3,4,6,7,8-HpCDF-13C	2.00	51
					1,2,3,4,7,8,9-HpCDF-13C	2.00	52
1,2,3,4,7,8-HxCDF	5.5	----	5.0	J	1,2,3,4,6,7,8-HpCDD-13C	2.00	55
1,2,3,6,7,8-HxCDF	ND	----	5.0		OCDD-13C	4.00	46
2,3,4,6,7,8-HxCDF	9.3	----	5.0	J			
1,2,3,7,8,9-HxCDF	ND	----	5.0		1,2,3,4-TCDD-13C	2.00	NA
Total HxCDF	150	----	5.0		1,2,3,7,8,9-HxCDD-13C	2.00	NA
1,2,3,4,7,8-HxCDD	7.1	----	5.0	J	2,3,7,8-TCDD-37Cl4	0.20	81
1,2,3,6,7,8-HxCDD	29	----	5.0				
1,2,3,7,8,9-HxCDD	----	8.8	5.0	J			
Total HxCDD	170	----	5.0				
1,2,3,4,6,7,8-HpCDF	120	----	5.0		Total 2,3,7,8-TCDD		
1,2,3,4,7,8,9-HpCDF	----	9.2	5.0	J	Equivalence: 470 ng/Kg		
Total HpCDF	570	----	5.0		(Lower-bound - Using ITE Factors)		
1,2,3,4,6,7,8-HpCDD	600	----	5.0				
Total HpCDD	1200	----	5.0				
OCDF	620	----	10				
OCDD	8100	----	10				

Conc = Concentration (Totals include 2,3,7,8-substituted isomers).  
EMPC = Estimated Maximum Possible Concentration  
RL = Reporting Limit

ND = Not Detected  
NA = Not Applicable  
NC = Not Calculated

Results reported on a dry weight basis and are valid to no more than 2 significant figures.  
J = Estimated value  
A = Reporting Limit based on signal to noise  
I = Interference present

**REPORT OF LABORATORY ANALYSIS**

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### Method 8290 Sample Analysis Results

Client - Pace Analytical National

Client's Sample ID	SL1-3-SU-20		
Lab Sample ID	10481757002		
Filename	Y190711B_14		
Injected By	JRH		
Total Amount Extracted	13.8 g	Matrix	Solid
% Moisture	82.5	Dilution	NA
Dry Weight Extracted	2.41 g	Collected	06/26/2019 12:04
ICAL ID	Y190711	Received	07/02/2019 09:50
CCal Filename(s)	Y190711B_09 & Y190711B_24	Extracted	07/09/2019 17:45
Method Blank ID	BLANK-71730	Analyzed	07/12/2019 01:52

Native Isomers	Conc ng/Kg	EMPC ng/Kg	RL ng/Kg	Internal Standards	ng's Added	Percent Recovery
2,3,7,8-TCDF	2700	----	1.0	2,3,7,8-TCDF-13C	2.00	58
Total TCDF	5300	----	1.0	2,3,7,8-TCDD-13C	2.00	58
				1,2,3,7,8-PeCDF-13C	2.00	60
2,3,7,8-TCDD	420	----	1.0	2,3,4,7,8-PeCDF-13C	2.00	61
Total TCDD	500	----	1.0	1,2,3,7,8-PeCDD-13C	2.00	65
				1,2,3,4,7,8-HxCDF-13C	2.00	54
1,2,3,7,8-PeCDF	27	----	5.0	1,2,3,6,7,8-HxCDF-13C	2.00	52
2,3,4,7,8-PeCDF	41	----	5.0	2,3,4,6,7,8-HxCDF-13C	2.00	52
Total PeCDF	390	----	5.0	1,2,3,7,8,9-HxCDF-13C	2.00	53
				1,2,3,4,7,8-HxCDD-13C	2.00	53
1,2,3,7,8-PeCDD	----	18	5.0 I	1,2,3,6,7,8-HxCDD-13C	2.00	49
Total PeCDD	65	----	5.0	1,2,3,4,6,7,8-HpCDF-13C	2.00	56
				1,2,3,4,7,8,9-HpCDF-13C	2.00	60
1,2,3,4,7,8-HxCDF	9.2	----	5.0 J	1,2,3,4,6,7,8-HpCDD-13C	2.00	68
1,2,3,6,7,8-HxCDF	ND	----	5.0	OCDD-13C	4.00	56
2,3,4,6,7,8-HxCDF	9.5	----	5.0 J			
1,2,3,7,8,9-HxCDF	ND	----	5.0	1,2,3,4-TCDD-13C	2.00	NA
Total HxCDF	250	----	5.0	1,2,3,7,8,9-HxCDD-13C	2.00	NA
1,2,3,4,7,8-HxCDD	7.7	----	5.0 J	2,3,7,8-TCDD-37Cl4	0.20	70
1,2,3,6,7,8-HxCDD	43	----	5.0			
1,2,3,7,8,9-HxCDD	9.1	----	5.0 J			
Total HxCDD	260	----	5.0			
1,2,3,4,6,7,8-HpCDF	190	----	5.0	Total 2,3,7,8-TCDD		
1,2,3,4,7,8,9-HpCDF	19	----	5.0 J	Equivalence: 750 ng/Kg		
Total HpCDF	890	----	5.0	(Lower-bound - Using ITE Factors)		
1,2,3,4,6,7,8-HpCDD	920	----	5.0			
Total HpCDD	2100	----	5.0			
OCDF	760	----	10			
OCDD	12000	----	10			

Conc = Concentration (Totals include 2,3,7,8-substituted isomers).  
EMPC = Estimated Maximum Possible Concentration  
RL = Reporting Limit

ND = Not Detected  
NA = Not Applicable  
NC = Not Calculated

Results reported on a dry weight basis and are valid to no more than 2 significant figures.  
J = Estimated value  
I = Interference present

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### Method 8290 Sample Analysis Results

Client - Pace Analytical National

Client's Sample ID	SL1-4-SU-15		
Lab Sample ID	10481757003		
Filename	Y190711B_15		
Injected By	JRH		
Total Amount Extracted	13.6 g	Matrix	Solid
% Moisture	78.5	Dilution	NA
Dry Weight Extracted	2.91 g	Collected	06/26/2019 16:05
ICAL ID	Y190711	Received	07/02/2019 09:50
CCal Filename(s)	Y190711B_09 & Y190711B_24	Extracted	07/09/2019 17:45
Method Blank ID	BLANK-71730	Analyzed	07/12/2019 02:42

Native Isomers	Conc ng/Kg	EMPC ng/Kg	RL ng/Kg	Internal Standards	ng's Added	Percent Recovery
2,3,7,8-TCDF	440	----	1.0	2,3,7,8-TCDF-13C	2.00	76
Total TCDF	1300	----	1.0	2,3,7,8-TCDD-13C	2.00	79
				1,2,3,7,8-PeCDF-13C	2.00	79
2,3,7,8-TCDD	170	----	1.0	2,3,4,7,8-PeCDF-13C	2.00	81
Total TCDD	240	----	1.0	1,2,3,7,8-PeCDD-13C	2.00	89
				1,2,3,4,7,8-HxCDF-13C	2.00	72
1,2,3,7,8-PeCDF	7.6	----	5.0 J	1,2,3,6,7,8-HxCDF-13C	2.00	70
2,3,4,7,8-PeCDF	10	----	5.0 J	2,3,4,6,7,8-HxCDF-13C	2.00	72
Total PeCDF	370	----	5.0	1,2,3,7,8,9-HxCDF-13C	2.00	72
				1,2,3,4,7,8-HxCDD-13C	2.00	73
1,2,3,7,8-PeCDD	10	----	5.0 J	1,2,3,6,7,8-HxCDD-13C	2.00	67
Total PeCDD	86	----	5.0	1,2,3,4,6,7,8-HpCDF-13C	2.00	71
				1,2,3,4,7,8,9-HpCDF-13C	2.00	77
1,2,3,4,7,8-HxCDF	7.9	----	5.0 J	1,2,3,4,6,7,8-HpCDD-13C	2.00	91
1,2,3,6,7,8-HxCDF	6.0	----	5.0 J	OCDD-13C	4.00	79
2,3,4,6,7,8-HxCDF	11	----	5.0 J			
1,2,3,7,8,9-HxCDF	ND	----	5.0	1,2,3,4-TCDD-13C	2.00	NA
Total HxCDF	340	----	5.0	1,2,3,7,8,9-HxCDD-13C	2.00	NA
1,2,3,4,7,8-HxCDD	5.4	----	5.0 J	2,3,7,8-TCDD-37Cl4	0.20	90
1,2,3,6,7,8-HxCDD	53	----	5.0			
1,2,3,7,8,9-HxCDD	6.7	----	5.0 J			
Total HxCDD	330	----	5.0			
1,2,3,4,6,7,8-HpCDF	----	180	5.0 P	Total 2,3,7,8-TCDD		
1,2,3,4,7,8,9-HpCDF	11	----	5.0 J	Equivalence: 280 ng/Kg		
Total HpCDF	530	----	5.0	(Lower-bound - Using ITE Factors)		
1,2,3,4,6,7,8-HpCDD	1200	----	5.0			
Total HpCDD	2900	----	5.0			
OCDF	540	----	10			
OCDD	29000	----	10 E			

Conc = Concentration (Totals include 2,3,7,8-substituted isomers).  
EMPC = Estimated Maximum Possible Concentration  
RL = Reporting Limit

ND = Not Detected  
NA = Not Applicable  
NC = Not Calculated

Results reported on a dry weight basis and are valid to no more than 2 significant figures.  
J = Estimated value  
P = PCDE Interference  
E = Exceeds calibration range

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### Method 8290 Sample Analysis Results

Client - Pace Analytical National

Client's Sample ID	SL1-5-SU-6		
Lab Sample ID	10481757004		
Filename	Y190711B_16		
Injected By	JRH		
Total Amount Extracted	17.9 g	Matrix	Solid
% Moisture	71.9	Dilution	NA
Dry Weight Extracted	5.04 g	Collected	06/26/2019 13:50
ICAL ID	Y190711	Received	07/02/2019 09:50
CCal Filename(s)	Y190711B_09 & Y190711B_24	Extracted	07/09/2019 17:45
Method Blank ID	BLANK-71730	Analyzed	07/12/2019 03:31

Native Isomers	Conc ng/Kg	EMPC ng/Kg	RL ng/Kg	Internal Standards	ng's Added	Percent Recovery
2,3,7,8-TCDF	87	----	1.0	2,3,7,8-TCDF-13C	2.00	62
Total TCDF	340	----	1.0	2,3,7,8-TCDD-13C	2.00	61
				1,2,3,7,8-PeCDF-13C	2.00	62
2,3,7,8-TCDD	31	----	1.0	2,3,4,7,8-PeCDF-13C	2.00	62
Total TCDD	69	----	1.0	1,2,3,7,8-PeCDD-13C	2.00	66
				1,2,3,4,7,8-HxCDF-13C	2.00	59
1,2,3,7,8-PeCDF	ND	----	5.0	1,2,3,6,7,8-HxCDF-13C	2.00	54
2,3,4,7,8-PeCDF	ND	----	5.0	2,3,4,6,7,8-HxCDF-13C	2.00	56
Total PeCDF	62	----	5.0	1,2,3,7,8,9-HxCDF-13C	2.00	60
				1,2,3,4,7,8-HxCDD-13C	2.00	59
1,2,3,7,8-PeCDD	ND	----	5.0	1,2,3,6,7,8-HxCDD-13C	2.00	50
Total PeCDD	16	----	5.0	1,2,3,4,6,7,8-HpCDF-13C	2.00	62
				1,2,3,4,7,8,9-HpCDF-13C	2.00	66
1,2,3,4,7,8-HxCDF	ND	----	5.0	1,2,3,4,6,7,8-HpCDD-13C	2.00	77
1,2,3,6,7,8-HxCDF	ND	----	5.0	OCDD-13C	4.00	65
2,3,4,6,7,8-HxCDF	ND	----	5.0			
1,2,3,7,8,9-HxCDF	ND	----	5.0	1,2,3,4-TCDD-13C	2.00	NA
Total HxCDF	45	----	5.0	1,2,3,7,8,9-HxCDD-13C	2.00	NA
1,2,3,4,7,8-HxCDD	ND	----	5.0	2,3,7,8-TCDD-37Cl4	0.20	72
1,2,3,6,7,8-HxCDD	9.7	----	5.0 J			
1,2,3,7,8,9-HxCDD	7.9	----	5.0 J			
Total HxCDD	110	----	5.0			
1,2,3,4,6,7,8-HpCDF	51	----	5.0	Total 2,3,7,8-TCDD		
1,2,3,4,7,8,9-HpCDF	ND	----	5.0	Equivalence: 51 ng/Kg		
Total HpCDF	110	----	5.0	(Lower-bound - Using ITE Factors)		
1,2,3,4,6,7,8-HpCDD	260	----	5.0			
Total HpCDD	590	----	5.0			
OCDF	94	----	10			
OCDD	6700	----	10			

Conc = Concentration (Totals include 2,3,7,8-substituted isomers).  
 EMPC = Estimated Maximum Possible Concentration  
 RL = Reporting Limit

ND = Not Detected  
 NA = Not Applicable  
 NC = Not Calculated

Results reported on a dry weight basis and are valid to no more than 2 significant figures.  
 J = Estimated value

## REPORT OF LABORATORY ANALYSIS

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**Method 8290 Sample Analysis Results**

Client - Pace Analytical National

Client's Sample ID	SL1-4-SU-12		
Lab Sample ID	10481757005		
Filename	Y190711B_17		
Injected By	JRH		
Total Amount Extracted	13.7 g	Matrix	Solid
% Moisture	79.7	Dilution	NA
Dry Weight Extracted	2.79 g	Collected	06/26/2019 16:00
ICAL ID	Y190711	Received	07/02/2019 09:50
CCal Filename(s)	Y190711B_09 & Y190711B_24	Extracted	07/09/2019 17:45
Method Blank ID	BLANK-71730	Analyzed	07/12/2019 04:20

Native Isomers	Conc ng/Kg	EMPC ng/Kg	RL ng/Kg	Internal Standards	ng's Added	Percent Recovery
2,3,7,8-TCDF	480	----	1.0	2,3,7,8-TCDF-13C	2.00	73
Total TCDF	1300	----	1.0	2,3,7,8-TCDD-13C	2.00	75
				1,2,3,7,8-PeCDF-13C	2.00	73
2,3,7,8-TCDD	200	----	1.0	2,3,4,7,8-PeCDF-13C	2.00	74
Total TCDD	270	----	1.0	1,2,3,7,8-PeCDD-13C	2.00	81
				1,2,3,4,7,8-HxCDF-13C	2.00	69
1,2,3,7,8-PeCDF	8.6	----	5.0 J	1,2,3,6,7,8-HxCDF-13C	2.00	64
2,3,4,7,8-PeCDF	10	----	5.0 J	2,3,4,6,7,8-HxCDF-13C	2.00	64
Total PeCDF	390	----	5.0	1,2,3,7,8,9-HxCDF-13C	2.00	69
				1,2,3,4,7,8-HxCDD-13C	2.00	72
1,2,3,7,8-PeCDD	----	11	5.0 I	1,2,3,6,7,8-HxCDD-13C	2.00	60
Total PeCDD	64	----	5.0	1,2,3,4,6,7,8-HpCDF-13C	2.00	70
				1,2,3,4,7,8,9-HpCDF-13C	2.00	74
1,2,3,4,7,8-HxCDF	8.1	----	5.0 J	1,2,3,4,6,7,8-HpCDD-13C	2.00	86
1,2,3,6,7,8-HxCDF	6.1	----	5.0 J	OCDD-13C	4.00	68
2,3,4,6,7,8-HxCDF	12	----	5.0 J			
1,2,3,7,8,9-HxCDF	ND	----	5.0	1,2,3,4-TCDD-13C	2.00	NA
Total HxCDF	380	----	5.0	1,2,3,7,8,9-HxCDD-13C	2.00	NA
1,2,3,4,7,8-HxCDD	ND	----	5.0	2,3,7,8-TCDD-37Cl4	0.20	89
1,2,3,6,7,8-HxCDD	57	----	5.0			
1,2,3,7,8,9-HxCDD	7.7	----	5.0 J			
Total HxCDD	210	----	5.0			
1,2,3,4,6,7,8-HpCDF	----	190	5.0 P	Total 2,3,7,8-TCDD		
1,2,3,4,7,8,9-HpCDF	13	----	5.0 J	Equivalence: 290 ng/Kg		
Total HpCDF	500	----	5.0	(Lower-bound - Using ITE Factors)		
1,2,3,4,6,7,8-HpCDD	930	----	5.0			
Total HpCDD	1900	----	5.0			
OCDF	630	----	10			
OCDD	14000	----	10			

Conc = Concentration (Totals include 2,3,7,8-substituted isomers).  
EMPC = Estimated Maximum Possible Concentration  
RL = Reporting Limit

ND = Not Detected  
NA = Not Applicable  
NC = Not Calculated

Results reported on a dry weight basis and are valid to no more than 2 significant figures.  
J = Estimated value  
P = PCDE Interference  
I = Interference present

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### Method 8290 Sample Analysis Results

Client - Pace Analytical National

Client's Sample ID	CM-DUP-SU-2			
Lab Sample ID	10481757006			
Filename	Y190711B_18			
Injected By	JRH			
Total Amount Extracted	13.8 g	Matrix	Solid	
% Moisture	87.1	Dilution	NA	
Dry Weight Extracted	1.78 g	Collected	06/26/2019 15:50	
ICAL ID	Y190711	Received	07/02/2019 09:50	
CCal Filename(s)	Y190711B_09 & Y190711B_24	Extracted	07/09/2019 17:45	
Method Blank ID	BLANK-71730	Analyzed	07/12/2019 05:09	

Native Isomers	Conc ng/Kg	EMPC ng/Kg	RL ng/Kg	Internal Standards	ng's Added	Percent Recovery
2,3,7,8-TCDF	540	----	1.0	2,3,7,8-TCDF-13C	2.00	72
Total TCDF	1300	----	1.0	2,3,7,8-TCDD-13C	2.00	73
				1,2,3,7,8-PeCDF-13C	2.00	72
2,3,7,8-TCDD	150	----	1.0	2,3,4,7,8-PeCDF-13C	2.00	75
Total TCDD	210	----	1.0	1,2,3,7,8-PeCDD-13C	2.00	78
				1,2,3,4,7,8-HxCDF-13C	2.00	66
1,2,3,7,8-PeCDF	7.1	----	5.0 J	1,2,3,6,7,8-HxCDF-13C	2.00	61
2,3,4,7,8-PeCDF	11	----	5.0 J	2,3,4,6,7,8-HxCDF-13C	2.00	66
Total PeCDF	290	----	5.0	1,2,3,7,8,9-HxCDF-13C	2.00	69
				1,2,3,4,7,8-HxCDD-13C	2.00	69
1,2,3,7,8-PeCDD	9.5	----	5.0 J	1,2,3,6,7,8-HxCDD-13C	2.00	58
Total PeCDD	33	----	5.0	1,2,3,4,6,7,8-HpCDF-13C	2.00	68
				1,2,3,4,7,8,9-HpCDF-13C	2.00	72
1,2,3,4,7,8-HxCDF	11	----	5.0 J	1,2,3,4,6,7,8-HpCDD-13C	2.00	83
1,2,3,6,7,8-HxCDF	5.2	----	5.0 J	OCDD-13C	4.00	72
2,3,4,6,7,8-HxCDF	12	----	5.0 J			
1,2,3,7,8,9-HxCDF	----	5.3	5.0 I	1,2,3,4-TCDD-13C	2.00	NA
Total HxCDF	380	----	5.0	1,2,3,7,8,9-HxCDD-13C	2.00	NA
1,2,3,4,7,8-HxCDD	8.3	----	5.0 J	2,3,7,8-TCDD-37Cl4	0.20	84
1,2,3,6,7,8-HxCDD	70	----	5.0			
1,2,3,7,8,9-HxCDD	7.6	----	5.0 J			
Total HxCDD	350	----	5.0			
1,2,3,4,6,7,8-HpCDF	290	----	5.0	Total 2,3,7,8-TCDD		
1,2,3,4,7,8,9-HpCDF	19	----	5.0 J	Equivalence: 280 ng/Kg		
Total HpCDF	970	----	5.0	(Lower-bound - Using ITE Factors)		
1,2,3,4,6,7,8-HpCDD	1800	----	5.0			
Total HpCDD	4100	----	5.0			
OCDF	1900	----	10			
OCDD	34000	----	10 E			

Conc = Concentration (Totals include 2,3,7,8-substituted isomers).  
EMPC = Estimated Maximum Possible Concentration  
RL = Reporting Limit

ND = Not Detected  
NA = Not Applicable  
NC = Not Calculated

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J = Estimated value  
E = Exceeds calibration range  
I = Interference present

## REPORT OF LABORATORY ANALYSIS

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### Method 8290 Sample Analysis Results

Client - Pace Analytical National

Client's Sample ID	SL1-3-SU-16		
Lab Sample ID	10481757007		
Filename	Y190711B_19		
Injected By	JRH		
Total Amount Extracted	14.7 g	Matrix	Solid
% Moisture	81.5	Dilution	NA
Dry Weight Extracted	2.73 g	Collected	06/26/2019 11:59
ICAL ID	Y190711	Received	07/02/2019 09:50
CCal Filename(s)	Y190711B_09 & Y190711B_24	Extracted	07/09/2019 17:45
Method Blank ID	BLANK-71730	Analyzed	07/12/2019 05:58

Native Isomers	Conc ng/Kg	EMPC ng/Kg	RL ng/Kg	Internal Standards	ng's Added	Percent Recovery
2,3,7,8-TCDF	360	----	1.0	2,3,7,8-TCDF-13C	2.00	67
Total TCDF	1400	----	1.0	2,3,7,8-TCDD-13C	2.00	65
				1,2,3,7,8-PeCDF-13C	2.00	69
2,3,7,8-TCDD	170	----	1.0	2,3,4,7,8-PeCDF-13C	2.00	71
Total TCDD	230	----	1.0	1,2,3,7,8-PeCDD-13C	2.00	77
				1,2,3,4,7,8-HxCDF-13C	2.00	64
1,2,3,7,8-PeCDF	7.6	----	5.0 J	1,2,3,6,7,8-HxCDF-13C	2.00	63
2,3,4,7,8-PeCDF	8.7	----	5.0 J	2,3,4,6,7,8-HxCDF-13C	2.00	63
Total PeCDF	170	----	5.0	1,2,3,7,8,9-HxCDF-13C	2.00	64
				1,2,3,4,7,8-HxCDD-13C	2.00	65
1,2,3,7,8-PeCDD	11	----	5.0 J	1,2,3,6,7,8-HxCDD-13C	2.00	55
Total PeCDD	33	----	5.0	1,2,3,4,6,7,8-HpCDF-13C	2.00	66
				1,2,3,4,7,8,9-HpCDF-13C	2.00	70
1,2,3,4,7,8-HxCDF	ND	----	5.0	1,2,3,4,6,7,8-HpCDD-13C	2.00	79
1,2,3,6,7,8-HxCDF	ND	----	5.0	OCDD-13C	4.00	67
2,3,4,6,7,8-HxCDF	ND	----	5.0			
1,2,3,7,8,9-HxCDF	ND	----	5.0	1,2,3,4-TCDD-13C	2.00	NA
Total HxCDF	48	----	5.0	1,2,3,7,8,9-HxCDD-13C	2.00	NA
1,2,3,4,7,8-HxCDD	ND	----	5.0	2,3,7,8-TCDD-37Cl4	0.20	78
1,2,3,6,7,8-HxCDD	8.2	----	5.0 J			
1,2,3,7,8,9-HxCDD	7.2	----	5.0 J			
Total HxCDD	110	----	5.0			
1,2,3,4,6,7,8-HpCDF	39	----	5.0	Total 2,3,7,8-TCDD		
1,2,3,4,7,8,9-HpCDF	ND	----	5.0	Equivalence: 230 ng/Kg		
Total HpCDF	100	----	5.0	(Lower-bound - Using ITE Factors)		
1,2,3,4,6,7,8-HpCDD	230	----	5.0			
Total HpCDD	520	----	5.0			
OCDF	110	----	10			
OCDD	5400	----	10			

Conc = Concentration (Totals include 2,3,7,8-substituted isomers).  
EMPC = Estimated Maximum Possible Concentration  
RL = Reporting Limit

ND = Not Detected  
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NC = Not Calculated

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## REPORT OF LABORATORY ANALYSIS

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### Method 8290 Sample Analysis Results

Client - Pace Analytical National

Client's Sample ID	SL1-2-SU-18		
Lab Sample ID	10481757008		
Filename	Y190711B_20		
Injected By	JRH		
Total Amount Extracted	13.4 g	Matrix	Solid
% Moisture	79.8	Dilution	NA
Dry Weight Extracted	2.71 g	Collected	06/26/2019 11:09
ICAL ID	Y190711	Received	07/02/2019 09:50
CCal Filename(s)	Y190711B_09 & Y190711B_24	Extracted	07/09/2019 17:45
Method Blank ID	BLANK-71730	Analyzed	07/12/2019 06:47

Native Isomers	Conc ng/Kg	EMPC ng/Kg	RL ng/Kg	Internal Standards	ng's Added	Percent Recovery
2,3,7,8-TCDF	760	----	1.0	2,3,7,8-TCDF-13C	2.00	79
Total TCDF	1600	----	1.0	2,3,7,8-TCDD-13C	2.00	80
				1,2,3,7,8-PeCDF-13C	2.00	82
2,3,7,8-TCDD	200	----	1.0	2,3,4,7,8-PeCDF-13C	2.00	84
Total TCDD	250	----	1.0	1,2,3,7,8-PeCDD-13C	2.00	90
				1,2,3,4,7,8-HxCDF-13C	2.00	70
1,2,3,7,8-PeCDF	9.3	----	5.0 J	1,2,3,6,7,8-HxCDF-13C	2.00	67
2,3,4,7,8-PeCDF	14	----	5.0 J	2,3,4,6,7,8-HxCDF-13C	2.00	69
Total PeCDF	290	----	5.0	1,2,3,7,8,9-HxCDF-13C	2.00	74
				1,2,3,4,7,8-HxCDD-13C	2.00	73
1,2,3,7,8-PeCDD	11	----	5.0 J	1,2,3,6,7,8-HxCDD-13C	2.00	63
Total PeCDD	77	----	5.0	1,2,3,4,6,7,8-HpCDF-13C	2.00	70
				1,2,3,4,7,8,9-HpCDF-13C	2.00	72
1,2,3,4,7,8-HxCDF	8.8	----	5.0 J	1,2,3,4,6,7,8-HpCDD-13C	2.00	87
1,2,3,6,7,8-HxCDF	5.5	----	5.0 J	OCDD-13C	4.00	65
2,3,4,6,7,8-HxCDF	12	----	5.0 J			
1,2,3,7,8,9-HxCDF	ND	----	5.0	1,2,3,4-TCDD-13C	2.00	NA
Total HxCDF	360	----	5.0	1,2,3,7,8,9-HxCDD-13C	2.00	NA
1,2,3,4,7,8-HxCDD	6.2	----	5.0 J	2,3,7,8-TCDD-37Cl4	0.20	93
1,2,3,6,7,8-HxCDD	59	----	5.0			
1,2,3,7,8,9-HxCDD	11	----	5.0 J			
Total HxCDD	330	----	5.0			
1,2,3,4,6,7,8-HpCDF	220	----	5.0	Total 2,3,7,8-TCDD		
1,2,3,4,7,8,9-HpCDF	18	----	5.0 J	Equivalence: 340 ng/Kg		
Total HpCDF	1000	----	5.0	(Lower-bound - Using ITE Factors)		
1,2,3,4,6,7,8-HpCDD	1800	----	5.0			
Total HpCDD	3700	----	5.0			
OCDF	2000	----	10			
OCDD	29000	----	10 E			

Conc = Concentration (Totals include 2,3,7,8-substituted isomers).  
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### Method 8290 Sample Analysis Results

Client - Pace Analytical National

Client's Sample ID	SL1-3-SU-4			
Lab Sample ID	10481757009			
Filename	Y190711B_21			
Injected By	JRH			
Total Amount Extracted	18.1 g	Matrix	Solid	
% Moisture	83.6	Dilution	NA	
Dry Weight Extracted	2.96 g	Collected	06/26/2019 11:40	
ICAL ID	Y190711	Received	07/02/2019 09:50	
CCal Filename(s)	Y190711B_09 & Y190711B_24	Extracted	07/09/2019 17:45	
Method Blank ID	BLANK-71730	Analyzed	07/12/2019 07:36	

Native Isomers	Conc ng/Kg	EMPC ng/Kg	RL ng/Kg	Internal Standards	ng's Added	Percent Recovery
2,3,7,8-TCDF	2.3	----	1.0 J	2,3,7,8-TCDF-13C	2.00	67
Total TCDF	8.5	----	1.0	2,3,7,8-TCDD-13C	2.00	67
				1,2,3,7,8-PeCDF-13C	2.00	64
2,3,7,8-TCDD	ND	----	1.0	2,3,4,7,8-PeCDF-13C	2.00	63
Total TCDD	6.1	----	1.0	1,2,3,7,8-PeCDD-13C	2.00	70
				1,2,3,4,7,8-HxCDF-13C	2.00	65
1,2,3,7,8-PeCDF	ND	----	5.0	1,2,3,6,7,8-HxCDF-13C	2.00	61
2,3,4,7,8-PeCDF	ND	----	5.0	2,3,4,6,7,8-HxCDF-13C	2.00	63
Total PeCDF	13	----	5.0 J	1,2,3,7,8,9-HxCDF-13C	2.00	64
				1,2,3,4,7,8-HxCDD-13C	2.00	60
1,2,3,7,8-PeCDD	ND	----	5.0	1,2,3,6,7,8-HxCDD-13C	2.00	54
Total PeCDD	ND	----	5.0	1,2,3,4,6,7,8-HpCDF-13C	2.00	62
				1,2,3,4,7,8,9-HpCDF-13C	2.00	62
1,2,3,4,7,8-HxCDF	ND	----	5.0	1,2,3,4,6,7,8-HpCDD-13C	2.00	71
1,2,3,6,7,8-HxCDF	ND	----	5.0	OCDD-13C	4.00	62
2,3,4,6,7,8-HxCDF	ND	----	5.0			
1,2,3,7,8,9-HxCDF	ND	----	5.0	1,2,3,4-TCDD-13C	2.00	NA
Total HxCDF	25	----	5.0	1,2,3,7,8,9-HxCDD-13C	2.00	NA
1,2,3,4,7,8-HxCDD	ND	----	5.0	2,3,7,8-TCDD-37Cl4	0.20	78
1,2,3,6,7,8-HxCDD	ND	----	5.0			
1,2,3,7,8,9-HxCDD	ND	----	5.0			
Total HxCDD	44	----	5.0			
1,2,3,4,6,7,8-HpCDF	35	----	5.0	Total 2,3,7,8-TCDD		
1,2,3,4,7,8,9-HpCDF	ND	----	5.0	Equivalence: 6.5 ng/Kg		
Total HpCDF	78	----	5.0	(Lower-bound - Using ITE Factors)		
1,2,3,4,6,7,8-HpCDD	130	----	5.0			
Total HpCDD	300	----	5.0			
OCDF	61	----	10			
OCDD	4600	----	10			

Conc = Concentration (Totals include 2,3,7,8-substituted isomers).  
 EMPC = Estimated Maximum Possible Concentration  
 RL = Reporting Limit

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### Method 8290 Sample Analysis Results

Client - Pace Analytical National

Client's Sample ID	SL1-2-SU-14		
Lab Sample ID	10481757010		
Filename	Y190711B_22		
Injected By	JRH		
Total Amount Extracted	16.3 g	Matrix	Solid
% Moisture	84.4	Dilution	NA
Dry Weight Extracted	2.54 g	Collected	06/26/2019 11:00
ICAL ID	Y190711	Received	07/02/2019 09:50
CCal Filename(s)	Y190711B_09 & Y190711B_24	Extracted	07/09/2019 17:45
Method Blank ID	BLANK-71730	Analyzed	07/12/2019 08:25

Native Isomers	Conc ng/Kg	EMPC ng/Kg	RL ng/Kg	Internal Standards	ng's Added	Percent Recovery
2,3,7,8-TCDF	1700	----	1.0	2,3,7,8-TCDF-13C	2.00	73
Total TCDF	3200	----	1.0	2,3,7,8-TCDD-13C	2.00	77
				1,2,3,7,8-PeCDF-13C	2.00	78
2,3,7,8-TCDD	290	----	1.0	2,3,4,7,8-PeCDF-13C	2.00	77
Total TCDD	340	----	1.0	1,2,3,7,8-PeCDD-13C	2.00	84
				1,2,3,4,7,8-HxCDF-13C	2.00	66
1,2,3,7,8-PeCDF	16	----	5.0 J	1,2,3,6,7,8-HxCDF-13C	2.00	64
2,3,4,7,8-PeCDF	26	----	5.0	2,3,4,6,7,8-HxCDF-13C	2.00	65
Total PeCDF	280	----	5.0	1,2,3,7,8,9-HxCDF-13C	2.00	68
				1,2,3,4,7,8-HxCDD-13C	2.00	71
1,2,3,7,8-PeCDD	----	12	5.0 IJ	1,2,3,6,7,8-HxCDD-13C	2.00	59
Total PeCDD	36	----	5.0	1,2,3,4,6,7,8-HpCDF-13C	2.00	63
				1,2,3,4,7,8,9-HpCDF-13C	2.00	69
1,2,3,4,7,8-HxCDF	5.6	----	5.0 J	1,2,3,4,6,7,8-HpCDD-13C	2.00	84
1,2,3,6,7,8-HxCDF	ND	----	5.0	OCDD-13C	4.00	58
2,3,4,6,7,8-HxCDF	7.8	----	5.0 J			
1,2,3,7,8,9-HxCDF	ND	----	5.0	1,2,3,4-TCDD-13C	2.00	NA
Total HxCDF	170	----	5.0	1,2,3,7,8,9-HxCDD-13C	2.00	NA
1,2,3,4,7,8-HxCDD	5.2	----	5.0 J	2,3,7,8-TCDD-37Cl4	0.20	85
1,2,3,6,7,8-HxCDD	34	----	5.0			
1,2,3,7,8,9-HxCDD	8.9	----	5.0 J			
Total HxCDD	190	----	5.0			
1,2,3,4,6,7,8-HpCDF	130	----	5.0	Total 2,3,7,8-TCDD		
1,2,3,4,7,8,9-HpCDF	12	----	5.0 J	Equivalence: 510 ng/Kg		
Total HpCDF	340	----	5.0	(Lower-bound - Using ITE Factors)		
1,2,3,4,6,7,8-HpCDD	710	----	5.0			
Total HpCDD	1500	----	5.0			
OCDF	490	----	10			
OCDD	11000	----	10			

Conc = Concentration (Totals include 2,3,7,8-substituted isomers).  
 EMPC = Estimated Maximum Possible Concentration  
 RL = Reporting Limit

ND = Not Detected  
 NA = Not Applicable  
 NC = Not Calculated

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### Method 8290 Sample Analysis Results

Client - Pace Analytical National

Client's Sample ID	SL1-1-SU-10		
Lab Sample ID	10481757011		
Filename	Y190711B_23		
Injected By	JRH		
Total Amount Extracted	16.6 g	Matrix	Solid
% Moisture	78.2	Dilution	NA
Dry Weight Extracted	3.62 g	Collected	06/26/2019 09:32
ICAL ID	Y190711	Received	07/02/2019 09:50
CCal Filename(s)	Y190711B_09 & Y190711B_24	Extracted	07/09/2019 17:45
Method Blank ID	BLANK-71730	Analyzed	07/12/2019 09:14

Native Isomers	Conc ng/Kg	EMPC ng/Kg	RL ng/Kg	Internal Standards	ng's Added	Percent Recovery
2,3,7,8-TCDF	3.8	----	1.0	2,3,7,8-TCDF-13C	2.00	55
Total TCDF	13	----	1.0	2,3,7,8-TCDD-13C	2.00	55
				1,2,3,7,8-PeCDF-13C	2.00	53
2,3,7,8-TCDD	1.7	----	1.0 J	2,3,4,7,8-PeCDF-13C	2.00	52
Total TCDD	4.4	----	1.0	1,2,3,7,8-PeCDD-13C	2.00	59
				1,2,3,4,7,8-HxCDF-13C	2.00	52
1,2,3,7,8-PeCDF	ND	----	5.0	1,2,3,6,7,8-HxCDF-13C	2.00	47
2,3,4,7,8-PeCDF	ND	----	5.0	2,3,4,6,7,8-HxCDF-13C	2.00	51
Total PeCDF	23	----	5.0	1,2,3,7,8,9-HxCDF-13C	2.00	51
				1,2,3,4,7,8-HxCDD-13C	2.00	50
1,2,3,7,8-PeCDD	ND	----	5.0	1,2,3,6,7,8-HxCDD-13C	2.00	43
Total PeCDD	ND	----	5.0	1,2,3,4,6,7,8-HpCDF-13C	2.00	51
				1,2,3,4,7,8,9-HpCDF-13C	2.00	50
1,2,3,4,7,8-HxCDF	ND	----	5.0	1,2,3,4,6,7,8-HpCDD-13C	2.00	59
1,2,3,6,7,8-HxCDF	ND	----	5.0	OCDD-13C	4.00	49
2,3,4,6,7,8-HxCDF	ND	----	5.0			
1,2,3,7,8,9-HxCDF	ND	----	5.0	1,2,3,4-TCDD-13C	2.00	NA
Total HxCDF	27	----	5.0	1,2,3,7,8,9-HxCDD-13C	2.00	NA
1,2,3,4,7,8-HxCDD	ND	----	5.0	2,3,7,8-TCDD-37Cl4	0.20	63
1,2,3,6,7,8-HxCDD	ND	----	5.0			
1,2,3,7,8,9-HxCDD	ND	----	5.0			
Total HxCDD	46	----	5.0			
1,2,3,4,6,7,8-HpCDF	29	----	5.0	Total 2,3,7,8-TCDD		
1,2,3,4,7,8,9-HpCDF	ND	----	5.0	Equivalence: 8.9 ng/Kg		
Total HpCDF	75	----	5.0	(Lower-bound - Using ITE Factors)		
1,2,3,4,6,7,8-HpCDD	150	----	5.0			
Total HpCDD	340	----	5.0			
OCDF	62	----	10			
OCDD	5000	----	10			

Conc = Concentration (Totals include 2,3,7,8-substituted isomers).  
 EMPC = Estimated Maximum Possible Concentration  
 RL = Reporting Limit

ND = Not Detected  
 NA = Not Applicable  
 NC = Not Calculated

Results reported on a dry weight basis and are valid to no more than 2 significant figures.  
 J = Estimated value

## REPORT OF LABORATORY ANALYSIS

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**Method 8290 Sample Analysis Results**

Client - Pace Analytical National

Client's Sample ID	SL1-1-SU-5		
Lab Sample ID	10481757012		
Filename	F190715A_12		
Injected By	BAL		
Total Amount Extracted	14.5 g	Matrix	Solid
% Moisture	82.9	Dilution	NA
Dry Weight Extracted	2.49 g	Collected	06/26/2019 09:20
ICAL ID	F190620	Received	07/02/2019 09:50
CCal Filename(s)	F190715A_01 & F190715A_17	Extracted	07/09/2019 17:45
Method Blank ID	BLANK-71730	Analyzed	07/15/2019 08:41

Native Isomers	Conc ng/Kg	EMPC ng/Kg	RL ng/Kg	Internal Standards	ng's Added	Percent Recovery
2,3,7,8-TCDF	2.4	----	1.0 J	2,3,7,8-TCDF-13C	2.00	67
Total TCDF	5.8	----	1.0	2,3,7,8-TCDD-13C	2.00	68
				1,2,3,7,8-PeCDF-13C	2.00	61
2,3,7,8-TCDD	ND	----	1.0	2,3,4,7,8-PeCDF-13C	2.00	64
Total TCDD	2.4	----	1.0 J	1,2,3,7,8-PeCDD-13C	2.00	78
				1,2,3,4,7,8-HxCDF-13C	2.00	56
1,2,3,7,8-PeCDF	ND	----	5.0	1,2,3,6,7,8-HxCDF-13C	2.00	59
2,3,4,7,8-PeCDF	ND	----	5.0	2,3,4,6,7,8-HxCDF-13C	2.00	56
Total PeCDF	14	----	5.0 J	1,2,3,7,8,9-HxCDF-13C	2.00	57
				1,2,3,4,7,8-HxCDD-13C	2.00	59
1,2,3,7,8-PeCDD	ND	----	5.0	1,2,3,6,7,8-HxCDD-13C	2.00	55
Total PeCDD	ND	----	5.0	1,2,3,4,6,7,8-HpCDF-13C	2.00	65
				1,2,3,4,7,8,9-HpCDF-13C	2.00	69
1,2,3,4,7,8-HxCDF	ND	----	5.0	1,2,3,4,6,7,8-HpCDD-13C	2.00	74
1,2,3,6,7,8-HxCDF	ND	----	5.0	OCDD-13C	4.00	69
2,3,4,6,7,8-HxCDF	ND	----	5.0			
1,2,3,7,8,9-HxCDF	ND	----	5.0	1,2,3,4-TCDD-13C	2.00	NA
Total HxCDF	20	----	5.0	1,2,3,7,8,9-HxCDD-13C	2.00	NA
1,2,3,4,7,8-HxCDD	ND	----	5.0	2,3,7,8-TCDD-37Cl4	0.20	76
1,2,3,6,7,8-HxCDD	ND	----	5.0			
1,2,3,7,8,9-HxCDD	ND	----	5.0			
Total HxCDD	33	----	5.0			
1,2,3,4,6,7,8-HpCDF	25	----	5.0	Total 2,3,7,8-TCDD		
1,2,3,4,7,8,9-HpCDF	ND	----	5.0	Equivalence: 5.7 ng/Kg		
Total HpCDF	64	----	5.0	(Lower-bound - Using ITE Factors)		
1,2,3,4,6,7,8-HpCDD	120	----	5.0			
Total HpCDD	260	----	5.0			
OCDF	62	----	10			
OCDD	3900	----	10			

Conc = Concentration (Totals include 2,3,7,8-substituted isomers).  
EMPC = Estimated Maximum Possible Concentration  
RL = Reporting Limit

ND = Not Detected  
NA = Not Applicable  
NC = Not Calculated

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J = Estimated value

**REPORT OF LABORATORY ANALYSIS**

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### Method 8290 Sample Analysis Results

Client - Pace Analytical National

Client's Sample ID	SL1-1-SU-20			
Lab Sample ID	10481757013			
Filename	U190712A_02			
Injected By	JRH			
Total Amount Extracted	14.0 g	Matrix	Solid	
% Moisture	56.8	Dilution	NA	
Dry Weight Extracted	6.02 g	Collected	06/26/2019 09:52	
ICAL ID	U190709	Received	07/02/2019 09:50	
CCal Filename(s)	U190711B_16 & U190712A_17	Extracted	07/09/2019 17:45	
Method Blank ID	BLANK-71730	Analyzed	07/12/2019 04:08	

Native Isomers	Conc ng/Kg	EMPC ng/Kg	RL ng/Kg		Internal Standards	ng's Added	Percent Recovery
2,3,7,8-TCDF	43	----	1.0		2,3,7,8-TCDF-13C	2.00	57
Total TCDF	130	----	1.0		2,3,7,8-TCDD-13C	2.00	55
					1,2,3,7,8-PeCDF-13C	2.00	55
2,3,7,8-TCDD	11	----	1.2	A	2,3,4,7,8-PeCDF-13C	2.00	54
Total TCDD	11	----	1.2		1,2,3,7,8-PeCDD-13C	2.00	59
					1,2,3,4,7,8-HxCDF-13C	2.00	47
1,2,3,7,8-PeCDF	ND	----	5.0		1,2,3,6,7,8-HxCDF-13C	2.00	51
2,3,4,7,8-PeCDF	ND	----	5.0		2,3,4,6,7,8-HxCDF-13C	2.00	50
Total PeCDF	36	----	5.0		1,2,3,7,8,9-HxCDF-13C	2.00	51
					1,2,3,4,7,8-HxCDD-13C	2.00	44
1,2,3,7,8-PeCDD	ND	----	5.0		1,2,3,6,7,8-HxCDD-13C	2.00	48
Total PeCDD	8.8	----	5.0		1,2,3,4,6,7,8-HpCDF-13C	2.00	45
					1,2,3,4,7,8,9-HpCDF-13C	2.00	49
1,2,3,4,7,8-HxCDF	ND	----	5.0		1,2,3,4,6,7,8-HpCDD-13C	2.00	48
1,2,3,6,7,8-HxCDF	ND	----	5.0		OCDD-13C	4.00	44
2,3,4,6,7,8-HxCDF	ND	----	5.0				
1,2,3,7,8,9-HxCDF	ND	----	5.0		1,2,3,4-TCDD-13C	2.00	NA
Total HxCDF	43	----	5.0		1,2,3,7,8,9-HxCDD-13C	2.00	NA
1,2,3,4,7,8-HxCDD	ND	----	5.0		2,3,7,8-TCDD-37Cl4	0.20	71
1,2,3,6,7,8-HxCDD	14	----	5.0				
1,2,3,7,8,9-HxCDD	5.9	----	5.0	J			
Total HxCDD	99	----	5.0				
1,2,3,4,6,7,8-HpCDF	----	45	5.0	P	Total 2,3,7,8-TCDD		
1,2,3,4,7,8,9-HpCDF	ND	----	5.0		Equivalence: 31 ng/Kg		
Total HpCDF	110	----	5.0		(Lower-bound - Using ITE Factors)		
1,2,3,4,6,7,8-HpCDD	380	----	5.0				
Total HpCDD	770	----	5.0				
OCDF	180	----	10				
OCDD	9100	----	10				

Conc = Concentration (Totals include 2,3,7,8-substituted isomers).  
EMPC = Estimated Maximum Possible Concentration  
RL = Reporting Limit

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## REPORT OF LABORATORY ANALYSIS

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### Method 8290 Sample Analysis Results

Client - Pace Analytical National

Client's Sample ID	SL1-1-SU-14			
Lab Sample ID	10481757014			
Filename	U190712A_03			
Injected By	JRH			
Total Amount Extracted	16.4 g	Matrix	Solid	
% Moisture	85.0	Dilution	NA	
Dry Weight Extracted	2.45 g	Collected	06/26/2019 09:40	
ICAL ID	U190709	Received	07/02/2019 09:50	
CCal Filename(s)	U190711B_16 & U190712A_17	Extracted	07/09/2019 17:45	
Method Blank ID	BLANK-71730	Analyzed	07/12/2019 04:50	

Native Isomers	Conc ng/Kg	EMPC ng/Kg	RL ng/Kg	Internal Standards	ng's Added	Percent Recovery
2,3,7,8-TCDF	8.5	----	1.0	2,3,7,8-TCDF-13C	2.00	65
Total TCDF	22	----	1.0	2,3,7,8-TCDD-13C	2.00	66
				1,2,3,7,8-PeCDF-13C	2.00	64
2,3,7,8-TCDD	4.8	----	2.4 A	2,3,4,7,8-PeCDF-13C	2.00	65
Total TCDD	4.8	----	2.4	1,2,3,7,8-PeCDD-13C	2.00	69
				1,2,3,4,7,8-HxCDF-13C	2.00	59
1,2,3,7,8-PeCDF	ND	----	5.0	1,2,3,6,7,8-HxCDF-13C	2.00	63
2,3,4,7,8-PeCDF	ND	----	5.0	2,3,4,6,7,8-HxCDF-13C	2.00	60
Total PeCDF	15	----	5.0 J	1,2,3,7,8,9-HxCDF-13C	2.00	64
				1,2,3,4,7,8-HxCDD-13C	2.00	55
1,2,3,7,8-PeCDD	ND	----	5.0	1,2,3,6,7,8-HxCDD-13C	2.00	58
Total PeCDD	ND	----	5.0	1,2,3,4,6,7,8-HpCDF-13C	2.00	57
				1,2,3,4,7,8,9-HpCDF-13C	2.00	62
1,2,3,4,7,8-HxCDF	ND	----	5.0	1,2,3,4,6,7,8-HpCDD-13C	2.00	62
1,2,3,6,7,8-HxCDF	ND	----	5.0	OCDD-13C	4.00	55
2,3,4,6,7,8-HxCDF	ND	----	5.0			
1,2,3,7,8,9-HxCDF	ND	----	5.0	1,2,3,4-TCDD-13C	2.00	NA
Total HxCDF	ND	----	5.0	1,2,3,7,8,9-HxCDD-13C	2.00	NA
1,2,3,4,7,8-HxCDD	ND	----	5.0	2,3,7,8-TCDD-37Cl4	0.20	81
1,2,3,6,7,8-HxCDD	ND	----	5.0			
1,2,3,7,8,9-HxCDD	ND	----	5.0			
Total HxCDD	52	----	5.0			
1,2,3,4,6,7,8-HpCDF	35	----	5.0	Total 2,3,7,8-TCDD		
1,2,3,4,7,8,9-HpCDF	ND	----	5.0	Equivalence: 12 ng/Kg		
Total HpCDF	81	----	5.0	(Lower-bound - Using ITE Factors)		
1,2,3,4,6,7,8-HpCDD	140	----	5.0			
Total HpCDD	300	----	5.0			
OCDF	83	----	10			
OCDD	4300	----	10			

Conc = Concentration (Totals include 2,3,7,8-substituted isomers).  
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### Method 8290 Sample Analysis Results

Client - Pace Analytical National

Client's Sample ID	SL1-4-SU-8		
Lab Sample ID	10481757015		
Filename	U190712A_04		
Injected By	JRH		
Total Amount Extracted	14.8 g	Matrix	Solid
% Moisture	87.7	Dilution	NA
Dry Weight Extracted	1.82 g	Collected	06/26/2019 15:48
ICAL ID	U190709	Received	07/02/2019 09:50
CCal Filename(s)	U190711B_16 & U190712A_17	Extracted	07/09/2019 17:45
Method Blank ID	BLANK-71730	Analyzed	07/12/2019 05:32

Native Isomers	Conc ng/Kg	EMPC ng/Kg	RL ng/Kg		Internal Standards	ng's Added	Percent Recovery
2,3,7,8-TCDF	550	----	1.0		2,3,7,8-TCDF-13C	2.00	84
Total TCDF	1100	----	1.0		2,3,7,8-TCDD-13C	2.00	82
					1,2,3,7,8-PeCDF-13C	2.00	75
2,3,7,8-TCDD	160	----	3.2	A	2,3,4,7,8-PeCDF-13C	2.00	78
Total TCDD	220	----	3.2		1,2,3,7,8-PeCDD-13C	2.00	82
					1,2,3,4,7,8-HxCDF-13C	2.00	72
1,2,3,7,8-PeCDF	8.0	----	5.0	J	1,2,3,6,7,8-HxCDF-13C	2.00	75
2,3,4,7,8-PeCDF	9.5	----	5.0	J	2,3,4,6,7,8-HxCDF-13C	2.00	72
Total PeCDF	270	----	5.0		1,2,3,7,8,9-HxCDF-13C	2.00	77
					1,2,3,4,7,8-HxCDD-13C	2.00	68
1,2,3,7,8-PeCDD	10	----	5.3	JA	1,2,3,6,7,8-HxCDD-13C	2.00	71
Total PeCDD	51	----	5.3		1,2,3,4,6,7,8-HpCDF-13C	2.00	66
					1,2,3,4,7,8,9-HpCDF-13C	2.00	72
1,2,3,4,7,8-HxCDF	9.5	----	5.0	J	1,2,3,4,6,7,8-HpCDD-13C	2.00	75
1,2,3,6,7,8-HxCDF	ND	----	5.0		OCDD-13C	4.00	63
2,3,4,6,7,8-HxCDF	11	----	5.0	J			
1,2,3,7,8,9-HxCDF	ND	----	5.0		1,2,3,4-TCDD-13C	2.00	NA
Total HxCDF	320	----	5.0		1,2,3,7,8,9-HxCDD-13C	2.00	NA
1,2,3,4,7,8-HxCDD	ND	----	5.0		2,3,7,8-TCDD-37Cl4	0.20	97
1,2,3,6,7,8-HxCDD	57	----	5.0				
1,2,3,7,8,9-HxCDD	8.5	----	5.0	J			
Total HxCDD	230	----	5.0				
1,2,3,4,6,7,8-HpCDF	----	280	5.0	P	Total 2,3,7,8-TCDD		
1,2,3,4,7,8,9-HpCDF	17	----	5.0	J	Equivalence: 270 ng/Kg		
Total HpCDF	1000	----	5.0		(Lower-bound - Using ITE Factors)		
1,2,3,4,6,7,8-HpCDD	1400	----	5.0				
Total HpCDD	2800	----	5.0				
OCDF	1700	----	10				
OCDD	22000	----	10				

Conc = Concentration (Totals include 2,3,7,8-substituted isomers).  
EMPC = Estimated Maximum Possible Concentration  
RL = Reporting Limit

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## REPORT OF LABORATORY ANALYSIS

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### Method 8290 Sample Analysis Results

Client - Pace Analytical National

Client's Sample ID	SL1-5-SU-10		
Lab Sample ID	10481757016		
Filename	U190712A_05		
Injected By	JRH		
Total Amount Extracted	13.5 g	Matrix	Solid
% Moisture	77.9	Dilution	NA
Dry Weight Extracted	2.99 g	Collected	06/26/2019 13:58
ICAL ID	U190709	Received	07/02/2019 09:50
CCal Filename(s)	U190711B_16 & U190712A_17	Extracted	07/09/2019 17:45
Method Blank ID	BLANK-71730	Analyzed	07/12/2019 06:14

Native Isomers	Conc ng/Kg	EMPC ng/Kg	RL ng/Kg	Internal Standards	ng's Added	Percent Recovery
2,3,7,8-TCDF	50	----	1.0	2,3,7,8-TCDF-13C	2.00	83
Total TCDF	120	----	1.0	2,3,7,8-TCDD-13C	2.00	82
				1,2,3,7,8-PeCDF-13C	2.00	79
2,3,7,8-TCDD	11	----	1.0	2,3,4,7,8-PeCDF-13C	2.00	80
Total TCDD	11	----	1.0	1,2,3,7,8-PeCDD-13C	2.00	86
				1,2,3,4,7,8-HxCDF-13C	2.00	71
1,2,3,7,8-PeCDF	ND	----	5.0	1,2,3,6,7,8-HxCDF-13C	2.00	78
2,3,4,7,8-PeCDF	ND	----	5.0	2,3,4,6,7,8-HxCDF-13C	2.00	74
Total PeCDF	32	----	5.0	1,2,3,7,8,9-HxCDF-13C	2.00	79
				1,2,3,4,7,8-HxCDD-13C	2.00	70
1,2,3,7,8-PeCDD	ND	----	5.0	1,2,3,6,7,8-HxCDD-13C	2.00	69
Total PeCDD	ND	----	5.0	1,2,3,4,6,7,8-HpCDF-13C	2.00	69
				1,2,3,4,7,8,9-HpCDF-13C	2.00	74
1,2,3,4,7,8-HxCDF	ND	----	5.0	1,2,3,4,6,7,8-HpCDD-13C	2.00	78
1,2,3,6,7,8-HxCDF	ND	----	5.0	OCDD-13C	4.00	70
2,3,4,6,7,8-HxCDF	ND	----	5.0			
1,2,3,7,8,9-HxCDF	ND	----	5.0	1,2,3,4-TCDD-13C	2.00	NA
Total HxCDF	38	----	5.0	1,2,3,7,8,9-HxCDD-13C	2.00	NA
1,2,3,4,7,8-HxCDD	ND	----	5.0	2,3,7,8-TCDD-37Cl4	0.20	100
1,2,3,6,7,8-HxCDD	9.3	----	5.0 J			
1,2,3,7,8,9-HxCDD	8.0	----	5.0 J			
Total HxCDD	94	----	5.0			
1,2,3,4,6,7,8-HpCDF	----	57	5.0 P	Total 2,3,7,8-TCDD		
1,2,3,4,7,8,9-HpCDF	ND	----	5.0	Equivalence: 28 ng/Kg		
Total HpCDF	86	----	5.0	(Lower-bound - Using ITE Factors)		
1,2,3,4,6,7,8-HpCDD	300	----	5.0			
Total HpCDD	550	----	5.0			
OCDF	170	----	10			
OCDD	6700	----	10			

Conc = Concentration (Totals include 2,3,7,8-substituted isomers).  
 EMPC = Estimated Maximum Possible Concentration  
 RL = Reporting Limit

ND = Not Detected  
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### Method 8290 Sample Analysis Results

Client - Pace Analytical National

Client's Sample ID	SL1-3-SU-8			
Lab Sample ID	10481757017			
Filename	U190712A_06			
Injected By	JRH			
Total Amount Extracted	14.4 g	Matrix	Solid	
% Moisture	85.0	Dilution	NA	
Dry Weight Extracted	2.15 g	Collected	06/26/2019 11:48	
ICAL ID	U190709	Received	07/02/2019 09:50	
CCal Filename(s)	U190711B_16 & U190712A_17	Extracted	07/09/2019 17:45	
Method Blank ID	BLANK-71730	Analyzed	07/12/2019 06:57	

Native Isomers	Conc ng/Kg	EMPC ng/Kg	RL ng/Kg	Internal Standards	ng's Added	Percent Recovery
2,3,7,8-TCDF	2.5	----	1.0 J	2,3,7,8-TCDF-13C	2.00	66
Total TCDF	5.4	----	1.0	2,3,7,8-TCDD-13C	2.00	65
				1,2,3,7,8-PeCDF-13C	2.00	66
2,3,7,8-TCDD	ND	----	2.6 A	2,3,4,7,8-PeCDF-13C	2.00	66
Total TCDD	5.4	----	2.6	1,2,3,7,8-PeCDD-13C	2.00	71
				1,2,3,4,7,8-HxCDF-13C	2.00	58
1,2,3,7,8-PeCDF	ND	----	5.0	1,2,3,6,7,8-HxCDF-13C	2.00	62
2,3,4,7,8-PeCDF	ND	----	5.0	2,3,4,6,7,8-HxCDF-13C	2.00	63
Total PeCDF	12	----	5.0 J	1,2,3,7,8,9-HxCDF-13C	2.00	65
				1,2,3,4,7,8-HxCDD-13C	2.00	58
1,2,3,7,8-PeCDD	ND	----	5.0	1,2,3,6,7,8-HxCDD-13C	2.00	56
Total PeCDD	ND	----	5.0	1,2,3,4,6,7,8-HpCDF-13C	2.00	56
				1,2,3,4,7,8,9-HpCDF-13C	2.00	63
1,2,3,4,7,8-HxCDF	ND	----	5.0	1,2,3,4,6,7,8-HpCDD-13C	2.00	65
1,2,3,6,7,8-HxCDF	ND	----	5.0	OCDD-13C	4.00	57
2,3,4,6,7,8-HxCDF	ND	----	5.0			
1,2,3,7,8,9-HxCDF	ND	----	5.0	1,2,3,4-TCDD-13C	2.00	NA
Total HxCDF	19	----	5.0 J	1,2,3,7,8,9-HxCDD-13C	2.00	NA
1,2,3,4,7,8-HxCDD	ND	----	5.0	2,3,7,8-TCDD-37Cl4	0.20	77
1,2,3,6,7,8-HxCDD	ND	----	5.0			
1,2,3,7,8,9-HxCDD	ND	----	5.0			
Total HxCDD	40	----	5.0			
1,2,3,4,6,7,8-HpCDF	28	----	5.0	Total 2,3,7,8-TCDD		
1,2,3,4,7,8,9-HpCDF	ND	----	5.0	Equivalence: 5.5 ng/Kg		
Total HpCDF	66	----	5.0	(Lower-bound - Using ITE Factors)		
1,2,3,4,6,7,8-HpCDD	120	----	5.0			
Total HpCDD	270	----	5.0			
OCDF	63	----	10			
OCDD	3700	----	10			

Conc = Concentration (Totals include 2,3,7,8-substituted isomers).  
 EMPC = Estimated Maximum Possible Concentration  
 RL = Reporting Limit

ND = Not Detected  
 NA = Not Applicable  
 NC = Not Calculated

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 J = Estimated value  
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## REPORT OF LABORATORY ANALYSIS

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### Method 8290 Sample Analysis Results

Client - Pace Analytical National

Client's Sample ID	SL1-3-SU-12		
Lab Sample ID	10481757018		
Filename	U190711B_14		
Injected By	JRH		
Total Amount Extracted	13.5 g	Matrix	Solid
% Moisture	77.8	Dilution	NA
Dry Weight Extracted	2.99 g	Collected	06/26/2019 11:53
ICAL ID	U190709	Received	07/02/2019 09:50
CCal Filename(s)	U190711A_09 & U190711B_16	Extracted	07/09/2019 17:45
Method Blank ID	BLANK-71730	Analyzed	07/12/2019 01:19

Native Isomers	Conc ng/Kg	EMPC ng/Kg	RL ng/Kg		Internal Standards	ng's Added	Percent Recovery
2,3,7,8-TCDF	7.2	----	1.0		2,3,7,8-TCDF-13C	2.00	60
Total TCDF	16	----	1.0		2,3,7,8-TCDD-13C	2.00	60
					1,2,3,7,8-PeCDF-13C	2.00	60
2,3,7,8-TCDD	3.1	----	2.6	JA	2,3,4,7,8-PeCDF-13C	2.00	61
Total TCDD	8.6	----	2.6		1,2,3,7,8-PeCDD-13C	2.00	67
					1,2,3,4,7,8-HxCDF-13C	2.00	54
1,2,3,7,8-PeCDF	ND	----	5.0		1,2,3,6,7,8-HxCDF-13C	2.00	60
2,3,4,7,8-PeCDF	ND	----	5.0		2,3,4,6,7,8-HxCDF-13C	2.00	57
Total PeCDF	26	----	5.0		1,2,3,7,8,9-HxCDF-13C	2.00	56
					1,2,3,4,7,8-HxCDD-13C	2.00	52
1,2,3,7,8-PeCDD	ND	----	5.0		1,2,3,6,7,8-HxCDD-13C	2.00	53
Total PeCDD	ND	----	5.0		1,2,3,4,6,7,8-HpCDF-13C	2.00	50
					1,2,3,4,7,8,9-HpCDF-13C	2.00	51
1,2,3,4,7,8-HxCDF	ND	----	5.0		1,2,3,4,6,7,8-HpCDD-13C	2.00	55
1,2,3,6,7,8-HxCDF	ND	----	5.0		OCDD-13C	4.00	44
2,3,4,6,7,8-HxCDF	ND	----	5.0				
1,2,3,7,8,9-HxCDF	ND	----	5.0		1,2,3,4-TCDD-13C	2.00	NA
Total HxCDF	30	----	5.0		1,2,3,7,8,9-HxCDD-13C	2.00	NA
1,2,3,4,7,8-HxCDD	ND	----	5.0		2,3,7,8-TCDD-37Cl4	0.20	69
1,2,3,6,7,8-HxCDD	6.2	----	5.0	J			
1,2,3,7,8,9-HxCDD	ND	----	5.0				
Total HxCDD	63	----	5.0				
1,2,3,4,6,7,8-HpCDF	36	----	5.0		Total 2,3,7,8-TCDD		
1,2,3,4,7,8,9-HpCDF	ND	----	5.0		Equivalence: 11 ng/Kg		
Total HpCDF	90	----	5.0		(Lower-bound - Using ITE Factors)		
1,2,3,4,6,7,8-HpCDD	160	----	5.0				
Total HpCDD	360	----	5.0				
OCDF	90	----	10				
OCDD	5000	----	10				

Conc = Concentration (Totals include 2,3,7,8-substituted isomers).  
 EMPC = Estimated Maximum Possible Concentration  
 RL = Reporting Limit

ND = Not Detected  
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 NC = Not Calculated

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## REPORT OF LABORATORY ANALYSIS

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### Method 8290 Sample Analysis Results

Client - Pace Analytical National

Client's Sample ID	SL1-6-SU-11		
Lab Sample ID	10481757019		
Filename	U190712A_07		
Injected By	JRH		
Total Amount Extracted	13.7 g	Matrix	Solid
% Moisture	82.3	Dilution	NA
Dry Weight Extracted	2.43 g	Collected	06/26/2019 15:00
ICAL ID	U190709	Received	07/02/2019 09:50
CCal Filename(s)	U190711B_16 & U190712A_17	Extracted	07/09/2019 17:45
Method Blank ID	BLANK-71730	Analyzed	07/12/2019 07:39

Native Isomers	Conc ng/Kg	EMPC ng/Kg	RL ng/Kg	Internal Standards	ng's Added	Percent Recovery
2,3,7,8-TCDF	1800	----	1.0	2,3,7,8-TCDF-13C	2.00	76
Total TCDF	3600	----	1.0	2,3,7,8-TCDD-13C	2.00	74
				1,2,3,7,8-PeCDF-13C	2.00	68
2,3,7,8-TCDD	320	----	1.5 A	2,3,4,7,8-PeCDF-13C	2.00	70
Total TCDD	320	----	1.5	1,2,3,7,8-PeCDD-13C	2.00	74
				1,2,3,4,7,8-HxCDF-13C	2.00	65
1,2,3,7,8-PeCDF	20	----	5.0 J	1,2,3,6,7,8-HxCDF-13C	2.00	68
2,3,4,7,8-PeCDF	29	----	5.0	2,3,4,6,7,8-HxCDF-13C	2.00	68
Total PeCDF	320	----	5.0	1,2,3,7,8,9-HxCDF-13C	2.00	70
				1,2,3,4,7,8-HxCDD-13C	2.00	63
1,2,3,7,8-PeCDD	16	----	5.0 J	1,2,3,6,7,8-HxCDD-13C	2.00	63
Total PeCDD	96	----	5.0	1,2,3,4,6,7,8-HpCDF-13C	2.00	60
				1,2,3,4,7,8,9-HpCDF-13C	2.00	67
1,2,3,4,7,8-HxCDF	8.5	----	5.0 J	1,2,3,4,6,7,8-HpCDD-13C	2.00	68
1,2,3,6,7,8-HxCDF	ND	----	5.0	OCDD-13C	4.00	60
2,3,4,6,7,8-HxCDF	9.3	----	5.0 J			
1,2,3,7,8,9-HxCDF	ND	----	5.0	1,2,3,4-TCDD-13C	2.00	NA
Total HxCDF	270	----	5.0	1,2,3,7,8,9-HxCDD-13C	2.00	NA
1,2,3,4,7,8-HxCDD	6.8	----	5.0 J	2,3,7,8-TCDD-37Cl4	0.20	85
1,2,3,6,7,8-HxCDD	58	----	5.0			
1,2,3,7,8,9-HxCDD	----	8.7	5.0 U			
Total HxCDD	390	----	5.0			
1,2,3,4,6,7,8-HpCDF	----	240	5.0 P	Total 2,3,7,8-TCDD		
1,2,3,4,7,8,9-HpCDF	23	----	5.0	Equivalence: 570 ng/Kg		
Total HpCDF	940	----	5.0	(Lower-bound - Using ITE Factors)		
1,2,3,4,6,7,8-HpCDD	1300	----	5.0			
Total HpCDD	2800	----	5.0			
OCDF	1400	----	10			
OCDD	19000	----	10			

Conc = Concentration (Totals include 2,3,7,8-substituted isomers).  
EMPC = Estimated Maximum Possible Concentration  
RL = Reporting Limit

ND = Not Detected  
NA = Not Applicable  
NC = Not Calculated

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J = Estimated value  
A = Reporting Limit based on signal to noise  
P = PCDE Interference  
I = Interference present

## REPORT OF LABORATORY ANALYSIS

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**Method 8290 Sample Analysis Results**

Client - Pace Analytical National

Client's Sample ID	SL1-6-SU-8			
Lab Sample ID	10481757020			
Filename	F190716B_08			
Injected By	SMT			
Total Amount Extracted	18.1 g	Matrix	Solid	
% Moisture	82.0	Dilution	NA	
Dry Weight Extracted	3.25 g	Collected	06/26/2019 14:53	
ICAL ID	F190620	Received	07/02/2019 09:50	
CCal Filename(s)	F190716A_18 & F190716B_20	Extracted	07/12/2019 17:50	
Method Blank ID	BLANK-71804	Analyzed	07/17/2019 02:49	

Native Isomers	Conc ng/Kg	EMPC ng/Kg	RL ng/Kg		Internal Standards	ng's Added	Percent Recovery
2,3,7,8-TCDF	1700	----	1.0		2,3,7,8-TCDF-13C	2.00	69
Total TCDF	2900	----	1.0		2,3,7,8-TCDD-13C	2.00	62
					1,2,3,7,8-PeCDF-13C	2.00	63
2,3,7,8-TCDD	230	----	1.0	Y	2,3,4,7,8-PeCDF-13C	2.00	63
Total TCDD	260	----	1.0	Y	1,2,3,7,8-PeCDD-13C	2.00	66
					1,2,3,4,7,8-HxCDF-13C	2.00	58
1,2,3,7,8-PeCDF	16	----	5.0		1,2,3,6,7,8-HxCDF-13C	2.00	66
2,3,4,7,8-PeCDF	26	----	5.0		2,3,4,6,7,8-HxCDF-13C	2.00	57
Total PeCDF	190	----	5.0		1,2,3,7,8,9-HxCDF-13C	2.00	63
					1,2,3,4,7,8-HxCDD-13C	2.00	52
1,2,3,7,8-PeCDD	11	----	5.0	J	1,2,3,6,7,8-HxCDD-13C	2.00	58
Total PeCDD	78	----	5.0		1,2,3,4,6,7,8-HpCDF-13C	2.00	57
					1,2,3,4,7,8,9-HpCDF-13C	2.00	68
1,2,3,4,7,8-HxCDF	ND	----	5.0		1,2,3,4,6,7,8-HpCDD-13C	2.00	65
1,2,3,6,7,8-HxCDF	ND	----	5.0		OCDD-13C	4.00	65
2,3,4,6,7,8-HxCDF	ND	----	5.0				
1,2,3,7,8,9-HxCDF	ND	----	5.0		1,2,3,4-TCDD-13C	2.00	NA
Total HxCDF	96	----	5.0		1,2,3,7,8,9-HxCDD-13C	2.00	NA
1,2,3,4,7,8-HxCDD	ND	----	5.0		2,3,7,8-TCDD-37Cl4	0.20	67
1,2,3,6,7,8-HxCDD	22	----	5.0				
1,2,3,7,8,9-HxCDD	ND	----	5.0				
Total HxCDD	330	----	5.0				
1,2,3,4,6,7,8-HpCDF	87	----	5.0		Total 2,3,7,8-TCDD		
1,2,3,4,7,8,9-HpCDF	7.7	----	5.0	J	Equivalence: 430 ng/Kg		
Total HpCDF	420	----	5.0		(Lower-bound - Using ITE Factors)		
1,2,3,4,6,7,8-HpCDD	450	----	5.0				
Total HpCDD	1300	----	5.0				
OCDF	300	----	10	Y			
OCDD	6200	----	10				

Conc = Concentration (Totals include 2,3,7,8-substituted isomers).  
EMPC = Estimated Maximum Possible Concentration  
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### Method 8290 Sample Analysis Results

Client - Pace Analytical National

Client's Sample ID	SL1-5-SU-20		
Lab Sample ID	10481757021		
Filename	F190716B_09		
Injected By	SMT		
Total Amount Extracted	15.7 g	Matrix	Solid
% Moisture	82.1	Dilution	NA
Dry Weight Extracted	2.81 g	Collected	06/26/2019 14:16
ICAL ID	F190620	Received	07/02/2019 09:50
CCal Filename(s)	F190716A_18 & F190716B_20	Extracted	07/12/2019 17:50
Method Blank ID	BLANK-71804	Analyzed	07/17/2019 03:28

Native Isomers	Conc ng/Kg	EMPC ng/Kg	RL ng/Kg		Internal Standards	ng's Added	Percent Recovery
2,3,7,8-TCDF	69	----	1.0		2,3,7,8-TCDF-13C	2.00	73
Total TCDF	260	----	1.0		2,3,7,8-TCDD-13C	2.00	65
					1,2,3,7,8-PeCDF-13C	2.00	64
2,3,7,8-TCDD	13	----	1.0	Y	2,3,4,7,8-PeCDF-13C	2.00	69
Total TCDD	13	----	1.0	Y	1,2,3,7,8-PeCDD-13C	2.00	72
					1,2,3,4,7,8-HxCDF-13C	2.00	67
1,2,3,7,8-PeCDF	ND	----	5.0		1,2,3,6,7,8-HxCDF-13C	2.00	70
2,3,4,7,8-PeCDF	5.2	----	5.0	J	2,3,4,6,7,8-HxCDF-13C	2.00	67
Total PeCDF	49	----	5.0		1,2,3,7,8,9-HxCDF-13C	2.00	68
					1,2,3,4,7,8-HxCDD-13C	2.00	59
1,2,3,7,8-PeCDD	ND	----	5.0		1,2,3,6,7,8-HxCDD-13C	2.00	56
Total PeCDD	ND	----	5.0		1,2,3,4,6,7,8-HpCDF-13C	2.00	64
					1,2,3,4,7,8,9-HpCDF-13C	2.00	73
1,2,3,4,7,8-HxCDF	ND	----	5.0		1,2,3,4,6,7,8-HpCDD-13C	2.00	69
1,2,3,6,7,8-HxCDF	ND	----	5.0		OCDD-13C	4.00	79
2,3,4,6,7,8-HxCDF	ND	----	5.0				
1,2,3,7,8,9-HxCDF	ND	----	5.0		1,2,3,4-TCDD-13C	2.00	NA
Total HxCDF	36	----	5.0		1,2,3,7,8,9-HxCDD-13C	2.00	NA
1,2,3,4,7,8-HxCDD	ND	----	5.0		2,3,7,8-TCDD-37Cl4	0.20	73
1,2,3,6,7,8-HxCDD	5.9	----	5.0	J			
1,2,3,7,8,9-HxCDD	ND	----	5.0				
Total HxCDD	25	----	5.0				
1,2,3,4,6,7,8-HpCDF	33	----	5.0		Total 2,3,7,8-TCDD		
1,2,3,4,7,8,9-HpCDF	ND	----	5.0		Equivalence: 32 ng/Kg		
Total HpCDF	140	----	5.0		(Lower-bound - Using ITE Factors)		
1,2,3,4,6,7,8-HpCDD	210	----	5.0				
Total HpCDD	550	----	5.0				
OCDF	110	----	10	Y			
OCDD	6300	----	10				

Conc = Concentration (Totals include 2,3,7,8-substituted isomers).  
EMPC = Estimated Maximum Possible Concentration  
RL = Reporting Limit

ND = Not Detected  
NA = Not Applicable  
NC = Not Calculated

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**Method 8290 Blank Analysis Results**

Lab Sample Name	DFBLKIW	Matrix	Solid
Lab Sample ID	BLANK-71730	Dilution	NA
Filename	U190711B_05	Extracted	07/09/2019 17:45
Total Amount Extracted	10.2 g	Analyzed	07/11/2019 19:00
ICAL ID	U190709	Injected By	JRH
CCal Filename(s)	U190711A_09 & U190711B_16		

Native Isomers	Conc ng/Kg	EMPC ng/Kg	RL ng/Kg	Internal Standards	ng's Added	Percent Recovery
2,3,7,8-TCDF	ND	----	1.0	2,3,7,8-TCDF-13C	2.00	63
Total TCDF	ND	----	1.0	2,3,7,8-TCDD-13C	2.00	63
				1,2,3,7,8-PeCDF-13C	2.00	65
2,3,7,8-TCDD	ND	----	1.0	2,3,4,7,8-PeCDF-13C	2.00	63
Total TCDD	ND	----	1.0	1,2,3,7,8-PeCDD-13C	2.00	67
				1,2,3,4,7,8-HxCDF-13C	2.00	62
1,2,3,7,8-PeCDF	ND	----	5.0	1,2,3,6,7,8-HxCDF-13C	2.00	66
2,3,4,7,8-PeCDF	ND	----	5.0	2,3,4,6,7,8-HxCDF-13C	2.00	63
Total PeCDF	ND	----	5.0	1,2,3,7,8,9-HxCDF-13C	2.00	60
				1,2,3,4,7,8-HxCDD-13C	2.00	55
1,2,3,7,8-PeCDD	ND	----	5.0	1,2,3,6,7,8-HxCDD-13C	2.00	56
Total PeCDD	ND	----	5.0	1,2,3,4,6,7,8-HpCDF-13C	2.00	53
				1,2,3,4,7,8,9-HpCDF-13C	2.00	50
1,2,3,4,7,8-HxCDF	ND	----	5.0	1,2,3,4,6,7,8-HpCDD-13C	2.00	55
1,2,3,6,7,8-HxCDF	ND	----	5.0	OCDD-13C	4.00	44
2,3,4,6,7,8-HxCDF	ND	----	5.0			
1,2,3,7,8,9-HxCDF	ND	----	5.0	1,2,3,4-TCDD-13C	2.00	NA
Total HxCDF	ND	----	5.0	1,2,3,7,8,9-HxCDD-13C	2.00	NA
1,2,3,4,7,8-HxCDD	ND	----	5.0	2,3,7,8-TCDD-37Cl4	0.20	78
1,2,3,6,7,8-HxCDD	ND	----	5.0			
1,2,3,7,8,9-HxCDD	ND	----	5.0			
Total HxCDD	ND	----	5.0			
1,2,3,4,6,7,8-HpCDF	ND	----	5.0	Total 2,3,7,8-TCDD		
1,2,3,4,7,8,9-HpCDF	ND	----	5.0	Equivalence: 0.00 ng/Kg		
Total HpCDF	ND	----	5.0	(Lower-bound - Using ITE Factors)		
1,2,3,4,6,7,8-HpCDD	ND	----	5.0			
Total HpCDD	ND	----	5.0			
OCDF	ND	----	10			
OCDD	ND	----	10			

Conc = Concentration (Totals include 2,3,7,8-substituted isomers).

EMPC = Estimated Maximum Possible Concentration

RL = Reporting Limit

Results reported on a total weight basis and are valid to no more than 2 significant figures.

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### Method 8290 Blank Analysis Results

Lab Sample Name	DFBLKJU	Matrix	Solid
Lab Sample ID	BLANK-71804	Dilution	NA
Filename	F190716A_03	Extracted	07/12/2019 17:50
Total Amount Extracted	10.2 g	Analyzed	07/16/2019 10:59
ICAL ID	F190620	Injected By	SMT
CCal Filename(s)	F190715B_27 & F190716A_18		

Native Isomers	Conc ng/Kg	EMPC ng/Kg	RL ng/Kg	Internal Standards	ng's Added	Percent Recovery
2,3,7,8-TCDF	ND	----	1.0	2,3,7,8-TCDF-13C	2.00	83
Total TCDF	ND	----	1.0	2,3,7,8-TCDD-13C	2.00	84
				1,2,3,7,8-PeCDF-13C	2.00	84
2,3,7,8-TCDD	ND	----	1.0	2,3,4,7,8-PeCDF-13C	2.00	83
Total TCDD	ND	----	1.0	1,2,3,7,8-PeCDD-13C	2.00	99
				1,2,3,4,7,8-HxCDF-13C	2.00	77
1,2,3,7,8-PeCDF	ND	----	5.0	1,2,3,6,7,8-HxCDF-13C	2.00	83
2,3,4,7,8-PeCDF	ND	----	5.0	2,3,4,6,7,8-HxCDF-13C	2.00	79
Total PeCDF	ND	----	5.0	1,2,3,7,8,9-HxCDF-13C	2.00	75
				1,2,3,4,7,8-HxCDD-13C	2.00	80
1,2,3,7,8-PeCDD	ND	----	5.0	1,2,3,6,7,8-HxCDD-13C	2.00	77
Total PeCDD	ND	----	5.0	1,2,3,4,6,7,8-HpCDF-13C	2.00	82
				1,2,3,4,7,8,9-HpCDF-13C	2.00	78
1,2,3,4,7,8-HxCDF	ND	----	5.0	1,2,3,4,6,7,8-HpCDD-13C	2.00	93
1,2,3,6,7,8-HxCDF	ND	----	5.0	OCDD-13C	4.00	79
2,3,4,6,7,8-HxCDF	ND	----	5.0			
1,2,3,7,8,9-HxCDF	ND	----	5.0	1,2,3,4-TCDD-13C	2.00	NA
Total HxCDF	ND	----	5.0	1,2,3,7,8,9-HxCDD-13C	2.00	NA
1,2,3,4,7,8-HxCDD	ND	----	5.0	2,3,7,8-TCDD-37Cl4	0.20	88
1,2,3,6,7,8-HxCDD	ND	----	5.0			
1,2,3,7,8,9-HxCDD	ND	----	5.0			
Total HxCDD	ND	----	5.0			
1,2,3,4,6,7,8-HpCDF	ND	----	5.0	Total 2,3,7,8-TCDD		
1,2,3,4,7,8,9-HpCDF	ND	----	5.0	Equivalence: 0.00 ng/Kg		
Total HpCDF	ND	----	5.0	(Lower-bound - Using ITE Factors)		
1,2,3,4,6,7,8-HpCDD	ND	----	5.0			
Total HpCDD	ND	----	5.0			
OCDF	ND	----	10			
OCDD	ND	----	10			

Conc = Concentration (Totals include 2,3,7,8-substituted isomers).

EMPC = Estimated Maximum Possible Concentration

RL = Reporting Limit

Results reported on a total weight basis and are valid to no more than 2 significant figures.

## REPORT OF LABORATORY ANALYSIS

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### Method 8290 Laboratory Control Spike Results

Lab Sample ID	LCS-71731	Matrix	Solid
Filename	U190711B_01	Dilution	NA
Total Amount Extracted	10.4 g	Extracted	07/09/2019 17:45
ICAL ID	U190709	Analyzed	07/11/2019 16:13
CCal Filename(s)	U190711A_09 & U190711B_16	Injected By	JRH
Method Blank ID	BLANK-71730		

Native Isomers	Qs (ng)	Qm (ng)	% Rec.	Internal Standards	ng's Added	Percent Recovery
2,3,7,8-TCDF	0.20	0.21	107	2,3,7,8-TCDF-13C	2.0	79
Total TCDF				2,3,7,8-TCDD-13C	2.0	77
				1,2,3,7,8-PeCDF-13C	2.0	78
2,3,7,8-TCDD	0.20	0.23	113	2,3,4,7,8-PeCDF-13C	2.0	79
Total TCDD				1,2,3,7,8-PeCDD-13C	2.0	82
				1,2,3,4,7,8-HxCDF-13C	2.0	77
1,2,3,7,8-PeCDF	1.0	1.0	103	1,2,3,6,7,8-HxCDF-13C	2.0	83
2,3,4,7,8-PeCDF	1.0	1.1	105	2,3,4,6,7,8-HxCDF-13C	2.0	80
Total PeCDF				1,2,3,7,8,9-HxCDF-13C	2.0	75
				1,2,3,4,7,8-HxCDD-13C	2.0	69
1,2,3,7,8-PeCDD	1.0	0.94	94	1,2,3,6,7,8-HxCDD-13C	2.0	74
Total PeCDD				1,2,3,4,6,7,8-HpCDF-13C	2.0	71
				1,2,3,4,7,8,9-HpCDF-13C	2.0	65
1,2,3,4,7,8-HxCDF	1.0	1.1	108	1,2,3,4,6,7,8-HpCDD-13C	2.0	66
1,2,3,6,7,8-HxCDF	1.0	1.0	100	OCDD-13C	4.0	55
2,3,4,6,7,8-HxCDF	1.0	1.0	101			
1,2,3,7,8,9-HxCDF	1.0	1.0	100	1,2,3,4-TCDD-13C	2.0	NA
Total HxCDF				1,2,3,7,8,9-HxCDD-13C	2.0	NA
1,2,3,4,7,8-HxCDD	1.0	1.1	113	2,3,7,8-TCDD-37Cl4	0.20	93
1,2,3,6,7,8-HxCDD	1.0	1.1	112			
1,2,3,7,8,9-HxCDD	1.0	1.0	103			
Total HxCDD						
1,2,3,4,6,7,8-HpCDF	1.0	1.1	107			
1,2,3,4,7,8,9-HpCDF	1.0	1.0	101			
Total HpCDF						
1,2,3,4,6,7,8-HpCDD	1.0	1.0	100			
Total HpCDD						
OCDF	2.0	2.2	112			
OCDD	2.0	2.2	110			

Qs = Quantity Spiked  
 Qm = Quantity Measured  
 Rec. = Recovery (Expressed as Percent)  
 R = Recovery outside of target range

Y = RF averaging used in calculations  
 Nn = Value obtained from additional analysis  
 NA = Not Applicable  
 \* = See Discussion

## REPORT OF LABORATORY ANALYSIS

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### Method 8290 Laboratory Control Spike Results

Lab Sample ID	LCS-71805	Matrix	Solid
Filename	F190716A_12	Dilution	NA
Total Amount Extracted	10.1 g	Extracted	07/12/2019 17:50
ICAL ID	F190620	Analyzed	07/16/2019 17:34
CCal Filename(s)	F190715B_27 & F190716A_18	Injected By	SMT
Method Blank ID	BLANK-71804		

Native Isomers	Qs (ng)	Qm (ng)	% Rec.	Internal Standards	ng's Added	Percent Recovery
2,3,7,8-TCDF	0.20	0.18	88	2,3,7,8-TCDF-13C	2.0	69
Total TCDF				2,3,7,8-TCDD-13C	2.0	66
				1,2,3,7,8-PeCDF-13C	2.0	76
2,3,7,8-TCDD	0.20	0.19	96	2,3,4,7,8-PeCDF-13C	2.0	74
Total TCDD				1,2,3,7,8-PeCDD-13C	2.0	87
				1,2,3,4,7,8-HxCDF-13C	2.0	61
1,2,3,7,8-PeCDF	1.0	0.93	93	1,2,3,6,7,8-HxCDF-13C	2.0	66
2,3,4,7,8-PeCDF	1.0	0.98	98	2,3,4,6,7,8-HxCDF-13C	2.0	63
Total PeCDF				1,2,3,7,8,9-HxCDF-13C	2.0	58
				1,2,3,4,7,8-HxCDD-13C	2.0	65
1,2,3,7,8-PeCDD	1.0	0.86	86	1,2,3,6,7,8-HxCDD-13C	2.0	60
Total PeCDD				1,2,3,4,6,7,8-HpCDF-13C	2.0	60
				1,2,3,4,7,8,9-HpCDF-13C	2.0	52
1,2,3,4,7,8-HxCDF	1.0	0.99	99	1,2,3,4,6,7,8-HpCDD-13C	2.0	64
1,2,3,6,7,8-HxCDF	1.0	0.97	97	OCDD-13C	4.0	48
2,3,4,6,7,8-HxCDF	1.0	0.89	89			
1,2,3,7,8,9-HxCDF	1.0	0.92	92	1,2,3,4-TCDD-13C	2.0	NA
Total HxCDF				1,2,3,7,8,9-HxCDD-13C	2.0	NA
1,2,3,4,7,8-HxCDD	1.0	0.96	96	2,3,7,8-TCDD-37Cl4	0.20	70
1,2,3,6,7,8-HxCDD	1.0	1.1	107			
1,2,3,7,8,9-HxCDD	1.0	0.99	99			
Total HxCDD						
1,2,3,4,6,7,8-HpCDF	1.0	0.99	99			
1,2,3,4,7,8,9-HpCDF	1.0	1.0	100			
Total HpCDF						
1,2,3,4,6,7,8-HpCDD	1.0	0.93	93			
Total HpCDD						
OCDF	2.0	1.8	92			
OCDD	2.0	2.1	105			

Qs = Quantity Spiked  
 Qm = Quantity Measured  
 Rec. = Recovery (Expressed as Percent)  
 R = Recovery outside of target range

Y = RF averaging used in calculations  
 Nn = Value obtained from additional analysis  
 NA = Not Applicable  
 \* = See Discussion

## REPORT OF LABORATORY ANALYSIS

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### Method 8290 Spiked Sample Report

Client - Pace Analytical National

Client's Sample ID	SL1-3-SU-12-MS	Matrix	Solid
Lab Sample ID	10481757018-MS	Dilution	NA
Filename	U190711B_02	Extracted	07/09/2019 17:45
Total Amount Extracted	13.5 g	Analyzed	07/11/2019 16:53
ICAL ID	U190709	Injected By	JRH
CCal Filename(s)	U190711A_09 & U190711B_16		
Method Blank ID	BLANK-71730		

Native Isomers	Qs (ng)	Qm (ng)	% Rec.	Internal Standards	ng's Added	Percent Recovery
2,3,7,8-TCDF	0.20	0.24	121	2,3,7,8-TCDF-13C	2.00	65
				2,3,7,8-TCDD-13C	2.00	65
				1,2,3,7,8-PeCDF-13C	2.00	66
2,3,7,8-TCDD	0.20	0.23	115	2,3,4,7,8-PeCDF-13C	2.00	68
				1,2,3,7,8-PeCDD-13C	2.00	70
				1,2,3,4,7,8-HxCDF-13C	2.00	66
1,2,3,7,8-PeCDF	1.00	1.04	104	1,2,3,6,7,8-HxCDF-13C	2.00	70
2,3,4,7,8-PeCDF	1.00	1.03	103	2,3,4,6,7,8-HxCDF-13C	2.00	66
				1,2,3,7,8,9-HxCDF-13C	2.00	65
				1,2,3,4,7,8-HxCDD-13C	2.00	59
1,2,3,7,8-PeCDD	1.00	0.93	93	1,2,3,6,7,8-HxCDD-13C	2.00	59
				1,2,3,4,6,7,8-HpCDF-13C	2.00	52
				1,2,3,4,7,8,9-HpCDF-13C	2.00	52
1,2,3,4,7,8-HxCDF	1.00	1.07	107	1,2,3,4,6,7,8-HpCDD-13C	2.00	54
1,2,3,6,7,8-HxCDF	1.00	1.05	105	OCDD-13C	4.00	44
2,3,4,6,7,8-HxCDF	1.00	1.00	100			
1,2,3,7,8,9-HxCDF	1.00	1.02	102	1,2,3,4-TCDD-13C	2.00	NA
				1,2,3,7,8,9-HxCDD-13C	2.00	NA
1,2,3,4,7,8-HxCDD	1.00	1.12	112	2,3,7,8-TCDD-37Cl4	0.20	78
1,2,3,6,7,8-HxCDD	1.00	1.20	120			
1,2,3,7,8,9-HxCDD	1.00	1.12	112			
1,2,3,4,6,7,8-HpCDF	1.00	1.19	119			
1,2,3,4,7,8,9-HpCDF	1.00	1.02	102			
1,2,3,4,6,7,8-HpCDD	1.00	1.53	153			
OCDF	2.00	2.55	128			
OCDD	2.00	17.70	885			

Qs = Quantity Spiked                      Qm = Quantity Measured                      Rec. = Recovery (Expressed as Percent)  
 Results reported on a dry weight basis and are valid to no more than 2 significant figures.

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### Method 8290 Spiked Sample Report

Client - Pace Analytical National

Client's Sample ID	SL1-3-SU-12-MSD	Matrix	Solid
Lab Sample ID	10481757018-MSD	Dilution	NA
Filename	U190711B_03	Extracted	07/09/2019 17:45
Total Amount Extracted	13.5 g	Analyzed	07/11/2019 17:35
ICAL ID	U190709	Injected By	JRH
CCal Filename(s)	U190711A_09 & U190711B_16		
Method Blank ID	BLANK-71730		

Native Isomers	Qs (ng)	Qm (ng)	% Rec.	Internal Standards	ng's Added	Percent Recovery
2,3,7,8-TCDF	0.20	0.26	128	2,3,7,8-TCDF-13C	2.00	68
				2,3,7,8-TCDD-13C	2.00	67
				1,2,3,7,8-PeCDF-13C	2.00	68
2,3,7,8-TCDD	0.20	0.24	118	2,3,4,7,8-PeCDF-13C	2.00	69
				1,2,3,7,8-PeCDD-13C	2.00	71
				1,2,3,4,7,8-HxCDF-13C	2.00	67
1,2,3,7,8-PeCDF	1.00	1.06	106	1,2,3,6,7,8-HxCDF-13C	2.00	72
2,3,4,7,8-PeCDF	1.00	1.06	106	2,3,4,6,7,8-HxCDF-13C	2.00	67
				1,2,3,7,8,9-HxCDF-13C	2.00	65
				1,2,3,4,7,8-HxCDD-13C	2.00	61
1,2,3,7,8-PeCDD	1.00	1.00	100	1,2,3,6,7,8-HxCDD-13C	2.00	60
				1,2,3,4,6,7,8-HpCDF-13C	2.00	55
				1,2,3,4,7,8,9-HpCDF-13C	2.00	53
1,2,3,4,7,8-HxCDF	1.00	1.07	107	1,2,3,4,6,7,8-HpCDD-13C	2.00	57
1,2,3,6,7,8-HxCDF	1.00	1.04	104	OCDD-13C	4.00	48
2,3,4,6,7,8-HxCDF	1.00	1.01	101			
1,2,3,7,8,9-HxCDF	1.00	1.01	101	1,2,3,4-TCDD-13C	2.00	NA
				1,2,3,7,8,9-HxCDD-13C	2.00	NA
1,2,3,4,7,8-HxCDD	1.00	1.08	108	2,3,7,8-TCDD-37Cl4	0.20	83
1,2,3,6,7,8-HxCDD	1.00	1.19	119			
1,2,3,7,8,9-HxCDD	1.00	1.05	105			
1,2,3,4,6,7,8-HpCDF	1.00	1.15	115			
1,2,3,4,7,8,9-HpCDF	1.00	1.03	103			
1,2,3,4,6,7,8-HpCDD	1.00	1.57	157			
OCDF	2.00	2.33	117			
OCDD	2.00	19.39	969			

Qs = Quantity Spiked                      Qm = Quantity Measured                      Rec. = Recovery (Expressed as Percent)  
 Results reported on a dry weight basis and are valid to no more than 2 significant figures.

## REPORT OF LABORATORY ANALYSIS

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### Method 8290 Spike Sample Results

Client - Pace Analytical National

Client Sample ID	SL1-3-SU-12			<u>Dry Weights</u>	
Lab Sample ID	10481757018	Sample Filename	U190711B_14	Sample Amount	2.99 g
MS ID	10481757018-MS	MS Filename	U190711B_02	MS Amount	3.0 g
MSD ID	10481757018-MSD	MSD Filename	U190711B_03	MSD Amount	3.0 g

Analyte	Sample Conc. ng/Kg	MS/MSD Qs (ng)	MS Qm (ng)	MSD Qm (ng)	RPD	Background Subtracted		
						MS % Rec.	MSD % Rec.	RPD
2,3,7,8-TCDF	7.201	0.20	0.24	0.26	5.1	111	117	5.6
2,3,7,8-TCDD	3.109	0.20	0.23	0.24	2.5	111	114	2.6
1,2,3,7,8-PeCDF	0.000	1.00	1.04	1.06	1.5	104	106	1.5
2,3,4,7,8-PeCDF	0.000	1.00	1.03	1.06	2.9	103	106	2.9
1,2,3,7,8-PeCDD	0.000	1.00	0.93	1.00	6.5	93	100	6.5
1,2,3,4,7,8-HxCDF	0.000	1.00	1.07	1.07	0.2	107	107	0.2
1,2,3,6,7,8-HxCDF	0.000	1.00	1.05	1.04	1.6	105	104	1.6
2,3,4,6,7,8-HxCDF	0.000	1.00	1.00	1.01	1.1	99	100	1.1
1,2,3,7,8,9-HxCDF	0.000	1.00	1.02	1.01	1.7	102	101	1.7
1,2,3,4,7,8-HxCDD	0.000	1.00	1.12	1.08	3.5	112	108	3.5
1,2,3,6,7,8-HxCDD	6.184	1.00	1.20	1.19	0.9	118	117	0.9
1,2,3,7,8,9-HxCDD	0.000	1.00	1.12	1.05	6.0	112	105	6.0
1,2,3,4,6,7,8-HpCDF	35.512	1.00	1.19	1.15	3.0	108	105	3.3
1,2,3,4,7,8,9-HpCDF	0.000	1.00	1.02	1.03	0.9	102	103	0.9
1,2,3,4,6,7,8-HpCDD	156.621	1.00	1.53	1.57	2.7	106	110	3.9
OCDF	90.290	2.00	2.55	2.33	9.0	114	103	10.1
OCDD	5031.918	2.00	17.70	19.39	9.1	131	215	49.0

#### Definitions

MS = Matrix Spike	CDD = Chlorinated dibenzo-p-dioxin
MSD = Matrix Spike Duplicate	CDF = Chlorinated dibenzo-p-furan
Qm = Quantity Measured	T = Tetra
Qs = Quantity Spiked	Pe = Penta
% Rec. = Percent Recovery	Hx = Hexa
RPD = Relative Percent Difference	Hp = Hepta
NA = Not Applicable	O = Octa
NC = Not Calculated	



July 15, 2019

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

## S&ME Inc. - Spartanburg SC

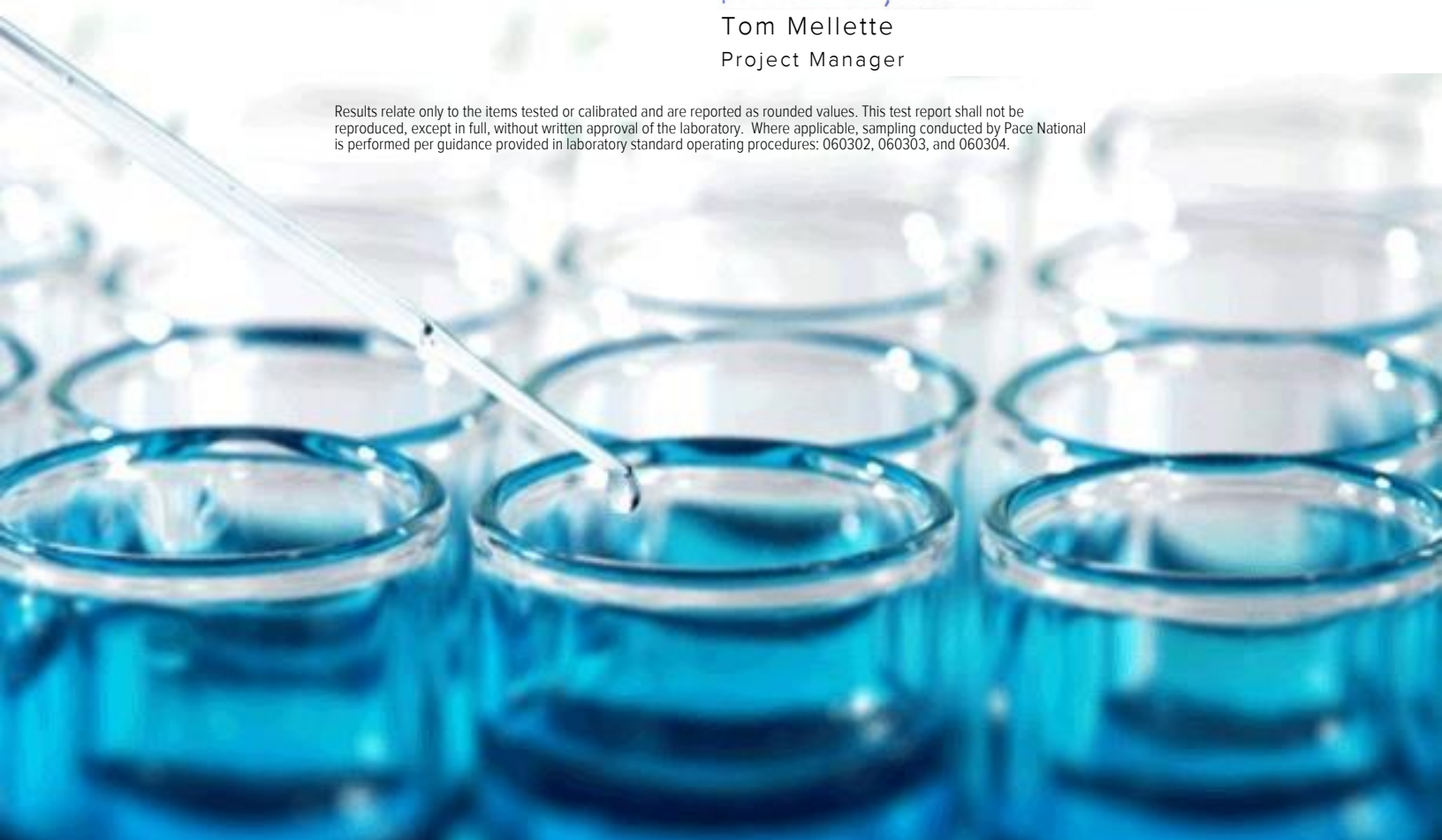
Sample Delivery Group: L1113939  
Samples Received: 06/28/2019  
Project Number: 4213-18-087  
Description: Project Columbia  
Site: COLUMBIA  
Report To: Scott Dacus  
301 Zima Park Drive  
Spartanburg, SC 29301

Entire Report Reviewed By:



Tom Mellette  
Project Manager

Results relate only to the items tested or calibrated and are reported as rounded values. This test report shall not be reproduced, except in full, without written approval of the laboratory. Where applicable, sampling conducted by Pace National is performed per guidance provided in laboratory standard operating procedures: 060302, 060303, and 060304.





<b>Cp: Cover Page</b>	<b>1</b>
<b>Tc: Table of Contents</b>	<b>2</b>
<b>Ss: Sample Summary</b>	<b>3</b>
<b>Cn: Case Narrative</b>	<b>9</b>
<b>Sr: Sample Results</b>	<b>10</b>
SL1-3-SU-24 L1113939-01	10
SL1-3-SU-20 L1113939-02	15
SL1-4-SU-15 L1113939-03	20
CM-DUP-SU-2 L1113939-04	25
SL1-5-SU-6 L1113939-05	30
SL1-4-SU-12 L1113939-06	35
SL1-2-SU-18 L1113939-07	40
SL1-3-SU-16 L1113939-08	45
SL1-3-SU-4 L1113939-09	50
SL1-2-SU-14 L1113939-10	55
SL1-1-SU-10 L1113939-11	60
SL1-1-SU-5 L1113939-12	65
SL1-1-SU-20 L1113939-13	70
SL1-1-SU-14 L1113939-14	75
SL1-4-SU-8 L1113939-15	80
SL1-5-SU-10 L1113939-16	85
SL1-3-SU-8 L1113939-17	90
SL1-3-SU-12 L1113939-18	95
SL1-6-SU-11 L1113939-19	100
SL1-6-SU-8 L1113939-20	105
<b>Qc: Quality Control Summary</b>	<b>110</b>
Total Solids by Method 2540 G-2011	110
Wet Chemistry by Method 9012B	113
Mercury by Method 7471B	117
Metals (ICP) by Method 6010D	118
Volatile Organic Compounds (GC/MS) by Method 8260B	120
Pesticides (GC) by Method 8081B	123
Polychlorinated Biphenyls (GC) by Method 8082 A	129
Semi Volatile Organic Compounds (GC/MS) by Method 8270D	132
Semi Volatile Organic Compounds (GC/MS) by Method 8270E-SIM	156
<b>Gl: Glossary of Terms</b>	<b>162</b>
<b>Al: Accreditations &amp; Locations</b>	<b>164</b>
<b>Sc: Sample Chain of Custody</b>	<b>165</b>

1 Cp
2 Tc
3 Ss
4 Cn
5 Sr
6 Qc
7 Gl
8 Al
9 Sc

# SAMPLE SUMMARY

## SL1-3-SU-24 L1113939-01 Solid

Collected by  
Kevin McIntyre  
Collected date/time  
06/26/19 12:12  
Received date/time  
06/28/19 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1307001	1	07/06/19 15:23	07/06/19 15:39	KBC	Mt. Juliet, TN
Wet Chemistry by Method 9012B	WG1308667	1	07/10/19 11:15	07/10/19 17:02	JER	Mt. Juliet, TN
Mercury by Method 7471B	WG1306876	1	07/05/19 11:51	07/07/19 13:24	TCT	Mt. Juliet, TN
Metals (ICP) by Method 6010D	WG1306898	1	07/05/19 13:44	07/07/19 22:00	CCE	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1307049	1.57	06/26/19 12:12	07/07/19 12:26	ACG	Mt. Juliet, TN
Pesticides (GC) by Method 8081B	WG1306674	1	07/06/19 19:34	07/07/19 17:12	LEL	Mt. Juliet, TN
Polychlorinated Biphenyls (GC) by Method 8082 A	WG1306674	1	07/06/19 19:34	07/07/19 16:44	MTJ	Mt. Juliet, TN
Semi Volatile Organic Compounds (GC/MS) by Method 8270D	WG1307389	1	07/09/19 09:28	07/09/19 21:32	JNJ	Mt. Juliet, TN
Semi Volatile Organic Compounds (GC/MS) by Method 8270D	WG1307389	2	07/09/19 09:28	07/11/19 00:49	JNJ	Mt. Juliet, TN
Semi Volatile Organic Compounds (GC/MS) by Method 8270E-SIM	WG1307402	1	07/08/19 07:46	07/08/19 20:50	LEA	Mt. Juliet, TN

- 1 Cp
- 2 Tc
- 3 Ss
- 4 Cn
- 5 Sr
- 6 Qc
- 7 Gl
- 8 Al
- 9 Sc

## SL1-3-SU-20 L1113939-02 Solid

Collected by  
Kevin McIntyre  
Collected date/time  
06/26/19 12:04  
Received date/time  
06/28/19 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1307001	1	07/06/19 15:23	07/06/19 15:39	KBC	Mt. Juliet, TN
Wet Chemistry by Method 9012B	WG1308667	1	07/10/19 11:15	07/10/19 17:06	JER	Mt. Juliet, TN
Mercury by Method 7471B	WG1306876	1	07/05/19 11:51	07/07/19 13:26	TCT	Mt. Juliet, TN
Metals (ICP) by Method 6010D	WG1306898	1	07/05/19 13:44	07/07/19 22:03	CCE	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1307049	1.1	06/26/19 12:04	07/07/19 12:46	ACG	Mt. Juliet, TN
Pesticides (GC) by Method 8081B	WG1306674	1	07/06/19 19:34	07/07/19 17:25	LEL	Mt. Juliet, TN
Polychlorinated Biphenyls (GC) by Method 8082 A	WG1306674	1	07/06/19 19:34	07/07/19 15:48	MTJ	Mt. Juliet, TN
Semi Volatile Organic Compounds (GC/MS) by Method 8270D	WG1307389	1	07/09/19 09:28	07/09/19 21:54	JNJ	Mt. Juliet, TN
Semi Volatile Organic Compounds (GC/MS) by Method 8270D	WG1307389	2	07/09/19 09:28	07/11/19 01:11	JNJ	Mt. Juliet, TN
Semi Volatile Organic Compounds (GC/MS) by Method 8270E-SIM	WG1307402	1	07/08/19 07:46	07/08/19 22:34	LEA	Mt. Juliet, TN

## SL1-4-SU-15 L1113939-03 Solid

Collected by  
Kevin McIntyre  
Collected date/time  
06/26/19 16:05  
Received date/time  
06/28/19 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1307001	1	07/06/19 15:23	07/06/19 15:39	KBC	Mt. Juliet, TN
Wet Chemistry by Method 9012B	WG1308667	1	07/10/19 11:15	07/10/19 17:07	JER	Mt. Juliet, TN
Mercury by Method 7471B	WG1306876	1	07/05/19 11:51	07/07/19 13:28	TCT	Mt. Juliet, TN
Metals (ICP) by Method 6010D	WG1306898	1	07/05/19 13:44	07/07/19 22:11	CCE	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1307049	1	06/26/19 16:05	07/07/19 13:07	ACG	Mt. Juliet, TN
Pesticides (GC) by Method 8081B	WG1307387	1	07/09/19 06:53	07/09/19 16:48	LEL	Mt. Juliet, TN
Polychlorinated Biphenyls (GC) by Method 8082 A	WG1307387	1	07/09/19 06:53	07/09/19 15:38	MTJ	Mt. Juliet, TN
Semi Volatile Organic Compounds (GC/MS) by Method 8270D	WG1307389	1	07/09/19 09:28	07/11/19 06:21	JNJ	Mt. Juliet, TN
Semi Volatile Organic Compounds (GC/MS) by Method 8270D	WG1307389	2	07/09/19 09:28	07/12/19 12:54	SNR	Mt. Juliet, TN
Semi Volatile Organic Compounds (GC/MS) by Method 8270E-SIM	WG1307402	1	07/08/19 07:46	07/08/19 21:11	LEA	Mt. Juliet, TN

## CM-DUP-SU-2 L1113939-04 Solid

Collected by  
Kevin McIntyre  
Collected date/time  
06/26/19 15:50  
Received date/time  
06/28/19 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1307001	1	07/06/19 15:23	07/06/19 15:39	KBC	Mt. Juliet, TN
Wet Chemistry by Method 9012B	WG1308667	1	07/10/19 11:15	07/10/19 17:08	JER	Mt. Juliet, TN
Mercury by Method 7471B	WG1306876	1	07/05/19 11:51	07/07/19 13:31	TCT	Mt. Juliet, TN
Metals (ICP) by Method 6010D	WG1306898	1	07/05/19 13:44	07/07/19 22:14	CCE	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1307049	1.47	06/26/19 15:50	07/07/19 13:42	ACG	Mt. Juliet, TN
Pesticides (GC) by Method 8081B	WG1307387	1	07/09/19 06:53	07/09/19 17:00	LEL	Mt. Juliet, TN
Polychlorinated Biphenyls (GC) by Method 8082 A	WG1307387	1	07/09/19 06:53	07/09/19 16:16	MTJ	Mt. Juliet, TN
Semi Volatile Organic Compounds (GC/MS) by Method 8270D	WG1307389	1	07/09/19 09:28	07/10/19 00:53	JNJ	Mt. Juliet, TN

# SAMPLE SUMMARY



## CM-DUP-SU-2 L1113939-04 Solid

Collected by Kevin McIntyre    Collected date/time 06/26/19 15:50    Received date/time 06/28/19 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Semi Volatile Organic Compounds (GC/MS) by Method 8270E-SIM	WG1307402	1	07/08/19 07:46	07/08/19 21:32	LEA	Mt. Juliet, TN

- 1 Cp
- 2 Tc
- 3 Ss
- 4 Cn
- 5 Sr
- 6 Qc
- 7 Gl
- 8 Al
- 9 Sc

## SL1-5-SU-6 L1113939-05 Solid

Collected by Kevin McIntyre    Collected date/time 06/26/19 13:50    Received date/time 06/28/19 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1307003	1	07/05/19 17:02	07/05/19 17:10	KBC	Mt. Juliet, TN
Wet Chemistry by Method 9012B	WG1308667	1	07/10/19 11:15	07/10/19 17:09	JER	Mt. Juliet, TN
Mercury by Method 7471B	WG1306876	1	07/05/19 11:51	07/07/19 13:38	TCT	Mt. Juliet, TN
Metals (ICP) by Method 6010D	WG1306898	1	07/05/19 13:44	07/07/19 22:17	CCE	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1307049	1.01	06/26/19 13:50	07/07/19 14:02	ACG	Mt. Juliet, TN
Pesticides (GC) by Method 8081B	WG1307387	1	07/09/19 06:53	07/09/19 17:12	LEL	Mt. Juliet, TN
Polychlorinated Biphenyls (GC) by Method 8082 A	WG1307387	1	07/09/19 06:53	07/09/19 16:28	MTJ	Mt. Juliet, TN
Semi Volatile Organic Compounds (GC/MS) by Method 8270D	WG1307389	5	07/09/19 09:28	07/10/19 23:20	JNJ	Mt. Juliet, TN
Semi Volatile Organic Compounds (GC/MS) by Method 8270E-SIM	WG1307549	1	07/08/19 06:48	07/09/19 03:21	DMG	Mt. Juliet, TN

## SL1-4-SU-12 L1113939-06 Solid

Collected by Kevin McIntyre    Collected date/time 06/26/19 16:00    Received date/time 06/28/19 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1307003	1	07/05/19 17:02	07/05/19 17:10	KBC	Mt. Juliet, TN
Wet Chemistry by Method 9012B	WG1308667	1	07/10/19 11:15	07/10/19 17:10	JER	Mt. Juliet, TN
Mercury by Method 7471B	WG1306876	1	07/05/19 11:51	07/07/19 13:40	TCT	Mt. Juliet, TN
Metals (ICP) by Method 6010D	WG1306898	1	07/05/19 13:44	07/07/19 21:47	CCE	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1307049	1.1	06/26/19 16:00	07/07/19 14:22	ACG	Mt. Juliet, TN
Pesticides (GC) by Method 8081B	WG1307387	1	07/09/19 06:53	07/09/19 17:25	LEL	Mt. Juliet, TN
Polychlorinated Biphenyls (GC) by Method 8082 A	WG1307387	1	07/09/19 06:53	07/09/19 16:41	MTJ	Mt. Juliet, TN
Semi Volatile Organic Compounds (GC/MS) by Method 8270D	WG1307389	1	07/09/19 09:28	07/10/19 01:16	JNJ	Mt. Juliet, TN
Semi Volatile Organic Compounds (GC/MS) by Method 8270D	WG1307389	2	07/09/19 09:28	07/11/19 02:16	JNJ	Mt. Juliet, TN
Semi Volatile Organic Compounds (GC/MS) by Method 8270E-SIM	WG1307549	1	07/08/19 06:48	07/09/19 03:41	DMG	Mt. Juliet, TN

## SL1-2-SU-18 L1113939-07 Solid

Collected by Kevin McIntyre    Collected date/time 06/26/19 11:09    Received date/time 06/28/19 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1307003	1	07/05/19 17:02	07/05/19 17:10	KBC	Mt. Juliet, TN
Wet Chemistry by Method 9012B	WG1308667	1	07/10/19 11:15	07/10/19 17:11	JER	Mt. Juliet, TN
Mercury by Method 7471B	WG1306876	1	07/05/19 11:51	07/07/19 13:16	TCT	Mt. Juliet, TN
Metals (ICP) by Method 6010D	WG1306898	1	07/05/19 13:44	07/07/19 22:20	CCE	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1307049	1	06/26/19 11:09	07/07/19 14:43	ACG	Mt. Juliet, TN
Pesticides (GC) by Method 8081B	WG1307387	1	07/09/19 06:53	07/09/19 17:37	LEL	Mt. Juliet, TN
Polychlorinated Biphenyls (GC) by Method 8082 A	WG1307387	1	07/09/19 06:53	07/15/19 12:44	RP	Mt. Juliet, TN
Semi Volatile Organic Compounds (GC/MS) by Method 8270D	WG1307389	1	07/09/19 09:28	07/10/19 00:09	JNJ	Mt. Juliet, TN
Semi Volatile Organic Compounds (GC/MS) by Method 8270D	WG1307389	2	07/09/19 09:28	07/11/19 01:34	JNJ	Mt. Juliet, TN
Semi Volatile Organic Compounds (GC/MS) by Method 8270E-SIM	WG1307549	1	07/08/19 06:48	07/09/19 04:02	DMG	Mt. Juliet, TN

# SAMPLE SUMMARY



## SL1-3-SU-16 L1113939-08 Solid

Collected by  
Kevin McIntyre  
Collected date/time  
06/26/19 11:59  
Received date/time  
06/28/19 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1307003	1	07/05/19 17:02	07/05/19 17:10	KBC	Mt. Juliet, TN
Wet Chemistry by Method 9012B	WG1308667	1	07/10/19 11:15	07/10/19 17:12	JER	Mt. Juliet, TN
Mercury by Method 7471B	WG1306876	1	07/05/19 11:51	07/07/19 13:43	TCT	Mt. Juliet, TN
Metals (ICP) by Method 6010D	WG1306898	1	07/05/19 13:44	07/07/19 22:23	CCE	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1307049	1.4	06/26/19 11:59	07/07/19 15:03	ACG	Mt. Juliet, TN
Pesticides (GC) by Method 8081B	WG1307387	1	07/09/19 06:53	07/09/19 17:50	LEL	Mt. Juliet, TN
Polychlorinated Biphenyls (GC) by Method 8082 A	WG1307387	1	07/09/19 06:53	07/09/19 17:18	MTJ	Mt. Juliet, TN
Semi Volatile Organic Compounds (GC/MS) by Method 8270D	WG1306496	20	07/08/19 09:40	07/10/19 21:05	JNJ	Mt. Juliet, TN
Semi Volatile Organic Compounds (GC/MS) by Method 8270E-SIM	WG1307549	1	07/08/19 06:48	07/09/19 04:23	DMG	Mt. Juliet, TN

- 1  
Cp
- 2  
Tc
- 3  
Ss
- 4  
Cn
- 5  
Sr
- 6  
Qc
- 7  
Gl
- 8  
Al
- 9  
Sc

## SL1-3-SU-4 L1113939-09 Solid

Collected by  
Kevin McIntyre  
Collected date/time  
06/26/19 11:40  
Received date/time  
06/28/19 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1307003	1	07/05/19 17:02	07/05/19 17:10	KBC	Mt. Juliet, TN
Wet Chemistry by Method 9012B	WG1308667	1	07/10/19 11:15	07/10/19 17:13	JER	Mt. Juliet, TN
Mercury by Method 7471B	WG1306876	1	07/05/19 11:51	07/07/19 13:45	TCT	Mt. Juliet, TN
Metals (ICP) by Method 6010D	WG1306898	1	07/05/19 13:44	07/07/19 22:26	CCE	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1307049	1.37	06/26/19 11:40	07/07/19 15:23	ACG	Mt. Juliet, TN
Pesticides (GC) by Method 8081B	WG1307387	1	07/09/19 06:53	07/09/19 18:02	LEL	Mt. Juliet, TN
Polychlorinated Biphenyls (GC) by Method 8082 A	WG1307387	1	07/09/19 06:53	07/09/19 17:30	MTJ	Mt. Juliet, TN
Semi Volatile Organic Compounds (GC/MS) by Method 8270D	WG1306496	1	07/08/19 09:40	07/11/19 00:04	JF	Mt. Juliet, TN
Semi Volatile Organic Compounds (GC/MS) by Method 8270E-SIM	WG1307549	1	07/08/19 06:48	07/09/19 04:44	DMG	Mt. Juliet, TN

## SL1-2-SU-14 L1113939-10 Solid

Collected by  
Kevin McIntyre  
Collected date/time  
06/26/19 11:00  
Received date/time  
06/28/19 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1307003	1	07/05/19 17:02	07/05/19 17:10	KBC	Mt. Juliet, TN
Wet Chemistry by Method 9012B	WG1308669	1	07/10/19 13:58	07/11/19 09:41	JER	Mt. Juliet, TN
Mercury by Method 7471B	WG1306876	1	07/05/19 11:51	07/07/19 13:47	TCT	Mt. Juliet, TN
Metals (ICP) by Method 6010D	WG1306898	1	07/05/19 13:44	07/07/19 22:29	CCE	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1307049	1.32	06/26/19 11:00	07/07/19 18:07	ACG	Mt. Juliet, TN
Pesticides (GC) by Method 8081B	WG1307387	1	07/09/19 06:53	07/09/19 18:14	LEL	Mt. Juliet, TN
Polychlorinated Biphenyls (GC) by Method 8082 A	WG1307387	1	07/09/19 06:53	07/09/19 17:43	MTJ	Mt. Juliet, TN
Semi Volatile Organic Compounds (GC/MS) by Method 8270D	WG1307893	1	07/08/19 16:20	07/09/19 07:40	JNJ	Mt. Juliet, TN
Semi Volatile Organic Compounds (GC/MS) by Method 8270E-SIM	WG1307549	1	07/08/19 06:48	07/09/19 05:05	DMG	Mt. Juliet, TN

## SL1-1-SU-10 L1113939-11 Solid

Collected by  
Kevin McIntyre  
Collected date/time  
06/26/19 09:32  
Received date/time  
06/28/19 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1307003	1	07/05/19 17:02	07/05/19 17:10	KBC	Mt. Juliet, TN
Wet Chemistry by Method 9012B	WG1308669	1	07/10/19 13:58	07/11/19 09:42	JER	Mt. Juliet, TN
Mercury by Method 7471B	WG1306876	1	07/05/19 11:51	07/07/19 13:50	TCT	Mt. Juliet, TN
Metals (ICP) by Method 6010D	WG1306898	1	07/05/19 13:44	07/07/19 22:32	CCE	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1307049	1.8	06/26/19 09:32	07/07/19 18:27	ACG	Mt. Juliet, TN
Pesticides (GC) by Method 8081B	WG1307387	1	07/09/19 06:53	07/09/19 18:27	LEL	Mt. Juliet, TN
Polychlorinated Biphenyls (GC) by Method 8082 A	WG1307387	1	07/09/19 06:53	07/09/19 17:55	MTJ	Mt. Juliet, TN
Semi Volatile Organic Compounds (GC/MS) by Method 8270D	WG1307893	1	07/08/19 16:20	07/09/19 07:59	JNJ	Mt. Juliet, TN
Semi Volatile Organic Compounds (GC/MS) by Method 8270E-SIM	WG1307549	1	07/08/19 06:48	07/09/19 05:25	DMG	Mt. Juliet, TN

# SAMPLE SUMMARY

## SL1-1-SU-5 L1113939-12 Solid

Collected by: Kevin McIntyre  
 Collected date/time: 06/26/19 09:20  
 Received date/time: 06/28/19 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1307003	1	07/05/19 17:02	07/05/19 17:10	KBC	Mt. Juliet, TN
Wet Chemistry by Method 9012B	WG1308669	1	07/10/19 13:58	07/11/19 09:43	JER	Mt. Juliet, TN
Mercury by Method 7471B	WG1306876	1	07/05/19 11:51	07/07/19 13:52	TCT	Mt. Juliet, TN
Metals (ICP) by Method 6010D	WG1306898	1	07/05/19 13:44	07/07/19 22:34	CCE	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1307049	1.1	06/26/19 09:20	07/07/19 18:47	ACG	Mt. Juliet, TN
Pesticides (GC) by Method 8081B	WG1307387	1	07/09/19 06:53	07/09/19 18:39	LEL	Mt. Juliet, TN
Polychlorinated Biphenyls (GC) by Method 8082 A	WG1307387	1	07/09/19 06:53	07/09/19 18:08	MTJ	Mt. Juliet, TN
Semi Volatile Organic Compounds (GC/MS) by Method 8270D	WG1307893	1	07/08/19 16:20	07/09/19 08:18	JNJ	Mt. Juliet, TN
Semi Volatile Organic Compounds (GC/MS) by Method 8270E-SIM	WG1307549	1	07/08/19 06:48	07/09/19 05:46	DMG	Mt. Juliet, TN

- 1 Cp
- 2 Tc
- 3 Ss
- 4 Cn
- 5 Sr
- 6 Qc
- 7 Gl
- 8 Al
- 9 Sc

## SL1-1-SU-20 L1113939-13 Solid

Collected by: Kevin McIntyre  
 Collected date/time: 06/26/19 09:52  
 Received date/time: 06/28/19 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1307003	1	07/05/19 17:02	07/05/19 17:10	KBC	Mt. Juliet, TN
Wet Chemistry by Method 9012B	WG1308669	1	07/10/19 13:58	07/11/19 09:45	JER	Mt. Juliet, TN
Mercury by Method 7471B	WG1306876	1	07/05/19 11:51	07/07/19 13:55	TCT	Mt. Juliet, TN
Metals (ICP) by Method 6010D	WG1306898	1	07/05/19 13:44	07/07/19 22:37	CCE	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1307049	1	06/26/19 09:52	07/07/19 19:07	ACG	Mt. Juliet, TN
Pesticides (GC) by Method 8081B	WG1307387	1	07/09/19 06:53	07/09/19 18:52	LEL	Mt. Juliet, TN
Polychlorinated Biphenyls (GC) by Method 8082 A	WG1307387	1	07/09/19 06:53	07/09/19 18:20	MTJ	Mt. Juliet, TN
Semi Volatile Organic Compounds (GC/MS) by Method 8270D	WG1307893	1	07/08/19 16:20	07/09/19 08:38	JNJ	Mt. Juliet, TN
Semi Volatile Organic Compounds (GC/MS) by Method 8270E-SIM	WG1307909	1	07/09/19 10:52	07/09/19 17:28	LEA	Mt. Juliet, TN

## SL1-1-SU-14 L1113939-14 Solid

Collected by: Kevin McIntyre  
 Collected date/time: 06/26/19 09:40  
 Received date/time: 06/28/19 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1307003	1	07/05/19 17:02	07/05/19 17:10	KBC	Mt. Juliet, TN
Wet Chemistry by Method 9012B	WG1308669	1	07/10/19 13:58	07/11/19 09:46	JER	Mt. Juliet, TN
Mercury by Method 7471B	WG1306876	1	07/05/19 11:51	07/07/19 13:57	TCT	Mt. Juliet, TN
Metals (ICP) by Method 6010D	WG1306898	1	07/05/19 13:44	07/07/19 22:46	CCE	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1307049	1	06/26/19 09:40	07/07/19 19:28	ACG	Mt. Juliet, TN
Pesticides (GC) by Method 8081B	WG1307387	1	07/09/19 06:53	07/09/19 19:04	LEL	Mt. Juliet, TN
Polychlorinated Biphenyls (GC) by Method 8082 A	WG1307387	1	07/09/19 06:53	07/09/19 18:33	MTJ	Mt. Juliet, TN
Semi Volatile Organic Compounds (GC/MS) by Method 8270D	WG1308594	1	07/10/19 06:17	07/11/19 03:45	JNJ	Mt. Juliet, TN
Semi Volatile Organic Compounds (GC/MS) by Method 8270E-SIM	WG1307909	1	07/09/19 10:52	07/09/19 17:48	LEA	Mt. Juliet, TN

## SL1-4-SU-8 L1113939-15 Solid

Collected by: Kevin McIntyre  
 Collected date/time: 06/26/19 15:48  
 Received date/time: 06/28/19 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1307004	1	07/06/19 15:12	07/06/19 15:21	KBC	Mt. Juliet, TN
Wet Chemistry by Method 9012B	WG1308669	1	07/10/19 13:58	07/11/19 09:52	JER	Mt. Juliet, TN
Mercury by Method 7471B	WG1306876	1	07/05/19 11:51	07/07/19 14:00	TCT	Mt. Juliet, TN
Metals (ICP) by Method 6010D	WG1306898	1	07/05/19 13:44	07/07/19 22:48	CCE	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1307049	1	06/26/19 15:48	07/07/19 19:48	ACG	Mt. Juliet, TN
Pesticides (GC) by Method 8081B	WG1307387	1	07/09/19 06:53	07/09/19 19:17	LEL	Mt. Juliet, TN
Polychlorinated Biphenyls (GC) by Method 8082 A	WG1307387	1	07/09/19 06:53	07/09/19 18:45	MTJ	Mt. Juliet, TN
Semi Volatile Organic Compounds (GC/MS) by Method 8270D	WG1308594	200	07/10/19 06:17	07/12/19 13:14	SNR	Mt. Juliet, TN
Semi Volatile Organic Compounds (GC/MS) by Method 8270E-SIM	WG1307909	1	07/09/19 10:52	07/09/19 18:09	LEA	Mt. Juliet, TN



# SAMPLE SUMMARY

## SL1-5-SU-10 L1113939-16 Solid

Collected by  
Kevin McIntyre  
Collected date/time  
06/26/19 13:58  
Received date/time  
06/28/19 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1307004	1	07/06/19 15:12	07/06/19 15:21	KBC	Mt. Juliet, TN
Wet Chemistry by Method 9012B	WG1308669	1	07/10/19 13:58	07/11/19 09:53	JER	Mt. Juliet, TN
Mercury by Method 7471B	WG1306876	1	07/05/19 11:51	07/07/19 14:07	TCT	Mt. Juliet, TN
Metals (ICP) by Method 6010D	WG1306898	1	07/05/19 13:44	07/07/19 22:51	CCE	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1307049	1.07	06/26/19 13:58	07/07/19 20:08	ACG	Mt. Juliet, TN
Pesticides (GC) by Method 8081B	WG1307387	1	07/09/19 06:53	07/09/19 19:29	LEL	Mt. Juliet, TN
Polychlorinated Biphenyls (GC) by Method 8082 A	WG1307387	1	07/09/19 06:53	07/09/19 18:58	MTJ	Mt. Juliet, TN
Semi Volatile Organic Compounds (GC/MS) by Method 8270D	WG1308594	1	07/10/19 06:17	07/11/19 03:01	JF	Mt. Juliet, TN
Semi Volatile Organic Compounds (GC/MS) by Method 8270E-SIM	WG1307909	1	07/09/19 10:52	07/09/19 18:51	LEA	Mt. Juliet, TN

1  
Cp

2  
Tc

3  
Ss

4  
Cn

5  
Sr

6  
Qc

7  
Gl

8  
Al

9  
Sc

## SL1-3-SU-8 L1113939-17 Solid

Collected by  
Kevin McIntyre  
Collected date/time  
06/26/19 11:48  
Received date/time  
06/28/19 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1307004	1	07/06/19 15:12	07/06/19 15:21	KBC	Mt. Juliet, TN
Wet Chemistry by Method 9012B	WG1308669	1	07/10/19 13:58	07/11/19 09:54	JER	Mt. Juliet, TN
Mercury by Method 7471B	WG1306876	1	07/05/19 11:51	07/07/19 14:09	TCT	Mt. Juliet, TN
Metals (ICP) by Method 6010D	WG1306898	1	07/05/19 13:44	07/07/19 22:54	CCE	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1307049	1	06/26/19 11:48	07/07/19 20:29	ACG	Mt. Juliet, TN
Pesticides (GC) by Method 8081B	WG1307387	1	07/09/19 06:53	07/09/19 19:42	LEL	Mt. Juliet, TN
Polychlorinated Biphenyls (GC) by Method 8082 A	WG1307387	1	07/09/19 06:53	07/09/19 19:10	MTJ	Mt. Juliet, TN
Semi Volatile Organic Compounds (GC/MS) by Method 8270D	WG1308594	1	07/10/19 06:17	07/11/19 20:07	LEA	Mt. Juliet, TN
Semi Volatile Organic Compounds (GC/MS) by Method 8270E-SIM	WG1307909	1	07/09/19 10:52	07/09/19 19:11	LEA	Mt. Juliet, TN

## SL1-3-SU-12 L1113939-18 Solid

Collected by  
Kevin McIntyre  
Collected date/time  
06/26/19 11:53  
Received date/time  
06/28/19 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1307004	1	07/06/19 15:12	07/06/19 15:21	KBC	Mt. Juliet, TN
Wet Chemistry by Method 9012B	WG1308669	1	07/10/19 13:58	07/11/19 09:55	JER	Mt. Juliet, TN
Mercury by Method 7471B	WG1306876	1	07/05/19 11:51	07/07/19 14:18	TCT	Mt. Juliet, TN
Metals (ICP) by Method 6010D	WG1306898	1	07/05/19 13:44	07/07/19 22:57	CCE	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1307049	1	06/26/19 11:53	07/07/19 20:49	ACG	Mt. Juliet, TN
Pesticides (GC) by Method 8081B	WG1307387	1	07/09/19 06:53	07/09/19 19:54	LEL	Mt. Juliet, TN
Polychlorinated Biphenyls (GC) by Method 8082 A	WG1307387	1	07/09/19 06:53	07/09/19 19:23	MTJ	Mt. Juliet, TN
Semi Volatile Organic Compounds (GC/MS) by Method 8270D	WG1308594	1	07/10/19 06:17	07/11/19 20:27	LEA	Mt. Juliet, TN
Semi Volatile Organic Compounds (GC/MS) by Method 8270E-SIM	WG1307909	1	07/09/19 10:52	07/09/19 19:32	LEA	Mt. Juliet, TN

## SL1-6-SU-11 L1113939-19 Solid

Collected by  
Kevin McIntyre  
Collected date/time  
06/26/19 15:00  
Received date/time  
06/28/19 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1307004	1	07/06/19 15:12	07/06/19 15:21	KBC	Mt. Juliet, TN
Wet Chemistry by Method 9012B	WG1308669	1	07/10/19 13:58	07/11/19 09:56	JER	Mt. Juliet, TN
Mercury by Method 7471B	WG1306876	1	07/05/19 11:51	07/07/19 14:21	TCT	Mt. Juliet, TN
Metals (ICP) by Method 6010D	WG1306898	1	07/05/19 13:44	07/07/19 23:00	CCE	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1307049	8	06/26/19 15:00	07/07/19 21:30	ACG	Mt. Juliet, TN
Pesticides (GC) by Method 8081B	WG1307388	1	07/09/19 07:23	07/10/19 17:52	LEL	Mt. Juliet, TN
Polychlorinated Biphenyls (GC) by Method 8082 A	WG1307388	1	07/09/19 07:23	07/09/19 12:43	MTJ	Mt. Juliet, TN
Semi Volatile Organic Compounds (GC/MS) by Method 8270D	WG1308594	10	07/10/19 06:17	07/11/19 04:30	JNJ	Mt. Juliet, TN
Semi Volatile Organic Compounds (GC/MS) by Method 8270E-SIM	WG1307909	1	07/09/19 10:52	07/09/19 19:53	LEA	Mt. Juliet, TN



# SAMPLE SUMMARY



SL1-6-SU-8 L1113939-20 Solid

Collected by: Kevin McIntyre  
 Collected date/time: 06/26/19 14:53  
 Received date/time: 06/28/19 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1307004	1	07/06/19 15:12	07/06/19 15:21	KBC	Mt. Juliet, TN
Wet Chemistry by Method 9012B	WG1308669	1	07/10/19 13:58	07/11/19 09:57	JER	Mt. Juliet, TN
Mercury by Method 7471B	WG1306876	1	07/05/19 11:51	07/07/19 14:23	TCT	Mt. Juliet, TN
Metals (ICP) by Method 6010D	WG1306898	1	07/05/19 13:44	07/07/19 23:03	CCE	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1307049	1	06/26/19 14:53	07/07/19 21:10	ACG	Mt. Juliet, TN
Pesticides (GC) by Method 8081B	WG1307388	1	07/09/19 07:23	07/09/19 16:18	LEL	Mt. Juliet, TN
Polychlorinated Biphenyls (GC) by Method 8082 A	WG1307388	1	07/09/19 07:23	07/09/19 12:57	MTJ	Mt. Juliet, TN
Semi Volatile Organic Compounds (GC/MS) by Method 8270D	WG1308594	1	07/10/19 06:17	07/11/19 03:23	JNJ	Mt. Juliet, TN
Semi Volatile Organic Compounds (GC/MS) by Method 8270E-SIM	WG1307909	1	07/09/19 10:52	07/09/19 20:14	LEA	Mt. Juliet, TN

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc



All sample aliquots were received at the correct temperature, in the proper containers, with the appropriate preservatives, and within method specified holding times, unless qualified or notated within the report. Where applicable, all MDL (LOD) and RDL (LOQ) values reported for environmental samples have been corrected for the dilution factor used in the analysis. All Method and Batch Quality Control are within established criteria except where addressed in this case narrative, a non-conformance form or properly qualified within the sample results. By my digital signature below, I affirm to the best of my knowledge, all problems/anomalies observed by the laboratory as having the potential to affect the quality of the data have been identified by the laboratory, and no information or data have been knowingly withheld that would affect the quality of the data.

Tom Mellette  
Project Manager

### Project Narrative

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Sample ID L1133939-09 and 16 had low surrogate recoveries due to a potential analyst error in the surrogate spiking procedure during the original extractions. These samples were re-extracted on day 15 to confirm matrix effect or analyst error. Both analysis runs yielded non-detect for all 8270TCL compounds. The re-extraction data all surrogate recoveries were in the normal window range confirming analyst spiking error.

- <sup>1</sup> Cp
- <sup>2</sup> Tc
- <sup>3</sup> Ss
- <sup>4</sup> Cn
- <sup>5</sup> Sr
- <sup>6</sup> Qc
- <sup>7</sup> Gl
- <sup>8</sup> Al
- <sup>9</sup> Sc



## Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	16.1		1	07/06/2019 15:39	<a href="#">WG1307001</a>

## Wet Chemistry by Method 9012B

Analyte	Result (dry)	Qualifier	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg		date / time	
Cyanide	ND		1.56	1	07/10/2019 17:02	<a href="#">WG1308667</a>

## Mercury by Method 7471B

Analyte	Result (dry)	Qualifier	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg		date / time	
Mercury	0.171		0.125	1	07/07/2019 13:24	<a href="#">WG1306876</a>

## Metals (ICP) by Method 6010D

Analyte	Result (dry)	Qualifier	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg		date / time	
Aluminum	6020		62.3	1	07/07/2019 22:00	<a href="#">WG1306898</a>
Antimony	ND		12.5	1	07/07/2019 22:00	<a href="#">WG1306898</a>
Arsenic	ND		12.5	1	07/07/2019 22:00	<a href="#">WG1306898</a>
Barium	77.0		3.11	1	07/07/2019 22:00	<a href="#">WG1306898</a>
Beryllium	ND		1.25	1	07/07/2019 22:00	<a href="#">WG1306898</a>
Cadmium	ND		3.11	1	07/07/2019 22:00	<a href="#">WG1306898</a>
Calcium	11000		623	1	07/07/2019 22:00	<a href="#">WG1306898</a>
Chromium	44.7		6.23	1	07/07/2019 22:00	<a href="#">WG1306898</a>
Cobalt	ND		6.23	1	07/07/2019 22:00	<a href="#">WG1306898</a>
Copper	57.5		12.5	1	07/07/2019 22:00	<a href="#">WG1306898</a>
Iron	4290		62.3	1	07/07/2019 22:00	<a href="#">WG1306898</a>
Lead	43.5		3.11	1	07/07/2019 22:00	<a href="#">WG1306898</a>
Magnesium	848		623	1	07/07/2019 22:00	<a href="#">WG1306898</a>
Manganese	751		6.23	1	07/07/2019 22:00	<a href="#">WG1306898</a>
Nickel	19.4		12.5	1	07/07/2019 22:00	<a href="#">WG1306898</a>
Potassium	ND		623	1	07/07/2019 22:00	<a href="#">WG1306898</a>
Selenium	ND		12.5	1	07/07/2019 22:00	<a href="#">WG1306898</a>
Silver	ND		6.23	1	07/07/2019 22:00	<a href="#">WG1306898</a>
Sodium	6530		623	1	07/07/2019 22:00	<a href="#">WG1306898</a>
Thallium	ND		12.5	1	07/07/2019 22:00	<a href="#">WG1306898</a>
Vanadium	36.5		12.5	1	07/07/2019 22:00	<a href="#">WG1306898</a>
Zinc	367		31.1	1	07/07/2019 22:00	<a href="#">WG1306898</a>

## Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result (dry)	Qualifier	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg		date / time	
Acetone	4.34		0.244	1.57	07/07/2019 12:26	<a href="#">WG1307049</a>
Benzene	0.0100		0.00978	1.57	07/07/2019 12:26	<a href="#">WG1307049</a>
Bromochloromethane	ND		0.0489	1.57	07/07/2019 12:26	<a href="#">WG1307049</a>
Bromodichloromethane	ND		0.0244	1.57	07/07/2019 12:26	<a href="#">WG1307049</a>
Bromoform	ND		0.244	1.57	07/07/2019 12:26	<a href="#">WG1307049</a>
Bromomethane	ND		0.122	1.57	07/07/2019 12:26	<a href="#">WG1307049</a>
Carbon disulfide	ND		0.122	1.57	07/07/2019 12:26	<a href="#">WG1307049</a>
Carbon tetrachloride	ND		0.0489	1.57	07/07/2019 12:26	<a href="#">WG1307049</a>
Chlorobenzene	ND		0.0244	1.57	07/07/2019 12:26	<a href="#">WG1307049</a>
Chlorodibromomethane	ND		0.0244	1.57	07/07/2019 12:26	<a href="#">WG1307049</a>
Chloroethane	ND		0.0489	1.57	07/07/2019 12:26	<a href="#">WG1307049</a>
Chloroform	ND		0.0244	1.57	07/07/2019 12:26	<a href="#">WG1307049</a>
Chloromethane	ND		0.122	1.57	07/07/2019 12:26	<a href="#">WG1307049</a>

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc



Collected date/time: 06/26/19 12:12

L1113939

## Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result (dry) mg/kg	Qualifier	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Cyclohexane	ND		0.0244	1.57	07/07/2019 12:26	<a href="#">WG1307049</a>
1,2-Dibromo-3-Chloropropane	ND		0.244	1.57	07/07/2019 12:26	<a href="#">WG1307049</a>
1,2-Dibromoethane	ND		0.0244	1.57	07/07/2019 12:26	<a href="#">WG1307049</a>
Dichlorodifluoromethane	ND		0.0244	1.57	07/07/2019 12:26	<a href="#">WG1307049</a>
1,1-Dichloroethane	ND		0.0244	1.57	07/07/2019 12:26	<a href="#">WG1307049</a>
1,2-Dichloroethane	ND		0.0244	1.57	07/07/2019 12:26	<a href="#">WG1307049</a>
1,2-Dichlorobenzene	ND		0.0489	1.57	07/07/2019 12:26	<a href="#">WG1307049</a>
1,3-Dichlorobenzene	ND		0.0489	1.57	07/07/2019 12:26	<a href="#">WG1307049</a>
1,4-Dichlorobenzene	ND		0.0489	1.57	07/07/2019 12:26	<a href="#">WG1307049</a>
1,1-Dichloroethene	ND		0.0244	1.57	07/07/2019 12:26	<a href="#">WG1307049</a>
cis-1,2-Dichloroethene	ND		0.0244	1.57	07/07/2019 12:26	<a href="#">WG1307049</a>
trans-1,2-Dichloroethene	ND		0.0489	1.57	07/07/2019 12:26	<a href="#">WG1307049</a>
1,2-Dichloropropane	ND		0.0489	1.57	07/07/2019 12:26	<a href="#">WG1307049</a>
cis-1,3-Dichloropropene	ND		0.0244	1.57	07/07/2019 12:26	<a href="#">WG1307049</a>
trans-1,3-Dichloropropene	ND		0.0489	1.57	07/07/2019 12:26	<a href="#">WG1307049</a>
Ethylbenzene	ND		0.0244	1.57	07/07/2019 12:26	<a href="#">WG1307049</a>
2-Hexanone	ND		0.244	1.57	07/07/2019 12:26	<a href="#">WG1307049</a>
Isopropylbenzene	0.293		0.0244	1.57	07/07/2019 12:26	<a href="#">WG1307049</a>
2-Butanone (MEK)	ND		0.244	1.57	07/07/2019 12:26	<a href="#">WG1307049</a>
Methyl Acetate	4.59		0.0489	1.57	07/07/2019 12:26	<a href="#">WG1307049</a>
Methyl Cyclohexane	0.581		0.0489	1.57	07/07/2019 12:26	<a href="#">WG1307049</a>
Methylene Chloride	ND		0.244	1.57	07/07/2019 12:26	<a href="#">WG1307049</a>
4-Methyl-2-pentanone (MIBK)	ND		0.244	1.57	07/07/2019 12:26	<a href="#">WG1307049</a>
Methyl tert-butyl ether	ND		0.00978	1.57	07/07/2019 12:26	<a href="#">WG1307049</a>
Styrene	ND		0.122	1.57	07/07/2019 12:26	<a href="#">WG1307049</a>
1,1,2,2-Tetrachloroethane	ND		0.0244	1.57	07/07/2019 12:26	<a href="#">WG1307049</a>
Tetrachloroethene	0.509		0.0244	1.57	07/07/2019 12:26	<a href="#">WG1307049</a>
Toluene	0.0838		0.0489	1.57	07/07/2019 12:26	<a href="#">WG1307049</a>
1,2,3-Trichlorobenzene	ND		0.0244	1.57	07/07/2019 12:26	<a href="#">WG1307049</a>
1,2,4-Trichlorobenzene	ND		0.122	1.57	07/07/2019 12:26	<a href="#">WG1307049</a>
1,1,1-Trichloroethane	ND		0.0244	1.57	07/07/2019 12:26	<a href="#">WG1307049</a>
1,1,2-Trichloroethane	ND		0.0244	1.57	07/07/2019 12:26	<a href="#">WG1307049</a>
Trichloroethene	0.0164		0.00978	1.57	07/07/2019 12:26	<a href="#">WG1307049</a>
Trichlorofluoromethane	ND		0.0244	1.57	07/07/2019 12:26	<a href="#">WG1307049</a>
1,1,2-Trichlorotrifluoroethane	ND		0.0244	1.57	07/07/2019 12:26	<a href="#">WG1307049</a>
Vinyl chloride	ND		0.0244	1.57	07/07/2019 12:26	<a href="#">WG1307049</a>
Xylenes, Total	ND		0.0635	1.57	07/07/2019 12:26	<a href="#">WG1307049</a>
(S) Toluene-d8	101		75.0-131		07/07/2019 12:26	<a href="#">WG1307049</a>
(S) 4-Bromofluorobenzene	113		67.0-138		07/07/2019 12:26	<a href="#">WG1307049</a>
(S) 1,2-Dichloroethane-d4	109		70.0-130		07/07/2019 12:26	<a href="#">WG1307049</a>

- 1 Cp
- 2 Tc
- 3 Ss
- 4 Cn
- 5 Sr
- 6 Qc
- 7 Gl
- 8 Al
- 9 Sc

## Pesticides (GC) by Method 8081B

Analyte	Result (dry) mg/kg	Qualifier	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Aldrin	ND		0.125	1	07/07/2019 17:12	<a href="#">WG1306674</a>
Alpha BHC	ND		0.125	1	07/07/2019 17:12	<a href="#">WG1306674</a>
Beta BHC	ND		0.125	1	07/07/2019 17:12	<a href="#">WG1306674</a>
Delta BHC	ND		0.125	1	07/07/2019 17:12	<a href="#">WG1306674</a>
Gamma BHC	ND		0.125	1	07/07/2019 17:12	<a href="#">WG1306674</a>
Chlordane	ND		1.25	1	07/07/2019 17:12	<a href="#">WG1306674</a>
4,4-DDD	ND		0.125	1	07/07/2019 17:12	<a href="#">WG1306674</a>
4,4-DDE	ND		0.125	1	07/07/2019 17:12	<a href="#">WG1306674</a>
4,4-DDT	ND		0.125	1	07/07/2019 17:12	<a href="#">WG1306674</a>
Dieldrin	ND		0.125	1	07/07/2019 17:12	<a href="#">WG1306674</a>
Endosulfan I	ND		0.125	1	07/07/2019 17:12	<a href="#">WG1306674</a>
Endosulfan II	ND		0.125	1	07/07/2019 17:12	<a href="#">WG1306674</a>



Collected date/time: 06/26/19 12:12

L1113939

## Pesticides (GC) by Method 8081B

Analyte	Result (dry) mg/kg	Qualifier	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Endosulfan sulfate	ND		0.125	1	07/07/2019 17:12	<a href="#">WG1306674</a>
Endrin	ND		0.125	1	07/07/2019 17:12	<a href="#">WG1306674</a>
Endrin aldehyde	ND		0.125	1	07/07/2019 17:12	<a href="#">WG1306674</a>
Endrin ketone	ND		0.125	1	07/07/2019 17:12	<a href="#">WG1306674</a>
Heptachlor	ND		0.125	1	07/07/2019 17:12	<a href="#">WG1306674</a>
Heptachlor epoxide	ND		0.125	1	07/07/2019 17:12	<a href="#">WG1306674</a>
Hexachlorobenzene	ND		0.125	1	07/07/2019 17:12	<a href="#">WG1306674</a>
Methoxychlor	ND		0.125	1	07/07/2019 17:12	<a href="#">WG1306674</a>
Toxaphene	ND		2.49	1	07/07/2019 17:12	<a href="#">WG1306674</a>
(S) Decachlorobiphenyl	40.9		10.0-135		07/07/2019 17:12	<a href="#">WG1306674</a>
(S) Tetrachloro-m-xylene	48.9		10.0-139		07/07/2019 17:12	<a href="#">WG1306674</a>

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

## Polychlorinated Biphenyls (GC) by Method 8082 A

Analyte	Result (dry) mg/kg	Qualifier	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
PCB 1016	ND		0.106	1	07/07/2019 16:44	<a href="#">WG1306674</a>
PCB 1221	ND		0.106	1	07/07/2019 16:44	<a href="#">WG1306674</a>
PCB 1232	ND		0.106	1	07/07/2019 16:44	<a href="#">WG1306674</a>
PCB 1242	ND		0.106	1	07/07/2019 16:44	<a href="#">WG1306674</a>
PCB 1248	ND		0.106	1	07/07/2019 16:44	<a href="#">WG1306674</a>
PCB 1254	ND		0.106	1	07/07/2019 16:44	<a href="#">WG1306674</a>
PCB 1260	ND		0.106	1	07/07/2019 16:44	<a href="#">WG1306674</a>
(S) Decachlorobiphenyl	43.3		10.0-135		07/07/2019 16:44	<a href="#">WG1306674</a>
(S) Tetrachloro-m-xylene	37.9		10.0-139		07/07/2019 16:44	<a href="#">WG1306674</a>

7 Gl

8 Al

9 Sc

## Semi Volatile Organic Compounds (GC/MS) by Method 8270D

Analyte	Result (dry) mg/kg	Qualifier	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Acenaphthene	ND	J4	0.207	1	07/09/2019 21:32	<a href="#">WG1307389</a>
Acenaphthylene	ND	J4	0.207	1	07/09/2019 21:32	<a href="#">WG1307389</a>
Acetophenone	ND	J4	2.07	1	07/09/2019 21:32	<a href="#">WG1307389</a>
Anthracene	ND		0.207	1	07/09/2019 21:32	<a href="#">WG1307389</a>
Atrazine	ND		2.07	1	07/09/2019 21:32	<a href="#">WG1307389</a>
Benzaldehyde	ND	J4	2.07	1	07/09/2019 21:32	<a href="#">WG1307389</a>
Benzo(a)anthracene	ND		0.207	1	07/09/2019 21:32	<a href="#">WG1307389</a>
Benzo(b)fluoranthene	ND		0.207	1	07/09/2019 21:32	<a href="#">WG1307389</a>
Benzo(k)fluoranthene	ND		0.207	1	07/09/2019 21:32	<a href="#">WG1307389</a>
Benzo(g,h,i)perylene	ND		0.207	1	07/09/2019 21:32	<a href="#">WG1307389</a>
Benzo(a)pyrene	ND		0.207	1	07/09/2019 21:32	<a href="#">WG1307389</a>
Biphenyl	ND	J4	2.07	1	07/09/2019 21:32	<a href="#">WG1307389</a>
Bis(2-chloroethoxy)methane	ND	J4	2.07	1	07/09/2019 21:32	<a href="#">WG1307389</a>
Bis(2-chloroethyl)ether	ND	J4	2.07	1	07/09/2019 21:32	<a href="#">WG1307389</a>
Bis(2-chloroisopropyl)ether	ND	J4	2.07	1	07/09/2019 21:32	<a href="#">WG1307389</a>
4-Bromophenyl-phenylether	ND		2.07	1	07/09/2019 21:32	<a href="#">WG1307389</a>
Caprolactam	ND		2.07	1	07/09/2019 21:32	<a href="#">WG1307389</a>
Carbazole	ND		2.07	1	07/09/2019 21:32	<a href="#">WG1307389</a>
4-Chloroaniline	ND	J4	2.07	1	07/09/2019 21:32	<a href="#">WG1307389</a>
2-Chloronaphthalene	ND	J4	0.207	1	07/09/2019 21:32	<a href="#">WG1307389</a>
4-Chlorophenyl-phenylether	ND		2.07	1	07/09/2019 21:32	<a href="#">WG1307389</a>
Chrysene	ND		0.207	1	07/09/2019 21:32	<a href="#">WG1307389</a>
Dibenz(a,h)anthracene	ND		0.207	1	07/09/2019 21:32	<a href="#">WG1307389</a>
Dibenzofuran	ND	J4	2.07	1	07/09/2019 21:32	<a href="#">WG1307389</a>
3,3-Dichlorobenzidine	ND		2.07	1	07/09/2019 21:32	<a href="#">WG1307389</a>
2,4-Dinitrotoluene	ND		2.07	1	07/09/2019 21:32	<a href="#">WG1307389</a>
2,6-Dinitrotoluene	ND		2.07	1	07/09/2019 21:32	<a href="#">WG1307389</a>



Semi Volatile Organic Compounds (GC/MS) by Method 8270D

Analyte	Result (dry) mg/kg	Qualifier	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Fluoranthene	ND		0.207	1	07/09/2019 21:32	WG1307389
Fluorene	0.885		0.207	1	07/09/2019 21:32	WG1307389
Hexachlorobenzene	ND		2.07	1	07/09/2019 21:32	WG1307389
Hexachloro-1,3-butadiene	ND	J4	2.07	1	07/09/2019 21:32	WG1307389
Hexachlorocyclopentadiene	ND	J4	2.07	1	07/09/2019 21:32	WG1307389
Hexachloroethane	ND	J4	2.07	1	07/09/2019 21:32	WG1307389
Indeno(1,2,3-cd)pyrene	ND		0.207	1	07/09/2019 21:32	WG1307389
Isophorone	ND	J4	2.07	1	07/09/2019 21:32	WG1307389
2-Methylnaphthalene	13.3	J4	0.415	2	07/11/2019 00:49	WG1307389
Naphthalene	ND	J4	0.207	1	07/09/2019 21:32	WG1307389
2-Nitroaniline	ND		2.07	1	07/09/2019 21:32	WG1307389
3-Nitroaniline	ND		2.07	1	07/09/2019 21:32	WG1307389
4-Nitroaniline	ND		2.07	1	07/09/2019 21:32	WG1307389
Nitrobenzene	ND	J4	2.07	1	07/09/2019 21:32	WG1307389
n-Nitrosodiphenylamine	ND		2.07	1	07/09/2019 21:32	WG1307389
n-Nitrosodi-n-propylamine	ND	J4	2.07	1	07/09/2019 21:32	WG1307389
Phenanthrene	0.494		0.207	1	07/09/2019 21:32	WG1307389
Benzylbutyl phthalate	ND		2.07	1	07/09/2019 21:32	WG1307389
Bis(2-ethylhexyl)phthalate	ND		2.07	1	07/09/2019 21:32	WG1307389
Di-n-butyl phthalate	ND		2.07	1	07/09/2019 21:32	WG1307389
Diethyl phthalate	ND		2.07	1	07/09/2019 21:32	WG1307389
Dimethyl phthalate	ND		2.07	1	07/09/2019 21:32	WG1307389
Di-n-octyl phthalate	ND		2.07	1	07/09/2019 21:32	WG1307389
Pyrene	ND		0.207	1	07/09/2019 21:32	WG1307389
1,2,4,5-Tetrachlorobenzene	ND	J4	2.07	1	07/09/2019 21:32	WG1307389
4-Chloro-3-methylphenol	ND	J4	2.07	1	07/09/2019 21:32	WG1307389
2-Chlorophenol	ND	J4	2.07	1	07/09/2019 21:32	WG1307389
2-Methylphenol	ND		2.07	1	07/09/2019 21:32	WG1307389
3&4-Methyl Phenol	ND		2.07	1	07/09/2019 21:32	WG1307389
2,4-Dichlorophenol	ND	J4	2.07	1	07/09/2019 21:32	WG1307389
2,4-Dimethylphenol	ND	J4	2.07	1	07/09/2019 21:32	WG1307389
4,6-Dinitro-2-methylphenol	ND		2.07	1	07/09/2019 21:32	WG1307389
2,4-Dinitrophenol	ND	J4	2.07	1	07/09/2019 21:32	WG1307389
2-Nitrophenol	ND	J4	2.07	1	07/09/2019 21:32	WG1307389
4-Nitrophenol	ND		2.07	1	07/09/2019 21:32	WG1307389
Pentachlorophenol	ND		2.07	1	07/09/2019 21:32	WG1307389
Phenol	ND		2.07	1	07/09/2019 21:32	WG1307389
2,4,5-Trichlorophenol	ND		2.07	1	07/09/2019 21:32	WG1307389
2,4,6-Trichlorophenol	ND	J4	2.07	1	07/09/2019 21:32	WG1307389
(S) 2-Fluorophenol	63.4		12.0-120		07/09/2019 21:32	WG1307389
(S) 2-Fluorophenol	62.1		12.0-120		07/11/2019 00:49	WG1307389
(S) Phenol-d5	56.9		10.0-120		07/11/2019 00:49	WG1307389
(S) Phenol-d5	60.3		10.0-120		07/09/2019 21:32	WG1307389
(S) Nitrobenzene-d5	97.9		10.0-122		07/09/2019 21:32	WG1307389
(S) Nitrobenzene-d5	97.0		10.0-122		07/11/2019 00:49	WG1307389
(S) 2-Fluorobiphenyl	48.0		15.0-120		07/09/2019 21:32	WG1307389
(S) 2-Fluorobiphenyl	55.3		15.0-120		07/11/2019 00:49	WG1307389
(S) 2,4,6-Tribromophenol	52.7		10.0-127		07/11/2019 00:49	WG1307389
(S) 2,4,6-Tribromophenol	50.9		10.0-127		07/09/2019 21:32	WG1307389
(S) p-Terphenyl-d14	61.0		10.0-120		07/09/2019 21:32	WG1307389
(S) p-Terphenyl-d14	62.8		10.0-120		07/11/2019 00:49	WG1307389

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc



Semi Volatile Organic Compounds (GC/MS) by Method 8270E-SIM

Analyte	Result (dry) mg/kg	Qualifier	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Anthracene	ND		0.0374	1	07/08/2019 20:50	<a href="#">WG1307402</a>
Acenaphthene	ND		0.0374	1	07/08/2019 20:50	<a href="#">WG1307402</a>
Acenaphthylene	ND		0.0374	1	07/08/2019 20:50	<a href="#">WG1307402</a>
Benzo(a)anthracene	ND		0.0374	1	07/08/2019 20:50	<a href="#">WG1307402</a>
Benzo(a)pyrene	ND		0.0374	1	07/08/2019 20:50	<a href="#">WG1307402</a>
Benzo(b)fluoranthene	ND		0.0374	1	07/08/2019 20:50	<a href="#">WG1307402</a>
Benzo(g,h,i)perylene	ND		0.0374	1	07/08/2019 20:50	<a href="#">WG1307402</a>
Benzo(k)fluoranthene	ND		0.0374	1	07/08/2019 20:50	<a href="#">WG1307402</a>
Chrysene	ND		0.0374	1	07/08/2019 20:50	<a href="#">WG1307402</a>
Dibenz(a,h)anthracene	ND		0.0374	1	07/08/2019 20:50	<a href="#">WG1307402</a>
Fluoranthene	ND		0.0374	1	07/08/2019 20:50	<a href="#">WG1307402</a>
Fluorene	0.667		0.0374	1	07/08/2019 20:50	<a href="#">WG1307402</a>
Indeno(1,2,3-cd)pyrene	ND		0.0374	1	07/08/2019 20:50	<a href="#">WG1307402</a>
Naphthalene	ND		0.125	1	07/08/2019 20:50	<a href="#">WG1307402</a>
Phenanthrene	0.353		0.0374	1	07/08/2019 20:50	<a href="#">WG1307402</a>
Pyrene	ND		0.0374	1	07/08/2019 20:50	<a href="#">WG1307402</a>
1-Methylnaphthalene	6.98		0.125	1	07/08/2019 20:50	<a href="#">WG1307402</a>
2-Methylnaphthalene	9.84		0.125	1	07/08/2019 20:50	<a href="#">WG1307402</a>
(S) p-Terphenyl-d14	87.4		23.0-120		07/08/2019 20:50	<a href="#">WG1307402</a>
(S) Nitrobenzene-d5	411	J1	14.0-149		07/08/2019 20:50	<a href="#">WG1307402</a>
(S) 2-Fluorobiphenyl	99.5		34.0-125		07/08/2019 20:50	<a href="#">WG1307402</a>

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

Sample Narrative:

L1113939-01 WG1307402: High surrogate due to matrix impactHigh surrogate due to matrix impact





## Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	16.3		1	07/06/2019 15:39	<a href="#">WG1307001</a>

## Wet Chemistry by Method 9012B

Analyte	Result (dry)	Qualifier	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg		date / time	
Cyanide	ND		1.53	1	07/10/2019 17:06	<a href="#">WG1308667</a>

## Mercury by Method 7471B

Analyte	Result (dry)	Qualifier	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg		date / time	
Mercury	0.200		0.122	1	07/07/2019 13:26	<a href="#">WG1306876</a>

## Metals (ICP) by Method 6010D

Analyte	Result (dry)	Qualifier	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg		date / time	
Aluminum	10900		61.2	1	07/07/2019 22:03	<a href="#">WG1306898</a>
Antimony	ND		12.2	1	07/07/2019 22:03	<a href="#">WG1306898</a>
Arsenic	ND		12.2	1	07/07/2019 22:03	<a href="#">WG1306898</a>
Barium	91.4		3.06	1	07/07/2019 22:03	<a href="#">WG1306898</a>
Beryllium	ND		1.22	1	07/07/2019 22:03	<a href="#">WG1306898</a>
Cadmium	ND		3.06	1	07/07/2019 22:03	<a href="#">WG1306898</a>
Calcium	76700		612	1	07/07/2019 22:03	<a href="#">WG1306898</a>
Chromium	36.5		6.12	1	07/07/2019 22:03	<a href="#">WG1306898</a>
Cobalt	ND		6.12	1	07/07/2019 22:03	<a href="#">WG1306898</a>
Copper	64.8		12.2	1	07/07/2019 22:03	<a href="#">WG1306898</a>
Iron	6170		61.2	1	07/07/2019 22:03	<a href="#">WG1306898</a>
Lead	53.8		3.06	1	07/07/2019 22:03	<a href="#">WG1306898</a>
Magnesium	1130		612	1	07/07/2019 22:03	<a href="#">WG1306898</a>
Manganese	924		6.12	1	07/07/2019 22:03	<a href="#">WG1306898</a>
Nickel	16.8		12.2	1	07/07/2019 22:03	<a href="#">WG1306898</a>
Potassium	ND		612	1	07/07/2019 22:03	<a href="#">WG1306898</a>
Selenium	ND		12.2	1	07/07/2019 22:03	<a href="#">WG1306898</a>
Silver	ND		6.12	1	07/07/2019 22:03	<a href="#">WG1306898</a>
Sodium	3670		612	1	07/07/2019 22:03	<a href="#">WG1306898</a>
Thallium	ND		12.2	1	07/07/2019 22:03	<a href="#">WG1306898</a>
Vanadium	38.8		12.2	1	07/07/2019 22:03	<a href="#">WG1306898</a>
Zinc	432		30.6	1	07/07/2019 22:03	<a href="#">WG1306898</a>

## Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result (dry)	Qualifier	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg		date / time	
Acetone	1.34		0.168	1.1	07/07/2019 12:46	<a href="#">WG1307049</a>
Benzene	ND		0.00674	1.1	07/07/2019 12:46	<a href="#">WG1307049</a>
Bromochloromethane	ND		0.0337	1.1	07/07/2019 12:46	<a href="#">WG1307049</a>
Bromodichloromethane	ND		0.0168	1.1	07/07/2019 12:46	<a href="#">WG1307049</a>
Bromoform	ND		0.168	1.1	07/07/2019 12:46	<a href="#">WG1307049</a>
Bromomethane	ND		0.0845	1.1	07/07/2019 12:46	<a href="#">WG1307049</a>
Carbon disulfide	ND		0.0845	1.1	07/07/2019 12:46	<a href="#">WG1307049</a>
Carbon tetrachloride	ND		0.0337	1.1	07/07/2019 12:46	<a href="#">WG1307049</a>
Chlorobenzene	ND		0.0168	1.1	07/07/2019 12:46	<a href="#">WG1307049</a>
Chlorodibromomethane	ND		0.0168	1.1	07/07/2019 12:46	<a href="#">WG1307049</a>
Chloroethane	ND		0.0337	1.1	07/07/2019 12:46	<a href="#">WG1307049</a>
Chloroform	ND		0.0168	1.1	07/07/2019 12:46	<a href="#">WG1307049</a>
Chloromethane	ND		0.0845	1.1	07/07/2019 12:46	<a href="#">WG1307049</a>

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc



## Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result (dry) mg/kg	Qualifier	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Cyclohexane	ND		0.0168	1.1	07/07/2019 12:46	<a href="#">WG1307049</a>
1,2-Dibromo-3-Chloropropane	ND		0.168	1.1	07/07/2019 12:46	<a href="#">WG1307049</a>
1,2-Dibromoethane	ND		0.0168	1.1	07/07/2019 12:46	<a href="#">WG1307049</a>
Dichlorodifluoromethane	ND		0.0168	1.1	07/07/2019 12:46	<a href="#">WG1307049</a>
1,1-Dichloroethane	ND		0.0168	1.1	07/07/2019 12:46	<a href="#">WG1307049</a>
1,2-Dichloroethane	ND		0.0168	1.1	07/07/2019 12:46	<a href="#">WG1307049</a>
1,2-Dichlorobenzene	ND		0.0337	1.1	07/07/2019 12:46	<a href="#">WG1307049</a>
1,3-Dichlorobenzene	ND		0.0337	1.1	07/07/2019 12:46	<a href="#">WG1307049</a>
1,4-Dichlorobenzene	ND		0.0337	1.1	07/07/2019 12:46	<a href="#">WG1307049</a>
1,1-Dichloroethene	ND		0.0168	1.1	07/07/2019 12:46	<a href="#">WG1307049</a>
cis-1,2-Dichloroethene	ND		0.0168	1.1	07/07/2019 12:46	<a href="#">WG1307049</a>
trans-1,2-Dichloroethene	ND		0.0337	1.1	07/07/2019 12:46	<a href="#">WG1307049</a>
1,2-Dichloropropane	ND		0.0337	1.1	07/07/2019 12:46	<a href="#">WG1307049</a>
cis-1,3-Dichloropropene	ND		0.0168	1.1	07/07/2019 12:46	<a href="#">WG1307049</a>
trans-1,3-Dichloropropene	ND		0.0337	1.1	07/07/2019 12:46	<a href="#">WG1307049</a>
Ethylbenzene	ND		0.0168	1.1	07/07/2019 12:46	<a href="#">WG1307049</a>
2-Hexanone	ND		0.168	1.1	07/07/2019 12:46	<a href="#">WG1307049</a>
Isopropylbenzene	0.174		0.0168	1.1	07/07/2019 12:46	<a href="#">WG1307049</a>
2-Butanone (MEK)	ND		0.168	1.1	07/07/2019 12:46	<a href="#">WG1307049</a>
Methyl Acetate	1.45		0.0337	1.1	07/07/2019 12:46	<a href="#">WG1307049</a>
Methyl Cyclohexane	0.347		0.0337	1.1	07/07/2019 12:46	<a href="#">WG1307049</a>
Methylene Chloride	ND		0.168	1.1	07/07/2019 12:46	<a href="#">WG1307049</a>
4-Methyl-2-pentanone (MIBK)	ND		0.168	1.1	07/07/2019 12:46	<a href="#">WG1307049</a>
Methyl tert-butyl ether	ND		0.00674	1.1	07/07/2019 12:46	<a href="#">WG1307049</a>
Styrene	ND		0.0845	1.1	07/07/2019 12:46	<a href="#">WG1307049</a>
1,1,2,2-Tetrachloroethane	ND		0.0168	1.1	07/07/2019 12:46	<a href="#">WG1307049</a>
Tetrachloroethene	0.0872		0.0168	1.1	07/07/2019 12:46	<a href="#">WG1307049</a>
Toluene	0.0423		0.0337	1.1	07/07/2019 12:46	<a href="#">WG1307049</a>
1,2,3-Trichlorobenzene	ND		0.0168	1.1	07/07/2019 12:46	<a href="#">WG1307049</a>
1,2,4-Trichlorobenzene	ND		0.0845	1.1	07/07/2019 12:46	<a href="#">WG1307049</a>
1,1,1-Trichloroethane	ND		0.0168	1.1	07/07/2019 12:46	<a href="#">WG1307049</a>
1,1,2-Trichloroethane	ND		0.0168	1.1	07/07/2019 12:46	<a href="#">WG1307049</a>
Trichloroethene	ND		0.00674	1.1	07/07/2019 12:46	<a href="#">WG1307049</a>
Trichlorofluoromethane	ND		0.0168	1.1	07/07/2019 12:46	<a href="#">WG1307049</a>
1,1,2-Trichlorotrifluoroethane	ND		0.0168	1.1	07/07/2019 12:46	<a href="#">WG1307049</a>
Vinyl chloride	ND		0.0168	1.1	07/07/2019 12:46	<a href="#">WG1307049</a>
Xylenes, Total	ND		0.0438	1.1	07/07/2019 12:46	<a href="#">WG1307049</a>
(S) Toluene-d8	102		75.0-131		07/07/2019 12:46	<a href="#">WG1307049</a>
(S) 4-Bromofluorobenzene	107		67.0-138		07/07/2019 12:46	<a href="#">WG1307049</a>
(S) 1,2-Dichloroethane-d4	107		70.0-130		07/07/2019 12:46	<a href="#">WG1307049</a>

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

## Pesticides (GC) by Method 8081B

Analyte	Result (dry) mg/kg	Qualifier	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Aldrin	ND		0.122	1	07/07/2019 17:25	<a href="#">WG1306674</a>
Alpha BHC	ND		0.122	1	07/07/2019 17:25	<a href="#">WG1306674</a>
Beta BHC	ND		0.122	1	07/07/2019 17:25	<a href="#">WG1306674</a>
Delta BHC	ND		0.122	1	07/07/2019 17:25	<a href="#">WG1306674</a>
Gamma BHC	ND		0.122	1	07/07/2019 17:25	<a href="#">WG1306674</a>
Chlordane	ND		1.22	1	07/07/2019 17:25	<a href="#">WG1306674</a>
4,4-DDD	ND		0.122	1	07/07/2019 17:25	<a href="#">WG1306674</a>
4,4-DDE	ND		0.122	1	07/07/2019 17:25	<a href="#">WG1306674</a>
4,4-DDT	ND		0.122	1	07/07/2019 17:25	<a href="#">WG1306674</a>
Dieldrin	ND		0.122	1	07/07/2019 17:25	<a href="#">WG1306674</a>
Endosulfan I	ND		0.122	1	07/07/2019 17:25	<a href="#">WG1306674</a>
Endosulfan II	ND		0.122	1	07/07/2019 17:25	<a href="#">WG1306674</a>



Collected date/time: 06/26/19 12:04

L1113939

## Pesticides (GC) by Method 8081B

Analyte	Result (dry) mg/kg	Qualifier	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Endosulfan sulfate	ND		0.122	1	07/07/2019 17:25	<a href="#">WG1306674</a>
Endrin	ND		0.122	1	07/07/2019 17:25	<a href="#">WG1306674</a>
Endrin aldehyde	ND		0.122	1	07/07/2019 17:25	<a href="#">WG1306674</a>
Endrin ketone	ND		0.122	1	07/07/2019 17:25	<a href="#">WG1306674</a>
Heptachlor	ND		0.122	1	07/07/2019 17:25	<a href="#">WG1306674</a>
Heptachlor epoxide	ND		0.122	1	07/07/2019 17:25	<a href="#">WG1306674</a>
Hexachlorobenzene	ND		0.122	1	07/07/2019 17:25	<a href="#">WG1306674</a>
Methoxychlor	ND		0.122	1	07/07/2019 17:25	<a href="#">WG1306674</a>
Toxaphene	ND		2.45	1	07/07/2019 17:25	<a href="#">WG1306674</a>
(S) Decachlorobiphenyl	40.3		10.0-135		07/07/2019 17:25	<a href="#">WG1306674</a>
(S) Tetrachloro-m-xylene	39.1		10.0-139		07/07/2019 17:25	<a href="#">WG1306674</a>

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

## Polychlorinated Biphenyls (GC) by Method 8082 A

Analyte	Result (dry) mg/kg	Qualifier	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
PCB 1016	ND		0.104	1	07/07/2019 15:48	<a href="#">WG1306674</a>
PCB 1221	ND		0.104	1	07/07/2019 15:48	<a href="#">WG1306674</a>
PCB 1232	ND		0.104	1	07/07/2019 15:48	<a href="#">WG1306674</a>
PCB 1242	ND		0.104	1	07/07/2019 15:48	<a href="#">WG1306674</a>
PCB 1248	ND		0.104	1	07/07/2019 15:48	<a href="#">WG1306674</a>
PCB 1254	ND		0.104	1	07/07/2019 15:48	<a href="#">WG1306674</a>
PCB 1260	ND		0.104	1	07/07/2019 15:48	<a href="#">WG1306674</a>
(S) Decachlorobiphenyl	33.2		10.0-135		07/07/2019 15:48	<a href="#">WG1306674</a>
(S) Tetrachloro-m-xylene	32.5		10.0-139		07/07/2019 15:48	<a href="#">WG1306674</a>

7 Gl

8 Al

9 Sc

## Semi Volatile Organic Compounds (GC/MS) by Method 8270D

Analyte	Result (dry) mg/kg	Qualifier	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Acenaphthene	ND	J4	0.204	1	07/09/2019 21:54	<a href="#">WG1307389</a>
Acenaphthylene	ND	J4	0.204	1	07/09/2019 21:54	<a href="#">WG1307389</a>
Acetophenone	ND	J4	2.04	1	07/09/2019 21:54	<a href="#">WG1307389</a>
Anthracene	ND		0.204	1	07/09/2019 21:54	<a href="#">WG1307389</a>
Atrazine	ND		2.04	1	07/09/2019 21:54	<a href="#">WG1307389</a>
Benzaldehyde	ND	J4	2.04	1	07/09/2019 21:54	<a href="#">WG1307389</a>
Benzo(a)anthracene	ND		0.204	1	07/09/2019 21:54	<a href="#">WG1307389</a>
Benzo(b)fluoranthene	ND		0.204	1	07/09/2019 21:54	<a href="#">WG1307389</a>
Benzo(k)fluoranthene	ND		0.204	1	07/09/2019 21:54	<a href="#">WG1307389</a>
Benzo(g,h,i)perylene	ND		0.204	1	07/09/2019 21:54	<a href="#">WG1307389</a>
Benzo(a)pyrene	ND		0.204	1	07/09/2019 21:54	<a href="#">WG1307389</a>
Biphenyl	ND	J4	2.04	1	07/09/2019 21:54	<a href="#">WG1307389</a>
Bis(2-chloroethoxy)methane	ND	J4	2.04	1	07/09/2019 21:54	<a href="#">WG1307389</a>
Bis(2-chloroethyl)ether	ND	J4	2.04	1	07/09/2019 21:54	<a href="#">WG1307389</a>
Bis(2-chloroisopropyl)ether	ND	J4	2.04	1	07/09/2019 21:54	<a href="#">WG1307389</a>
4-Bromophenyl-phenylether	ND		2.04	1	07/09/2019 21:54	<a href="#">WG1307389</a>
Caprolactam	ND		2.04	1	07/09/2019 21:54	<a href="#">WG1307389</a>
Carbazole	ND		2.04	1	07/09/2019 21:54	<a href="#">WG1307389</a>
4-Chloroaniline	ND	J4	2.04	1	07/09/2019 21:54	<a href="#">WG1307389</a>
2-Chloronaphthalene	ND	J4	0.204	1	07/09/2019 21:54	<a href="#">WG1307389</a>
4-Chlorophenyl-phenylether	ND		2.04	1	07/09/2019 21:54	<a href="#">WG1307389</a>
Chrysene	ND		0.204	1	07/09/2019 21:54	<a href="#">WG1307389</a>
Dibenz(a,h)anthracene	ND		0.204	1	07/09/2019 21:54	<a href="#">WG1307389</a>
Dibenzofuran	ND	J4	2.04	1	07/09/2019 21:54	<a href="#">WG1307389</a>
3,3-Dichlorobenzidine	ND		2.04	1	07/09/2019 21:54	<a href="#">WG1307389</a>
2,4-Dinitrotoluene	ND		2.04	1	07/09/2019 21:54	<a href="#">WG1307389</a>
2,6-Dinitrotoluene	ND		2.04	1	07/09/2019 21:54	<a href="#">WG1307389</a>



Semi Volatile Organic Compounds (GC/MS) by Method 8270D

Analyte	Result (dry) mg/kg	Qualifier	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Fluoranthene	ND		0.204	1	07/09/2019 21:54	WG1307389
Fluorene	0.882		0.204	1	07/09/2019 21:54	WG1307389
Hexachlorobenzene	ND		2.04	1	07/09/2019 21:54	WG1307389
Hexachloro-1,3-butadiene	ND	J4	2.04	1	07/09/2019 21:54	WG1307389
Hexachlorocyclopentadiene	ND	J4	2.04	1	07/09/2019 21:54	WG1307389
Hexachloroethane	ND	J4	2.04	1	07/09/2019 21:54	WG1307389
Indeno(1,2,3-cd)pyrene	ND		0.204	1	07/09/2019 21:54	WG1307389
Isophorone	ND	J4	2.04	1	07/09/2019 21:54	WG1307389
2-Methylnaphthalene	14.3	J4	0.408	2	07/11/2019 01:11	WG1307389
Naphthalene	ND	J4	0.204	1	07/09/2019 21:54	WG1307389
2-Nitroaniline	ND		2.04	1	07/09/2019 21:54	WG1307389
3-Nitroaniline	ND		2.04	1	07/09/2019 21:54	WG1307389
4-Nitroaniline	ND		2.04	1	07/09/2019 21:54	WG1307389
Nitrobenzene	ND	J4	2.04	1	07/09/2019 21:54	WG1307389
n-Nitrosodiphenylamine	ND		2.04	1	07/09/2019 21:54	WG1307389
n-Nitrosodi-n-propylamine	ND	J4	2.04	1	07/09/2019 21:54	WG1307389
Phenanthrene	0.540		0.204	1	07/09/2019 21:54	WG1307389
Benzylbutyl phthalate	ND		2.04	1	07/09/2019 21:54	WG1307389
Bis(2-ethylhexyl)phthalate	ND		2.04	1	07/09/2019 21:54	WG1307389
Di-n-butyl phthalate	ND		2.04	1	07/09/2019 21:54	WG1307389
Diethyl phthalate	ND		2.04	1	07/09/2019 21:54	WG1307389
Dimethyl phthalate	ND		2.04	1	07/09/2019 21:54	WG1307389
Di-n-octyl phthalate	ND		2.04	1	07/09/2019 21:54	WG1307389
Pyrene	ND		0.204	1	07/09/2019 21:54	WG1307389
1,2,4,5-Tetrachlorobenzene	ND	J4	2.04	1	07/09/2019 21:54	WG1307389
4-Chloro-3-methylphenol	ND	J4	2.04	1	07/09/2019 21:54	WG1307389
2-Chlorophenol	ND	J4	2.04	1	07/09/2019 21:54	WG1307389
2-Methylphenol	ND		2.04	1	07/09/2019 21:54	WG1307389
3&4-Methyl Phenol	ND		2.04	1	07/09/2019 21:54	WG1307389
2,4-Dichlorophenol	ND	J4	2.04	1	07/09/2019 21:54	WG1307389
2,4-Dimethylphenol	ND	J4	2.04	1	07/09/2019 21:54	WG1307389
4,6-Dinitro-2-methylphenol	ND		2.04	1	07/09/2019 21:54	WG1307389
2,4-Dinitrophenol	ND	J4	2.04	1	07/09/2019 21:54	WG1307389
2-Nitrophenol	ND	J4	2.04	1	07/09/2019 21:54	WG1307389
4-Nitrophenol	ND		2.04	1	07/09/2019 21:54	WG1307389
Pentachlorophenol	ND		2.04	1	07/09/2019 21:54	WG1307389
Phenol	ND		2.04	1	07/09/2019 21:54	WG1307389
2,4,5-Trichlorophenol	ND		2.04	1	07/09/2019 21:54	WG1307389
2,4,6-Trichlorophenol	ND	J4	2.04	1	07/09/2019 21:54	WG1307389
(S) 2-Fluorophenol	51.7		12.0-120		07/09/2019 21:54	WG1307389
(S) 2-Fluorophenol	52.6		12.0-120		07/11/2019 01:11	WG1307389
(S) Phenol-d5	48.9		10.0-120		07/09/2019 21:54	WG1307389
(S) Phenol-d5	49.8		10.0-120		07/11/2019 01:11	WG1307389
(S) Nitrobenzene-d5	93.0		10.0-122		07/11/2019 01:11	WG1307389
(S) Nitrobenzene-d5	0.000	J2	10.0-122		07/09/2019 21:54	WG1307389
(S) 2-Fluorobiphenyl	47.3		15.0-120		07/11/2019 01:11	WG1307389
(S) 2-Fluorobiphenyl	37.9		15.0-120		07/09/2019 21:54	WG1307389
(S) 2,4,6-Tribromophenol	46.1		10.0-127		07/11/2019 01:11	WG1307389
(S) 2,4,6-Tribromophenol	42.1		10.0-127		07/09/2019 21:54	WG1307389
(S) p-Terphenyl-d14	52.7		10.0-120		07/11/2019 01:11	WG1307389
(S) p-Terphenyl-d14	49.1		10.0-120		07/09/2019 21:54	WG1307389

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc



## Semi Volatile Organic Compounds (GC/MS) by Method 8270E-SIM

Analyte	Result (dry) mg/kg	Qualifier	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch	
Anthracene	ND		0.0367	1	07/08/2019 22:34	WG1307402	<sup>1</sup> Cp
Acenaphthene	ND		0.0367	1	07/08/2019 22:34	WG1307402	<sup>2</sup> Tc
Acenaphthylene	ND		0.0367	1	07/08/2019 22:34	WG1307402	<sup>3</sup> Ss
Benzo(a)anthracene	ND		0.0367	1	07/08/2019 22:34	WG1307402	<sup>4</sup> Cn
Benzo(a)pyrene	ND		0.0367	1	07/08/2019 22:34	WG1307402	<sup>5</sup> Sr
Benzo(b)fluoranthene	ND		0.0367	1	07/08/2019 22:34	WG1307402	<sup>6</sup> Qc
Benzo(g,h,i)perylene	ND		0.0367	1	07/08/2019 22:34	WG1307402	<sup>7</sup> Gl
Benzo(k)fluoranthene	ND		0.0367	1	07/08/2019 22:34	WG1307402	<sup>8</sup> Al
Chrysene	ND		0.0367	1	07/08/2019 22:34	WG1307402	<sup>9</sup> Sc
Dibenz(a,h)anthracene	ND		0.0367	1	07/08/2019 22:34	WG1307402	
Fluoranthene	ND		0.0367	1	07/08/2019 22:34	WG1307402	
Fluorene	1.00		0.0367	1	07/08/2019 22:34	WG1307402	
Indeno(1,2,3-cd)pyrene	ND		0.0367	1	07/08/2019 22:34	WG1307402	
Naphthalene	ND		0.122	1	07/08/2019 22:34	WG1307402	
Phenanthrene	0.487		0.0367	1	07/08/2019 22:34	WG1307402	
Pyrene	ND		0.0367	1	07/08/2019 22:34	WG1307402	
1-Methylnaphthalene	9.43		0.122	1	07/08/2019 22:34	WG1307402	
2-Methylnaphthalene	12.8		0.122	1	07/08/2019 22:34	WG1307402	
(S) p-Terphenyl-d14	82.8		23.0-120		07/08/2019 22:34	WG1307402	
(S) Nitrobenzene-d5	602	J1	14.0-149		07/08/2019 22:34	WG1307402	
(S) 2-Fluorobiphenyl	116		34.0-125		07/08/2019 22:34	WG1307402	

## Sample Narrative:

L1113939-02 WG1307402: High surrogate due to matrix impact



## Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	19.7		1	07/06/2019 15:39	<a href="#">WG1307001</a>

## Wet Chemistry by Method 9012B

Analyte	Result (dry)	Qualifier	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg		date / time	
Cyanide	ND		1.27	1	07/10/2019 17:07	<a href="#">WG1308667</a>

## Mercury by Method 7471B

Analyte	Result (dry)	Qualifier	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg		date / time	
Mercury	2.37		0.102	1	07/07/2019 13:28	<a href="#">WG1306876</a>

## Metals (ICP) by Method 6010D

Analyte	Result (dry)	Qualifier	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg		date / time	
Aluminum	6270		50.8	1	07/07/2019 22:11	<a href="#">WG1306898</a>
Antimony	ND		10.2	1	07/07/2019 22:11	<a href="#">WG1306898</a>
Arsenic	ND		10.2	1	07/07/2019 22:11	<a href="#">WG1306898</a>
Barium	170		2.54	1	07/07/2019 22:11	<a href="#">WG1306898</a>
Beryllium	ND		1.02	1	07/07/2019 22:11	<a href="#">WG1306898</a>
Cadmium	2.93		2.54	1	07/07/2019 22:11	<a href="#">WG1306898</a>
Calcium	143000		508	1	07/07/2019 22:11	<a href="#">WG1306898</a>
Chromium	19.6		5.08	1	07/07/2019 22:11	<a href="#">WG1306898</a>
Cobalt	ND		5.08	1	07/07/2019 22:11	<a href="#">WG1306898</a>
Copper	150		10.2	1	07/07/2019 22:11	<a href="#">WG1306898</a>
Iron	6070		50.8	1	07/07/2019 22:11	<a href="#">WG1306898</a>
Lead	104		2.54	1	07/07/2019 22:11	<a href="#">WG1306898</a>
Magnesium	781		508	1	07/07/2019 22:11	<a href="#">WG1306898</a>
Manganese	1570		5.08	1	07/07/2019 22:11	<a href="#">WG1306898</a>
Nickel	23.6		10.2	1	07/07/2019 22:11	<a href="#">WG1306898</a>
Potassium	ND		508	1	07/07/2019 22:11	<a href="#">WG1306898</a>
Selenium	ND		10.2	1	07/07/2019 22:11	<a href="#">WG1306898</a>
Silver	ND		5.08	1	07/07/2019 22:11	<a href="#">WG1306898</a>
Sodium	2680		508	1	07/07/2019 22:11	<a href="#">WG1306898</a>
Thallium	ND		10.2	1	07/07/2019 22:11	<a href="#">WG1306898</a>
Vanadium	36.4		10.2	1	07/07/2019 22:11	<a href="#">WG1306898</a>
Zinc	1020		25.4	1	07/07/2019 22:11	<a href="#">WG1306898</a>

## Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result (dry)	Qualifier	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg		date / time	
Acetone	0.497		0.127	1	07/07/2019 13:07	<a href="#">WG1307049</a>
Benzene	ND		0.00508	1	07/07/2019 13:07	<a href="#">WG1307049</a>
Bromochloromethane	ND		0.0254	1	07/07/2019 13:07	<a href="#">WG1307049</a>
Bromodichloromethane	ND		0.0127	1	07/07/2019 13:07	<a href="#">WG1307049</a>
Bromoform	ND		0.127	1	07/07/2019 13:07	<a href="#">WG1307049</a>
Bromomethane	ND		0.0635	1	07/07/2019 13:07	<a href="#">WG1307049</a>
Carbon disulfide	0.114		0.0635	1	07/07/2019 13:07	<a href="#">WG1307049</a>
Carbon tetrachloride	ND		0.0254	1	07/07/2019 13:07	<a href="#">WG1307049</a>
Chlorobenzene	ND		0.0127	1	07/07/2019 13:07	<a href="#">WG1307049</a>
Chlorodibromomethane	ND		0.0127	1	07/07/2019 13:07	<a href="#">WG1307049</a>
Chloroethane	ND		0.0254	1	07/07/2019 13:07	<a href="#">WG1307049</a>
Chloroform	ND		0.0127	1	07/07/2019 13:07	<a href="#">WG1307049</a>
Chloromethane	ND		0.0635	1	07/07/2019 13:07	<a href="#">WG1307049</a>

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc



Collected date/time: 06/26/19 16:05

L1113939

## Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result (dry) mg/kg	Qualifier	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Cyclohexane	ND		0.0127	1	07/07/2019 13:07	WG1307049
1,2-Dibromo-3-Chloropropane	ND		0.127	1	07/07/2019 13:07	WG1307049
1,2-Dibromoethane	ND		0.0127	1	07/07/2019 13:07	WG1307049
Dichlorodifluoromethane	ND		0.0127	1	07/07/2019 13:07	WG1307049
1,1-Dichloroethane	ND		0.0127	1	07/07/2019 13:07	WG1307049
1,2-Dichloroethane	ND		0.0127	1	07/07/2019 13:07	WG1307049
1,2-Dichlorobenzene	ND		0.0254	1	07/07/2019 13:07	WG1307049
1,3-Dichlorobenzene	ND		0.0254	1	07/07/2019 13:07	WG1307049
1,4-Dichlorobenzene	ND		0.0254	1	07/07/2019 13:07	WG1307049
1,1-Dichloroethene	ND		0.0127	1	07/07/2019 13:07	WG1307049
cis-1,2-Dichloroethene	ND		0.0127	1	07/07/2019 13:07	WG1307049
trans-1,2-Dichloroethene	ND		0.0254	1	07/07/2019 13:07	WG1307049
1,2-Dichloropropane	ND		0.0254	1	07/07/2019 13:07	WG1307049
cis-1,3-Dichloropropene	ND		0.0127	1	07/07/2019 13:07	WG1307049
trans-1,3-Dichloropropene	ND		0.0254	1	07/07/2019 13:07	WG1307049
Ethylbenzene	ND		0.0127	1	07/07/2019 13:07	WG1307049
2-Hexanone	ND		0.127	1	07/07/2019 13:07	WG1307049
Isopropylbenzene	ND		0.0127	1	07/07/2019 13:07	WG1307049
2-Butanone (MEK)	ND		0.127	1	07/07/2019 13:07	WG1307049
Methyl Acetate	0.500		0.0254	1	07/07/2019 13:07	WG1307049
Methyl Cyclohexane	ND		0.0254	1	07/07/2019 13:07	WG1307049
Methylene Chloride	ND		0.127	1	07/07/2019 13:07	WG1307049
4-Methyl-2-pentanone (MIBK)	ND		0.127	1	07/07/2019 13:07	WG1307049
Methyl tert-butyl ether	ND		0.00508	1	07/07/2019 13:07	WG1307049
Styrene	ND		0.0635	1	07/07/2019 13:07	WG1307049
1,1,2,2-Tetrachloroethane	ND		0.0127	1	07/07/2019 13:07	WG1307049
Tetrachloroethene	ND		0.0127	1	07/07/2019 13:07	WG1307049
Toluene	0.0266		0.0254	1	07/07/2019 13:07	WG1307049
1,2,3-Trichlorobenzene	ND		0.0127	1	07/07/2019 13:07	WG1307049
1,2,4-Trichlorobenzene	ND		0.0635	1	07/07/2019 13:07	WG1307049
1,1,1-Trichloroethane	ND		0.0127	1	07/07/2019 13:07	WG1307049
1,1,2-Trichloroethane	ND		0.0127	1	07/07/2019 13:07	WG1307049
Trichloroethene	ND		0.00508	1	07/07/2019 13:07	WG1307049
Trichlorofluoromethane	ND		0.0127	1	07/07/2019 13:07	WG1307049
1,1,2-Trichlorotrifluoroethane	ND		0.0127	1	07/07/2019 13:07	WG1307049
Vinyl chloride	ND		0.0127	1	07/07/2019 13:07	WG1307049
Xylenes, Total	ND		0.0330	1	07/07/2019 13:07	WG1307049
(S) Toluene-d8	101		75.0-131		07/07/2019 13:07	WG1307049
(S) 4-Bromofluorobenzene	109		67.0-138		07/07/2019 13:07	WG1307049
(S) 1,2-Dichloroethane-d4	105		70.0-130		07/07/2019 13:07	WG1307049

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

## Pesticides (GC) by Method 8081B

Analyte	Result (dry) mg/kg	Qualifier	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Aldrin	ND		0.102	1	07/09/2019 16:48	WG1307387
Alpha BHC	ND		0.102	1	07/09/2019 16:48	WG1307387
Beta BHC	ND	J4	0.102	1	07/09/2019 16:48	WG1307387
Delta BHC	ND		0.102	1	07/09/2019 16:48	WG1307387
Gamma BHC	ND		0.102	1	07/09/2019 16:48	WG1307387
Chlordane	ND		1.02	1	07/09/2019 16:48	WG1307387
4,4-DDD	ND		0.102	1	07/09/2019 16:48	WG1307387
4,4-DDE	ND		0.102	1	07/09/2019 16:48	WG1307387
4,4-DDT	ND		0.102	1	07/09/2019 16:48	WG1307387
Dieldrin	ND		0.102	1	07/09/2019 16:48	WG1307387
Endosulfan I	ND		0.102	1	07/09/2019 16:48	WG1307387
Endosulfan II	ND		0.102	1	07/09/2019 16:48	WG1307387





Collected date/time: 06/26/19 16:05

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## Pesticides (GC) by Method 8081B

Analyte	Result (dry) mg/kg	Qualifier	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Endosulfan sulfate	ND		0.102	1	07/09/2019 16:48	<a href="#">WG1307387</a>
Endrin	ND		0.102	1	07/09/2019 16:48	<a href="#">WG1307387</a>
Endrin aldehyde	ND		0.102	1	07/09/2019 16:48	<a href="#">WG1307387</a>
Endrin ketone	ND		0.102	1	07/09/2019 16:48	<a href="#">WG1307387</a>
Heptachlor	ND		0.102	1	07/09/2019 16:48	<a href="#">WG1307387</a>
Heptachlor epoxide	ND		0.102	1	07/09/2019 16:48	<a href="#">WG1307387</a>
Hexachlorobenzene	ND		0.102	1	07/09/2019 16:48	<a href="#">WG1307387</a>
Methoxychlor	ND		0.102	1	07/09/2019 16:48	<a href="#">WG1307387</a>
Toxaphene	ND		2.03	1	07/09/2019 16:48	<a href="#">WG1307387</a>
(S) Decachlorobiphenyl	94.4		10.0-135		07/09/2019 16:48	<a href="#">WG1307387</a>
(S) Tetrachloro-m-xylene	268	<u>J1</u>	10.0-139		07/09/2019 16:48	<a href="#">WG1307387</a>

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

## Polychlorinated Biphenyls (GC) by Method 8082 A

Analyte	Result (dry) mg/kg	Qualifier	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
PCB 1016	ND	<u>J4</u>	0.0863	1	07/09/2019 15:38	<a href="#">WG1307387</a>
PCB 1221	ND		0.0863	1	07/09/2019 15:38	<a href="#">WG1307387</a>
PCB 1232	ND		0.0863	1	07/09/2019 15:38	<a href="#">WG1307387</a>
PCB 1242	ND		0.0863	1	07/09/2019 15:38	<a href="#">WG1307387</a>
PCB 1248	ND		0.0863	1	07/09/2019 15:38	<a href="#">WG1307387</a>
PCB 1254	ND		0.0863	1	07/09/2019 15:38	<a href="#">WG1307387</a>
PCB 1260	ND	<u>J4</u>	0.0863	1	07/09/2019 15:38	<a href="#">WG1307387</a>
(S) Decachlorobiphenyl	104		10.0-135		07/09/2019 15:38	<a href="#">WG1307387</a>
(S) Tetrachloro-m-xylene	79.0		10.0-139		07/09/2019 15:38	<a href="#">WG1307387</a>

7 Gl

8 Al

9 Sc

## Semi Volatile Organic Compounds (GC/MS) by Method 8270D

Analyte	Result (dry) mg/kg	Qualifier	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Acenaphthene	ND	<u>J4</u>	0.169	1	07/11/2019 06:21	<a href="#">WG1307389</a>
Acenaphthylene	ND	<u>J4</u>	0.169	1	07/11/2019 06:21	<a href="#">WG1307389</a>
Acetophenone	ND	<u>J4</u>	1.69	1	07/11/2019 06:21	<a href="#">WG1307389</a>
Anthracene	ND		0.169	1	07/11/2019 06:21	<a href="#">WG1307389</a>
Atrazine	ND		1.69	1	07/11/2019 06:21	<a href="#">WG1307389</a>
Benzaldehyde	ND	<u>J4</u>	1.69	1	07/11/2019 06:21	<a href="#">WG1307389</a>
Benzo(a)anthracene	ND		0.169	1	07/11/2019 06:21	<a href="#">WG1307389</a>
Benzo(b)fluoranthene	ND		0.169	1	07/11/2019 06:21	<a href="#">WG1307389</a>
Benzo(k)fluoranthene	ND		0.169	1	07/11/2019 06:21	<a href="#">WG1307389</a>
Benzo(g,h,i)perylene	ND		0.169	1	07/11/2019 06:21	<a href="#">WG1307389</a>
Benzo(a)pyrene	ND		0.169	1	07/11/2019 06:21	<a href="#">WG1307389</a>
Biphenyl	ND	<u>J4</u>	1.69	1	07/11/2019 06:21	<a href="#">WG1307389</a>
Bis(2-chloroethoxy)methane	ND	<u>J4</u>	1.69	1	07/11/2019 06:21	<a href="#">WG1307389</a>
Bis(2-chloroethyl)ether	ND	<u>J4</u>	1.69	1	07/11/2019 06:21	<a href="#">WG1307389</a>
Bis(2-chloroisopropyl)ether	ND	<u>J4</u>	1.69	1	07/11/2019 06:21	<a href="#">WG1307389</a>
4-Bromophenyl-phenylether	ND		1.69	1	07/11/2019 06:21	<a href="#">WG1307389</a>
Caprolactam	ND		1.69	1	07/11/2019 06:21	<a href="#">WG1307389</a>
Carbazole	ND		1.69	1	07/11/2019 06:21	<a href="#">WG1307389</a>
4-Chloroaniline	ND	<u>J4</u>	1.69	1	07/11/2019 06:21	<a href="#">WG1307389</a>
2-Chloronaphthalene	ND	<u>J4</u>	0.169	1	07/11/2019 06:21	<a href="#">WG1307389</a>
4-Chlorophenyl-phenylether	ND		1.69	1	07/11/2019 06:21	<a href="#">WG1307389</a>
Chrysene	ND		0.169	1	07/11/2019 06:21	<a href="#">WG1307389</a>
Dibenz(a,h)anthracene	ND		0.169	1	07/11/2019 06:21	<a href="#">WG1307389</a>
Dibenzofuran	ND	<u>J4</u>	1.69	1	07/11/2019 06:21	<a href="#">WG1307389</a>
3,3-Dichlorobenzidine	ND		1.69	1	07/11/2019 06:21	<a href="#">WG1307389</a>
2,4-Dinitrotoluene	ND		1.69	1	07/11/2019 06:21	<a href="#">WG1307389</a>
2,6-Dinitrotoluene	ND		1.69	1	07/11/2019 06:21	<a href="#">WG1307389</a>



Semi Volatile Organic Compounds (GC/MS) by Method 8270D

Analyte	Result (dry) mg/kg	Qualifier	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Fluoranthene	ND		0.169	1	07/11/2019 06:21	WG1307389
Fluorene	ND		0.169	1	07/11/2019 06:21	WG1307389
Hexachlorobenzene	ND		1.69	1	07/11/2019 06:21	WG1307389
Hexachloro-1,3-butadiene	ND	J4	1.69	1	07/11/2019 06:21	WG1307389
Hexachlorocyclopentadiene	ND	J4	1.69	1	07/11/2019 06:21	WG1307389
Hexachloroethane	ND	J4	1.69	1	07/11/2019 06:21	WG1307389
Indeno(1,2,3-cd)pyrene	ND		0.169	1	07/11/2019 06:21	WG1307389
Isophorone	ND	J4	1.69	1	07/11/2019 06:21	WG1307389
2-Methylnaphthalene	8.17	J4	0.338	2	07/12/2019 12:54	WG1307389
Naphthalene	ND	J4	0.169	1	07/11/2019 06:21	WG1307389
2-Nitroaniline	ND		1.69	1	07/11/2019 06:21	WG1307389
3-Nitroaniline	ND		1.69	1	07/11/2019 06:21	WG1307389
4-Nitroaniline	ND		1.69	1	07/11/2019 06:21	WG1307389
Nitrobenzene	ND	J4	1.69	1	07/11/2019 06:21	WG1307389
n-Nitrosodiphenylamine	ND		1.69	1	07/11/2019 06:21	WG1307389
n-Nitrosodi-n-propylamine	ND	J4	1.69	1	07/11/2019 06:21	WG1307389
Phenanthrene	0.357		0.169	1	07/11/2019 06:21	WG1307389
Benzylbutyl phthalate	ND		1.69	1	07/11/2019 06:21	WG1307389
Bis(2-ethylhexyl)phthalate	ND		1.69	1	07/11/2019 06:21	WG1307389
Di-n-butyl phthalate	ND		1.69	1	07/11/2019 06:21	WG1307389
Diethyl phthalate	ND		1.69	1	07/11/2019 06:21	WG1307389
Dimethyl phthalate	ND		1.69	1	07/11/2019 06:21	WG1307389
Di-n-octyl phthalate	ND		1.69	1	07/11/2019 06:21	WG1307389
Pyrene	ND		0.169	1	07/11/2019 06:21	WG1307389
1,2,4,5-Tetrachlorobenzene	ND	J4	1.69	1	07/11/2019 06:21	WG1307389
4-Chloro-3-methylphenol	ND	J4	1.69	1	07/11/2019 06:21	WG1307389
2-Chlorophenol	ND	J4	1.69	1	07/11/2019 06:21	WG1307389
2-Methylphenol	ND		1.69	1	07/11/2019 06:21	WG1307389
3&4-Methyl Phenol	ND		1.69	1	07/11/2019 06:21	WG1307389
2,4-Dichlorophenol	ND	J4	1.69	1	07/11/2019 06:21	WG1307389
2,4-Dimethylphenol	ND	J4	1.69	1	07/11/2019 06:21	WG1307389
4,6-Dinitro-2-methylphenol	ND		1.69	1	07/11/2019 06:21	WG1307389
2,4-Dinitrophenol	ND	J4	1.69	1	07/11/2019 06:21	WG1307389
2-Nitrophenol	ND	J4	1.69	1	07/11/2019 06:21	WG1307389
4-Nitrophenol	ND		1.69	1	07/11/2019 06:21	WG1307389
Pentachlorophenol	ND		1.69	1	07/11/2019 06:21	WG1307389
Phenol	ND		1.69	1	07/11/2019 06:21	WG1307389
2,4,5-Trichlorophenol	ND		1.69	1	07/11/2019 06:21	WG1307389
2,4,6-Trichlorophenol	ND	J4	1.69	1	07/11/2019 06:21	WG1307389
(S) 2-Fluorophenol	58.7		12.0-120		07/11/2019 06:21	WG1307389
(S) 2-Fluorophenol	64.5		12.0-120		07/12/2019 12:54	WG1307389
(S) Phenol-d5	54.2		10.0-120		07/11/2019 06:21	WG1307389
(S) Phenol-d5	64.2		10.0-120		07/12/2019 12:54	WG1307389
(S) Nitrobenzene-d5	80.3		10.0-122		07/11/2019 06:21	WG1307389
(S) Nitrobenzene-d5	103		10.0-122		07/12/2019 12:54	WG1307389
(S) 2-Fluorobiphenyl	56.9		15.0-120		07/11/2019 06:21	WG1307389
(S) 2-Fluorobiphenyl	60.9		15.0-120		07/12/2019 12:54	WG1307389
(S) 2,4,6-Tribromophenol	65.6		10.0-127		07/11/2019 06:21	WG1307389
(S) 2,4,6-Tribromophenol	67.3		10.0-127		07/12/2019 12:54	WG1307389
(S) p-Terphenyl-d14	65.9		10.0-120		07/11/2019 06:21	WG1307389
(S) p-Terphenyl-d14	30.2		10.0-120		07/12/2019 12:54	WG1307389

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc



Collected date/time: 06/26/19 16:05

L1113939

## Semi Volatile Organic Compounds (GC/MS) by Method 8270E-SIM

Analyte	Result (dry) mg/kg	Qualifier	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch	
Anthracene	ND		0.0305	1	07/08/2019 21:11	<a href="#">WG1307402</a>	1 Cp
Acenaphthene	ND		0.0305	1	07/08/2019 21:11	<a href="#">WG1307402</a>	2 Tc
Acenaphthylene	ND		0.0305	1	07/08/2019 21:11	<a href="#">WG1307402</a>	
Benzo(a)anthracene	ND		0.0305	1	07/08/2019 21:11	<a href="#">WG1307402</a>	3 Ss
Benzo(a)pyrene	ND		0.0305	1	07/08/2019 21:11	<a href="#">WG1307402</a>	
Benzo(b)fluoranthene	ND		0.0305	1	07/08/2019 21:11	<a href="#">WG1307402</a>	4 Cn
Benzo(g,h,i)perylene	ND		0.0305	1	07/08/2019 21:11	<a href="#">WG1307402</a>	
Benzo(k)fluoranthene	ND		0.0305	1	07/08/2019 21:11	<a href="#">WG1307402</a>	
Chrysene	ND		0.0305	1	07/08/2019 21:11	<a href="#">WG1307402</a>	5 Sr
Dibenz(a,h)anthracene	ND		0.0305	1	07/08/2019 21:11	<a href="#">WG1307402</a>	
Fluoranthene	0.0352		0.0305	1	07/08/2019 21:11	<a href="#">WG1307402</a>	6 Qc
Fluorene	0.548		0.0305	1	07/08/2019 21:11	<a href="#">WG1307402</a>	
Indeno(1,2,3-cd)pyrene	ND		0.0305	1	07/08/2019 21:11	<a href="#">WG1307402</a>	7 Gl
Naphthalene	ND		0.102	1	07/08/2019 21:11	<a href="#">WG1307402</a>	
Phenanthrene	0.308		0.0305	1	07/08/2019 21:11	<a href="#">WG1307402</a>	8 Al
Pyrene	ND		0.0305	1	07/08/2019 21:11	<a href="#">WG1307402</a>	
1-Methylnaphthalene	7.11		0.102	1	07/08/2019 21:11	<a href="#">WG1307402</a>	
2-Methylnaphthalene	9.90		0.102	1	07/08/2019 21:11	<a href="#">WG1307402</a>	9 Sc
(S) p-Terphenyl-d14	77.4		23.0-120		07/08/2019 21:11	<a href="#">WG1307402</a>	
(S) Nitrobenzene-d5	47.5		14.0-149		07/08/2019 21:11	<a href="#">WG1307402</a>	
(S) 2-Fluorobiphenyl	103		34.0-125		07/08/2019 21:11	<a href="#">WG1307402</a>	



Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	11.6		1	07/06/2019 15:39	<a href="#">WG1307001</a>

Wet Chemistry by Method 9012B

Analyte	Result (dry)	Qualifier	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg		date / time	
Cyanide	ND		2.15	1	07/10/2019 17:08	<a href="#">WG1308667</a>

Mercury by Method 7471B

Analyte	Result (dry)	Qualifier	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg		date / time	
Mercury	0.940		0.172	1	07/07/2019 13:31	<a href="#">WG1306876</a>

Metals (ICP) by Method 6010D

Analyte	Result (dry)	Qualifier	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg		date / time	
Aluminum	4680		85.9	1	07/07/2019 22:14	<a href="#">WG1306898</a>
Antimony	ND		17.2	1	07/07/2019 22:14	<a href="#">WG1306898</a>
Arsenic	ND		17.2	1	07/07/2019 22:14	<a href="#">WG1306898</a>
Barium	86.2		4.30	1	07/07/2019 22:14	<a href="#">WG1306898</a>
Beryllium	ND		1.72	1	07/07/2019 22:14	<a href="#">WG1306898</a>
Cadmium	ND		4.30	1	07/07/2019 22:14	<a href="#">WG1306898</a>
Calcium	65000		859	1	07/07/2019 22:14	<a href="#">WG1306898</a>
Chromium	17.6		8.59	1	07/07/2019 22:14	<a href="#">WG1306898</a>
Cobalt	ND		8.59	1	07/07/2019 22:14	<a href="#">WG1306898</a>
Copper	76.5		17.2	1	07/07/2019 22:14	<a href="#">WG1306898</a>
Iron	3800		85.9	1	07/07/2019 22:14	<a href="#">WG1306898</a>
Lead	60.4		4.30	1	07/07/2019 22:14	<a href="#">WG1306898</a>
Magnesium	ND		859	1	07/07/2019 22:14	<a href="#">WG1306898</a>
Manganese	736		8.59	1	07/07/2019 22:14	<a href="#">WG1306898</a>
Nickel	18.5		17.2	1	07/07/2019 22:14	<a href="#">WG1306898</a>
Potassium	ND		859	1	07/07/2019 22:14	<a href="#">WG1306898</a>
Selenium	ND		17.2	1	07/07/2019 22:14	<a href="#">WG1306898</a>
Silver	ND		8.59	1	07/07/2019 22:14	<a href="#">WG1306898</a>
Sodium	2300		859	1	07/07/2019 22:14	<a href="#">WG1306898</a>
Thallium	ND		17.2	1	07/07/2019 22:14	<a href="#">WG1306898</a>
Vanadium	36.4		17.2	1	07/07/2019 22:14	<a href="#">WG1306898</a>
Zinc	746		43.0	1	07/07/2019 22:14	<a href="#">WG1306898</a>

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result (dry)	Qualifier	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg		date / time	
Acetone	2.26		0.316	1.47	07/07/2019 13:42	<a href="#">WG1307049</a>
Benzene	ND		0.0126	1.47	07/07/2019 13:42	<a href="#">WG1307049</a>
Bromochloromethane	ND		0.0632	1.47	07/07/2019 13:42	<a href="#">WG1307049</a>
Bromodichloromethane	ND		0.0316	1.47	07/07/2019 13:42	<a href="#">WG1307049</a>
Bromoform	ND		0.316	1.47	07/07/2019 13:42	<a href="#">WG1307049</a>
Bromomethane	ND		0.158	1.47	07/07/2019 13:42	<a href="#">WG1307049</a>
Carbon disulfide	ND		0.158	1.47	07/07/2019 13:42	<a href="#">WG1307049</a>
Carbon tetrachloride	ND		0.0632	1.47	07/07/2019 13:42	<a href="#">WG1307049</a>
Chlorobenzene	ND		0.0316	1.47	07/07/2019 13:42	<a href="#">WG1307049</a>
Chlorodibromomethane	ND		0.0316	1.47	07/07/2019 13:42	<a href="#">WG1307049</a>
Chloroethane	ND		0.0632	1.47	07/07/2019 13:42	<a href="#">WG1307049</a>
Chloroform	ND		0.0316	1.47	07/07/2019 13:42	<a href="#">WG1307049</a>
Chloromethane	ND		0.158	1.47	07/07/2019 13:42	<a href="#">WG1307049</a>

1  
Cp

2  
Tc

3  
Ss

4  
Cn

5  
Sr

6  
Qc

7  
Gl

8  
Al

9  
Sc



Collected date/time: 06/26/19 15:50

L1113939

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result (dry) mg/kg	Qualifier	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Cyclohexane	ND		0.0316	1.47	07/07/2019 13:42	WG1307049
1,2-Dibromo-3-Chloropropane	ND		0.316	1.47	07/07/2019 13:42	WG1307049
1,2-Dibromoethane	ND		0.0316	1.47	07/07/2019 13:42	WG1307049
Dichlorodifluoromethane	ND		0.0316	1.47	07/07/2019 13:42	WG1307049
1,1-Dichloroethane	ND		0.0316	1.47	07/07/2019 13:42	WG1307049
1,2-Dichloroethane	ND		0.0316	1.47	07/07/2019 13:42	WG1307049
1,2-Dichlorobenzene	ND		0.0632	1.47	07/07/2019 13:42	WG1307049
1,3-Dichlorobenzene	ND		0.0632	1.47	07/07/2019 13:42	WG1307049
1,4-Dichlorobenzene	ND		0.0632	1.47	07/07/2019 13:42	WG1307049
1,1-Dichloroethene	ND		0.0316	1.47	07/07/2019 13:42	WG1307049
cis-1,2-Dichloroethene	ND		0.0316	1.47	07/07/2019 13:42	WG1307049
trans-1,2-Dichloroethene	ND		0.0632	1.47	07/07/2019 13:42	WG1307049
1,2-Dichloropropane	ND		0.0632	1.47	07/07/2019 13:42	WG1307049
cis-1,3-Dichloropropene	ND		0.0316	1.47	07/07/2019 13:42	WG1307049
trans-1,3-Dichloropropene	ND		0.0632	1.47	07/07/2019 13:42	WG1307049
Ethylbenzene	0.0642		0.0316	1.47	07/07/2019 13:42	WG1307049
2-Hexanone	ND		0.316	1.47	07/07/2019 13:42	WG1307049
Isopropylbenzene	0.200		0.0316	1.47	07/07/2019 13:42	WG1307049
2-Butanone (MEK)	ND		0.316	1.47	07/07/2019 13:42	WG1307049
Methyl Acetate	2.63		0.0632	1.47	07/07/2019 13:42	WG1307049
Methyl Cyclohexane	0.232		0.0632	1.47	07/07/2019 13:42	WG1307049
Methylene Chloride	ND		0.316	1.47	07/07/2019 13:42	WG1307049
4-Methyl-2-pentanone (MIBK)	ND		0.316	1.47	07/07/2019 13:42	WG1307049
Methyl tert-butyl ether	ND		0.0126	1.47	07/07/2019 13:42	WG1307049
Styrene	ND		0.158	1.47	07/07/2019 13:42	WG1307049
1,1,2,2-Tetrachloroethane	ND		0.0316	1.47	07/07/2019 13:42	WG1307049
Tetrachloroethene	ND		0.0316	1.47	07/07/2019 13:42	WG1307049
Toluene	0.0681		0.0632	1.47	07/07/2019 13:42	WG1307049
1,2,3-Trichlorobenzene	ND		0.0316	1.47	07/07/2019 13:42	WG1307049
1,2,4-Trichlorobenzene	ND		0.158	1.47	07/07/2019 13:42	WG1307049
1,1,1-Trichloroethane	ND		0.0316	1.47	07/07/2019 13:42	WG1307049
1,1,2-Trichloroethane	ND		0.0316	1.47	07/07/2019 13:42	WG1307049
Trichloroethene	ND		0.0126	1.47	07/07/2019 13:42	WG1307049
Trichlorofluoromethane	ND		0.0316	1.47	07/07/2019 13:42	WG1307049
1,1,2-Trichlorotrifluoroethane	ND		0.0316	1.47	07/07/2019 13:42	WG1307049
Vinyl chloride	ND		0.0316	1.47	07/07/2019 13:42	WG1307049
Xylenes, Total	ND		0.0821	1.47	07/07/2019 13:42	WG1307049
(S) Toluene-d8	101		75.0-131		07/07/2019 13:42	WG1307049
(S) 4-Bromofluorobenzene	112		67.0-138		07/07/2019 13:42	WG1307049
(S) 1,2-Dichloroethane-d4	107		70.0-130		07/07/2019 13:42	WG1307049

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

Pesticides (GC) by Method 8081B

Analyte	Result (dry) mg/kg	Qualifier	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Aldrin	ND		0.172	1	07/09/2019 17:00	WG1307387
Alpha BHC	ND		0.172	1	07/09/2019 17:00	WG1307387
Beta BHC	ND	J4	0.172	1	07/09/2019 17:00	WG1307387
Delta BHC	ND		0.172	1	07/09/2019 17:00	WG1307387
Gamma BHC	ND		0.172	1	07/09/2019 17:00	WG1307387
Chlordane	ND		1.72	1	07/09/2019 17:00	WG1307387
4,4-DDD	ND		0.172	1	07/09/2019 17:00	WG1307387
4,4-DDE	ND		0.172	1	07/09/2019 17:00	WG1307387
4,4-DDT	ND		0.172	1	07/09/2019 17:00	WG1307387
Dieldrin	ND		0.172	1	07/09/2019 17:00	WG1307387
Endosulfan I	ND		0.172	1	07/09/2019 17:00	WG1307387
Endosulfan II	ND		0.172	1	07/09/2019 17:00	WG1307387



Collected date/time: 06/26/19 15:50

L1113939

Pesticides (GC) by Method 8081B

Analyte	Result (dry) mg/kg	Qualifier	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Endosulfan sulfate	ND		0.172	1	07/09/2019 17:00	<a href="#">WG1307387</a>
Endrin	ND		0.172	1	07/09/2019 17:00	<a href="#">WG1307387</a>
Endrin aldehyde	ND		0.172	1	07/09/2019 17:00	<a href="#">WG1307387</a>
Endrin ketone	ND		0.172	1	07/09/2019 17:00	<a href="#">WG1307387</a>
Heptachlor	ND		0.172	1	07/09/2019 17:00	<a href="#">WG1307387</a>
Heptachlor epoxide	ND		0.172	1	07/09/2019 17:00	<a href="#">WG1307387</a>
Hexachlorobenzene	ND		0.172	1	07/09/2019 17:00	<a href="#">WG1307387</a>
Methoxychlor	ND		0.172	1	07/09/2019 17:00	<a href="#">WG1307387</a>
Toxaphene	ND		3.44	1	07/09/2019 17:00	<a href="#">WG1307387</a>
(S) Decachlorobiphenyl	78.0		10.0-135		07/09/2019 17:00	<a href="#">WG1307387</a>
(S) Tetrachloro-m-xylene	70.1		10.0-139		07/09/2019 17:00	<a href="#">WG1307387</a>

- 1 Cp
- 2 Tc
- 3 Ss
- 4 Cn
- 5 Sr
- 6 Qc
- 7 Gl
- 8 Al
- 9 Sc

Polychlorinated Biphenyls (GC) by Method 8082 A

Analyte	Result (dry) mg/kg	Qualifier	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
PCB 1016	ND	J4	0.146	1	07/09/2019 16:16	<a href="#">WG1307387</a>
PCB 1221	ND		0.146	1	07/09/2019 16:16	<a href="#">WG1307387</a>
PCB 1232	ND		0.146	1	07/09/2019 16:16	<a href="#">WG1307387</a>
PCB 1242	ND		0.146	1	07/09/2019 16:16	<a href="#">WG1307387</a>
PCB 1248	ND		0.146	1	07/09/2019 16:16	<a href="#">WG1307387</a>
PCB 1254	ND		0.146	1	07/09/2019 16:16	<a href="#">WG1307387</a>
PCB 1260	ND	J4	0.146	1	07/09/2019 16:16	<a href="#">WG1307387</a>
(S) Decachlorobiphenyl	84.8		10.0-135		07/09/2019 16:16	<a href="#">WG1307387</a>
(S) Tetrachloro-m-xylene	73.6		10.0-139		07/09/2019 16:16	<a href="#">WG1307387</a>

Semi Volatile Organic Compounds (GC/MS) by Method 8270D

Analyte	Result (dry) mg/kg	Qualifier	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Acenaphthene	ND	J4	0.286	1	07/10/2019 00:53	<a href="#">WG1307389</a>
Acenaphthylene	ND	J4	0.286	1	07/10/2019 00:53	<a href="#">WG1307389</a>
Acetophenone	ND	J4	2.86	1	07/10/2019 00:53	<a href="#">WG1307389</a>
Anthracene	ND		0.286	1	07/10/2019 00:53	<a href="#">WG1307389</a>
Atrazine	ND		2.86	1	07/10/2019 00:53	<a href="#">WG1307389</a>
Benzaldehyde	ND	J4	2.86	1	07/10/2019 00:53	<a href="#">WG1307389</a>
Benzo(a)anthracene	ND		0.286	1	07/10/2019 00:53	<a href="#">WG1307389</a>
Benzo(b)fluoranthene	ND		0.286	1	07/10/2019 00:53	<a href="#">WG1307389</a>
Benzo(k)fluoranthene	ND		0.286	1	07/10/2019 00:53	<a href="#">WG1307389</a>
Benzo(g,h,i)perylene	ND		0.286	1	07/10/2019 00:53	<a href="#">WG1307389</a>
Benzo(a)pyrene	ND		0.286	1	07/10/2019 00:53	<a href="#">WG1307389</a>
Biphenyl	ND	J4	2.86	1	07/10/2019 00:53	<a href="#">WG1307389</a>
Bis(2-chloroethoxy)methane	ND	J4	2.86	1	07/10/2019 00:53	<a href="#">WG1307389</a>
Bis(2-chloroethyl)ether	ND	J4	2.86	1	07/10/2019 00:53	<a href="#">WG1307389</a>
Bis(2-chloroisopropyl)ether	ND	J4	2.86	1	07/10/2019 00:53	<a href="#">WG1307389</a>
4-Bromophenyl-phenylether	ND		2.86	1	07/10/2019 00:53	<a href="#">WG1307389</a>
Caprolactam	ND		2.86	1	07/10/2019 00:53	<a href="#">WG1307389</a>
Carbazole	ND		2.86	1	07/10/2019 00:53	<a href="#">WG1307389</a>
4-Chloroaniline	ND	J4	2.86	1	07/10/2019 00:53	<a href="#">WG1307389</a>
2-Chloronaphthalene	ND	J4	0.286	1	07/10/2019 00:53	<a href="#">WG1307389</a>
4-Chlorophenyl-phenylether	ND		2.86	1	07/10/2019 00:53	<a href="#">WG1307389</a>
Chrysene	ND		0.286	1	07/10/2019 00:53	<a href="#">WG1307389</a>
Dibenz(a,h)anthracene	ND		0.286	1	07/10/2019 00:53	<a href="#">WG1307389</a>
Dibenzofuran	ND	J4	2.86	1	07/10/2019 00:53	<a href="#">WG1307389</a>
3,3-Dichlorobenzidine	ND		2.86	1	07/10/2019 00:53	<a href="#">WG1307389</a>
2,4-Dinitrotoluene	ND		2.86	1	07/10/2019 00:53	<a href="#">WG1307389</a>
2,6-Dinitrotoluene	ND		2.86	1	07/10/2019 00:53	<a href="#">WG1307389</a>



Collected date/time: 06/26/19 15:50

L1113939

Semi Volatile Organic Compounds (GC/MS) by Method 8270D

Analyte	Result (dry) mg/kg	Qualifier	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Fluoranthene	ND		0.286	1	07/10/2019 00:53	WG1307389
Fluorene	0.628		0.286	1	07/10/2019 00:53	WG1307389
Hexachlorobenzene	ND		2.86	1	07/10/2019 00:53	WG1307389
Hexachloro-1,3-butadiene	ND	J4	2.86	1	07/10/2019 00:53	WG1307389
Hexachlorocyclopentadiene	ND	J4	2.86	1	07/10/2019 00:53	WG1307389
Hexachloroethane	ND	J4	2.86	1	07/10/2019 00:53	WG1307389
Indeno(1,2,3-cd)pyrene	ND		0.286	1	07/10/2019 00:53	WG1307389
Isophorone	ND	J4	2.86	1	07/10/2019 00:53	WG1307389
2-Methylnaphthalene	9.54	J4	0.286	1	07/10/2019 00:53	WG1307389
Naphthalene	ND	J4	0.286	1	07/10/2019 00:53	WG1307389
2-Nitroaniline	ND		2.86	1	07/10/2019 00:53	WG1307389
3-Nitroaniline	ND		2.86	1	07/10/2019 00:53	WG1307389
4-Nitroaniline	ND		2.86	1	07/10/2019 00:53	WG1307389
Nitrobenzene	ND	J4	2.86	1	07/10/2019 00:53	WG1307389
n-Nitrosodiphenylamine	ND		2.86	1	07/10/2019 00:53	WG1307389
n-Nitrosodi-n-propylamine	ND	J4	2.86	1	07/10/2019 00:53	WG1307389
Phenanthrene	0.395		0.286	1	07/10/2019 00:53	WG1307389
Benzylbutyl phthalate	ND		2.86	1	07/10/2019 00:53	WG1307389
Bis(2-ethylhexyl)phthalate	ND		2.86	1	07/10/2019 00:53	WG1307389
Di-n-butyl phthalate	ND		2.86	1	07/10/2019 00:53	WG1307389
Diethyl phthalate	ND		2.86	1	07/10/2019 00:53	WG1307389
Dimethyl phthalate	ND		2.86	1	07/10/2019 00:53	WG1307389
Di-n-octyl phthalate	ND		2.86	1	07/10/2019 00:53	WG1307389
Pyrene	ND		0.286	1	07/10/2019 00:53	WG1307389
1,2,4,5-Tetrachlorobenzene	ND	J4	2.86	1	07/10/2019 00:53	WG1307389
4-Chloro-3-methylphenol	ND	J4	2.86	1	07/10/2019 00:53	WG1307389
2-Chlorophenol	ND	J4	2.86	1	07/10/2019 00:53	WG1307389
2-Methylphenol	ND		2.86	1	07/10/2019 00:53	WG1307389
3&4-Methyl Phenol	ND		2.86	1	07/10/2019 00:53	WG1307389
2,4-Dichlorophenol	ND	J4	2.86	1	07/10/2019 00:53	WG1307389
2,4-Dimethylphenol	ND	J4	2.86	1	07/10/2019 00:53	WG1307389
4,6-Dinitro-2-methylphenol	ND		2.86	1	07/10/2019 00:53	WG1307389
2,4-Dinitrophenol	ND	J4	2.86	1	07/10/2019 00:53	WG1307389
2-Nitrophenol	ND	J4	2.86	1	07/10/2019 00:53	WG1307389
4-Nitrophenol	ND		2.86	1	07/10/2019 00:53	WG1307389
Pentachlorophenol	ND		2.86	1	07/10/2019 00:53	WG1307389
Phenol	ND		2.86	1	07/10/2019 00:53	WG1307389
2,4,5-Trichlorophenol	ND		2.86	1	07/10/2019 00:53	WG1307389
2,4,6-Trichlorophenol	ND	J4	2.86	1	07/10/2019 00:53	WG1307389
(S) 2-Fluorophenol	89.0		12.0-120		07/10/2019 00:53	WG1307389
(S) Phenol-d5	80.2		10.0-120		07/10/2019 00:53	WG1307389
(S) Nitrobenzene-d5	88.3		10.0-122		07/10/2019 00:53	WG1307389
(S) 2-Fluorobiphenyl	74.5		15.0-120		07/10/2019 00:53	WG1307389
(S) 2,4,6-Tribromophenol	93.4		10.0-127		07/10/2019 00:53	WG1307389
(S) p-Terphenyl-d14	90.5		10.0-120		07/10/2019 00:53	WG1307389

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

Semi Volatile Organic Compounds (GC/MS) by Method 8270E-SIM

Analyte	Result (dry) mg/kg	Qualifier	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Anthracene	ND		0.0516	1	07/08/2019 21:32	WG1307402
Acenaphthene	ND		0.0516	1	07/08/2019 21:32	WG1307402
Acenaphthylene	ND		0.0516	1	07/08/2019 21:32	WG1307402
Benzo(a)anthracene	ND		0.0516	1	07/08/2019 21:32	WG1307402
Benzo(a)pyrene	ND		0.0516	1	07/08/2019 21:32	WG1307402
Benzo(b)fluoranthene	ND		0.0516	1	07/08/2019 21:32	WG1307402
Benzo(g,h,i)perylene	ND		0.0516	1	07/08/2019 21:32	WG1307402





Collected date/time: 06/26/19 15:50

L1113939

Semi Volatile Organic Compounds (GC/MS) by Method 8270E-SIM

Analyte	Result (dry) mg/kg	Qualifier	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Benzo(k)fluoranthene	ND		0.0516	1	07/08/2019 21:32	<a href="#">WG1307402</a>
Chrysene	ND		0.0516	1	07/08/2019 21:32	<a href="#">WG1307402</a>
Dibenz(a,h)anthracene	ND		0.0516	1	07/08/2019 21:32	<a href="#">WG1307402</a>
Fluoranthene	ND		0.0516	1	07/08/2019 21:32	<a href="#">WG1307402</a>
Fluorene	0.230		0.0516	1	07/08/2019 21:32	<a href="#">WG1307402</a>
Indeno(1,2,3-cd)pyrene	ND		0.0516	1	07/08/2019 21:32	<a href="#">WG1307402</a>
Naphthalene	ND		0.172	1	07/08/2019 21:32	<a href="#">WG1307402</a>
Phenanthrene	0.0954		0.0516	1	07/08/2019 21:32	<a href="#">WG1307402</a>
Pyrene	ND		0.0516	1	07/08/2019 21:32	<a href="#">WG1307402</a>
1-Methylnaphthalene	3.57		0.172	1	07/08/2019 21:32	<a href="#">WG1307402</a>
2-Methylnaphthalene	4.96		0.172	1	07/08/2019 21:32	<a href="#">WG1307402</a>
(S) p-Terphenyl-d14	68.5		23.0-120		07/08/2019 21:32	<a href="#">WG1307402</a>
(S) Nitrobenzene-d5	59.0		14.0-149		07/08/2019 21:32	<a href="#">WG1307402</a>
(S) 2-Fluorobiphenyl	54.5		34.0-125		07/08/2019 21:32	<a href="#">WG1307402</a>

- 1 Cp
- 2 Tc
- 3 Ss
- 4 Cn
- 5 Sr
- 6 Qc
- 7 Gl
- 8 Al
- 9 Sc



## Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	26.5		1	07/05/2019 17:10	<a href="#">WG1307003</a>

## Wet Chemistry by Method 9012B

Analyte	Result (dry)	Qualifier	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg		date / time	
Cyanide	ND		0.945	1	07/10/2019 17:09	<a href="#">WG1308667</a>

## Mercury by Method 7471B

Analyte	Result (dry)	Qualifier	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg		date / time	
Mercury	ND		0.0756	1	07/07/2019 13:38	<a href="#">WG1306876</a>

## Metals (ICP) by Method 6010D

Analyte	Result (dry)	Qualifier	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg		date / time	
Aluminum	33800		37.8	1	07/07/2019 22:17	<a href="#">WG1306898</a>
Antimony	ND		7.56	1	07/07/2019 22:17	<a href="#">WG1306898</a>
Arsenic	ND		7.56	1	07/07/2019 22:17	<a href="#">WG1306898</a>
Barium	231		1.89	1	07/07/2019 22:17	<a href="#">WG1306898</a>
Beryllium	0.832		0.756	1	07/07/2019 22:17	<a href="#">WG1306898</a>
Cadmium	ND		1.89	1	07/07/2019 22:17	<a href="#">WG1306898</a>
Calcium	42100		378	1	07/07/2019 22:17	<a href="#">WG1306898</a>
Chromium	80.7		3.78	1	07/07/2019 22:17	<a href="#">WG1306898</a>
Cobalt	17.7		3.78	1	07/07/2019 22:17	<a href="#">WG1306898</a>
Copper	68.4		7.56	1	07/07/2019 22:17	<a href="#">WG1306898</a>
Iron	40400		37.8	1	07/07/2019 22:17	<a href="#">WG1306898</a>
Lead	28.0		1.89	1	07/07/2019 22:17	<a href="#">WG1306898</a>
Magnesium	6530		378	1	07/07/2019 22:17	<a href="#">WG1306898</a>
Manganese	2180		3.78	1	07/07/2019 22:17	<a href="#">WG1306898</a>
Nickel	24.7		7.56	1	07/07/2019 22:17	<a href="#">WG1306898</a>
Potassium	1370		378	1	07/07/2019 22:17	<a href="#">WG1306898</a>
Selenium	ND		7.56	1	07/07/2019 22:17	<a href="#">WG1306898</a>
Silver	ND		3.78	1	07/07/2019 22:17	<a href="#">WG1306898</a>
Sodium	3560		378	1	07/07/2019 22:17	<a href="#">WG1306898</a>
Thallium	ND		7.56	1	07/07/2019 22:17	<a href="#">WG1306898</a>
Vanadium	92.1		7.56	1	07/07/2019 22:17	<a href="#">WG1306898</a>
Zinc	165		18.9	1	07/07/2019 22:17	<a href="#">WG1306898</a>

## Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result (dry)	Qualifier	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg		date / time	
Acetone	0.248		0.0952	1.01	07/07/2019 14:02	<a href="#">WG1307049</a>
Benzene	ND		0.00382	1.01	07/07/2019 14:02	<a href="#">WG1307049</a>
Bromochloromethane	ND		0.0191	1.01	07/07/2019 14:02	<a href="#">WG1307049</a>
Bromodichloromethane	ND		0.00952	1.01	07/07/2019 14:02	<a href="#">WG1307049</a>
Bromoform	ND		0.0952	1.01	07/07/2019 14:02	<a href="#">WG1307049</a>
Bromomethane	ND		0.0476	1.01	07/07/2019 14:02	<a href="#">WG1307049</a>
Carbon disulfide	0.0678		0.0476	1.01	07/07/2019 14:02	<a href="#">WG1307049</a>
Carbon tetrachloride	ND		0.0191	1.01	07/07/2019 14:02	<a href="#">WG1307049</a>
Chlorobenzene	ND		0.00952	1.01	07/07/2019 14:02	<a href="#">WG1307049</a>
Chlorodibromomethane	ND		0.00952	1.01	07/07/2019 14:02	<a href="#">WG1307049</a>
Chloroethane	ND		0.0191	1.01	07/07/2019 14:02	<a href="#">WG1307049</a>
Chloroform	ND		0.00952	1.01	07/07/2019 14:02	<a href="#">WG1307049</a>
Chloromethane	ND		0.0476	1.01	07/07/2019 14:02	<a href="#">WG1307049</a>

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc



Collected date/time: 06/26/19 13:50

L1113939

## Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result (dry) mg/kg	Qualifier	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Cyclohexane	ND		0.00952	1.01	07/07/2019 14:02	<a href="#">WG1307049</a>
1,2-Dibromo-3-Chloropropane	ND		0.0952	1.01	07/07/2019 14:02	<a href="#">WG1307049</a>
1,2-Dibromoethane	ND		0.00952	1.01	07/07/2019 14:02	<a href="#">WG1307049</a>
Dichlorodifluoromethane	ND		0.00952	1.01	07/07/2019 14:02	<a href="#">WG1307049</a>
1,1-Dichloroethane	ND		0.00952	1.01	07/07/2019 14:02	<a href="#">WG1307049</a>
1,2-Dichloroethane	ND		0.00952	1.01	07/07/2019 14:02	<a href="#">WG1307049</a>
1,2-Dichlorobenzene	ND		0.0191	1.01	07/07/2019 14:02	<a href="#">WG1307049</a>
1,3-Dichlorobenzene	ND		0.0191	1.01	07/07/2019 14:02	<a href="#">WG1307049</a>
1,4-Dichlorobenzene	ND		0.0191	1.01	07/07/2019 14:02	<a href="#">WG1307049</a>
1,1-Dichloroethene	ND		0.00952	1.01	07/07/2019 14:02	<a href="#">WG1307049</a>
cis-1,2-Dichloroethene	ND		0.00952	1.01	07/07/2019 14:02	<a href="#">WG1307049</a>
trans-1,2-Dichloroethene	ND		0.0191	1.01	07/07/2019 14:02	<a href="#">WG1307049</a>
1,2-Dichloropropane	ND		0.0191	1.01	07/07/2019 14:02	<a href="#">WG1307049</a>
cis-1,3-Dichloropropene	ND		0.00952	1.01	07/07/2019 14:02	<a href="#">WG1307049</a>
trans-1,3-Dichloropropene	ND		0.0191	1.01	07/07/2019 14:02	<a href="#">WG1307049</a>
Ethylbenzene	ND		0.00952	1.01	07/07/2019 14:02	<a href="#">WG1307049</a>
2-Hexanone	ND		0.0952	1.01	07/07/2019 14:02	<a href="#">WG1307049</a>
Isopropylbenzene	ND		0.00952	1.01	07/07/2019 14:02	<a href="#">WG1307049</a>
2-Butanone (MEK)	ND		0.0952	1.01	07/07/2019 14:02	<a href="#">WG1307049</a>
Methyl Acetate	0.575		0.0191	1.01	07/07/2019 14:02	<a href="#">WG1307049</a>
Methyl Cyclohexane	ND		0.0191	1.01	07/07/2019 14:02	<a href="#">WG1307049</a>
Methylene Chloride	ND		0.0952	1.01	07/07/2019 14:02	<a href="#">WG1307049</a>
4-Methyl-2-pentanone (MIBK)	ND		0.0952	1.01	07/07/2019 14:02	<a href="#">WG1307049</a>
Methyl tert-butyl ether	ND		0.00382	1.01	07/07/2019 14:02	<a href="#">WG1307049</a>
Styrene	ND		0.0476	1.01	07/07/2019 14:02	<a href="#">WG1307049</a>
1,1,2,2-Tetrachloroethane	ND		0.00952	1.01	07/07/2019 14:02	<a href="#">WG1307049</a>
Tetrachloroethene	ND		0.00952	1.01	07/07/2019 14:02	<a href="#">WG1307049</a>
Toluene	ND		0.0191	1.01	07/07/2019 14:02	<a href="#">WG1307049</a>
1,2,3-Trichlorobenzene	ND		0.00952	1.01	07/07/2019 14:02	<a href="#">WG1307049</a>
1,2,4-Trichlorobenzene	ND		0.0476	1.01	07/07/2019 14:02	<a href="#">WG1307049</a>
1,1,1-Trichloroethane	ND		0.00952	1.01	07/07/2019 14:02	<a href="#">WG1307049</a>
1,1,2-Trichloroethane	ND		0.00952	1.01	07/07/2019 14:02	<a href="#">WG1307049</a>
Trichloroethene	ND		0.00382	1.01	07/07/2019 14:02	<a href="#">WG1307049</a>
Trichlorofluoromethane	ND		0.00952	1.01	07/07/2019 14:02	<a href="#">WG1307049</a>
1,1,2-Trichlorotrifluoroethane	ND		0.00952	1.01	07/07/2019 14:02	<a href="#">WG1307049</a>
Vinyl chloride	ND		0.00952	1.01	07/07/2019 14:02	<a href="#">WG1307049</a>
Xylenes, Total	ND		0.0248	1.01	07/07/2019 14:02	<a href="#">WG1307049</a>
(S) Toluene-d8	102		75.0-131		07/07/2019 14:02	<a href="#">WG1307049</a>
(S) 4-Bromofluorobenzene	104		67.0-138		07/07/2019 14:02	<a href="#">WG1307049</a>
(S) 1,2-Dichloroethane-d4	104		70.0-130		07/07/2019 14:02	<a href="#">WG1307049</a>

- 1 Cp
- 2 Tc
- 3 Ss
- 4 Cn
- 5 Sr
- 6 Qc
- 7 Gl
- 8 Al
- 9 Sc

## Pesticides (GC) by Method 8081B

Analyte	Result (dry) mg/kg	Qualifier	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Aldrin	ND		0.0756	1	07/09/2019 17:12	<a href="#">WG1307387</a>
Alpha BHC	ND		0.0756	1	07/09/2019 17:12	<a href="#">WG1307387</a>
Beta BHC	ND	J4	0.0756	1	07/09/2019 17:12	<a href="#">WG1307387</a>
Delta BHC	ND		0.0756	1	07/09/2019 17:12	<a href="#">WG1307387</a>
Gamma BHC	ND		0.0756	1	07/09/2019 17:12	<a href="#">WG1307387</a>
Chlordane	ND		0.756	1	07/09/2019 17:12	<a href="#">WG1307387</a>
4,4-DDD	ND		0.0756	1	07/09/2019 17:12	<a href="#">WG1307387</a>
4,4-DDE	ND		0.0756	1	07/09/2019 17:12	<a href="#">WG1307387</a>
4,4-DDT	ND		0.0756	1	07/09/2019 17:12	<a href="#">WG1307387</a>
Dieldrin	ND		0.0756	1	07/09/2019 17:12	<a href="#">WG1307387</a>
Endosulfan I	ND		0.0756	1	07/09/2019 17:12	<a href="#">WG1307387</a>
Endosulfan II	ND		0.0756	1	07/09/2019 17:12	<a href="#">WG1307387</a>



Collected date/time: 06/26/19 13:50

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## Pesticides (GC) by Method 8081B

Analyte	Result (dry) mg/kg	Qualifier	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Endosulfan sulfate	ND		0.0756	1	07/09/2019 17:12	<a href="#">WG1307387</a>
Endrin	ND		0.0756	1	07/09/2019 17:12	<a href="#">WG1307387</a>
Endrin aldehyde	ND		0.0756	1	07/09/2019 17:12	<a href="#">WG1307387</a>
Endrin ketone	ND		0.0756	1	07/09/2019 17:12	<a href="#">WG1307387</a>
Heptachlor	ND		0.0756	1	07/09/2019 17:12	<a href="#">WG1307387</a>
Heptachlor epoxide	ND		0.0756	1	07/09/2019 17:12	<a href="#">WG1307387</a>
Hexachlorobenzene	ND		0.0756	1	07/09/2019 17:12	<a href="#">WG1307387</a>
Methoxychlor	ND		0.0756	1	07/09/2019 17:12	<a href="#">WG1307387</a>
Toxaphene	ND		1.51	1	07/09/2019 17:12	<a href="#">WG1307387</a>
(S) Decachlorobiphenyl	82.8		10.0-135		07/09/2019 17:12	<a href="#">WG1307387</a>
(S) Tetrachloro-m-xylene	118		10.0-139		07/09/2019 17:12	<a href="#">WG1307387</a>

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

## Polychlorinated Biphenyls (GC) by Method 8082 A

Analyte	Result (dry) mg/kg	Qualifier	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
PCB 1016	ND	J4	0.0642	1	07/09/2019 16:28	<a href="#">WG1307387</a>
PCB 1221	ND		0.0642	1	07/09/2019 16:28	<a href="#">WG1307387</a>
PCB 1232	ND		0.0642	1	07/09/2019 16:28	<a href="#">WG1307387</a>
PCB 1242	ND		0.0642	1	07/09/2019 16:28	<a href="#">WG1307387</a>
PCB 1248	ND		0.0642	1	07/09/2019 16:28	<a href="#">WG1307387</a>
PCB 1254	ND		0.0642	1	07/09/2019 16:28	<a href="#">WG1307387</a>
PCB 1260	ND	J4	0.0642	1	07/09/2019 16:28	<a href="#">WG1307387</a>
(S) Decachlorobiphenyl	91.4		10.0-135		07/09/2019 16:28	<a href="#">WG1307387</a>
(S) Tetrachloro-m-xylene	84.8		10.0-139		07/09/2019 16:28	<a href="#">WG1307387</a>

7 Gl

8 Al

9 Sc

## Semi Volatile Organic Compounds (GC/MS) by Method 8270D

Analyte	Result (dry) mg/kg	Qualifier	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Acenaphthene	ND	J4	0.631	5	07/10/2019 23:20	<a href="#">WG1307389</a>
Acenaphthylene	ND	J4	0.631	5	07/10/2019 23:20	<a href="#">WG1307389</a>
Acetophenone	ND	J4	6.31	5	07/10/2019 23:20	<a href="#">WG1307389</a>
Anthracene	ND		0.631	5	07/10/2019 23:20	<a href="#">WG1307389</a>
Atrazine	ND		6.31	5	07/10/2019 23:20	<a href="#">WG1307389</a>
Benzaldehyde	ND	J4	6.31	5	07/10/2019 23:20	<a href="#">WG1307389</a>
Benzo(a)anthracene	ND		0.631	5	07/10/2019 23:20	<a href="#">WG1307389</a>
Benzo(b)fluoranthene	ND		0.631	5	07/10/2019 23:20	<a href="#">WG1307389</a>
Benzo(k)fluoranthene	ND		0.631	5	07/10/2019 23:20	<a href="#">WG1307389</a>
Benzo(g,h,i)perylene	ND		0.631	5	07/10/2019 23:20	<a href="#">WG1307389</a>
Benzo(a)pyrene	ND		0.631	5	07/10/2019 23:20	<a href="#">WG1307389</a>
Biphenyl	ND	J4	6.31	5	07/10/2019 23:20	<a href="#">WG1307389</a>
Bis(2-chloroethoxy)methane	ND	J4	6.31	5	07/10/2019 23:20	<a href="#">WG1307389</a>
Bis(2-chloroethyl)ether	ND	J4	6.31	5	07/10/2019 23:20	<a href="#">WG1307389</a>
Bis(2-chloroisopropyl)ether	ND	J4	6.31	5	07/10/2019 23:20	<a href="#">WG1307389</a>
4-Bromophenyl-phenylether	ND		6.31	5	07/10/2019 23:20	<a href="#">WG1307389</a>
Caprolactam	ND		6.31	5	07/10/2019 23:20	<a href="#">WG1307389</a>
Carbazole	ND		6.31	5	07/10/2019 23:20	<a href="#">WG1307389</a>
4-Chloroaniline	ND	J4	6.31	5	07/10/2019 23:20	<a href="#">WG1307389</a>
2-Chloronaphthalene	ND	J4	0.631	5	07/10/2019 23:20	<a href="#">WG1307389</a>
4-Chlorophenyl-phenylether	ND		6.31	5	07/10/2019 23:20	<a href="#">WG1307389</a>
Chrysene	ND		0.631	5	07/10/2019 23:20	<a href="#">WG1307389</a>
Dibenz(a,h)anthracene	ND		0.631	5	07/10/2019 23:20	<a href="#">WG1307389</a>
Dibenzofuran	ND	J4	6.31	5	07/10/2019 23:20	<a href="#">WG1307389</a>
3,3-Dichlorobenzidine	ND		6.31	5	07/10/2019 23:20	<a href="#">WG1307389</a>
2,4-Dinitrotoluene	ND		6.31	5	07/10/2019 23:20	<a href="#">WG1307389</a>
2,6-Dinitrotoluene	ND		6.31	5	07/10/2019 23:20	<a href="#">WG1307389</a>



Collected date/time: 06/26/19 13:50

L1113939

Semi Volatile Organic Compounds (GC/MS) by Method 8270D

Analyte	Result (dry) mg/kg	Qualifier	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Fluoranthene	ND		0.631	5	07/10/2019 23:20	<a href="#">WG1307389</a>
Fluorene	ND		0.631	5	07/10/2019 23:20	<a href="#">WG1307389</a>
Hexachlorobenzene	ND		6.31	5	07/10/2019 23:20	<a href="#">WG1307389</a>
Hexachloro-1,3-butadiene	ND	J4	6.31	5	07/10/2019 23:20	<a href="#">WG1307389</a>
Hexachlorocyclopentadiene	ND	J4	6.31	5	07/10/2019 23:20	<a href="#">WG1307389</a>
Hexachloroethane	ND	J4	6.31	5	07/10/2019 23:20	<a href="#">WG1307389</a>
Indeno(1,2,3-cd)pyrene	ND		0.631	5	07/10/2019 23:20	<a href="#">WG1307389</a>
Isophorone	ND	J4	6.31	5	07/10/2019 23:20	<a href="#">WG1307389</a>
2-Methylnaphthalene	ND	J4	0.631	5	07/10/2019 23:20	<a href="#">WG1307389</a>
Naphthalene	ND	J4	0.631	5	07/10/2019 23:20	<a href="#">WG1307389</a>
2-Nitroaniline	ND		6.31	5	07/10/2019 23:20	<a href="#">WG1307389</a>
3-Nitroaniline	ND		6.31	5	07/10/2019 23:20	<a href="#">WG1307389</a>
4-Nitroaniline	ND		6.31	5	07/10/2019 23:20	<a href="#">WG1307389</a>
Nitrobenzene	ND	J4	6.31	5	07/10/2019 23:20	<a href="#">WG1307389</a>
n-Nitrosodiphenylamine	ND		6.31	5	07/10/2019 23:20	<a href="#">WG1307389</a>
n-Nitrosodi-n-propylamine	ND	J4	6.31	5	07/10/2019 23:20	<a href="#">WG1307389</a>
Phenanthrene	ND		0.631	5	07/10/2019 23:20	<a href="#">WG1307389</a>
Benzylbutyl phthalate	ND		6.31	5	07/10/2019 23:20	<a href="#">WG1307389</a>
Bis(2-ethylhexyl)phthalate	ND		6.31	5	07/10/2019 23:20	<a href="#">WG1307389</a>
Di-n-butyl phthalate	ND		6.31	5	07/10/2019 23:20	<a href="#">WG1307389</a>
Diethyl phthalate	ND		6.31	5	07/10/2019 23:20	<a href="#">WG1307389</a>
Dimethyl phthalate	ND		6.31	5	07/10/2019 23:20	<a href="#">WG1307389</a>
Di-n-octyl phthalate	ND		6.31	5	07/10/2019 23:20	<a href="#">WG1307389</a>
Pyrene	ND		0.631	5	07/10/2019 23:20	<a href="#">WG1307389</a>
1,2,4,5-Tetrachlorobenzene	ND	J4	6.31	5	07/10/2019 23:20	<a href="#">WG1307389</a>
4-Chloro-3-methylphenol	ND	J4	6.31	5	07/10/2019 23:20	<a href="#">WG1307389</a>
2-Chlorophenol	ND	J4	6.31	5	07/10/2019 23:20	<a href="#">WG1307389</a>
2-Methylphenol	ND		6.31	5	07/10/2019 23:20	<a href="#">WG1307389</a>
3&4-Methyl Phenol	ND		6.31	5	07/10/2019 23:20	<a href="#">WG1307389</a>
2,4-Dichlorophenol	ND	J4	6.31	5	07/10/2019 23:20	<a href="#">WG1307389</a>
2,4-Dimethylphenol	ND	J4	6.31	5	07/10/2019 23:20	<a href="#">WG1307389</a>
4,6-Dinitro-2-methylphenol	ND		6.31	5	07/10/2019 23:20	<a href="#">WG1307389</a>
2,4-Dinitrophenol	ND	J4	6.31	5	07/10/2019 23:20	<a href="#">WG1307389</a>
2-Nitrophenol	ND	J4	6.31	5	07/10/2019 23:20	<a href="#">WG1307389</a>
4-Nitrophenol	ND		6.31	5	07/10/2019 23:20	<a href="#">WG1307389</a>
Pentachlorophenol	ND		6.31	5	07/10/2019 23:20	<a href="#">WG1307389</a>
Phenol	ND		6.31	5	07/10/2019 23:20	<a href="#">WG1307389</a>
2,4,5-Trichlorophenol	ND		6.31	5	07/10/2019 23:20	<a href="#">WG1307389</a>
2,4,6-Trichlorophenol	ND	J4	6.31	5	07/10/2019 23:20	<a href="#">WG1307389</a>
(S) 2-Fluorophenol	38.3		12.0-120		07/10/2019 23:20	<a href="#">WG1307389</a>
(S) Phenol-d5	34.7		10.0-120		07/10/2019 23:20	<a href="#">WG1307389</a>
(S) Nitrobenzene-d5	30.9		10.0-122		07/10/2019 23:20	<a href="#">WG1307389</a>
(S) 2-Fluorobiphenyl	34.3		15.0-120		07/10/2019 23:20	<a href="#">WG1307389</a>
(S) 2,4,6-Tribromophenol	44.8		10.0-127		07/10/2019 23:20	<a href="#">WG1307389</a>
(S) p-Terphenyl-d14	45.7		10.0-120		07/10/2019 23:20	<a href="#">WG1307389</a>

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

Sample Narrative:

L1113939-05 WG1307389: Dilution due to matrix.

Semi Volatile Organic Compounds (GC/MS) by Method 8270E-SIM

Analyte	Result (dry) mg/kg	Qualifier	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Anthracene	ND		0.0227	1	07/09/2019 03:21	<a href="#">WG1307549</a>
Acenaphthene	ND		0.0227	1	07/09/2019 03:21	<a href="#">WG1307549</a>
Acenaphthylene	ND		0.0227	1	07/09/2019 03:21	<a href="#">WG1307549</a>
Benzo(a)anthracene	ND		0.0227	1	07/09/2019 03:21	<a href="#">WG1307549</a>



Semi Volatile Organic Compounds (GC/MS) by Method 8270E-SIM

Analyte	Result (dry) mg/kg	Qualifier	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Benzo(a)pyrene	ND		0.0227	1	07/09/2019 03:21	<a href="#">WG1307549</a>
Benzo(b)fluoranthene	ND		0.0227	1	07/09/2019 03:21	<a href="#">WG1307549</a>
Benzo(g,h,i)perylene	ND		0.0227	1	07/09/2019 03:21	<a href="#">WG1307549</a>
Benzo(k)fluoranthene	ND		0.0227	1	07/09/2019 03:21	<a href="#">WG1307549</a>
Chrysene	ND		0.0227	1	07/09/2019 03:21	<a href="#">WG1307549</a>
Dibenz(a,h)anthracene	ND		0.0227	1	07/09/2019 03:21	<a href="#">WG1307549</a>
Fluoranthene	ND		0.0227	1	07/09/2019 03:21	<a href="#">WG1307549</a>
Fluorene	ND		0.0227	1	07/09/2019 03:21	<a href="#">WG1307549</a>
Indeno(1,2,3-cd)pyrene	ND		0.0227	1	07/09/2019 03:21	<a href="#">WG1307549</a>
Naphthalene	ND	<u>J4</u>	0.0756	1	07/09/2019 03:21	<a href="#">WG1307549</a>
Phenanthrene	ND		0.0227	1	07/09/2019 03:21	<a href="#">WG1307549</a>
Pyrene	ND		0.0227	1	07/09/2019 03:21	<a href="#">WG1307549</a>
1-Methylnaphthalene	ND		0.0756	1	07/09/2019 03:21	<a href="#">WG1307549</a>
2-Methylnaphthalene	ND		0.0756	1	07/09/2019 03:21	<a href="#">WG1307549</a>
(S) p-Terphenyl-d14	54.3		23.0-120		07/09/2019 03:21	<a href="#">WG1307549</a>
(S) Nitrobenzene-d5	81.5		14.0-149		07/09/2019 03:21	<a href="#">WG1307549</a>
(S) 2-Fluorobiphenyl	22.6	<u>J2</u>	34.0-125		07/09/2019 03:21	<a href="#">WG1307549</a>

- 1 Cp
- 2 Tc
- 3 Ss
- 4 Cn
- 5 Sr
- 6 Qc
- 7 Gl
- 8 Al
- 9 Sc

Sample Narrative:

L1113939-05 WG1307549: Surrogate recovery impacted by matrix.



## Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	17.5		1	07/05/2019 17:10	<a href="#">WG1307003</a>

## Wet Chemistry by Method 9012B

Analyte	Result (dry)	Qualifier	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg		date / time	
Cyanide	ND		1.43	1	07/10/2019 17:10	<a href="#">WG1308667</a>

## Mercury by Method 7471B

Analyte	Result (dry)	Qualifier	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg		date / time	
Mercury	2.98		0.114	1	07/07/2019 13:40	<a href="#">WG1306876</a>

## Metals (ICP) by Method 6010D

Analyte	Result (dry)	Qualifier	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg		date / time	
Aluminum	6370	<a href="#">J5</a>	57.2	1	07/07/2019 21:47	<a href="#">WG1306898</a>
Antimony	ND		11.4	1	07/07/2019 21:47	<a href="#">WG1306898</a>
Arsenic	ND		11.4	1	07/07/2019 21:47	<a href="#">WG1306898</a>
Barium	157		2.86	1	07/07/2019 21:47	<a href="#">WG1306898</a>
Beryllium	ND		1.14	1	07/07/2019 21:47	<a href="#">WG1306898</a>
Cadmium	ND		2.86	1	07/07/2019 21:47	<a href="#">WG1306898</a>
Calcium	120000	<a href="#">O1 V</a>	572	1	07/07/2019 21:47	<a href="#">WG1306898</a>
Chromium	18.8		5.72	1	07/07/2019 21:47	<a href="#">WG1306898</a>
Cobalt	ND		5.72	1	07/07/2019 21:47	<a href="#">WG1306898</a>
Copper	122		11.4	1	07/07/2019 21:47	<a href="#">WG1306898</a>
Iron	4810		57.2	1	07/07/2019 21:47	<a href="#">WG1306898</a>
Lead	118		2.86	1	07/07/2019 21:47	<a href="#">WG1306898</a>
Magnesium	732		572	1	07/07/2019 21:47	<a href="#">WG1306898</a>
Manganese	1150	<a href="#">J6</a>	5.72	1	07/07/2019 21:47	<a href="#">WG1306898</a>
Nickel	25.9		11.4	1	07/07/2019 21:47	<a href="#">WG1306898</a>
Potassium	ND		572	1	07/07/2019 21:47	<a href="#">WG1306898</a>
Selenium	ND		11.4	1	07/07/2019 21:47	<a href="#">WG1306898</a>
Silver	ND		5.72	1	07/07/2019 21:47	<a href="#">WG1306898</a>
Sodium	2300		572	1	07/07/2019 21:47	<a href="#">WG1306898</a>
Thallium	ND		11.4	1	07/07/2019 21:47	<a href="#">WG1306898</a>
Vanadium	40.8		11.4	1	07/07/2019 21:47	<a href="#">WG1306898</a>
Zinc	1280	<a href="#">J6</a>	28.6	1	07/07/2019 21:47	<a href="#">WG1306898</a>

## Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result (dry)	Qualifier	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg		date / time	
Acetone	1.53		0.157	1.1	07/07/2019 14:22	<a href="#">WG1307049</a>
Benzene	ND		0.00629	1.1	07/07/2019 14:22	<a href="#">WG1307049</a>
Bromochloromethane	ND		0.0314	1.1	07/07/2019 14:22	<a href="#">WG1307049</a>
Bromodichloromethane	ND		0.0157	1.1	07/07/2019 14:22	<a href="#">WG1307049</a>
Bromoform	ND		0.157	1.1	07/07/2019 14:22	<a href="#">WG1307049</a>
Bromomethane	ND		0.0789	1.1	07/07/2019 14:22	<a href="#">WG1307049</a>
Carbon disulfide	0.144		0.0789	1.1	07/07/2019 14:22	<a href="#">WG1307049</a>
Carbon tetrachloride	ND		0.0314	1.1	07/07/2019 14:22	<a href="#">WG1307049</a>
Chlorobenzene	ND		0.0157	1.1	07/07/2019 14:22	<a href="#">WG1307049</a>
Chlorodibromomethane	ND		0.0157	1.1	07/07/2019 14:22	<a href="#">WG1307049</a>
Chloroethane	ND		0.0314	1.1	07/07/2019 14:22	<a href="#">WG1307049</a>
Chloroform	ND		0.0157	1.1	07/07/2019 14:22	<a href="#">WG1307049</a>
Chloromethane	ND		0.0789	1.1	07/07/2019 14:22	<a href="#">WG1307049</a>

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc





Collected date/time: 06/26/19 16:00

L1113939

## Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result (dry) mg/kg	Qualifier	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Cyclohexane	ND		0.0157	1.1	07/07/2019 14:22	<a href="#">WG1307049</a>
1,2-Dibromo-3-Chloropropane	ND		0.157	1.1	07/07/2019 14:22	<a href="#">WG1307049</a>
1,2-Dibromoethane	ND		0.0157	1.1	07/07/2019 14:22	<a href="#">WG1307049</a>
Dichlorodifluoromethane	ND		0.0157	1.1	07/07/2019 14:22	<a href="#">WG1307049</a>
1,1-Dichloroethane	ND		0.0157	1.1	07/07/2019 14:22	<a href="#">WG1307049</a>
1,2-Dichloroethane	ND		0.0157	1.1	07/07/2019 14:22	<a href="#">WG1307049</a>
1,2-Dichlorobenzene	ND		0.0314	1.1	07/07/2019 14:22	<a href="#">WG1307049</a>
1,3-Dichlorobenzene	ND		0.0314	1.1	07/07/2019 14:22	<a href="#">WG1307049</a>
1,4-Dichlorobenzene	ND		0.0314	1.1	07/07/2019 14:22	<a href="#">WG1307049</a>
1,1-Dichloroethene	ND		0.0157	1.1	07/07/2019 14:22	<a href="#">WG1307049</a>
cis-1,2-Dichloroethene	ND		0.0157	1.1	07/07/2019 14:22	<a href="#">WG1307049</a>
trans-1,2-Dichloroethene	ND		0.0314	1.1	07/07/2019 14:22	<a href="#">WG1307049</a>
1,2-Dichloropropane	ND		0.0314	1.1	07/07/2019 14:22	<a href="#">WG1307049</a>
cis-1,3-Dichloropropene	ND		0.0157	1.1	07/07/2019 14:22	<a href="#">WG1307049</a>
trans-1,3-Dichloropropene	ND		0.0314	1.1	07/07/2019 14:22	<a href="#">WG1307049</a>
Ethylbenzene	ND		0.0157	1.1	07/07/2019 14:22	<a href="#">WG1307049</a>
2-Hexanone	ND		0.157	1.1	07/07/2019 14:22	<a href="#">WG1307049</a>
Isopropylbenzene	0.139		0.0157	1.1	07/07/2019 14:22	<a href="#">WG1307049</a>
2-Butanone (MEK)	ND		0.157	1.1	07/07/2019 14:22	<a href="#">WG1307049</a>
Methyl Acetate	1.12		0.0314	1.1	07/07/2019 14:22	<a href="#">WG1307049</a>
Methyl Cyclohexane	0.275		0.0314	1.1	07/07/2019 14:22	<a href="#">WG1307049</a>
Methylene Chloride	ND		0.157	1.1	07/07/2019 14:22	<a href="#">WG1307049</a>
4-Methyl-2-pentanone (MIBK)	ND		0.157	1.1	07/07/2019 14:22	<a href="#">WG1307049</a>
Methyl tert-butyl ether	ND		0.00629	1.1	07/07/2019 14:22	<a href="#">WG1307049</a>
Styrene	ND		0.0789	1.1	07/07/2019 14:22	<a href="#">WG1307049</a>
1,1,2,2-Tetrachloroethane	ND		0.0157	1.1	07/07/2019 14:22	<a href="#">WG1307049</a>
Tetrachloroethene	ND		0.0157	1.1	07/07/2019 14:22	<a href="#">WG1307049</a>
Toluene	0.0338		0.0314	1.1	07/07/2019 14:22	<a href="#">WG1307049</a>
1,2,3-Trichlorobenzene	ND		0.0157	1.1	07/07/2019 14:22	<a href="#">WG1307049</a>
1,2,4-Trichlorobenzene	ND		0.0789	1.1	07/07/2019 14:22	<a href="#">WG1307049</a>
1,1,1-Trichloroethane	ND		0.0157	1.1	07/07/2019 14:22	<a href="#">WG1307049</a>
1,1,2-Trichloroethane	ND		0.0157	1.1	07/07/2019 14:22	<a href="#">WG1307049</a>
Trichloroethene	ND		0.00629	1.1	07/07/2019 14:22	<a href="#">WG1307049</a>
Trichlorofluoromethane	ND		0.0157	1.1	07/07/2019 14:22	<a href="#">WG1307049</a>
1,1,2-Trichlorotrifluoroethane	ND		0.0157	1.1	07/07/2019 14:22	<a href="#">WG1307049</a>
Vinyl chloride	ND		0.0157	1.1	07/07/2019 14:22	<a href="#">WG1307049</a>
Xylenes, Total	ND		0.0409	1.1	07/07/2019 14:22	<a href="#">WG1307049</a>
(S) Toluene-d8	103		75.0-131		07/07/2019 14:22	<a href="#">WG1307049</a>
(S) 4-Bromofluorobenzene	107		67.0-138		07/07/2019 14:22	<a href="#">WG1307049</a>
(S) 1,2-Dichloroethane-d4	107		70.0-130		07/07/2019 14:22	<a href="#">WG1307049</a>

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

## Pesticides (GC) by Method 8081B

Analyte	Result (dry) mg/kg	Qualifier	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Aldrin	ND		0.114	1	07/09/2019 17:25	<a href="#">WG1307387</a>
Alpha BHC	ND		0.114	1	07/09/2019 17:25	<a href="#">WG1307387</a>
Beta BHC	ND	J4	0.114	1	07/09/2019 17:25	<a href="#">WG1307387</a>
Delta BHC	ND		0.114	1	07/09/2019 17:25	<a href="#">WG1307387</a>
Gamma BHC	ND		0.114	1	07/09/2019 17:25	<a href="#">WG1307387</a>
Chlordane	ND		1.14	1	07/09/2019 17:25	<a href="#">WG1307387</a>
4,4-DDD	ND		0.114	1	07/09/2019 17:25	<a href="#">WG1307387</a>
4,4-DDE	ND		0.114	1	07/09/2019 17:25	<a href="#">WG1307387</a>
4,4-DDT	ND		0.114	1	07/09/2019 17:25	<a href="#">WG1307387</a>
Dieldrin	ND		0.114	1	07/09/2019 17:25	<a href="#">WG1307387</a>
Endosulfan I	ND		0.114	1	07/09/2019 17:25	<a href="#">WG1307387</a>
Endosulfan II	ND		0.114	1	07/09/2019 17:25	<a href="#">WG1307387</a>



Collected date/time: 06/26/19 16:00

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## Pesticides (GC) by Method 8081B

Analyte	Result (dry) mg/kg	Qualifier	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Endosulfan sulfate	ND		0.114	1	07/09/2019 17:25	<a href="#">WG1307387</a>
Endrin	ND		0.114	1	07/09/2019 17:25	<a href="#">WG1307387</a>
Endrin aldehyde	ND		0.114	1	07/09/2019 17:25	<a href="#">WG1307387</a>
Endrin ketone	ND		0.114	1	07/09/2019 17:25	<a href="#">WG1307387</a>
Heptachlor	ND		0.114	1	07/09/2019 17:25	<a href="#">WG1307387</a>
Heptachlor epoxide	ND		0.114	1	07/09/2019 17:25	<a href="#">WG1307387</a>
Hexachlorobenzene	ND		0.114	1	07/09/2019 17:25	<a href="#">WG1307387</a>
Methoxychlor	ND		0.114	1	07/09/2019 17:25	<a href="#">WG1307387</a>
Toxaphene	ND		2.29	1	07/09/2019 17:25	<a href="#">WG1307387</a>
(S) Decachlorobiphenyl	90.4		10.0-135		07/09/2019 17:25	<a href="#">WG1307387</a>
(S) Tetrachloro-m-xylene	104		10.0-139		07/09/2019 17:25	<a href="#">WG1307387</a>

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

## Polychlorinated Biphenyls (GC) by Method 8082 A

Analyte	Result (dry) mg/kg	Qualifier	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
PCB 1016	ND	J4	0.0972	1	07/09/2019 16:41	<a href="#">WG1307387</a>
PCB 1221	ND		0.0972	1	07/09/2019 16:41	<a href="#">WG1307387</a>
PCB 1232	ND		0.0972	1	07/09/2019 16:41	<a href="#">WG1307387</a>
PCB 1242	ND		0.0972	1	07/09/2019 16:41	<a href="#">WG1307387</a>
PCB 1248	ND		0.0972	1	07/09/2019 16:41	<a href="#">WG1307387</a>
PCB 1254	ND		0.0972	1	07/09/2019 16:41	<a href="#">WG1307387</a>
PCB 1260	ND	J4	0.0972	1	07/09/2019 16:41	<a href="#">WG1307387</a>
(S) Decachlorobiphenyl	97.5		10.0-135		07/09/2019 16:41	<a href="#">WG1307387</a>
(S) Tetrachloro-m-xylene	74.7		10.0-139		07/09/2019 16:41	<a href="#">WG1307387</a>

## Semi Volatile Organic Compounds (GC/MS) by Method 8270D

Analyte	Result (dry) mg/kg	Qualifier	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Acenaphthene	ND	J4	0.190	1	07/10/2019 01:16	<a href="#">WG1307389</a>
Acenaphthylene	ND	J4	0.190	1	07/10/2019 01:16	<a href="#">WG1307389</a>
Acetophenone	ND	J4	1.90	1	07/10/2019 01:16	<a href="#">WG1307389</a>
Anthracene	ND		0.190	1	07/10/2019 01:16	<a href="#">WG1307389</a>
Atrazine	ND		1.90	1	07/10/2019 01:16	<a href="#">WG1307389</a>
Benzaldehyde	ND	J4	1.90	1	07/10/2019 01:16	<a href="#">WG1307389</a>
Benzo(a)anthracene	ND		0.190	1	07/10/2019 01:16	<a href="#">WG1307389</a>
Benzo(b)fluoranthene	ND		0.190	1	07/10/2019 01:16	<a href="#">WG1307389</a>
Benzo(k)fluoranthene	ND		0.190	1	07/10/2019 01:16	<a href="#">WG1307389</a>
Benzo(g,h,i)perylene	ND		0.190	1	07/10/2019 01:16	<a href="#">WG1307389</a>
Benzo(a)pyrene	ND		0.190	1	07/10/2019 01:16	<a href="#">WG1307389</a>
Biphenyl	ND	J4	1.90	1	07/10/2019 01:16	<a href="#">WG1307389</a>
Bis(2-chloroethoxy)methane	ND	J4	1.90	1	07/10/2019 01:16	<a href="#">WG1307389</a>
Bis(2-chloroethyl)ether	ND	J4	1.90	1	07/10/2019 01:16	<a href="#">WG1307389</a>
Bis(2-chloroisopropyl)ether	ND	J4	1.90	1	07/10/2019 01:16	<a href="#">WG1307389</a>
4-Bromophenyl-phenylether	ND		1.90	1	07/10/2019 01:16	<a href="#">WG1307389</a>
Caprolactam	ND		1.90	1	07/10/2019 01:16	<a href="#">WG1307389</a>
Carbazole	ND		1.90	1	07/10/2019 01:16	<a href="#">WG1307389</a>
4-Chloroaniline	ND	J4	1.90	1	07/10/2019 01:16	<a href="#">WG1307389</a>
2-Chloronaphthalene	ND	J4	0.190	1	07/10/2019 01:16	<a href="#">WG1307389</a>
4-Chlorophenyl-phenylether	ND		1.90	1	07/10/2019 01:16	<a href="#">WG1307389</a>
Chrysene	ND		0.190	1	07/10/2019 01:16	<a href="#">WG1307389</a>
Dibenz(a,h)anthracene	ND		0.190	1	07/10/2019 01:16	<a href="#">WG1307389</a>
Dibenzofuran	ND	J4	1.90	1	07/10/2019 01:16	<a href="#">WG1307389</a>
3,3-Dichlorobenzidine	ND		1.90	1	07/10/2019 01:16	<a href="#">WG1307389</a>
2,4-Dinitrotoluene	ND		1.90	1	07/10/2019 01:16	<a href="#">WG1307389</a>
2,6-Dinitrotoluene	ND		1.90	1	07/10/2019 01:16	<a href="#">WG1307389</a>



Semi Volatile Organic Compounds (GC/MS) by Method 8270D

Analyte	Result (dry) mg/kg	Qualifier	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Fluoranthene	ND		0.190	1	07/10/2019 01:16	WG1307389
Fluorene	0.669		0.190	1	07/10/2019 01:16	WG1307389
Hexachlorobenzene	ND		1.90	1	07/10/2019 01:16	WG1307389
Hexachloro-1,3-butadiene	ND	J4	1.90	1	07/10/2019 01:16	WG1307389
Hexachlorocyclopentadiene	ND	J4	1.90	1	07/10/2019 01:16	WG1307389
Hexachloroethane	ND	J4	1.90	1	07/10/2019 01:16	WG1307389
Indeno(1,2,3-cd)pyrene	ND		0.190	1	07/10/2019 01:16	WG1307389
Isophorone	ND	J4	1.90	1	07/10/2019 01:16	WG1307389
2-Methylnaphthalene	12.8	J4	0.381	2	07/11/2019 02:16	WG1307389
Naphthalene	ND	J4	0.190	1	07/10/2019 01:16	WG1307389
2-Nitroaniline	ND		1.90	1	07/10/2019 01:16	WG1307389
3-Nitroaniline	ND		1.90	1	07/10/2019 01:16	WG1307389
4-Nitroaniline	ND		1.90	1	07/10/2019 01:16	WG1307389
Nitrobenzene	ND	J4	1.90	1	07/10/2019 01:16	WG1307389
n-Nitrosodiphenylamine	ND		1.90	1	07/10/2019 01:16	WG1307389
n-Nitrosodi-n-propylamine	ND	J4	1.90	1	07/10/2019 01:16	WG1307389
Phenanthrene	0.436		0.190	1	07/10/2019 01:16	WG1307389
Benzylbutyl phthalate	ND		1.90	1	07/10/2019 01:16	WG1307389
Bis(2-ethylhexyl)phthalate	ND		1.90	1	07/10/2019 01:16	WG1307389
Di-n-butyl phthalate	ND		1.90	1	07/10/2019 01:16	WG1307389
Diethyl phthalate	ND		1.90	1	07/10/2019 01:16	WG1307389
Dimethyl phthalate	ND		1.90	1	07/10/2019 01:16	WG1307389
Di-n-octyl phthalate	ND		1.90	1	07/10/2019 01:16	WG1307389
Pyrene	ND		0.190	1	07/10/2019 01:16	WG1307389
1,2,4,5-Tetrachlorobenzene	ND	J4	1.90	1	07/10/2019 01:16	WG1307389
4-Chloro-3-methylphenol	ND	J4	1.90	1	07/10/2019 01:16	WG1307389
2-Chlorophenol	ND	J4	1.90	1	07/10/2019 01:16	WG1307389
2-Methylphenol	ND		1.90	1	07/10/2019 01:16	WG1307389
3&4-Methyl Phenol	ND		1.90	1	07/10/2019 01:16	WG1307389
2,4-Dichlorophenol	ND	J4	1.90	1	07/10/2019 01:16	WG1307389
2,4-Dimethylphenol	ND	J4	1.90	1	07/10/2019 01:16	WG1307389
4,6-Dinitro-2-methylphenol	ND		1.90	1	07/10/2019 01:16	WG1307389
2,4-Dinitrophenol	ND	J4	1.90	1	07/10/2019 01:16	WG1307389
2-Nitrophenol	ND	J4	1.90	1	07/10/2019 01:16	WG1307389
4-Nitrophenol	ND		1.90	1	07/10/2019 01:16	WG1307389
Pentachlorophenol	ND		1.90	1	07/10/2019 01:16	WG1307389
Phenol	ND		1.90	1	07/10/2019 01:16	WG1307389
2,4,5-Trichlorophenol	ND		1.90	1	07/10/2019 01:16	WG1307389
2,4,6-Trichlorophenol	ND	J4	1.90	1	07/10/2019 01:16	WG1307389
(S) 2-Fluorophenol	62.2		12.0-120		07/10/2019 01:16	WG1307389
(S) 2-Fluorophenol	62.5		12.0-120		07/11/2019 02:16	WG1307389
(S) Phenol-d5	56.0		10.0-120		07/10/2019 01:16	WG1307389
(S) Phenol-d5	56.3		10.0-120		07/11/2019 02:16	WG1307389
(S) Nitrobenzene-d5	87.0		10.0-122		07/10/2019 01:16	WG1307389
(S) Nitrobenzene-d5	73.1		10.0-122		07/11/2019 02:16	WG1307389
(S) 2-Fluorobiphenyl	53.9		15.0-120		07/10/2019 01:16	WG1307389
(S) 2-Fluorobiphenyl	56.3		15.0-120		07/11/2019 02:16	WG1307389
(S) 2,4,6-Tribromophenol	67.0		10.0-127		07/10/2019 01:16	WG1307389
(S) 2,4,6-Tribromophenol	64.2		10.0-127		07/11/2019 02:16	WG1307389
(S) p-Terphenyl-d14	61.9		10.0-120		07/11/2019 02:16	WG1307389
(S) p-Terphenyl-d14	64.7		10.0-120		07/10/2019 01:16	WG1307389

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc



Collected date/time: 06/26/19 16:00

L1113939

## Semi Volatile Organic Compounds (GC/MS) by Method 8270E-SIM

Analyte	Result (dry) mg/kg	Qualifier	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch	
Anthracene	ND		0.0343	1	07/09/2019 03:41	<a href="#">WG1307549</a>	<sup>1</sup> Cp
Acenaphthene	0.480		0.0343	1	07/09/2019 03:41	<a href="#">WG1307549</a>	<sup>2</sup> Tc
Acenaphthylene	ND		0.0343	1	07/09/2019 03:41	<a href="#">WG1307549</a>	<sup>3</sup> Ss
Benzo(a)anthracene	ND		0.0343	1	07/09/2019 03:41	<a href="#">WG1307549</a>	<sup>4</sup> Cn
Benzo(a)pyrene	ND		0.0343	1	07/09/2019 03:41	<a href="#">WG1307549</a>	<sup>5</sup> Sr
Benzo(b)fluoranthene	ND		0.0343	1	07/09/2019 03:41	<a href="#">WG1307549</a>	<sup>6</sup> Qc
Benzo(g,h,i)perylene	ND		0.0343	1	07/09/2019 03:41	<a href="#">WG1307549</a>	<sup>7</sup> Gl
Benzo(k)fluoranthene	ND		0.0343	1	07/09/2019 03:41	<a href="#">WG1307549</a>	<sup>8</sup> Al
Chrysene	ND		0.0343	1	07/09/2019 03:41	<a href="#">WG1307549</a>	<sup>9</sup> Sc
Dibenz(a,h)anthracene	ND		0.0343	1	07/09/2019 03:41	<a href="#">WG1307549</a>	
Fluoranthene	0.0371		0.0343	1	07/09/2019 03:41	<a href="#">WG1307549</a>	
Fluorene	0.617		0.0343	1	07/09/2019 03:41	<a href="#">WG1307549</a>	
Indeno(1,2,3-cd)pyrene	ND		0.0343	1	07/09/2019 03:41	<a href="#">WG1307549</a>	
Naphthalene	0.181	<u>J4</u>	0.114	1	07/09/2019 03:41	<a href="#">WG1307549</a>	
Phenanthrene	0.354		0.0343	1	07/09/2019 03:41	<a href="#">WG1307549</a>	
Pyrene	ND		0.0343	1	07/09/2019 03:41	<a href="#">WG1307549</a>	
1-Methylnaphthalene	9.61		0.114	1	07/09/2019 03:41	<a href="#">WG1307549</a>	
2-Methylnaphthalene	13.4		0.114	1	07/09/2019 03:41	<a href="#">WG1307549</a>	
(S) p-Terphenyl-d14	71.7		23.0-120		07/09/2019 03:41	<a href="#">WG1307549</a>	
(S) Nitrobenzene-d5	360	<u>J1</u>	14.0-149		07/09/2019 03:41	<a href="#">WG1307549</a>	
(S) 2-Fluorobiphenyl	81.0		34.0-125		07/09/2019 03:41	<a href="#">WG1307549</a>	

## Sample Narrative:

L1113939-06 WG1307549: Surrogate recovery impacted by matrix.



## Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	15.7		1	07/05/2019 17:10	<a href="#">WG1307003</a>

## Wet Chemistry by Method 9012B

Analyte	Result (dry)	Qualifier	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg		date / time	
Cyanide	ND		1.59	1	07/10/2019 17:11	<a href="#">WG1308667</a>

## Mercury by Method 7471B

Analyte	Result (dry)	Qualifier	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg		date / time	
Mercury	0.528		0.127	1	07/07/2019 13:16	<a href="#">WG1306876</a>

## Metals (ICP) by Method 6010D

Analyte	Result (dry)	Qualifier	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg		date / time	
Aluminum	5710		63.5	1	07/07/2019 22:20	<a href="#">WG1306898</a>
Antimony	ND		12.7	1	07/07/2019 22:20	<a href="#">WG1306898</a>
Arsenic	ND		12.7	1	07/07/2019 22:20	<a href="#">WG1306898</a>
Barium	86.1		3.18	1	07/07/2019 22:20	<a href="#">WG1306898</a>
Beryllium	ND		1.27	1	07/07/2019 22:20	<a href="#">WG1306898</a>
Cadmium	ND		3.18	1	07/07/2019 22:20	<a href="#">WG1306898</a>
Calcium	73100		635	1	07/07/2019 22:20	<a href="#">WG1306898</a>
Chromium	23.0		6.35	1	07/07/2019 22:20	<a href="#">WG1306898</a>
Cobalt	ND		6.35	1	07/07/2019 22:20	<a href="#">WG1306898</a>
Copper	72.2		12.7	1	07/07/2019 22:20	<a href="#">WG1306898</a>
Iron	6770		63.5	1	07/07/2019 22:20	<a href="#">WG1306898</a>
Lead	64.2		3.18	1	07/07/2019 22:20	<a href="#">WG1306898</a>
Magnesium	966		635	1	07/07/2019 22:20	<a href="#">WG1306898</a>
Manganese	999		6.35	1	07/07/2019 22:20	<a href="#">WG1306898</a>
Nickel	18.1		12.7	1	07/07/2019 22:20	<a href="#">WG1306898</a>
Potassium	ND		635	1	07/07/2019 22:20	<a href="#">WG1306898</a>
Selenium	ND		12.7	1	07/07/2019 22:20	<a href="#">WG1306898</a>
Silver	ND		6.35	1	07/07/2019 22:20	<a href="#">WG1306898</a>
Sodium	1660		635	1	07/07/2019 22:20	<a href="#">WG1306898</a>
Thallium	ND		12.7	1	07/07/2019 22:20	<a href="#">WG1306898</a>
Vanadium	31.4		12.7	1	07/07/2019 22:20	<a href="#">WG1306898</a>
Zinc	686		31.8	1	07/07/2019 22:20	<a href="#">WG1306898</a>

## Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result (dry)	Qualifier	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg		date / time	
Acetone	3.72		0.159	1	07/07/2019 14:43	<a href="#">WG1307049</a>
Benzene	0.0101		0.00635	1	07/07/2019 14:43	<a href="#">WG1307049</a>
Bromochloromethane	ND		0.0318	1	07/07/2019 14:43	<a href="#">WG1307049</a>
Bromodichloromethane	ND		0.0159	1	07/07/2019 14:43	<a href="#">WG1307049</a>
Bromoform	ND		0.159	1	07/07/2019 14:43	<a href="#">WG1307049</a>
Bromomethane	ND		0.0794	1	07/07/2019 14:43	<a href="#">WG1307049</a>
Carbon disulfide	0.463		0.0794	1	07/07/2019 14:43	<a href="#">WG1307049</a>
Carbon tetrachloride	ND		0.0318	1	07/07/2019 14:43	<a href="#">WG1307049</a>
Chlorobenzene	ND		0.0159	1	07/07/2019 14:43	<a href="#">WG1307049</a>
Chlorodibromomethane	ND		0.0159	1	07/07/2019 14:43	<a href="#">WG1307049</a>
Chloroethane	ND		0.0318	1	07/07/2019 14:43	<a href="#">WG1307049</a>
Chloroform	ND		0.0159	1	07/07/2019 14:43	<a href="#">WG1307049</a>
Chloromethane	ND		0.0794	1	07/07/2019 14:43	<a href="#">WG1307049</a>

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc



Collected date/time: 06/26/19 11:09

L1113939

## Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result (dry) mg/kg	Qualifier	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Cyclohexane	ND		0.0159	1	07/07/2019 14:43	WG1307049
1,2-Dibromo-3-Chloropropane	ND		0.159	1	07/07/2019 14:43	WG1307049
1,2-Dibromoethane	ND		0.0159	1	07/07/2019 14:43	WG1307049
Dichlorodifluoromethane	ND		0.0159	1	07/07/2019 14:43	WG1307049
1,1-Dichloroethane	ND		0.0159	1	07/07/2019 14:43	WG1307049
1,2-Dichloroethane	ND		0.0159	1	07/07/2019 14:43	WG1307049
1,2-Dichlorobenzene	ND		0.0318	1	07/07/2019 14:43	WG1307049
1,3-Dichlorobenzene	ND		0.0318	1	07/07/2019 14:43	WG1307049
1,4-Dichlorobenzene	ND		0.0318	1	07/07/2019 14:43	WG1307049
1,1-Dichloroethene	ND		0.0159	1	07/07/2019 14:43	WG1307049
cis-1,2-Dichloroethene	ND		0.0159	1	07/07/2019 14:43	WG1307049
trans-1,2-Dichloroethene	ND		0.0318	1	07/07/2019 14:43	WG1307049
1,2-Dichloropropane	ND		0.0318	1	07/07/2019 14:43	WG1307049
cis-1,3-Dichloropropene	ND		0.0159	1	07/07/2019 14:43	WG1307049
trans-1,3-Dichloropropene	ND		0.0318	1	07/07/2019 14:43	WG1307049
Ethylbenzene	ND		0.0159	1	07/07/2019 14:43	WG1307049
2-Hexanone	ND		0.159	1	07/07/2019 14:43	WG1307049
Isopropylbenzene	0.177		0.0159	1	07/07/2019 14:43	WG1307049
2-Butanone (MEK)	0.194		0.159	1	07/07/2019 14:43	WG1307049
Methyl Acetate	1.90		0.0318	1	07/07/2019 14:43	WG1307049
Methyl Cyclohexane	0.283		0.0318	1	07/07/2019 14:43	WG1307049
Methylene Chloride	ND		0.159	1	07/07/2019 14:43	WG1307049
4-Methyl-2-pentanone (MIBK)	ND		0.159	1	07/07/2019 14:43	WG1307049
Methyl tert-butyl ether	ND		0.00635	1	07/07/2019 14:43	WG1307049
Styrene	ND		0.0794	1	07/07/2019 14:43	WG1307049
1,1,2,2-Tetrachloroethane	ND		0.0159	1	07/07/2019 14:43	WG1307049
Tetrachloroethene	ND		0.0159	1	07/07/2019 14:43	WG1307049
Toluene	0.0486		0.0318	1	07/07/2019 14:43	WG1307049
1,2,3-Trichlorobenzene	ND		0.0159	1	07/07/2019 14:43	WG1307049
1,2,4-Trichlorobenzene	ND		0.0794	1	07/07/2019 14:43	WG1307049
1,1,1-Trichloroethane	ND		0.0159	1	07/07/2019 14:43	WG1307049
1,1,2-Trichloroethane	ND		0.0159	1	07/07/2019 14:43	WG1307049
Trichloroethene	ND		0.00635	1	07/07/2019 14:43	WG1307049
Trichlorofluoromethane	ND		0.0159	1	07/07/2019 14:43	WG1307049
1,1,2-Trichlorotrifluoroethane	ND		0.0159	1	07/07/2019 14:43	WG1307049
Vinyl chloride	ND		0.0159	1	07/07/2019 14:43	WG1307049
Xylenes, Total	ND		0.0413	1	07/07/2019 14:43	WG1307049
(S) Toluene-d8	102		75.0-131		07/07/2019 14:43	WG1307049
(S) 4-Bromofluorobenzene	106		67.0-138		07/07/2019 14:43	WG1307049
(S) 1,2-Dichloroethane-d4	108		70.0-130		07/07/2019 14:43	WG1307049

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

## Pesticides (GC) by Method 8081B

Analyte	Result (dry) mg/kg	Qualifier	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Aldrin	ND		0.127	1	07/09/2019 17:37	WG1307387
Alpha BHC	ND		0.127	1	07/09/2019 17:37	WG1307387
Beta BHC	ND	J4	0.127	1	07/09/2019 17:37	WG1307387
Delta BHC	ND		0.127	1	07/09/2019 17:37	WG1307387
Gamma BHC	ND		0.127	1	07/09/2019 17:37	WG1307387
Chlordane	ND		1.27	1	07/09/2019 17:37	WG1307387
4,4-DDD	ND		0.127	1	07/09/2019 17:37	WG1307387
4,4-DDE	ND		0.127	1	07/09/2019 17:37	WG1307387
4,4-DDT	ND		0.127	1	07/09/2019 17:37	WG1307387
Dieldrin	ND		0.127	1	07/09/2019 17:37	WG1307387
Endosulfan I	ND		0.127	1	07/09/2019 17:37	WG1307387
Endosulfan II	ND		0.127	1	07/09/2019 17:37	WG1307387



Collected date/time: 06/26/19 11:09

L1113939

## Pesticides (GC) by Method 8081B

Analyte	Result (dry) mg/kg	Qualifier	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Endosulfan sulfate	ND		0.127	1	07/09/2019 17:37	<a href="#">WG1307387</a>
Endrin	ND		0.127	1	07/09/2019 17:37	<a href="#">WG1307387</a>
Endrin aldehyde	ND		0.127	1	07/09/2019 17:37	<a href="#">WG1307387</a>
Endrin ketone	ND		0.127	1	07/09/2019 17:37	<a href="#">WG1307387</a>
Heptachlor	ND		0.127	1	07/09/2019 17:37	<a href="#">WG1307387</a>
Heptachlor epoxide	ND		0.127	1	07/09/2019 17:37	<a href="#">WG1307387</a>
Hexachlorobenzene	ND		0.127	1	07/09/2019 17:37	<a href="#">WG1307387</a>
Methoxychlor	ND		0.127	1	07/09/2019 17:37	<a href="#">WG1307387</a>
Toxaphene	ND		2.54	1	07/09/2019 17:37	<a href="#">WG1307387</a>
(S) Decachlorobiphenyl	90.2		10.0-135		07/09/2019 17:37	<a href="#">WG1307387</a>
(S) Tetrachloro-m-xylene	87.2		10.0-139		07/09/2019 17:37	<a href="#">WG1307387</a>

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

## Polychlorinated Biphenyls (GC) by Method 8082 A

Analyte	Result (dry) mg/kg	Qualifier	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
PCB 1016	ND	J4	0.108	1	07/15/2019 12:44	<a href="#">WG1307387</a>
PCB 1221	ND		0.108	1	07/15/2019 12:44	<a href="#">WG1307387</a>
PCB 1232	ND		0.108	1	07/15/2019 12:44	<a href="#">WG1307387</a>
PCB 1242	ND		0.108	1	07/15/2019 12:44	<a href="#">WG1307387</a>
PCB 1248	ND		0.108	1	07/15/2019 12:44	<a href="#">WG1307387</a>
PCB 1254	ND		0.108	1	07/15/2019 12:44	<a href="#">WG1307387</a>
PCB 1260	ND	J4	0.108	1	07/15/2019 12:44	<a href="#">WG1307387</a>
(S) Decachlorobiphenyl	102		10.0-135		07/15/2019 12:44	<a href="#">WG1307387</a>
(S) Tetrachloro-m-xylene	78.2		10.0-139		07/15/2019 12:44	<a href="#">WG1307387</a>

## Semi Volatile Organic Compounds (GC/MS) by Method 8270D

Analyte	Result (dry) mg/kg	Qualifier	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Acenaphthene	ND	J4	0.212	1	07/10/2019 00:09	<a href="#">WG1307389</a>
Acenaphthylene	ND	J4	0.212	1	07/10/2019 00:09	<a href="#">WG1307389</a>
Acetophenone	ND	J4	2.12	1	07/10/2019 00:09	<a href="#">WG1307389</a>
Anthracene	ND		0.212	1	07/10/2019 00:09	<a href="#">WG1307389</a>
Atrazine	ND		2.12	1	07/10/2019 00:09	<a href="#">WG1307389</a>
Benzaldehyde	ND	J4	2.12	1	07/10/2019 00:09	<a href="#">WG1307389</a>
Benzo(a)anthracene	ND		0.212	1	07/10/2019 00:09	<a href="#">WG1307389</a>
Benzo(b)fluoranthene	ND		0.212	1	07/10/2019 00:09	<a href="#">WG1307389</a>
Benzo(k)fluoranthene	ND		0.212	1	07/10/2019 00:09	<a href="#">WG1307389</a>
Benzo(g,h,i)perylene	ND		0.212	1	07/10/2019 00:09	<a href="#">WG1307389</a>
Benzo(a)pyrene	ND		0.212	1	07/10/2019 00:09	<a href="#">WG1307389</a>
Biphenyl	ND	J4	2.12	1	07/10/2019 00:09	<a href="#">WG1307389</a>
Bis(2-chloroethoxy)methane	ND	J4	2.12	1	07/10/2019 00:09	<a href="#">WG1307389</a>
Bis(2-chloroethyl)ether	ND	J4	2.12	1	07/10/2019 00:09	<a href="#">WG1307389</a>
Bis(2-chloroisopropyl)ether	ND	J4	2.12	1	07/10/2019 00:09	<a href="#">WG1307389</a>
4-Bromophenyl-phenylether	ND		2.12	1	07/10/2019 00:09	<a href="#">WG1307389</a>
Caprolactam	ND		2.12	1	07/10/2019 00:09	<a href="#">WG1307389</a>
Carbazole	ND		2.12	1	07/10/2019 00:09	<a href="#">WG1307389</a>
4-Chloroaniline	ND	J4	2.12	1	07/10/2019 00:09	<a href="#">WG1307389</a>
2-Chloronaphthalene	ND	J4	0.212	1	07/10/2019 00:09	<a href="#">WG1307389</a>
4-Chlorophenyl-phenylether	ND		2.12	1	07/10/2019 00:09	<a href="#">WG1307389</a>
Chrysene	ND		0.212	1	07/10/2019 00:09	<a href="#">WG1307389</a>
Dibenz(a,h)anthracene	ND		0.212	1	07/10/2019 00:09	<a href="#">WG1307389</a>
Dibenzofuran	ND	J4	2.12	1	07/10/2019 00:09	<a href="#">WG1307389</a>
3,3-Dichlorobenzidine	ND		2.12	1	07/10/2019 00:09	<a href="#">WG1307389</a>
2,4-Dinitrotoluene	ND		2.12	1	07/10/2019 00:09	<a href="#">WG1307389</a>
2,6-Dinitrotoluene	ND		2.12	1	07/10/2019 00:09	<a href="#">WG1307389</a>





Semi Volatile Organic Compounds (GC/MS) by Method 8270D

Analyte	Result (dry) mg/kg	Qualifier	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Fluoranthene	ND		0.212	1	07/10/2019 00:09	WG1307389
Fluorene	1.05		0.212	1	07/10/2019 00:09	WG1307389
Hexachlorobenzene	ND		2.12	1	07/10/2019 00:09	WG1307389
Hexachloro-1,3-butadiene	ND	J4	2.12	1	07/10/2019 00:09	WG1307389
Hexachlorocyclopentadiene	ND	J4	2.12	1	07/10/2019 00:09	WG1307389
Hexachloroethane	ND	J4	2.12	1	07/10/2019 00:09	WG1307389
Indeno(1,2,3-cd)pyrene	ND		0.212	1	07/10/2019 00:09	WG1307389
Isophorone	ND	J4	2.12	1	07/10/2019 00:09	WG1307389
2-Methylnaphthalene	15.4	J4	0.423	2	07/11/2019 01:34	WG1307389
Naphthalene	ND	J4	0.212	1	07/10/2019 00:09	WG1307389
2-Nitroaniline	ND		2.12	1	07/10/2019 00:09	WG1307389
3-Nitroaniline	ND		2.12	1	07/10/2019 00:09	WG1307389
4-Nitroaniline	ND		2.12	1	07/10/2019 00:09	WG1307389
Nitrobenzene	ND	J4	2.12	1	07/10/2019 00:09	WG1307389
n-Nitrosodiphenylamine	ND		2.12	1	07/10/2019 00:09	WG1307389
n-Nitrosodi-n-propylamine	ND	J4	2.12	1	07/10/2019 00:09	WG1307389
Phenanthrene	0.655		0.212	1	07/10/2019 00:09	WG1307389
Benzylbutyl phthalate	ND		2.12	1	07/10/2019 00:09	WG1307389
Bis(2-ethylhexyl)phthalate	ND		2.12	1	07/10/2019 00:09	WG1307389
Di-n-butyl phthalate	ND		2.12	1	07/10/2019 00:09	WG1307389
Diethyl phthalate	ND		2.12	1	07/10/2019 00:09	WG1307389
Dimethyl phthalate	ND		2.12	1	07/10/2019 00:09	WG1307389
Di-n-octyl phthalate	ND		2.12	1	07/10/2019 00:09	WG1307389
Pyrene	ND		0.212	1	07/10/2019 00:09	WG1307389
1,2,4,5-Tetrachlorobenzene	ND	J4	2.12	1	07/10/2019 00:09	WG1307389
4-Chloro-3-methylphenol	ND	J4	2.12	1	07/10/2019 00:09	WG1307389
2-Chlorophenol	ND	J4	2.12	1	07/10/2019 00:09	WG1307389
2-Methylphenol	ND		2.12	1	07/10/2019 00:09	WG1307389
3&4-Methyl Phenol	ND		2.12	1	07/10/2019 00:09	WG1307389
2,4-Dichlorophenol	ND	J4	2.12	1	07/10/2019 00:09	WG1307389
2,4-Dimethylphenol	ND	J4	2.12	1	07/10/2019 00:09	WG1307389
4,6-Dinitro-2-methylphenol	ND		2.12	1	07/10/2019 00:09	WG1307389
2,4-Dinitrophenol	ND	J4	2.12	1	07/10/2019 00:09	WG1307389
2-Nitrophenol	ND	J4	2.12	1	07/10/2019 00:09	WG1307389
4-Nitrophenol	ND		2.12	1	07/10/2019 00:09	WG1307389
Pentachlorophenol	ND		2.12	1	07/10/2019 00:09	WG1307389
Phenol	ND		2.12	1	07/10/2019 00:09	WG1307389
2,4,5-Trichlorophenol	ND		2.12	1	07/10/2019 00:09	WG1307389
2,4,6-Trichlorophenol	ND	J4	2.12	1	07/10/2019 00:09	WG1307389
(S) 2-Fluorophenol	62.7		12.0-120		07/11/2019 01:34	WG1307389
(S) 2-Fluorophenol	68.2		12.0-120		07/10/2019 00:09	WG1307389
(S) Phenol-d5	59.1		10.0-120		07/11/2019 01:34	WG1307389
(S) Phenol-d5	63.9		10.0-120		07/10/2019 00:09	WG1307389
(S) Nitrobenzene-d5	100		10.0-122		07/11/2019 01:34	WG1307389
(S) Nitrobenzene-d5	0.000	J2	10.0-122		07/10/2019 00:09	WG1307389
(S) 2-Fluorobiphenyl	52.2		15.0-120		07/10/2019 00:09	WG1307389
(S) 2-Fluorobiphenyl	57.7		15.0-120		07/11/2019 01:34	WG1307389
(S) 2,4,6-Tribromophenol	61.7		10.0-127		07/11/2019 01:34	WG1307389
(S) 2,4,6-Tribromophenol	59.6		10.0-127		07/10/2019 00:09	WG1307389
(S) p-Terphenyl-d14	63.9		10.0-120		07/11/2019 01:34	WG1307389
(S) p-Terphenyl-d14	66.4		10.0-120		07/10/2019 00:09	WG1307389

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc



Collected date/time: 06/26/19 11:09

L1113939

## Semi Volatile Organic Compounds (GC/MS) by Method 8270E-SIM

Analyte	Result (dry) mg/kg	Qualifier	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch	
Anthracene	ND		0.0381	1	07/09/2019 04:02	<a href="#">WG1307549</a>	<sup>1</sup> Cp
Acenaphthene	0.343		0.0381	1	07/09/2019 04:02	<a href="#">WG1307549</a>	<sup>2</sup> Tc
Acenaphthylene	ND		0.0381	1	07/09/2019 04:02	<a href="#">WG1307549</a>	<sup>3</sup> Ss
Benzo(a)anthracene	ND		0.0381	1	07/09/2019 04:02	<a href="#">WG1307549</a>	<sup>4</sup> Cn
Benzo(a)pyrene	ND		0.0381	1	07/09/2019 04:02	<a href="#">WG1307549</a>	<sup>5</sup> Sr
Benzo(b)fluoranthene	ND		0.0381	1	07/09/2019 04:02	<a href="#">WG1307549</a>	<sup>6</sup> Qc
Benzo(g,h,i)perylene	ND		0.0381	1	07/09/2019 04:02	<a href="#">WG1307549</a>	<sup>7</sup> Gl
Benzo(k)fluoranthene	ND		0.0381	1	07/09/2019 04:02	<a href="#">WG1307549</a>	<sup>8</sup> Al
Chrysene	ND		0.0381	1	07/09/2019 04:02	<a href="#">WG1307549</a>	<sup>9</sup> Sc
Dibenz(a,h)anthracene	ND		0.0381	1	07/09/2019 04:02	<a href="#">WG1307549</a>	
Fluoranthene	ND		0.0381	1	07/09/2019 04:02	<a href="#">WG1307549</a>	
Fluorene	0.769		0.0381	1	07/09/2019 04:02	<a href="#">WG1307549</a>	
Indeno(1,2,3-cd)pyrene	ND		0.0381	1	07/09/2019 04:02	<a href="#">WG1307549</a>	
Naphthalene	0.165	<u>J4</u>	0.127	1	07/09/2019 04:02	<a href="#">WG1307549</a>	
Phenanthrene	0.388		0.0381	1	07/09/2019 04:02	<a href="#">WG1307549</a>	
Pyrene	ND		0.0381	1	07/09/2019 04:02	<a href="#">WG1307549</a>	
1-Methylnaphthalene	8.01		0.127	1	07/09/2019 04:02	<a href="#">WG1307549</a>	
2-Methylnaphthalene	10.6		0.127	1	07/09/2019 04:02	<a href="#">WG1307549</a>	
(S) p-Terphenyl-d14	84.0		23.0-120		07/09/2019 04:02	<a href="#">WG1307549</a>	
(S) Nitrobenzene-d5	562	<u>J1</u>	14.0-149		07/09/2019 04:02	<a href="#">WG1307549</a>	
(S) 2-Fluorobiphenyl	69.5		34.0-125		07/09/2019 04:02	<a href="#">WG1307549</a>	

## Sample Narrative:

L1113939-07 WG1307549: Surrogate recovery impacted by matrix.



Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	18.0		1	07/05/2019 17:10	<a href="#">WG1307003</a>

Wet Chemistry by Method 9012B

Analyte	Result (dry)	Qualifier	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg		date / time	
Cyanide	ND		1.39	1	07/10/2019 17:12	<a href="#">WG1308667</a>

Mercury by Method 7471B

Analyte	Result (dry)	Qualifier	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg		date / time	
Mercury	0.121		0.111	1	07/07/2019 13:43	<a href="#">WG1306876</a>

Metals (ICP) by Method 6010D

Analyte	Result (dry)	Qualifier	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg		date / time	
Aluminum	57900		55.7	1	07/07/2019 22:23	<a href="#">WG1306898</a>
Antimony	ND		11.1	1	07/07/2019 22:23	<a href="#">WG1306898</a>
Arsenic	ND		11.1	1	07/07/2019 22:23	<a href="#">WG1306898</a>
Barium	214		2.78	1	07/07/2019 22:23	<a href="#">WG1306898</a>
Beryllium	ND		1.11	1	07/07/2019 22:23	<a href="#">WG1306898</a>
Cadmium	ND		2.78	1	07/07/2019 22:23	<a href="#">WG1306898</a>
Calcium	34100		557	1	07/07/2019 22:23	<a href="#">WG1306898</a>
Chromium	81.6		5.57	1	07/07/2019 22:23	<a href="#">WG1306898</a>
Cobalt	12.4		5.57	1	07/07/2019 22:23	<a href="#">WG1306898</a>
Copper	76.0		11.1	1	07/07/2019 22:23	<a href="#">WG1306898</a>
Iron	33700		55.7	1	07/07/2019 22:23	<a href="#">WG1306898</a>
Lead	30.7		2.78	1	07/07/2019 22:23	<a href="#">WG1306898</a>
Magnesium	4280		557	1	07/07/2019 22:23	<a href="#">WG1306898</a>
Manganese	2200		5.57	1	07/07/2019 22:23	<a href="#">WG1306898</a>
Nickel	19.9		11.1	1	07/07/2019 22:23	<a href="#">WG1306898</a>
Potassium	866		557	1	07/07/2019 22:23	<a href="#">WG1306898</a>
Selenium	ND		11.1	1	07/07/2019 22:23	<a href="#">WG1306898</a>
Silver	ND		5.57	1	07/07/2019 22:23	<a href="#">WG1306898</a>
Sodium	1850		557	1	07/07/2019 22:23	<a href="#">WG1306898</a>
Thallium	ND		11.1	1	07/07/2019 22:23	<a href="#">WG1306898</a>
Vanadium	95.6		11.1	1	07/07/2019 22:23	<a href="#">WG1306898</a>
Zinc	208		27.8	1	07/07/2019 22:23	<a href="#">WG1306898</a>

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result (dry)	Qualifier	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg		date / time	
Acetone	2.07		0.195	1.4	07/07/2019 15:03	<a href="#">WG1307049</a>
Benzene	ND		0.00780	1.4	07/07/2019 15:03	<a href="#">WG1307049</a>
Bromochloromethane	ND		0.0390	1.4	07/07/2019 15:03	<a href="#">WG1307049</a>
Bromodichloromethane	ND		0.0195	1.4	07/07/2019 15:03	<a href="#">WG1307049</a>
Bromoform	ND		0.195	1.4	07/07/2019 15:03	<a href="#">WG1307049</a>
Bromomethane	ND		0.0975	1.4	07/07/2019 15:03	<a href="#">WG1307049</a>
Carbon disulfide	0.240		0.0975	1.4	07/07/2019 15:03	<a href="#">WG1307049</a>
Carbon tetrachloride	ND		0.0390	1.4	07/07/2019 15:03	<a href="#">WG1307049</a>
Chlorobenzene	ND		0.0195	1.4	07/07/2019 15:03	<a href="#">WG1307049</a>
Chlorodibromomethane	ND		0.0195	1.4	07/07/2019 15:03	<a href="#">WG1307049</a>
Chloroethane	ND		0.0390	1.4	07/07/2019 15:03	<a href="#">WG1307049</a>
Chloroform	ND		0.0195	1.4	07/07/2019 15:03	<a href="#">WG1307049</a>
Chloromethane	ND		0.0975	1.4	07/07/2019 15:03	<a href="#">WG1307049</a>

- 1 Cp
- 2 Tc
- 3 Ss
- 4 Cn
- 5 Sr
- 6 Qc
- 7 Gl
- 8 Al
- 9 Sc



Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result (dry) mg/kg	Qualifier	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Cyclohexane	ND		0.0195	1.4	07/07/2019 15:03	WG1307049
1,2-Dibromo-3-Chloropropane	ND		0.195	1.4	07/07/2019 15:03	WG1307049
1,2-Dibromoethane	ND		0.0195	1.4	07/07/2019 15:03	WG1307049
Dichlorodifluoromethane	ND		0.0195	1.4	07/07/2019 15:03	WG1307049
1,1-Dichloroethane	ND		0.0195	1.4	07/07/2019 15:03	WG1307049
1,2-Dichloroethane	ND		0.0195	1.4	07/07/2019 15:03	WG1307049
1,2-Dichlorobenzene	ND		0.0390	1.4	07/07/2019 15:03	WG1307049
1,3-Dichlorobenzene	ND		0.0390	1.4	07/07/2019 15:03	WG1307049
1,4-Dichlorobenzene	ND		0.0390	1.4	07/07/2019 15:03	WG1307049
1,1-Dichloroethene	ND		0.0195	1.4	07/07/2019 15:03	WG1307049
cis-1,2-Dichloroethene	ND		0.0195	1.4	07/07/2019 15:03	WG1307049
trans-1,2-Dichloroethene	ND		0.0390	1.4	07/07/2019 15:03	WG1307049
1,2-Dichloropropane	ND		0.0390	1.4	07/07/2019 15:03	WG1307049
cis-1,3-Dichloropropene	ND		0.0195	1.4	07/07/2019 15:03	WG1307049
trans-1,3-Dichloropropene	ND		0.0390	1.4	07/07/2019 15:03	WG1307049
Ethylbenzene	ND		0.0195	1.4	07/07/2019 15:03	WG1307049
2-Hexanone	ND		0.195	1.4	07/07/2019 15:03	WG1307049
Isopropylbenzene	ND		0.0195	1.4	07/07/2019 15:03	WG1307049
2-Butanone (MEK)	ND		0.195	1.4	07/07/2019 15:03	WG1307049
Methyl Acetate	1.59		0.0390	1.4	07/07/2019 15:03	WG1307049
Methyl Cyclohexane	0.0415		0.0390	1.4	07/07/2019 15:03	WG1307049
Methylene Chloride	ND		0.195	1.4	07/07/2019 15:03	WG1307049
4-Methyl-2-pentanone (MIBK)	ND		0.195	1.4	07/07/2019 15:03	WG1307049
Methyl tert-butyl ether	ND		0.00780	1.4	07/07/2019 15:03	WG1307049
Styrene	ND		0.0975	1.4	07/07/2019 15:03	WG1307049
1,1,2,2-Tetrachloroethane	ND		0.0195	1.4	07/07/2019 15:03	WG1307049
Tetrachloroethene	ND		0.0195	1.4	07/07/2019 15:03	WG1307049
Toluene	ND		0.0390	1.4	07/07/2019 15:03	WG1307049
1,2,3-Trichlorobenzene	ND		0.0195	1.4	07/07/2019 15:03	WG1307049
1,2,4-Trichlorobenzene	ND		0.0975	1.4	07/07/2019 15:03	WG1307049
1,1,1-Trichloroethane	ND		0.0195	1.4	07/07/2019 15:03	WG1307049
1,1,2-Trichloroethane	ND		0.0195	1.4	07/07/2019 15:03	WG1307049
Trichloroethene	ND		0.00780	1.4	07/07/2019 15:03	WG1307049
Trichlorofluoromethane	ND		0.0195	1.4	07/07/2019 15:03	WG1307049
1,1,2-Trichlorotrifluoroethane	ND		0.0195	1.4	07/07/2019 15:03	WG1307049
Vinyl chloride	ND		0.0195	1.4	07/07/2019 15:03	WG1307049
Xylenes, Total	ND		0.0507	1.4	07/07/2019 15:03	WG1307049
(S) Toluene-d8	98.7		75.0-131		07/07/2019 15:03	WG1307049
(S) 4-Bromofluorobenzene	109		67.0-138		07/07/2019 15:03	WG1307049
(S) 1,2-Dichloroethane-d4	108		70.0-130		07/07/2019 15:03	WG1307049

1  
Cp

2  
Tc

3  
Ss

4  
Cn

5  
Sr

6  
Qc

7  
Gl

8  
Al

9  
Sc

Pesticides (GC) by Method 8081B

Analyte	Result (dry) mg/kg	Qualifier	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Aldrin	ND		0.111	1	07/09/2019 17:50	WG1307387
Alpha BHC	ND		0.111	1	07/09/2019 17:50	WG1307387
Beta BHC	ND	J4	0.111	1	07/09/2019 17:50	WG1307387
Delta BHC	ND		0.111	1	07/09/2019 17:50	WG1307387
Gamma BHC	ND		0.111	1	07/09/2019 17:50	WG1307387
Chlordane	ND		1.11	1	07/09/2019 17:50	WG1307387
4,4-DDD	ND		0.111	1	07/09/2019 17:50	WG1307387
4,4-DDE	ND		0.111	1	07/09/2019 17:50	WG1307387
4,4-DDT	ND		0.111	1	07/09/2019 17:50	WG1307387
Dieldrin	ND		0.111	1	07/09/2019 17:50	WG1307387
Endosulfan I	ND		0.111	1	07/09/2019 17:50	WG1307387
Endosulfan II	ND		0.111	1	07/09/2019 17:50	WG1307387



Collected date/time: 06/26/19 11:59

L1113939

## Pesticides (GC) by Method 8081B

Analyte	Result (dry) mg/kg	Qualifier	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Endosulfan sulfate	ND		0.111	1	07/09/2019 17:50	<a href="#">WG1307387</a>
Endrin	ND		0.111	1	07/09/2019 17:50	<a href="#">WG1307387</a>
Endrin aldehyde	ND		0.111	1	07/09/2019 17:50	<a href="#">WG1307387</a>
Endrin ketone	ND		0.111	1	07/09/2019 17:50	<a href="#">WG1307387</a>
Heptachlor	ND		0.111	1	07/09/2019 17:50	<a href="#">WG1307387</a>
Heptachlor epoxide	ND		0.111	1	07/09/2019 17:50	<a href="#">WG1307387</a>
Hexachlorobenzene	ND		0.111	1	07/09/2019 17:50	<a href="#">WG1307387</a>
Methoxychlor	ND		0.111	1	07/09/2019 17:50	<a href="#">WG1307387</a>
Toxaphene	ND		2.23	1	07/09/2019 17:50	<a href="#">WG1307387</a>
(S) Decachlorobiphenyl	81.1		10.0-135		07/09/2019 17:50	<a href="#">WG1307387</a>
(S) Tetrachloro-m-xylene	111		10.0-139		07/09/2019 17:50	<a href="#">WG1307387</a>

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

## Polychlorinated Biphenyls (GC) by Method 8082 A

Analyte	Result (dry) mg/kg	Qualifier	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
PCB 1016	ND	J4	0.0947	1	07/09/2019 17:18	<a href="#">WG1307387</a>
PCB 1221	ND		0.0947	1	07/09/2019 17:18	<a href="#">WG1307387</a>
PCB 1232	ND		0.0947	1	07/09/2019 17:18	<a href="#">WG1307387</a>
PCB 1242	ND		0.0947	1	07/09/2019 17:18	<a href="#">WG1307387</a>
PCB 1248	ND		0.0947	1	07/09/2019 17:18	<a href="#">WG1307387</a>
PCB 1254	ND		0.0947	1	07/09/2019 17:18	<a href="#">WG1307387</a>
PCB 1260	ND	J4	0.0947	1	07/09/2019 17:18	<a href="#">WG1307387</a>
(S) Decachlorobiphenyl	92.3		10.0-135		07/09/2019 17:18	<a href="#">WG1307387</a>
(S) Tetrachloro-m-xylene	81.8		10.0-139		07/09/2019 17:18	<a href="#">WG1307387</a>

## Semi Volatile Organic Compounds (GC/MS) by Method 8270D

Analyte	Result (dry) mg/kg	Qualifier	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Acenaphthene	ND	J4	3.71	20	07/10/2019 21:05	<a href="#">WG1306496</a>
Acenaphthylene	ND	J4	3.71	20	07/10/2019 21:05	<a href="#">WG1306496</a>
Acetophenone	ND	J4	37.1	20	07/10/2019 21:05	<a href="#">WG1306496</a>
Anthracene	ND	J4	3.71	20	07/10/2019 21:05	<a href="#">WG1306496</a>
Atrazine	ND		37.1	20	07/10/2019 21:05	<a href="#">WG1306496</a>
Benzaldehyde	ND	J4	37.1	20	07/10/2019 21:05	<a href="#">WG1306496</a>
Benzo(a)anthracene	ND		3.71	20	07/10/2019 21:05	<a href="#">WG1306496</a>
Benzo(b)fluoranthene	ND		3.71	20	07/10/2019 21:05	<a href="#">WG1306496</a>
Benzo(k)fluoranthene	ND		3.71	20	07/10/2019 21:05	<a href="#">WG1306496</a>
Benzo(g,h,i)perylene	ND		3.71	20	07/10/2019 21:05	<a href="#">WG1306496</a>
Benzo(a)pyrene	ND		3.71	20	07/10/2019 21:05	<a href="#">WG1306496</a>
Biphenyl	ND	J4	37.1	20	07/10/2019 21:05	<a href="#">WG1306496</a>
Bis(2-chloroethoxy)methane	ND	J4	37.1	20	07/10/2019 21:05	<a href="#">WG1306496</a>
Bis(2-chloroethyl)ether	ND	J4	37.1	20	07/10/2019 21:05	<a href="#">WG1306496</a>
Bis(2-chloroisopropyl)ether	ND	J4	37.1	20	07/10/2019 21:05	<a href="#">WG1306496</a>
4-Bromophenyl-phenylether	ND		37.1	20	07/10/2019 21:05	<a href="#">WG1306496</a>
Caprolactam	ND		37.1	20	07/10/2019 21:05	<a href="#">WG1306496</a>
Carbazole	ND		37.1	20	07/10/2019 21:05	<a href="#">WG1306496</a>
4-Chloroaniline	ND	J4	37.1	20	07/10/2019 21:05	<a href="#">WG1306496</a>
2-Chloronaphthalene	ND	J4	3.71	20	07/10/2019 21:05	<a href="#">WG1306496</a>
4-Chlorophenyl-phenylether	ND	J4	37.1	20	07/10/2019 21:05	<a href="#">WG1306496</a>
Chrysene	ND	J4	3.71	20	07/10/2019 21:05	<a href="#">WG1306496</a>
Dibenz(a,h)anthracene	ND		3.71	20	07/10/2019 21:05	<a href="#">WG1306496</a>
Dibenzofuran	ND	J4	37.1	20	07/10/2019 21:05	<a href="#">WG1306496</a>
3,3-Dichlorobenzidine	ND	J4	37.1	20	07/10/2019 21:05	<a href="#">WG1306496</a>
2,4-Dinitrotoluene	ND	J4	37.1	20	07/10/2019 21:05	<a href="#">WG1306496</a>
2,6-Dinitrotoluene	ND		37.1	20	07/10/2019 21:05	<a href="#">WG1306496</a>



Collected date/time: 06/26/19 11:59

L1113939

Semi Volatile Organic Compounds (GC/MS) by Method 8270D

Analyte	Result (dry) mg/kg	Qualifier	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Fluoranthene	ND		3.71	20	07/10/2019 21:05	<a href="#">WG1306496</a>
Fluorene	ND	J4	3.71	20	07/10/2019 21:05	<a href="#">WG1306496</a>
Hexachlorobenzene	ND	J4	37.1	20	07/10/2019 21:05	<a href="#">WG1306496</a>
Hexachloro-1,3-butadiene	ND	J4	37.1	20	07/10/2019 21:05	<a href="#">WG1306496</a>
Hexachlorocyclopentadiene	ND	J4	37.1	20	07/10/2019 21:05	<a href="#">WG1306496</a>
Hexachloroethane	ND	J4	37.1	20	07/10/2019 21:05	<a href="#">WG1306496</a>
Indeno(1,2,3-cd)pyrene	ND		3.71	20	07/10/2019 21:05	<a href="#">WG1306496</a>
Isophorone	ND	J4	37.1	20	07/10/2019 21:05	<a href="#">WG1306496</a>
2-Methylnaphthalene	ND	J4	3.71	20	07/10/2019 21:05	<a href="#">WG1306496</a>
Naphthalene	ND	J4	3.71	20	07/10/2019 21:05	<a href="#">WG1306496</a>
2-Nitroaniline	ND		37.1	20	07/10/2019 21:05	<a href="#">WG1306496</a>
3-Nitroaniline	ND	J4	37.1	20	07/10/2019 21:05	<a href="#">WG1306496</a>
4-Nitroaniline	ND	J4	37.1	20	07/10/2019 21:05	<a href="#">WG1306496</a>
Nitrobenzene	ND	J4	37.1	20	07/10/2019 21:05	<a href="#">WG1306496</a>
n-Nitrosodiphenylamine	ND		37.1	20	07/10/2019 21:05	<a href="#">WG1306496</a>
n-Nitrosodi-n-propylamine	ND	J4	37.1	20	07/10/2019 21:05	<a href="#">WG1306496</a>
Phenanthrene	ND	J4	3.71	20	07/10/2019 21:05	<a href="#">WG1306496</a>
Benzylbutyl phthalate	ND		37.1	20	07/10/2019 21:05	<a href="#">WG1306496</a>
Bis(2-ethylhexyl)phthalate	ND		37.1	20	07/10/2019 21:05	<a href="#">WG1306496</a>
Di-n-butyl phthalate	ND		37.1	20	07/10/2019 21:05	<a href="#">WG1306496</a>
Diethyl phthalate	ND	J4	37.1	20	07/10/2019 21:05	<a href="#">WG1306496</a>
Dimethyl phthalate	ND	J4	37.1	20	07/10/2019 21:05	<a href="#">WG1306496</a>
Di-n-octyl phthalate	ND	J4	37.1	20	07/10/2019 21:05	<a href="#">WG1306496</a>
Pyrene	ND		3.71	20	07/10/2019 21:05	<a href="#">WG1306496</a>
1,2,4,5-Tetrachlorobenzene	ND	J4	37.1	20	07/10/2019 21:05	<a href="#">WG1306496</a>
4-Chloro-3-methylphenol	ND	J4	37.1	20	07/10/2019 21:05	<a href="#">WG1306496</a>
2-Chlorophenol	ND	J4	37.1	20	07/10/2019 21:05	<a href="#">WG1306496</a>
2-Methylphenol	ND	J4	37.1	20	07/10/2019 21:05	<a href="#">WG1306496</a>
3&4-Methyl Phenol	ND		37.1	20	07/10/2019 21:05	<a href="#">WG1306496</a>
2,4-Dichlorophenol	ND	J4	37.1	20	07/10/2019 21:05	<a href="#">WG1306496</a>
2,4-Dimethylphenol	ND	J4	37.1	20	07/10/2019 21:05	<a href="#">WG1306496</a>
4,6-Dinitro-2-methylphenol	ND	J4	37.1	20	07/10/2019 21:05	<a href="#">WG1306496</a>
2,4-Dinitrophenol	ND	J4	37.1	20	07/10/2019 21:05	<a href="#">WG1306496</a>
2-Nitrophenol	ND	J4	37.1	20	07/10/2019 21:05	<a href="#">WG1306496</a>
4-Nitrophenol	ND	J4	37.1	20	07/10/2019 21:05	<a href="#">WG1306496</a>
Pentachlorophenol	ND	J4	37.1	20	07/10/2019 21:05	<a href="#">WG1306496</a>
Phenol	ND	J4	37.1	20	07/10/2019 21:05	<a href="#">WG1306496</a>
2,4,5-Trichlorophenol	ND		37.1	20	07/10/2019 21:05	<a href="#">WG1306496</a>
2,4,6-Trichlorophenol	ND	J4	37.1	20	07/10/2019 21:05	<a href="#">WG1306496</a>
(S) 2-Fluorophenol	52.4	J7	12.0-120		07/10/2019 21:05	<a href="#">WG1306496</a>
(S) Phenol-d5	47.0	J7	10.0-120		07/10/2019 21:05	<a href="#">WG1306496</a>
(S) Nitrobenzene-d5	0.000	J7	10.0-122		07/10/2019 21:05	<a href="#">WG1306496</a>
(S) 2-Fluorobiphenyl	45.8	J7	15.0-120		07/10/2019 21:05	<a href="#">WG1306496</a>
(S) 2,4,6-Tribromophenol	50.9	J7	10.0-127		07/10/2019 21:05	<a href="#">WG1306496</a>
(S) p-Terphenyl-d14	58.2	J7	10.0-120		07/10/2019 21:05	<a href="#">WG1306496</a>

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

Sample Narrative:

L1113939-08 WG1306496: Dilution due to matrix.

Semi Volatile Organic Compounds (GC/MS) by Method 8270E-SIM

Analyte	Result (dry) mg/kg	Qualifier	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Anthracene	ND		0.0334	1	07/09/2019 04:23	<a href="#">WG1307549</a>
Acenaphthene	ND		0.0334	1	07/09/2019 04:23	<a href="#">WG1307549</a>
Acenaphthylene	ND		0.0334	1	07/09/2019 04:23	<a href="#">WG1307549</a>
Benzo(a)anthracene	ND		0.0334	1	07/09/2019 04:23	<a href="#">WG1307549</a>



Semi Volatile Organic Compounds (GC/MS) by Method 8270E-SIM

Analyte	Result (dry) mg/kg	Qualifier	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Benzo(a)pyrene	ND		0.0334	1	07/09/2019 04:23	<a href="#">WG1307549</a>
Benzo(b)fluoranthene	ND		0.0334	1	07/09/2019 04:23	<a href="#">WG1307549</a>
Benzo(g,h,i)perylene	ND		0.0334	1	07/09/2019 04:23	<a href="#">WG1307549</a>
Benzo(k)fluoranthene	ND		0.0334	1	07/09/2019 04:23	<a href="#">WG1307549</a>
Chrysene	ND		0.0334	1	07/09/2019 04:23	<a href="#">WG1307549</a>
Dibenz(a,h)anthracene	ND		0.0334	1	07/09/2019 04:23	<a href="#">WG1307549</a>
Fluoranthene	ND		0.0334	1	07/09/2019 04:23	<a href="#">WG1307549</a>
Fluorene	ND		0.0334	1	07/09/2019 04:23	<a href="#">WG1307549</a>
Indeno(1,2,3-cd)pyrene	ND		0.0334	1	07/09/2019 04:23	<a href="#">WG1307549</a>
Naphthalene	ND	<u>J4</u>	0.111	1	07/09/2019 04:23	<a href="#">WG1307549</a>
Phenanthrene	ND		0.0334	1	07/09/2019 04:23	<a href="#">WG1307549</a>
Pyrene	ND		0.0334	1	07/09/2019 04:23	<a href="#">WG1307549</a>
1-Methylnaphthalene	ND		0.111	1	07/09/2019 04:23	<a href="#">WG1307549</a>
2-Methylnaphthalene	ND		0.111	1	07/09/2019 04:23	<a href="#">WG1307549</a>
(S) p-Terphenyl-d14	63.0		23.0-120		07/09/2019 04:23	<a href="#">WG1307549</a>
(S) Nitrobenzene-d5	85.5		14.0-149		07/09/2019 04:23	<a href="#">WG1307549</a>
(S) 2-Fluorobiphenyl	33.9	<u>J2</u>	34.0-125		07/09/2019 04:23	<a href="#">WG1307549</a>

- 1 Cp
- 2 Tc
- 3 Ss
- 4 Cn
- 5 Sr
- 6 Qc
- 7 Gl
- 8 Al
- 9 Sc

Sample Narrative:

L1113939-08 WG1307549: Surrogate recovery impacted by matrix.





## Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	11.1		1	07/05/2019 17:10	<a href="#">WG1307003</a>

## Wet Chemistry by Method 9012B

Analyte	Result (dry)	Qualifier	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg		date / time	
Cyanide	ND		2.26	1	07/10/2019 17:13	<a href="#">WG1308667</a>

## Mercury by Method 7471B

Analyte	Result (dry)	Qualifier	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg		date / time	
Mercury	ND		0.181	1	07/07/2019 13:45	<a href="#">WG1306876</a>

## Metals (ICP) by Method 6010D

Analyte	Result (dry)	Qualifier	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg		date / time	
Aluminum	76800		90.5	1	07/07/2019 22:26	<a href="#">WG1306898</a>
Antimony	ND		18.1	1	07/07/2019 22:26	<a href="#">WG1306898</a>
Arsenic	ND		18.1	1	07/07/2019 22:26	<a href="#">WG1306898</a>
Barium	121		4.52	1	07/07/2019 22:26	<a href="#">WG1306898</a>
Beryllium	ND		1.81	1	07/07/2019 22:26	<a href="#">WG1306898</a>
Cadmium	ND		4.52	1	07/07/2019 22:26	<a href="#">WG1306898</a>
Calcium	6430		905	1	07/07/2019 22:26	<a href="#">WG1306898</a>
Chromium	79.5		9.05	1	07/07/2019 22:26	<a href="#">WG1306898</a>
Cobalt	13.1		9.05	1	07/07/2019 22:26	<a href="#">WG1306898</a>
Copper	56.6		18.1	1	07/07/2019 22:26	<a href="#">WG1306898</a>
Iron	40000		90.5	1	07/07/2019 22:26	<a href="#">WG1306898</a>
Lead	20.3		4.52	1	07/07/2019 22:26	<a href="#">WG1306898</a>
Magnesium	2820		905	1	07/07/2019 22:26	<a href="#">WG1306898</a>
Manganese	1930		9.05	1	07/07/2019 22:26	<a href="#">WG1306898</a>
Nickel	ND		18.1	1	07/07/2019 22:26	<a href="#">WG1306898</a>
Potassium	ND		905	1	07/07/2019 22:26	<a href="#">WG1306898</a>
Selenium	ND		18.1	1	07/07/2019 22:26	<a href="#">WG1306898</a>
Silver	ND		9.05	1	07/07/2019 22:26	<a href="#">WG1306898</a>
Sodium	1150	<u>B</u>	905	1	07/07/2019 22:26	<a href="#">WG1306898</a>
Thallium	ND		18.1	1	07/07/2019 22:26	<a href="#">WG1306898</a>
Vanadium	103		18.1	1	07/07/2019 22:26	<a href="#">WG1306898</a>
Zinc	267		45.2	1	07/07/2019 22:26	<a href="#">WG1306898</a>

## Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result (dry)	Qualifier	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg		date / time	
Acetone	0.786		0.309	1.37	07/07/2019 15:23	<a href="#">WG1307049</a>
Benzene	0.0211		0.0124	1.37	07/07/2019 15:23	<a href="#">WG1307049</a>
Bromochloromethane	ND		0.0620	1.37	07/07/2019 15:23	<a href="#">WG1307049</a>
Bromodichloromethane	ND		0.0309	1.37	07/07/2019 15:23	<a href="#">WG1307049</a>
Bromoform	ND		0.309	1.37	07/07/2019 15:23	<a href="#">WG1307049</a>
Bromomethane	ND		0.155	1.37	07/07/2019 15:23	<a href="#">WG1307049</a>
Carbon disulfide	ND		0.155	1.37	07/07/2019 15:23	<a href="#">WG1307049</a>
Carbon tetrachloride	ND		0.0620	1.37	07/07/2019 15:23	<a href="#">WG1307049</a>
Chlorobenzene	ND		0.0309	1.37	07/07/2019 15:23	<a href="#">WG1307049</a>
Chlorodibromomethane	ND		0.0309	1.37	07/07/2019 15:23	<a href="#">WG1307049</a>
Chloroethane	ND		0.0620	1.37	07/07/2019 15:23	<a href="#">WG1307049</a>
Chloroform	ND		0.0309	1.37	07/07/2019 15:23	<a href="#">WG1307049</a>
Chloromethane	ND		0.155	1.37	07/07/2019 15:23	<a href="#">WG1307049</a>

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc



Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result (dry) mg/kg	Qualifier	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Cyclohexane	ND		0.0309	1.37	07/07/2019 15:23	WG1307049
1,2-Dibromo-3-Chloropropane	ND		0.309	1.37	07/07/2019 15:23	WG1307049
1,2-Dibromoethane	ND		0.0309	1.37	07/07/2019 15:23	WG1307049
Dichlorodifluoromethane	ND		0.0309	1.37	07/07/2019 15:23	WG1307049
1,1-Dichloroethane	ND		0.0309	1.37	07/07/2019 15:23	WG1307049
1,2-Dichloroethane	ND		0.0309	1.37	07/07/2019 15:23	WG1307049
1,2-Dichlorobenzene	ND		0.0620	1.37	07/07/2019 15:23	WG1307049
1,3-Dichlorobenzene	ND		0.0620	1.37	07/07/2019 15:23	WG1307049
1,4-Dichlorobenzene	ND		0.0620	1.37	07/07/2019 15:23	WG1307049
1,1-Dichloroethene	ND		0.0309	1.37	07/07/2019 15:23	WG1307049
cis-1,2-Dichloroethene	ND		0.0309	1.37	07/07/2019 15:23	WG1307049
trans-1,2-Dichloroethene	ND		0.0620	1.37	07/07/2019 15:23	WG1307049
1,2-Dichloropropane	ND		0.0620	1.37	07/07/2019 15:23	WG1307049
cis-1,3-Dichloropropene	ND		0.0309	1.37	07/07/2019 15:23	WG1307049
trans-1,3-Dichloropropene	ND		0.0620	1.37	07/07/2019 15:23	WG1307049
Ethylbenzene	ND		0.0309	1.37	07/07/2019 15:23	WG1307049
2-Hexanone	ND		0.309	1.37	07/07/2019 15:23	WG1307049
Isopropylbenzene	ND		0.0309	1.37	07/07/2019 15:23	WG1307049
2-Butanone (MEK)	ND		0.309	1.37	07/07/2019 15:23	WG1307049
Methyl Acetate	1.94		0.0620	1.37	07/07/2019 15:23	WG1307049
Methyl Cyclohexane	ND		0.0620	1.37	07/07/2019 15:23	WG1307049
Methylene Chloride	ND		0.309	1.37	07/07/2019 15:23	WG1307049
4-Methyl-2-pentanone (MIBK)	ND		0.309	1.37	07/07/2019 15:23	WG1307049
Methyl tert-butyl ether	ND		0.0124	1.37	07/07/2019 15:23	WG1307049
Styrene	ND		0.155	1.37	07/07/2019 15:23	WG1307049
1,1,2,2-Tetrachloroethane	ND		0.0309	1.37	07/07/2019 15:23	WG1307049
Tetrachloroethene	ND		0.0309	1.37	07/07/2019 15:23	WG1307049
Toluene	0.111		0.0620	1.37	07/07/2019 15:23	WG1307049
1,2,3-Trichlorobenzene	ND		0.0309	1.37	07/07/2019 15:23	WG1307049
1,2,4-Trichlorobenzene	ND		0.155	1.37	07/07/2019 15:23	WG1307049
1,1,1-Trichloroethane	ND		0.0309	1.37	07/07/2019 15:23	WG1307049
1,1,2-Trichloroethane	ND		0.0309	1.37	07/07/2019 15:23	WG1307049
Trichloroethene	ND		0.0124	1.37	07/07/2019 15:23	WG1307049
Trichlorofluoromethane	ND		0.0309	1.37	07/07/2019 15:23	WG1307049
1,1,2-Trichlorotrifluoroethane	ND		0.0309	1.37	07/07/2019 15:23	WG1307049
Vinyl chloride	ND		0.0309	1.37	07/07/2019 15:23	WG1307049
Xylenes, Total	ND		0.0805	1.37	07/07/2019 15:23	WG1307049
(S) Toluene-d8	102		75.0-131		07/07/2019 15:23	WG1307049
(S) 4-Bromofluorobenzene	105		67.0-138		07/07/2019 15:23	WG1307049
(S) 1,2-Dichloroethane-d4	103		70.0-130		07/07/2019 15:23	WG1307049

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

Pesticides (GC) by Method 8081B

Analyte	Result (dry) mg/kg	Qualifier	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Aldrin	ND		0.181	1	07/09/2019 18:02	WG1307387
Alpha BHC	ND		0.181	1	07/09/2019 18:02	WG1307387
Beta BHC	ND	J4	0.181	1	07/09/2019 18:02	WG1307387
Delta BHC	ND		0.181	1	07/09/2019 18:02	WG1307387
Gamma BHC	ND		0.181	1	07/09/2019 18:02	WG1307387
Chlordane	ND		1.81	1	07/09/2019 18:02	WG1307387
4,4-DDD	ND		0.181	1	07/09/2019 18:02	WG1307387
4,4-DDE	ND		0.181	1	07/09/2019 18:02	WG1307387
4,4-DDT	ND		0.181	1	07/09/2019 18:02	WG1307387
Dieldrin	ND		0.181	1	07/09/2019 18:02	WG1307387
Endosulfan I	ND		0.181	1	07/09/2019 18:02	WG1307387
Endosulfan II	ND		0.181	1	07/09/2019 18:02	WG1307387



Pesticides (GC) by Method 8081B

Analyte	Result (dry) mg/kg	Qualifier	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Endosulfan sulfate	ND		0.181	1	07/09/2019 18:02	<a href="#">WG1307387</a>
Endrin	ND		0.181	1	07/09/2019 18:02	<a href="#">WG1307387</a>
Endrin aldehyde	ND		0.181	1	07/09/2019 18:02	<a href="#">WG1307387</a>
Endrin ketone	ND		0.181	1	07/09/2019 18:02	<a href="#">WG1307387</a>
Heptachlor	ND		0.181	1	07/09/2019 18:02	<a href="#">WG1307387</a>
Heptachlor epoxide	ND		0.181	1	07/09/2019 18:02	<a href="#">WG1307387</a>
Hexachlorobenzene	ND		0.181	1	07/09/2019 18:02	<a href="#">WG1307387</a>
Methoxychlor	ND		0.181	1	07/09/2019 18:02	<a href="#">WG1307387</a>
Toxaphene	ND		3.62	1	07/09/2019 18:02	<a href="#">WG1307387</a>
(S) Decachlorobiphenyl	53.8		10.0-135		07/09/2019 18:02	<a href="#">WG1307387</a>
(S) Tetrachloro-m-xylene	55.9		10.0-139		07/09/2019 18:02	<a href="#">WG1307387</a>

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

Polychlorinated Biphenyls (GC) by Method 8082 A

Analyte	Result (dry) mg/kg	Qualifier	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
PCB 1016	ND	J4	0.154	1	07/09/2019 17:30	<a href="#">WG1307387</a>
PCB 1221	ND		0.154	1	07/09/2019 17:30	<a href="#">WG1307387</a>
PCB 1232	ND		0.154	1	07/09/2019 17:30	<a href="#">WG1307387</a>
PCB 1242	ND		0.154	1	07/09/2019 17:30	<a href="#">WG1307387</a>
PCB 1248	ND		0.154	1	07/09/2019 17:30	<a href="#">WG1307387</a>
PCB 1254	ND		0.154	1	07/09/2019 17:30	<a href="#">WG1307387</a>
PCB 1260	ND	J4	0.154	1	07/09/2019 17:30	<a href="#">WG1307387</a>
(S) Decachlorobiphenyl	59.3		10.0-135		07/09/2019 17:30	<a href="#">WG1307387</a>
(S) Tetrachloro-m-xylene	55.3		10.0-139		07/09/2019 17:30	<a href="#">WG1307387</a>

Semi Volatile Organic Compounds (GC/MS) by Method 8270D

Analyte	Result (dry) mg/kg	Qualifier	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Acenaphthene	ND	J4	0.301	1	07/11/2019 00:04	<a href="#">WG1306496</a>
Acenaphthylene	ND	J4	0.301	1	07/11/2019 00:04	<a href="#">WG1306496</a>
Acetophenone	ND	J4	3.01	1	07/11/2019 00:04	<a href="#">WG1306496</a>
Anthracene	ND	J4	0.301	1	07/11/2019 00:04	<a href="#">WG1306496</a>
Atrazine	ND		3.01	1	07/11/2019 00:04	<a href="#">WG1306496</a>
Benzaldehyde	ND	J4	3.01	1	07/11/2019 00:04	<a href="#">WG1306496</a>
Benzo(a)anthracene	ND		0.301	1	07/11/2019 00:04	<a href="#">WG1306496</a>
Benzo(b)fluoranthene	ND		0.301	1	07/11/2019 00:04	<a href="#">WG1306496</a>
Benzo(k)fluoranthene	ND		0.301	1	07/11/2019 00:04	<a href="#">WG1306496</a>
Benzo(g,h,i)perylene	ND		0.301	1	07/11/2019 00:04	<a href="#">WG1306496</a>
Benzo(a)pyrene	ND		0.301	1	07/11/2019 00:04	<a href="#">WG1306496</a>
Biphenyl	ND	J4	3.01	1	07/11/2019 00:04	<a href="#">WG1306496</a>
Bis(2-chloroethoxy)methane	ND	J4	3.01	1	07/11/2019 00:04	<a href="#">WG1306496</a>
Bis(2-chloroethyl)ether	ND	J4	3.01	1	07/11/2019 00:04	<a href="#">WG1306496</a>
Bis(2-chloroisopropyl)ether	ND	J4	3.01	1	07/11/2019 00:04	<a href="#">WG1306496</a>
4-Bromophenyl-phenylether	ND		3.01	1	07/11/2019 00:04	<a href="#">WG1306496</a>
Caprolactam	ND		3.01	1	07/11/2019 00:04	<a href="#">WG1306496</a>
Carbazole	ND		3.01	1	07/11/2019 00:04	<a href="#">WG1306496</a>
4-Chloroaniline	ND	J4	3.01	1	07/11/2019 00:04	<a href="#">WG1306496</a>
2-Chloronaphthalene	ND	J4	0.301	1	07/11/2019 00:04	<a href="#">WG1306496</a>
4-Chlorophenyl-phenylether	ND	J4	3.01	1	07/11/2019 00:04	<a href="#">WG1306496</a>
Chrysene	ND	J4	0.301	1	07/11/2019 00:04	<a href="#">WG1306496</a>
Dibenz(a,h)anthracene	ND		0.301	1	07/11/2019 00:04	<a href="#">WG1306496</a>
Dibenzofuran	ND	J4	3.01	1	07/11/2019 00:04	<a href="#">WG1306496</a>
3,3-Dichlorobenzidine	ND	J4	3.01	1	07/11/2019 00:04	<a href="#">WG1306496</a>
2,4-Dinitrotoluene	ND	J4	3.01	1	07/11/2019 00:04	<a href="#">WG1306496</a>
2,6-Dinitrotoluene	ND		3.01	1	07/11/2019 00:04	<a href="#">WG1306496</a>



Semi Volatile Organic Compounds (GC/MS) by Method 8270D

Analyte	Result (dry) mg/kg	Qualifier	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Fluoranthene	ND		0.301	1	07/11/2019 00:04	WG1306496
Fluorene	ND	J4	0.301	1	07/11/2019 00:04	WG1306496
Hexachlorobenzene	ND	J4	3.01	1	07/11/2019 00:04	WG1306496
Hexachloro-1,3-butadiene	ND	J4	3.01	1	07/11/2019 00:04	WG1306496
Hexachlorocyclopentadiene	ND	JO J4	3.01	1	07/11/2019 00:04	WG1306496
Hexachloroethane	ND	J4	3.01	1	07/11/2019 00:04	WG1306496
Indeno(1,2,3-cd)pyrene	ND		0.301	1	07/11/2019 00:04	WG1306496
Isophorone	ND	J4	3.01	1	07/11/2019 00:04	WG1306496
2-Methylnaphthalene	ND	J4	0.301	1	07/11/2019 00:04	WG1306496
Naphthalene	ND	J4	0.301	1	07/11/2019 00:04	WG1306496
2-Nitroaniline	ND		3.01	1	07/11/2019 00:04	WG1306496
3-Nitroaniline	ND	J4	3.01	1	07/11/2019 00:04	WG1306496
4-Nitroaniline	ND	J4	3.01	1	07/11/2019 00:04	WG1306496
Nitrobenzene	ND	J4	3.01	1	07/11/2019 00:04	WG1306496
n-Nitrosodiphenylamine	ND		3.01	1	07/11/2019 00:04	WG1306496
n-Nitrosodi-n-propylamine	ND	J4	3.01	1	07/11/2019 00:04	WG1306496
Phenanthrene	ND	J4	0.301	1	07/11/2019 00:04	WG1306496
Benzylbutyl phthalate	ND		3.01	1	07/11/2019 00:04	WG1306496
Bis(2-ethylhexyl)phthalate	ND		3.01	1	07/11/2019 00:04	WG1306496
Di-n-butyl phthalate	ND		3.01	1	07/11/2019 00:04	WG1306496
Diethyl phthalate	ND	J4	3.01	1	07/11/2019 00:04	WG1306496
Dimethyl phthalate	ND	J4	3.01	1	07/11/2019 00:04	WG1306496
Di-n-octyl phthalate	ND	J4	3.01	1	07/11/2019 00:04	WG1306496
Pyrene	ND		0.301	1	07/11/2019 00:04	WG1306496
1,2,4,5-Tetrachlorobenzene	ND	J4	3.01	1	07/11/2019 00:04	WG1306496
4-Chloro-3-methylphenol	ND	J4	3.01	1	07/11/2019 00:04	WG1306496
2-Chlorophenol	ND	J4	3.01	1	07/11/2019 00:04	WG1306496
2-Methylphenol	ND	J4	3.01	1	07/11/2019 00:04	WG1306496
3&4-Methyl Phenol	ND		3.01	1	07/11/2019 00:04	WG1306496
2,4-Dichlorophenol	ND	J4	3.01	1	07/11/2019 00:04	WG1306496
2,4-Dimethylphenol	ND	JO J4	3.01	1	07/11/2019 00:04	WG1306496
4,6-Dinitro-2-methylphenol	ND	J4	3.01	1	07/11/2019 00:04	WG1306496
2,4-Dinitrophenol	ND	J4	3.01	1	07/11/2019 00:04	WG1306496
2-Nitrophenol	ND	J4	3.01	1	07/11/2019 00:04	WG1306496
4-Nitrophenol	ND	J4	3.01	1	07/11/2019 00:04	WG1306496
Pentachlorophenol	ND	J4	3.01	1	07/11/2019 00:04	WG1306496
Phenol	ND	J4	3.01	1	07/11/2019 00:04	WG1306496
2,4,5-Trichlorophenol	ND		3.01	1	07/11/2019 00:04	WG1306496
2,4,6-Trichlorophenol	ND	J4	3.01	1	07/11/2019 00:04	WG1306496
(S) 2-Fluorophenol	1.48	J2	12.0-120		07/11/2019 00:04	WG1306496
(S) Phenol-d5	4.32	J2	10.0-120		07/11/2019 00:04	WG1306496
(S) Nitrobenzene-d5	0.000	J2	10.0-122		07/11/2019 00:04	WG1306496
(S) 2-Fluorobiphenyl	3.90	J2	15.0-120		07/11/2019 00:04	WG1306496
(S) 2,4,6-Tribromophenol	16.3		10.0-127		07/11/2019 00:04	WG1306496
(S) p-Terphenyl-d14	25.4		10.0-120		07/11/2019 00:04	WG1306496

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

Sample Narrative:

L1113939-09 WG1306496: Duplicate analysis was performed.

Semi Volatile Organic Compounds (GC/MS) by Method 8270E-SIM

Analyte	Result (dry) mg/kg	Qualifier	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Anthracene	ND		0.0543	1	07/09/2019 04:44	WG1307549
Acenaphthene	ND		0.0543	1	07/09/2019 04:44	WG1307549
Acenaphthylene	ND		0.0543	1	07/09/2019 04:44	WG1307549
Benzo(a)anthracene	ND		0.0543	1	07/09/2019 04:44	WG1307549



Semi Volatile Organic Compounds (GC/MS) by Method 8270E-SIM

Analyte	Result (dry) mg/kg	Qualifier	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Benzo(a)pyrene	ND		0.0543	1	07/09/2019 04:44	<a href="#">WG1307549</a>
Benzo(b)fluoranthene	ND		0.0543	1	07/09/2019 04:44	<a href="#">WG1307549</a>
Benzo(g,h,i)perylene	ND		0.0543	1	07/09/2019 04:44	<a href="#">WG1307549</a>
Benzo(k)fluoranthene	ND		0.0543	1	07/09/2019 04:44	<a href="#">WG1307549</a>
Chrysene	ND		0.0543	1	07/09/2019 04:44	<a href="#">WG1307549</a>
Dibenz(a,h)anthracene	ND		0.0543	1	07/09/2019 04:44	<a href="#">WG1307549</a>
Fluoranthene	ND		0.0543	1	07/09/2019 04:44	<a href="#">WG1307549</a>
Fluorene	ND		0.0543	1	07/09/2019 04:44	<a href="#">WG1307549</a>
Indeno(1,2,3-cd)pyrene	ND		0.0543	1	07/09/2019 04:44	<a href="#">WG1307549</a>
Naphthalene	ND	<u>J4</u>	0.181	1	07/09/2019 04:44	<a href="#">WG1307549</a>
Phenanthrene	ND		0.0543	1	07/09/2019 04:44	<a href="#">WG1307549</a>
Pyrene	ND		0.0543	1	07/09/2019 04:44	<a href="#">WG1307549</a>
1-Methylnaphthalene	ND		0.181	1	07/09/2019 04:44	<a href="#">WG1307549</a>
2-Methylnaphthalene	ND		0.181	1	07/09/2019 04:44	<a href="#">WG1307549</a>
(S) p-Terphenyl-d14	71.1		23.0-120		07/09/2019 04:44	<a href="#">WG1307549</a>
(S) Nitrobenzene-d5	61.3		14.0-149		07/09/2019 04:44	<a href="#">WG1307549</a>
(S) 2-Fluorobiphenyl	42.9		34.0-125		07/09/2019 04:44	<a href="#">WG1307549</a>

- 1 Cp
- 2 Tc
- 3 Ss
- 4 Cn
- 5 Sr
- 6 Qc
- 7 Gl
- 8 Al
- 9 Sc



## Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	15.3		1	07/05/2019 17:10	<a href="#">WG1307003</a>

## Wet Chemistry by Method 9012B

Analyte	Result (dry)	Qualifier	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg		date / time	
Cyanide	ND		1.64	1	07/11/2019 09:41	<a href="#">WG1308669</a>

## Mercury by Method 7471B

Analyte	Result (dry)	Qualifier	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg		date / time	
Mercury	0.161		0.131	1	07/07/2019 13:47	<a href="#">WG1306876</a>

## Metals (ICP) by Method 6010D

Analyte	Result (dry)	Qualifier	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg		date / time	
Aluminum	9150		65.4	1	07/07/2019 22:29	<a href="#">WG1306898</a>
Antimony	ND		13.1	1	07/07/2019 22:29	<a href="#">WG1306898</a>
Arsenic	ND		13.1	1	07/07/2019 22:29	<a href="#">WG1306898</a>
Barium	84.9		3.27	1	07/07/2019 22:29	<a href="#">WG1306898</a>
Beryllium	ND		1.31	1	07/07/2019 22:29	<a href="#">WG1306898</a>
Cadmium	ND		3.27	1	07/07/2019 22:29	<a href="#">WG1306898</a>
Calcium	114000		654	1	07/07/2019 22:29	<a href="#">WG1306898</a>
Chromium	28.7		6.54	1	07/07/2019 22:29	<a href="#">WG1306898</a>
Cobalt	ND		6.54	1	07/07/2019 22:29	<a href="#">WG1306898</a>
Copper	59.2		13.1	1	07/07/2019 22:29	<a href="#">WG1306898</a>
Iron	7900		65.4	1	07/07/2019 22:29	<a href="#">WG1306898</a>
Lead	41.6		3.27	1	07/07/2019 22:29	<a href="#">WG1306898</a>
Magnesium	1590		654	1	07/07/2019 22:29	<a href="#">WG1306898</a>
Manganese	664		6.54	1	07/07/2019 22:29	<a href="#">WG1306898</a>
Nickel	16.0		13.1	1	07/07/2019 22:29	<a href="#">WG1306898</a>
Potassium	ND		654	1	07/07/2019 22:29	<a href="#">WG1306898</a>
Selenium	ND		13.1	1	07/07/2019 22:29	<a href="#">WG1306898</a>
Silver	ND		6.54	1	07/07/2019 22:29	<a href="#">WG1306898</a>
Sodium	2170		654	1	07/07/2019 22:29	<a href="#">WG1306898</a>
Thallium	ND		13.1	1	07/07/2019 22:29	<a href="#">WG1306898</a>
Vanadium	36.9		13.1	1	07/07/2019 22:29	<a href="#">WG1306898</a>
Zinc	417		32.7	1	07/07/2019 22:29	<a href="#">WG1306898</a>

## Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result (dry)	Qualifier	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg		date / time	
Acetone	4.40		0.216	1.32	07/07/2019 18:07	<a href="#">WG1307049</a>
Benzene	0.0113		0.00863	1.32	07/07/2019 18:07	<a href="#">WG1307049</a>
Bromochloromethane	ND		0.0432	1.32	07/07/2019 18:07	<a href="#">WG1307049</a>
Bromodichloromethane	ND		0.0216	1.32	07/07/2019 18:07	<a href="#">WG1307049</a>
Bromoform	ND		0.216	1.32	07/07/2019 18:07	<a href="#">WG1307049</a>
Bromomethane	ND		0.108	1.32	07/07/2019 18:07	<a href="#">WG1307049</a>
Carbon disulfide	0.152		0.108	1.32	07/07/2019 18:07	<a href="#">WG1307049</a>
Carbon tetrachloride	ND		0.0432	1.32	07/07/2019 18:07	<a href="#">WG1307049</a>
Chlorobenzene	ND		0.0216	1.32	07/07/2019 18:07	<a href="#">WG1307049</a>
Chlorodibromomethane	ND		0.0216	1.32	07/07/2019 18:07	<a href="#">WG1307049</a>
Chloroethane	ND		0.0432	1.32	07/07/2019 18:07	<a href="#">WG1307049</a>
Chloroform	ND		0.0216	1.32	07/07/2019 18:07	<a href="#">WG1307049</a>
Chloromethane	ND		0.108	1.32	07/07/2019 18:07	<a href="#">WG1307049</a>

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc



Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result (dry) mg/kg	Qualifier	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Cyclohexane	ND		0.0216	1.32	07/07/2019 18:07	WG1307049
1,2-Dibromo-3-Chloropropane	ND		0.216	1.32	07/07/2019 18:07	WG1307049
1,2-Dibromoethane	ND		0.0216	1.32	07/07/2019 18:07	WG1307049
Dichlorodifluoromethane	ND		0.0216	1.32	07/07/2019 18:07	WG1307049
1,1-Dichloroethane	ND		0.0216	1.32	07/07/2019 18:07	WG1307049
1,2-Dichloroethane	ND		0.0216	1.32	07/07/2019 18:07	WG1307049
1,2-Dichlorobenzene	ND		0.0432	1.32	07/07/2019 18:07	WG1307049
1,3-Dichlorobenzene	ND		0.0432	1.32	07/07/2019 18:07	WG1307049
1,4-Dichlorobenzene	ND		0.0432	1.32	07/07/2019 18:07	WG1307049
1,1-Dichloroethene	ND		0.0216	1.32	07/07/2019 18:07	WG1307049
cis-1,2-Dichloroethene	ND		0.0216	1.32	07/07/2019 18:07	WG1307049
trans-1,2-Dichloroethene	ND		0.0432	1.32	07/07/2019 18:07	WG1307049
1,2-Dichloropropane	ND		0.0432	1.32	07/07/2019 18:07	WG1307049
cis-1,3-Dichloropropene	ND		0.0216	1.32	07/07/2019 18:07	WG1307049
trans-1,3-Dichloropropene	ND		0.0432	1.32	07/07/2019 18:07	WG1307049
Ethylbenzene	ND		0.0216	1.32	07/07/2019 18:07	WG1307049
2-Hexanone	ND		0.216	1.32	07/07/2019 18:07	WG1307049
Isopropylbenzene	0.281		0.0216	1.32	07/07/2019 18:07	WG1307049
2-Butanone (MEK)	ND		0.216	1.32	07/07/2019 18:07	WG1307049
Methyl Acetate	2.63		0.0432	1.32	07/07/2019 18:07	WG1307049
Methyl Cyclohexane	0.489		0.0432	1.32	07/07/2019 18:07	WG1307049
Methylene Chloride	ND		0.216	1.32	07/07/2019 18:07	WG1307049
4-Methyl-2-pentanone (MIBK)	ND		0.216	1.32	07/07/2019 18:07	WG1307049
Methyl tert-butyl ether	ND		0.00863	1.32	07/07/2019 18:07	WG1307049
Styrene	ND		0.108	1.32	07/07/2019 18:07	WG1307049
1,1,2,2-Tetrachloroethane	ND		0.0216	1.32	07/07/2019 18:07	WG1307049
Tetrachloroethene	ND		0.0216	1.32	07/07/2019 18:07	WG1307049
Toluene	0.0953		0.0432	1.32	07/07/2019 18:07	WG1307049
1,2,3-Trichlorobenzene	ND		0.0216	1.32	07/07/2019 18:07	WG1307049
1,2,4-Trichlorobenzene	ND		0.108	1.32	07/07/2019 18:07	WG1307049
1,1,1-Trichloroethane	ND		0.0216	1.32	07/07/2019 18:07	WG1307049
1,1,2-Trichloroethane	ND		0.0216	1.32	07/07/2019 18:07	WG1307049
Trichloroethene	ND		0.00863	1.32	07/07/2019 18:07	WG1307049
Trichlorofluoromethane	ND		0.0216	1.32	07/07/2019 18:07	WG1307049
1,1,2-Trichlorotrifluoroethane	ND		0.0216	1.32	07/07/2019 18:07	WG1307049
Vinyl chloride	ND		0.0216	1.32	07/07/2019 18:07	WG1307049
Xylenes, Total	ND		0.0561	1.32	07/07/2019 18:07	WG1307049
(S) Toluene-d8	103		75.0-131		07/07/2019 18:07	WG1307049
(S) 4-Bromofluorobenzene	111		67.0-138		07/07/2019 18:07	WG1307049
(S) 1,2-Dichloroethane-d4	105		70.0-130		07/07/2019 18:07	WG1307049

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

Pesticides (GC) by Method 8081B

Analyte	Result (dry) mg/kg	Qualifier	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Aldrin	ND		0.131	1	07/09/2019 18:14	WG1307387
Alpha BHC	ND		0.131	1	07/09/2019 18:14	WG1307387
Beta BHC	ND	J4	0.131	1	07/09/2019 18:14	WG1307387
Delta BHC	ND		0.131	1	07/09/2019 18:14	WG1307387
Gamma BHC	ND		0.131	1	07/09/2019 18:14	WG1307387
Chlordane	ND		1.31	1	07/09/2019 18:14	WG1307387
4,4-DDD	ND		0.131	1	07/09/2019 18:14	WG1307387
4,4-DDE	ND		0.131	1	07/09/2019 18:14	WG1307387
4,4-DDT	ND		0.131	1	07/09/2019 18:14	WG1307387
Dieldrin	ND		0.131	1	07/09/2019 18:14	WG1307387
Endosulfan I	ND		0.131	1	07/09/2019 18:14	WG1307387
Endosulfan II	ND		0.131	1	07/09/2019 18:14	WG1307387





Collected date/time: 06/26/19 11:00

L1113939

## Pesticides (GC) by Method 8081B

Analyte	Result (dry) mg/kg	Qualifier	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Endosulfan sulfate	ND		0.131	1	07/09/2019 18:14	<a href="#">WG1307387</a>
Endrin	ND		0.131	1	07/09/2019 18:14	<a href="#">WG1307387</a>
Endrin aldehyde	ND		0.131	1	07/09/2019 18:14	<a href="#">WG1307387</a>
Endrin ketone	ND		0.131	1	07/09/2019 18:14	<a href="#">WG1307387</a>
Heptachlor	ND		0.131	1	07/09/2019 18:14	<a href="#">WG1307387</a>
Heptachlor epoxide	ND		0.131	1	07/09/2019 18:14	<a href="#">WG1307387</a>
Hexachlorobenzene	ND		0.131	1	07/09/2019 18:14	<a href="#">WG1307387</a>
Methoxychlor	ND		0.131	1	07/09/2019 18:14	<a href="#">WG1307387</a>
Toxaphene	ND		2.62	1	07/09/2019 18:14	<a href="#">WG1307387</a>
(S) Decachlorobiphenyl	88.5		10.0-135		07/09/2019 18:14	<a href="#">WG1307387</a>
(S) Tetrachloro-m-xylene	83.8		10.0-139		07/09/2019 18:14	<a href="#">WG1307387</a>

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

## Polychlorinated Biphenyls (GC) by Method 8082 A

Analyte	Result (dry) mg/kg	Qualifier	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
PCB 1016	ND	J4	0.111	1	07/09/2019 17:43	<a href="#">WG1307387</a>
PCB 1221	ND		0.111	1	07/09/2019 17:43	<a href="#">WG1307387</a>
PCB 1232	ND		0.111	1	07/09/2019 17:43	<a href="#">WG1307387</a>
PCB 1242	ND		0.111	1	07/09/2019 17:43	<a href="#">WG1307387</a>
PCB 1248	ND		0.111	1	07/09/2019 17:43	<a href="#">WG1307387</a>
PCB 1254	ND		0.111	1	07/09/2019 17:43	<a href="#">WG1307387</a>
PCB 1260	ND	J4	0.111	1	07/09/2019 17:43	<a href="#">WG1307387</a>
(S) Decachlorobiphenyl	94.0		10.0-135		07/09/2019 17:43	<a href="#">WG1307387</a>
(S) Tetrachloro-m-xylene	77.8		10.0-139		07/09/2019 17:43	<a href="#">WG1307387</a>

7 Gl

8 Al

9 Sc

## Semi Volatile Organic Compounds (GC/MS) by Method 8270D

Analyte	Result (dry) mg/kg	Qualifier	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Acenaphthene	ND	J4	0.218	1	07/09/2019 07:40	<a href="#">WG1307893</a>
Acenaphthylene	ND		0.218	1	07/09/2019 07:40	<a href="#">WG1307893</a>
Acetophenone	ND	J4	2.18	1	07/09/2019 07:40	<a href="#">WG1307893</a>
Anthracene	ND		0.218	1	07/09/2019 07:40	<a href="#">WG1307893</a>
Atrazine	ND		2.18	1	07/09/2019 07:40	<a href="#">WG1307893</a>
Benzaldehyde	ND		2.18	1	07/09/2019 07:40	<a href="#">WG1307893</a>
Benzo(a)anthracene	ND		0.218	1	07/09/2019 07:40	<a href="#">WG1307893</a>
Benzo(b)fluoranthene	ND		0.218	1	07/09/2019 07:40	<a href="#">WG1307893</a>
Benzo(k)fluoranthene	ND		0.218	1	07/09/2019 07:40	<a href="#">WG1307893</a>
Benzo(g,h,i)perylene	ND		0.218	1	07/09/2019 07:40	<a href="#">WG1307893</a>
Benzo(a)pyrene	ND		0.218	1	07/09/2019 07:40	<a href="#">WG1307893</a>
Biphenyl	ND	J4	2.18	1	07/09/2019 07:40	<a href="#">WG1307893</a>
Bis(2-chloroethoxy)methane	ND	J4	2.18	1	07/09/2019 07:40	<a href="#">WG1307893</a>
Bis(2-chloroethyl)ether	ND	J4	2.18	1	07/09/2019 07:40	<a href="#">WG1307893</a>
Bis(2-chloroisopropyl)ether	ND	J4	2.18	1	07/09/2019 07:40	<a href="#">WG1307893</a>
4-Bromophenyl-phenylether	ND		2.18	1	07/09/2019 07:40	<a href="#">WG1307893</a>
Caprolactam	ND		2.18	1	07/09/2019 07:40	<a href="#">WG1307893</a>
Carbazole	ND		2.18	1	07/09/2019 07:40	<a href="#">WG1307893</a>
4-Chloroaniline	ND	J4	2.18	1	07/09/2019 07:40	<a href="#">WG1307893</a>
2-Chloronaphthalene	ND	J4	0.218	1	07/09/2019 07:40	<a href="#">WG1307893</a>
4-Chlorophenyl-phenylether	ND		2.18	1	07/09/2019 07:40	<a href="#">WG1307893</a>
Chrysene	ND		0.218	1	07/09/2019 07:40	<a href="#">WG1307893</a>
Dibenz(a,h)anthracene	ND		0.218	1	07/09/2019 07:40	<a href="#">WG1307893</a>
Dibenzofuran	ND		2.18	1	07/09/2019 07:40	<a href="#">WG1307893</a>
3,3-Dichlorobenzidine	ND		2.18	1	07/09/2019 07:40	<a href="#">WG1307893</a>
2,4-Dinitrotoluene	ND		2.18	1	07/09/2019 07:40	<a href="#">WG1307893</a>
2,6-Dinitrotoluene	ND		2.18	1	07/09/2019 07:40	<a href="#">WG1307893</a>



Collected date/time: 06/26/19 11:00

L111939

## Semi Volatile Organic Compounds (GC/MS) by Method 8270D

Analyte	Result (dry) mg/kg	Qualifier	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Fluoranthene	ND		0.218	1	07/09/2019 07:40	WG1307893
Fluorene	ND		0.218	1	07/09/2019 07:40	WG1307893
Hexachlorobenzene	ND	J4	2.18	1	07/09/2019 07:40	WG1307893
Hexachloro-1,3-butadiene	ND	J4	2.18	1	07/09/2019 07:40	WG1307893
Hexachlorocyclopentadiene	ND	J4	2.18	1	07/09/2019 07:40	WG1307893
Hexachloroethane	ND	J4	2.18	1	07/09/2019 07:40	WG1307893
Indeno(1,2,3-cd)pyrene	ND		0.218	1	07/09/2019 07:40	WG1307893
Isophorone	ND	J4	2.18	1	07/09/2019 07:40	WG1307893
2-Methylnaphthalene	4.87	J4	0.218	1	07/09/2019 07:40	WG1307893
Naphthalene	ND	J4	0.218	1	07/09/2019 07:40	WG1307893
2-Nitroaniline	ND		2.18	1	07/09/2019 07:40	WG1307893
3-Nitroaniline	ND		2.18	1	07/09/2019 07:40	WG1307893
4-Nitroaniline	ND		2.18	1	07/09/2019 07:40	WG1307893
Nitrobenzene	ND	J4	2.18	1	07/09/2019 07:40	WG1307893
n-Nitrosodiphenylamine	ND		2.18	1	07/09/2019 07:40	WG1307893
n-Nitrosodi-n-propylamine	ND	J4	2.18	1	07/09/2019 07:40	WG1307893
Phenanthrene	ND		0.218	1	07/09/2019 07:40	WG1307893
Benzylbutyl phthalate	ND		2.18	1	07/09/2019 07:40	WG1307893
Bis(2-ethylhexyl)phthalate	ND		2.18	1	07/09/2019 07:40	WG1307893
Di-n-butyl phthalate	ND		2.18	1	07/09/2019 07:40	WG1307893
Diethyl phthalate	ND		2.18	1	07/09/2019 07:40	WG1307893
Dimethyl phthalate	ND		2.18	1	07/09/2019 07:40	WG1307893
Di-n-octyl phthalate	ND		2.18	1	07/09/2019 07:40	WG1307893
Pyrene	ND		0.218	1	07/09/2019 07:40	WG1307893
1,2,4,5-Tetrachlorobenzene	ND	J4	2.18	1	07/09/2019 07:40	WG1307893
4-Chloro-3-methylphenol	ND	J4	2.18	1	07/09/2019 07:40	WG1307893
2-Chlorophenol	ND	J4	2.18	1	07/09/2019 07:40	WG1307893
2-Methylphenol	ND		2.18	1	07/09/2019 07:40	WG1307893
3&4-Methyl Phenol	ND		2.18	1	07/09/2019 07:40	WG1307893
2,4-Dichlorophenol	ND	J4	2.18	1	07/09/2019 07:40	WG1307893
2,4-Dimethylphenol	ND	J4	2.18	1	07/09/2019 07:40	WG1307893
4,6-Dinitro-2-methylphenol	ND		2.18	1	07/09/2019 07:40	WG1307893
2,4-Dinitrophenol	ND	J4	2.18	1	07/09/2019 07:40	WG1307893
2-Nitrophenol	ND	J4	2.18	1	07/09/2019 07:40	WG1307893
4-Nitrophenol	ND		2.18	1	07/09/2019 07:40	WG1307893
Pentachlorophenol	ND	J4	2.18	1	07/09/2019 07:40	WG1307893
Phenol	ND		2.18	1	07/09/2019 07:40	WG1307893
2,4,5-Trichlorophenol	ND		2.18	1	07/09/2019 07:40	WG1307893
2,4,6-Trichlorophenol	ND		2.18	1	07/09/2019 07:40	WG1307893
(S) 2-Fluorophenol	67.0		12.0-120		07/09/2019 07:40	WG1307893
(S) Phenol-d5	61.6		10.0-120		07/09/2019 07:40	WG1307893
(S) Nitrobenzene-d5	74.9		10.0-122		07/09/2019 07:40	WG1307893
(S) 2-Fluorobiphenyl	58.8		15.0-120		07/09/2019 07:40	WG1307893
(S) 2,4,6-Tribromophenol	62.8		10.0-127		07/09/2019 07:40	WG1307893
(S) p-Terphenyl-d14	72.4		10.0-120		07/09/2019 07:40	WG1307893

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

## Semi Volatile Organic Compounds (GC/MS) by Method 8270E-SIM

Analyte	Result (dry) mg/kg	Qualifier	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Anthracene	ND		0.0392	1	07/09/2019 05:05	WG1307549
Acenaphthene	0.0785		0.0392	1	07/09/2019 05:05	WG1307549
Acenaphthylene	ND		0.0392	1	07/09/2019 05:05	WG1307549
Benzo(a)anthracene	ND		0.0392	1	07/09/2019 05:05	WG1307549
Benzo(a)pyrene	ND		0.0392	1	07/09/2019 05:05	WG1307549
Benzo(b)fluoranthene	ND		0.0392	1	07/09/2019 05:05	WG1307549
Benzo(g,h,i)perylene	ND		0.0392	1	07/09/2019 05:05	WG1307549



Collected date/time: 06/26/19 11:00

L1113939

## Semi Volatile Organic Compounds (GC/MS) by Method 8270E-SIM

Analyte	Result (dry) mg/kg	Qualifier	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Benzo(k)fluoranthene	ND		0.0392	1	07/09/2019 05:05	<a href="#">WG1307549</a>
Chrysene	ND		0.0392	1	07/09/2019 05:05	<a href="#">WG1307549</a>
Dibenz(a,h)anthracene	ND		0.0392	1	07/09/2019 05:05	<a href="#">WG1307549</a>
Fluoranthene	ND		0.0392	1	07/09/2019 05:05	<a href="#">WG1307549</a>
Fluorene	0.121		0.0392	1	07/09/2019 05:05	<a href="#">WG1307549</a>
Indeno(1,2,3-cd)pyrene	ND		0.0392	1	07/09/2019 05:05	<a href="#">WG1307549</a>
Naphthalene	ND	<u>J4</u>	0.131	1	07/09/2019 05:05	<a href="#">WG1307549</a>
Phenanthrene	0.0444		0.0392	1	07/09/2019 05:05	<a href="#">WG1307549</a>
Pyrene	ND		0.0392	1	07/09/2019 05:05	<a href="#">WG1307549</a>
1-Methylnaphthalene	1.09		0.131	1	07/09/2019 05:05	<a href="#">WG1307549</a>
2-Methylnaphthalene	1.47		0.131	1	07/09/2019 05:05	<a href="#">WG1307549</a>
(S) p-Terphenyl-d14	89.3		23.0-120		07/09/2019 05:05	<a href="#">WG1307549</a>
(S) Nitrobenzene-d5	39.6		14.0-149		07/09/2019 05:05	<a href="#">WG1307549</a>
(S) 2-Fluorobiphenyl	78.7		34.0-125		07/09/2019 05:05	<a href="#">WG1307549</a>

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc



Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	19.4		1	07/05/2019 17:10	<a href="#">WG1307003</a>

1 Cp

2 Tc

Wet Chemistry by Method 9012B

Analyte	Result (dry)	Qualifier	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg		date / time	
Cyanide	ND		1.29	1	07/11/2019 09:42	<a href="#">WG1308669</a>

3 Ss

4 Cn

Mercury by Method 7471B

Analyte	Result (dry)	Qualifier	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg		date / time	
Mercury	ND		0.103	1	07/07/2019 13:50	<a href="#">WG1306876</a>

5 Sr

6 Qc

Metals (ICP) by Method 6010D

Analyte	Result (dry)	Qualifier	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg		date / time	
Aluminum	56200		51.5	1	07/07/2019 22:32	<a href="#">WG1306898</a>
Antimony	ND		10.3	1	07/07/2019 22:32	<a href="#">WG1306898</a>
Arsenic	12.6		10.3	1	07/07/2019 22:32	<a href="#">WG1306898</a>
Barium	151		2.57	1	07/07/2019 22:32	<a href="#">WG1306898</a>
Beryllium	ND		1.03	1	07/07/2019 22:32	<a href="#">WG1306898</a>
Cadmium	ND		2.57	1	07/07/2019 22:32	<a href="#">WG1306898</a>
Calcium	4350		515	1	07/07/2019 22:32	<a href="#">WG1306898</a>
Chromium	74.5		5.15	1	07/07/2019 22:32	<a href="#">WG1306898</a>
Cobalt	19.4		5.15	1	07/07/2019 22:32	<a href="#">WG1306898</a>
Copper	59.1		10.3	1	07/07/2019 22:32	<a href="#">WG1306898</a>
Iron	42100		51.5	1	07/07/2019 22:32	<a href="#">WG1306898</a>
Lead	27.1		2.57	1	07/07/2019 22:32	<a href="#">WG1306898</a>
Magnesium	3490		515	1	07/07/2019 22:32	<a href="#">WG1306898</a>
Manganese	3150		5.15	1	07/07/2019 22:32	<a href="#">WG1306898</a>
Nickel	17.4		10.3	1	07/07/2019 22:32	<a href="#">WG1306898</a>
Potassium	1180		515	1	07/07/2019 22:32	<a href="#">WG1306898</a>
Selenium	ND		10.3	1	07/07/2019 22:32	<a href="#">WG1306898</a>
Silver	ND		5.15	1	07/07/2019 22:32	<a href="#">WG1306898</a>
Sodium	636	<u>B</u>	515	1	07/07/2019 22:32	<a href="#">WG1306898</a>
Thallium	ND		10.3	1	07/07/2019 22:32	<a href="#">WG1306898</a>
Vanadium	118		10.3	1	07/07/2019 22:32	<a href="#">WG1306898</a>
Zinc	139		25.7	1	07/07/2019 22:32	<a href="#">WG1306898</a>

7 Gl

8 Al

9 Sc

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result (dry)	Qualifier	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg		date / time	
Acetone	ND		0.232	1.8	07/07/2019 18:27	<a href="#">WG1307049</a>
Benzene	ND		0.00927	1.8	07/07/2019 18:27	<a href="#">WG1307049</a>
Bromochloromethane	ND		0.0463	1.8	07/07/2019 18:27	<a href="#">WG1307049</a>
Bromodichloromethane	ND		0.0232	1.8	07/07/2019 18:27	<a href="#">WG1307049</a>
Bromoform	ND		0.232	1.8	07/07/2019 18:27	<a href="#">WG1307049</a>
Bromomethane	ND		0.116	1.8	07/07/2019 18:27	<a href="#">WG1307049</a>
Carbon disulfide	ND		0.116	1.8	07/07/2019 18:27	<a href="#">WG1307049</a>
Carbon tetrachloride	ND		0.0463	1.8	07/07/2019 18:27	<a href="#">WG1307049</a>
Chlorobenzene	ND		0.0232	1.8	07/07/2019 18:27	<a href="#">WG1307049</a>
Chlorodibromomethane	ND		0.0232	1.8	07/07/2019 18:27	<a href="#">WG1307049</a>
Chloroethane	ND		0.0463	1.8	07/07/2019 18:27	<a href="#">WG1307049</a>
Chloroform	ND		0.0232	1.8	07/07/2019 18:27	<a href="#">WG1307049</a>
Chloromethane	ND		0.116	1.8	07/07/2019 18:27	<a href="#">WG1307049</a>



Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result (dry) mg/kg	Qualifier	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Cyclohexane	ND		0.0232	1.8	07/07/2019 18:27	WG1307049
1,2-Dibromo-3-Chloropropane	ND		0.232	1.8	07/07/2019 18:27	WG1307049
1,2-Dibromoethane	ND		0.0232	1.8	07/07/2019 18:27	WG1307049
Dichlorodifluoromethane	ND		0.0232	1.8	07/07/2019 18:27	WG1307049
1,1-Dichloroethane	ND		0.0232	1.8	07/07/2019 18:27	WG1307049
1,2-Dichloroethane	ND		0.0232	1.8	07/07/2019 18:27	WG1307049
1,2-Dichlorobenzene	ND		0.0463	1.8	07/07/2019 18:27	WG1307049
1,3-Dichlorobenzene	ND		0.0463	1.8	07/07/2019 18:27	WG1307049
1,4-Dichlorobenzene	ND		0.0463	1.8	07/07/2019 18:27	WG1307049
1,1-Dichloroethene	ND		0.0232	1.8	07/07/2019 18:27	WG1307049
cis-1,2-Dichloroethene	ND		0.0232	1.8	07/07/2019 18:27	WG1307049
trans-1,2-Dichloroethene	ND		0.0463	1.8	07/07/2019 18:27	WG1307049
1,2-Dichloropropane	ND		0.0463	1.8	07/07/2019 18:27	WG1307049
cis-1,3-Dichloropropene	ND		0.0232	1.8	07/07/2019 18:27	WG1307049
trans-1,3-Dichloropropene	ND		0.0463	1.8	07/07/2019 18:27	WG1307049
Ethylbenzene	ND		0.0232	1.8	07/07/2019 18:27	WG1307049
2-Hexanone	ND		0.232	1.8	07/07/2019 18:27	WG1307049
Isopropylbenzene	ND		0.0232	1.8	07/07/2019 18:27	WG1307049
2-Butanone (MEK)	ND		0.232	1.8	07/07/2019 18:27	WG1307049
Methyl Acetate	1.44		0.0463	1.8	07/07/2019 18:27	WG1307049
Methyl Cyclohexane	ND		0.0463	1.8	07/07/2019 18:27	WG1307049
Methylene Chloride	ND		0.232	1.8	07/07/2019 18:27	WG1307049
4-Methyl-2-pentanone (MIBK)	ND		0.232	1.8	07/07/2019 18:27	WG1307049
Methyl tert-butyl ether	ND		0.00927	1.8	07/07/2019 18:27	WG1307049
Styrene	ND		0.116	1.8	07/07/2019 18:27	WG1307049
1,1,2,2-Tetrachloroethane	ND		0.0232	1.8	07/07/2019 18:27	WG1307049
Tetrachloroethene	ND		0.0232	1.8	07/07/2019 18:27	WG1307049
Toluene	ND		0.0463	1.8	07/07/2019 18:27	WG1307049
1,2,3-Trichlorobenzene	ND		0.0232	1.8	07/07/2019 18:27	WG1307049
1,2,4-Trichlorobenzene	ND		0.116	1.8	07/07/2019 18:27	WG1307049
1,1,1-Trichloroethane	ND		0.0232	1.8	07/07/2019 18:27	WG1307049
1,1,2-Trichloroethane	ND		0.0232	1.8	07/07/2019 18:27	WG1307049
Trichloroethene	ND		0.00927	1.8	07/07/2019 18:27	WG1307049
Trichlorofluoromethane	ND		0.0232	1.8	07/07/2019 18:27	WG1307049
1,1,2-Trichlorotrifluoroethane	ND		0.0232	1.8	07/07/2019 18:27	WG1307049
Vinyl chloride	ND		0.0232	1.8	07/07/2019 18:27	WG1307049
Xylenes, Total	ND		0.0602	1.8	07/07/2019 18:27	WG1307049
(S) Toluene-d8	102		75.0-131		07/07/2019 18:27	WG1307049
(S) 4-Bromofluorobenzene	107		67.0-138		07/07/2019 18:27	WG1307049
(S) 1,2-Dichloroethane-d4	103		70.0-130		07/07/2019 18:27	WG1307049

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

Pesticides (GC) by Method 8081B

Analyte	Result (dry) mg/kg	Qualifier	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Aldrin	ND		0.103	1	07/09/2019 18:27	WG1307387
Alpha BHC	ND		0.103	1	07/09/2019 18:27	WG1307387
Beta BHC	ND	J4	0.103	1	07/09/2019 18:27	WG1307387
Delta BHC	ND		0.103	1	07/09/2019 18:27	WG1307387
Gamma BHC	ND		0.103	1	07/09/2019 18:27	WG1307387
Chlordane	ND		1.03	1	07/09/2019 18:27	WG1307387
4,4-DDD	ND		0.103	1	07/09/2019 18:27	WG1307387
4,4-DDE	ND		0.103	1	07/09/2019 18:27	WG1307387
4,4-DDT	ND		0.103	1	07/09/2019 18:27	WG1307387
Dieldrin	ND		0.103	1	07/09/2019 18:27	WG1307387
Endosulfan I	ND		0.103	1	07/09/2019 18:27	WG1307387
Endosulfan II	ND		0.103	1	07/09/2019 18:27	WG1307387



Pesticides (GC) by Method 8081B

Analyte	Result (dry) mg/kg	Qualifier	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Endosulfan sulfate	ND		0.103	1	07/09/2019 18:27	<a href="#">WG1307387</a>
Endrin	ND		0.103	1	07/09/2019 18:27	<a href="#">WG1307387</a>
Endrin aldehyde	ND		0.103	1	07/09/2019 18:27	<a href="#">WG1307387</a>
Endrin ketone	ND		0.103	1	07/09/2019 18:27	<a href="#">WG1307387</a>
Heptachlor	ND		0.103	1	07/09/2019 18:27	<a href="#">WG1307387</a>
Heptachlor epoxide	ND		0.103	1	07/09/2019 18:27	<a href="#">WG1307387</a>
Hexachlorobenzene	ND		0.103	1	07/09/2019 18:27	<a href="#">WG1307387</a>
Methoxychlor	ND		0.103	1	07/09/2019 18:27	<a href="#">WG1307387</a>
Toxaphene	ND		2.06	1	07/09/2019 18:27	<a href="#">WG1307387</a>
(S) Decachlorobiphenyl	80.3		10.0-135		07/09/2019 18:27	<a href="#">WG1307387</a>
(S) Tetrachloro-m-xylene	74.5		10.0-139		07/09/2019 18:27	<a href="#">WG1307387</a>

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

Polychlorinated Biphenyls (GC) by Method 8082 A

Analyte	Result (dry) mg/kg	Qualifier	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
PCB 1016	ND	J4	0.0875	1	07/09/2019 17:55	<a href="#">WG1307387</a>
PCB 1221	ND		0.0875	1	07/09/2019 17:55	<a href="#">WG1307387</a>
PCB 1232	ND		0.0875	1	07/09/2019 17:55	<a href="#">WG1307387</a>
PCB 1242	ND		0.0875	1	07/09/2019 17:55	<a href="#">WG1307387</a>
PCB 1248	ND		0.0875	1	07/09/2019 17:55	<a href="#">WG1307387</a>
PCB 1254	ND		0.0875	1	07/09/2019 17:55	<a href="#">WG1307387</a>
PCB 1260	ND	J4	0.0875	1	07/09/2019 17:55	<a href="#">WG1307387</a>
(S) Decachlorobiphenyl	84.1		10.0-135		07/09/2019 17:55	<a href="#">WG1307387</a>
(S) Tetrachloro-m-xylene	77.2		10.0-139		07/09/2019 17:55	<a href="#">WG1307387</a>

7 Gl

8 Al

9 Sc

Semi Volatile Organic Compounds (GC/MS) by Method 8270D

Analyte	Result (dry) mg/kg	Qualifier	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Acenaphthene	ND	J4	0.171	1	07/09/2019 07:59	<a href="#">WG1307893</a>
Acenaphthylene	ND		0.171	1	07/09/2019 07:59	<a href="#">WG1307893</a>
Acetophenone	ND	J4	1.71	1	07/09/2019 07:59	<a href="#">WG1307893</a>
Anthracene	ND		0.171	1	07/09/2019 07:59	<a href="#">WG1307893</a>
Atrazine	ND		1.71	1	07/09/2019 07:59	<a href="#">WG1307893</a>
Benzaldehyde	ND		1.71	1	07/09/2019 07:59	<a href="#">WG1307893</a>
Benzo(a)anthracene	ND		0.171	1	07/09/2019 07:59	<a href="#">WG1307893</a>
Benzo(b)fluoranthene	ND		0.171	1	07/09/2019 07:59	<a href="#">WG1307893</a>
Benzo(k)fluoranthene	ND		0.171	1	07/09/2019 07:59	<a href="#">WG1307893</a>
Benzo(g,h,i)perylene	ND		0.171	1	07/09/2019 07:59	<a href="#">WG1307893</a>
Benzo(a)pyrene	ND		0.171	1	07/09/2019 07:59	<a href="#">WG1307893</a>
Biphenyl	ND	J4	1.71	1	07/09/2019 07:59	<a href="#">WG1307893</a>
Bis(2-chloroethoxy)methane	ND	J4	1.71	1	07/09/2019 07:59	<a href="#">WG1307893</a>
Bis(2-chloroethyl)ether	ND	J4	1.71	1	07/09/2019 07:59	<a href="#">WG1307893</a>
Bis(2-chloroisopropyl)ether	ND	J4	1.71	1	07/09/2019 07:59	<a href="#">WG1307893</a>
4-Bromophenyl-phenylether	ND		1.71	1	07/09/2019 07:59	<a href="#">WG1307893</a>
Caprolactam	ND		1.71	1	07/09/2019 07:59	<a href="#">WG1307893</a>
Carbazole	ND		1.71	1	07/09/2019 07:59	<a href="#">WG1307893</a>
4-Chloroaniline	ND	J4	1.71	1	07/09/2019 07:59	<a href="#">WG1307893</a>
2-Chloronaphthalene	ND	J4	0.171	1	07/09/2019 07:59	<a href="#">WG1307893</a>
4-Chlorophenyl-phenylether	ND		1.71	1	07/09/2019 07:59	<a href="#">WG1307893</a>
Chrysene	ND		0.171	1	07/09/2019 07:59	<a href="#">WG1307893</a>
Dibenz(a,h)anthracene	ND		0.171	1	07/09/2019 07:59	<a href="#">WG1307893</a>
Dibenzofuran	ND		1.71	1	07/09/2019 07:59	<a href="#">WG1307893</a>
3,3-Dichlorobenzidine	ND		1.71	1	07/09/2019 07:59	<a href="#">WG1307893</a>
2,4-Dinitrotoluene	ND		1.71	1	07/09/2019 07:59	<a href="#">WG1307893</a>
2,6-Dinitrotoluene	ND		1.71	1	07/09/2019 07:59	<a href="#">WG1307893</a>



Collected date/time: 06/26/19 09:32

L111939

## Semi Volatile Organic Compounds (GC/MS) by Method 8270D

Analyte	Result (dry) mg/kg	Qualifier	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Fluoranthene	ND		0.171	1	07/09/2019 07:59	<a href="#">WG1307893</a>
Fluorene	ND		0.171	1	07/09/2019 07:59	<a href="#">WG1307893</a>
Hexachlorobenzene	ND	J4	1.71	1	07/09/2019 07:59	<a href="#">WG1307893</a>
Hexachloro-1,3-butadiene	ND	J4	1.71	1	07/09/2019 07:59	<a href="#">WG1307893</a>
Hexachlorocyclopentadiene	ND	J4	1.71	1	07/09/2019 07:59	<a href="#">WG1307893</a>
Hexachloroethane	ND	J4	1.71	1	07/09/2019 07:59	<a href="#">WG1307893</a>
Indeno(1,2,3-cd)pyrene	ND		0.171	1	07/09/2019 07:59	<a href="#">WG1307893</a>
Isophorone	ND	J4	1.71	1	07/09/2019 07:59	<a href="#">WG1307893</a>
2-Methylnaphthalene	ND	J4	0.171	1	07/09/2019 07:59	<a href="#">WG1307893</a>
Naphthalene	ND	J4	0.171	1	07/09/2019 07:59	<a href="#">WG1307893</a>
2-Nitroaniline	ND		1.71	1	07/09/2019 07:59	<a href="#">WG1307893</a>
3-Nitroaniline	ND		1.71	1	07/09/2019 07:59	<a href="#">WG1307893</a>
4-Nitroaniline	ND		1.71	1	07/09/2019 07:59	<a href="#">WG1307893</a>
Nitrobenzene	ND	J4	1.71	1	07/09/2019 07:59	<a href="#">WG1307893</a>
n-Nitrosodiphenylamine	ND		1.71	1	07/09/2019 07:59	<a href="#">WG1307893</a>
n-Nitrosodi-n-propylamine	ND	J4	1.71	1	07/09/2019 07:59	<a href="#">WG1307893</a>
Phenanthrene	ND		0.171	1	07/09/2019 07:59	<a href="#">WG1307893</a>
Benzylbutyl phthalate	ND		1.71	1	07/09/2019 07:59	<a href="#">WG1307893</a>
Bis(2-ethylhexyl)phthalate	ND		1.71	1	07/09/2019 07:59	<a href="#">WG1307893</a>
Di-n-butyl phthalate	ND		1.71	1	07/09/2019 07:59	<a href="#">WG1307893</a>
Diethyl phthalate	ND		1.71	1	07/09/2019 07:59	<a href="#">WG1307893</a>
Dimethyl phthalate	ND		1.71	1	07/09/2019 07:59	<a href="#">WG1307893</a>
Di-n-octyl phthalate	ND		1.71	1	07/09/2019 07:59	<a href="#">WG1307893</a>
Pyrene	ND		0.171	1	07/09/2019 07:59	<a href="#">WG1307893</a>
1,2,4,5-Tetrachlorobenzene	ND	J4	1.71	1	07/09/2019 07:59	<a href="#">WG1307893</a>
4-Chloro-3-methylphenol	ND	J4	1.71	1	07/09/2019 07:59	<a href="#">WG1307893</a>
2-Chlorophenol	ND	J4	1.71	1	07/09/2019 07:59	<a href="#">WG1307893</a>
2-Methylphenol	ND		1.71	1	07/09/2019 07:59	<a href="#">WG1307893</a>
3&4-Methyl Phenol	ND		1.71	1	07/09/2019 07:59	<a href="#">WG1307893</a>
2,4-Dichlorophenol	ND	J4	1.71	1	07/09/2019 07:59	<a href="#">WG1307893</a>
2,4-Dimethylphenol	ND	J4	1.71	1	07/09/2019 07:59	<a href="#">WG1307893</a>
4,6-Dinitro-2-methylphenol	ND		1.71	1	07/09/2019 07:59	<a href="#">WG1307893</a>
2,4-Dinitrophenol	ND	J4	1.71	1	07/09/2019 07:59	<a href="#">WG1307893</a>
2-Nitrophenol	ND	J4	1.71	1	07/09/2019 07:59	<a href="#">WG1307893</a>
4-Nitrophenol	ND		1.71	1	07/09/2019 07:59	<a href="#">WG1307893</a>
Pentachlorophenol	ND	J4	1.71	1	07/09/2019 07:59	<a href="#">WG1307893</a>
Phenol	ND		1.71	1	07/09/2019 07:59	<a href="#">WG1307893</a>
2,4,5-Trichlorophenol	ND		1.71	1	07/09/2019 07:59	<a href="#">WG1307893</a>
2,4,6-Trichlorophenol	ND		1.71	1	07/09/2019 07:59	<a href="#">WG1307893</a>
(S) 2-Fluorophenol	74.1		12.0-120		07/09/2019 07:59	<a href="#">WG1307893</a>
(S) Phenol-d5	69.1		10.0-120		07/09/2019 07:59	<a href="#">WG1307893</a>
(S) Nitrobenzene-d5	60.4		10.0-122		07/09/2019 07:59	<a href="#">WG1307893</a>
(S) 2-Fluorobiphenyl	60.4		15.0-120		07/09/2019 07:59	<a href="#">WG1307893</a>
(S) 2,4,6-Tribromophenol	76.7		10.0-127		07/09/2019 07:59	<a href="#">WG1307893</a>
(S) p-Terphenyl-d14	78.4		10.0-120		07/09/2019 07:59	<a href="#">WG1307893</a>

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

## Semi Volatile Organic Compounds (GC/MS) by Method 8270E-SIM

Analyte	Result (dry) mg/kg	Qualifier	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Anthracene	ND		0.0309	1	07/09/2019 05:25	<a href="#">WG1307549</a>
Acenaphthene	ND		0.0309	1	07/09/2019 05:25	<a href="#">WG1307549</a>
Acenaphthylene	ND		0.0309	1	07/09/2019 05:25	<a href="#">WG1307549</a>
Benzo(a)anthracene	ND		0.0309	1	07/09/2019 05:25	<a href="#">WG1307549</a>
Benzo(a)pyrene	ND		0.0309	1	07/09/2019 05:25	<a href="#">WG1307549</a>
Benzo(b)fluoranthene	ND		0.0309	1	07/09/2019 05:25	<a href="#">WG1307549</a>
Benzo(g,h,i)perylene	ND		0.0309	1	07/09/2019 05:25	<a href="#">WG1307549</a>





Semi Volatile Organic Compounds (GC/MS) by Method 8270E-SIM

Analyte	Result (dry) mg/kg	Qualifier	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Benzo(k)fluoranthene	ND		0.0309	1	07/09/2019 05:25	<a href="#">WG1307549</a>
Chrysene	ND		0.0309	1	07/09/2019 05:25	<a href="#">WG1307549</a>
Dibenz(a,h)anthracene	ND		0.0309	1	07/09/2019 05:25	<a href="#">WG1307549</a>
Fluoranthene	ND		0.0309	1	07/09/2019 05:25	<a href="#">WG1307549</a>
Fluorene	ND		0.0309	1	07/09/2019 05:25	<a href="#">WG1307549</a>
Indeno(1,2,3-cd)pyrene	ND		0.0309	1	07/09/2019 05:25	<a href="#">WG1307549</a>
Naphthalene	ND	<u>J4</u>	0.103	1	07/09/2019 05:25	<a href="#">WG1307549</a>
Phenanthrene	ND		0.0309	1	07/09/2019 05:25	<a href="#">WG1307549</a>
Pyrene	ND		0.0309	1	07/09/2019 05:25	<a href="#">WG1307549</a>
1-Methylnaphthalene	ND		0.103	1	07/09/2019 05:25	<a href="#">WG1307549</a>
2-Methylnaphthalene	ND		0.103	1	07/09/2019 05:25	<a href="#">WG1307549</a>
(S) p-Terphenyl-d14	55.7		23.0-120		07/09/2019 05:25	<a href="#">WG1307549</a>
(S) Nitrobenzene-d5	70.8		14.0-149		07/09/2019 05:25	<a href="#">WG1307549</a>
(S) 2-Fluorobiphenyl	34.6		34.0-125		07/09/2019 05:25	<a href="#">WG1307549</a>

- 1 Cp
- 2 Tc
- 3 Ss
- 4 Cn
- 5 Sr
- 6 Qc
- 7 Gl
- 8 Al
- 9 Sc



Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	13.2		1	07/05/2019 17:10	<a href="#">WG1307003</a>

1 Cp

2 Tc

Wet Chemistry by Method 9012B

Analyte	Result (dry)	Qualifier	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg		date / time	
Cyanide	ND		1.89	1	07/11/2019 09:43	<a href="#">WG1308669</a>

3 Ss

4 Cn

Mercury by Method 7471B

Analyte	Result (dry)	Qualifier	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg		date / time	
Mercury	ND		0.152	1	07/07/2019 13:52	<a href="#">WG1306876</a>

5 Sr

6 Qc

Metals (ICP) by Method 6010D

Analyte	Result (dry)	Qualifier	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg		date / time	
Aluminum	65400		75.8	1	07/07/2019 22:34	<a href="#">WG1306898</a>
Antimony	ND		15.2	1	07/07/2019 22:34	<a href="#">WG1306898</a>
Arsenic	ND		15.2	1	07/07/2019 22:34	<a href="#">WG1306898</a>
Barium	164		3.79	1	07/07/2019 22:34	<a href="#">WG1306898</a>
Beryllium	ND		1.52	1	07/07/2019 22:34	<a href="#">WG1306898</a>
Cadmium	ND		3.79	1	07/07/2019 22:34	<a href="#">WG1306898</a>
Calcium	4320		758	1	07/07/2019 22:34	<a href="#">WG1306898</a>
Chromium	81.9		7.58	1	07/07/2019 22:34	<a href="#">WG1306898</a>
Cobalt	18.6		7.58	1	07/07/2019 22:34	<a href="#">WG1306898</a>
Copper	63.9		15.2	1	07/07/2019 22:34	<a href="#">WG1306898</a>
Iron	40100		75.8	1	07/07/2019 22:34	<a href="#">WG1306898</a>
Lead	26.5		3.79	1	07/07/2019 22:34	<a href="#">WG1306898</a>
Magnesium	3580		758	1	07/07/2019 22:34	<a href="#">WG1306898</a>
Manganese	2590		7.58	1	07/07/2019 22:34	<a href="#">WG1306898</a>
Nickel	17.7		15.2	1	07/07/2019 22:34	<a href="#">WG1306898</a>
Potassium	1290		758	1	07/07/2019 22:34	<a href="#">WG1306898</a>
Selenium	ND		15.2	1	07/07/2019 22:34	<a href="#">WG1306898</a>
Silver	ND		7.58	1	07/07/2019 22:34	<a href="#">WG1306898</a>
Sodium	788	<u>B</u>	758	1	07/07/2019 22:34	<a href="#">WG1306898</a>
Thallium	ND		15.2	1	07/07/2019 22:34	<a href="#">WG1306898</a>
Vanadium	110		15.2	1	07/07/2019 22:34	<a href="#">WG1306898</a>
Zinc	155		37.9	1	07/07/2019 22:34	<a href="#">WG1306898</a>

7 Gl

8 Al

9 Sc

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result (dry)	Qualifier	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg		date / time	
Acetone	0.674		0.208	1.1	07/07/2019 18:47	<a href="#">WG1307049</a>
Benzene	0.0110		0.00834	1.1	07/07/2019 18:47	<a href="#">WG1307049</a>
Bromochloromethane	ND		0.0417	1.1	07/07/2019 18:47	<a href="#">WG1307049</a>
Bromodichloromethane	ND		0.0208	1.1	07/07/2019 18:47	<a href="#">WG1307049</a>
Bromoform	ND		0.208	1.1	07/07/2019 18:47	<a href="#">WG1307049</a>
Bromomethane	ND		0.105	1.1	07/07/2019 18:47	<a href="#">WG1307049</a>
Carbon disulfide	ND		0.105	1.1	07/07/2019 18:47	<a href="#">WG1307049</a>
Carbon tetrachloride	ND		0.0417	1.1	07/07/2019 18:47	<a href="#">WG1307049</a>
Chlorobenzene	ND		0.0208	1.1	07/07/2019 18:47	<a href="#">WG1307049</a>
Chlorodibromomethane	ND		0.0208	1.1	07/07/2019 18:47	<a href="#">WG1307049</a>
Chloroethane	ND		0.0417	1.1	07/07/2019 18:47	<a href="#">WG1307049</a>
Chloroform	ND		0.0208	1.1	07/07/2019 18:47	<a href="#">WG1307049</a>
Chloromethane	ND		0.105	1.1	07/07/2019 18:47	<a href="#">WG1307049</a>



Collected date/time: 06/26/19 09:20

L1113939

## Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result (dry) mg/kg	Qualifier	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Cyclohexane	ND		0.0208	1.1	07/07/2019 18:47	WG1307049
1,2-Dibromo-3-Chloropropane	ND		0.208	1.1	07/07/2019 18:47	WG1307049
1,2-Dibromoethane	ND		0.0208	1.1	07/07/2019 18:47	WG1307049
Dichlorodifluoromethane	ND		0.0208	1.1	07/07/2019 18:47	WG1307049
1,1-Dichloroethane	ND		0.0208	1.1	07/07/2019 18:47	WG1307049
1,2-Dichloroethane	ND		0.0208	1.1	07/07/2019 18:47	WG1307049
1,2-Dichlorobenzene	ND		0.0417	1.1	07/07/2019 18:47	WG1307049
1,3-Dichlorobenzene	ND		0.0417	1.1	07/07/2019 18:47	WG1307049
1,4-Dichlorobenzene	ND		0.0417	1.1	07/07/2019 18:47	WG1307049
1,1-Dichloroethene	ND		0.0208	1.1	07/07/2019 18:47	WG1307049
cis-1,2-Dichloroethene	ND		0.0208	1.1	07/07/2019 18:47	WG1307049
trans-1,2-Dichloroethene	ND		0.0417	1.1	07/07/2019 18:47	WG1307049
1,2-Dichloropropane	ND		0.0417	1.1	07/07/2019 18:47	WG1307049
cis-1,3-Dichloropropene	ND		0.0208	1.1	07/07/2019 18:47	WG1307049
trans-1,3-Dichloropropene	ND		0.0417	1.1	07/07/2019 18:47	WG1307049
Ethylbenzene	ND		0.0208	1.1	07/07/2019 18:47	WG1307049
2-Hexanone	ND		0.208	1.1	07/07/2019 18:47	WG1307049
Isopropylbenzene	ND		0.0208	1.1	07/07/2019 18:47	WG1307049
2-Butanone (MEK)	ND		0.208	1.1	07/07/2019 18:47	WG1307049
Methyl Acetate	1.14		0.0417	1.1	07/07/2019 18:47	WG1307049
Methyl Cyclohexane	ND		0.0417	1.1	07/07/2019 18:47	WG1307049
Methylene Chloride	ND		0.208	1.1	07/07/2019 18:47	WG1307049
4-Methyl-2-pentanone (MIBK)	ND		0.208	1.1	07/07/2019 18:47	WG1307049
Methyl tert-butyl ether	ND		0.00834	1.1	07/07/2019 18:47	WG1307049
Styrene	ND		0.105	1.1	07/07/2019 18:47	WG1307049
1,1,2,2-Tetrachloroethane	ND		0.0208	1.1	07/07/2019 18:47	WG1307049
Tetrachloroethene	ND		0.0208	1.1	07/07/2019 18:47	WG1307049
Toluene	ND		0.0417	1.1	07/07/2019 18:47	WG1307049
1,2,3-Trichlorobenzene	ND		0.0208	1.1	07/07/2019 18:47	WG1307049
1,2,4-Trichlorobenzene	ND		0.105	1.1	07/07/2019 18:47	WG1307049
1,1,1-Trichloroethane	ND		0.0208	1.1	07/07/2019 18:47	WG1307049
1,1,2-Trichloroethane	ND		0.0208	1.1	07/07/2019 18:47	WG1307049
Trichloroethene	ND		0.00834	1.1	07/07/2019 18:47	WG1307049
Trichlorofluoromethane	ND		0.0208	1.1	07/07/2019 18:47	WG1307049
1,1,2-Trichlorotrifluoroethane	ND		0.0208	1.1	07/07/2019 18:47	WG1307049
Vinyl chloride	ND		0.0208	1.1	07/07/2019 18:47	WG1307049
Xylenes, Total	ND		0.0542	1.1	07/07/2019 18:47	WG1307049
(S) Toluene-d8	104		75.0-131		07/07/2019 18:47	WG1307049
(S) 4-Bromofluorobenzene	108		67.0-138		07/07/2019 18:47	WG1307049
(S) 1,2-Dichloroethane-d4	108		70.0-130		07/07/2019 18:47	WG1307049

1  
Cp

2  
Tc

3  
Ss

4  
Cn

5  
Sr

6  
Qc

7  
Gl

8  
Al

9  
Sc

## Pesticides (GC) by Method 8081B

Analyte	Result (dry) mg/kg	Qualifier	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Aldrin	ND		0.152	1	07/09/2019 18:39	WG1307387
Alpha BHC	ND		0.152	1	07/09/2019 18:39	WG1307387
Beta BHC	ND	J4	0.152	1	07/09/2019 18:39	WG1307387
Delta BHC	ND		0.152	1	07/09/2019 18:39	WG1307387
Gamma BHC	ND		0.152	1	07/09/2019 18:39	WG1307387
Chlordane	ND		1.52	1	07/09/2019 18:39	WG1307387
4,4-DDD	ND		0.152	1	07/09/2019 18:39	WG1307387
4,4-DDE	ND		0.152	1	07/09/2019 18:39	WG1307387
4,4-DDT	ND		0.152	1	07/09/2019 18:39	WG1307387
Dieldrin	ND		0.152	1	07/09/2019 18:39	WG1307387
Endosulfan I	ND		0.152	1	07/09/2019 18:39	WG1307387
Endosulfan II	ND		0.152	1	07/09/2019 18:39	WG1307387



Collected date/time: 06/26/19 09:20

L1113939

## Pesticides (GC) by Method 8081B

Analyte	Result (dry) mg/kg	Qualifier	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Endosulfan sulfate	ND		0.152	1	07/09/2019 18:39	<a href="#">WG1307387</a>
Endrin	ND		0.152	1	07/09/2019 18:39	<a href="#">WG1307387</a>
Endrin aldehyde	ND		0.152	1	07/09/2019 18:39	<a href="#">WG1307387</a>
Endrin ketone	ND		0.152	1	07/09/2019 18:39	<a href="#">WG1307387</a>
Heptachlor	ND		0.152	1	07/09/2019 18:39	<a href="#">WG1307387</a>
Heptachlor epoxide	ND		0.152	1	07/09/2019 18:39	<a href="#">WG1307387</a>
Hexachlorobenzene	ND		0.152	1	07/09/2019 18:39	<a href="#">WG1307387</a>
Methoxychlor	ND		0.152	1	07/09/2019 18:39	<a href="#">WG1307387</a>
Toxaphene	ND		3.03	1	07/09/2019 18:39	<a href="#">WG1307387</a>
(S) Decachlorobiphenyl	96.5		10.0-135		07/09/2019 18:39	<a href="#">WG1307387</a>
(S) Tetrachloro-m-xylene	89.7		10.0-139		07/09/2019 18:39	<a href="#">WG1307387</a>

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

## Polychlorinated Biphenyls (GC) by Method 8082 A

Analyte	Result (dry) mg/kg	Qualifier	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
PCB 1016	ND	J4	0.129	1	07/09/2019 18:08	<a href="#">WG1307387</a>
PCB 1221	ND		0.129	1	07/09/2019 18:08	<a href="#">WG1307387</a>
PCB 1232	ND		0.129	1	07/09/2019 18:08	<a href="#">WG1307387</a>
PCB 1242	ND		0.129	1	07/09/2019 18:08	<a href="#">WG1307387</a>
PCB 1248	ND		0.129	1	07/09/2019 18:08	<a href="#">WG1307387</a>
PCB 1254	ND		0.129	1	07/09/2019 18:08	<a href="#">WG1307387</a>
PCB 1260	ND	J4	0.129	1	07/09/2019 18:08	<a href="#">WG1307387</a>
(S) Decachlorobiphenyl	102		10.0-135		07/09/2019 18:08	<a href="#">WG1307387</a>
(S) Tetrachloro-m-xylene	91.8		10.0-139		07/09/2019 18:08	<a href="#">WG1307387</a>

7 Gl

8 Al

9 Sc

## Semi Volatile Organic Compounds (GC/MS) by Method 8270D

Analyte	Result (dry) mg/kg	Qualifier	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Acenaphthene	ND	J4	0.252	1	07/09/2019 08:18	<a href="#">WG1307893</a>
Acenaphthylene	ND		0.252	1	07/09/2019 08:18	<a href="#">WG1307893</a>
Acetophenone	ND	J4	2.52	1	07/09/2019 08:18	<a href="#">WG1307893</a>
Anthracene	ND		0.252	1	07/09/2019 08:18	<a href="#">WG1307893</a>
Atrazine	ND		2.52	1	07/09/2019 08:18	<a href="#">WG1307893</a>
Benzaldehyde	ND		2.52	1	07/09/2019 08:18	<a href="#">WG1307893</a>
Benzo(a)anthracene	ND		0.252	1	07/09/2019 08:18	<a href="#">WG1307893</a>
Benzo(b)fluoranthene	ND		0.252	1	07/09/2019 08:18	<a href="#">WG1307893</a>
Benzo(k)fluoranthene	ND		0.252	1	07/09/2019 08:18	<a href="#">WG1307893</a>
Benzo(g,h,i)perylene	ND		0.252	1	07/09/2019 08:18	<a href="#">WG1307893</a>
Benzo(a)pyrene	ND		0.252	1	07/09/2019 08:18	<a href="#">WG1307893</a>
Biphenyl	ND	J4	2.52	1	07/09/2019 08:18	<a href="#">WG1307893</a>
Bis(2-chloroethoxy)methane	ND	J4	2.52	1	07/09/2019 08:18	<a href="#">WG1307893</a>
Bis(2-chloroethyl)ether	ND	J4	2.52	1	07/09/2019 08:18	<a href="#">WG1307893</a>
Bis(2-chloroisopropyl)ether	ND	J4	2.52	1	07/09/2019 08:18	<a href="#">WG1307893</a>
4-Bromophenyl-phenylether	ND		2.52	1	07/09/2019 08:18	<a href="#">WG1307893</a>
Caprolactam	ND		2.52	1	07/09/2019 08:18	<a href="#">WG1307893</a>
Carbazole	ND		2.52	1	07/09/2019 08:18	<a href="#">WG1307893</a>
4-Chloroaniline	ND	J4	2.52	1	07/09/2019 08:18	<a href="#">WG1307893</a>
2-Chloronaphthalene	ND	J4	0.252	1	07/09/2019 08:18	<a href="#">WG1307893</a>
4-Chlorophenyl-phenylether	ND		2.52	1	07/09/2019 08:18	<a href="#">WG1307893</a>
Chrysene	ND		0.252	1	07/09/2019 08:18	<a href="#">WG1307893</a>
Dibenz(a,h)anthracene	ND		0.252	1	07/09/2019 08:18	<a href="#">WG1307893</a>
Dibenzofuran	ND		2.52	1	07/09/2019 08:18	<a href="#">WG1307893</a>
3,3-Dichlorobenzidine	ND		2.52	1	07/09/2019 08:18	<a href="#">WG1307893</a>
2,4-Dinitrotoluene	ND		2.52	1	07/09/2019 08:18	<a href="#">WG1307893</a>
2,6-Dinitrotoluene	ND		2.52	1	07/09/2019 08:18	<a href="#">WG1307893</a>



Collected date/time: 06/26/19 09:20

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## Semi Volatile Organic Compounds (GC/MS) by Method 8270D

Analyte	Result (dry) mg/kg	Qualifier	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Fluoranthene	ND		0.252	1	07/09/2019 08:18	<a href="#">WG1307893</a>
Fluorene	ND		0.252	1	07/09/2019 08:18	<a href="#">WG1307893</a>
Hexachlorobenzene	ND	J4	2.52	1	07/09/2019 08:18	<a href="#">WG1307893</a>
Hexachloro-1,3-butadiene	ND	J4	2.52	1	07/09/2019 08:18	<a href="#">WG1307893</a>
Hexachlorocyclopentadiene	ND	J4	2.52	1	07/09/2019 08:18	<a href="#">WG1307893</a>
Hexachloroethane	ND	J4	2.52	1	07/09/2019 08:18	<a href="#">WG1307893</a>
Indeno(1,2,3-cd)pyrene	ND		0.252	1	07/09/2019 08:18	<a href="#">WG1307893</a>
Isophorone	ND	J4	2.52	1	07/09/2019 08:18	<a href="#">WG1307893</a>
2-Methylnaphthalene	ND	J4	0.252	1	07/09/2019 08:18	<a href="#">WG1307893</a>
Naphthalene	ND	J4	0.252	1	07/09/2019 08:18	<a href="#">WG1307893</a>
2-Nitroaniline	ND		2.52	1	07/09/2019 08:18	<a href="#">WG1307893</a>
3-Nitroaniline	ND		2.52	1	07/09/2019 08:18	<a href="#">WG1307893</a>
4-Nitroaniline	ND		2.52	1	07/09/2019 08:18	<a href="#">WG1307893</a>
Nitrobenzene	ND	J4	2.52	1	07/09/2019 08:18	<a href="#">WG1307893</a>
n-Nitrosodiphenylamine	ND		2.52	1	07/09/2019 08:18	<a href="#">WG1307893</a>
n-Nitrosodi-n-propylamine	ND	J4	2.52	1	07/09/2019 08:18	<a href="#">WG1307893</a>
Phenanthrene	ND		0.252	1	07/09/2019 08:18	<a href="#">WG1307893</a>
Benzylbutyl phthalate	ND		2.52	1	07/09/2019 08:18	<a href="#">WG1307893</a>
Bis(2-ethylhexyl)phthalate	ND		2.52	1	07/09/2019 08:18	<a href="#">WG1307893</a>
Di-n-butyl phthalate	ND		2.52	1	07/09/2019 08:18	<a href="#">WG1307893</a>
Diethyl phthalate	ND		2.52	1	07/09/2019 08:18	<a href="#">WG1307893</a>
Dimethyl phthalate	ND		2.52	1	07/09/2019 08:18	<a href="#">WG1307893</a>
Di-n-octyl phthalate	ND		2.52	1	07/09/2019 08:18	<a href="#">WG1307893</a>
Pyrene	ND		0.252	1	07/09/2019 08:18	<a href="#">WG1307893</a>
1,2,4,5-Tetrachlorobenzene	ND	J4	2.52	1	07/09/2019 08:18	<a href="#">WG1307893</a>
4-Chloro-3-methylphenol	ND	J4	2.52	1	07/09/2019 08:18	<a href="#">WG1307893</a>
2-Chlorophenol	ND	J4	2.52	1	07/09/2019 08:18	<a href="#">WG1307893</a>
2-Methylphenol	ND		2.52	1	07/09/2019 08:18	<a href="#">WG1307893</a>
3&4-Methyl Phenol	ND		2.52	1	07/09/2019 08:18	<a href="#">WG1307893</a>
2,4-Dichlorophenol	ND	J4	2.52	1	07/09/2019 08:18	<a href="#">WG1307893</a>
2,4-Dimethylphenol	ND	J4	2.52	1	07/09/2019 08:18	<a href="#">WG1307893</a>
4,6-Dinitro-2-methylphenol	ND		2.52	1	07/09/2019 08:18	<a href="#">WG1307893</a>
2,4-Dinitrophenol	ND	J4	2.52	1	07/09/2019 08:18	<a href="#">WG1307893</a>
2-Nitrophenol	ND	J4	2.52	1	07/09/2019 08:18	<a href="#">WG1307893</a>
4-Nitrophenol	ND		2.52	1	07/09/2019 08:18	<a href="#">WG1307893</a>
Pentachlorophenol	ND	J4	2.52	1	07/09/2019 08:18	<a href="#">WG1307893</a>
Phenol	ND		2.52	1	07/09/2019 08:18	<a href="#">WG1307893</a>
2,4,5-Trichlorophenol	ND		2.52	1	07/09/2019 08:18	<a href="#">WG1307893</a>
2,4,6-Trichlorophenol	ND		2.52	1	07/09/2019 08:18	<a href="#">WG1307893</a>
(S) 2-Fluorophenol	71.5		12.0-120		07/09/2019 08:18	<a href="#">WG1307893</a>
(S) Phenol-d5	67.2		10.0-120		07/09/2019 08:18	<a href="#">WG1307893</a>
(S) Nitrobenzene-d5	58.9		10.0-122		07/09/2019 08:18	<a href="#">WG1307893</a>
(S) 2-Fluorobiphenyl	58.9		15.0-120		07/09/2019 08:18	<a href="#">WG1307893</a>
(S) 2,4,6-Tribromophenol	72.4		10.0-127		07/09/2019 08:18	<a href="#">WG1307893</a>
(S) p-Terphenyl-d14	77.1		10.0-120		07/09/2019 08:18	<a href="#">WG1307893</a>

- 1 Cp
- 2 Tc
- 3 Ss
- 4 Cn
- 5 Sr
- 6 Qc
- 7 Gl
- 8 Al
- 9 Sc

## Semi Volatile Organic Compounds (GC/MS) by Method 8270E-SIM

Analyte	Result (dry) mg/kg	Qualifier	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Anthracene	ND		0.0455	1	07/09/2019 05:46	<a href="#">WG1307549</a>
Acenaphthene	ND		0.0455	1	07/09/2019 05:46	<a href="#">WG1307549</a>
Acenaphthylene	ND		0.0455	1	07/09/2019 05:46	<a href="#">WG1307549</a>
Benzo(a)anthracene	ND		0.0455	1	07/09/2019 05:46	<a href="#">WG1307549</a>
Benzo(a)pyrene	ND		0.0455	1	07/09/2019 05:46	<a href="#">WG1307549</a>
Benzo(b)fluoranthene	ND		0.0455	1	07/09/2019 05:46	<a href="#">WG1307549</a>
Benzo(g,h,i)perylene	ND		0.0455	1	07/09/2019 05:46	<a href="#">WG1307549</a>



Collected date/time: 06/26/19 09:20

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Semi Volatile Organic Compounds (GC/MS) by Method 8270E-SIM

Analyte	Result (dry) mg/kg	Qualifier	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Benzo(k)fluoranthene	ND		0.0455	1	07/09/2019 05:46	<a href="#">WG1307549</a>
Chrysene	ND		0.0455	1	07/09/2019 05:46	<a href="#">WG1307549</a>
Dibenz(a,h)anthracene	ND		0.0455	1	07/09/2019 05:46	<a href="#">WG1307549</a>
Fluoranthene	ND		0.0455	1	07/09/2019 05:46	<a href="#">WG1307549</a>
Fluorene	ND		0.0455	1	07/09/2019 05:46	<a href="#">WG1307549</a>
Indeno(1,2,3-cd)pyrene	ND		0.0455	1	07/09/2019 05:46	<a href="#">WG1307549</a>
Naphthalene	ND	<u>J4</u>	0.152	1	07/09/2019 05:46	<a href="#">WG1307549</a>
Phenanthrene	ND		0.0455	1	07/09/2019 05:46	<a href="#">WG1307549</a>
Pyrene	ND		0.0455	1	07/09/2019 05:46	<a href="#">WG1307549</a>
1-Methylnaphthalene	ND		0.152	1	07/09/2019 05:46	<a href="#">WG1307549</a>
2-Methylnaphthalene	ND		0.152	1	07/09/2019 05:46	<a href="#">WG1307549</a>
(S) p-Terphenyl-d14	75.7		23.0-120		07/09/2019 05:46	<a href="#">WG1307549</a>
(S) Nitrobenzene-d5	67.3		14.0-149		07/09/2019 05:46	<a href="#">WG1307549</a>
(S) 2-Fluorobiphenyl	43.0		34.0-125		07/09/2019 05:46	<a href="#">WG1307549</a>

- 1 Cp
- 2 Tc
- 3 Ss
- 4 Cn
- 5 Sr
- 6 Qc
- 7 Gl
- 8 Al
- 9 Sc



## Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	40.0		1	07/05/2019 17:10	<a href="#">WG1307003</a>

## Wet Chemistry by Method 9012B

Analyte	Result (dry)	Qualifier	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg		date / time	
Cyanide	ND		0.625	1	07/11/2019 09:45	<a href="#">WG1308669</a>

## Mercury by Method 7471B

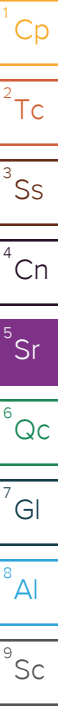
Analyte	Result (dry)	Qualifier	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg		date / time	
Mercury	0.0699		0.0500	1	07/07/2019 13:55	<a href="#">WG1306876</a>

## Metals (ICP) by Method 6010D

Analyte	Result (dry)	Qualifier	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg		date / time	
Aluminum	31800		25.0	1	07/07/2019 22:37	<a href="#">WG1306898</a>
Antimony	ND		5.00	1	07/07/2019 22:37	<a href="#">WG1306898</a>
Arsenic	ND		5.00	1	07/07/2019 22:37	<a href="#">WG1306898</a>
Barium	87.4		1.25	1	07/07/2019 22:37	<a href="#">WG1306898</a>
Beryllium	0.723		0.500	1	07/07/2019 22:37	<a href="#">WG1306898</a>
Cadmium	ND		1.25	1	07/07/2019 22:37	<a href="#">WG1306898</a>
Calcium	7100		250	1	07/07/2019 22:37	<a href="#">WG1306898</a>
Chromium	51.5		2.50	1	07/07/2019 22:37	<a href="#">WG1306898</a>
Cobalt	10.8		2.50	1	07/07/2019 22:37	<a href="#">WG1306898</a>
Copper	42.9		5.00	1	07/07/2019 22:37	<a href="#">WG1306898</a>
Iron	28600		25.0	1	07/07/2019 22:37	<a href="#">WG1306898</a>
Lead	50.8		1.25	1	07/07/2019 22:37	<a href="#">WG1306898</a>
Magnesium	2470		250	1	07/07/2019 22:37	<a href="#">WG1306898</a>
Manganese	229		2.50	1	07/07/2019 22:37	<a href="#">WG1306898</a>
Nickel	17.1		5.00	1	07/07/2019 22:37	<a href="#">WG1306898</a>
Potassium	965		250	1	07/07/2019 22:37	<a href="#">WG1306898</a>
Selenium	ND		5.00	1	07/07/2019 22:37	<a href="#">WG1306898</a>
Silver	ND		2.50	1	07/07/2019 22:37	<a href="#">WG1306898</a>
Sodium	2140		250	1	07/07/2019 22:37	<a href="#">WG1306898</a>
Thallium	ND		5.00	1	07/07/2019 22:37	<a href="#">WG1306898</a>
Vanadium	107		5.00	1	07/07/2019 22:37	<a href="#">WG1306898</a>
Zinc	69.5		12.5	1	07/07/2019 22:37	<a href="#">WG1306898</a>

## Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result (dry)	Qualifier	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg		date / time	
Acetone	ND		0.0625	1	07/07/2019 19:07	<a href="#">WG1307049</a>
Benzene	ND		0.00250	1	07/07/2019 19:07	<a href="#">WG1307049</a>
Bromochloromethane	ND		0.0125	1	07/07/2019 19:07	<a href="#">WG1307049</a>
Bromodichloromethane	ND		0.00625	1	07/07/2019 19:07	<a href="#">WG1307049</a>
Bromoform	ND		0.0625	1	07/07/2019 19:07	<a href="#">WG1307049</a>
Bromomethane	ND		0.0313	1	07/07/2019 19:07	<a href="#">WG1307049</a>
Carbon disulfide	0.0427		0.0313	1	07/07/2019 19:07	<a href="#">WG1307049</a>
Carbon tetrachloride	ND		0.0125	1	07/07/2019 19:07	<a href="#">WG1307049</a>
Chlorobenzene	ND		0.00625	1	07/07/2019 19:07	<a href="#">WG1307049</a>
Chlorodibromomethane	ND		0.00625	1	07/07/2019 19:07	<a href="#">WG1307049</a>
Chloroethane	ND		0.0125	1	07/07/2019 19:07	<a href="#">WG1307049</a>
Chloroform	ND		0.00625	1	07/07/2019 19:07	<a href="#">WG1307049</a>
Chloromethane	ND		0.0313	1	07/07/2019 19:07	<a href="#">WG1307049</a>







Collected date/time: 06/26/19 09:52

L1113939

## Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result (dry) mg/kg	Qualifier	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Cyclohexane	ND		0.00625	1	07/07/2019 19:07	WG1307049
1,2-Dibromo-3-Chloropropane	ND		0.0625	1	07/07/2019 19:07	WG1307049
1,2-Dibromoethane	ND		0.00625	1	07/07/2019 19:07	WG1307049
Dichlorodifluoromethane	ND		0.00625	1	07/07/2019 19:07	WG1307049
1,1-Dichloroethane	ND		0.00625	1	07/07/2019 19:07	WG1307049
1,2-Dichloroethane	ND		0.00625	1	07/07/2019 19:07	WG1307049
1,2-Dichlorobenzene	ND		0.0125	1	07/07/2019 19:07	WG1307049
1,3-Dichlorobenzene	ND		0.0125	1	07/07/2019 19:07	WG1307049
1,4-Dichlorobenzene	ND		0.0125	1	07/07/2019 19:07	WG1307049
1,1-Dichloroethene	ND		0.00625	1	07/07/2019 19:07	WG1307049
cis-1,2-Dichloroethene	ND		0.00625	1	07/07/2019 19:07	WG1307049
trans-1,2-Dichloroethene	ND		0.0125	1	07/07/2019 19:07	WG1307049
1,2-Dichloropropane	ND		0.0125	1	07/07/2019 19:07	WG1307049
cis-1,3-Dichloropropene	ND		0.00625	1	07/07/2019 19:07	WG1307049
trans-1,3-Dichloropropene	ND		0.0125	1	07/07/2019 19:07	WG1307049
Ethylbenzene	ND		0.00625	1	07/07/2019 19:07	WG1307049
2-Hexanone	ND		0.0625	1	07/07/2019 19:07	WG1307049
Isopropylbenzene	0.0224		0.00625	1	07/07/2019 19:07	WG1307049
2-Butanone (MEK)	ND		0.0625	1	07/07/2019 19:07	WG1307049
Methyl Acetate	0.359		0.0125	1	07/07/2019 19:07	WG1307049
Methyl Cyclohexane	0.0245		0.0125	1	07/07/2019 19:07	WG1307049
Methylene Chloride	ND		0.0625	1	07/07/2019 19:07	WG1307049
4-Methyl-2-pentanone (MIBK)	ND		0.0625	1	07/07/2019 19:07	WG1307049
Methyl tert-butyl ether	ND		0.00250	1	07/07/2019 19:07	WG1307049
Styrene	ND		0.0313	1	07/07/2019 19:07	WG1307049
1,1,2,2-Tetrachloroethane	ND		0.00625	1	07/07/2019 19:07	WG1307049
Tetrachloroethene	ND		0.00625	1	07/07/2019 19:07	WG1307049
Toluene	ND		0.0125	1	07/07/2019 19:07	WG1307049
1,2,3-Trichlorobenzene	ND		0.00625	1	07/07/2019 19:07	WG1307049
1,2,4-Trichlorobenzene	ND		0.0313	1	07/07/2019 19:07	WG1307049
1,1,1-Trichloroethane	ND		0.00625	1	07/07/2019 19:07	WG1307049
1,1,2-Trichloroethane	ND		0.00625	1	07/07/2019 19:07	WG1307049
Trichloroethene	ND		0.00250	1	07/07/2019 19:07	WG1307049
Trichlorofluoromethane	ND		0.00625	1	07/07/2019 19:07	WG1307049
1,1,2-Trichlorotrifluoroethane	ND		0.00625	1	07/07/2019 19:07	WG1307049
Vinyl chloride	ND		0.00625	1	07/07/2019 19:07	WG1307049
Xylenes, Total	ND		0.0163	1	07/07/2019 19:07	WG1307049
(S) Toluene-d8	101		75.0-131		07/07/2019 19:07	WG1307049
(S) 4-Bromofluorobenzene	104		67.0-138		07/07/2019 19:07	WG1307049
(S) 1,2-Dichloroethane-d4	104		70.0-130		07/07/2019 19:07	WG1307049

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

## Pesticides (GC) by Method 8081B

Analyte	Result (dry) mg/kg	Qualifier	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Aldrin	ND		0.0500	1	07/09/2019 18:52	WG1307387
Alpha BHC	ND		0.0500	1	07/09/2019 18:52	WG1307387
Beta BHC	ND	J4	0.0500	1	07/09/2019 18:52	WG1307387
Delta BHC	ND		0.0500	1	07/09/2019 18:52	WG1307387
Gamma BHC	ND		0.0500	1	07/09/2019 18:52	WG1307387
Chlordane	ND		0.500	1	07/09/2019 18:52	WG1307387
4,4-DDD	ND		0.0500	1	07/09/2019 18:52	WG1307387
4,4-DDE	ND		0.0500	1	07/09/2019 18:52	WG1307387
4,4-DDT	ND		0.0500	1	07/09/2019 18:52	WG1307387
Dieldrin	ND		0.0500	1	07/09/2019 18:52	WG1307387
Endosulfan I	ND		0.0500	1	07/09/2019 18:52	WG1307387
Endosulfan II	ND		0.0500	1	07/09/2019 18:52	WG1307387



Collected date/time: 06/26/19 09:52

L1113939

## Pesticides (GC) by Method 8081B

Analyte	Result (dry) mg/kg	Qualifier	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Endosulfan sulfate	ND		0.0500	1	07/09/2019 18:52	<a href="#">WG1307387</a>
Endrin	ND		0.0500	1	07/09/2019 18:52	<a href="#">WG1307387</a>
Endrin aldehyde	ND		0.0500	1	07/09/2019 18:52	<a href="#">WG1307387</a>
Endrin ketone	ND		0.0500	1	07/09/2019 18:52	<a href="#">WG1307387</a>
Heptachlor	ND		0.0500	1	07/09/2019 18:52	<a href="#">WG1307387</a>
Heptachlor epoxide	ND		0.0500	1	07/09/2019 18:52	<a href="#">WG1307387</a>
Hexachlorobenzene	ND		0.0500	1	07/09/2019 18:52	<a href="#">WG1307387</a>
Methoxychlor	ND		0.0500	1	07/09/2019 18:52	<a href="#">WG1307387</a>
Toxaphene	ND		1.00	1	07/09/2019 18:52	<a href="#">WG1307387</a>
(S) Decachlorobiphenyl	96.9		10.0-135		07/09/2019 18:52	<a href="#">WG1307387</a>
(S) Tetrachloro-m-xylene	111		10.0-139		07/09/2019 18:52	<a href="#">WG1307387</a>

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

## Polychlorinated Biphenyls (GC) by Method 8082 A

Analyte	Result (dry) mg/kg	Qualifier	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
PCB 1016	ND	J4	0.0425	1	07/09/2019 18:20	<a href="#">WG1307387</a>
PCB 1221	ND		0.0425	1	07/09/2019 18:20	<a href="#">WG1307387</a>
PCB 1232	ND		0.0425	1	07/09/2019 18:20	<a href="#">WG1307387</a>
PCB 1242	ND		0.0425	1	07/09/2019 18:20	<a href="#">WG1307387</a>
PCB 1248	ND		0.0425	1	07/09/2019 18:20	<a href="#">WG1307387</a>
PCB 1254	ND		0.0425	1	07/09/2019 18:20	<a href="#">WG1307387</a>
PCB 1260	ND	J4	0.0425	1	07/09/2019 18:20	<a href="#">WG1307387</a>
(S) Decachlorobiphenyl	103		10.0-135		07/09/2019 18:20	<a href="#">WG1307387</a>
(S) Tetrachloro-m-xylene	85.8		10.0-139		07/09/2019 18:20	<a href="#">WG1307387</a>

7 Gl

8 Al

9 Sc

## Semi Volatile Organic Compounds (GC/MS) by Method 8270D

Analyte	Result (dry) mg/kg	Qualifier	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Acenaphthene	ND	J4	0.0833	1	07/09/2019 08:38	<a href="#">WG1307893</a>
Acenaphthylene	ND		0.0833	1	07/09/2019 08:38	<a href="#">WG1307893</a>
Acetophenone	ND	J4	0.833	1	07/09/2019 08:38	<a href="#">WG1307893</a>
Anthracene	ND		0.0833	1	07/09/2019 08:38	<a href="#">WG1307893</a>
Atrazine	ND		0.833	1	07/09/2019 08:38	<a href="#">WG1307893</a>
Benzaldehyde	ND		0.833	1	07/09/2019 08:38	<a href="#">WG1307893</a>
Benzo(a)anthracene	ND		0.0833	1	07/09/2019 08:38	<a href="#">WG1307893</a>
Benzo(b)fluoranthene	ND		0.0833	1	07/09/2019 08:38	<a href="#">WG1307893</a>
Benzo(k)fluoranthene	ND		0.0833	1	07/09/2019 08:38	<a href="#">WG1307893</a>
Benzo(g,h,i)perylene	ND		0.0833	1	07/09/2019 08:38	<a href="#">WG1307893</a>
Benzo(a)pyrene	ND		0.0833	1	07/09/2019 08:38	<a href="#">WG1307893</a>
Biphenyl	ND	J4	0.833	1	07/09/2019 08:38	<a href="#">WG1307893</a>
Bis(2-chloroethoxy)methane	ND	J4	0.833	1	07/09/2019 08:38	<a href="#">WG1307893</a>
Bis(2-chloroethyl)ether	ND	J4	0.833	1	07/09/2019 08:38	<a href="#">WG1307893</a>
Bis(2-chloroisopropyl)ether	ND	J4	0.833	1	07/09/2019 08:38	<a href="#">WG1307893</a>
4-Bromophenyl-phenylether	ND		0.833	1	07/09/2019 08:38	<a href="#">WG1307893</a>
Caprolactam	ND		0.833	1	07/09/2019 08:38	<a href="#">WG1307893</a>
Carbazole	ND		0.833	1	07/09/2019 08:38	<a href="#">WG1307893</a>
4-Chloroaniline	ND	J4	0.833	1	07/09/2019 08:38	<a href="#">WG1307893</a>
2-Chloronaphthalene	ND	J4	0.0833	1	07/09/2019 08:38	<a href="#">WG1307893</a>
4-Chlorophenyl-phenylether	ND		0.833	1	07/09/2019 08:38	<a href="#">WG1307893</a>
Chrysene	ND		0.0833	1	07/09/2019 08:38	<a href="#">WG1307893</a>
Dibenz(a,h)anthracene	ND		0.0833	1	07/09/2019 08:38	<a href="#">WG1307893</a>
Dibenzofuran	ND		0.833	1	07/09/2019 08:38	<a href="#">WG1307893</a>
3,3-Dichlorobenzidine	ND		0.833	1	07/09/2019 08:38	<a href="#">WG1307893</a>
2,4-Dinitrotoluene	ND		0.833	1	07/09/2019 08:38	<a href="#">WG1307893</a>
2,6-Dinitrotoluene	ND		0.833	1	07/09/2019 08:38	<a href="#">WG1307893</a>



Collected date/time: 06/26/19 09:52

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## Semi Volatile Organic Compounds (GC/MS) by Method 8270D

Analyte	Result (dry) mg/kg	Qualifier	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Fluoranthene	ND		0.0833	1	07/09/2019 08:38	WG1307893
Fluorene	ND		0.0833	1	07/09/2019 08:38	WG1307893
Hexachlorobenzene	ND	J4	0.833	1	07/09/2019 08:38	WG1307893
Hexachloro-1,3-butadiene	ND	J4	0.833	1	07/09/2019 08:38	WG1307893
Hexachlorocyclopentadiene	ND	J4	0.833	1	07/09/2019 08:38	WG1307893
Hexachloroethane	ND	J4	0.833	1	07/09/2019 08:38	WG1307893
Indeno(1,2,3-cd)pyrene	ND		0.0833	1	07/09/2019 08:38	WG1307893
Isophorone	ND	J4	0.833	1	07/09/2019 08:38	WG1307893
2-Methylnaphthalene	0.810	J4	0.0833	1	07/09/2019 08:38	WG1307893
Naphthalene	ND	J4	0.0833	1	07/09/2019 08:38	WG1307893
2-Nitroaniline	ND		0.833	1	07/09/2019 08:38	WG1307893
3-Nitroaniline	ND		0.833	1	07/09/2019 08:38	WG1307893
4-Nitroaniline	ND		0.833	1	07/09/2019 08:38	WG1307893
Nitrobenzene	ND	J4	0.833	1	07/09/2019 08:38	WG1307893
n-Nitrosodiphenylamine	ND		0.833	1	07/09/2019 08:38	WG1307893
n-Nitrosodi-n-propylamine	ND	J4	0.833	1	07/09/2019 08:38	WG1307893
Phenanthrene	ND		0.0833	1	07/09/2019 08:38	WG1307893
Benzylbutyl phthalate	ND		0.833	1	07/09/2019 08:38	WG1307893
Bis(2-ethylhexyl)phthalate	ND		0.833	1	07/09/2019 08:38	WG1307893
Di-n-butyl phthalate	ND		0.833	1	07/09/2019 08:38	WG1307893
Diethyl phthalate	ND		0.833	1	07/09/2019 08:38	WG1307893
Dimethyl phthalate	ND		0.833	1	07/09/2019 08:38	WG1307893
Di-n-octyl phthalate	ND		0.833	1	07/09/2019 08:38	WG1307893
Pyrene	ND		0.0833	1	07/09/2019 08:38	WG1307893
1,2,4,5-Tetrachlorobenzene	ND	J4	0.833	1	07/09/2019 08:38	WG1307893
4-Chloro-3-methylphenol	ND	J4	0.833	1	07/09/2019 08:38	WG1307893
2-Chlorophenol	ND	J4	0.833	1	07/09/2019 08:38	WG1307893
2-Methylphenol	ND		0.833	1	07/09/2019 08:38	WG1307893
3&4-Methyl Phenol	ND		0.833	1	07/09/2019 08:38	WG1307893
2,4-Dichlorophenol	ND	J4	0.833	1	07/09/2019 08:38	WG1307893
2,4-Dimethylphenol	ND	J4	0.833	1	07/09/2019 08:38	WG1307893
4,6-Dinitro-2-methylphenol	ND		0.833	1	07/09/2019 08:38	WG1307893
2,4-Dinitrophenol	ND	J4	0.833	1	07/09/2019 08:38	WG1307893
2-Nitrophenol	ND	J4	0.833	1	07/09/2019 08:38	WG1307893
4-Nitrophenol	ND		0.833	1	07/09/2019 08:38	WG1307893
Pentachlorophenol	ND	J4	0.833	1	07/09/2019 08:38	WG1307893
Phenol	ND		0.833	1	07/09/2019 08:38	WG1307893
2,4,5-Trichlorophenol	ND		0.833	1	07/09/2019 08:38	WG1307893
2,4,6-Trichlorophenol	ND		0.833	1	07/09/2019 08:38	WG1307893
(S) 2-Fluorophenol	69.8		12.0-120		07/09/2019 08:38	WG1307893
(S) Phenol-d5	64.0		10.0-120		07/09/2019 08:38	WG1307893
(S) Nitrobenzene-d5	58.2		10.0-122		07/09/2019 08:38	WG1307893
(S) 2-Fluorobiphenyl	58.5		15.0-120		07/09/2019 08:38	WG1307893
(S) 2,4,6-Tribromophenol	66.8		10.0-127		07/09/2019 08:38	WG1307893
(S) p-Terphenyl-d14	79.9		10.0-120		07/09/2019 08:38	WG1307893

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

## Semi Volatile Organic Compounds (GC/MS) by Method 8270E-SIM

Analyte	Result (dry) mg/kg	Qualifier	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Anthracene	ND		0.0150	1	07/09/2019 17:28	WG1307909
Acenaphthene	ND		0.0150	1	07/09/2019 17:28	WG1307909
Acenaphthylene	ND		0.0150	1	07/09/2019 17:28	WG1307909
Benzo(a)anthracene	ND		0.0150	1	07/09/2019 17:28	WG1307909
Benzo(a)pyrene	ND		0.0150	1	07/09/2019 17:28	WG1307909
Benzo(b)fluoranthene	ND		0.0150	1	07/09/2019 17:28	WG1307909
Benzo(g,h,i)perylene	ND		0.0150	1	07/09/2019 17:28	WG1307909



Semi Volatile Organic Compounds (GC/MS) by Method 8270E-SIM

Analyte	Result (dry) mg/kg	Qualifier	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Benzo(k)fluoranthene	ND		0.0150	1	07/09/2019 17:28	<a href="#">WG1307909</a>
Chrysene	ND		0.0150	1	07/09/2019 17:28	<a href="#">WG1307909</a>
Dibenz(a,h)anthracene	ND		0.0150	1	07/09/2019 17:28	<a href="#">WG1307909</a>
Fluoranthene	ND		0.0150	1	07/09/2019 17:28	<a href="#">WG1307909</a>
Fluorene	0.0705		0.0150	1	07/09/2019 17:28	<a href="#">WG1307909</a>
Indeno(1,2,3-cd)pyrene	ND		0.0150	1	07/09/2019 17:28	<a href="#">WG1307909</a>
Naphthalene	ND		0.0500	1	07/09/2019 17:28	<a href="#">WG1307909</a>
Phenanthrene	0.0285		0.0150	1	07/09/2019 17:28	<a href="#">WG1307909</a>
Pyrene	ND		0.0150	1	07/09/2019 17:28	<a href="#">WG1307909</a>
1-Methylnaphthalene	0.710		0.0500	1	07/09/2019 17:28	<a href="#">WG1307909</a>
2-Methylnaphthalene	1.05		0.0500	1	07/09/2019 17:28	<a href="#">WG1307909</a>
<i>(S) p-Terphenyl-d14</i>	85.1		23.0-120		07/09/2019 17:28	<a href="#">WG1307909</a>
<i>(S) Nitrobenzene-d5</i>	126		14.0-149		07/09/2019 17:28	<a href="#">WG1307909</a>
<i>(S) 2-Fluorobiphenyl</i>	89.6		34.0-125		07/09/2019 17:28	<a href="#">WG1307909</a>

- 1 Cp
- 2 Tc
- 3 Ss
- 4 Cn
- 5 Sr
- 6 Qc
- 7 Gl
- 8 Al
- 9 Sc



Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	14.2		1	07/05/2019 17:10	<a href="#">WG1307003</a>

1 Cp

2 Tc

Wet Chemistry by Method 9012B

Analyte	Result (dry)	Qualifier	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg		date / time	
Cyanide	ND	<a href="#">J3 J6</a>	1.76	1	07/11/2019 09:46	<a href="#">WG1308669</a>

3 Ss

4 Cn

Mercury by Method 7471B

Analyte	Result (dry)	Qualifier	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg		date / time	
Mercury	ND		0.141	1	07/07/2019 13:57	<a href="#">WG1306876</a>

5 Sr

6 Qc

Metals (ICP) by Method 6010D

Analyte	Result (dry)	Qualifier	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg		date / time	
Aluminum	104000		70.3	1	07/07/2019 22:46	<a href="#">WG1306898</a>
Antimony	ND		14.1	1	07/07/2019 22:46	<a href="#">WG1306898</a>
Arsenic	16.8		14.1	1	07/07/2019 22:46	<a href="#">WG1306898</a>
Barium	346		3.51	1	07/07/2019 22:46	<a href="#">WG1306898</a>
Beryllium	ND		1.41	1	07/07/2019 22:46	<a href="#">WG1306898</a>
Cadmium	ND		3.51	1	07/07/2019 22:46	<a href="#">WG1306898</a>
Calcium	7380		703	1	07/07/2019 22:46	<a href="#">WG1306898</a>
Chromium	114		7.03	1	07/07/2019 22:46	<a href="#">WG1306898</a>
Cobalt	13.7		7.03	1	07/07/2019 22:46	<a href="#">WG1306898</a>
Copper	73.5		14.1	1	07/07/2019 22:46	<a href="#">WG1306898</a>
Iron	36800		70.3	1	07/07/2019 22:46	<a href="#">WG1306898</a>
Lead	20.4		3.51	1	07/07/2019 22:46	<a href="#">WG1306898</a>
Magnesium	2790		703	1	07/07/2019 22:46	<a href="#">WG1306898</a>
Manganese	1900		7.03	1	07/07/2019 22:46	<a href="#">WG1306898</a>
Nickel	16.4		14.1	1	07/07/2019 22:46	<a href="#">WG1306898</a>
Potassium	976		703	1	07/07/2019 22:46	<a href="#">WG1306898</a>
Selenium	ND		14.1	1	07/07/2019 22:46	<a href="#">WG1306898</a>
Silver	ND		7.03	1	07/07/2019 22:46	<a href="#">WG1306898</a>
Sodium	1300	<a href="#">B</a>	703	1	07/07/2019 22:46	<a href="#">WG1306898</a>
Thallium	ND		14.1	1	07/07/2019 22:46	<a href="#">WG1306898</a>
Vanadium	132		14.1	1	07/07/2019 22:46	<a href="#">WG1306898</a>
Zinc	102		35.1	1	07/07/2019 22:46	<a href="#">WG1306898</a>

7 Gl

8 Al

9 Sc

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result (dry)	Qualifier	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg		date / time	
Acetone	0.481		0.176	1	07/07/2019 19:28	<a href="#">WG1307049</a>
Benzene	ND		0.00703	1	07/07/2019 19:28	<a href="#">WG1307049</a>
Bromochloromethane	ND		0.0351	1	07/07/2019 19:28	<a href="#">WG1307049</a>
Bromodichloromethane	ND		0.0176	1	07/07/2019 19:28	<a href="#">WG1307049</a>
Bromoform	ND		0.176	1	07/07/2019 19:28	<a href="#">WG1307049</a>
Bromomethane	ND		0.0879	1	07/07/2019 19:28	<a href="#">WG1307049</a>
Carbon disulfide	ND		0.0879	1	07/07/2019 19:28	<a href="#">WG1307049</a>
Carbon tetrachloride	ND		0.0351	1	07/07/2019 19:28	<a href="#">WG1307049</a>
Chlorobenzene	ND		0.0176	1	07/07/2019 19:28	<a href="#">WG1307049</a>
Chlorodibromomethane	ND		0.0176	1	07/07/2019 19:28	<a href="#">WG1307049</a>
Chloroethane	ND		0.0351	1	07/07/2019 19:28	<a href="#">WG1307049</a>
Chloroform	ND		0.0176	1	07/07/2019 19:28	<a href="#">WG1307049</a>
Chloromethane	ND		0.0879	1	07/07/2019 19:28	<a href="#">WG1307049</a>



Collected date/time: 06/26/19 09:40

L1113939

## Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result (dry) mg/kg	Qualifier	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Cyclohexane	ND		0.0176	1	07/07/2019 19:28	WG1307049
1,2-Dibromo-3-Chloropropane	ND		0.176	1	07/07/2019 19:28	WG1307049
1,2-Dibromoethane	ND		0.0176	1	07/07/2019 19:28	WG1307049
Dichlorodifluoromethane	ND		0.0176	1	07/07/2019 19:28	WG1307049
1,1-Dichloroethane	ND		0.0176	1	07/07/2019 19:28	WG1307049
1,2-Dichloroethane	ND		0.0176	1	07/07/2019 19:28	WG1307049
1,2-Dichlorobenzene	ND		0.0351	1	07/07/2019 19:28	WG1307049
1,3-Dichlorobenzene	ND		0.0351	1	07/07/2019 19:28	WG1307049
1,4-Dichlorobenzene	ND		0.0351	1	07/07/2019 19:28	WG1307049
1,1-Dichloroethene	ND		0.0176	1	07/07/2019 19:28	WG1307049
cis-1,2-Dichloroethene	ND		0.0176	1	07/07/2019 19:28	WG1307049
trans-1,2-Dichloroethene	ND		0.0351	1	07/07/2019 19:28	WG1307049
1,2-Dichloropropane	ND		0.0351	1	07/07/2019 19:28	WG1307049
cis-1,3-Dichloropropene	ND		0.0176	1	07/07/2019 19:28	WG1307049
trans-1,3-Dichloropropene	ND		0.0351	1	07/07/2019 19:28	WG1307049
Ethylbenzene	ND		0.0176	1	07/07/2019 19:28	WG1307049
2-Hexanone	ND		0.176	1	07/07/2019 19:28	WG1307049
Isopropylbenzene	ND		0.0176	1	07/07/2019 19:28	WG1307049
2-Butanone (MEK)	ND		0.176	1	07/07/2019 19:28	WG1307049
Methyl Acetate	0.839		0.0351	1	07/07/2019 19:28	WG1307049
Methyl Cyclohexane	ND		0.0351	1	07/07/2019 19:28	WG1307049
Methylene Chloride	ND		0.176	1	07/07/2019 19:28	WG1307049
4-Methyl-2-pentanone (MIBK)	ND		0.176	1	07/07/2019 19:28	WG1307049
Methyl tert-butyl ether	ND		0.00703	1	07/07/2019 19:28	WG1307049
Styrene	ND		0.0879	1	07/07/2019 19:28	WG1307049
1,1,2,2-Tetrachloroethane	ND		0.0176	1	07/07/2019 19:28	WG1307049
Tetrachloroethene	ND		0.0176	1	07/07/2019 19:28	WG1307049
Toluene	ND		0.0351	1	07/07/2019 19:28	WG1307049
1,2,3-Trichlorobenzene	ND		0.0176	1	07/07/2019 19:28	WG1307049
1,2,4-Trichlorobenzene	ND		0.0879	1	07/07/2019 19:28	WG1307049
1,1,1-Trichloroethane	ND		0.0176	1	07/07/2019 19:28	WG1307049
1,1,2-Trichloroethane	ND		0.0176	1	07/07/2019 19:28	WG1307049
Trichloroethene	ND		0.00703	1	07/07/2019 19:28	WG1307049
Trichlorofluoromethane	ND		0.0176	1	07/07/2019 19:28	WG1307049
1,1,2-Trichlorotrifluoroethane	ND		0.0176	1	07/07/2019 19:28	WG1307049
Vinyl chloride	ND		0.0176	1	07/07/2019 19:28	WG1307049
Xylenes, Total	ND		0.0457	1	07/07/2019 19:28	WG1307049
(S) Toluene-d8	103		75.0-131		07/07/2019 19:28	WG1307049
(S) 4-Bromofluorobenzene	105		67.0-138		07/07/2019 19:28	WG1307049
(S) 1,2-Dichloroethane-d4	103		70.0-130		07/07/2019 19:28	WG1307049

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

## Pesticides (GC) by Method 8081B

Analyte	Result (dry) mg/kg	Qualifier	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Aldrin	ND		0.141	1	07/09/2019 19:04	WG1307387
Alpha BHC	ND		0.141	1	07/09/2019 19:04	WG1307387
Beta BHC	ND	J4	0.141	1	07/09/2019 19:04	WG1307387
Delta BHC	ND		0.141	1	07/09/2019 19:04	WG1307387
Gamma BHC	ND		0.141	1	07/09/2019 19:04	WG1307387
Chlordane	ND		1.41	1	07/09/2019 19:04	WG1307387
4,4-DDD	ND		0.141	1	07/09/2019 19:04	WG1307387
4,4-DDE	ND		0.141	1	07/09/2019 19:04	WG1307387
4,4-DDT	ND		0.141	1	07/09/2019 19:04	WG1307387
Dieldrin	ND		0.141	1	07/09/2019 19:04	WG1307387
Endosulfan I	ND		0.141	1	07/09/2019 19:04	WG1307387
Endosulfan II	ND		0.141	1	07/09/2019 19:04	WG1307387



Collected date/time: 06/26/19 09:40

L1113939

## Pesticides (GC) by Method 8081B

Analyte	Result (dry) mg/kg	Qualifier	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Endosulfan sulfate	ND		0.141	1	07/09/2019 19:04	<a href="#">WG1307387</a>
Endrin	ND		0.141	1	07/09/2019 19:04	<a href="#">WG1307387</a>
Endrin aldehyde	ND		0.141	1	07/09/2019 19:04	<a href="#">WG1307387</a>
Endrin ketone	ND		0.141	1	07/09/2019 19:04	<a href="#">WG1307387</a>
Heptachlor	ND		0.141	1	07/09/2019 19:04	<a href="#">WG1307387</a>
Heptachlor epoxide	ND		0.141	1	07/09/2019 19:04	<a href="#">WG1307387</a>
Hexachlorobenzene	ND		0.141	1	07/09/2019 19:04	<a href="#">WG1307387</a>
Methoxychlor	ND		0.141	1	07/09/2019 19:04	<a href="#">WG1307387</a>
Toxaphene	ND		2.81	1	07/09/2019 19:04	<a href="#">WG1307387</a>
(S) Decachlorobiphenyl	83.6		10.0-135		07/09/2019 19:04	<a href="#">WG1307387</a>
(S) Tetrachloro-m-xylene	84.0		10.0-139		07/09/2019 19:04	<a href="#">WG1307387</a>

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

## Polychlorinated Biphenyls (GC) by Method 8082 A

Analyte	Result (dry) mg/kg	Qualifier	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
PCB 1016	ND	J4	0.119	1	07/09/2019 18:33	<a href="#">WG1307387</a>
PCB 1221	ND		0.119	1	07/09/2019 18:33	<a href="#">WG1307387</a>
PCB 1232	ND		0.119	1	07/09/2019 18:33	<a href="#">WG1307387</a>
PCB 1242	ND		0.119	1	07/09/2019 18:33	<a href="#">WG1307387</a>
PCB 1248	ND		0.119	1	07/09/2019 18:33	<a href="#">WG1307387</a>
PCB 1254	ND		0.119	1	07/09/2019 18:33	<a href="#">WG1307387</a>
PCB 1260	ND	J4	0.119	1	07/09/2019 18:33	<a href="#">WG1307387</a>
(S) Decachlorobiphenyl	86.7		10.0-135		07/09/2019 18:33	<a href="#">WG1307387</a>
(S) Tetrachloro-m-xylene	77.3		10.0-139		07/09/2019 18:33	<a href="#">WG1307387</a>

## Semi Volatile Organic Compounds (GC/MS) by Method 8270D

Analyte	Result (dry) mg/kg	Qualifier	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Acenaphthene	ND	J4	0.234	1	07/11/2019 03:45	<a href="#">WG1308594</a>
Acenaphthylene	ND	J4	0.234	1	07/11/2019 03:45	<a href="#">WG1308594</a>
Acetophenone	ND	J4	2.34	1	07/11/2019 03:45	<a href="#">WG1308594</a>
Anthracene	ND	J4	0.234	1	07/11/2019 03:45	<a href="#">WG1308594</a>
Atrazine	ND	J4	2.34	1	07/11/2019 03:45	<a href="#">WG1308594</a>
Benzaldehyde	ND	J4	2.34	1	07/11/2019 03:45	<a href="#">WG1308594</a>
Benzo(a)anthracene	ND	J4	0.234	1	07/11/2019 03:45	<a href="#">WG1308594</a>
Benzo(b)fluoranthene	ND	J4	0.234	1	07/11/2019 03:45	<a href="#">WG1308594</a>
Benzo(k)fluoranthene	ND	J4	0.234	1	07/11/2019 03:45	<a href="#">WG1308594</a>
Benzo(g,h,i)perylene	ND		0.234	1	07/11/2019 03:45	<a href="#">WG1308594</a>
Benzo(a)pyrene	ND	J4	0.234	1	07/11/2019 03:45	<a href="#">WG1308594</a>
Biphenyl	ND	J4	2.34	1	07/11/2019 03:45	<a href="#">WG1308594</a>
Bis(2-chloroethoxy)methane	ND	J4	2.34	1	07/11/2019 03:45	<a href="#">WG1308594</a>
Bis(2-chloroethyl)ether	ND	J4	2.34	1	07/11/2019 03:45	<a href="#">WG1308594</a>
Bis(2-chloroisopropyl)ether	ND	J4	2.34	1	07/11/2019 03:45	<a href="#">WG1308594</a>
4-Bromophenyl-phenylether	ND	J4	2.34	1	07/11/2019 03:45	<a href="#">WG1308594</a>
Caprolactam	ND		2.34	1	07/11/2019 03:45	<a href="#">WG1308594</a>
Carbazole	ND	J4	2.34	1	07/11/2019 03:45	<a href="#">WG1308594</a>
4-Chloroaniline	ND	J4	2.34	1	07/11/2019 03:45	<a href="#">WG1308594</a>
2-Chloronaphthalene	ND	J4	0.234	1	07/11/2019 03:45	<a href="#">WG1308594</a>
4-Chlorophenyl-phenylether	ND	J4	2.34	1	07/11/2019 03:45	<a href="#">WG1308594</a>
Chrysene	ND	J4	0.234	1	07/11/2019 03:45	<a href="#">WG1308594</a>
Dibenz(a,h)anthracene	ND		0.234	1	07/11/2019 03:45	<a href="#">WG1308594</a>
Dibenzofuran	ND	J4	2.34	1	07/11/2019 03:45	<a href="#">WG1308594</a>
3,3-Dichlorobenzidine	ND	J4	2.34	1	07/11/2019 03:45	<a href="#">WG1308594</a>
2,4-Dinitrotoluene	ND	J4	2.34	1	07/11/2019 03:45	<a href="#">WG1308594</a>
2,6-Dinitrotoluene	ND	J4	2.34	1	07/11/2019 03:45	<a href="#">WG1308594</a>





Collected date/time: 06/26/19 09:40

L1113939

## Semi Volatile Organic Compounds (GC/MS) by Method 8270D

Analyte	Result (dry) mg/kg	Qualifier	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Fluoranthene	ND	J4	0.234	1	07/11/2019 03:45	WG1308594
Fluorene	ND	J4	0.234	1	07/11/2019 03:45	WG1308594
Hexachlorobenzene	ND	J4	2.34	1	07/11/2019 03:45	WG1308594
Hexachloro-1,3-butadiene	ND	J4	2.34	1	07/11/2019 03:45	WG1308594
Hexachlorocyclopentadiene	ND	JO J4	2.34	1	07/11/2019 03:45	WG1308594
Hexachloroethane	ND	J4	2.34	1	07/11/2019 03:45	WG1308594
Indeno(1,2,3-cd)pyrene	ND		0.234	1	07/11/2019 03:45	WG1308594
Isophorone	ND	J4	2.34	1	07/11/2019 03:45	WG1308594
2-Methylnaphthalene	ND	J4	0.234	1	07/11/2019 03:45	WG1308594
Naphthalene	ND	J4	0.234	1	07/11/2019 03:45	WG1308594
2-Nitroaniline	ND	J4	2.34	1	07/11/2019 03:45	WG1308594
3-Nitroaniline	ND	J4	2.34	1	07/11/2019 03:45	WG1308594
4-Nitroaniline	ND	J4	2.34	1	07/11/2019 03:45	WG1308594
Nitrobenzene	ND	J4	2.34	1	07/11/2019 03:45	WG1308594
n-Nitrosodiphenylamine	ND	J4	2.34	1	07/11/2019 03:45	WG1308594
n-Nitrosodi-n-propylamine	ND	J4	2.34	1	07/11/2019 03:45	WG1308594
Phenanthrene	ND	J4	0.234	1	07/11/2019 03:45	WG1308594
Benzylbutyl phthalate	ND	J4	2.34	1	07/11/2019 03:45	WG1308594
Bis(2-ethylhexyl)phthalate	ND	J4	2.34	1	07/11/2019 03:45	WG1308594
Di-n-butyl phthalate	ND		2.34	1	07/11/2019 03:45	WG1308594
Diethyl phthalate	ND	J4	2.34	1	07/11/2019 03:45	WG1308594
Dimethyl phthalate	ND	J4	2.34	1	07/11/2019 03:45	WG1308594
Di-n-octyl phthalate	ND	J4	2.34	1	07/11/2019 03:45	WG1308594
Pyrene	ND	J4	0.234	1	07/11/2019 03:45	WG1308594
1,2,4,5-Tetrachlorobenzene	ND	J4	2.34	1	07/11/2019 03:45	WG1308594
4-Chloro-3-methylphenol	ND	J4	2.34	1	07/11/2019 03:45	WG1308594
2-Chlorophenol	ND	J4	2.34	1	07/11/2019 03:45	WG1308594
2-Methylphenol	ND	J4	2.34	1	07/11/2019 03:45	WG1308594
3&4-Methyl Phenol	ND	J4	2.34	1	07/11/2019 03:45	WG1308594
2,4-Dichlorophenol	ND	J4	2.34	1	07/11/2019 03:45	WG1308594
2,4-Dimethylphenol	ND	JO J4	2.34	1	07/11/2019 03:45	WG1308594
4,6-Dinitro-2-methylphenol	ND	J4	2.34	1	07/11/2019 03:45	WG1308594
2,4-Dinitrophenol	ND	J4	2.34	1	07/11/2019 03:45	WG1308594
2-Nitrophenol	ND	J4	2.34	1	07/11/2019 03:45	WG1308594
4-Nitrophenol	ND	J4	2.34	1	07/11/2019 03:45	WG1308594
Pentachlorophenol	ND	J4	2.34	1	07/11/2019 03:45	WG1308594
Phenol	ND	J4	2.34	1	07/11/2019 03:45	WG1308594
2,4,5-Trichlorophenol	ND	J4	2.34	1	07/11/2019 03:45	WG1308594
2,4,6-Trichlorophenol	ND	J4	2.34	1	07/11/2019 03:45	WG1308594
(S) 2-Fluorophenol	33.0		12.0-120		07/11/2019 03:45	WG1308594
(S) Phenol-d5	29.8		10.0-120		07/11/2019 03:45	WG1308594
(S) Nitrobenzene-d5	25.0		10.0-122		07/11/2019 03:45	WG1308594
(S) 2-Fluorobiphenyl	26.6		15.0-120		07/11/2019 03:45	WG1308594
(S) 2,4,6-Tribromophenol	39.1		10.0-127		07/11/2019 03:45	WG1308594
(S) p-Terphenyl-d14	33.9		10.0-120		07/11/2019 03:45	WG1308594

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

## Semi Volatile Organic Compounds (GC/MS) by Method 8270E-SIM

Analyte	Result (dry) mg/kg	Qualifier	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Anthracene	ND		0.0422	1	07/09/2019 17:48	WG1307909
Acenaphthene	ND		0.0422	1	07/09/2019 17:48	WG1307909
Acenaphthylene	ND		0.0422	1	07/09/2019 17:48	WG1307909
Benzo(a)anthracene	ND		0.0422	1	07/09/2019 17:48	WG1307909
Benzo(a)pyrene	ND		0.0422	1	07/09/2019 17:48	WG1307909
Benzo(b)fluoranthene	ND		0.0422	1	07/09/2019 17:48	WG1307909
Benzo(g,h,i)perylene	ND		0.0422	1	07/09/2019 17:48	WG1307909



Collected date/time: 06/26/19 09:40

L1113939

Semi Volatile Organic Compounds (GC/MS) by Method 8270E-SIM

Analyte	Result (dry) mg/kg	Qualifier	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Benzo(k)fluoranthene	ND		0.0422	1	07/09/2019 17:48	<a href="#">WG1307909</a>
Chrysene	ND		0.0422	1	07/09/2019 17:48	<a href="#">WG1307909</a>
Dibenz(a,h)anthracene	ND		0.0422	1	07/09/2019 17:48	<a href="#">WG1307909</a>
Fluoranthene	ND		0.0422	1	07/09/2019 17:48	<a href="#">WG1307909</a>
Fluorene	ND		0.0422	1	07/09/2019 17:48	<a href="#">WG1307909</a>
Indeno(1,2,3-cd)pyrene	ND		0.0422	1	07/09/2019 17:48	<a href="#">WG1307909</a>
Naphthalene	ND		0.141	1	07/09/2019 17:48	<a href="#">WG1307909</a>
Phenanthrene	ND		0.0422	1	07/09/2019 17:48	<a href="#">WG1307909</a>
Pyrene	ND		0.0422	1	07/09/2019 17:48	<a href="#">WG1307909</a>
1-Methylnaphthalene	ND		0.141	1	07/09/2019 17:48	<a href="#">WG1307909</a>
2-Methylnaphthalene	ND		0.141	1	07/09/2019 17:48	<a href="#">WG1307909</a>
(S) p-Terphenyl-d14	91.1		23.0-120		07/09/2019 17:48	<a href="#">WG1307909</a>
(S) Nitrobenzene-d5	88.0		14.0-149		07/09/2019 17:48	<a href="#">WG1307909</a>
(S) 2-Fluorobiphenyl	86.9		34.0-125		07/09/2019 17:48	<a href="#">WG1307909</a>

- 1 Cp
- 2 Tc
- 3 Ss
- 4 Cn
- 5 Sr
- 6 Qc
- 7 Gl
- 8 Al
- 9 Sc



## Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	11.2		1	07/06/2019 15:21	<a href="#">WG1307004</a>

## Wet Chemistry by Method 9012B

Analyte	Result (dry)	Qualifier	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg		date / time	
Cyanide	ND		2.24	1	07/11/2019 09:52	<a href="#">WG1308669</a>

## Mercury by Method 7471B

Analyte	Result (dry)	Qualifier	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg		date / time	
Mercury	0.789		0.179	1	07/07/2019 14:00	<a href="#">WG1306876</a>

## Metals (ICP) by Method 6010D

Analyte	Result (dry)	Qualifier	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg		date / time	
Aluminum	5520		89.5	1	07/07/2019 22:48	<a href="#">WG1306898</a>
Antimony	ND		17.9	1	07/07/2019 22:48	<a href="#">WG1306898</a>
Arsenic	ND		17.9	1	07/07/2019 22:48	<a href="#">WG1306898</a>
Barium	89.2		4.47	1	07/07/2019 22:48	<a href="#">WG1306898</a>
Beryllium	ND		1.79	1	07/07/2019 22:48	<a href="#">WG1306898</a>
Cadmium	ND		4.47	1	07/07/2019 22:48	<a href="#">WG1306898</a>
Calcium	67600		895	1	07/07/2019 22:48	<a href="#">WG1306898</a>
Chromium	19.3		8.95	1	07/07/2019 22:48	<a href="#">WG1306898</a>
Cobalt	ND		8.95	1	07/07/2019 22:48	<a href="#">WG1306898</a>
Copper	89.0		17.9	1	07/07/2019 22:48	<a href="#">WG1306898</a>
Iron	3830		89.5	1	07/07/2019 22:48	<a href="#">WG1306898</a>
Lead	65.9		4.47	1	07/07/2019 22:48	<a href="#">WG1306898</a>
Magnesium	ND		895	1	07/07/2019 22:48	<a href="#">WG1306898</a>
Manganese	770		8.95	1	07/07/2019 22:48	<a href="#">WG1306898</a>
Nickel	20.0		17.9	1	07/07/2019 22:48	<a href="#">WG1306898</a>
Potassium	ND		895	1	07/07/2019 22:48	<a href="#">WG1306898</a>
Selenium	ND		17.9	1	07/07/2019 22:48	<a href="#">WG1306898</a>
Silver	ND		8.95	1	07/07/2019 22:48	<a href="#">WG1306898</a>
Sodium	2630		895	1	07/07/2019 22:48	<a href="#">WG1306898</a>
Thallium	ND		17.9	1	07/07/2019 22:48	<a href="#">WG1306898</a>
Vanadium	45.1		17.9	1	07/07/2019 22:48	<a href="#">WG1306898</a>
Zinc	762		44.7	1	07/07/2019 22:48	<a href="#">WG1306898</a>

## Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result (dry)	Qualifier	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg		date / time	
Acetone	0.470		0.224	1	07/07/2019 19:48	<a href="#">WG1307049</a>
Benzene	ND		0.00895	1	07/07/2019 19:48	<a href="#">WG1307049</a>
Bromochloromethane	ND		0.0447	1	07/07/2019 19:48	<a href="#">WG1307049</a>
Bromodichloromethane	ND		0.0224	1	07/07/2019 19:48	<a href="#">WG1307049</a>
Bromoform	ND		0.224	1	07/07/2019 19:48	<a href="#">WG1307049</a>
Bromomethane	ND		0.112	1	07/07/2019 19:48	<a href="#">WG1307049</a>
Carbon disulfide	ND		0.112	1	07/07/2019 19:48	<a href="#">WG1307049</a>
Carbon tetrachloride	ND		0.0447	1	07/07/2019 19:48	<a href="#">WG1307049</a>
Chlorobenzene	ND		0.0224	1	07/07/2019 19:48	<a href="#">WG1307049</a>
Chlorodibromomethane	ND		0.0224	1	07/07/2019 19:48	<a href="#">WG1307049</a>
Chloroethane	ND		0.0447	1	07/07/2019 19:48	<a href="#">WG1307049</a>
Chloroform	ND		0.0224	1	07/07/2019 19:48	<a href="#">WG1307049</a>
Chloromethane	ND		0.112	1	07/07/2019 19:48	<a href="#">WG1307049</a>

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc



Collected date/time: 06/26/19 15:48

L1113939

## Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result (dry) mg/kg	Qualifier	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Cyclohexane	ND		0.0224	1	07/07/2019 19:48	WG1307049
1,2-Dibromo-3-Chloropropane	ND		0.224	1	07/07/2019 19:48	WG1307049
1,2-Dibromoethane	ND		0.0224	1	07/07/2019 19:48	WG1307049
Dichlorodifluoromethane	ND		0.0224	1	07/07/2019 19:48	WG1307049
1,1-Dichloroethane	ND		0.0224	1	07/07/2019 19:48	WG1307049
1,2-Dichloroethane	ND		0.0224	1	07/07/2019 19:48	WG1307049
1,2-Dichlorobenzene	ND		0.0447	1	07/07/2019 19:48	WG1307049
1,3-Dichlorobenzene	ND		0.0447	1	07/07/2019 19:48	WG1307049
1,4-Dichlorobenzene	ND		0.0447	1	07/07/2019 19:48	WG1307049
1,1-Dichloroethene	ND		0.0224	1	07/07/2019 19:48	WG1307049
cis-1,2-Dichloroethene	ND		0.0224	1	07/07/2019 19:48	WG1307049
trans-1,2-Dichloroethene	ND		0.0447	1	07/07/2019 19:48	WG1307049
1,2-Dichloropropane	ND		0.0447	1	07/07/2019 19:48	WG1307049
cis-1,3-Dichloropropene	ND		0.0224	1	07/07/2019 19:48	WG1307049
trans-1,3-Dichloropropene	ND		0.0447	1	07/07/2019 19:48	WG1307049
Ethylbenzene	ND		0.0224	1	07/07/2019 19:48	WG1307049
2-Hexanone	ND		0.224	1	07/07/2019 19:48	WG1307049
Isopropylbenzene	0.126		0.0224	1	07/07/2019 19:48	WG1307049
2-Butanone (MEK)	ND		0.224	1	07/07/2019 19:48	WG1307049
Methyl Acetate	0.798		0.0447	1	07/07/2019 19:48	WG1307049
Methyl Cyclohexane	0.239		0.0447	1	07/07/2019 19:48	WG1307049
Methylene Chloride	ND		0.224	1	07/07/2019 19:48	WG1307049
4-Methyl-2-pentanone (MIBK)	ND		0.224	1	07/07/2019 19:48	WG1307049
Methyl tert-butyl ether	ND		0.00895	1	07/07/2019 19:48	WG1307049
Styrene	ND		0.112	1	07/07/2019 19:48	WG1307049
1,1,2,2-Tetrachloroethane	ND		0.0224	1	07/07/2019 19:48	WG1307049
Tetrachloroethene	ND		0.0224	1	07/07/2019 19:48	WG1307049
Toluene	ND		0.0447	1	07/07/2019 19:48	WG1307049
1,2,3-Trichlorobenzene	ND		0.0224	1	07/07/2019 19:48	WG1307049
1,2,4-Trichlorobenzene	ND		0.112	1	07/07/2019 19:48	WG1307049
1,1,1-Trichloroethane	ND		0.0224	1	07/07/2019 19:48	WG1307049
1,1,2-Trichloroethane	ND		0.0224	1	07/07/2019 19:48	WG1307049
Trichloroethene	ND		0.00895	1	07/07/2019 19:48	WG1307049
Trichlorofluoromethane	ND		0.0224	1	07/07/2019 19:48	WG1307049
1,1,2-Trichlorotrifluoroethane	ND		0.0224	1	07/07/2019 19:48	WG1307049
Vinyl chloride	ND		0.0224	1	07/07/2019 19:48	WG1307049
Xylenes, Total	ND		0.0582	1	07/07/2019 19:48	WG1307049
(S) Toluene-d8	102		75.0-131		07/07/2019 19:48	WG1307049
(S) 4-Bromofluorobenzene	105		67.0-138		07/07/2019 19:48	WG1307049
(S) 1,2-Dichloroethane-d4	101		70.0-130		07/07/2019 19:48	WG1307049

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

## Pesticides (GC) by Method 8081B

Analyte	Result (dry) mg/kg	Qualifier	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Aldrin	ND		0.179	1	07/09/2019 19:17	WG1307387
Alpha BHC	ND		0.179	1	07/09/2019 19:17	WG1307387
Beta BHC	ND	J4	0.179	1	07/09/2019 19:17	WG1307387
Delta BHC	ND		0.179	1	07/09/2019 19:17	WG1307387
Gamma BHC	ND		0.179	1	07/09/2019 19:17	WG1307387
Chlordane	ND		1.79	1	07/09/2019 19:17	WG1307387
4,4-DDD	ND		0.179	1	07/09/2019 19:17	WG1307387
4,4-DDE	ND		0.179	1	07/09/2019 19:17	WG1307387
4,4-DDT	ND		0.179	1	07/09/2019 19:17	WG1307387
Dieldrin	ND		0.179	1	07/09/2019 19:17	WG1307387
Endosulfan I	ND		0.179	1	07/09/2019 19:17	WG1307387
Endosulfan II	ND		0.179	1	07/09/2019 19:17	WG1307387



Collected date/time: 06/26/19 15:48

L1113939

Pesticides (GC) by Method 8081B

Analyte	Result (dry) mg/kg	Qualifier	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Endosulfan sulfate	ND		0.179	1	07/09/2019 19:17	<a href="#">WG1307387</a>
Endrin	ND		0.179	1	07/09/2019 19:17	<a href="#">WG1307387</a>
Endrin aldehyde	ND		0.179	1	07/09/2019 19:17	<a href="#">WG1307387</a>
Endrin ketone	ND		0.179	1	07/09/2019 19:17	<a href="#">WG1307387</a>
Heptachlor	ND		0.179	1	07/09/2019 19:17	<a href="#">WG1307387</a>
Heptachlor epoxide	ND		0.179	1	07/09/2019 19:17	<a href="#">WG1307387</a>
Hexachlorobenzene	ND		0.179	1	07/09/2019 19:17	<a href="#">WG1307387</a>
Methoxychlor	ND		0.179	1	07/09/2019 19:17	<a href="#">WG1307387</a>
Toxaphene	ND		3.58	1	07/09/2019 19:17	<a href="#">WG1307387</a>
(S) Decachlorobiphenyl	88.9		10.0-135		07/09/2019 19:17	<a href="#">WG1307387</a>
(S) Tetrachloro-m-xylene	80.1		10.0-139		07/09/2019 19:17	<a href="#">WG1307387</a>

- 1 Cp
- 2 Tc
- 3 Ss
- 4 Cn
- 5 Sr
- 6 Qc
- 7 Gl
- 8 Al
- 9 Sc

Polychlorinated Biphenyls (GC) by Method 8082 A

Analyte	Result (dry) mg/kg	Qualifier	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
PCB 1016	ND	J4	0.152	1	07/09/2019 18:45	<a href="#">WG1307387</a>
PCB 1221	ND		0.152	1	07/09/2019 18:45	<a href="#">WG1307387</a>
PCB 1232	ND		0.152	1	07/09/2019 18:45	<a href="#">WG1307387</a>
PCB 1242	ND		0.152	1	07/09/2019 18:45	<a href="#">WG1307387</a>
PCB 1248	ND		0.152	1	07/09/2019 18:45	<a href="#">WG1307387</a>
PCB 1254	ND		0.152	1	07/09/2019 18:45	<a href="#">WG1307387</a>
PCB 1260	ND	J4	0.152	1	07/09/2019 18:45	<a href="#">WG1307387</a>
(S) Decachlorobiphenyl	86.8		10.0-135		07/09/2019 18:45	<a href="#">WG1307387</a>
(S) Tetrachloro-m-xylene	78.8		10.0-139		07/09/2019 18:45	<a href="#">WG1307387</a>

Semi Volatile Organic Compounds (GC/MS) by Method 8270D

Analyte	Result (dry) mg/kg	Qualifier	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Acenaphthene	ND	J4	59.6	200	07/12/2019 13:14	<a href="#">WG1308594</a>
Acenaphthylene	ND	J4	59.6	200	07/12/2019 13:14	<a href="#">WG1308594</a>
Acetophenone	ND	J4	596	200	07/12/2019 13:14	<a href="#">WG1308594</a>
Anthracene	ND	J4	59.6	200	07/12/2019 13:14	<a href="#">WG1308594</a>
Atrazine	ND	J4	596	200	07/12/2019 13:14	<a href="#">WG1308594</a>
Benzaldehyde	ND	J4	596	200	07/12/2019 13:14	<a href="#">WG1308594</a>
Benzo(a)anthracene	ND	J4	59.6	200	07/12/2019 13:14	<a href="#">WG1308594</a>
Benzo(b)fluoranthene	ND	J4	59.6	200	07/12/2019 13:14	<a href="#">WG1308594</a>
Benzo(k)fluoranthene	ND	J4	59.6	200	07/12/2019 13:14	<a href="#">WG1308594</a>
Benzo(g,h,i)perylene	ND		59.6	200	07/12/2019 13:14	<a href="#">WG1308594</a>
Benzo(a)pyrene	ND	J4	59.6	200	07/12/2019 13:14	<a href="#">WG1308594</a>
Biphenyl	ND	J4	596	200	07/12/2019 13:14	<a href="#">WG1308594</a>
Bis(2-chloroethoxy)methane	ND	J4	596	200	07/12/2019 13:14	<a href="#">WG1308594</a>
Bis(2-chloroethyl)ether	ND	J4	596	200	07/12/2019 13:14	<a href="#">WG1308594</a>
Bis(2-chloroisopropyl)ether	ND	J4	596	200	07/12/2019 13:14	<a href="#">WG1308594</a>
4-Bromophenyl-phenylether	ND	J4	596	200	07/12/2019 13:14	<a href="#">WG1308594</a>
Caprolactam	ND		596	200	07/12/2019 13:14	<a href="#">WG1308594</a>
Carbazole	ND	J4	596	200	07/12/2019 13:14	<a href="#">WG1308594</a>
4-Chloroaniline	ND	J4	596	200	07/12/2019 13:14	<a href="#">WG1308594</a>
2-Chloronaphthalene	ND	J4	59.6	200	07/12/2019 13:14	<a href="#">WG1308594</a>
4-Chlorophenyl-phenylether	ND	J4	596	200	07/12/2019 13:14	<a href="#">WG1308594</a>
Chrysene	ND	J4	59.6	200	07/12/2019 13:14	<a href="#">WG1308594</a>
Dibenz(a,h)anthracene	ND		59.6	200	07/12/2019 13:14	<a href="#">WG1308594</a>
Dibenzofuran	ND	J4	596	200	07/12/2019 13:14	<a href="#">WG1308594</a>
3,3-Dichlorobenzidine	ND	J4	596	200	07/12/2019 13:14	<a href="#">WG1308594</a>
2,4-Dinitrotoluene	ND	J4	596	200	07/12/2019 13:14	<a href="#">WG1308594</a>
2,6-Dinitrotoluene	ND	J4	596	200	07/12/2019 13:14	<a href="#">WG1308594</a>



Semi Volatile Organic Compounds (GC/MS) by Method 8270D

Analyte	Result (dry) mg/kg	Qualifier	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Fluoranthene	ND	J4	59.6	200	07/12/2019 13:14	WG1308594
Fluorene	ND	J4	59.6	200	07/12/2019 13:14	WG1308594
Hexachlorobenzene	ND	J4	596	200	07/12/2019 13:14	WG1308594
Hexachloro-1,3-butadiene	ND	J4	596	200	07/12/2019 13:14	WG1308594
Hexachlorocyclopentadiene	ND	J4	596	200	07/12/2019 13:14	WG1308594
Hexachloroethane	ND	J4	596	200	07/12/2019 13:14	WG1308594
Indeno(1,2,3-cd)pyrene	ND	J4	59.6	200	07/12/2019 13:14	WG1308594
Isophorone	ND	J4	596	200	07/12/2019 13:14	WG1308594
2-Methylnaphthalene	ND	J4	59.6	200	07/12/2019 13:14	WG1308594
Naphthalene	ND	J4	59.6	200	07/12/2019 13:14	WG1308594
2-Nitroaniline	ND	J4	596	200	07/12/2019 13:14	WG1308594
3-Nitroaniline	ND	J4	596	200	07/12/2019 13:14	WG1308594
4-Nitroaniline	ND	J4	596	200	07/12/2019 13:14	WG1308594
Nitrobenzene	ND	J4	596	200	07/12/2019 13:14	WG1308594
n-Nitrosodiphenylamine	ND	J4	596	200	07/12/2019 13:14	WG1308594
n-Nitrosodi-n-propylamine	ND	J4	596	200	07/12/2019 13:14	WG1308594
Phenanthrene	ND	J4	59.6	200	07/12/2019 13:14	WG1308594
Benzylbutyl phthalate	ND	J4	596	200	07/12/2019 13:14	WG1308594
Bis(2-ethylhexyl)phthalate	ND	J4	596	200	07/12/2019 13:14	WG1308594
Di-n-butyl phthalate	ND	J4	596	200	07/12/2019 13:14	WG1308594
Diethyl phthalate	ND	J4	596	200	07/12/2019 13:14	WG1308594
Dimethyl phthalate	ND	J4	596	200	07/12/2019 13:14	WG1308594
Di-n-octyl phthalate	ND	J4	596	200	07/12/2019 13:14	WG1308594
Pyrene	ND	J4	59.6	200	07/12/2019 13:14	WG1308594
1,2,4,5-Tetrachlorobenzene	ND	J4	596	200	07/12/2019 13:14	WG1308594
4-Chloro-3-methylphenol	ND	J4	596	200	07/12/2019 13:14	WG1308594
2-Chlorophenol	ND	J4	596	200	07/12/2019 13:14	WG1308594
2-Methylphenol	ND	J4	596	200	07/12/2019 13:14	WG1308594
3&4-Methyl Phenol	ND	J4	596	200	07/12/2019 13:14	WG1308594
2,4-Dichlorophenol	ND	J4	596	200	07/12/2019 13:14	WG1308594
2,4-Dimethylphenol	ND	J4	596	200	07/12/2019 13:14	WG1308594
4,6-Dinitro-2-methylphenol	ND	J4	596	200	07/12/2019 13:14	WG1308594
2,4-Dinitrophenol	ND	J4	596	200	07/12/2019 13:14	WG1308594
2-Nitrophenol	ND	J4	596	200	07/12/2019 13:14	WG1308594
4-Nitrophenol	ND	J4	596	200	07/12/2019 13:14	WG1308594
Pentachlorophenol	ND	J4	596	200	07/12/2019 13:14	WG1308594
Phenol	ND	J4	596	200	07/12/2019 13:14	WG1308594
2,4,5-Trichlorophenol	ND	J4	596	200	07/12/2019 13:14	WG1308594
2,4,6-Trichlorophenol	ND	J4	596	200	07/12/2019 13:14	WG1308594
(S) 2-Fluorophenol	0.000	J7	12.0-120		07/12/2019 13:14	WG1308594
(S) Phenol-d5	0.000	J7	10.0-120		07/12/2019 13:14	WG1308594
(S) Nitrobenzene-d5	0.000	J7	10.0-122		07/12/2019 13:14	WG1308594
(S) 2-Fluorobiphenyl	0.000	J7	15.0-120		07/12/2019 13:14	WG1308594
(S) 2,4,6-Tribromophenol	0.000	J7	10.0-127		07/12/2019 13:14	WG1308594
(S) p-Terphenyl-d14	0.000	J7	10.0-120		07/12/2019 13:14	WG1308594

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

Sample Narrative:

L1113939-15 WG1308594: Dilution due to viscosity.

Semi Volatile Organic Compounds (GC/MS) by Method 8270E-SIM

Analyte	Result (dry) mg/kg	Qualifier	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Anthracene	ND		0.0537	1	07/09/2019 18:09	WG1307909
Acenaphthene	ND		0.0537	1	07/09/2019 18:09	WG1307909
Acenaphthylene	ND		0.0537	1	07/09/2019 18:09	WG1307909
Benzo(a)anthracene	ND		0.0537	1	07/09/2019 18:09	WG1307909



Semi Volatile Organic Compounds (GC/MS) by Method 8270E-SIM

Analyte	Result (dry) mg/kg	Qualifier	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Benzo(a)pyrene	ND		0.0537	1	07/09/2019 18:09	<a href="#">WG1307909</a>
Benzo(b)fluoranthene	ND		0.0537	1	07/09/2019 18:09	<a href="#">WG1307909</a>
Benzo(g,h,i)perylene	ND		0.0537	1	07/09/2019 18:09	<a href="#">WG1307909</a>
Benzo(k)fluoranthene	ND		0.0537	1	07/09/2019 18:09	<a href="#">WG1307909</a>
Chrysene	ND		0.0537	1	07/09/2019 18:09	<a href="#">WG1307909</a>
Dibenz(a,h)anthracene	ND		0.0537	1	07/09/2019 18:09	<a href="#">WG1307909</a>
Fluoranthene	ND		0.0537	1	07/09/2019 18:09	<a href="#">WG1307909</a>
Fluorene	0.115		0.0537	1	07/09/2019 18:09	<a href="#">WG1307909</a>
Indeno(1,2,3-cd)pyrene	ND		0.0537	1	07/09/2019 18:09	<a href="#">WG1307909</a>
Naphthalene	ND		0.179	1	07/09/2019 18:09	<a href="#">WG1307909</a>
Phenanthrene	ND		0.0537	1	07/09/2019 18:09	<a href="#">WG1307909</a>
Pyrene	ND		0.0537	1	07/09/2019 18:09	<a href="#">WG1307909</a>
1-Methylnaphthalene	1.50		0.179	1	07/09/2019 18:09	<a href="#">WG1307909</a>
2-Methylnaphthalene	2.08		0.179	1	07/09/2019 18:09	<a href="#">WG1307909</a>
(S) p-Terphenyl-d14	87.3		23.0-120		07/09/2019 18:09	<a href="#">WG1307909</a>
(S) Nitrobenzene-d5	113		14.0-149		07/09/2019 18:09	<a href="#">WG1307909</a>
(S) 2-Fluorobiphenyl	88.3		34.0-125		07/09/2019 18:09	<a href="#">WG1307909</a>

- 1 Cp
- 2 Tc
- 3 Ss
- 4 Cn
- 5 Sr
- 6 Qc
- 7 Gl
- 8 Al
- 9 Sc





## Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	22.4		1	07/06/2019 15:21	<a href="#">WG1307004</a>

## Wet Chemistry by Method 9012B

Analyte	Result (dry)	Qualifier	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg		date / time	
Cyanide	ND		1.12	1	07/11/2019 09:53	<a href="#">WG1308669</a>

## Mercury by Method 7471B

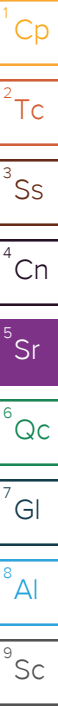
Analyte	Result (dry)	Qualifier	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg		date / time	
Mercury	ND		0.0892	1	07/07/2019 14:07	<a href="#">WG1306876</a>

## Metals (ICP) by Method 6010D

Analyte	Result (dry)	Qualifier	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg		date / time	
Aluminum	64200		44.6	1	07/07/2019 22:51	<a href="#">WG1306898</a>
Antimony	ND		8.92	1	07/07/2019 22:51	<a href="#">WG1306898</a>
Arsenic	21.6		8.92	1	07/07/2019 22:51	<a href="#">WG1306898</a>
Barium	100		2.23	1	07/07/2019 22:51	<a href="#">WG1306898</a>
Beryllium	ND		0.892	1	07/07/2019 22:51	<a href="#">WG1306898</a>
Cadmium	ND		2.23	1	07/07/2019 22:51	<a href="#">WG1306898</a>
Calcium	7760		446	1	07/07/2019 22:51	<a href="#">WG1306898</a>
Chromium	122		4.46	1	07/07/2019 22:51	<a href="#">WG1306898</a>
Cobalt	17.0		4.46	1	07/07/2019 22:51	<a href="#">WG1306898</a>
Copper	75.5		8.92	1	07/07/2019 22:51	<a href="#">WG1306898</a>
Iron	39700		44.6	1	07/07/2019 22:51	<a href="#">WG1306898</a>
Lead	32.5		2.23	1	07/07/2019 22:51	<a href="#">WG1306898</a>
Magnesium	2460		446	1	07/07/2019 22:51	<a href="#">WG1306898</a>
Manganese	735		4.46	1	07/07/2019 22:51	<a href="#">WG1306898</a>
Nickel	22.0		8.92	1	07/07/2019 22:51	<a href="#">WG1306898</a>
Potassium	1150		446	1	07/07/2019 22:51	<a href="#">WG1306898</a>
Selenium	ND		8.92	1	07/07/2019 22:51	<a href="#">WG1306898</a>
Silver	ND		4.46	1	07/07/2019 22:51	<a href="#">WG1306898</a>
Sodium	5020		446	1	07/07/2019 22:51	<a href="#">WG1306898</a>
Thallium	ND		8.92	1	07/07/2019 22:51	<a href="#">WG1306898</a>
Vanadium	121		8.92	1	07/07/2019 22:51	<a href="#">WG1306898</a>
Zinc	125		22.3	1	07/07/2019 22:51	<a href="#">WG1306898</a>

## Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result (dry)	Qualifier	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg		date / time	
Acetone	0.145		0.120	1.07	07/07/2019 20:08	<a href="#">WG1307049</a>
Benzene	ND		0.00477	1.07	07/07/2019 20:08	<a href="#">WG1307049</a>
Bromochloromethane	ND		0.0239	1.07	07/07/2019 20:08	<a href="#">WG1307049</a>
Bromodichloromethane	ND		0.0120	1.07	07/07/2019 20:08	<a href="#">WG1307049</a>
Bromoform	ND		0.120	1.07	07/07/2019 20:08	<a href="#">WG1307049</a>
Bromomethane	ND		0.0598	1.07	07/07/2019 20:08	<a href="#">WG1307049</a>
Carbon disulfide	0.0667		0.0598	1.07	07/07/2019 20:08	<a href="#">WG1307049</a>
Carbon tetrachloride	ND		0.0239	1.07	07/07/2019 20:08	<a href="#">WG1307049</a>
Chlorobenzene	ND		0.0120	1.07	07/07/2019 20:08	<a href="#">WG1307049</a>
Chlorodibromomethane	ND		0.0120	1.07	07/07/2019 20:08	<a href="#">WG1307049</a>
Chloroethane	ND		0.0239	1.07	07/07/2019 20:08	<a href="#">WG1307049</a>
Chloroform	ND		0.0120	1.07	07/07/2019 20:08	<a href="#">WG1307049</a>
Chloromethane	ND		0.0598	1.07	07/07/2019 20:08	<a href="#">WG1307049</a>





Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result (dry) mg/kg	Qualifier	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Cyclohexane	ND		0.0120	1.07	07/07/2019 20:08	WG1307049
1,2-Dibromo-3-Chloropropane	ND		0.120	1.07	07/07/2019 20:08	WG1307049
1,2-Dibromoethane	ND		0.0120	1.07	07/07/2019 20:08	WG1307049
Dichlorodifluoromethane	ND		0.0120	1.07	07/07/2019 20:08	WG1307049
1,1-Dichloroethane	ND		0.0120	1.07	07/07/2019 20:08	WG1307049
1,2-Dichloroethane	ND		0.0120	1.07	07/07/2019 20:08	WG1307049
1,2-Dichlorobenzene	ND		0.0239	1.07	07/07/2019 20:08	WG1307049
1,3-Dichlorobenzene	ND		0.0239	1.07	07/07/2019 20:08	WG1307049
1,4-Dichlorobenzene	ND		0.0239	1.07	07/07/2019 20:08	WG1307049
1,1-Dichloroethene	ND		0.0120	1.07	07/07/2019 20:08	WG1307049
cis-1,2-Dichloroethene	ND		0.0120	1.07	07/07/2019 20:08	WG1307049
trans-1,2-Dichloroethene	ND		0.0239	1.07	07/07/2019 20:08	WG1307049
1,2-Dichloropropane	ND		0.0239	1.07	07/07/2019 20:08	WG1307049
cis-1,3-Dichloropropene	ND		0.0120	1.07	07/07/2019 20:08	WG1307049
trans-1,3-Dichloropropene	ND		0.0239	1.07	07/07/2019 20:08	WG1307049
Ethylbenzene	ND		0.0120	1.07	07/07/2019 20:08	WG1307049
2-Hexanone	ND		0.120	1.07	07/07/2019 20:08	WG1307049
Isopropylbenzene	ND		0.0120	1.07	07/07/2019 20:08	WG1307049
2-Butanone (MEK)	ND		0.120	1.07	07/07/2019 20:08	WG1307049
Methyl Acetate	0.605		0.0239	1.07	07/07/2019 20:08	WG1307049
Methyl Cyclohexane	ND		0.0239	1.07	07/07/2019 20:08	WG1307049
Methylene Chloride	ND		0.120	1.07	07/07/2019 20:08	WG1307049
4-Methyl-2-pentanone (MIBK)	ND		0.120	1.07	07/07/2019 20:08	WG1307049
Methyl tert-butyl ether	ND		0.00477	1.07	07/07/2019 20:08	WG1307049
Styrene	ND		0.0598	1.07	07/07/2019 20:08	WG1307049
1,1,2,2-Tetrachloroethane	ND		0.0120	1.07	07/07/2019 20:08	WG1307049
Tetrachloroethene	ND		0.0120	1.07	07/07/2019 20:08	WG1307049
Toluene	ND		0.0239	1.07	07/07/2019 20:08	WG1307049
1,2,3-Trichlorobenzene	ND		0.0120	1.07	07/07/2019 20:08	WG1307049
1,2,4-Trichlorobenzene	ND		0.0598	1.07	07/07/2019 20:08	WG1307049
1,1,1-Trichloroethane	ND		0.0120	1.07	07/07/2019 20:08	WG1307049
1,1,2-Trichloroethane	ND		0.0120	1.07	07/07/2019 20:08	WG1307049
Trichloroethene	ND		0.00477	1.07	07/07/2019 20:08	WG1307049
Trichlorofluoromethane	ND		0.0120	1.07	07/07/2019 20:08	WG1307049
1,1,2-Trichlorotrifluoroethane	ND		0.0120	1.07	07/07/2019 20:08	WG1307049
Vinyl chloride	ND		0.0120	1.07	07/07/2019 20:08	WG1307049
Xylenes, Total	ND		0.0310	1.07	07/07/2019 20:08	WG1307049
(S) Toluene-d8	104		75.0-131		07/07/2019 20:08	WG1307049
(S) 4-Bromofluorobenzene	104		67.0-138		07/07/2019 20:08	WG1307049
(S) 1,2-Dichloroethane-d4	102		70.0-130		07/07/2019 20:08	WG1307049

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

Pesticides (GC) by Method 8081B

Analyte	Result (dry) mg/kg	Qualifier	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Aldrin	ND		0.0892	1	07/09/2019 19:29	WG1307387
Alpha BHC	ND		0.0892	1	07/09/2019 19:29	WG1307387
Beta BHC	ND	J4	0.0892	1	07/09/2019 19:29	WG1307387
Delta BHC	ND		0.0892	1	07/09/2019 19:29	WG1307387
Gamma BHC	ND		0.0892	1	07/09/2019 19:29	WG1307387
Chlordane	ND		0.892	1	07/09/2019 19:29	WG1307387
4,4-DDD	ND		0.0892	1	07/09/2019 19:29	WG1307387
4,4-DDE	ND		0.0892	1	07/09/2019 19:29	WG1307387
4,4-DDT	ND		0.0892	1	07/09/2019 19:29	WG1307387
Dieldrin	ND		0.0892	1	07/09/2019 19:29	WG1307387
Endosulfan I	ND		0.0892	1	07/09/2019 19:29	WG1307387
Endosulfan II	ND		0.0892	1	07/09/2019 19:29	WG1307387



Collected date/time: 06/26/19 13:58

L1113939

## Pesticides (GC) by Method 8081B

Analyte	Result (dry) mg/kg	Qualifier	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Endosulfan sulfate	ND		0.0892	1	07/09/2019 19:29	<a href="#">WG1307387</a>
Endrin	ND		0.0892	1	07/09/2019 19:29	<a href="#">WG1307387</a>
Endrin aldehyde	ND		0.0892	1	07/09/2019 19:29	<a href="#">WG1307387</a>
Endrin ketone	ND		0.0892	1	07/09/2019 19:29	<a href="#">WG1307387</a>
Heptachlor	ND		0.0892	1	07/09/2019 19:29	<a href="#">WG1307387</a>
Heptachlor epoxide	ND		0.0892	1	07/09/2019 19:29	<a href="#">WG1307387</a>
Hexachlorobenzene	ND		0.0892	1	07/09/2019 19:29	<a href="#">WG1307387</a>
Methoxychlor	ND		0.0892	1	07/09/2019 19:29	<a href="#">WG1307387</a>
Toxaphene	ND		1.78	1	07/09/2019 19:29	<a href="#">WG1307387</a>
(S) Decachlorobiphenyl	92.5		10.0-135		07/09/2019 19:29	<a href="#">WG1307387</a>
(S) Tetrachloro-m-xylene	133		10.0-139		07/09/2019 19:29	<a href="#">WG1307387</a>

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

## Polychlorinated Biphenyls (GC) by Method 8082 A

Analyte	Result (dry) mg/kg	Qualifier	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
PCB 1016	ND	J4	0.0758	1	07/09/2019 18:58	<a href="#">WG1307387</a>
PCB 1221	ND		0.0758	1	07/09/2019 18:58	<a href="#">WG1307387</a>
PCB 1232	ND		0.0758	1	07/09/2019 18:58	<a href="#">WG1307387</a>
PCB 1242	ND		0.0758	1	07/09/2019 18:58	<a href="#">WG1307387</a>
PCB 1248	ND		0.0758	1	07/09/2019 18:58	<a href="#">WG1307387</a>
PCB 1254	ND		0.0758	1	07/09/2019 18:58	<a href="#">WG1307387</a>
PCB 1260	ND	J4	0.0758	1	07/09/2019 18:58	<a href="#">WG1307387</a>
(S) Decachlorobiphenyl	90.2		10.0-135		07/09/2019 18:58	<a href="#">WG1307387</a>
(S) Tetrachloro-m-xylene	81.2		10.0-139		07/09/2019 18:58	<a href="#">WG1307387</a>

7 Gl

8 Al

9 Sc

## Semi Volatile Organic Compounds (GC/MS) by Method 8270D

Analyte	Result (dry) mg/kg	Qualifier	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Acenaphthene	ND	J4	0.149	1	07/11/2019 03:01	<a href="#">WG1308594</a>
Acenaphthylene	ND	J4	0.149	1	07/11/2019 03:01	<a href="#">WG1308594</a>
Acetophenone	ND	J4	1.49	1	07/11/2019 03:01	<a href="#">WG1308594</a>
Anthracene	ND	J4	0.149	1	07/11/2019 03:01	<a href="#">WG1308594</a>
Atrazine	ND	J4	1.49	1	07/11/2019 03:01	<a href="#">WG1308594</a>
Benzaldehyde	ND	J4	1.49	1	07/11/2019 03:01	<a href="#">WG1308594</a>
Benzo(a)anthracene	ND	J4	0.149	1	07/11/2019 03:01	<a href="#">WG1308594</a>
Benzo(b)fluoranthene	ND	J4	0.149	1	07/11/2019 03:01	<a href="#">WG1308594</a>
Benzo(k)fluoranthene	ND	J4	0.149	1	07/11/2019 03:01	<a href="#">WG1308594</a>
Benzo(g,h,i)perylene	ND		0.149	1	07/11/2019 03:01	<a href="#">WG1308594</a>
Benzo(a)pyrene	ND	J4	0.149	1	07/11/2019 03:01	<a href="#">WG1308594</a>
Biphenyl	ND	J4	1.49	1	07/11/2019 03:01	<a href="#">WG1308594</a>
Bis(2-chloroethoxy)methane	ND	J4	1.49	1	07/11/2019 03:01	<a href="#">WG1308594</a>
Bis(2-chloroethyl)ether	ND	J4	1.49	1	07/11/2019 03:01	<a href="#">WG1308594</a>
Bis(2-chloroisopropyl)ether	ND	J4	1.49	1	07/11/2019 03:01	<a href="#">WG1308594</a>
4-Bromophenyl-phenylether	ND	J4	1.49	1	07/11/2019 03:01	<a href="#">WG1308594</a>
Caprolactam	ND		1.49	1	07/11/2019 03:01	<a href="#">WG1308594</a>
Carbazole	ND	J4	1.49	1	07/11/2019 03:01	<a href="#">WG1308594</a>
4-Chloroaniline	ND	J4	1.49	1	07/11/2019 03:01	<a href="#">WG1308594</a>
2-Chloronaphthalene	ND	J4	0.149	1	07/11/2019 03:01	<a href="#">WG1308594</a>
4-Chlorophenyl-phenylether	ND	J4	1.49	1	07/11/2019 03:01	<a href="#">WG1308594</a>
Chrysene	ND	J4	0.149	1	07/11/2019 03:01	<a href="#">WG1308594</a>
Dibenz(a,h)anthracene	ND		0.149	1	07/11/2019 03:01	<a href="#">WG1308594</a>
Dibenzofuran	ND	J4	1.49	1	07/11/2019 03:01	<a href="#">WG1308594</a>
3,3-Dichlorobenzidine	ND	J4	1.49	1	07/11/2019 03:01	<a href="#">WG1308594</a>
2,4-Dinitrotoluene	ND	J4	1.49	1	07/11/2019 03:01	<a href="#">WG1308594</a>
2,6-Dinitrotoluene	ND	J4	1.49	1	07/11/2019 03:01	<a href="#">WG1308594</a>



Semi Volatile Organic Compounds (GC/MS) by Method 8270D

Analyte	Result (dry) mg/kg	Qualifier	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Fluoranthene	ND	J4	0.149	1	07/11/2019 03:01	WG1308594
Fluorene	ND	J4	0.149	1	07/11/2019 03:01	WG1308594
Hexachlorobenzene	ND	J4	1.49	1	07/11/2019 03:01	WG1308594
Hexachloro-1,3-butadiene	ND	J4	1.49	1	07/11/2019 03:01	WG1308594
Hexachlorocyclopentadiene	ND	JO J4	1.49	1	07/11/2019 03:01	WG1308594
Hexachloroethane	ND	J4	1.49	1	07/11/2019 03:01	WG1308594
Indeno(1,2,3-cd)pyrene	ND		0.149	1	07/11/2019 03:01	WG1308594
Isophorone	ND	J4	1.49	1	07/11/2019 03:01	WG1308594
2-Methylnaphthalene	ND	J4	0.149	1	07/11/2019 03:01	WG1308594
Naphthalene	ND	J4	0.149	1	07/11/2019 03:01	WG1308594
2-Nitroaniline	ND	J4	1.49	1	07/11/2019 03:01	WG1308594
3-Nitroaniline	ND	J4	1.49	1	07/11/2019 03:01	WG1308594
4-Nitroaniline	ND	J4	1.49	1	07/11/2019 03:01	WG1308594
Nitrobenzene	ND	J4	1.49	1	07/11/2019 03:01	WG1308594
n-Nitrosodiphenylamine	ND	J4	1.49	1	07/11/2019 03:01	WG1308594
n-Nitrosodi-n-propylamine	ND	J4	1.49	1	07/11/2019 03:01	WG1308594
Phenanthrene	ND	J4	0.149	1	07/11/2019 03:01	WG1308594
Benzylbutyl phthalate	ND	J4	1.49	1	07/11/2019 03:01	WG1308594
Bis(2-ethylhexyl)phthalate	ND	J4	1.49	1	07/11/2019 03:01	WG1308594
Di-n-butyl phthalate	ND		1.49	1	07/11/2019 03:01	WG1308594
Diethyl phthalate	ND	J4	1.49	1	07/11/2019 03:01	WG1308594
Dimethyl phthalate	ND	J4	1.49	1	07/11/2019 03:01	WG1308594
Di-n-octyl phthalate	ND	J4	1.49	1	07/11/2019 03:01	WG1308594
Pyrene	ND	J4	0.149	1	07/11/2019 03:01	WG1308594
1,2,4,5-Tetrachlorobenzene	ND	J4	1.49	1	07/11/2019 03:01	WG1308594
4-Chloro-3-methylphenol	ND	J4	1.49	1	07/11/2019 03:01	WG1308594
2-Chlorophenol	ND	J4	1.49	1	07/11/2019 03:01	WG1308594
2-Methylphenol	ND	J4	1.49	1	07/11/2019 03:01	WG1308594
3&4-Methyl Phenol	ND	J4	1.49	1	07/11/2019 03:01	WG1308594
2,4-Dichlorophenol	ND	J4	1.49	1	07/11/2019 03:01	WG1308594
2,4-Dimethylphenol	ND	JO J4	1.49	1	07/11/2019 03:01	WG1308594
4,6-Dinitro-2-methylphenol	ND	J4	1.49	1	07/11/2019 03:01	WG1308594
2,4-Dinitrophenol	ND	J4	1.49	1	07/11/2019 03:01	WG1308594
2-Nitrophenol	ND	J4	1.49	1	07/11/2019 03:01	WG1308594
4-Nitrophenol	ND	J4	1.49	1	07/11/2019 03:01	WG1308594
Pentachlorophenol	ND	J4	1.49	1	07/11/2019 03:01	WG1308594
Phenol	ND	J4	1.49	1	07/11/2019 03:01	WG1308594
2,4,5-Trichlorophenol	ND	J4	1.49	1	07/11/2019 03:01	WG1308594
2,4,6-Trichlorophenol	ND	J4	1.49	1	07/11/2019 03:01	WG1308594
(S) 2-Fluorophenol	0.000	J2	12.0-120		07/11/2019 03:01	WG1308594
(S) Phenol-d5	0.000	J2	10.0-120		07/11/2019 03:01	WG1308594
(S) Nitrobenzene-d5	0.000	J2	10.0-122		07/11/2019 03:01	WG1308594
(S) 2-Fluorobiphenyl	0.000	J2	15.0-120		07/11/2019 03:01	WG1308594
(S) 2,4,6-Tribromophenol	0.000	J2	10.0-127		07/11/2019 03:01	WG1308594
(S) p-Terphenyl-d14	0.000	J2	10.0-120		07/11/2019 03:01	WG1308594

1 Cp  
2 Tc  
3 Ss  
4 Cn  
5 Sr  
6 Qc  
7 Gl  
8 Al  
9 Sc

Sample Narrative:

L1113939-16 WG1308594: Duplicate analysis was performed.

Semi Volatile Organic Compounds (GC/MS) by Method 8270E-SIM

Analyte	Result (dry) mg/kg	Qualifier	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Anthracene	ND		0.0268	1	07/09/2019 18:51	WG1307909
Acenaphthene	ND		0.0268	1	07/09/2019 18:51	WG1307909
Acenaphthylene	ND		0.0268	1	07/09/2019 18:51	WG1307909
Benzo(a)anthracene	ND		0.0268	1	07/09/2019 18:51	WG1307909



Semi Volatile Organic Compounds (GC/MS) by Method 8270E-SIM

Analyte	Result (dry) mg/kg	Qualifier	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Benzo(a)pyrene	ND		0.0268	1	07/09/2019 18:51	<a href="#">WG1307909</a>
Benzo(b)fluoranthene	ND		0.0268	1	07/09/2019 18:51	<a href="#">WG1307909</a>
Benzo(g,h,i)perylene	ND		0.0268	1	07/09/2019 18:51	<a href="#">WG1307909</a>
Benzo(k)fluoranthene	ND		0.0268	1	07/09/2019 18:51	<a href="#">WG1307909</a>
Chrysene	ND		0.0268	1	07/09/2019 18:51	<a href="#">WG1307909</a>
Dibenz(a,h)anthracene	ND		0.0268	1	07/09/2019 18:51	<a href="#">WG1307909</a>
Fluoranthene	ND		0.0268	1	07/09/2019 18:51	<a href="#">WG1307909</a>
Fluorene	ND		0.0268	1	07/09/2019 18:51	<a href="#">WG1307909</a>
Indeno(1,2,3-cd)pyrene	ND		0.0268	1	07/09/2019 18:51	<a href="#">WG1307909</a>
Naphthalene	ND		0.0892	1	07/09/2019 18:51	<a href="#">WG1307909</a>
Phenanthrene	ND		0.0268	1	07/09/2019 18:51	<a href="#">WG1307909</a>
Pyrene	ND		0.0268	1	07/09/2019 18:51	<a href="#">WG1307909</a>
1-Methylnaphthalene	ND		0.0892	1	07/09/2019 18:51	<a href="#">WG1307909</a>
2-Methylnaphthalene	ND		0.0892	1	07/09/2019 18:51	<a href="#">WG1307909</a>
(S) p-Terphenyl-d14	88.1		23.0-120		07/09/2019 18:51	<a href="#">WG1307909</a>
(S) Nitrobenzene-d5	102		14.0-149		07/09/2019 18:51	<a href="#">WG1307909</a>
(S) 2-Fluorobiphenyl	85.1		34.0-125		07/09/2019 18:51	<a href="#">WG1307909</a>

- 1 Cp
- 2 Tc
- 3 Ss
- 4 Cn
- 5 Sr
- 6 Qc
- 7 Gl
- 8 Al
- 9 Sc



## Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	19.8		1	07/06/2019 15:21	<a href="#">WG1307004</a>

## Wet Chemistry by Method 9012B

Analyte	Result (dry)	Qualifier	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg		date / time	
Cyanide	ND		1.26	1	07/11/2019 09:54	<a href="#">WG1308669</a>

## Mercury by Method 7471B

Analyte	Result (dry)	Qualifier	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg		date / time	
Mercury	ND		0.101	1	07/07/2019 14:09	<a href="#">WG1306876</a>

## Metals (ICP) by Method 6010D

Analyte	Result (dry)	Qualifier	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg		date / time	
Aluminum	42900		50.5	1	07/07/2019 22:54	<a href="#">WG1306898</a>
Antimony	ND		10.1	1	07/07/2019 22:54	<a href="#">WG1306898</a>
Arsenic	ND		10.1	1	07/07/2019 22:54	<a href="#">WG1306898</a>
Barium	114		2.52	1	07/07/2019 22:54	<a href="#">WG1306898</a>
Beryllium	ND		1.01	1	07/07/2019 22:54	<a href="#">WG1306898</a>
Cadmium	ND		2.52	1	07/07/2019 22:54	<a href="#">WG1306898</a>
Calcium	9200		505	1	07/07/2019 22:54	<a href="#">WG1306898</a>
Chromium	55.2		5.05	1	07/07/2019 22:54	<a href="#">WG1306898</a>
Cobalt	14.2		5.05	1	07/07/2019 22:54	<a href="#">WG1306898</a>
Copper	46.5		10.1	1	07/07/2019 22:54	<a href="#">WG1306898</a>
Iron	32600		50.5	1	07/07/2019 22:54	<a href="#">WG1306898</a>
Lead	21.5		2.52	1	07/07/2019 22:54	<a href="#">WG1306898</a>
Magnesium	2890		505	1	07/07/2019 22:54	<a href="#">WG1306898</a>
Manganese	2330		5.05	1	07/07/2019 22:54	<a href="#">WG1306898</a>
Nickel	12.8		10.1	1	07/07/2019 22:54	<a href="#">WG1306898</a>
Potassium	988		505	1	07/07/2019 22:54	<a href="#">WG1306898</a>
Selenium	ND		10.1	1	07/07/2019 22:54	<a href="#">WG1306898</a>
Silver	ND		5.05	1	07/07/2019 22:54	<a href="#">WG1306898</a>
Sodium	855	<u>B</u>	505	1	07/07/2019 22:54	<a href="#">WG1306898</a>
Thallium	ND		10.1	1	07/07/2019 22:54	<a href="#">WG1306898</a>
Vanadium	85.9		10.1	1	07/07/2019 22:54	<a href="#">WG1306898</a>
Zinc	130		25.2	1	07/07/2019 22:54	<a href="#">WG1306898</a>

## Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result (dry)	Qualifier	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg		date / time	
Acetone	0.195		0.126	1	07/07/2019 20:29	<a href="#">WG1307049</a>
Benzene	ND		0.00505	1	07/07/2019 20:29	<a href="#">WG1307049</a>
Bromochloromethane	ND		0.0252	1	07/07/2019 20:29	<a href="#">WG1307049</a>
Bromodichloromethane	ND		0.0126	1	07/07/2019 20:29	<a href="#">WG1307049</a>
Bromoform	ND		0.126	1	07/07/2019 20:29	<a href="#">WG1307049</a>
Bromomethane	ND		0.0631	1	07/07/2019 20:29	<a href="#">WG1307049</a>
Carbon disulfide	ND		0.0631	1	07/07/2019 20:29	<a href="#">WG1307049</a>
Carbon tetrachloride	ND		0.0252	1	07/07/2019 20:29	<a href="#">WG1307049</a>
Chlorobenzene	ND		0.0126	1	07/07/2019 20:29	<a href="#">WG1307049</a>
Chlorodibromomethane	ND		0.0126	1	07/07/2019 20:29	<a href="#">WG1307049</a>
Chloroethane	ND		0.0252	1	07/07/2019 20:29	<a href="#">WG1307049</a>
Chloroform	ND		0.0126	1	07/07/2019 20:29	<a href="#">WG1307049</a>
Chloromethane	ND		0.0631	1	07/07/2019 20:29	<a href="#">WG1307049</a>

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc



Collected date/time: 06/26/19 11:48

L1113939

## Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result (dry) mg/kg	Qualifier	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Cyclohexane	ND		0.0126	1	07/07/2019 20:29	WG1307049
1,2-Dibromo-3-Chloropropane	ND		0.126	1	07/07/2019 20:29	WG1307049
1,2-Dibromoethane	ND		0.0126	1	07/07/2019 20:29	WG1307049
Dichlorodifluoromethane	ND		0.0126	1	07/07/2019 20:29	WG1307049
1,1-Dichloroethane	ND		0.0126	1	07/07/2019 20:29	WG1307049
1,2-Dichloroethane	ND		0.0126	1	07/07/2019 20:29	WG1307049
1,2-Dichlorobenzene	ND		0.0252	1	07/07/2019 20:29	WG1307049
1,3-Dichlorobenzene	ND		0.0252	1	07/07/2019 20:29	WG1307049
1,4-Dichlorobenzene	ND		0.0252	1	07/07/2019 20:29	WG1307049
1,1-Dichloroethene	ND		0.0126	1	07/07/2019 20:29	WG1307049
cis-1,2-Dichloroethene	ND		0.0126	1	07/07/2019 20:29	WG1307049
trans-1,2-Dichloroethene	ND		0.0252	1	07/07/2019 20:29	WG1307049
1,2-Dichloropropane	ND		0.0252	1	07/07/2019 20:29	WG1307049
cis-1,3-Dichloropropene	ND		0.0126	1	07/07/2019 20:29	WG1307049
trans-1,3-Dichloropropene	ND		0.0252	1	07/07/2019 20:29	WG1307049
Ethylbenzene	ND		0.0126	1	07/07/2019 20:29	WG1307049
2-Hexanone	ND		0.126	1	07/07/2019 20:29	WG1307049
Isopropylbenzene	ND		0.0126	1	07/07/2019 20:29	WG1307049
2-Butanone (MEK)	ND		0.126	1	07/07/2019 20:29	WG1307049
Methyl Acetate	0.522		0.0252	1	07/07/2019 20:29	WG1307049
Methyl Cyclohexane	ND		0.0252	1	07/07/2019 20:29	WG1307049
Methylene Chloride	ND		0.126	1	07/07/2019 20:29	WG1307049
4-Methyl-2-pentanone (MIBK)	ND		0.126	1	07/07/2019 20:29	WG1307049
Methyl tert-butyl ether	ND		0.00505	1	07/07/2019 20:29	WG1307049
Styrene	ND		0.0631	1	07/07/2019 20:29	WG1307049
1,1,2,2-Tetrachloroethane	ND		0.0126	1	07/07/2019 20:29	WG1307049
Tetrachloroethene	ND		0.0126	1	07/07/2019 20:29	WG1307049
Toluene	0.0351		0.0252	1	07/07/2019 20:29	WG1307049
1,2,3-Trichlorobenzene	ND		0.0126	1	07/07/2019 20:29	WG1307049
1,2,4-Trichlorobenzene	ND		0.0631	1	07/07/2019 20:29	WG1307049
1,1,1-Trichloroethane	ND		0.0126	1	07/07/2019 20:29	WG1307049
1,1,2-Trichloroethane	ND		0.0126	1	07/07/2019 20:29	WG1307049
Trichloroethene	ND		0.00505	1	07/07/2019 20:29	WG1307049
Trichlorofluoromethane	ND		0.0126	1	07/07/2019 20:29	WG1307049
1,1,2-Trichlorotrifluoroethane	ND		0.0126	1	07/07/2019 20:29	WG1307049
Vinyl chloride	ND		0.0126	1	07/07/2019 20:29	WG1307049
Xylenes, Total	ND		0.0328	1	07/07/2019 20:29	WG1307049
(S) Toluene-d8	106		75.0-131		07/07/2019 20:29	WG1307049
(S) 4-Bromofluorobenzene	101		67.0-138		07/07/2019 20:29	WG1307049
(S) 1,2-Dichloroethane-d4	102		70.0-130		07/07/2019 20:29	WG1307049

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

## Pesticides (GC) by Method 8081B

Analyte	Result (dry) mg/kg	Qualifier	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Aldrin	ND		0.101	1	07/09/2019 19:42	WG1307387
Alpha BHC	ND		0.101	1	07/09/2019 19:42	WG1307387
Beta BHC	ND	J4	0.101	1	07/09/2019 19:42	WG1307387
Delta BHC	ND		0.101	1	07/09/2019 19:42	WG1307387
Gamma BHC	ND		0.101	1	07/09/2019 19:42	WG1307387
Chlordane	ND		1.01	1	07/09/2019 19:42	WG1307387
4,4-DDD	ND		0.101	1	07/09/2019 19:42	WG1307387
4,4-DDE	ND		0.101	1	07/09/2019 19:42	WG1307387
4,4-DDT	ND		0.101	1	07/09/2019 19:42	WG1307387
Dieldrin	ND		0.101	1	07/09/2019 19:42	WG1307387
Endosulfan I	ND		0.101	1	07/09/2019 19:42	WG1307387
Endosulfan II	ND		0.101	1	07/09/2019 19:42	WG1307387





Collected date/time: 06/26/19 11:48

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## Pesticides (GC) by Method 8081B

Analyte	Result (dry) mg/kg	Qualifier	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Endosulfan sulfate	ND		0.101	1	07/09/2019 19:42	<a href="#">WG1307387</a>
Endrin	ND		0.101	1	07/09/2019 19:42	<a href="#">WG1307387</a>
Endrin aldehyde	ND		0.101	1	07/09/2019 19:42	<a href="#">WG1307387</a>
Endrin ketone	ND		0.101	1	07/09/2019 19:42	<a href="#">WG1307387</a>
Heptachlor	ND		0.101	1	07/09/2019 19:42	<a href="#">WG1307387</a>
Heptachlor epoxide	ND		0.101	1	07/09/2019 19:42	<a href="#">WG1307387</a>
Hexachlorobenzene	ND		0.101	1	07/09/2019 19:42	<a href="#">WG1307387</a>
Methoxychlor	ND		0.101	1	07/09/2019 19:42	<a href="#">WG1307387</a>
Toxaphene	ND		2.02	1	07/09/2019 19:42	<a href="#">WG1307387</a>
(S) Decachlorobiphenyl	88.3		10.0-135		07/09/2019 19:42	<a href="#">WG1307387</a>
(S) Tetrachloro-m-xylene	88.1		10.0-139		07/09/2019 19:42	<a href="#">WG1307387</a>

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

## Polychlorinated Biphenyls (GC) by Method 8082 A

Analyte	Result (dry) mg/kg	Qualifier	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
PCB 1016	ND	J4	0.0858	1	07/09/2019 19:10	<a href="#">WG1307387</a>
PCB 1221	ND		0.0858	1	07/09/2019 19:10	<a href="#">WG1307387</a>
PCB 1232	ND		0.0858	1	07/09/2019 19:10	<a href="#">WG1307387</a>
PCB 1242	ND		0.0858	1	07/09/2019 19:10	<a href="#">WG1307387</a>
PCB 1248	ND		0.0858	1	07/09/2019 19:10	<a href="#">WG1307387</a>
PCB 1254	ND		0.0858	1	07/09/2019 19:10	<a href="#">WG1307387</a>
PCB 1260	ND	J4	0.0858	1	07/09/2019 19:10	<a href="#">WG1307387</a>
(S) Decachlorobiphenyl	84.1		10.0-135		07/09/2019 19:10	<a href="#">WG1307387</a>
(S) Tetrachloro-m-xylene	76.0		10.0-139		07/09/2019 19:10	<a href="#">WG1307387</a>

7 Gl

8 Al

9 Sc

## Semi Volatile Organic Compounds (GC/MS) by Method 8270D

Analyte	Result (dry) mg/kg	Qualifier	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Acenaphthene	ND	J4	0.168	1	07/11/2019 20:07	<a href="#">WG1308594</a>
Acenaphthylene	ND	J4	0.168	1	07/11/2019 20:07	<a href="#">WG1308594</a>
Acetophenone	ND	J4	1.68	1	07/11/2019 20:07	<a href="#">WG1308594</a>
Anthracene	ND	J4	0.168	1	07/11/2019 20:07	<a href="#">WG1308594</a>
Atrazine	ND	J4	1.68	1	07/11/2019 20:07	<a href="#">WG1308594</a>
Benzaldehyde	ND	J4	1.68	1	07/11/2019 20:07	<a href="#">WG1308594</a>
Benzo(a)anthracene	ND	J4	0.168	1	07/11/2019 20:07	<a href="#">WG1308594</a>
Benzo(b)fluoranthene	ND	J4	0.168	1	07/11/2019 20:07	<a href="#">WG1308594</a>
Benzo(k)fluoranthene	ND	J4	0.168	1	07/11/2019 20:07	<a href="#">WG1308594</a>
Benzo(g,h,i)perylene	ND		0.168	1	07/11/2019 20:07	<a href="#">WG1308594</a>
Benzo(a)pyrene	ND	J4	0.168	1	07/11/2019 20:07	<a href="#">WG1308594</a>
Biphenyl	ND	J4	1.68	1	07/11/2019 20:07	<a href="#">WG1308594</a>
Bis(2-chloroethoxy)methane	ND	J4	1.68	1	07/11/2019 20:07	<a href="#">WG1308594</a>
Bis(2-chloroethyl)ether	ND	J4	1.68	1	07/11/2019 20:07	<a href="#">WG1308594</a>
Bis(2-chloroisopropyl)ether	ND	J4	1.68	1	07/11/2019 20:07	<a href="#">WG1308594</a>
4-Bromophenyl-phenylether	ND	J4	1.68	1	07/11/2019 20:07	<a href="#">WG1308594</a>
Caprolactam	ND		1.68	1	07/11/2019 20:07	<a href="#">WG1308594</a>
Carbazole	ND	J4	1.68	1	07/11/2019 20:07	<a href="#">WG1308594</a>
4-Chloroaniline	ND	J4	1.68	1	07/11/2019 20:07	<a href="#">WG1308594</a>
2-Chloronaphthalene	ND	J4	0.168	1	07/11/2019 20:07	<a href="#">WG1308594</a>
4-Chlorophenyl-phenylether	ND	J4	1.68	1	07/11/2019 20:07	<a href="#">WG1308594</a>
Chrysene	ND	J4	0.168	1	07/11/2019 20:07	<a href="#">WG1308594</a>
Dibenz(a,h)anthracene	ND		0.168	1	07/11/2019 20:07	<a href="#">WG1308594</a>
Dibenzofuran	ND	J4	1.68	1	07/11/2019 20:07	<a href="#">WG1308594</a>
3,3-Dichlorobenzidine	ND	J4	1.68	1	07/11/2019 20:07	<a href="#">WG1308594</a>
2,4-Dinitrotoluene	ND	J4	1.68	1	07/11/2019 20:07	<a href="#">WG1308594</a>
2,6-Dinitrotoluene	ND	J4	1.68	1	07/11/2019 20:07	<a href="#">WG1308594</a>



Semi Volatile Organic Compounds (GC/MS) by Method 8270D

Analyte	Result (dry) mg/kg	Qualifier	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Fluoranthene	ND	J4	0.168	1	07/11/2019 20:07	WG1308594
Fluorene	ND	J4	0.168	1	07/11/2019 20:07	WG1308594
Hexachlorobenzene	ND	J4	1.68	1	07/11/2019 20:07	WG1308594
Hexachloro-1,3-butadiene	ND	J4	1.68	1	07/11/2019 20:07	WG1308594
Hexachlorocyclopentadiene	ND	J4	1.68	1	07/11/2019 20:07	WG1308594
Hexachloroethane	ND	J4	1.68	1	07/11/2019 20:07	WG1308594
Indeno(1,2,3-cd)pyrene	ND	J4	0.168	1	07/11/2019 20:07	WG1308594
Isophorone	ND	J4	1.68	1	07/11/2019 20:07	WG1308594
2-Methylnaphthalene	ND	J4	0.168	1	07/11/2019 20:07	WG1308594
Naphthalene	ND	J4	0.168	1	07/11/2019 20:07	WG1308594
2-Nitroaniline	ND	J4	1.68	1	07/11/2019 20:07	WG1308594
3-Nitroaniline	ND	J4	1.68	1	07/11/2019 20:07	WG1308594
4-Nitroaniline	ND	J4	1.68	1	07/11/2019 20:07	WG1308594
Nitrobenzene	ND	J4	1.68	1	07/11/2019 20:07	WG1308594
n-Nitrosodiphenylamine	ND	J4	1.68	1	07/11/2019 20:07	WG1308594
n-Nitrosodi-n-propylamine	ND	J4	1.68	1	07/11/2019 20:07	WG1308594
Phenanthrene	ND	J4	0.168	1	07/11/2019 20:07	WG1308594
Benzylbutyl phthalate	ND	J4	1.68	1	07/11/2019 20:07	WG1308594
Bis(2-ethylhexyl)phthalate	ND	J4	1.68	1	07/11/2019 20:07	WG1308594
Di-n-butyl phthalate	ND	J4	1.68	1	07/11/2019 20:07	WG1308594
Diethyl phthalate	ND	J4	1.68	1	07/11/2019 20:07	WG1308594
Dimethyl phthalate	ND	J4	1.68	1	07/11/2019 20:07	WG1308594
Di-n-octyl phthalate	ND	J4	1.68	1	07/11/2019 20:07	WG1308594
Pyrene	ND	J4	0.168	1	07/11/2019 20:07	WG1308594
1,2,4,5-Tetrachlorobenzene	ND	J4	1.68	1	07/11/2019 20:07	WG1308594
4-Chloro-3-methylphenol	ND	J4	1.68	1	07/11/2019 20:07	WG1308594
2-Chlorophenol	ND	J4	1.68	1	07/11/2019 20:07	WG1308594
2-Methylphenol	ND	J4	1.68	1	07/11/2019 20:07	WG1308594
3&4-Methyl Phenol	ND	J4	1.68	1	07/11/2019 20:07	WG1308594
2,4-Dichlorophenol	ND	J4	1.68	1	07/11/2019 20:07	WG1308594
2,4-Dimethylphenol	ND	J4	1.68	1	07/11/2019 20:07	WG1308594
4,6-Dinitro-2-methylphenol	ND	J4	1.68	1	07/11/2019 20:07	WG1308594
2,4-Dinitrophenol	ND	J4	1.68	1	07/11/2019 20:07	WG1308594
2-Nitrophenol	ND	J4	1.68	1	07/11/2019 20:07	WG1308594
4-Nitrophenol	ND	J4	1.68	1	07/11/2019 20:07	WG1308594
Pentachlorophenol	ND	J4	1.68	1	07/11/2019 20:07	WG1308594
Phenol	ND	J4	1.68	1	07/11/2019 20:07	WG1308594
2,4,5-Trichlorophenol	ND	J4	1.68	1	07/11/2019 20:07	WG1308594
2,4,6-Trichlorophenol	ND	J4	1.68	1	07/11/2019 20:07	WG1308594
(S) 2-Fluorophenol	54.8		12.0-120		07/11/2019 20:07	WG1308594
(S) Phenol-d5	49.7		10.0-120		07/11/2019 20:07	WG1308594
(S) Nitrobenzene-d5	43.2		10.0-122		07/11/2019 20:07	WG1308594
(S) 2-Fluorobiphenyl	42.9		15.0-120		07/11/2019 20:07	WG1308594
(S) 2,4,6-Tribromophenol	52.6		10.0-127		07/11/2019 20:07	WG1308594
(S) p-Terphenyl-d14	47.4		10.0-120		07/11/2019 20:07	WG1308594

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

Semi Volatile Organic Compounds (GC/MS) by Method 8270E-SIM

Analyte	Result (dry) mg/kg	Qualifier	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Anthracene	ND		0.0303	1	07/09/2019 19:11	WG1307909
Acenaphthene	ND		0.0303	1	07/09/2019 19:11	WG1307909
Acenaphthylene	ND		0.0303	1	07/09/2019 19:11	WG1307909
Benzo(a)anthracene	ND		0.0303	1	07/09/2019 19:11	WG1307909
Benzo(a)pyrene	ND		0.0303	1	07/09/2019 19:11	WG1307909
Benzo(b)fluoranthene	ND		0.0303	1	07/09/2019 19:11	WG1307909
Benzo(g,h,i)perylene	ND		0.0303	1	07/09/2019 19:11	WG1307909



Collected date/time: 06/26/19 11:48

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Semi Volatile Organic Compounds (GC/MS) by Method 8270E-SIM

Analyte	Result (dry) mg/kg	Qualifier	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Benzo(k)fluoranthene	ND		0.0303	1	07/09/2019 19:11	<a href="#">WG1307909</a>
Chrysene	ND		0.0303	1	07/09/2019 19:11	<a href="#">WG1307909</a>
Dibenz(a,h)anthracene	ND		0.0303	1	07/09/2019 19:11	<a href="#">WG1307909</a>
Fluoranthene	ND		0.0303	1	07/09/2019 19:11	<a href="#">WG1307909</a>
Fluorene	ND		0.0303	1	07/09/2019 19:11	<a href="#">WG1307909</a>
Indeno(1,2,3-cd)pyrene	ND		0.0303	1	07/09/2019 19:11	<a href="#">WG1307909</a>
Naphthalene	ND		0.101	1	07/09/2019 19:11	<a href="#">WG1307909</a>
Phenanthrene	ND		0.0303	1	07/09/2019 19:11	<a href="#">WG1307909</a>
Pyrene	ND		0.0303	1	07/09/2019 19:11	<a href="#">WG1307909</a>
1-Methylnaphthalene	ND		0.101	1	07/09/2019 19:11	<a href="#">WG1307909</a>
2-Methylnaphthalene	ND		0.101	1	07/09/2019 19:11	<a href="#">WG1307909</a>
(S) p-Terphenyl-d14	74.0		23.0-120		07/09/2019 19:11	<a href="#">WG1307909</a>
(S) Nitrobenzene-d5	88.5		14.0-149		07/09/2019 19:11	<a href="#">WG1307909</a>
(S) 2-Fluorobiphenyl	77.8		34.0-125		07/09/2019 19:11	<a href="#">WG1307909</a>

- 1 Cp
- 2 Tc
- 3 Ss
- 4 Cn
- 5 Sr
- 6 Qc
- 7 Gl
- 8 Al
- 9 Sc



Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	16.2		1	07/06/2019 15:21	<a href="#">WG1307004</a>

1 Cp

2 Tc

Wet Chemistry by Method 9012B

Analyte	Result (dry)	Qualifier	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg		date / time	
Cyanide	ND		1.54	1	07/11/2019 09:55	<a href="#">WG1308669</a>

3 Ss

4 Cn

Mercury by Method 7471B

Analyte	Result (dry)	Qualifier	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg		date / time	
Mercury	0.150		0.123	1	07/07/2019 14:18	<a href="#">WG1306876</a>

5 Sr

6 Qc

Metals (ICP) by Method 6010D

Analyte	Result (dry)	Qualifier	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg		date / time	
Aluminum	7100		61.7	1	07/07/2019 22:57	<a href="#">WG1306898</a>
Antimony	ND		12.3	1	07/07/2019 22:57	<a href="#">WG1306898</a>
Arsenic	ND		12.3	1	07/07/2019 22:57	<a href="#">WG1306898</a>
Barium	225		3.09	1	07/07/2019 22:57	<a href="#">WG1306898</a>
Beryllium	ND		1.23	1	07/07/2019 22:57	<a href="#">WG1306898</a>
Cadmium	ND		3.09	1	07/07/2019 22:57	<a href="#">WG1306898</a>
Calcium	28800		617	1	07/07/2019 22:57	<a href="#">WG1306898</a>
Chromium	92.9		6.17	1	07/07/2019 22:57	<a href="#">WG1306898</a>
Cobalt	15.0		6.17	1	07/07/2019 22:57	<a href="#">WG1306898</a>
Copper	84.7		12.3	1	07/07/2019 22:57	<a href="#">WG1306898</a>
Iron	40600		61.7	1	07/07/2019 22:57	<a href="#">WG1306898</a>
Lead	29.8		3.09	1	07/07/2019 22:57	<a href="#">WG1306898</a>
Magnesium	4820		617	1	07/07/2019 22:57	<a href="#">WG1306898</a>
Manganese	2400		6.17	1	07/07/2019 22:57	<a href="#">WG1306898</a>
Nickel	21.5		12.3	1	07/07/2019 22:57	<a href="#">WG1306898</a>
Potassium	1110		617	1	07/07/2019 22:57	<a href="#">WG1306898</a>
Selenium	ND		12.3	1	07/07/2019 22:57	<a href="#">WG1306898</a>
Silver	ND		6.17	1	07/07/2019 22:57	<a href="#">WG1306898</a>
Sodium	1850		617	1	07/07/2019 22:57	<a href="#">WG1306898</a>
Thallium	ND		12.3	1	07/07/2019 22:57	<a href="#">WG1306898</a>
Vanadium	116		12.3	1	07/07/2019 22:57	<a href="#">WG1306898</a>
Zinc	212		30.9	1	07/07/2019 22:57	<a href="#">WG1306898</a>

7 Gl

8 Al

9 Sc

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result (dry)	Qualifier	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg		date / time	
Acetone	0.347		0.154	1	07/07/2019 20:49	<a href="#">WG1307049</a>
Benzene	ND		0.00617	1	07/07/2019 20:49	<a href="#">WG1307049</a>
Bromochloromethane	ND		0.0309	1	07/07/2019 20:49	<a href="#">WG1307049</a>
Bromodichloromethane	ND		0.0154	1	07/07/2019 20:49	<a href="#">WG1307049</a>
Bromoform	ND		0.154	1	07/07/2019 20:49	<a href="#">WG1307049</a>
Bromomethane	ND		0.0772	1	07/07/2019 20:49	<a href="#">WG1307049</a>
Carbon disulfide	0.122		0.0772	1	07/07/2019 20:49	<a href="#">WG1307049</a>
Carbon tetrachloride	ND		0.0309	1	07/07/2019 20:49	<a href="#">WG1307049</a>
Chlorobenzene	ND		0.0154	1	07/07/2019 20:49	<a href="#">WG1307049</a>
Chlorodibromomethane	ND		0.0154	1	07/07/2019 20:49	<a href="#">WG1307049</a>
Chloroethane	ND		0.0309	1	07/07/2019 20:49	<a href="#">WG1307049</a>
Chloroform	ND		0.0154	1	07/07/2019 20:49	<a href="#">WG1307049</a>
Chloromethane	ND		0.0772	1	07/07/2019 20:49	<a href="#">WG1307049</a>



Collected date/time: 06/26/19 11:53

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## Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result (dry) mg/kg	Qualifier	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Cyclohexane	ND		0.0154	1	07/07/2019 20:49	WG1307049
1,2-Dibromo-3-Chloropropane	ND		0.154	1	07/07/2019 20:49	WG1307049
1,2-Dibromoethane	ND		0.0154	1	07/07/2019 20:49	WG1307049
Dichlorodifluoromethane	ND		0.0154	1	07/07/2019 20:49	WG1307049
1,1-Dichloroethane	ND		0.0154	1	07/07/2019 20:49	WG1307049
1,2-Dichloroethane	ND		0.0154	1	07/07/2019 20:49	WG1307049
1,2-Dichlorobenzene	ND		0.0309	1	07/07/2019 20:49	WG1307049
1,3-Dichlorobenzene	ND		0.0309	1	07/07/2019 20:49	WG1307049
1,4-Dichlorobenzene	ND		0.0309	1	07/07/2019 20:49	WG1307049
1,1-Dichloroethene	ND		0.0154	1	07/07/2019 20:49	WG1307049
cis-1,2-Dichloroethene	ND		0.0154	1	07/07/2019 20:49	WG1307049
trans-1,2-Dichloroethene	ND		0.0309	1	07/07/2019 20:49	WG1307049
1,2-Dichloropropane	ND		0.0309	1	07/07/2019 20:49	WG1307049
cis-1,3-Dichloropropene	ND		0.0154	1	07/07/2019 20:49	WG1307049
trans-1,3-Dichloropropene	ND		0.0309	1	07/07/2019 20:49	WG1307049
Ethylbenzene	ND		0.0154	1	07/07/2019 20:49	WG1307049
2-Hexanone	ND		0.154	1	07/07/2019 20:49	WG1307049
Isopropylbenzene	ND		0.0154	1	07/07/2019 20:49	WG1307049
2-Butanone (MEK)	ND		0.154	1	07/07/2019 20:49	WG1307049
Methyl Acetate	0.489		0.0309	1	07/07/2019 20:49	WG1307049
Methyl Cyclohexane	0.0314		0.0309	1	07/07/2019 20:49	WG1307049
Methylene Chloride	ND		0.154	1	07/07/2019 20:49	WG1307049
4-Methyl-2-pentanone (MIBK)	ND		0.154	1	07/07/2019 20:49	WG1307049
Methyl tert-butyl ether	ND		0.00617	1	07/07/2019 20:49	WG1307049
Styrene	ND		0.0772	1	07/07/2019 20:49	WG1307049
1,1,2,2-Tetrachloroethane	ND		0.0154	1	07/07/2019 20:49	WG1307049
Tetrachloroethene	ND		0.0154	1	07/07/2019 20:49	WG1307049
Toluene	ND		0.0309	1	07/07/2019 20:49	WG1307049
1,2,3-Trichlorobenzene	ND		0.0154	1	07/07/2019 20:49	WG1307049
1,2,4-Trichlorobenzene	ND		0.0772	1	07/07/2019 20:49	WG1307049
1,1,1-Trichloroethane	ND		0.0154	1	07/07/2019 20:49	WG1307049
1,1,2-Trichloroethane	ND		0.0154	1	07/07/2019 20:49	WG1307049
Trichloroethene	ND		0.00617	1	07/07/2019 20:49	WG1307049
Trichlorofluoromethane	ND		0.0154	1	07/07/2019 20:49	WG1307049
1,1,2-Trichlorotrifluoroethane	ND		0.0154	1	07/07/2019 20:49	WG1307049
Vinyl chloride	ND		0.0154	1	07/07/2019 20:49	WG1307049
Xylenes, Total	ND		0.0401	1	07/07/2019 20:49	WG1307049
(S) Toluene-d8	101		75.0-131		07/07/2019 20:49	WG1307049
(S) 4-Bromofluorobenzene	99.4		67.0-138		07/07/2019 20:49	WG1307049
(S) 1,2-Dichloroethane-d4	100		70.0-130		07/07/2019 20:49	WG1307049

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

## Pesticides (GC) by Method 8081B

Analyte	Result (dry) mg/kg	Qualifier	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Aldrin	ND		0.123	1	07/09/2019 19:54	WG1307387
Alpha BHC	ND		0.123	1	07/09/2019 19:54	WG1307387
Beta BHC	ND	J4	0.123	1	07/09/2019 19:54	WG1307387
Delta BHC	ND		0.123	1	07/09/2019 19:54	WG1307387
Gamma BHC	ND		0.123	1	07/09/2019 19:54	WG1307387
Chlordane	ND		1.23	1	07/09/2019 19:54	WG1307387
4,4-DDD	ND		0.123	1	07/09/2019 19:54	WG1307387
4,4-DDE	ND		0.123	1	07/09/2019 19:54	WG1307387
4,4-DDT	ND		0.123	1	07/09/2019 19:54	WG1307387
Dieldrin	ND		0.123	1	07/09/2019 19:54	WG1307387
Endosulfan I	ND		0.123	1	07/09/2019 19:54	WG1307387
Endosulfan II	ND		0.123	1	07/09/2019 19:54	WG1307387



Collected date/time: 06/26/19 11:53

L1113939

## Pesticides (GC) by Method 8081B

Analyte	Result (dry) mg/kg	Qualifier	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Endosulfan sulfate	ND		0.123	1	07/09/2019 19:54	<a href="#">WG1307387</a>
Endrin	ND		0.123	1	07/09/2019 19:54	<a href="#">WG1307387</a>
Endrin aldehyde	ND		0.123	1	07/09/2019 19:54	<a href="#">WG1307387</a>
Endrin ketone	ND		0.123	1	07/09/2019 19:54	<a href="#">WG1307387</a>
Heptachlor	ND		0.123	1	07/09/2019 19:54	<a href="#">WG1307387</a>
Heptachlor epoxide	ND		0.123	1	07/09/2019 19:54	<a href="#">WG1307387</a>
Hexachlorobenzene	ND		0.123	1	07/09/2019 19:54	<a href="#">WG1307387</a>
Methoxychlor	ND		0.123	1	07/09/2019 19:54	<a href="#">WG1307387</a>
Toxaphene	ND		2.47	1	07/09/2019 19:54	<a href="#">WG1307387</a>
(S) Decachlorobiphenyl	83.1		10.0-135		07/09/2019 19:54	<a href="#">WG1307387</a>
(S) Tetrachloro-m-xylene	98.8		10.0-139		07/09/2019 19:54	<a href="#">WG1307387</a>

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

## Polychlorinated Biphenyls (GC) by Method 8082 A

Analyte	Result (dry) mg/kg	Qualifier	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
PCB 1016	ND	J4	0.105	1	07/09/2019 19:23	<a href="#">WG1307387</a>
PCB 1221	ND		0.105	1	07/09/2019 19:23	<a href="#">WG1307387</a>
PCB 1232	ND		0.105	1	07/09/2019 19:23	<a href="#">WG1307387</a>
PCB 1242	ND		0.105	1	07/09/2019 19:23	<a href="#">WG1307387</a>
PCB 1248	ND		0.105	1	07/09/2019 19:23	<a href="#">WG1307387</a>
PCB 1254	ND		0.105	1	07/09/2019 19:23	<a href="#">WG1307387</a>
PCB 1260	ND	J4	0.105	1	07/09/2019 19:23	<a href="#">WG1307387</a>
(S) Decachlorobiphenyl	71.7		10.0-135		07/09/2019 19:23	<a href="#">WG1307387</a>
(S) Tetrachloro-m-xylene	67.8		10.0-139		07/09/2019 19:23	<a href="#">WG1307387</a>

7 Gl

8 Al

9 Sc

## Semi Volatile Organic Compounds (GC/MS) by Method 8270D

Analyte	Result (dry) mg/kg	Qualifier	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Acenaphthene	ND	J4	0.206	1	07/11/2019 20:27	<a href="#">WG1308594</a>
Acenaphthylene	ND	J4	0.206	1	07/11/2019 20:27	<a href="#">WG1308594</a>
Acetophenone	ND	J4	2.06	1	07/11/2019 20:27	<a href="#">WG1308594</a>
Anthracene	ND	J4	0.206	1	07/11/2019 20:27	<a href="#">WG1308594</a>
Atrazine	ND	J4	2.06	1	07/11/2019 20:27	<a href="#">WG1308594</a>
Benzaldehyde	ND	J4	2.06	1	07/11/2019 20:27	<a href="#">WG1308594</a>
Benzo(a)anthracene	ND	J4	0.206	1	07/11/2019 20:27	<a href="#">WG1308594</a>
Benzo(b)fluoranthene	ND	J4	0.206	1	07/11/2019 20:27	<a href="#">WG1308594</a>
Benzo(k)fluoranthene	ND	J4	0.206	1	07/11/2019 20:27	<a href="#">WG1308594</a>
Benzo(g,h,i)perylene	ND		0.206	1	07/11/2019 20:27	<a href="#">WG1308594</a>
Benzo(a)pyrene	ND	J4	0.206	1	07/11/2019 20:27	<a href="#">WG1308594</a>
Biphenyl	ND	J4	2.06	1	07/11/2019 20:27	<a href="#">WG1308594</a>
Bis(2-chloroethoxy)methane	ND	J4	2.06	1	07/11/2019 20:27	<a href="#">WG1308594</a>
Bis(2-chloroethyl)ether	ND	J4	2.06	1	07/11/2019 20:27	<a href="#">WG1308594</a>
Bis(2-chloroisopropyl)ether	ND	J4	2.06	1	07/11/2019 20:27	<a href="#">WG1308594</a>
4-Bromophenyl-phenylether	ND	J4	2.06	1	07/11/2019 20:27	<a href="#">WG1308594</a>
Caprolactam	ND		2.06	1	07/11/2019 20:27	<a href="#">WG1308594</a>
Carbazole	ND	J4	2.06	1	07/11/2019 20:27	<a href="#">WG1308594</a>
4-Chloroaniline	ND	J4	2.06	1	07/11/2019 20:27	<a href="#">WG1308594</a>
2-Chloronaphthalene	ND	J4	0.206	1	07/11/2019 20:27	<a href="#">WG1308594</a>
4-Chlorophenyl-phenylether	ND	J4	2.06	1	07/11/2019 20:27	<a href="#">WG1308594</a>
Chrysene	ND	J4	0.206	1	07/11/2019 20:27	<a href="#">WG1308594</a>
Dibenz(a,h)anthracene	ND		0.206	1	07/11/2019 20:27	<a href="#">WG1308594</a>
Dibenzofuran	ND	J4	2.06	1	07/11/2019 20:27	<a href="#">WG1308594</a>
3,3-Dichlorobenzidine	ND	J4	2.06	1	07/11/2019 20:27	<a href="#">WG1308594</a>
2,4-Dinitrotoluene	ND	J4	2.06	1	07/11/2019 20:27	<a href="#">WG1308594</a>
2,6-Dinitrotoluene	ND	J4	2.06	1	07/11/2019 20:27	<a href="#">WG1308594</a>



Collected date/time: 06/26/19 11:53

L1113939

Semi Volatile Organic Compounds (GC/MS) by Method 8270D

Analyte	Result (dry) mg/kg	Qualifier	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Fluoranthene	ND	J4	0.206	1	07/11/2019 20:27	WG1308594
Fluorene	ND	J4	0.206	1	07/11/2019 20:27	WG1308594
Hexachlorobenzene	ND	J4	2.06	1	07/11/2019 20:27	WG1308594
Hexachloro-1,3-butadiene	ND	J4	2.06	1	07/11/2019 20:27	WG1308594
Hexachlorocyclopentadiene	ND	J4	2.06	1	07/11/2019 20:27	WG1308594
Hexachloroethane	ND	J4	2.06	1	07/11/2019 20:27	WG1308594
Indeno(1,2,3-cd)pyrene	ND	J4	0.206	1	07/11/2019 20:27	WG1308594
Isophorone	ND	J4	2.06	1	07/11/2019 20:27	WG1308594
2-Methylnaphthalene	ND	J4	0.206	1	07/11/2019 20:27	WG1308594
Naphthalene	ND	J4	0.206	1	07/11/2019 20:27	WG1308594
2-Nitroaniline	ND	J4	2.06	1	07/11/2019 20:27	WG1308594
3-Nitroaniline	ND	J4	2.06	1	07/11/2019 20:27	WG1308594
4-Nitroaniline	ND	J4	2.06	1	07/11/2019 20:27	WG1308594
Nitrobenzene	ND	J4	2.06	1	07/11/2019 20:27	WG1308594
n-Nitrosodiphenylamine	ND	J4	2.06	1	07/11/2019 20:27	WG1308594
n-Nitrosodi-n-propylamine	ND	J4	2.06	1	07/11/2019 20:27	WG1308594
Phenanthrene	ND	J4	0.206	1	07/11/2019 20:27	WG1308594
Benzylbutyl phthalate	ND	J4	2.06	1	07/11/2019 20:27	WG1308594
Bis(2-ethylhexyl)phthalate	ND	J4	2.06	1	07/11/2019 20:27	WG1308594
Di-n-butyl phthalate	ND	J4	2.06	1	07/11/2019 20:27	WG1308594
Diethyl phthalate	ND	J4	2.06	1	07/11/2019 20:27	WG1308594
Dimethyl phthalate	ND	J4	2.06	1	07/11/2019 20:27	WG1308594
Di-n-octyl phthalate	ND	J4	2.06	1	07/11/2019 20:27	WG1308594
Pyrene	ND	J4	0.206	1	07/11/2019 20:27	WG1308594
1,2,4,5-Tetrachlorobenzene	ND	J4	2.06	1	07/11/2019 20:27	WG1308594
4-Chloro-3-methylphenol	ND	J4	2.06	1	07/11/2019 20:27	WG1308594
2-Chlorophenol	ND	J4	2.06	1	07/11/2019 20:27	WG1308594
2-Methylphenol	ND	J4	2.06	1	07/11/2019 20:27	WG1308594
3&4-Methyl Phenol	ND	J4	2.06	1	07/11/2019 20:27	WG1308594
2,4-Dichlorophenol	ND	J4	2.06	1	07/11/2019 20:27	WG1308594
2,4-Dimethylphenol	ND	J4	2.06	1	07/11/2019 20:27	WG1308594
4,6-Dinitro-2-methylphenol	ND	J4	2.06	1	07/11/2019 20:27	WG1308594
2,4-Dinitrophenol	ND	J4	2.06	1	07/11/2019 20:27	WG1308594
2-Nitrophenol	ND	J4	2.06	1	07/11/2019 20:27	WG1308594
4-Nitrophenol	ND	J4	2.06	1	07/11/2019 20:27	WG1308594
Pentachlorophenol	ND	J4	2.06	1	07/11/2019 20:27	WG1308594
Phenol	ND	J4	2.06	1	07/11/2019 20:27	WG1308594
2,4,5-Trichlorophenol	ND	J4	2.06	1	07/11/2019 20:27	WG1308594
2,4,6-Trichlorophenol	ND	J4	2.06	1	07/11/2019 20:27	WG1308594
(S) 2-Fluorophenol	44.7		12.0-120		07/11/2019 20:27	WG1308594
(S) Phenol-d5	40.2		10.0-120		07/11/2019 20:27	WG1308594
(S) Nitrobenzene-d5	34.8		10.0-122		07/11/2019 20:27	WG1308594
(S) 2-Fluorobiphenyl	35.8		15.0-120		07/11/2019 20:27	WG1308594
(S) 2,4,6-Tribromophenol	34.8		10.0-127		07/11/2019 20:27	WG1308594
(S) p-Terphenyl-d14	39.1		10.0-120		07/11/2019 20:27	WG1308594

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

Semi Volatile Organic Compounds (GC/MS) by Method 8270E-SIM

Analyte	Result (dry) mg/kg	Qualifier	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Anthracene	ND		0.0370	1	07/09/2019 19:32	WG1307909
Acenaphthene	ND		0.0370	1	07/09/2019 19:32	WG1307909
Acenaphthylene	ND		0.0370	1	07/09/2019 19:32	WG1307909
Benzo(a)anthracene	ND		0.0370	1	07/09/2019 19:32	WG1307909
Benzo(a)pyrene	ND		0.0370	1	07/09/2019 19:32	WG1307909
Benzo(b)fluoranthene	ND		0.0370	1	07/09/2019 19:32	WG1307909
Benzo(g,h,i)perylene	ND		0.0370	1	07/09/2019 19:32	WG1307909





Semi Volatile Organic Compounds (GC/MS) by Method 8270E-SIM

Analyte	Result (dry) mg/kg	Qualifier	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Benzo(k)fluoranthene	ND		0.0370	1	07/09/2019 19:32	<a href="#">WG1307909</a>
Chrysene	ND		0.0370	1	07/09/2019 19:32	<a href="#">WG1307909</a>
Dibenz(a,h)anthracene	ND		0.0370	1	07/09/2019 19:32	<a href="#">WG1307909</a>
Fluoranthene	ND		0.0370	1	07/09/2019 19:32	<a href="#">WG1307909</a>
Fluorene	ND		0.0370	1	07/09/2019 19:32	<a href="#">WG1307909</a>
Indeno(1,2,3-cd)pyrene	ND		0.0370	1	07/09/2019 19:32	<a href="#">WG1307909</a>
Naphthalene	ND		0.123	1	07/09/2019 19:32	<a href="#">WG1307909</a>
Phenanthrene	ND		0.0370	1	07/09/2019 19:32	<a href="#">WG1307909</a>
Pyrene	ND		0.0370	1	07/09/2019 19:32	<a href="#">WG1307909</a>
1-Methylnaphthalene	ND		0.123	1	07/09/2019 19:32	<a href="#">WG1307909</a>
2-Methylnaphthalene	ND		0.123	1	07/09/2019 19:32	<a href="#">WG1307909</a>
<i>(S) p-Terphenyl-d14</i>	82.4		23.0-120		07/09/2019 19:32	<a href="#">WG1307909</a>
<i>(S) Nitrobenzene-d5</i>	86.3		14.0-149		07/09/2019 19:32	<a href="#">WG1307909</a>
<i>(S) 2-Fluorobiphenyl</i>	78.9		34.0-125		07/09/2019 19:32	<a href="#">WG1307909</a>

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc



## Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	16.4		1	07/06/2019 15:21	<a href="#">WG1307004</a>

## Wet Chemistry by Method 9012B

Analyte	Result (dry)	Qualifier	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg		date / time	
Cyanide	ND		1.52	1	07/11/2019 09:56	<a href="#">WG1308669</a>

## Mercury by Method 7471B

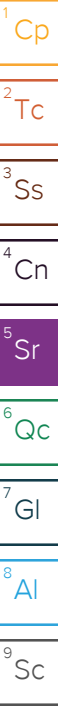
Analyte	Result (dry)	Qualifier	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg		date / time	
Mercury	0.274		0.122	1	07/07/2019 14:21	<a href="#">WG1306876</a>

## Metals (ICP) by Method 6010D

Analyte	Result (dry)	Qualifier	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg		date / time	
Aluminum	5960		60.9	1	07/07/2019 23:00	<a href="#">WG1306898</a>
Antimony	ND		12.2	1	07/07/2019 23:00	<a href="#">WG1306898</a>
Arsenic	ND		12.2	1	07/07/2019 23:00	<a href="#">WG1306898</a>
Barium	89.1		3.04	1	07/07/2019 23:00	<a href="#">WG1306898</a>
Beryllium	ND		1.22	1	07/07/2019 23:00	<a href="#">WG1306898</a>
Cadmium	ND		3.04	1	07/07/2019 23:00	<a href="#">WG1306898</a>
Calcium	66700		609	1	07/07/2019 23:00	<a href="#">WG1306898</a>
Chromium	22.3		6.09	1	07/07/2019 23:00	<a href="#">WG1306898</a>
Cobalt	ND		6.09	1	07/07/2019 23:00	<a href="#">WG1306898</a>
Copper	73.0		12.2	1	07/07/2019 23:00	<a href="#">WG1306898</a>
Iron	4010		60.9	1	07/07/2019 23:00	<a href="#">WG1306898</a>
Lead	56.1		3.04	1	07/07/2019 23:00	<a href="#">WG1306898</a>
Magnesium	727		609	1	07/07/2019 23:00	<a href="#">WG1306898</a>
Manganese	962		6.09	1	07/07/2019 23:00	<a href="#">WG1306898</a>
Nickel	16.5		12.2	1	07/07/2019 23:00	<a href="#">WG1306898</a>
Potassium	ND		609	1	07/07/2019 23:00	<a href="#">WG1306898</a>
Selenium	ND		12.2	1	07/07/2019 23:00	<a href="#">WG1306898</a>
Silver	ND		6.09	1	07/07/2019 23:00	<a href="#">WG1306898</a>
Sodium	7940		609	1	07/07/2019 23:00	<a href="#">WG1306898</a>
Thallium	ND		12.2	1	07/07/2019 23:00	<a href="#">WG1306898</a>
Vanadium	30.9		12.2	1	07/07/2019 23:00	<a href="#">WG1306898</a>
Zinc	628		30.4	1	07/07/2019 23:00	<a href="#">WG1306898</a>

## Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result (dry)	Qualifier	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg		date / time	
Acetone	2.39		1.22	8	07/07/2019 21:30	<a href="#">WG1307049</a>
Benzene	ND		0.0487	8	07/07/2019 21:30	<a href="#">WG1307049</a>
Bromochloromethane	ND		0.243	8	07/07/2019 21:30	<a href="#">WG1307049</a>
Bromodichloromethane	ND		0.122	8	07/07/2019 21:30	<a href="#">WG1307049</a>
Bromoform	ND		1.22	8	07/07/2019 21:30	<a href="#">WG1307049</a>
Bromomethane	ND		0.609	8	07/07/2019 21:30	<a href="#">WG1307049</a>
Carbon disulfide	ND		0.609	8	07/07/2019 21:30	<a href="#">WG1307049</a>
Carbon tetrachloride	ND		0.243	8	07/07/2019 21:30	<a href="#">WG1307049</a>
Chlorobenzene	ND		0.122	8	07/07/2019 21:30	<a href="#">WG1307049</a>
Chlorodibromomethane	ND		0.122	8	07/07/2019 21:30	<a href="#">WG1307049</a>
Chloroethane	ND		0.243	8	07/07/2019 21:30	<a href="#">WG1307049</a>
Chloroform	ND		0.122	8	07/07/2019 21:30	<a href="#">WG1307049</a>
Chloromethane	ND		0.609	8	07/07/2019 21:30	<a href="#">WG1307049</a>





Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result (dry) mg/kg	Qualifier	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Cyclohexane	ND		0.122	8	07/07/2019 21:30	WG1307049
1,2-Dibromo-3-Chloropropane	ND		1.22	8	07/07/2019 21:30	WG1307049
1,2-Dibromoethane	ND		0.122	8	07/07/2019 21:30	WG1307049
Dichlorodifluoromethane	ND		0.122	8	07/07/2019 21:30	WG1307049
1,1-Dichloroethane	ND		0.122	8	07/07/2019 21:30	WG1307049
1,2-Dichloroethane	ND		0.122	8	07/07/2019 21:30	WG1307049
1,2-Dichlorobenzene	ND		0.243	8	07/07/2019 21:30	WG1307049
1,3-Dichlorobenzene	ND		0.243	8	07/07/2019 21:30	WG1307049
1,4-Dichlorobenzene	ND		0.243	8	07/07/2019 21:30	WG1307049
1,1-Dichloroethene	ND		0.122	8	07/07/2019 21:30	WG1307049
cis-1,2-Dichloroethene	ND		0.122	8	07/07/2019 21:30	WG1307049
trans-1,2-Dichloroethene	ND		0.243	8	07/07/2019 21:30	WG1307049
1,2-Dichloropropane	ND		0.243	8	07/07/2019 21:30	WG1307049
cis-1,3-Dichloropropene	ND		0.122	8	07/07/2019 21:30	WG1307049
trans-1,3-Dichloropropene	ND		0.243	8	07/07/2019 21:30	WG1307049
Ethylbenzene	ND		0.122	8	07/07/2019 21:30	WG1307049
2-Hexanone	ND		1.22	8	07/07/2019 21:30	WG1307049
Isopropylbenzene	0.162		0.122	8	07/07/2019 21:30	WG1307049
2-Butanone (MEK)	ND		1.22	8	07/07/2019 21:30	WG1307049
Methyl Acetate	1.66		0.243	8	07/07/2019 21:30	WG1307049
Methyl Cyclohexane	0.394		0.243	8	07/07/2019 21:30	WG1307049
Methylene Chloride	ND		1.22	8	07/07/2019 21:30	WG1307049
4-Methyl-2-pentanone (MIBK)	ND		1.22	8	07/07/2019 21:30	WG1307049
Methyl tert-butyl ether	ND		0.0487	8	07/07/2019 21:30	WG1307049
Styrene	ND		0.609	8	07/07/2019 21:30	WG1307049
1,1,2,2-Tetrachloroethane	ND		0.122	8	07/07/2019 21:30	WG1307049
Tetrachloroethene	ND		0.122	8	07/07/2019 21:30	WG1307049
Toluene	ND		0.243	8	07/07/2019 21:30	WG1307049
1,2,3-Trichlorobenzene	ND		0.122	8	07/07/2019 21:30	WG1307049
1,2,4-Trichlorobenzene	ND		0.609	8	07/07/2019 21:30	WG1307049
1,1,1-Trichloroethane	ND		0.122	8	07/07/2019 21:30	WG1307049
1,1,2-Trichloroethane	ND		0.122	8	07/07/2019 21:30	WG1307049
Trichloroethene	ND		0.0487	8	07/07/2019 21:30	WG1307049
Trichlorofluoromethane	ND		0.122	8	07/07/2019 21:30	WG1307049
1,1,2-Trichlorotrifluoroethane	ND		0.122	8	07/07/2019 21:30	WG1307049
Vinyl chloride	ND		0.122	8	07/07/2019 21:30	WG1307049
Xylenes, Total	ND		0.316	8	07/07/2019 21:30	WG1307049
(S) Toluene-d8	102		75.0-131		07/07/2019 21:30	WG1307049
(S) 4-Bromofluorobenzene	106		67.0-138		07/07/2019 21:30	WG1307049
(S) 1,2-Dichloroethane-d4	108		70.0-130		07/07/2019 21:30	WG1307049

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

Sample Narrative:

L1113939-19 WG1307049: Non-target compounds too high to run at a lower dilution.

Pesticides (GC) by Method 8081B

Analyte	Result (dry) mg/kg	Qualifier	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Aldrin	ND		0.122	1	07/10/2019 17:52	WG1307388
Alpha BHC	ND		0.122	1	07/10/2019 17:52	WG1307388
Beta BHC	ND		0.122	1	07/10/2019 17:52	WG1307388
Delta BHC	ND		0.122	1	07/10/2019 17:52	WG1307388
Gamma BHC	ND		0.122	1	07/10/2019 17:52	WG1307388
Chlordane	ND		1.22	1	07/10/2019 17:52	WG1307388
4,4-DDD	ND		0.122	1	07/10/2019 17:52	WG1307388
4,4-DDE	ND		0.122	1	07/10/2019 17:52	WG1307388
4,4-DDT	ND	J4	0.122	1	07/10/2019 17:52	WG1307388



Collected date/time: 06/26/19 15:00

L1113939

## Pesticides (GC) by Method 8081B

Analyte	Result (dry) mg/kg	Qualifier	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Dieldrin	ND		0.122	1	07/10/2019 17:52	<a href="#">WG1307388</a>
Endosulfan I	ND		0.122	1	07/10/2019 17:52	<a href="#">WG1307388</a>
Endosulfan II	ND		0.122	1	07/10/2019 17:52	<a href="#">WG1307388</a>
Endosulfan sulfate	ND		0.122	1	07/10/2019 17:52	<a href="#">WG1307388</a>
Endrin	ND		0.122	1	07/10/2019 17:52	<a href="#">WG1307388</a>
Endrin aldehyde	ND		0.122	1	07/10/2019 17:52	<a href="#">WG1307388</a>
Endrin ketone	ND		0.122	1	07/10/2019 17:52	<a href="#">WG1307388</a>
Heptachlor	ND		0.122	1	07/10/2019 17:52	<a href="#">WG1307388</a>
Heptachlor epoxide	ND		0.122	1	07/10/2019 17:52	<a href="#">WG1307388</a>
Hexachlorobenzene	ND		0.122	1	07/10/2019 17:52	<a href="#">WG1307388</a>
Methoxychlor	ND	J4	0.122	1	07/10/2019 17:52	<a href="#">WG1307388</a>
Toxaphene	ND		2.43	1	07/10/2019 17:52	<a href="#">WG1307388</a>
(S) Decachlorobiphenyl	57.4		10.0-135		07/10/2019 17:52	<a href="#">WG1307388</a>
(S) Tetrachloro-m-xylene	66.7		10.0-139		07/10/2019 17:52	<a href="#">WG1307388</a>

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

## Polychlorinated Biphenyls (GC) by Method 8082 A

Analyte	Result (dry) mg/kg	Qualifier	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
PCB 1016	ND	J4	0.103	1	07/09/2019 12:43	<a href="#">WG1307388</a>
PCB 1221	ND		0.103	1	07/09/2019 12:43	<a href="#">WG1307388</a>
PCB 1232	ND		0.103	1	07/09/2019 12:43	<a href="#">WG1307388</a>
PCB 1242	ND		0.103	1	07/09/2019 12:43	<a href="#">WG1307388</a>
PCB 1248	ND		0.103	1	07/09/2019 12:43	<a href="#">WG1307388</a>
PCB 1254	ND		0.103	1	07/09/2019 12:43	<a href="#">WG1307388</a>
PCB 1260	ND	J4	0.103	1	07/09/2019 12:43	<a href="#">WG1307388</a>
(S) Decachlorobiphenyl	80.1		10.0-135		07/09/2019 12:43	<a href="#">WG1307388</a>
(S) Tetrachloro-m-xylene	73.9		10.0-139		07/09/2019 12:43	<a href="#">WG1307388</a>

## Semi Volatile Organic Compounds (GC/MS) by Method 8270D

Analyte	Result (dry) mg/kg	Qualifier	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Acenaphthene	ND	J4 J6	2.03	10	07/11/2019 04:30	<a href="#">WG1308594</a>
Acenaphthylene	ND	J4 J6	2.03	10	07/11/2019 04:30	<a href="#">WG1308594</a>
Acetophenone	ND	J4 J6	20.3	10	07/11/2019 04:30	<a href="#">WG1308594</a>
Anthracene	ND	J3 J4 J6	2.03	10	07/11/2019 04:30	<a href="#">WG1308594</a>
Atrazine	ND	J4 J6	20.3	10	07/11/2019 04:30	<a href="#">WG1308594</a>
Benzaldehyde	ND	J4 J6	20.3	10	07/11/2019 04:30	<a href="#">WG1308594</a>
Benzo(a)anthracene	ND	J4	2.03	10	07/11/2019 04:30	<a href="#">WG1308594</a>
Benzo(b)fluoranthene	ND	J4	2.03	10	07/11/2019 04:30	<a href="#">WG1308594</a>
Benzo(k)fluoranthene	ND	J4	2.03	10	07/11/2019 04:30	<a href="#">WG1308594</a>
Benzo(g,h,i)perylene	ND		2.03	10	07/11/2019 04:30	<a href="#">WG1308594</a>
Benzo(a)pyrene	ND	J4	2.03	10	07/11/2019 04:30	<a href="#">WG1308594</a>
Biphenyl	ND	J4 J6	20.3	10	07/11/2019 04:30	<a href="#">WG1308594</a>
Bis(2-chloroethoxy)methane	ND	J3 J4 J6	20.3	10	07/11/2019 04:30	<a href="#">WG1308594</a>
Bis(2-chloroethyl)ether	ND	J4	20.3	10	07/11/2019 04:30	<a href="#">WG1308594</a>
Bis(2-chloroisopropyl)ether	ND	J4	20.3	10	07/11/2019 04:30	<a href="#">WG1308594</a>
4-Bromophenyl-phenylether	ND	J4	20.3	10	07/11/2019 04:30	<a href="#">WG1308594</a>
Caprolactam	ND	J6	20.3	10	07/11/2019 04:30	<a href="#">WG1308594</a>
Carbazole	ND	J3 J4	20.3	10	07/11/2019 04:30	<a href="#">WG1308594</a>
4-Chloroaniline	ND	J3 J4 J6	20.3	10	07/11/2019 04:30	<a href="#">WG1308594</a>
2-Chloronaphthalene	ND	J4 J6	2.03	10	07/11/2019 04:30	<a href="#">WG1308594</a>
4-Chlorophenyl-phenylether	ND	J4	20.3	10	07/11/2019 04:30	<a href="#">WG1308594</a>
Chrysene	ND	J4	2.03	10	07/11/2019 04:30	<a href="#">WG1308594</a>
Dibenz(a,h)anthracene	ND		2.03	10	07/11/2019 04:30	<a href="#">WG1308594</a>
Dibenzofuran	ND	J3 J4	20.3	10	07/11/2019 04:30	<a href="#">WG1308594</a>



Semi Volatile Organic Compounds (GC/MS) by Method 8270D

Analyte	Result (dry) mg/kg	Qualifier	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
3,3-Dichlorobenzidine	ND	J3 J4 J6	20.3	10	07/11/2019 04:30	WG1308594
2,4-Dinitrotoluene	ND	J3 J4	20.3	10	07/11/2019 04:30	WG1308594
2,6-Dinitrotoluene	ND	J3 J4	20.3	10	07/11/2019 04:30	WG1308594
Fluoranthene	ND	J3 J4	2.03	10	07/11/2019 04:30	WG1308594
Fluorene	ND	J3 J4 J6	2.03	10	07/11/2019 04:30	WG1308594
Hexachlorobenzene	ND	J4	20.3	10	07/11/2019 04:30	WG1308594
Hexachloro-1,3-butadiene	ND	J3 J4 J6	20.3	10	07/11/2019 04:30	WG1308594
Hexachlorocyclopentadiene	ND	J0 J4 J6	20.3	10	07/11/2019 04:30	WG1308594
Hexachloroethane	ND	J3 J4 J6	20.3	10	07/11/2019 04:30	WG1308594
Indeno(1,2,3-cd)pyrene	ND		2.03	10	07/11/2019 04:30	WG1308594
Isophorone	ND	J3 J4	20.3	10	07/11/2019 04:30	WG1308594
2-Methylnaphthalene	6.06	J4 J6	2.03	10	07/11/2019 04:30	WG1308594
Naphthalene	ND	J4 J6	2.03	10	07/11/2019 04:30	WG1308594
2-Nitroaniline	ND	J3 J4 J6	20.3	10	07/11/2019 04:30	WG1308594
3-Nitroaniline	ND	J3 J4	20.3	10	07/11/2019 04:30	WG1308594
4-Nitroaniline	ND	J3 J4	20.3	10	07/11/2019 04:30	WG1308594
Nitrobenzene	ND	J3 J4 J6	20.3	10	07/11/2019 04:30	WG1308594
n-Nitrosodiphenylamine	ND	J4 J6	20.3	10	07/11/2019 04:30	WG1308594
n-Nitrosodi-n-propylamine	ND	J3 J4	20.3	10	07/11/2019 04:30	WG1308594
Phenanthrene	ND	J3 J4 J6	2.03	10	07/11/2019 04:30	WG1308594
Benzylbutyl phthalate	ND	J3 J4	20.3	10	07/11/2019 04:30	WG1308594
Bis(2-ethylhexyl)phthalate	ND	J4	20.3	10	07/11/2019 04:30	WG1308594
Di-n-butyl phthalate	ND	J3	20.3	10	07/11/2019 04:30	WG1308594
Diethyl phthalate	ND	J3 J4 J6	20.3	10	07/11/2019 04:30	WG1308594
Dimethyl phthalate	ND	J3 J4	20.3	10	07/11/2019 04:30	WG1308594
Di-n-octyl phthalate	ND	J3 J4	20.3	10	07/11/2019 04:30	WG1308594
Pyrene	ND	J3 J4	2.03	10	07/11/2019 04:30	WG1308594
1,2,4,5-Tetrachlorobenzene	ND	J4 J6	20.3	10	07/11/2019 04:30	WG1308594
4-Chloro-3-methylphenol	ND	J3 J4	20.3	10	07/11/2019 04:30	WG1308594
2-Chlorophenol	ND	J3 J4	20.3	10	07/11/2019 04:30	WG1308594
2-Methylphenol	ND	J3 J4	20.3	10	07/11/2019 04:30	WG1308594
3&4-Methyl Phenol	ND	J3 J4	20.3	10	07/11/2019 04:30	WG1308594
2,4-Dichlorophenol	ND	J3 J4	20.3	10	07/11/2019 04:30	WG1308594
2,4-Dimethylphenol	ND	J0 J4 J6	20.3	10	07/11/2019 04:30	WG1308594
4,6-Dinitro-2-methylphenol	ND	J4 J6	20.3	10	07/11/2019 04:30	WG1308594
2,4-Dinitrophenol	ND	J4 J6	20.3	10	07/11/2019 04:30	WG1308594
2-Nitrophenol	ND	J3 J4	20.3	10	07/11/2019 04:30	WG1308594
4-Nitrophenol	ND	J4 J6	20.3	10	07/11/2019 04:30	WG1308594
Pentachlorophenol	ND	J4 J6	20.3	10	07/11/2019 04:30	WG1308594
Phenol	ND	J3 J4	20.3	10	07/11/2019 04:30	WG1308594
2,4,5-Trichlorophenol	ND	J3 J4	20.3	10	07/11/2019 04:30	WG1308594
2,4,6-Trichlorophenol	ND	J3 J4	20.3	10	07/11/2019 04:30	WG1308594
(S) 2-Fluorophenol	39.2		12.0-120		07/11/2019 04:30	WG1308594
(S) Phenol-d5	35.9		10.0-120		07/11/2019 04:30	WG1308594
(S) Nitrobenzene-d5	54.5		10.0-122		07/11/2019 04:30	WG1308594
(S) 2-Fluorobiphenyl	41.4		15.0-120		07/11/2019 04:30	WG1308594
(S) 2,4,6-Tribromophenol	36.2		10.0-127		07/11/2019 04:30	WG1308594
(S) p-Terphenyl-d14	38.2		10.0-120		07/11/2019 04:30	WG1308594

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

Sample Narrative:

L1113939-19 WG1308594: Dilution due to matrix.



Semi Volatile Organic Compounds (GC/MS) by Method 8270E-SIM

Analyte	Result (dry) mg/kg	Qualifier	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Anthracene	ND		0.0365	1	07/09/2019 19:53	<a href="#">WG1307909</a>
Acenaphthene	ND		0.0365	1	07/09/2019 19:53	<a href="#">WG1307909</a>
Acenaphthylene	ND		0.0365	1	07/09/2019 19:53	<a href="#">WG1307909</a>
Benzo(a)anthracene	ND		0.0365	1	07/09/2019 19:53	<a href="#">WG1307909</a>
Benzo(a)pyrene	ND		0.0365	1	07/09/2019 19:53	<a href="#">WG1307909</a>
Benzo(b)fluoranthene	ND		0.0365	1	07/09/2019 19:53	<a href="#">WG1307909</a>
Benzo(g,h,i)perylene	ND		0.0365	1	07/09/2019 19:53	<a href="#">WG1307909</a>
Benzo(k)fluoranthene	ND		0.0365	1	07/09/2019 19:53	<a href="#">WG1307909</a>
Chrysene	ND		0.0365	1	07/09/2019 19:53	<a href="#">WG1307909</a>
Dibenz(a,h)anthracene	ND		0.0365	1	07/09/2019 19:53	<a href="#">WG1307909</a>
Fluoranthene	0.0627		0.0365	1	07/09/2019 19:53	<a href="#">WG1307909</a>
Fluorene	0.333		0.0365	1	07/09/2019 19:53	<a href="#">WG1307909</a>
Indeno(1,2,3-cd)pyrene	ND		0.0365	1	07/09/2019 19:53	<a href="#">WG1307909</a>
Naphthalene	ND		0.122	1	07/09/2019 19:53	<a href="#">WG1307909</a>
Phenanthrene	0.139		0.0365	1	07/09/2019 19:53	<a href="#">WG1307909</a>
Pyrene	ND		0.0365	1	07/09/2019 19:53	<a href="#">WG1307909</a>
1-Methylnaphthalene	2.64		0.122	1	07/09/2019 19:53	<a href="#">WG1307909</a>
2-Methylnaphthalene	3.55		0.122	1	07/09/2019 19:53	<a href="#">WG1307909</a>
(S) p-Terphenyl-d14	78.1		23.0-120		07/09/2019 19:53	<a href="#">WG1307909</a>
(S) Nitrobenzene-d5	25.5		14.0-149		07/09/2019 19:53	<a href="#">WG1307909</a>
(S) 2-Fluorobiphenyl	87.7		34.0-125		07/09/2019 19:53	<a href="#">WG1307909</a>

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc



## Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	17.6		1	07/06/2019 15:21	<a href="#">WG1307004</a>

## Wet Chemistry by Method 9012B

Analyte	Result (dry)	Qualifier	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg		date / time	
Cyanide	ND		1.42	1	07/11/2019 09:57	<a href="#">WG1308669</a>

## Mercury by Method 7471B

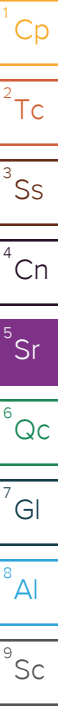
Analyte	Result (dry)	Qualifier	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg		date / time	
Mercury	0.129		0.114	1	07/07/2019 14:23	<a href="#">WG1306876</a>

## Metals (ICP) by Method 6010D

Analyte	Result (dry)	Qualifier	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg		date / time	
Aluminum	8910		56.8	1	07/07/2019 23:03	<a href="#">WG1306898</a>
Antimony	ND		11.4	1	07/07/2019 23:03	<a href="#">WG1306898</a>
Arsenic	ND		11.4	1	07/07/2019 23:03	<a href="#">WG1306898</a>
Barium	82.2		2.84	1	07/07/2019 23:03	<a href="#">WG1306898</a>
Beryllium	ND		1.14	1	07/07/2019 23:03	<a href="#">WG1306898</a>
Cadmium	ND		2.84	1	07/07/2019 23:03	<a href="#">WG1306898</a>
Calcium	131000		568	1	07/07/2019 23:03	<a href="#">WG1306898</a>
Chromium	32.9		5.68	1	07/07/2019 23:03	<a href="#">WG1306898</a>
Cobalt	ND		5.68	1	07/07/2019 23:03	<a href="#">WG1306898</a>
Copper	49.1		11.4	1	07/07/2019 23:03	<a href="#">WG1306898</a>
Iron	3820		56.8	1	07/07/2019 23:03	<a href="#">WG1306898</a>
Lead	36.2		2.84	1	07/07/2019 23:03	<a href="#">WG1306898</a>
Magnesium	854		568	1	07/07/2019 23:03	<a href="#">WG1306898</a>
Manganese	780		5.68	1	07/07/2019 23:03	<a href="#">WG1306898</a>
Nickel	15.4		11.4	1	07/07/2019 23:03	<a href="#">WG1306898</a>
Potassium	ND		568	1	07/07/2019 23:03	<a href="#">WG1306898</a>
Selenium	ND		11.4	1	07/07/2019 23:03	<a href="#">WG1306898</a>
Silver	ND		5.68	1	07/07/2019 23:03	<a href="#">WG1306898</a>
Sodium	14000		568	1	07/07/2019 23:03	<a href="#">WG1306898</a>
Thallium	ND		11.4	1	07/07/2019 23:03	<a href="#">WG1306898</a>
Vanadium	34.3		11.4	1	07/07/2019 23:03	<a href="#">WG1306898</a>
Zinc	270		28.4	1	07/07/2019 23:03	<a href="#">WG1306898</a>

## Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result (dry)	Qualifier	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg		date / time	
Acetone	0.761		0.142	1	07/07/2019 21:10	<a href="#">WG1307049</a>
Benzene	ND		0.00568	1	07/07/2019 21:10	<a href="#">WG1307049</a>
Bromochloromethane	ND		0.0284	1	07/07/2019 21:10	<a href="#">WG1307049</a>
Bromodichloromethane	ND		0.0142	1	07/07/2019 21:10	<a href="#">WG1307049</a>
Bromoform	ND		0.142	1	07/07/2019 21:10	<a href="#">WG1307049</a>
Bromomethane	ND		0.0710	1	07/07/2019 21:10	<a href="#">WG1307049</a>
Carbon disulfide	0.0730		0.0710	1	07/07/2019 21:10	<a href="#">WG1307049</a>
Carbon tetrachloride	ND		0.0284	1	07/07/2019 21:10	<a href="#">WG1307049</a>
Chlorobenzene	ND		0.0142	1	07/07/2019 21:10	<a href="#">WG1307049</a>
Chlorodibromomethane	ND		0.0142	1	07/07/2019 21:10	<a href="#">WG1307049</a>
Chloroethane	ND		0.0284	1	07/07/2019 21:10	<a href="#">WG1307049</a>
Chloroform	ND		0.0142	1	07/07/2019 21:10	<a href="#">WG1307049</a>
Chloromethane	ND		0.0710	1	07/07/2019 21:10	<a href="#">WG1307049</a>







Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result (dry) mg/kg	Qualifier	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Cyclohexane	ND		0.0142	1	07/07/2019 21:10	WG1307049
1,2-Dibromo-3-Chloropropane	ND		0.142	1	07/07/2019 21:10	WG1307049
1,2-Dibromoethane	ND		0.0142	1	07/07/2019 21:10	WG1307049
Dichlorodifluoromethane	ND		0.0142	1	07/07/2019 21:10	WG1307049
1,1-Dichloroethane	ND		0.0142	1	07/07/2019 21:10	WG1307049
1,2-Dichloroethane	ND		0.0142	1	07/07/2019 21:10	WG1307049
1,2-Dichlorobenzene	ND		0.0284	1	07/07/2019 21:10	WG1307049
1,3-Dichlorobenzene	ND		0.0284	1	07/07/2019 21:10	WG1307049
1,4-Dichlorobenzene	ND		0.0284	1	07/07/2019 21:10	WG1307049
1,1-Dichloroethene	ND		0.0142	1	07/07/2019 21:10	WG1307049
cis-1,2-Dichloroethene	ND		0.0142	1	07/07/2019 21:10	WG1307049
trans-1,2-Dichloroethene	ND		0.0284	1	07/07/2019 21:10	WG1307049
1,2-Dichloropropane	ND		0.0284	1	07/07/2019 21:10	WG1307049
cis-1,3-Dichloropropene	ND		0.0142	1	07/07/2019 21:10	WG1307049
trans-1,3-Dichloropropene	ND		0.0284	1	07/07/2019 21:10	WG1307049
Ethylbenzene	ND		0.0142	1	07/07/2019 21:10	WG1307049
2-Hexanone	ND		0.142	1	07/07/2019 21:10	WG1307049
Isopropylbenzene	0.142		0.0142	1	07/07/2019 21:10	WG1307049
2-Butanone (MEK)	ND		0.142	1	07/07/2019 21:10	WG1307049
Methyl Acetate	0.999		0.0284	1	07/07/2019 21:10	WG1307049
Methyl Cyclohexane	0.386		0.0284	1	07/07/2019 21:10	WG1307049
Methylene Chloride	ND		0.142	1	07/07/2019 21:10	WG1307049
4-Methyl-2-pentanone (MIBK)	ND		0.142	1	07/07/2019 21:10	WG1307049
Methyl tert-butyl ether	ND		0.00568	1	07/07/2019 21:10	WG1307049
Styrene	ND		0.0710	1	07/07/2019 21:10	WG1307049
1,1,2,2-Tetrachloroethane	ND		0.0142	1	07/07/2019 21:10	WG1307049
Tetrachloroethene	ND		0.0142	1	07/07/2019 21:10	WG1307049
Toluene	ND		0.0284	1	07/07/2019 21:10	WG1307049
1,2,3-Trichlorobenzene	ND		0.0142	1	07/07/2019 21:10	WG1307049
1,2,4-Trichlorobenzene	ND		0.0710	1	07/07/2019 21:10	WG1307049
1,1,1-Trichloroethane	ND		0.0142	1	07/07/2019 21:10	WG1307049
1,1,2-Trichloroethane	ND		0.0142	1	07/07/2019 21:10	WG1307049
Trichloroethene	ND		0.00568	1	07/07/2019 21:10	WG1307049
Trichlorofluoromethane	ND		0.0142	1	07/07/2019 21:10	WG1307049
1,1,2-Trichlorotrifluoroethane	ND		0.0142	1	07/07/2019 21:10	WG1307049
Vinyl chloride	ND		0.0142	1	07/07/2019 21:10	WG1307049
Xylenes, Total	ND		0.0369	1	07/07/2019 21:10	WG1307049
(S) Toluene-d8	104		75.0-131		07/07/2019 21:10	WG1307049
(S) 4-Bromofluorobenzene	110		67.0-138		07/07/2019 21:10	WG1307049
(S) 1,2-Dichloroethane-d4	106		70.0-130		07/07/2019 21:10	WG1307049

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

Pesticides (GC) by Method 8081B

Analyte	Result (dry) mg/kg	Qualifier	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Aldrin	ND		0.114	1	07/09/2019 16:18	WG1307388
Alpha BHC	ND		0.114	1	07/09/2019 16:18	WG1307388
Beta BHC	ND		0.114	1	07/09/2019 16:18	WG1307388
Delta BHC	ND		0.114	1	07/09/2019 16:18	WG1307388
Gamma BHC	ND		0.114	1	07/09/2019 16:18	WG1307388
Chlordane	ND		1.14	1	07/09/2019 16:18	WG1307388
4,4-DDD	ND		0.114	1	07/09/2019 16:18	WG1307388
4,4-DDE	ND		0.114	1	07/09/2019 16:18	WG1307388
4,4-DDT	ND	J4	0.114	1	07/09/2019 16:18	WG1307388
Dieldrin	ND		0.114	1	07/09/2019 16:18	WG1307388
Endosulfan I	ND		0.114	1	07/09/2019 16:18	WG1307388
Endosulfan II	ND		0.114	1	07/09/2019 16:18	WG1307388



Collected date/time: 06/26/19 14:53

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## Pesticides (GC) by Method 8081B

Analyte	Result (dry) mg/kg	Qualifier	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Endosulfan sulfate	ND		0.114	1	07/09/2019 16:18	<a href="#">WG1307388</a>
Endrin	ND		0.114	1	07/09/2019 16:18	<a href="#">WG1307388</a>
Endrin aldehyde	ND		0.114	1	07/09/2019 16:18	<a href="#">WG1307388</a>
Endrin ketone	ND		0.114	1	07/09/2019 16:18	<a href="#">WG1307388</a>
Heptachlor	ND		0.114	1	07/09/2019 16:18	<a href="#">WG1307388</a>
Heptachlor epoxide	ND		0.114	1	07/09/2019 16:18	<a href="#">WG1307388</a>
Hexachlorobenzene	ND		0.114	1	07/09/2019 16:18	<a href="#">WG1307388</a>
Methoxychlor	ND	J4	0.114	1	07/09/2019 16:18	<a href="#">WG1307388</a>
Toxaphene	ND		2.27	1	07/09/2019 16:18	<a href="#">WG1307388</a>
(S) Decachlorobiphenyl	88.8		10.0-135		07/09/2019 16:18	<a href="#">WG1307388</a>
(S) Tetrachloro-m-xylene	74.0		10.0-139		07/09/2019 16:18	<a href="#">WG1307388</a>

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

## Polychlorinated Biphenyls (GC) by Method 8082 A

Analyte	Result (dry) mg/kg	Qualifier	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
PCB 1016	ND	J4	0.0965	1	07/09/2019 12:57	<a href="#">WG1307388</a>
PCB 1221	ND		0.0965	1	07/09/2019 12:57	<a href="#">WG1307388</a>
PCB 1232	ND		0.0965	1	07/09/2019 12:57	<a href="#">WG1307388</a>
PCB 1242	ND		0.0965	1	07/09/2019 12:57	<a href="#">WG1307388</a>
PCB 1248	ND		0.0965	1	07/09/2019 12:57	<a href="#">WG1307388</a>
PCB 1254	ND		0.0965	1	07/09/2019 12:57	<a href="#">WG1307388</a>
PCB 1260	ND	J4	0.0965	1	07/09/2019 12:57	<a href="#">WG1307388</a>
(S) Decachlorobiphenyl	72.1		10.0-135		07/09/2019 12:57	<a href="#">WG1307388</a>
(S) Tetrachloro-m-xylene	61.3		10.0-139		07/09/2019 12:57	<a href="#">WG1307388</a>

## Semi Volatile Organic Compounds (GC/MS) by Method 8270D

Analyte	Result (dry) mg/kg	Qualifier	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Acenaphthene	ND	J4	0.189	1	07/11/2019 03:23	<a href="#">WG1308594</a>
Acenaphthylene	ND	J4	0.189	1	07/11/2019 03:23	<a href="#">WG1308594</a>
Acetophenone	ND	J4	1.89	1	07/11/2019 03:23	<a href="#">WG1308594</a>
Anthracene	ND	J4	0.189	1	07/11/2019 03:23	<a href="#">WG1308594</a>
Atrazine	ND	J4	1.89	1	07/11/2019 03:23	<a href="#">WG1308594</a>
Benzaldehyde	ND	J4	1.89	1	07/11/2019 03:23	<a href="#">WG1308594</a>
Benzo(a)anthracene	ND	J4	0.189	1	07/11/2019 03:23	<a href="#">WG1308594</a>
Benzo(b)fluoranthene	ND	J4	0.189	1	07/11/2019 03:23	<a href="#">WG1308594</a>
Benzo(k)fluoranthene	ND	J4	0.189	1	07/11/2019 03:23	<a href="#">WG1308594</a>
Benzo(g,h,i)perylene	ND		0.189	1	07/11/2019 03:23	<a href="#">WG1308594</a>
Benzo(a)pyrene	ND	J4	0.189	1	07/11/2019 03:23	<a href="#">WG1308594</a>
Biphenyl	ND	J4	1.89	1	07/11/2019 03:23	<a href="#">WG1308594</a>
Bis(2-chloroethoxy)methane	ND	J4	1.89	1	07/11/2019 03:23	<a href="#">WG1308594</a>
Bis(2-chloroethyl)ether	ND	J4	1.89	1	07/11/2019 03:23	<a href="#">WG1308594</a>
Bis(2-chloroisopropyl)ether	ND	J4	1.89	1	07/11/2019 03:23	<a href="#">WG1308594</a>
4-Bromophenyl-phenylether	ND	J4	1.89	1	07/11/2019 03:23	<a href="#">WG1308594</a>
Caprolactam	ND		1.89	1	07/11/2019 03:23	<a href="#">WG1308594</a>
Carbazole	ND	J4	1.89	1	07/11/2019 03:23	<a href="#">WG1308594</a>
4-Chloroaniline	ND	J4	1.89	1	07/11/2019 03:23	<a href="#">WG1308594</a>
2-Chloronaphthalene	ND	J4	0.189	1	07/11/2019 03:23	<a href="#">WG1308594</a>
4-Chlorophenyl-phenylether	ND	J4	1.89	1	07/11/2019 03:23	<a href="#">WG1308594</a>
Chrysene	ND	J4	0.189	1	07/11/2019 03:23	<a href="#">WG1308594</a>
Dibenz(a,h)anthracene	ND		0.189	1	07/11/2019 03:23	<a href="#">WG1308594</a>
Dibenzofuran	ND	J4	1.89	1	07/11/2019 03:23	<a href="#">WG1308594</a>
3,3-Dichlorobenzidine	ND	J4	1.89	1	07/11/2019 03:23	<a href="#">WG1308594</a>
2,4-Dinitrotoluene	ND	J4	1.89	1	07/11/2019 03:23	<a href="#">WG1308594</a>
2,6-Dinitrotoluene	ND	J4	1.89	1	07/11/2019 03:23	<a href="#">WG1308594</a>



Semi Volatile Organic Compounds (GC/MS) by Method 8270D

Analyte	Result (dry) mg/kg	Qualifier	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Fluoranthene	ND	J4	0.189	1	07/11/2019 03:23	WG1308594
Fluorene	0.420	J4	0.189	1	07/11/2019 03:23	WG1308594
Hexachlorobenzene	ND	J4	1.89	1	07/11/2019 03:23	WG1308594
Hexachloro-1,3-butadiene	ND	J4	1.89	1	07/11/2019 03:23	WG1308594
Hexachlorocyclopentadiene	ND	JO J4	1.89	1	07/11/2019 03:23	WG1308594
Hexachloroethane	ND	J4	1.89	1	07/11/2019 03:23	WG1308594
Indeno(1,2,3-cd)pyrene	ND		0.189	1	07/11/2019 03:23	WG1308594
Isophorone	ND	J4	1.89	1	07/11/2019 03:23	WG1308594
2-Methylnaphthalene	3.98	J4	0.189	1	07/11/2019 03:23	WG1308594
Naphthalene	ND	J4	0.189	1	07/11/2019 03:23	WG1308594
2-Nitroaniline	ND	J4	1.89	1	07/11/2019 03:23	WG1308594
3-Nitroaniline	ND	J4	1.89	1	07/11/2019 03:23	WG1308594
4-Nitroaniline	ND	J4	1.89	1	07/11/2019 03:23	WG1308594
Nitrobenzene	ND	J4	1.89	1	07/11/2019 03:23	WG1308594
n-Nitrosodiphenylamine	ND	J4	1.89	1	07/11/2019 03:23	WG1308594
n-Nitrosodi-n-propylamine	ND	J4	1.89	1	07/11/2019 03:23	WG1308594
Phenanthrene	0.244	J4	0.189	1	07/11/2019 03:23	WG1308594
Benzylbutyl phthalate	ND	J4	1.89	1	07/11/2019 03:23	WG1308594
Bis(2-ethylhexyl)phthalate	ND	J4	1.89	1	07/11/2019 03:23	WG1308594
Di-n-butyl phthalate	ND		1.89	1	07/11/2019 03:23	WG1308594
Diethyl phthalate	ND	J4	1.89	1	07/11/2019 03:23	WG1308594
Dimethyl phthalate	ND	J4	1.89	1	07/11/2019 03:23	WG1308594
Di-n-octyl phthalate	ND	J4	1.89	1	07/11/2019 03:23	WG1308594
Pyrene	ND	J4	0.189	1	07/11/2019 03:23	WG1308594
1,2,4,5-Tetrachlorobenzene	ND	J4	1.89	1	07/11/2019 03:23	WG1308594
4-Chloro-3-methylphenol	ND	J4	1.89	1	07/11/2019 03:23	WG1308594
2-Chlorophenol	ND	J4	1.89	1	07/11/2019 03:23	WG1308594
2-Methylphenol	ND	J4	1.89	1	07/11/2019 03:23	WG1308594
3&4-Methyl Phenol	ND	J4	1.89	1	07/11/2019 03:23	WG1308594
2,4-Dichlorophenol	ND	J4	1.89	1	07/11/2019 03:23	WG1308594
2,4-Dimethylphenol	ND	JO J4	1.89	1	07/11/2019 03:23	WG1308594
4,6-Dinitro-2-methylphenol	ND	J4	1.89	1	07/11/2019 03:23	WG1308594
2,4-Dinitrophenol	ND	J4	1.89	1	07/11/2019 03:23	WG1308594
2-Nitrophenol	ND	J4	1.89	1	07/11/2019 03:23	WG1308594
4-Nitrophenol	ND	J4	1.89	1	07/11/2019 03:23	WG1308594
Pentachlorophenol	ND	J4	1.89	1	07/11/2019 03:23	WG1308594
Phenol	ND	J4	1.89	1	07/11/2019 03:23	WG1308594
2,4,5-Trichlorophenol	ND	J4	1.89	1	07/11/2019 03:23	WG1308594
2,4,6-Trichlorophenol	ND	J4	1.89	1	07/11/2019 03:23	WG1308594
(S) 2-Fluorophenol	21.8		12.0-120		07/11/2019 03:23	WG1308594
(S) Phenol-d5	21.2		10.0-120		07/11/2019 03:23	WG1308594
(S) Nitrobenzene-d5	42.0		10.0-122		07/11/2019 03:23	WG1308594
(S) 2-Fluorobiphenyl	20.3		15.0-120		07/11/2019 03:23	WG1308594
(S) 2,4,6-Tribromophenol	22.7		10.0-127		07/11/2019 03:23	WG1308594
(S) p-Terphenyl-d14	22.9		10.0-120		07/11/2019 03:23	WG1308594

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

Semi Volatile Organic Compounds (GC/MS) by Method 8270E-SIM

Analyte	Result (dry) mg/kg	Qualifier	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Anthracene	ND		0.0341	1	07/09/2019 20:14	WG1307909
Acenaphthene	ND		0.0341	1	07/09/2019 20:14	WG1307909
Acenaphthylene	ND		0.0341	1	07/09/2019 20:14	WG1307909
Benzo(a)anthracene	ND		0.0341	1	07/09/2019 20:14	WG1307909
Benzo(a)pyrene	ND		0.0341	1	07/09/2019 20:14	WG1307909
Benzo(b)fluoranthene	ND		0.0341	1	07/09/2019 20:14	WG1307909
Benzo(g,h,i)perylene	ND		0.0341	1	07/09/2019 20:14	WG1307909



Collected date/time: 06/26/19 14:53

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Semi Volatile Organic Compounds (GC/MS) by Method 8270E-SIM

Analyte	Result (dry) mg/kg	Qualifier	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Benzo(k)fluoranthene	ND		0.0341	1	07/09/2019 20:14	<a href="#">WG1307909</a>
Chrysene	ND		0.0341	1	07/09/2019 20:14	<a href="#">WG1307909</a>
Dibenz(a,h)anthracene	ND		0.0341	1	07/09/2019 20:14	<a href="#">WG1307909</a>
Fluoranthene	ND		0.0341	1	07/09/2019 20:14	<a href="#">WG1307909</a>
Fluorene	0.659		0.0341	1	07/09/2019 20:14	<a href="#">WG1307909</a>
Indeno(1,2,3-cd)pyrene	ND		0.0341	1	07/09/2019 20:14	<a href="#">WG1307909</a>
Naphthalene	ND		0.114	1	07/09/2019 20:14	<a href="#">WG1307909</a>
Phenanthrene	0.375		0.0341	1	07/09/2019 20:14	<a href="#">WG1307909</a>
Pyrene	ND		0.0341	1	07/09/2019 20:14	<a href="#">WG1307909</a>
1-Methylnaphthalene	3.31		0.114	1	07/09/2019 20:14	<a href="#">WG1307909</a>
2-Methylnaphthalene	4.32		0.114	1	07/09/2019 20:14	<a href="#">WG1307909</a>
<i>(S) p-Terphenyl-d14</i>	80.3		23.0-120		07/09/2019 20:14	<a href="#">WG1307909</a>
<i>(S) Nitrobenzene-d5</i>	113		14.0-149		07/09/2019 20:14	<a href="#">WG1307909</a>
<i>(S) 2-Fluorobiphenyl</i>	97.7		34.0-125		07/09/2019 20:14	<a href="#">WG1307909</a>

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc



Method Blank (MB)

(MB) R3428325-1 07/06/19 15:39

Analyte	MB Result	MB Qualifier	MB MDL	MB RDL
	%		%	%
Total Solids	0.000			

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

L1113908-12 Original Sample (OS) • Duplicate (DUP)

(OS) L1113908-12 07/06/19 15:39 • (DUP) R3428325-3 07/06/19 15:39

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
	%	%		%		%
Total Solids	96.3	96.3	1	0.0997		10

7 Gl

8 Al

9 Sc

Laboratory Control Sample (LCS)

(LCS) R3428325-2 07/06/19 15:39

Analyte	Spike Amount	LCS Result	LCS Rec.	Rec. Limits	LCS Qualifier
	%	%	%	%	
Total Solids	50.0	50.0	100	85.0-115	



Method Blank (MB)

(MB) R3428041-1 07/05/19 17:10

Analyte	MB Result	MB Qualifier	MB MDL	MB RDL
	%		%	%
Total Solids	0.000			

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

L1113939-11 Original Sample (OS) • Duplicate (DUP)

(OS) L1113939-11 07/05/19 17:10 • (DUP) R3428041-3 07/05/19 17:10

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
	%	%		%		%
Total Solids	19.4	18.6	1	4.28		10

7 Gl

8 Al

9 Sc

Laboratory Control Sample (LCS)

(LCS) R3428041-2 07/05/19 17:10

Analyte	Spike Amount	LCS Result	LCS Rec.	Rec. Limits	LCS Qualifier
	%	%	%	%	
Total Solids	50.0	50.0	100	85.0-115	



Method Blank (MB)

(MB) R3428324-1 07/06/19 15:21

Analyte	MB Result	MB Qualifier	MB MDL	MB RDL
	%		%	%
Total Solids	0.000			

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

L1114011-04 Original Sample (OS) • Duplicate (DUP)

(OS) L1114011-04 07/06/19 15:21 • (DUP) R3428324-3 07/06/19 15:21

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
	%	%		%		%
Total Solids	81.7	82.0	1	0.295		10

6 Qc

Laboratory Control Sample (LCS)

(LCS) R3428324-2 07/06/19 15:21

Analyte	Spike Amount	LCS Result	LCS Rec.	Rec. Limits	LCS Qualifier
	%	%	%	%	
Total Solids	50.0	50.0	100	85.0-115	

7 Gl

8 Al

9 Sc





Method Blank (MB)

(MB) R3429444-1 07/10/19 16:53

Analyte	MB Result	MB Qualifier	MB MDL	MB RDL
Cyanide	U		0.0390	0.250

<sup>1</sup> Cp

<sup>2</sup> Tc

<sup>3</sup> Ss

<sup>4</sup> Cn

<sup>5</sup> Sr

<sup>6</sup> Qc

<sup>7</sup> Gl

<sup>8</sup> Al

<sup>9</sup> Sc

L1114039-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1114039-01 07/10/19 17:14 • (DUP) R3429444-5 07/10/19 17:15

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
Cyanide	U	0.000	1	0.000		20

L1114039-02 Original Sample (OS) • Duplicate (DUP)

(OS) L1114039-02 07/10/19 17:18 • (DUP) R3429444-6 07/10/19 17:19

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
Cyanide	0.0582	0.000	1	200	P1	20

Laboratory Control Sample (LCS)

(LCS) R3429444-2 07/10/19 16:54

Analyte	Spike Amount	LCS Result	LCS Rec.	Rec. Limits	LCS Qualifier
Cyanide	2.50	2.55	102	50.0-150	

L1113283-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1113283-01 07/10/19 16:57 • (MS) R3429444-3 07/10/19 16:58 • (MSD) R3429444-4 07/10/19 16:59

Analyte	Spike Amount (dry)	Original Result (dry)	MS Result (dry)	MSD Result (dry)	MS Rec.	MSD Rec.	Dilution	Rec. Limits	MS Qualifier	MSD Qualifier	RPD	RPD Limits
Cyanide	72.4	ND	53.6	46.7	70.2	60.7	1	75.0-125	J6	J6	13.7	20



L1114039-03 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1114039-03 07/10/19 17:20 • (MS) R3429444-7 07/10/19 17:21 • (MSD) R3429444-8 07/10/19 17:22

Analyte	Spike Amount mg/kg	Original Result mg/kg	MS Result mg/kg	MSD Result mg/kg	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	<u>MS Qualifier</u>	<u>MSD Qualifier</u>	RPD %	RPD Limits %
Cyanide	1.67	U	1.29	1.36	77.4	81.7	1	75.0-125			5.42	20

<sup>1</sup> Cp

<sup>2</sup> Tc

<sup>3</sup> Ss

<sup>4</sup> Cn

<sup>5</sup> Sr

<sup>6</sup> Qc

<sup>7</sup> Gl

<sup>8</sup> Al

<sup>9</sup> Sc



Method Blank (MB)

(MB) R3429666-1 07/11/19 09:37

Analyte	MB Result	MB Qualifier	MB MDL	MB RDL
Cyanide	U		0.0390	0.250

<sup>1</sup> Cp

<sup>2</sup> Tc

<sup>3</sup> Ss

<sup>4</sup> Cn

<sup>5</sup> Sr

<sup>6</sup> Qc

<sup>7</sup> Gl

<sup>8</sup> Al

<sup>9</sup> Sc

L1113939-12 Original Sample (OS) • Duplicate (DUP)

(OS) L1113939-12 07/11/19 09:43 • (DUP) R3429666-3 07/11/19 09:44

Analyte	Original Result (dry)	DUP Result (dry)	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
Cyanide	ND	0.000	1	0.000		20

L1114998-04 Original Sample (OS) • Duplicate (DUP)

(OS) L1114998-04 07/11/19 10:05 • (DUP) R3429666-8 07/11/19 10:06

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
Cyanide	ND	0.123	1	31.2	J P1	20

Laboratory Control Sample (LCS)

(LCS) R3429666-2 07/11/19 09:38

Analyte	Spike Amount	LCS Result	LCS Rec.	Rec. Limits	LCS Qualifier
Cyanide	2.50	2.14	85.6	50.0-150	

L1113939-14 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1113939-14 07/11/19 09:46 • (MS) R3429666-4 07/11/19 09:49 • (MSD) R3429666-5 07/11/19 09:50

Analyte	Spike Amount (dry)	Original Result (dry)	MS Result (dry)	MSD Result (dry)	MS Rec.	MSD Rec.	Dilution	Rec. Limits	MS Qualifier	MSD Qualifier	RPD	RPD Limits
Cyanide	11.7	ND	1.65	3.01	10.2	21.9	1	75.0-125	J6	J3 J6	58.4	20



L1114998-02 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1114998-02 07/11/19 10:02 • (MS) R3429666-6 07/11/19 10:03 • (MSD) R3429666-7 07/11/19 10:04

Analyte	Spike Amount mg/kg	Original Result mg/kg	MS Result mg/kg	MSD Result mg/kg	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Cyanide	1.67	ND	1.05	1.28	63.3	77.1	1	75.0-125	<u>J6</u>		19.6	20

<sup>1</sup> Cp

<sup>2</sup> Tc

<sup>3</sup> Ss

<sup>4</sup> Cn

<sup>5</sup> Sr

<sup>6</sup> Qc

<sup>7</sup> Gl

<sup>8</sup> Al

<sup>9</sup> Sc



Method Blank (MB)

(MB) R3428235-1 07/07/19 13:09

Analyte	MB Result	MB Qualifier	MB MDL	MB RDL
Mercury	U		0.00280	0.0200

<sup>1</sup> Cp

<sup>2</sup> Tc

<sup>3</sup> Ss

<sup>4</sup> Cn

<sup>5</sup> Sr

<sup>6</sup> Qc

<sup>7</sup> Gl

<sup>8</sup> Al

<sup>9</sup> Sc

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3428235-2 07/07/19 13:11 • (LCSD) R3428235-3 07/07/19 13:14

Analyte	Spike Amount	LCS Result	LCSD Result	LCS Rec.	LCSD Rec.	Rec. Limits	LCS Qualifier	LCSD Qualifier	RPD	RPD Limits
Mercury	0.500	0.526	0.545	105	109	80.0-120			3.50	20

L1113939-07 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1113939-07 07/07/19 13:16 • (MS) R3428235-4 07/07/19 13:19 • (MSD) R3428235-5 07/07/19 13:21

Analyte	Spike Amount (dry)	Original Result (dry)	MS Result (dry)	MSD Result (dry)	MS Rec.	MSD Rec.	Dilution	Rec. Limits	MS Qualifier	MSD Qualifier	RPD	RPD Limits
Mercury	3.18	0.528	3.98	3.35	109	88.9	1	75.0-125			17.3	20



Method Blank (MB)

(MB) R3428264-1 07/07/19 21:39

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
Aluminum	U		3.50	10.0
Antimony	U		0.750	2.00
Arsenic	U		0.460	2.00
Barium	U		0.170	0.500
Beryllium	U		0.0700	0.200
Cadmium	U		0.0700	0.500
Calcium	U		4.63	100
Chromium	U		0.140	1.00
Cobalt	U		0.230	1.00
Copper	U		0.530	2.00
Iron	U		1.41	10.0
Lead	U		0.190	0.500
Magnesium	U		1.11	100
Manganese	U		0.120	1.00
Nickel	U		0.490	2.00
Potassium	U		10.2	100
Selenium	U		0.620	2.00
Silver	U		0.120	1.00
Sodium	23.8	J	9.85	100
Thallium	U		0.650	2.00
Vanadium	U		0.240	2.00
Zinc	U		0.590	5.00

<sup>1</sup> Cp

<sup>2</sup> Tc

<sup>3</sup> Ss

<sup>4</sup> Cn

<sup>5</sup> Sr

<sup>6</sup> Qc

<sup>7</sup> Gl

<sup>8</sup> Al

<sup>9</sup> Sc

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3428264-2 07/07/19 21:41 • (LCSD) R3428264-3 07/07/19 21:44

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCSD Result mg/kg	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Aluminum	1000	1020	1010	102	101	80.0-120			0.834	20
Antimony	100	102	103	102	103	80.0-120			1.15	20
Arsenic	100	99.6	99.9	99.6	99.9	80.0-120			0.276	20
Barium	100	109	110	109	110	80.0-120			0.812	20
Beryllium	100	105	106	105	106	80.0-120			0.674	20
Cadmium	100	102	103	102	103	80.0-120			0.774	20
Calcium	1000	1030	1030	103	103	80.0-120			0.0809	20
Chromium	100	102	101	102	101	80.0-120			0.791	20
Cobalt	100	105	105	105	105	80.0-120			0.669	20
Copper	100	100	100	100	100	80.0-120			0.231	20
Iron	1000	1020	1030	102	103	80.0-120			0.0517	20



Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3428264-2 07/07/19 21:41 • (LCSD) R3428264-3 07/07/19 21:44

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCSD Result mg/kg	LCS Rec. %	LCSD Rec. %	Rec. Limits %	<u>LCS Qualifier</u>	<u>LCSD Qualifier</u>	RPD %	RPD Limits %
Lead	100	101	102	101	102	80.0-120			0.732	20
Magnesium	1000	1040	1040	104	104	80.0-120			0.0135	20
Manganese	100	100	99.8	100	99.8	80.0-120			0.500	20
Nickel	100	103	104	103	104	80.0-120			0.833	20
Potassium	1000	976	974	97.6	97.4	80.0-120			0.187	20
Selenium	100	98.9	99.4	98.9	99.4	80.0-120			0.463	20
Silver	20.0	18.8	18.8	94.1	94.2	80.0-120			0.0644	20
Sodium	1000	1030	1040	103	104	80.0-120			0.904	20
Thallium	100	99.4	96.7	99.4	96.7	80.0-120			2.83	20
Vanadium	100	105	106	105	106	80.0-120			0.582	20
Zinc	100	101	102	101	102	80.0-120			0.571	20

L1113939-06 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1113939-06 07/07/19 21:47 • (MS) R3428264-6 07/07/19 21:55 • (MSD) R3428264-7 07/07/19 21:57

Analyte	Spike Amount (dry) mg/kg	Original Result (dry) mg/kg	MS Result (dry) mg/kg	MSD Result (dry) mg/kg	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	<u>MS Qualifier</u>	<u>MSD Qualifier</u>	RPD %	RPD Limits %
Aluminum	5720	6370	13900	12600	131	109	1	75.0-125	<u>J5</u>		9.53	20
Antimony	572	ND	532	520	93.1	91.0	1	75.0-125			2.27	20
Arsenic	572	ND	536	530	92.7	91.6	1	75.0-125			1.17	20
Barium	572	157	708	693	96.5	93.8	1	75.0-125			2.18	20
Beryllium	572	ND	553	548	96.7	95.8	1	75.0-125			0.929	20
Cadmium	572	ND	545	539	95.0	93.9	1	75.0-125			1.19	20
Calcium	5720	120000	110000	110000	0.000	0.000	1	75.0-125	<u>V</u>	<u>V</u>	0.263	20
Chromium	572	18.8	538	531	90.7	89.5	1	75.0-125			1.32	20
Cobalt	572	ND	558	550	96.9	95.7	1	75.0-125			1.27	20
Copper	572	122	647	638	91.9	90.3	1	75.0-125			1.44	20
Iron	5720	4810	11400	10300	116	95.5	1	75.0-125			10.8	20
Lead	572	118	635	627	90.4	89.0	1	75.0-125			1.30	20
Magnesium	5720	732	5860	5890	89.8	90.3	1	75.0-125			0.479	20
Manganese	572	1150	1420	1450	45.5	50.9	1	75.0-125	<u>J6</u>	<u>J6</u>	2.15	20
Nickel	572	25.9	571	562	95.3	93.8	1	75.0-125			1.50	20
Potassium	5720	ND	5360	5330	88.7	88.2	1	75.0-125			0.541	20
Selenium	572	ND	541	531	94.6	92.8	1	75.0-125			1.94	20
Silver	114	ND	101	99.1	88.1	86.7	1	75.0-125			1.64	20
Sodium	5720	2300	7390	7390	89.0	88.9	1	75.0-125			0.0984	20
Thallium	572	ND	530	507	92.6	88.7	1	75.0-125			4.32	20
Vanadium	572	40.8	592	581	96.4	94.5	1	75.0-125			1.86	20
Zinc	572	1280	1690	1670	71.7	67.6	1	75.0-125	<u>J6</u>	<u>J6</u>	1.38	20

<sup>1</sup> Cp

<sup>2</sup> Tc

<sup>3</sup> Ss

<sup>4</sup> Cn

<sup>5</sup> Sr

<sup>6</sup> Qc

<sup>7</sup> Gl

<sup>8</sup> Al

<sup>9</sup> Sc





Method Blank (MB)

(MB) R3428483-2 07/07/19 11:18

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
Acetone	U		0.0137	0.0250
Benzene	U		0.000400	0.00100
Bromodichloromethane	U		0.000788	0.00250
Bromochloromethane	U		0.00113	0.00500
Bromoform	U		0.00598	0.0250
Bromomethane	U		0.00370	0.0125
Carbon disulfide	U		0.00406	0.0125
Carbon tetrachloride	U		0.00108	0.00500
Chlorobenzene	U		0.000573	0.00250
Chlorodibromomethane	U		0.000450	0.00250
Chloroethane	U		0.00108	0.00500
Chloroform	U		0.000415	0.00250
Chloromethane	U		0.00139	0.0125
Cyclohexane	U		0.000508	0.00250
1,2-Dibromo-3-Chloropropane	U		0.00510	0.0250
1,2-Dibromoethane	U		0.000525	0.00250
1,2-Dichlorobenzene	U		0.00145	0.00500
1,3-Dichlorobenzene	U		0.00170	0.00500
1,4-Dichlorobenzene	U		0.00197	0.00500
Dichlorodifluoromethane	U		0.000818	0.00250
1,1-Dichloroethane	U		0.000575	0.00250
1,2-Dichloroethane	U		0.000475	0.00250
1,1-Dichloroethene	U		0.000500	0.00250
cis-1,2-Dichloroethene	U		0.000690	0.00250
trans-1,2-Dichloroethene	U		0.00143	0.00500
1,2-Dichloropropane	U		0.00127	0.00500
cis-1,3-Dichloropropene	U		0.000678	0.00250
trans-1,3-Dichloropropene	U		0.00153	0.00500
Ethylbenzene	U		0.000530	0.00250
2-Hexanone	U		0.0100	0.0250
Isopropylbenzene	U		0.000863	0.00250
2-Butanone (MEK)	U		0.0125	0.0250
Methyl Acetate	U		0.00210	0.00500
Methyl Cyclohexane	U		0.00103	0.00500
Methylene Chloride	U		0.00664	0.0250
4-Methyl-2-pentanone (MIBK)	U		0.0100	0.0250
Methyl tert-butyl ether	U		0.000295	0.00100
Styrene	U		0.00273	0.0125
1,1,2,2-Tetrachloroethane	U		0.000390	0.00250
Tetrachloroethene	U		0.000700	0.00250

<sup>1</sup> Cp

<sup>2</sup> Tc

<sup>3</sup> Ss

<sup>4</sup> Cn

<sup>5</sup> Sr

<sup>6</sup> Qc

<sup>7</sup> Gl

<sup>8</sup> Al

<sup>9</sup> Sc



Method Blank (MB)

(MB) R3428483-2 07/07/19 11:18

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
Toluene	U		0.00125	0.00500
1,1,2-Trichlorotrifluoroethane	U		0.000675	0.00250
1,2,3-Trichlorobenzene	U		0.000625	0.00250
1,2,4-Trichlorobenzene	U		0.00482	0.0125
1,1,1-Trichloroethane	U		0.000275	0.00250
1,1,2-Trichloroethane	U		0.000883	0.00250
Trichloroethene	U		0.000400	0.00100
Trichlorofluoromethane	U		0.000500	0.00250
Vinyl chloride	U		0.000683	0.00250
Xylenes, Total	U		0.00478	0.00650
(S) Toluene-d8	101			75.0-131
(S) 4-Bromofluorobenzene	105			67.0-138
(S) 1,2-Dichloroethane-d4	104			70.0-130

Laboratory Control Sample (LCS)

(LCS) R3428483-1 07/07/19 10:17

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
Acetone	0.625	0.603	96.4	70.0-130	
Benzene	0.125	0.105	83.8	70.0-130	
Bromodichloromethane	0.125	0.117	94.0	70.0-130	
Bromochloromethane	0.125	0.117	93.9	70.0-130	
Bromoform	0.125	0.135	108	70.0-130	
Bromomethane	0.125	0.124	98.9	70.0-130	
Carbon disulfide	0.125	0.130	104	70.0-130	
Carbon tetrachloride	0.125	0.144	115	70.0-130	
Chlorobenzene	0.125	0.110	88.3	70.0-130	
Chlorodibromomethane	0.125	0.133	107	70.0-130	
Chloroethane	0.125	0.145	116	70.0-130	
Chloroform	0.125	0.119	95.6	70.0-130	
Chloromethane	0.125	0.141	113	70.0-130	
1,2-Dibromo-3-Chloropropane	0.125	0.132	105	70.0-130	
1,2-Dibromoethane	0.125	0.123	98.1	70.0-130	
1,2-Dichlorobenzene	0.125	0.119	95.4	70.0-130	
1,3-Dichlorobenzene	0.125	0.109	86.9	70.0-130	
1,4-Dichlorobenzene	0.125	0.119	95.4	70.0-130	
Dichlorodifluoromethane	0.125	0.159	127	70.0-130	
1,1-Dichloroethane	0.125	0.109	86.9	70.0-130	

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc



Laboratory Control Sample (LCS)

(LCS) R3428483-1 07/07/19 10:17

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	<u>LCS Qualifier</u>
1,2-Dichloroethane	0.125	0.118	94.6	70.0-130	
1,1-Dichloroethene	0.125	0.150	120	70.0-130	
cis-1,2-Dichloroethene	0.125	0.109	87.1	70.0-130	
trans-1,2-Dichloroethene	0.125	0.112	89.5	70.0-130	
1,2-Dichloropropane	0.125	0.118	94.8	70.0-130	
cis-1,3-Dichloropropene	0.125	0.130	104	70.0-130	
trans-1,3-Dichloropropene	0.125	0.127	101	70.0-130	
Ethylbenzene	0.125	0.123	98.8	70.0-130	
2-Hexanone	0.625	0.650	104	70.0-130	
Isopropylbenzene	0.125	0.113	90.5	70.0-130	
2-Butanone (MEK)	0.625	0.632	101	70.0-130	
Methylene Chloride	0.125	0.123	98.3	70.0-130	
4-Methyl-2-pentanone (MIBK)	0.625	0.694	111	70.0-130	
Methyl tert-butyl ether	0.125	0.118	94.1	70.0-130	
Styrene	0.125	0.122	97.7	70.0-130	
1,1,2,2-Tetrachloroethane	0.125	0.126	101	70.0-130	
Tetrachloroethene	0.125	0.131	105	70.0-130	
Toluene	0.125	0.111	88.5	70.0-130	
1,1,2-Trichlorotrifluoroethane	0.125	0.121	96.4	70.0-130	
1,2,3-Trichlorobenzene	0.125	0.107	85.9	70.0-130	
1,2,4-Trichlorobenzene	0.125	0.127	102	70.0-130	
1,1,1-Trichloroethane	0.125	0.123	98.0	70.0-130	
1,1,2-Trichloroethane	0.125	0.116	92.7	70.0-130	
Trichloroethene	0.125	0.119	95.5	70.0-130	
Trichlorofluoromethane	0.125	0.140	112	70.0-130	
Vinyl chloride	0.125	0.127	102	70.0-130	
Xylenes, Total	0.375	0.394	105	70.0-130	
(S) Toluene-d8			101	75.0-131	
(S) 4-Bromofluorobenzene			107	67.0-138	
(S) 1,2-Dichloroethane-d4			104	70.0-130	

<sup>1</sup> Cp

<sup>2</sup> Tc

<sup>3</sup> Ss

<sup>4</sup> Cn

<sup>5</sup> Sr

<sup>6</sup> Qc

<sup>7</sup> Gl

<sup>8</sup> Al

<sup>9</sup> Sc



Method Blank (MB)

(MB) R3428397-2 07/07/19 12:39

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
Aldrin	U		0.00135	0.0200
Alpha BHC	U		0.00136	0.0200
Beta BHC	U		0.00160	0.0200
Delta BHC	U		0.00143	0.0200
Gamma BHC	U		0.00145	0.0200
4,4-DDD	U		0.00156	0.0200
4,4-DDE	U		0.00154	0.0200
4,4-DDT	U		0.00200	0.0200
Dieldrin	U		0.00152	0.0200
Endosulfan I	U		0.00149	0.0200
Endosulfan II	U		0.00160	0.0200
Endosulfan sulfate	U		0.00151	0.0200
Endrin	U		0.00157	0.0200
Endrin aldehyde	U		0.00129	0.0200
Endrin ketone	U		0.00165	0.0200
Heptachlor	U		0.00154	0.0200
Heptachlor epoxide	U		0.00161	0.0200
Hexachlorobenzene	U		0.00124	0.0200
Methoxychlor	U		0.00178	0.0200
Chlordane	U		0.0390	0.200
Toxaphene	U		0.0360	0.400
(S) Decachlorobiphenyl	116			10.0-135
(S) Tetrachloro-m-xylene	103			10.0-139

<sup>1</sup> Cp

<sup>2</sup> Tc

<sup>3</sup> Ss

<sup>4</sup> Cn

<sup>5</sup> Sr

<sup>6</sup> Qc

<sup>7</sup> Gl

<sup>8</sup> Al

<sup>9</sup> Sc

Laboratory Control Sample (LCS)

(LCS) R3428397-1 07/07/19 12:27

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
Aldrin	0.0666	0.0622	93.4	70.0-130	
Alpha BHC	0.0666	0.0687	103	70.0-130	
Beta BHC	0.0666	0.0609	91.4	70.0-130	
Delta BHC	0.0666	0.0630	94.6	70.0-130	
Gamma BHC	0.0666	0.0658	98.8	70.0-130	
4,4-DDD	0.0666	0.0605	90.8	70.0-130	
4,4-DDE	0.0666	0.0636	95.5	70.0-130	
4,4-DDT	0.0666	0.0585	87.8	70.0-130	
Dieldrin	0.0666	0.0621	93.2	70.0-130	
Endosulfan I	0.0666	0.0606	91.0	70.0-130	



Laboratory Control Sample (LCS)

(LCS) R3428397-1 07/07/19 12:27

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	<u>LCS Qualifier</u>
Endosulfan II	0.0666	0.0589	88.4	70.0-130	
Endosulfan sulfate	0.0666	0.0623	93.5	70.0-130	
Endrin	0.0666	0.0611	91.7	70.0-130	
Endrin aldehyde	0.0666	0.0580	87.1	70.0-130	
Endrin ketone	0.0666	0.0718	108	70.0-130	
Heptachlor	0.0666	0.0661	99.2	70.0-130	
Heptachlor epoxide	0.0666	0.0635	95.3	70.0-130	
Hexachlorobenzene	0.0666	0.0727	109	70.0-130	
Methoxychlor	0.0666	0.0630	94.6	70.0-130	
<i>(S) Decachlorobiphenyl</i>			105	10.0-135	
<i>(S) Tetrachloro-m-xylene</i>			93.8	10.0-139	

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

L1113915-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1113915-01 07/07/19 13:04 • (MS) R3428397-3 07/07/19 13:17 • (MSD) R3428397-4 07/07/19 13:29

Analyte	Spike Amount mg/kg	Original Result mg/kg	MS Result mg/kg	MSD Result mg/kg	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	<u>MS Qualifier</u>	<u>MSD Qualifier</u>	RPD %	RPD Limits %
Aldrin	0.0666	ND	0.0605	0.0591	90.8	88.7	1	20.2-150			2.34	21
Alpha BHC	0.0666	ND	0.0689	0.0669	103	100	1	35.3-155			2.95	20
Beta BHC	0.0666	ND	0.0613	0.0588	92.0	88.3	1	30.4-160			4.16	21
Delta BHC	0.0666	ND	0.0592	0.0568	88.9	85.3	1	27.8-160			4.14	22
Gamma BHC	0.0666	ND	0.0659	0.0638	98.9	95.8	1	32.6-149			3.24	20
4,4-DDD	0.0666	ND	0.0590	0.0575	88.6	86.3	1	33.0-145			2.58	21
4,4-DDE	0.0666	ND	0.0621	0.0616	93.2	92.5	1	26.3-151			0.808	21
4,4-DDT	0.0666	ND	0.0563	0.0544	84.5	81.7	1	11.8-145			3.43	21
Dieldrin	0.0666	ND	0.0608	0.0586	91.3	88.0	1	24.8-149			3.69	20
Endosulfan I	0.0666	ND	0.0592	0.0576	88.9	86.5	1	20.7-152			2.74	20
Endosulfan II	0.0666	ND	0.0577	0.0558	86.6	83.8	1	22.1-150			3.35	21
Endosulfan sulfate	0.0666	ND	0.0618	0.0591	92.8	88.7	1	24.6-151			4.47	22
Endrin	0.0666	ND	0.0612	0.0593	91.9	89.0	1	27.3-149			3.15	20
Endrin aldehyde	0.0666	ND	0.0573	0.0559	86.0	83.9	1	11.0-157			2.47	23
Endrin ketone	0.0666	ND	0.0658	0.0627	98.8	94.1	1	28.5-148			4.82	21
Heptachlor	0.0666	ND	0.0636	0.0619	95.5	92.9	1	26.7-144			2.71	20
Heptachlor epoxide	0.0666	ND	0.0607	0.0592	91.1	88.9	1	25.2-155			2.50	20
Hexachlorobenzene	0.0666	ND	0.0731	0.0718	110	108	1	19.0-156			1.79	20
Methoxychlor	0.0666	ND	0.0634	0.0609	95.2	91.4	1	10.0-164			4.02	22
<i>(S) Decachlorobiphenyl</i>					101	93.4		10.0-135				
<i>(S) Tetrachloro-m-xylene</i>					95.5	91.6		10.0-139				



Method Blank (MB)

(MB) R3429362-2 07/09/19 15:20

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
Aldrin	U		0.00135	0.0200
Alpha BHC	U		0.00136	0.0200
Beta BHC	U		0.00160	0.0200
Delta BHC	U		0.00143	0.0200
Gamma BHC	U		0.00145	0.0200
4,4-DDD	U		0.00156	0.0200
4,4-DDE	U		0.00154	0.0200
4,4-DDT	U		0.00200	0.0200
Dieldrin	U		0.00152	0.0200
Endosulfan I	U		0.00149	0.0200
Endosulfan II	U		0.00160	0.0200
Endosulfan sulfate	U		0.00151	0.0200
Endrin	U		0.00157	0.0200
Endrin aldehyde	U		0.00129	0.0200
Endrin ketone	U		0.00165	0.0200
Heptachlor	U		0.00154	0.0200
Heptachlor epoxide	U		0.00161	0.0200
Hexachlorobenzene	U		0.00124	0.0200
Methoxychlor	U		0.00178	0.0200
Chlordane	U		0.0390	0.200
Toxaphene	U		0.0360	0.400
(S) Decachlorobiphenyl	74.8			10.0-135
(S) Tetrachloro-m-xylene	69.5			10.0-139

<sup>1</sup> Cp

<sup>2</sup> Tc

<sup>3</sup> Ss

<sup>4</sup> Cn

<sup>5</sup> Sr

<sup>6</sup> Qc

<sup>7</sup> Gl

<sup>8</sup> Al

<sup>9</sup> Sc

Laboratory Control Sample (LCS)

(LCS) R3429362-1 07/09/19 15:08

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
Aldrin	0.0666	0.0488	73.3	70.0-130	
Alpha BHC	0.0666	0.0499	74.9	70.0-130	
Beta BHC	0.0666	0.0463	69.5	70.0-130	<u>J4</u>
Delta BHC	0.0666	0.0508	76.3	70.0-130	
Gamma BHC	0.0666	0.0501	75.2	70.0-130	
4,4-DDD	0.0666	0.0506	76.0	70.0-130	
4,4-DDE	0.0666	0.0509	76.4	70.0-130	
4,4-DDT	0.0666	0.0518	77.8	70.0-130	
Dieldrin	0.0666	0.0506	76.0	70.0-130	
Endosulfan I	0.0666	0.0501	75.2	70.0-130	



Laboratory Control Sample (LCS)

(LCS) R3429362-1 07/09/19 15:08

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	<u>LCS Qualifier</u>
Endosulfan II	0.0666	0.0491	73.7	70.0-130	
Endosulfan sulfate	0.0666	0.0488	73.3	70.0-130	
Endrin	0.0666	0.0504	75.7	70.0-130	
Endrin aldehyde	0.0666	0.0491	73.7	70.0-130	
Endrin ketone	0.0666	0.0566	85.0	70.0-130	
Heptachlor	0.0666	0.0502	75.4	70.0-130	
Heptachlor epoxide	0.0666	0.0499	74.9	70.0-130	
Hexachlorobenzene	0.0666	0.0467	70.1	70.0-130	
Methoxychlor	0.0666	0.0512	76.9	70.0-130	
<i>(S) Decachlorobiphenyl</i>			83.3	10.0-135	
<i>(S) Tetrachloro-m-xylene</i>			77.9	10.0-139	

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

L1114138-05 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1114138-05 07/09/19 15:58 • (MS) R3429362-3 07/09/19 16:10 • (MSD) R3429362-4 07/09/19 16:23

Analyte	Spike Amount (dry) mg/kg	Original Result (dry) mg/kg	MS Result (dry) mg/kg	MSD Result (dry) mg/kg	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	<u>MS Qualifier</u>	<u>MSD Qualifier</u>	RPD %	RPD Limits %
Aldrin	0.0779	U	0.0501	0.0507	64.3	65.0	1	20.2-150			1.16	21
Alpha BHC	0.0779	U	0.0530	0.0551	68.0	70.7	1	35.3-155			3.90	20
Beta BHC	0.0779	U	0.0492	0.0504	63.1	64.7	1	30.4-160			2.59	21
Delta BHC	0.0779	U	0.0538	0.0559	69.1	71.8	1	27.8-160			3.84	22
Gamma BHC	0.0779	U	0.0523	0.0543	67.1	69.7	1	32.6-149			3.73	20
4,4-DDD	0.0779	U	0.0521	0.0527	66.8	67.6	1	33.0-145			1.12	21
4,4-DDE	0.0779	0.000812	0.0532	0.0539	68.3	69.2	1	26.3-151			1.31	21
4,4-DDT	0.0779	U	0.0525	0.0532	67.4	68.3	1	11.8-145			1.33	21
Dieldrin	0.0779	U	0.0523	0.0531	67.1	68.2	1	24.8-149			1.55	20
Endosulfan I	0.0779	U	0.0508	0.0524	65.2	67.3	1	20.7-152			3.17	20
Endosulfan II	0.0779	U	0.0506	0.0516	64.9	66.2	1	22.1-150			2.06	21
Endosulfan sulfate	0.0779	U	0.0500	0.0511	64.1	65.6	1	24.6-151			2.31	22
Endrin	0.0779	U	0.0515	0.0532	66.1	68.3	1	27.3-149			3.35	20
Endrin aldehyde	0.0779	U	0.0501	0.0524	64.3	67.3	1	11.0-157			4.57	23
Endrin ketone	0.0779	U	0.0576	0.0598	73.9	76.7	1	28.5-148			3.79	21
Heptachlor	0.0779	U	0.0520	0.0530	66.7	68.0	1	26.7-144			2.01	20
Heptachlor epoxide	0.0779	U	0.0516	0.0524	66.2	67.3	1	25.2-155			1.57	20
Hexachlorobenzene	0.0779	U	0.0492	0.0499	63.1	64.0	1	19.0-156			1.42	20
Methoxychlor	0.0779	U	0.0524	0.0530	67.3	68.0	1	10.0-164			1.11	22
<i>(S) Decachlorobiphenyl</i>					70.4	75.8		10.0-135				
<i>(S) Tetrachloro-m-xylene</i>					66.2	70.6		10.0-139				





Method Blank (MB)

(MB) R3428944-2 07/09/19 14:41

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
Aldrin	U		0.00135	0.0200
Alpha BHC	U		0.00136	0.0200
Beta BHC	U		0.00160	0.0200
Delta BHC	U		0.00143	0.0200
Gamma BHC	U		0.00145	0.0200
4,4-DDD	U		0.00156	0.0200
4,4-DDE	U		0.00154	0.0200
4,4-DDT	U		0.00200	0.0200
Dieldrin	U		0.00152	0.0200
Endosulfan I	U		0.00149	0.0200
Endosulfan II	U		0.00160	0.0200
Endosulfan sulfate	U		0.00151	0.0200
Endrin	U		0.00157	0.0200
Endrin aldehyde	U		0.00129	0.0200
Endrin ketone	U		0.00165	0.0200
Heptachlor	U		0.00154	0.0200
Heptachlor epoxide	U		0.00161	0.0200
Hexachlorobenzene	U		0.00124	0.0200
Methoxychlor	U		0.00178	0.0200
Chlordane	U		0.0390	0.200
Toxaphene	U		0.0360	0.400
(S) Decachlorobiphenyl	92.3			10.0-135
(S) Tetrachloro-m-xylene	88.4			10.0-139

<sup>1</sup> Cp

<sup>2</sup> Tc

<sup>3</sup> Ss

<sup>4</sup> Cn

<sup>5</sup> Sr

<sup>6</sup> Qc

<sup>7</sup> Gl

<sup>8</sup> Al

<sup>9</sup> Sc

Laboratory Control Sample (LCS)

(LCS) R3428944-1 07/09/19 14:26

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
Aldrin	0.0666	0.0498	74.8	70.0-130	
Alpha BHC	0.0666	0.0512	76.9	70.0-130	
Beta BHC	0.0666	0.0474	71.2	70.0-130	
Delta BHC	0.0666	0.0520	78.1	70.0-130	
Gamma BHC	0.0666	0.0516	77.5	70.0-130	
4,4-DDD	0.0666	0.0554	83.2	70.0-130	
4,4-DDE	0.0666	0.0504	75.7	70.0-130	
4,4-DDT	0.0666	0.0439	65.9	70.0-130	<u>J4</u>
Dieldrin	0.0666	0.0507	76.1	70.0-130	
Endosulfan I	0.0666	0.0502	75.4	70.0-130	



Laboratory Control Sample (LCS)

(LCS) R3428944-1 07/09/19 14:26

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	<u>LCS Qualifier</u>
Endosulfan II	0.0666	0.0495	74.3	70.0-130	
Endosulfan sulfate	0.0666	0.0489	73.4	70.0-130	
Endrin	0.0666	0.0498	74.8	70.0-130	
Endrin aldehyde	0.0666	0.0492	73.9	70.0-130	
Endrin ketone	0.0666	0.0622	93.4	70.0-130	
Heptachlor	0.0666	0.0511	76.7	70.0-130	
Heptachlor epoxide	0.0666	0.0500	75.1	70.0-130	
Hexachlorobenzene	0.0666	0.0484	72.7	70.0-130	
Methoxychlor	0.0666	0.0451	67.7	70.0-130	J4
<i>(S) Decachlorobiphenyl</i>			82.1	10.0-135	
<i>(S) Tetrachloro-m-xylene</i>			79.6	10.0-139	

- 1 Cp
- 2 Tc
- 3 Ss
- 4 Cn
- 5 Sr
- 6 Qc
- 7 Gl
- 8 Al
- 9 Sc



Method Blank (MB)

(MB) R3428436-1 07/07/19 11:11

Analyte	MB Result	MB Qualifier	MB MDL	MB RDL
	mg/kg		mg/kg	mg/kg
PCB 1260	U		0.00494	0.0170
PCB 1016	U		0.00350	0.0170
PCB 1221	U		0.00537	0.0170
PCB 1232	U		0.00417	0.0170
PCB 1242	U		0.00318	0.0170
PCB 1248	U		0.00315	0.0170
PCB 1254	U		0.00472	0.0170
(S) Decachlorobiphenyl	99.7			10.0-135
(S) Tetrachloro-m-xylene	97.6			10.0-139

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

Laboratory Control Sample (LCS)

(LCS) R3428436-2 07/07/19 11:25

Analyte	Spike Amount	LCS Result	LCS Rec.	Rec. Limits	LCS Qualifier
	mg/kg	mg/kg	%	%	
PCB 1260	0.167	0.172	103	70.0-130	
PCB 1016	0.167	0.158	94.6	70.0-130	
(S) Decachlorobiphenyl			116	10.0-135	
(S) Tetrachloro-m-xylene			110	10.0-139	

7 Gl

8 Al

9 Sc

L1113939-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1113939-01 07/07/19 16:44 • (MS) R3428436-3 07/07/19 16:57 • (MSD) R3428436-4 07/07/19 17:11

Analyte	Spike Amount (dry)	Original Result (dry)	MS Result (dry)	MSD Result (dry)	MS Rec.	MSD Rec.	Dilution	Rec. Limits	MS Qualifier	MSD Qualifier	RPD	RPD Limits
	mg/kg	mg/kg	mg/kg	mg/kg	%	%		%			%	%
PCB 1260	1.04	ND	0.785	0.648	75.4	62.3	1	24.6-127			19.1	23
PCB 1016	1.04	ND	1.18	0.903	114	86.8	1	23.9-147			26.9	33
(S) Decachlorobiphenyl					66.8	42.5		10.0-135				
(S) Tetrachloro-m-xylene					62.2	38.4		10.0-139				



Method Blank (MB)

(MB) R3429169-1 07/09/19 15:13

Analyte	MB Result	MB Qualifier	MB MDL	MB RDL
	mg/kg		mg/kg	mg/kg
PCB 1260	U		0.00494	0.0170
PCB 1016	U		0.00350	0.0170
PCB 1221	U		0.00537	0.0170
PCB 1232	U		0.00417	0.0170
PCB 1242	U		0.00318	0.0170
PCB 1248	U		0.00315	0.0170
PCB 1254	U		0.00472	0.0170
(S) Decachlorobiphenyl	78.8			10.0-135
(S) Tetrachloro-m-xylene	70.7			10.0-139

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

Laboratory Control Sample (LCS)

(LCS) R3429169-2 07/09/19 15:26

Analyte	Spike Amount	LCS Result	LCS Rec.	Rec. Limits	LCS Qualifier
	mg/kg	mg/kg	%	%	
PCB 1260	0.167	0.110	65.9	70.0-130	J4
PCB 1016	0.167	0.103	61.7	70.0-130	J4
(S) Decachlorobiphenyl			90.1	10.0-135	
(S) Tetrachloro-m-xylene			80.0	10.0-139	

L1113939-03 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1113939-03 07/09/19 15:38 • (MS) R3429169-3 07/09/19 15:51 • (MSD) R3429169-4 07/09/19 16:03

Analyte	Spike Amount (dry)	Original Result (dry)	MS Result (dry)	MSD Result (dry)	MS Rec.	MSD Rec.	Dilution	Rec. Limits	MS Qualifier	MSD Qualifier	RPD	RPD Limits
	mg/kg	mg/kg	mg/kg	mg/kg	%	%		%			%	%
PCB 1260	0.848	ND	0.955	0.843	113	99.4	1	24.6-127			12.4	23
PCB 1016	0.848	ND	0.909	0.894	107	105	1	23.9-147			1.69	33
(S) Decachlorobiphenyl					105	98.9		10.0-135				
(S) Tetrachloro-m-xylene					94.9	89.6		10.0-139				



Method Blank (MB)

(MB) R3428935-1 07/09/19 12:02

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
PCB 1016	U		0.00350	0.0170
PCB 1221	U		0.00537	0.0170
PCB 1232	U		0.00417	0.0170
PCB 1242	U		0.00318	0.0170
PCB 1248	U		0.00315	0.0170
PCB 1254	U		0.00472	0.0170
PCB 1260	U		0.00494	0.0170
(S) Decachlorobiphenyl	85.3			10.0-135
(S) Tetrachloro-m-xylene	84.1			10.0-139

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

Laboratory Control Sample (LCS)

(LCS) R3428935-2 07/09/19 12:16

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
PCB 1260	0.167	0.112	67.1	70.0-130	J4
PCB 1016	0.167	0.108	64.7	70.0-130	J4
(S) Decachlorobiphenyl			76.4	10.0-135	
(S) Tetrachloro-m-xylene			72.1	10.0-139	

L1113944-11 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1113944-11 07/09/19 16:11 • (MS) R3428935-3 07/09/19 16:25 • (MSD) R3428935-4 07/09/19 16:38

Analyte	Spike Amount mg/kg	Original Result mg/kg	MS Result mg/kg	MSD Result mg/kg	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
PCB 1260	0.167	ND	0.114	0.0923	68.3	55.3	1	24.6-127			21.0	23
PCB 1016	0.167	ND	0.119	0.0970	71.3	58.1	1	23.9-147			20.4	33
(S) Decachlorobiphenyl					75.5	70.0		10.0-135				
(S) Tetrachloro-m-xylene					74.8	71.3		10.0-139				



Method Blank (MB)

(MB) R3429262-2 07/09/19 18:33

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
Acenaphthene	U		0.00642	0.0333
Acenaphthylene	U		0.00671	0.0333
Acetophenone	U		0.0752	0.333
Anthracene	U		0.00632	0.0333
Atrazine	U		0.0938	0.333
Benzaldehyde	U		0.0532	0.333
Benzo(a)anthracene	U		0.00428	0.0333
Benzo(b)fluoranthene	U		0.00695	0.0333
Benzo(k)fluoranthene	U		0.00582	0.0333
Benzo(g,h,i)perylene	U		0.00721	0.0333
Benzo(a)pyrene	U		0.00548	0.0333
Biphenyl	U		0.00588	0.333
Bis(2-chlorethoxy)methane	U		0.00770	0.333
Bis(2-chloroethyl)ether	U		0.00896	0.333
Bis(2-chloroisopropyl)ether	U		0.00760	0.333
4-Bromophenyl-phenylether	U		0.0114	0.333
Caprolactam	U		0.104	0.333
Carbazole	U		0.00524	0.333
4-Chloroaniline	U		0.0352	0.333
2-Chloronaphthalene	U		0.00639	0.0333
4-Chlorophenyl-phenylether	U		0.00627	0.333
Chrysene	U		0.00555	0.0333
Dibenz(a,h)anthracene	U		0.00821	0.0333
Dibenzofuran	U		0.00518	0.333
3,3-Dichlorobenzidine	U		0.0794	0.333
2,4-Dinitrotoluene	U		0.00607	0.333
2,6-Dinitrotoluene	U		0.00737	0.333
Fluoranthene	U		0.00496	0.0333
Fluorene	U		0.00682	0.0333
Hexachlorobenzene	U		0.00856	0.333
Hexachloro-1,3-butadiene	U		0.0100	0.333
Hexachlorocyclopentadiene	U		0.0587	0.333
Hexachloroethane	U		0.0134	0.333
Indeno(1,2,3-cd)pyrene	U		0.00772	0.0333
Isophorone	U		0.00522	0.333
2-Methylnaphthalene	U		0.00861	0.0333
Naphthalene	U		0.00889	0.0333
2-Nitroaniline	U		0.00755	0.333
3-Nitroaniline	U		0.00850	0.333
4-Nitroaniline	U		0.00639	0.333

<sup>1</sup> Cp

<sup>2</sup> Tc

<sup>3</sup> Ss

<sup>4</sup> Cn

<sup>5</sup> Sr

<sup>6</sup> Qc

<sup>7</sup> Gl

<sup>8</sup> Al

<sup>9</sup> Sc



Method Blank (MB)

(MB) R3429262-2 07/09/19 18:33

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
Nitrobenzene	U		0.00695	0.333
n-Nitrosodiphenylamine	U		0.0900	0.333
n-Nitrosodi-n-propylamine	U		0.00906	0.333
Phenanthrene	U		0.00528	0.0333
Benzylbutyl phthalate	U		0.0103	0.333
Bis(2-ethylhexyl)phthalate	U		0.0120	0.333
Di-n-butyl phthalate	U		0.0109	0.333
Diethyl phthalate	U		0.00691	0.333
Dimethyl phthalate	U		0.00540	0.333
Di-n-octyl phthalate	U		0.00907	0.333
Pyrene	U		0.0123	0.0333
4-Chloro-3-methylphenol	U		0.00477	0.333
2-Chlorophenol	U		0.00831	0.333
2-Methylphenol	U		0.00986	0.333
3&4-Methyl Phenol	U		0.00783	0.333
2,4-Dichlorophenol	U		0.00746	0.333
2,4-Dimethylphenol	U		0.0471	0.333
4,6-Dinitro-2-methylphenol	U		0.124	0.333
2,4-Dinitrophenol	U		0.0980	0.333
2-Nitrophenol	U		0.0130	0.333
4-Nitrophenol	U		0.0525	0.333
Pentachlorophenol	U		0.0480	0.333
Phenol	U		0.00695	0.333
1,2,4,5-Tetrachlorobenzene	U		0.0762	0.333
2,4,5-Trichlorophenol	U		0.0104	0.333
2,4,6-Trichlorophenol	U		0.00779	0.333
(S) Nitrobenzene-d5	63.1			10.0-122
(S) 2-Fluorobiphenyl	65.8			15.0-120
(S) p-Terphenyl-d14	68.8			10.0-120
(S) Phenol-d5	69.1			10.0-120
(S) 2-Fluorophenol	82.1			12.0-120
(S) 2,4,6-Tribromophenol	63.8			10.0-127

<sup>1</sup> Cp

<sup>2</sup> Tc

<sup>3</sup> Ss

<sup>4</sup> Cn

<sup>5</sup> Sr

<sup>6</sup> Qc

<sup>7</sup> Gl

<sup>8</sup> Al

<sup>9</sup> Sc





Laboratory Control Sample (LCS)

(LCS) R3429262-1 07/09/19 18:13

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
Acenaphthene	0.666	0.415	62.3	70.0-130	J4
Acenaphthylene	0.666	0.428	64.3	70.0-130	J4
Acetophenone	0.666	0.396	59.5	70.0-130	J4
Anthracene	0.666	0.451	67.7	70.0-130	J4
Atrazine	0.666	0.472	70.9	70.0-130	
Benzaldehyde	0.666	0.412	61.9	70.0-130	J4
Benzo(a)anthracene	0.666	0.503	75.5	70.0-130	
Benzo(b)fluoranthene	0.666	0.511	76.7	70.0-130	
Benzo(k)fluoranthene	0.666	0.484	72.7	70.0-130	
Benzo(g,h,i)perylene	0.666	0.499	74.9	70.0-130	
Benzo(a)pyrene	0.666	0.491	73.7	70.0-130	
Biphenyl	0.666	0.410	61.6	70.0-130	J4
Bis(2-chlorethoxy)methane	0.666	0.321	48.2	70.0-130	J4
Bis(2-chloroethyl)ether	0.666	0.398	59.8	70.0-130	J4
Bis(2-chloroisopropyl)ether	0.666	0.366	55.0	70.0-130	J4
4-Bromophenyl-phenylether	0.666	0.471	70.7	70.0-130	
Caprolactam	0.666	0.466	70.0	70.0-130	
Carbazole	0.666	0.485	72.8	70.0-130	
4-Chloroaniline	0.666	0.300	45.0	70.0-130	J4
2-Chloronaphthalene	0.666	0.409	61.4	70.0-130	J4
4-Chlorophenyl-phenylether	0.666	0.440	66.1	70.0-130	J4
Chrysene	0.666	0.453	68.0	70.0-130	J4
Dibenz(a,h)anthracene	0.666	0.502	75.4	70.0-130	
Dibenzofuran	0.666	0.429	64.4	70.0-130	J4
3,3-Dichlorobenzidine	1.33	0.876	65.9	70.0-130	J4
2,4-Dinitrotoluene	0.666	0.454	68.2	70.0-130	J4
2,6-Dinitrotoluene	0.666	0.466	70.0	70.0-130	
Fluoranthene	0.666	0.475	71.3	70.0-130	
Fluorene	0.666	0.450	67.6	70.0-130	J4
Hexachlorobenzene	0.666	0.459	68.9	70.0-130	J4
Hexachloro-1,3-butadiene	0.666	0.322	48.3	70.0-130	J4
Hexachlorocyclopentadiene	0.666	0.385	57.8	70.0-130	J4
Hexachloroethane	0.666	0.352	52.9	70.0-130	J4
Indeno(1,2,3-cd)pyrene	0.666	0.508	76.3	70.0-130	
Isophorone	0.666	0.329	49.4	70.0-130	J4
2-Methylnaphthalene	0.666	0.303	45.5	70.0-130	J4
Naphthalene	0.666	0.311	46.7	70.0-130	J4
2-Nitroaniline	0.666	0.475	71.3	70.0-130	
3-Nitroaniline	0.666	0.454	68.2	70.0-130	J4
4-Nitroaniline	0.666	0.441	66.2	70.0-130	J4

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc



Laboratory Control Sample (LCS)

(LCS) R3429262-1 07/09/19 18:13

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
Nitrobenzene	0.666	0.309	46.4	70.0-130	J4
n-Nitrosodiphenylamine	0.666	0.474	71.2	70.0-130	
n-Nitrosodi-n-propylamine	0.666	0.404	60.7	70.0-130	J4
Phenanthrene	0.666	0.450	67.6	70.0-130	J4
Benzylbutyl phthalate	0.666	0.486	73.0	70.0-130	
Bis(2-ethylhexyl)phthalate	0.666	0.479	71.9	70.0-130	
Di-n-butyl phthalate	0.666	0.511	76.7	70.0-130	
Diethyl phthalate	0.666	0.465	69.8	70.0-130	J4
Dimethyl phthalate	0.666	0.451	67.7	70.0-130	J4
Di-n-octyl phthalate	0.666	0.442	66.4	70.0-130	J4
Pyrene	0.666	0.479	71.9	70.0-130	
4-Chloro-3-methylphenol	0.666	0.375	56.3	70.0-130	J4
2-Chlorophenol	0.666	0.419	62.9	70.0-130	J4
2-Methylphenol	0.666	0.445	66.8	70.0-130	J4
3&4-Methyl Phenol	0.666	0.505	75.8	70.0-130	
2,4-Dichlorophenol	0.666	0.362	54.4	70.0-130	J4
2,4-Dimethylphenol	0.666	0.339	50.9	70.0-130	J4
4,6-Dinitro-2-methylphenol	0.666	0.380	57.1	70.0-130	J4
2,4-Dinitrophenol	0.666	0.313	47.0	70.0-130	J4
2-Nitrophenol	0.666	0.341	51.2	70.0-130	J4
4-Nitrophenol	0.666	0.426	64.0	70.0-130	J4
Pentachlorophenol	0.666	0.447	67.1	70.0-130	J4
Phenol	0.666	0.429	64.4	70.0-130	J4
1,2,4,5-Tetrachlorobenzene	0.666	0.369	55.4	70.0-130	J4
2,4,5-Trichlorophenol	0.666	0.493	74.0	70.0-130	
2,4,6-Trichlorophenol	0.666	0.463	69.5	70.0-130	J4
(S) Nitrobenzene-d5			58.3	10.0-122	
(S) 2-Fluorobiphenyl			60.7	15.0-120	
(S) p-Terphenyl-d14			66.1	10.0-120	
(S) Phenol-d5			67.1	10.0-120	
(S) 2-Fluorophenol			73.7	12.0-120	
(S) 2,4,6-Tribromophenol			75.5	10.0-127	

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc



L1113476-04 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1113476-04 07/09/19 22:29 • (MS) R3429262-3 07/09/19 22:49 • (MSD) R3429262-4 07/09/19 23:08

Analyte	Spike Amount mg/kg	Original Result mg/kg	MS Result mg/kg	MSD Result mg/kg	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Acenaphthene	0.666	ND	0.388	0.338	58.3	50.8	1	40.3-132			13.8	20
Acenaphthylene	0.666	ND	0.408	0.352	61.3	52.9	1	45.4-134			14.7	21.8
Acetophenone	0.666	ND	0.368	0.336	55.3	50.5	1	37.5-121			9.09	22
Anthracene	0.666	ND	0.454	0.394	68.2	59.2	1	41.7-133			14.2	21.9
Atrazine	0.666	ND	0.466	0.405	70.0	60.8	1	40.8-141			14.0	31.4
Benzaldehyde	0.666	ND	0.507	0.465	76.1	69.8	1	10.0-85.0			8.64	39.3
Benzo(a)anthracene	0.666	ND	0.459	0.411	68.9	61.7	1	35.1-129			11.0	23.1
Benzo(b)fluoranthene	0.666	ND	0.479	0.417	71.9	62.6	1	21.9-153			13.8	25.8
Benzo(k)fluoranthene	0.666	ND	0.456	0.411	68.5	61.7	1	30.6-143			10.4	26.4
Benzo(g,h,i)perylene	0.666	ND	0.481	0.422	72.2	63.4	1	10.0-141			13.1	28.6
Benzo(a)pyrene	0.666	ND	0.465	0.420	69.8	63.1	1	34.2-135			10.2	22.4
Biphenyl	0.666	ND	0.382	0.335	57.4	50.3	1	42.7-126			13.1	20.7
Bis(2-chloroethoxy)methane	0.666	ND	0.308	0.285	46.2	42.8	1	36.4-125			7.76	20
Bis(2-chloroethyl)ether	0.666	ND	0.351	0.329	52.7	49.4	1	24.8-133			6.47	34.9
Bis(2-chloroisopropyl)ether	0.666	ND	0.325	0.293	48.8	44.0	1	37.1-117			10.4	29
4-Bromophenyl-phenylether	0.666	ND	0.474	0.421	71.2	63.2	1	34.9-140			11.8	22.7
Caprolactam	0.666	ND	0.474	0.430	71.2	64.6	1	38.5-123			9.73	23.2
Carbazole	0.666	ND	0.485	0.426	72.8	64.0	1	37.3-132			13.0	21.6
4-Chloroaniline	0.666	ND	0.338	0.311	50.8	46.7	1	10.0-129			8.32	40
2-Chloronaphthalene	0.666	ND	0.370	0.333	55.6	50.0	1	38.7-127			10.5	20.8
4-Chlorophenyl-phenylether	0.666	ND	0.424	0.371	63.7	55.7	1	38.9-127			13.3	21.9
Chrysene	0.666	ND	0.414	0.369	62.2	55.4	1	35.9-131			11.5	24
Dibenz(a,h)anthracene	0.666	ND	0.471	0.412	70.7	61.9	1	10.0-142			13.4	24.8
Dibenzofuran	0.666	ND	0.411	0.360	61.7	54.1	1	39.2-130			13.2	21.3
3,3-Dichlorobenzidine	1.33	ND	0.816	0.748	61.4	56.2	1	10.0-125			8.70	40
2,4-Dinitrotoluene	0.666	ND	0.432	0.377	64.9	56.6	1	31.6-145			13.6	25.2
2,6-Dinitrotoluene	0.666	ND	0.450	0.391	67.6	58.7	1	38.1-135			14.0	23.9
Fluoranthene	0.666	ND	0.489	0.424	73.4	63.7	1	29.8-140			14.2	24.4
Fluorene	0.666	ND	0.430	0.383	64.6	57.5	1	41.8-129			11.6	21.2
Hexachlorobenzene	0.666	ND	0.469	0.410	70.4	61.6	1	34.3-121			13.4	21.2
Hexachloro-1,3-butadiene	0.666	ND	0.274	0.265	41.1	39.8	1	35.1-128			3.34	23.4
Hexachlorocyclopentadiene	0.666	ND	0.208	0.175	31.2	26.3	1	10.0-145			17.2	34.8
Hexachloroethane	0.666	ND	0.283	0.258	42.5	38.7	1	20.0-127			9.24	27.6
Indeno(1,2,3-cd)pyrene	0.666	ND	0.496	0.437	74.5	65.6	1	10.0-144			12.6	27
Isophorone	0.666	ND	0.315	0.295	47.3	44.3	1	31.7-106			6.56	20.3
2-Methylnaphthalene	0.666	ND	0.285	0.261	42.8	39.2	1	36.7-132			8.79	20
Naphthalene	0.666	ND	0.273	0.265	41.0	39.8	1	37.3-124			2.97	20.1
2-Nitroaniline	0.666	ND	0.470	0.413	70.6	62.0	1	38.6-140			12.9	22.9
3-Nitroaniline	0.666	ND	0.439	0.391	65.9	58.7	1	10.0-139			11.6	39
4-Nitroaniline	0.666	ND	0.430	0.375	64.6	56.3	1	15.9-152			13.7	31

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc



L1113476-04 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1113476-04 07/09/19 22:29 • (MS) R3429262-3 07/09/19 22:49 • (MSD) R3429262-4 07/09/19 23:08

Analyte	Spike Amount mg/kg	Original Result mg/kg	MS Result mg/kg	MSD Result mg/kg	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Nitrobenzene	0.666	ND	0.291	0.274	43.7	41.1	1	36.3-127			6.02	20.9
n-Nitrosodiphenylamine	0.666	ND	0.473	0.418	71.0	62.8	1	20.0-125			12.3	25
n-Nitrosodi-n-propylamine	0.666	ND	0.372	0.349	55.9	52.4	1	29.2-132			6.38	24.9
Phenanthrene	0.666	ND	0.429	0.385	64.4	57.8	1	41.9-131			10.8	21.4
Benzylbutyl phthalate	0.666	ND	0.450	0.401	67.6	60.2	1	22.7-155			11.5	25.2
Bis(2-ethylhexyl)phthalate	0.666	ND	0.439	0.399	65.9	59.9	1	22.6-157			9.55	33.5
Di-n-butyl phthalate	0.666	ND	0.510	0.445	76.6	66.8	1	35.6-139			13.6	22.6
Diethyl phthalate	0.666	ND	0.461	0.396	69.2	59.5	1	44.4-135			15.2	21.3
Dimethyl phthalate	0.666	ND	0.438	0.387	65.8	58.1	1	42.5-134			12.4	21.4
Di-n-octyl phthalate	0.666	ND	0.426	0.398	64.0	59.8	1	24.6-145			6.80	25.1
Pyrene	0.666	ND	0.424	0.377	63.7	56.6	1	25.5-142			11.7	23.9
4-Chloro-3-methylphenol	0.666	ND	0.387	0.355	58.1	53.3	1	35.7-139			8.63	21.2
2-Chlorophenol	0.666	ND	0.402	0.366	60.4	55.0	1	33.2-114			9.38	23.8
2-Methylphenol	0.666	ND	0.470	0.427	70.6	64.1	1	30.5-113			9.59	23.9
3&4-Methyl Phenol	0.666	ND	0.517	0.455	77.6	68.3	1	30.4-140			12.8	24.7
2,4-Dichlorophenol	0.666	ND	0.376	0.341	56.5	51.2	1	36.7-133			9.76	20.7
2,4-Dimethylphenol	0.666	ND	0.341	0.323	51.2	48.5	1	25.7-137			5.42	24.7
4,6-Dinitro-2-methylphenol	0.666	ND	0.413	0.375	62.0	56.3	1	10.0-149			9.64	40
2,4-Dinitrophenol	0.666	ND	0.383	0.342	57.5	51.4	1	10.0-131			11.3	40
2-Nitrophenol	0.666	ND	0.311	0.305	46.7	45.8	1	21.8-145			1.95	27
4-Nitrophenol	0.666	ND	0.400	0.345	60.1	51.8	1	10.0-146			14.8	26.9
Pentachlorophenol	0.666	ND	0.409	0.410	61.4	61.6	1	10.0-155			0.244	28.1
Phenol	0.666	ND	0.438	0.394	65.8	59.2	1	26.8-124			10.6	27.3
1,2,4,5-Tetrachlorobenzene	0.666	ND	0.340	0.310	51.1	46.5	1	41.3-124			9.23	21.2
2,4,5-Trichlorophenol	0.666	ND	0.524	0.447	78.7	67.1	1	37.0-138			15.9	22.9
2,4,6-Trichlorophenol	0.666	ND	0.439	0.385	65.9	57.8	1	35.1-137			13.1	23.2
(S) Nitrobenzene-d5					53.2	47.1		10.0-122				
(S) 2-Fluorobiphenyl					57.7	49.2		15.0-120				
(S) p-Terphenyl-d14					58.6	51.4		10.0-120				
(S) Phenol-d5					70.4	59.9		10.0-120				
(S) 2-Fluorophenol					71.6	65.2		12.0-120				
(S) 2,4,6-Tribromophenol					75.5	66.2		10.0-127				

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc



Method Blank (MB)

(MB) R3429178-2 07/09/19 19:38

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
Acenaphthene	U		0.00642	0.0333
Acenaphthylene	U		0.00671	0.0333
Acetophenone	U		0.0752	0.333
Anthracene	U		0.00632	0.0333
Atrazine	U		0.0938	0.333
Benzaldehyde	U		0.0532	0.333
Benzo(a)anthracene	U		0.00428	0.0333
Benzo(b)fluoranthene	U		0.00695	0.0333
Benzo(k)fluoranthene	U		0.00582	0.0333
Benzo(g,h,i)perylene	U		0.00721	0.0333
Benzo(a)pyrene	U		0.00548	0.0333
Biphenyl	U		0.00588	0.333
Bis(2-chlorethoxy)methane	U		0.00770	0.333
Bis(2-chloroethyl)ether	U		0.00896	0.333
Bis(2-chloroisopropyl)ether	U		0.00760	0.333
4-Bromophenyl-phenylether	U		0.0114	0.333
Caprolactam	U		0.104	0.333
Carbazole	U		0.00524	0.333
4-Chloroaniline	U		0.0352	0.333
2-Chloronaphthalene	U		0.00639	0.0333
4-Chlorophenyl-phenylether	U		0.00627	0.333
Chrysene	U		0.00555	0.0333
Dibenz(a,h)anthracene	U		0.00821	0.0333
Dibenzofuran	U		0.00518	0.333
3,3-Dichlorobenzidine	U		0.0794	0.333
2,4-Dinitrotoluene	U		0.00607	0.333
2,6-Dinitrotoluene	U		0.00737	0.333
Fluoranthene	U		0.00496	0.0333
Fluorene	U		0.00682	0.0333
Hexachlorobenzene	U		0.00856	0.333
Hexachloro-1,3-butadiene	U		0.0100	0.333
Hexachlorocyclopentadiene	U		0.0587	0.333
Hexachloroethane	U		0.0134	0.333
Indeno(1,2,3-cd)pyrene	U		0.00772	0.0333
Isophorone	U		0.00522	0.333
2-Methylnaphthalene	U		0.00861	0.0333
Naphthalene	U		0.00889	0.0333
2-Nitroaniline	U		0.00755	0.333
3-Nitroaniline	U		0.00850	0.333
4-Nitroaniline	U		0.00639	0.333

<sup>1</sup> Cp

<sup>2</sup> Tc

<sup>3</sup> Ss

<sup>4</sup> Cn

<sup>5</sup> Sr

<sup>6</sup> Qc

<sup>7</sup> Gl

<sup>8</sup> Al

<sup>9</sup> Sc



Method Blank (MB)

(MB) R3429178-2 07/09/19 19:38

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
Nitrobenzene	U		0.00695	0.333
n-Nitrosodiphenylamine	U		0.0900	0.333
n-Nitrosodi-n-propylamine	U		0.00906	0.333
Phenanthrene	U		0.00528	0.0333
Benzylbutyl phthalate	U		0.0103	0.333
Bis(2-ethylhexyl)phthalate	U		0.0120	0.333
Di-n-butyl phthalate	U		0.0109	0.333
Diethyl phthalate	U		0.00691	0.333
Dimethyl phthalate	0.0192	U	0.00540	0.333
Di-n-octyl phthalate	U		0.00907	0.333
Pyrene	U		0.0123	0.0333
4-Chloro-3-methylphenol	U		0.00477	0.333
2-Chlorophenol	U		0.00831	0.333
2-Methylphenol	U		0.00986	0.333
3&4-Methyl Phenol	U		0.00783	0.333
2,4-Dichlorophenol	U		0.00746	0.333
2,4-Dimethylphenol	U		0.0471	0.333
4,6-Dinitro-2-methylphenol	U		0.124	0.333
2,4-Dinitrophenol	U		0.0980	0.333
2-Nitrophenol	U		0.0130	0.333
4-Nitrophenol	U		0.0525	0.333
Pentachlorophenol	U		0.0480	0.333
Phenol	U		0.00695	0.333
1,2,4,5-Tetrachlorobenzene	U		0.0762	0.333
2,4,5-Trichlorophenol	U		0.0104	0.333
2,4,6-Trichlorophenol	U		0.00779	0.333
(S) Nitrobenzene-d5	60.4			10.0-122
(S) 2-Fluorobiphenyl	60.1			15.0-120
(S) p-Terphenyl-d14	72.7			10.0-120
(S) Phenol-d5	63.5			10.0-120
(S) 2-Fluorophenol	72.2			12.0-120
(S) 2,4,6-Tribromophenol	62.3			10.0-127

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc



Laboratory Control Sample (LCS)

(LCS) R3429178-1 07/09/19 19:15

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
Acenaphthene	0.666	0.422	63.4	70.0-130	J4
Acenaphthylene	0.666	0.431	64.7	70.0-130	J4
Acetophenone	0.666	0.399	59.9	70.0-130	J4
Anthracene	0.666	0.541	81.2	70.0-130	
Atrazine	0.666	0.600	90.1	70.0-130	
Benzaldehyde	0.666	0.415	62.3	70.0-130	J4
Benzo(a)anthracene	0.666	0.608	91.3	70.0-130	
Benzo(b)fluoranthene	0.666	0.604	90.7	70.0-130	
Benzo(k)fluoranthene	0.666	0.589	88.4	70.0-130	
Benzo(g,h,i)perylene	0.666	0.568	85.3	70.0-130	
Benzo(a)pyrene	0.666	0.597	89.6	70.0-130	
Biphenyl	0.666	0.407	61.1	70.0-130	J4
Bis(2-chlorethoxy)methane	0.666	0.337	50.6	70.0-130	J4
Bis(2-chloroethyl)ether	0.666	0.390	58.6	70.0-130	J4
Bis(2-chloroisopropyl)ether	0.666	0.350	52.6	70.0-130	J4
4-Bromophenyl-phenylether	0.666	0.555	83.3	70.0-130	
Caprolactam	0.666	0.567	85.1	70.0-130	
Carbazole	0.666	0.584	87.7	70.0-130	
4-Chloroaniline	0.666	0.352	52.9	70.0-130	J4
2-Chloronaphthalene	0.666	0.397	59.6	70.0-130	J4
4-Chlorophenyl-phenylether	0.666	0.487	73.1	70.0-130	
Chrysene	0.666	0.576	86.5	70.0-130	
Dibenz(a,h)anthracene	0.666	0.570	85.6	70.0-130	
Dibenzofuran	0.666	0.452	67.9	70.0-130	J4
3,3-Dichlorobenzidine	1.33	1.07	80.5	70.0-130	
2,4-Dinitrotoluene	0.666	0.604	90.7	70.0-130	
2,6-Dinitrotoluene	0.666	0.524	78.7	70.0-130	
Fluoranthene	0.666	0.585	87.8	70.0-130	
Fluorene	0.666	0.482	72.4	70.0-130	
Hexachlorobenzene	0.666	0.526	79.0	70.0-130	
Hexachloro-1,3-butadiene	0.666	0.336	50.5	70.0-130	J4
Hexachlorocyclopentadiene	0.666	0.307	46.1	70.0-130	J4
Hexachloroethane	0.666	0.346	52.0	70.0-130	J4
Indeno(1,2,3-cd)pyrene	0.666	0.583	87.5	70.0-130	
Isophorone	0.666	0.347	52.1	70.0-130	J4
2-Methylnaphthalene	0.666	0.336	50.5	70.0-130	J4
Naphthalene	0.666	0.315	47.3	70.0-130	J4
2-Nitroaniline	0.666	0.531	79.7	70.0-130	
3-Nitroaniline	0.666	0.515	77.3	70.0-130	
4-Nitroaniline	0.666	0.556	83.5	70.0-130	

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc





Laboratory Control Sample (LCS)

(LCS) R3429178-1 07/09/19 19:15

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
Nitrobenzene	0.666	0.334	50.2	70.0-130	<u>J4</u>
n-Nitrosodiphenylamine	0.666	0.514	77.2	70.0-130	
n-Nitrosodi-n-propylamine	0.666	0.429	64.4	70.0-130	<u>J4</u>
Phenanthrene	0.666	0.533	80.0	70.0-130	
Benzylbutyl phthalate	0.666	0.605	90.8	70.0-130	
Bis(2-ethylhexyl)phthalate	0.666	0.595	89.3	70.0-130	
Di-n-butyl phthalate	0.666	0.602	90.4	70.0-130	
Diethyl phthalate	0.666	0.557	83.6	70.0-130	
Dimethyl phthalate	0.666	0.526	79.0	70.0-130	
Di-n-octyl phthalate	0.666	0.598	89.8	70.0-130	
Pyrene	0.666	0.575	86.3	70.0-130	
4-Chloro-3-methylphenol	0.666	0.437	65.6	70.0-130	<u>J4</u>
2-Chlorophenol	0.666	0.414	62.2	70.0-130	<u>J4</u>
2-Methylphenol	0.666	0.502	75.4	70.0-130	
3&4-Methyl Phenol	0.666	0.544	81.7	70.0-130	
2,4-Dichlorophenol	0.666	0.393	59.0	70.0-130	<u>J4</u>
2,4-Dimethylphenol	0.666	0.377	56.6	70.0-130	<u>J4</u>
4,6-Dinitro-2-methylphenol	0.666	0.534	80.2	70.0-130	
2,4-Dinitrophenol	0.666	0.403	60.5	70.0-130	<u>J4</u>
2-Nitrophenol	0.666	0.345	51.8	70.0-130	<u>J4</u>
4-Nitrophenol	0.666	0.600	90.1	70.0-130	
Pentachlorophenol	0.666	0.614	92.2	70.0-130	
Phenol	0.666	0.475	71.3	70.0-130	
1,2,4,5-Tetrachlorobenzene	0.666	0.448	67.3	70.0-130	<u>J4</u>
2,4,5-Trichlorophenol	0.666	0.529	79.4	70.0-130	
2,4,6-Trichlorophenol	0.666	0.463	69.5	70.0-130	<u>J4</u>
(S) Nitrobenzene-d5			47.1	10.0-122	
(S) 2-Fluorobiphenyl			60.7	15.0-120	
(S) p-Terphenyl-d14			89.8	10.0-120	
(S) Phenol-d5			67.6	10.0-120	
(S) 2-Fluorophenol			70.6	12.0-120	
(S) 2,4,6-Tribromophenol			85.3	10.0-127	

<sup>1</sup> Cp

<sup>2</sup> Tc

<sup>3</sup> Ss

<sup>4</sup> Cn

<sup>5</sup> Sr

<sup>6</sup> Qc

<sup>7</sup> Gl

<sup>8</sup> Al

<sup>9</sup> Sc



L1113915-19 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1113915-19 07/10/19 01:38 • (MS) R3429178-3 07/10/19 02:00 • (MSD) R3429178-4 07/10/19 02:23

Analyte	Spike Amount mg/kg	Original Result mg/kg	MS Result mg/kg	MSD Result mg/kg	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Acenaphthene	0.666	ND	0.221	0.275	33.2	41.3	5	40.3-132	J6	J3	21.8	20
Acenaphthylene	0.666	ND	0.219	0.264	32.9	39.6	5	45.4-134	J6	J6	18.6	21.8
Acetophenone	0.666	ND	ND	ND	0.000	0.000	5	37.5-121	J6	J6	0.000	22
Anthracene	0.666	ND	0.286	0.314	42.9	47.1	5	41.7-133			9.33	21.9
Atrazine	0.666	ND	ND	ND	0.000	0.000	5	40.8-141	J6	J6	0.000	31.4
Benzaldehyde	0.666	ND	ND	ND	0.000	0.000	5	10.0-85.0	J6	J6	0.000	39.3
Benzo(a)anthracene	0.666	ND	0.276	0.317	41.4	47.6	5	35.1-129			13.8	23.1
Benzo(b)fluoranthene	0.666	ND	0.278	0.297	41.7	44.6	5	21.9-153			6.61	25.8
Benzo(k)fluoranthene	0.666	ND	0.266	0.281	39.9	42.2	5	30.6-143			5.48	26.4
Benzo(g,h,i)perylene	0.666	ND	0.255	0.280	38.3	42.0	5	10.0-141			9.35	28.6
Benzo(a)pyrene	0.666	ND	0.264	0.427	39.6	64.1	5	34.2-135		J3	47.2	22.4
Biphenyl	0.666	ND	0.202	0.256	30.3	38.4	5	42.7-126	J6	J3 J6	23.6	20.7
Bis(2-chloroethoxy)methane	0.666	ND	0.171	0.194	25.7	29.1	5	36.4-125	J6	J6	12.6	20
Bis(2-chloroethyl)ether	0.666	ND	0.147	0.146	22.1	21.9	5	24.8-133	J6	J6	0.683	34.9
Bis(2-chloroisopropyl)ether	0.666	ND	0.140	0.167	21.0	25.1	5	37.1-117	J6	J6	17.6	29
4-Bromophenyl-phenylether	0.666	ND	0.388	0.382	58.3	57.4	5	34.9-140			1.56	22.7
Caprolactam	0.666	ND	ND	ND	0.000	0.000	5	38.5-123	J6	J6	0.000	23.2
Carbazole	0.666	ND	0.339	0.333	50.9	50.0	5	37.3-132			1.79	21.6
4-Chloroaniline	0.666	ND	0.221	0.208	33.2	31.2	5	10.0-129			6.06	40
2-Chloronaphthalene	0.666	ND	0.204	0.274	30.6	41.1	5	38.7-127	J6	J3	29.3	20.8
4-Chlorophenyl-phenylether	0.666	ND	0.263	0.306	39.5	45.9	5	38.9-127			15.1	21.9
Chrysene	0.666	ND	0.255	0.308	38.3	46.2	5	35.9-131			18.8	24
Dibenz(a,h)anthracene	0.666	ND	0.308	0.322	46.2	48.3	5	10.0-142			4.44	24.8
Dibenzofuran	0.666	ND	0.231	0.264	34.7	39.6	5	39.2-130	J6		13.3	21.3
3,3-Dichlorobenzidine	1.33	ND	0.467	0.685	35.1	51.5	5	10.0-125			37.8	40
2,4-Dinitrotoluene	0.666	ND	0.261	0.305	39.2	45.8	5	31.6-145			15.5	25.2
2,6-Dinitrotoluene	0.666	ND	0.255	0.309	38.3	46.4	5	38.1-135			19.1	23.9
Fluoranthene	0.666	ND	0.292	0.334	43.8	50.2	5	29.8-140			13.4	24.4
Fluorene	0.666	ND	0.238	0.292	35.7	43.8	5	41.8-129	J6		20.4	21.2
Hexachlorobenzene	0.666	ND	0.290	0.333	43.5	50.0	5	34.3-121			13.8	21.2
Hexachloro-1,3-butadiene	0.666	ND	0.190	0.259	28.5	38.9	5	35.1-128	J6	J3	30.7	23.4
Hexachlorocyclopentadiene	0.666	ND	ND	ND	0.000	0.000	5	10.0-145	J6	J6	0.000	34.8
Hexachloroethane	0.666	ND	0.121	0.132	18.2	19.8	5	20.0-127	J6	J6	8.70	27.6
Indeno(1,2,3-cd)pyrene	0.666	ND	0.329	0.268	49.4	40.2	5	10.0-144			20.4	27
Isophorone	0.666	ND	0.189	0.217	28.4	32.6	5	31.7-106	J6		13.8	20.3
2-Methylnaphthalene	0.666	ND	0.209	0.236	15.3	19.4	5	36.7-132	J6	J6	12.1	20
Naphthalene	0.666	ND	0.187	0.200	28.1	30.0	5	37.3-124	J6	J6	6.72	20.1
2-Nitroaniline	0.666	ND	0.287	0.337	43.1	50.6	5	38.6-140			16.0	22.9
3-Nitroaniline	0.666	ND	0.224	0.267	33.6	40.1	5	10.0-139			17.5	39
4-Nitroaniline	0.666	ND	0.229	0.361	34.4	54.2	5	15.9-152		J3	44.7	31

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc



L1113915-19 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1113915-19 07/10/19 01:38 • (MS) R3429178-3 07/10/19 02:00 • (MSD) R3429178-4 07/10/19 02:23

Analyte	Spike Amount mg/kg	Original Result mg/kg	MS Result mg/kg	MSD Result mg/kg	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Nitrobenzene	0.666	ND	0.156	0.164	23.4	24.6	5	36.3-127	<u>J6</u>	<u>J6</u>	5.00	20.9
n-Nitrosodiphenylamine	0.666	ND	ND	ND	0.000	0.000	5	20.0-125	<u>J6</u>	<u>J6</u>	0.000	25
n-Nitrosodi-n-propylamine	0.666	ND	0.162	0.198	24.3	29.7	5	29.2-132	<u>J6</u>		20.0	24.9
Phenanthrene	0.666	ND	0.272	0.311	40.8	46.7	5	41.9-131	<u>J6</u>		13.4	21.4
Benzylbutyl phthalate	0.666	ND	0.393	0.395	59.0	59.3	5	22.7-155			0.508	25.2
Bis(2-ethylhexyl)phthalate	0.666	ND	0.538	0.612	80.8	91.9	5	22.6-157			12.9	33.5
Di-n-butyl phthalate	0.666	ND	0.379	0.405	56.9	60.8	5	35.6-139			6.63	22.6
Diethyl phthalate	0.666	ND	0.237	0.307	35.6	46.1	5	44.4-135	<u>J6</u>	<u>J3</u>	25.7	21.3
Dimethyl phthalate	0.666	ND	0.261	0.310	39.2	46.5	5	42.5-134	<u>J6</u>		17.2	21.4
Di-n-octyl phthalate	0.666	ND	0.273	0.444	41.0	66.7	5	24.6-145		<u>J3</u>	47.7	25.1
Pyrene	0.666	ND	0.297	0.343	44.6	51.5	5	25.5-142			14.4	23.9
4-Chloro-3-methylphenol	0.666	ND	0.246	0.289	36.9	43.4	5	35.7-139			16.1	21.2
2-Chlorophenol	0.666	ND	0.167	0.181	25.1	27.2	5	33.2-114	<u>J6</u>	<u>J6</u>	8.05	23.8
2-Methylphenol	0.666	ND	0.172	0.206	25.8	30.9	5	30.5-113	<u>J6</u>		18.0	23.9
3&4-Methyl Phenol	0.666	ND	0.236	0.239	35.4	35.9	5	30.4-140			1.26	24.7
2,4-Dichlorophenol	0.666	ND	0.217	0.236	32.6	35.4	5	36.7-133	<u>J6</u>	<u>J6</u>	8.39	20.7
2,4-Dimethylphenol	0.666	ND	ND	0.270	0.000	40.5	5	25.7-137	<u>J6</u>	<u>J3</u>	200	24.7
4,6-Dinitro-2-methylphenol	0.666	ND	ND	ND	0.000	0.000	5	10.0-149	<u>J6</u>	<u>J6</u>	0.000	40
2,4-Dinitrophenol	0.666	ND	ND	ND	0.000	0.000	5	10.0-131	<u>J6</u>	<u>J6</u>	0.000	40
2-Nitrophenol	0.666	ND	0.187	0.218	28.1	32.7	5	21.8-145			15.3	27
4-Nitrophenol	0.666	ND	0.273	0.338	41.0	50.8	5	10.0-146			21.3	26.9
Pentachlorophenol	0.666	ND	0.391	0.359	58.7	53.9	5	10.0-155			8.53	28.1
Phenol	0.666	ND	0.213	0.212	32.0	31.8	5	26.8-124			0.471	27.3
1,2,4,5-Tetrachlorobenzene	0.666	ND	ND	ND	0.000	0.000	5	41.3-124	<u>J6</u>	<u>J6</u>	0.000	21.2
2,4,5-Trichlorophenol	0.666	ND	0.243	0.275	36.5	41.3	5	37.0-138	<u>J6</u>		12.4	22.9
2,4,6-Trichlorophenol	0.666	ND	0.218	0.254	32.7	38.1	5	35.1-137	<u>J6</u>		15.3	23.2
(S) Nitrobenzene-d5					24.5	26.8		10.0-122				
(S) 2-Fluorobiphenyl					29.5	36.0		15.0-120				
(S) p-Terphenyl-d14					47.7	54.1		10.0-120				
(S) Phenol-d5					27.5	26.7		10.0-120				
(S) 2-Fluorophenol					27.3	26.6		12.0-120				
(S) 2,4,6-Tribromophenol					47.6	59.6		10.0-127				

1 Cp  
2 Tc  
3 Ss  
4 Cn  
5 Sr  
6 Qc  
7 Gl  
8 Al  
9 Sc

Sample Narrative:

OS: Dilution due to matrix.



Method Blank (MB)

(MB) R3428867-2 07/09/19 02:29

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
Acenaphthene	U		0.00642	0.0333
Acenaphthylene	U		0.00671	0.0333
Acetophenone	U		0.0752	0.333
Anthracene	U		0.00632	0.0333
Atrazine	U		0.0938	0.333
Benzaldehyde	U		0.0532	0.333
Benzo(a)anthracene	U		0.00428	0.0333
Benzo(b)fluoranthene	U		0.00695	0.0333
Benzo(k)fluoranthene	U		0.00582	0.0333
Benzo(g,h,i)perylene	U		0.00721	0.0333
Benzo(a)pyrene	U		0.00548	0.0333
Biphenyl	U		0.00588	0.333
Bis(2-chlorethoxy)methane	U		0.00770	0.333
Bis(2-chloroethyl)ether	U		0.00896	0.333
Bis(2-chloroisopropyl)ether	U		0.00760	0.333
4-Bromophenyl-phenylether	U		0.0114	0.333
Caprolactam	U		0.104	0.333
Carbazole	U		0.00524	0.333
4-Chloroaniline	U		0.0352	0.333
2-Chloronaphthalene	U		0.00639	0.0333
4-Chlorophenyl-phenylether	U		0.00627	0.333
Chrysene	U		0.00555	0.0333
Dibenz(a,h)anthracene	U		0.00821	0.0333
Dibenzofuran	U		0.00518	0.333
3,3-Dichlorobenzidine	U		0.0794	0.333
2,4-Dinitrotoluene	U		0.00607	0.333
2,6-Dinitrotoluene	U		0.00737	0.333
Fluoranthene	U		0.00496	0.0333
Fluorene	U		0.00682	0.0333
Hexachlorobenzene	U		0.00856	0.333
Hexachloro-1,3-butadiene	U		0.0100	0.333
Hexachlorocyclopentadiene	U		0.0587	0.333
Hexachloroethane	U		0.0134	0.333
Indeno(1,2,3-cd)pyrene	U		0.00772	0.0333
Isophorone	U		0.00522	0.333
2-Methylnaphthalene	U		0.00861	0.0333
Naphthalene	U		0.00889	0.0333
2-Nitroaniline	U		0.00755	0.333
3-Nitroaniline	U		0.00850	0.333
4-Nitroaniline	U		0.00639	0.333

<sup>1</sup> Cp

<sup>2</sup> Tc

<sup>3</sup> Ss

<sup>4</sup> Cn

<sup>5</sup> Sr

<sup>6</sup> Qc

<sup>7</sup> Gl

<sup>8</sup> Al

<sup>9</sup> Sc



Method Blank (MB)

(MB) R3428867-2 07/09/19 02:29

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
Nitrobenzene	U		0.00695	0.333
n-Nitrosodiphenylamine	U		0.0900	0.333
n-Nitrosodi-n-propylamine	U		0.00906	0.333
Phenanthrene	U		0.00528	0.0333
Benzylbutyl phthalate	U		0.0103	0.333
Bis(2-ethylhexyl)phthalate	U		0.0120	0.333
Di-n-butyl phthalate	U		0.0109	0.333
Diethyl phthalate	U		0.00691	0.333
Dimethyl phthalate	U		0.00540	0.333
Di-n-octyl phthalate	U		0.00907	0.333
Pyrene	U		0.0123	0.0333
4-Chloro-3-methylphenol	U		0.00477	0.333
2-Chlorophenol	U		0.00831	0.333
2-Methylphenol	U		0.00986	0.333
3&4-Methyl Phenol	U		0.00783	0.333
2,4-Dichlorophenol	U		0.00746	0.333
2,4-Dimethylphenol	U		0.0471	0.333
4,6-Dinitro-2-methylphenol	U		0.124	0.333
2,4-Dinitrophenol	U		0.0980	0.333
2-Nitrophenol	U		0.0130	0.333
4-Nitrophenol	U		0.0525	0.333
Pentachlorophenol	U		0.0480	0.333
Phenol	U		0.00695	0.333
1,2,4,5-Tetrachlorobenzene	U		0.0762	0.333
2,4,5-Trichlorophenol	U		0.0104	0.333
2,4,6-Trichlorophenol	U		0.00779	0.333
(S) Nitrobenzene-d5	65.2			10.0-122
(S) 2-Fluorobiphenyl	66.1			15.0-120
(S) p-Terphenyl-d14	73.6			10.0-120
(S) Phenol-d5	75.8			10.0-120
(S) 2-Fluorophenol	82.9			12.0-120
(S) 2,4,6-Tribromophenol	68.8			10.0-127

<sup>1</sup> Cp

<sup>2</sup> Tc

<sup>3</sup> Ss

<sup>4</sup> Cn

<sup>5</sup> Sr

<sup>6</sup> Qc

<sup>7</sup> Gl

<sup>8</sup> Al

<sup>9</sup> Sc



Laboratory Control Sample (LCS)

(LCS) R3428867-1 07/09/19 02:10

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
Acenaphthene	0.666	0.445	66.8	70.0-130	J4
Acenaphthylene	0.666	0.473	71.0	70.0-130	
Acetophenone	0.666	0.445	66.8	70.0-130	J4
Anthracene	0.666	0.487	73.1	70.0-130	
Atrazine	0.666	0.516	77.5	70.0-130	
Benzaldehyde	0.666	0.531	79.7	70.0-130	
Benzo(a)anthracene	0.666	0.542	81.4	70.0-130	
Benzo(b)fluoranthene	0.666	0.514	77.2	70.0-130	
Benzo(k)fluoranthene	0.666	0.524	78.7	70.0-130	
Benzo(g,h,i)perylene	0.666	0.555	83.3	70.0-130	
Benzo(a)pyrene	0.666	0.529	79.4	70.0-130	
Biphenyl	0.666	0.453	68.0	70.0-130	J4
Bis(2-chlorethoxy)methane	0.666	0.378	56.8	70.0-130	J4
Bis(2-chloroethyl)ether	0.666	0.433	65.0	70.0-130	J4
Bis(2-chloroisopropyl)ether	0.666	0.397	59.6	70.0-130	J4
4-Bromophenyl-phenylether	0.666	0.477	71.6	70.0-130	
Caprolactam	0.666	0.529	79.4	70.0-130	
Carbazole	0.666	0.504	75.7	70.0-130	
4-Chloroaniline	0.666	0.361	54.2	70.0-130	J4
2-Chloronaphthalene	0.666	0.453	68.0	70.0-130	J4
4-Chlorophenyl-phenylether	0.666	0.483	72.5	70.0-130	
Chrysene	0.666	0.511	76.7	70.0-130	
Dibenz(a,h)anthracene	0.666	0.544	81.7	70.0-130	
Dibenzofuran	0.666	0.466	70.0	70.0-130	
3,3-Dichlorobenzidine	1.33	1.00	75.2	70.0-130	
2,4-Dinitrotoluene	0.666	0.529	79.4	70.0-130	
2,6-Dinitrotoluene	0.666	0.516	77.5	70.0-130	
Fluoranthene	0.666	0.495	74.3	70.0-130	
Fluorene	0.666	0.482	72.4	70.0-130	
Hexachlorobenzene	0.666	0.437	65.6	70.0-130	J4
Hexachloro-1,3-butadiene	0.666	0.344	51.7	70.0-130	J4
Hexachlorocyclopentadiene	0.666	0.419	62.9	70.0-130	J4
Hexachloroethane	0.666	0.390	58.6	70.0-130	J4
Indeno(1,2,3-cd)pyrene	0.666	0.544	81.7	70.0-130	
Isophorone	0.666	0.373	56.0	70.0-130	J4
2-Methylnaphthalene	0.666	0.348	52.3	70.0-130	J4
Naphthalene	0.666	0.341	51.2	70.0-130	J4
2-Nitroaniline	0.666	0.571	85.7	70.0-130	
3-Nitroaniline	0.666	0.519	77.9	70.0-130	
4-Nitroaniline	0.666	0.564	84.7	70.0-130	

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc



Laboratory Control Sample (LCS)

(LCS) R3428867-1 07/09/19 02:10

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
Nitrobenzene	0.666	0.384	57.7	70.0-130	J4
n-Nitrosodiphenylamine	0.666	0.483	72.5	70.0-130	
n-Nitrosodi-n-propylamine	0.666	0.444	66.7	70.0-130	J4
Phenanthrene	0.666	0.480	72.1	70.0-130	
Benzylbutyl phthalate	0.666	0.587	88.1	70.0-130	
Bis(2-ethylhexyl)phthalate	0.666	0.576	86.5	70.0-130	
Di-n-butyl phthalate	0.666	0.532	79.9	70.0-130	
Diethyl phthalate	0.666	0.507	76.1	70.0-130	
Dimethyl phthalate	0.666	0.485	72.8	70.0-130	
Di-n-octyl phthalate	0.666	0.566	85.0	70.0-130	
Pyrene	0.666	0.505	75.8	70.0-130	
4-Chloro-3-methylphenol	0.666	0.423	63.5	70.0-130	J4
2-Chlorophenol	0.666	0.465	69.8	70.0-130	J4
2-Methylphenol	0.666	0.489	73.4	70.0-130	
3&4-Methyl Phenol	0.666	0.548	82.3	70.0-130	
2,4-Dichlorophenol	0.666	0.413	62.0	70.0-130	J4
2,4-Dimethylphenol	0.666	0.382	57.4	70.0-130	J4
4,6-Dinitro-2-methylphenol	0.666	0.541	81.2	70.0-130	
2,4-Dinitrophenol	0.666	0.417	62.6	70.0-130	J4
2-Nitrophenol	0.666	0.441	66.2	70.0-130	J4
4-Nitrophenol	0.666	0.554	83.2	70.0-130	
Pentachlorophenol	0.666	0.457	68.6	70.0-130	J4
Phenol	0.666	0.495	74.3	70.0-130	
1,2,4,5-Tetrachlorobenzene	0.666	0.412	61.9	70.0-130	J4
2,4,5-Trichlorophenol	0.666	0.576	86.5	70.0-130	
2,4,6-Trichlorophenol	0.666	0.554	83.2	70.0-130	
(S) Nitrobenzene-d5			53.5	10.0-122	
(S) 2-Fluorobiphenyl			65.2	15.0-120	
(S) p-Terphenyl-d14			79.3	10.0-120	
(S) Phenol-d5			73.9	10.0-120	
(S) 2-Fluorophenol			80.0	12.0-120	
(S) 2,4,6-Tribromophenol			71.2	10.0-127	

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc





L1114927-04 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1114927-04 07/09/19 04:26 • (MS) R3428867-3 07/09/19 04:45 • (MSD) R3428867-4 07/09/19 05:04

Analyte	Spike Amount (dry) mg/kg	Original Result (dry) mg/kg	MS Result (dry) mg/kg	MSD Result (dry) mg/kg	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Acenaphthene	0.773	U	0.433	0.462	56.0	59.8	1	40.3-132			6.49	20
Acenaphthylene	0.773	U	0.460	0.483	59.5	62.5	1	45.4-134			4.93	21.8
Acetophenone	0.773	U	0.427	0.441	55.3	57.1	1	37.5-121			3.21	22
Anthracene	0.773	U	0.484	0.508	62.6	65.8	1	41.7-133			4.91	21.9
Atrazine	0.773	U	0.529	0.564	68.5	73.0	1	40.8-141			6.37	31.4
Benzaldehyde	0.773	U	0.542	0.540	70.1	69.8	1	10.0-85.0			0.429	39.3
Benzo(a)anthracene	0.773	U	0.541	0.602	70.0	77.9	1	35.1-129			10.8	23.1
Benzo(b)fluoranthene	0.773	U	0.529	0.565	68.5	73.1	1	21.9-153			6.57	25.8
Benzo(k)fluoranthene	0.773	U	0.533	0.588	68.9	76.1	1	30.6-143			9.94	26.4
Benzo(g,h,i)perylene	0.773	U	0.574	0.617	74.3	79.9	1	10.0-141			7.21	28.6
Benzo(a)pyrene	0.773	U	0.549	0.591	71.0	76.4	1	34.2-135			7.33	22.4
Biphenyl	0.773	U	0.432	0.455	55.9	58.9	1	42.7-126			5.24	20.7
Bis(2-chlorethoxy)methane	0.773	U	0.362	0.381	46.8	49.2	1	36.4-125			5.00	20
Bis(2-chloroethyl)ether	0.773	U	0.410	0.409	53.0	52.9	1	24.8-133			0.284	34.9
Bis(2-chloroisopropyl)ether	0.773	U	0.371	0.373	48.0	48.2	1	37.1-117			0.312	29
4-Bromophenyl-phenylether	0.773	U	0.487	0.485	63.1	62.8	1	34.9-140			0.477	22.7
Caprolactam	0.773	U	0.519	0.592	67.1	76.6	1	38.5-123			13.2	23.2
Carbazole	0.773	U	0.512	0.541	66.2	70.0	1	37.3-132			5.51	21.6
4-Chloroaniline	0.773	U	0.360	0.403	46.5	52.1	1	10.0-129			11.3	40
2-Chloronaphthalene	0.773	U	0.441	0.460	57.1	59.5	1	38.7-127			4.12	20.8
4-Chlorophenyl-phenylether	0.773	U	0.470	0.500	60.8	64.7	1	38.9-127			6.22	21.9
Chrysene	0.773	U	0.525	0.573	67.9	74.2	1	35.9-131			8.88	24
Dibenz(a,h)anthracene	0.773	U	0.572	0.606	74.0	78.4	1	10.0-142			5.71	24.8
Dibenzofuran	0.773	U	0.448	0.480	58.0	62.2	1	39.2-130			7.00	21.3
3,3-Dichlorobenzidine	1.54	U	1.05	1.20	68.3	77.4	1	10.0-125			12.6	40
2,4-Dinitrotoluene	0.773	U	0.544	0.586	70.4	75.8	1	31.6-145			7.39	25.2
2,6-Dinitrotoluene	0.773	U	0.504	0.557	65.2	72.1	1	38.1-135			10.1	23.9
Fluoranthene	0.773	U	0.508	0.536	65.8	69.4	1	29.8-140			5.33	24.4
Fluorene	0.773	U	0.469	0.498	60.7	64.4	1	41.8-129			6.00	21.2
Hexachlorobenzene	0.773	U	0.453	0.469	58.6	60.7	1	34.3-121			3.53	21.2
Hexachloro-1,3-butadiene	0.773	U	0.335	0.334	43.4	43.2	1	35.1-128			0.347	23.4
Hexachlorocyclopentadiene	0.773	U	0.368	0.384	47.6	49.7	1	10.0-145			4.32	34.8
Hexachloroethane	0.773	U	0.367	0.368	47.4	47.6	1	20.0-127			0.316	27.6
Indeno(1,2,3-cd)pyrene	0.773	U	0.563	0.602	72.8	77.9	1	10.0-144			6.77	27
Isophorone	0.773	U	0.356	0.377	46.1	48.8	1	31.7-106			5.70	20.3
2-Methylnaphthalene	0.773	U	0.346	0.348	44.7	45.0	1	36.7-132			0.669	20
Naphthalene	0.773	U	0.328	0.337	42.5	43.5	1	37.3-124			2.44	20.1
2-Nitroaniline	0.773	U	0.552	0.616	71.5	79.7	1	38.6-140			10.9	22.9
3-Nitroaniline	0.773	U	0.538	0.578	69.7	74.8	1	10.0-139			7.07	39

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc



L1114927-04 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1114927-04 07/09/19 04:26 • (MS) R3428867-3 07/09/19 04:45 • (MSD) R3428867-4 07/09/19 05:04

Analyte	Spike Amount (dry) mg/kg	Original Result (dry) mg/kg	MS Result (dry) mg/kg	MSD Result (dry) mg/kg	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
4-Nitroaniline	0.773	U	0.566	0.621	73.3	80.3	1	15.9-152			9.19	31
Nitrobenzene	0.773	U	0.371	0.378	48.0	48.9	1	36.3-127			1.86	20.9
n-Nitrosodiphenylamine	0.773	U	0.477	0.499	61.7	64.6	1	20.0-125			4.52	25
n-Nitrosodi-n-propylamine	0.773	U	0.426	0.442	55.1	57.2	1	29.2-132			3.74	24.9
Phenanthrene	0.773	U	0.491	0.513	63.5	66.4	1	41.9-131			4.39	21.4
Benzylbutyl phthalate	0.773	U	0.579	0.643	74.9	83.2	1	22.7-155			10.4	25.2
Bis(2-ethylhexyl)phthalate	0.773	U	0.565	0.627	73.1	81.1	1	22.6-157			10.3	33.5
Di-n-butyl phthalate	0.773	U	0.521	0.552	67.4	71.5	1	35.6-139			5.84	22.6
Diethyl phthalate	0.773	U	0.500	0.543	64.7	70.3	1	44.4-135			8.23	21.3
Dimethyl phthalate	0.773	U	0.480	0.515	62.2	66.7	1	42.5-134			6.99	21.4
Di-n-octyl phthalate	0.773	U	0.557	0.619	72.1	80.0	1	24.6-145			10.5	25.1
Pyrene	0.773	U	0.513	0.565	66.4	73.1	1	25.5-142			9.69	23.9
4-Chloro-3-methylphenol	0.773	U	0.424	0.448	54.8	58.0	1	35.7-139			5.59	21.2
2-Chlorophenol	0.773	U	0.449	0.461	58.1	59.6	1	33.2-114			2.55	23.8
2-Methylphenol	0.773	U	0.493	0.511	63.8	66.1	1	30.5-113			3.47	23.9
3&4-Methyl Phenol	0.773	U	0.549	0.559	71.0	72.4	1	30.4-140			1.88	24.7
2,4-Dichlorophenol	0.773	U	0.414	0.428	53.6	55.4	1	36.7-133			3.31	20.7
2,4-Dimethylphenol	0.773	U	0.379	0.395	49.1	51.1	1	25.7-137			3.90	24.7
4,6-Dinitro-2-methylphenol	0.773	U	0.571	0.587	73.9	76.0	1	10.0-149			2.81	40
2,4-Dinitrophenol	0.773	U	0.515	0.375	66.7	48.5	1	10.0-131			31.6	40
2-Nitrophenol	0.773	U	0.434	0.457	56.2	59.2	1	21.8-145			5.21	27
4-Nitrophenol	0.773	U	0.544	0.608	70.4	78.7	1	10.0-146			11.1	26.9
Pentachlorophenol	0.773	U	0.476	0.487	61.6	63.1	1	10.0-155			2.41	28.1
Phenol	0.773	U	0.494	0.500	64.0	64.7	1	26.8-124			1.17	27.3
1,2,4,5-Tetrachlorobenzene	0.773	U	0.396	0.413	51.2	53.5	1	41.3-124			4.30	21.2
2,4,5-Trichlorophenol	0.773	U	0.605	0.603	78.2	78.1	1	37.0-138			0.192	22.9
2,4,6-Trichlorophenol	0.773	U	0.526	0.574	68.0	74.3	1	35.1-137			8.86	23.2
(S) Nitrobenzene-d5					45.0	46.8		10.0-122				
(S) 2-Fluorobiphenyl					55.0	58.0		15.0-120				
(S) p-Terphenyl-d14					70.3	74.2		10.0-120				
(S) Phenol-d5					63.7	64.3		10.0-120				
(S) 2-Fluorophenol					67.7	67.3		12.0-120				
(S) 2,4,6-Tribromophenol					62.8	64.9		10.0-127				

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc



Method Blank (MB)

(MB) R3429532-1 07/10/19 15:31

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
Acenaphthene	U		0.00642	0.0333
Acenaphthylene	U		0.00671	0.0333
Acetophenone	U		0.0752	0.333
Anthracene	U		0.00632	0.0333
Atrazine	U		0.0938	0.333
Benzaldehyde	U		0.0532	0.333
Benzo(a)anthracene	U		0.00428	0.0333
Benzo(b)fluoranthene	U		0.00695	0.0333
Benzo(k)fluoranthene	U		0.00582	0.0333
Benzo(g,h,i)perylene	U		0.00721	0.0333
Benzo(a)pyrene	U		0.00548	0.0333
Biphenyl	U		0.00588	0.333
Bis(2-chlorethoxy)methane	U		0.00770	0.333
Bis(2-chloroethyl)ether	U		0.00896	0.333
Bis(2-chloroisopropyl)ether	U		0.00760	0.333
4-Bromophenyl-phenylether	U		0.0114	0.333
Caprolactam	U		0.104	0.333
Carbazole	U		0.00524	0.333
4-Chloroaniline	U		0.0352	0.333
2-Chloronaphthalene	U		0.00639	0.0333
4-Chlorophenyl-phenylether	U		0.00627	0.333
Chrysene	U		0.00555	0.0333
Dibenz(a,h)anthracene	U		0.00821	0.0333
Dibenzofuran	U		0.00518	0.333
3,3-Dichlorobenzidine	U		0.0794	0.333
2,4-Dinitrotoluene	U		0.00607	0.333
2,6-Dinitrotoluene	U		0.00737	0.333
Fluoranthene	U		0.00496	0.0333
Fluorene	U		0.00682	0.0333
Hexachlorobenzene	U		0.00856	0.333
Hexachloro-1,3-butadiene	U		0.0100	0.333
Hexachlorocyclopentadiene	U		0.0587	0.333
Hexachloroethane	U		0.0134	0.333
Indeno(1,2,3-cd)pyrene	U		0.00772	0.0333
Isophorone	U		0.00522	0.333
2-Methylnaphthalene	U		0.00861	0.0333
Naphthalene	U		0.00889	0.0333
2-Nitroaniline	U		0.00755	0.333
3-Nitroaniline	U		0.00850	0.333
4-Nitroaniline	U		0.00639	0.333

<sup>1</sup> Cp

<sup>2</sup> Tc

<sup>3</sup> Ss

<sup>4</sup> Cn

<sup>5</sup> Sr

<sup>6</sup> Qc

<sup>7</sup> Gl

<sup>8</sup> Al

<sup>9</sup> Sc



Method Blank (MB)

(MB) R3429532-1 07/10/19 15:31

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
Nitrobenzene	U		0.00695	0.333
n-Nitrosodiphenylamine	U		0.0900	0.333
n-Nitrosodi-n-propylamine	U		0.00906	0.333
Phenanthrene	U		0.00528	0.0333
Benzylbutyl phthalate	U		0.0103	0.333
Bis(2-ethylhexyl)phthalate	U		0.0120	0.333
Di-n-butyl phthalate	U		0.0109	0.333
Diethyl phthalate	U		0.00691	0.333
Dimethyl phthalate	U		0.00540	0.333
Di-n-octyl phthalate	U		0.00907	0.333
Pyrene	U		0.0123	0.0333
4-Chloro-3-methylphenol	U		0.00477	0.333
2-Chlorophenol	U		0.00831	0.333
2-Methylphenol	U		0.00986	0.333
3&4-Methyl Phenol	U		0.00783	0.333
2,4-Dichlorophenol	U		0.00746	0.333
2,4-Dimethylphenol	U		0.0471	0.333
4,6-Dinitro-2-methylphenol	U		0.124	0.333
2,4-Dinitrophenol	U		0.0980	0.333
2-Nitrophenol	U		0.0130	0.333
4-Nitrophenol	U		0.0525	0.333
Pentachlorophenol	U		0.0480	0.333
Phenol	U		0.00695	0.333
1,2,4,5-Tetrachlorobenzene	U		0.0762	0.333
2,4,5-Trichlorophenol	U		0.0104	0.333
2,4,6-Trichlorophenol	U		0.00779	0.333
(S) Nitrobenzene-d5	55.9			10.0-122
(S) 2-Fluorobiphenyl	57.1			15.0-120
(S) p-Terphenyl-d14	64.9			10.0-120
(S) Phenol-d5	61.1			10.0-120
(S) 2-Fluorophenol	70.1			12.0-120
(S) 2,4,6-Tribromophenol	62.3			10.0-127

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc



Laboratory Control Sample (LCS)

(LCS) R3429532-2 07/10/19 15:51

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
Acenaphthene	0.666	0.339	50.9	70.0-130	J4
Acenaphthylene	0.666	0.357	53.6	70.0-130	J4
Acetophenone	0.666	0.295	44.3	70.0-130	J4
Anthracene	0.666	0.401	60.2	70.0-130	J4
Atrazine	0.666	0.436	65.5	70.0-130	J4
Benzaldehyde	0.666	0.279	41.9	70.0-130	J4
Benzo(a)anthracene	0.666	0.461	69.2	70.0-130	J4
Benzo(b)fluoranthene	0.666	0.454	68.2	70.0-130	J4
Benzo(k)fluoranthene	0.666	0.433	65.0	70.0-130	J4
Benzo(g,h,i)perylene	0.666	0.475	71.3	70.0-130	J4
Benzo(a)pyrene	0.666	0.448	67.3	70.0-130	J4
Biphenyl	0.666	0.335	50.3	70.0-130	J4
Bis(2-chlorethoxy)methane	0.666	0.273	41.0	70.0-130	J4
Bis(2-chloroethyl)ether	0.666	0.292	43.8	70.0-130	J4
Bis(2-chloroisopropyl)ether	0.666	0.280	42.0	70.0-130	J4
4-Bromophenyl-phenylether	0.666	0.433	65.0	70.0-130	J4
Caprolactam	0.666	0.469	70.4	70.0-130	J4
Carbazole	0.666	0.448	67.3	70.0-130	J4
4-Chloroaniline	0.666	0.286	42.9	70.0-130	J4
2-Chloronaphthalene	0.666	0.326	48.9	70.0-130	J4
4-Chlorophenyl-phenylether	0.666	0.380	57.1	70.0-130	J4
Chrysene	0.666	0.408	61.3	70.0-130	J4
Dibenz(a,h)anthracene	0.666	0.467	70.1	70.0-130	J4
Dibenzofuran	0.666	0.360	54.1	70.0-130	J4
3,3-Dichlorobenzidine	1.33	0.761	57.2	70.0-130	J4
2,4-Dinitrotoluene	0.666	0.412	61.9	70.0-130	J4
2,6-Dinitrotoluene	0.666	0.414	62.2	70.0-130	J4
Fluoranthene	0.666	0.434	65.2	70.0-130	J4
Fluorene	0.666	0.375	56.3	70.0-130	J4
Hexachlorobenzene	0.666	0.423	63.5	70.0-130	J4
Hexachloro-1,3-butadiene	0.666	0.243	36.5	70.0-130	J4
Hexachlorocyclopentadiene	0.666	0.292	43.8	70.0-130	J4
Hexachloroethane	0.666	0.257	38.6	70.0-130	J4
Indeno(1,2,3-cd)pyrene	0.666	0.505	75.8	70.0-130	J4
Isophorone	0.666	0.286	42.9	70.0-130	J4
2-Methylnaphthalene	0.666	0.262	39.3	70.0-130	J4
Naphthalene	0.666	0.250	37.5	70.0-130	J4
2-Nitroaniline	0.666	0.414	62.2	70.0-130	J4
3-Nitroaniline	0.666	0.405	60.8	70.0-130	J4
4-Nitroaniline	0.666	0.408	61.3	70.0-130	J4

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc



Laboratory Control Sample (LCS)

(LCS) R3429532-2 07/10/19 15:51

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
Nitrobenzene	0.666	0.254	38.1	70.0-130	J4
n-Nitrosodiphenylamine	0.666	0.422	63.4	70.0-130	J4
n-Nitrosodi-n-propylamine	0.666	0.325	48.8	70.0-130	J4
Phenanthrene	0.666	0.394	59.2	70.0-130	J4
Benzylbutyl phthalate	0.666	0.450	67.6	70.0-130	J4
Bis(2-ethylhexyl)phthalate	0.666	0.449	67.4	70.0-130	J4
Di-n-butyl phthalate	0.666	0.484	72.7	70.0-130	J4
Diethyl phthalate	0.666	0.424	63.7	70.0-130	J4
Dimethyl phthalate	0.666	0.390	58.6	70.0-130	J4
Di-n-octyl phthalate	0.666	0.449	67.4	70.0-130	J4
Pyrene	0.666	0.415	62.3	70.0-130	J4
4-Chloro-3-methylphenol	0.666	0.366	55.0	70.0-130	J4
2-Chlorophenol	0.666	0.322	48.3	70.0-130	J4
2-Methylphenol	0.666	0.377	56.6	70.0-130	J4
3&4-Methyl Phenol	0.666	0.405	60.8	70.0-130	J4
2,4-Dichlorophenol	0.666	0.333	50.0	70.0-130	J4
2,4-Dimethylphenol	0.666	0.303	45.5	70.0-130	J4
4,6-Dinitro-2-methylphenol	0.666	0.393	59.0	70.0-130	J4
2,4-Dinitrophenol	0.666	0.332	49.8	70.0-130	J4
2-Nitrophenol	0.666	0.289	43.4	70.0-130	J4
4-Nitrophenol	0.666	0.415	62.3	70.0-130	J4
Pentachlorophenol	0.666	0.443	66.5	70.0-130	J4
Phenol	0.666	0.327	49.1	70.0-130	J4
1,2,4,5-Tetrachlorobenzene	0.666	0.321	48.2	70.0-130	J4
2,4,5-Trichlorophenol	0.666	0.411	61.7	70.0-130	J4
2,4,6-Trichlorophenol	0.666	0.415	62.3	70.0-130	J4
(S) Nitrobenzene-d5			48.9	10.0-122	
(S) 2-Fluorobiphenyl			53.5	15.0-120	
(S) p-Terphenyl-d14			63.1	10.0-120	
(S) Phenol-d5			53.0	10.0-120	
(S) 2-Fluorophenol			57.1	12.0-120	
(S) 2,4,6-Tribromophenol			72.5	10.0-127	

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc



L1113939-19 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1113939-19 07/11/19 04:30 • (MS) R3429608-1 07/11/19 04:52 • (MSD) R3429608-2 07/11/19 05:14

Analyte	Spike Amount (dry) mg/kg	Original Result (dry) mg/kg	MS Result (dry) mg/kg	MSD Result (dry) mg/kg	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Acenaphthene	4.05	ND	1.62	1.53	40.1	37.8	10	40.3-132	J6	J6	5.78	20
Acenaphthylene	4.05	ND	1.94	1.58	47.7	38.9	10	45.4-134		J6	20.5	21.8
Acetophenone	4.05	ND	ND	ND	0.000	0.000	10	37.5-121	J6	J6	0.000	22
Anthracene	4.05	ND	2.29	1.69	56.6	41.6	10	41.7-133		J3 J6	30.6	21.9
Atrazine	4.05	ND	ND	ND	0.000	0.000	10	40.8-141	J6	J6	0.000	31.4
Benzaldehyde	4.05	ND	ND	ND	0.000	0.000	10	10.0-85.0	J6	J6	0.000	39.3
Benzo(a)anthracene	4.05	ND	2.42	1.95	59.8	48.0	10	35.1-129			21.7	23.1
Benzo(b)fluoranthene	4.05	ND	2.07	1.84	51.1	45.3	10	21.9-153			11.8	25.8
Benzo(k)fluoranthene	4.05	ND	1.88	1.72	46.4	42.3	10	30.6-143			9.14	26.4
Benzo(g,h,i)perylene	4.05	ND	1.78	1.72	44.0	42.5	10	10.0-141			3.47	28.6
Benzo(a)pyrene	4.05	ND	1.97	1.83	48.5	45.0	10	34.2-135			7.38	22.4
Biphenyl	4.05	ND	1.56	1.49	38.4	36.8	10	42.7-126	J6	J6	4.39	20.7
Bis(2-chloroethoxy)methane	4.05	ND	2.26	1.40	55.7	34.5	10	36.4-125		J3 J6	46.9	20
Bis(2-chloroethyl)ether	4.05	ND	1.72	1.34	42.3	33.0	10	24.8-133			24.7	34.9
Bis(2-chloroisopropyl)ether	4.05	ND	1.56	1.50	38.4	37.1	10	37.1-117			3.58	29
4-Bromophenyl-phenylether	4.05	ND	2.04	1.80	50.5	44.3	10	34.9-140			13.0	22.7
Caprolactam	4.05	ND	ND	ND	0.000	0.000	10	38.5-123	J6	J6	0.000	23.2
Carbazole	4.05	ND	3.45	1.73	85.1	42.8	10	37.3-132		J3	66.2	21.6
4-Chloroaniline	4.05	ND	2.35	ND	58.0	0.000	10	10.0-129		J3 J6	200	40
2-Chloronaphthalene	4.05	ND	1.53	1.55	37.8	38.1	10	38.7-127	J6	J6	0.791	20.8
4-Chlorophenyl-phenylether	4.05	ND	1.95	1.83	48.0	45.0	10	38.9-127			6.45	21.9
Chrysene	4.05	ND	2.01	1.85	49.7	45.6	10	35.9-131			8.50	24
Dibenz(a,h)anthracene	4.05	ND	1.66	1.72	40.8	42.5	10	10.0-142			3.96	24.8
Dibenzofuran	4.05	ND	2.01	1.59	49.5	39.2	10	39.2-130		J3	23.4	21.3
3,3-Dichlorobenzidine	8.09	ND	6.27	ND	77.4	0.000	10	10.0-125		J3 J6	200	40
2,4-Dinitrotoluene	4.05	ND	3.41	1.86	84.2	45.9	10	31.6-145		J3	58.8	25.2
2,6-Dinitrotoluene	4.05	ND	3.24	1.59	79.9	39.2	10	38.1-135		J3	68.3	23.9
Fluoranthene	4.05	ND	2.55	1.92	62.9	47.4	10	29.8-140		J3	28.0	24.4
Fluorene	4.05	ND	2.06	1.64	50.8	40.4	10	41.8-129		J3 J6	22.7	21.2
Hexachlorobenzene	4.05	ND	1.54	1.80	38.0	44.4	10	34.3-121			15.7	21.2
Hexachloro-1,3-butadiene	4.05	ND	ND	1.65	0.000	40.7	10	35.1-128	J6	J3	200	23.4
Hexachlorocyclopentadiene	4.05	ND	ND	ND	0.000	0.000	10	10.0-145	J6	J6	0.000	34.8
Hexachloroethane	4.05	ND	ND	1.20	0.000	29.7	10	20.0-127	J6	J3	200	27.6
Indeno(1,2,3-cd)pyrene	4.05	ND	1.79	1.83	44.1	45.2	10	10.0-144			2.35	27
Isophorone	4.05	ND	2.48	1.47	61.3	36.2	10	31.7-106		J3	51.5	20.3
2-Methylnaphthalene	4.05	6.06	1.42	1.48	0.000	0.000	10	36.7-132	J6	J6	4.61	20
Naphthalene	4.05	ND	1.38	1.55	33.9	38.3	10	37.3-124	J6		12.1	20.1
2-Nitroaniline	4.05	ND	3.43	1.44	84.7	35.6	10	38.6-140		J3 J6	81.6	22.9
3-Nitroaniline	4.05	ND	3.28	1.48	80.9	36.5	10	10.0-139		J3	75.7	39

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc





L1113939-19 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1113939-19 07/11/19 04:30 • (MS) R3429608-1 07/11/19 04:52 • (MSD) R3429608-2 07/11/19 05:14

Analyte	Spike Amount (dry) mg/kg	Original Result (dry) mg/kg	MS Result (dry) mg/kg	MSD Result (dry) mg/kg	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
4-Nitroaniline	4.05	ND	3.44	1.45	84.8	35.9	10	15.9-152		J3	81.1	31
Nitrobenzene	4.05	ND	1.86	1.36	45.9	33.6	10	36.3-127		J3 J6	30.9	20.9
n-Nitrosodiphenylamine	4.05	ND	ND	ND	0.000	0.000	10	20.0-125	J6	J6	0.000	25
n-Nitrosodi-n-propylamine	4.05	ND	2.28	1.47	56.2	36.2	10	29.2-132		J3	43.3	24.9
Phenanthrene	4.05	ND	2.39	1.69	58.9	41.7	10	41.9-131		J3 J6	34.0	21.4
Benzylbutyl phthalate	4.05	ND	2.98	1.88	73.4	46.4	10	22.7-155		J3	45.1	25.2
Bis(2-ethylhexyl)phthalate	4.05	ND	1.58	1.80	38.9	44.4	10	22.6-157			13.3	33.5
Di-n-butyl phthalate	4.05	ND	2.72	1.74	67.1	42.9	10	35.6-139		J3	43.9	22.6
Diethyl phthalate	4.05	ND	3.33	1.78	82.1	44.0	10	44.4-135		J3 J6	60.5	21.3
Dimethyl phthalate	4.05	ND	3.44	1.94	84.8	47.7	10	42.5-134		J3	55.9	21.4
Di-n-octyl phthalate	4.05	ND	1.42	1.91	35.0	47.1	10	24.6-145		J3	29.6	25.1
Pyrene	4.05	ND	2.50	1.73	61.6	42.8	10	25.5-142		J3	36.0	23.9
4-Chloro-3-methylphenol	4.05	ND	3.47	1.79	85.6	44.1	10	35.7-139		J3	63.9	21.2
2-Chlorophenol	4.05	ND	2.60	1.61	64.1	39.6	10	33.2-114		J3	47.2	23.8
2-Methylphenol	4.05	ND	3.37	1.72	83.0	42.5	10	30.5-113		J3	64.6	23.9
3&4-Methyl Phenol	4.05	ND	3.49	1.87	86.0	46.1	10	30.4-140		J3	60.5	24.7
2,4-Dichlorophenol	4.05	ND	2.84	1.73	70.1	42.6	10	36.7-133		J3	48.7	20.7
2,4-Dimethylphenol	4.05	ND	ND	ND	0.000	0.000	10	25.7-137	J6	J6	0.000	24.7
4,6-Dinitro-2-methylphenol	4.05	ND	ND	ND	0.000	0.000	10	10.0-149	J6	J6	0.000	40
2,4-Dinitrophenol	4.05	ND	ND	ND	0.000	0.000	10	10.0-131	J6	J6	0.000	40
2-Nitrophenol	4.05	ND	2.41	1.64	59.5	40.4	10	21.8-145		J3	38.2	27
4-Nitrophenol	4.05	ND	ND	ND	0.000	0.000	10	10.0-146	J6	J6	0.000	26.9
Pentachlorophenol	4.05	ND	ND	ND	0.000	0.000	10	10.0-155	J6	J6	0.000	28.1
Phenol	4.05	ND	3.35	1.79	82.7	44.1	10	26.8-124		J3	60.8	27.3
1,2,4,5-Tetrachlorobenzene	4.05	ND	ND	ND	0.000	0.000	10	41.3-124	J6	J6	0.000	21.2
2,4,5-Trichlorophenol	4.05	ND	3.26	1.89	80.3	46.7	10	37.0-138		J3	53.0	22.9
2,4,6-Trichlorophenol	4.05	ND	2.73	1.62	67.3	40.1	10	35.1-137		J3	50.6	23.2
(S) Nitrobenzene-d5					42.6	39.0		10.0-122				
(S) 2-Fluorobiphenyl					35.7	40.5		15.0-120				
(S) p-Terphenyl-d14					49.5	50.5		10.0-120				
(S) Phenol-d5					74.9	44.9		10.0-120				
(S) 2-Fluorophenol					69.8	47.4		12.0-120				
(S) 2,4,6-Tribromophenol					82.1	56.5		10.0-127				

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

Sample Narrative:

OS: Dilution due to matrix.



Method Blank (MB)

(MB) R3428633-2 07/08/19 14:47

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
Anthracene	U		0.00600	0.00600
Acenaphthene	U		0.00600	0.00600
Acenaphthylene	U		0.00600	0.00600
Benzo(a)anthracene	U		0.00600	0.00600
Benzo(a)pyrene	U		0.00600	0.00600
Benzo(b)fluoranthene	U		0.00600	0.00600
Benzo(g,h,i)perylene	U		0.00600	0.00600
Benzo(k)fluoranthene	U		0.00600	0.00600
Chrysene	U		0.00600	0.00600
Dibenz(a,h)anthracene	U		0.00600	0.00600
Fluoranthene	U		0.00600	0.00600
Fluorene	U		0.00600	0.00600
Indeno(1,2,3-cd)pyrene	U		0.00600	0.00600
Naphthalene	U		0.00200	0.0200
Phenanthrene	U		0.00600	0.00600
Pyrene	U		0.00600	0.00600
1-Methylnaphthalene	U		0.00200	0.0200
2-Methylnaphthalene	U		0.00200	0.0200
<i>(S) Nitrobenzene-d5</i>	51.1			14.0-149
<i>(S) 2-Fluorobiphenyl</i>	71.8			34.0-125
<i>(S) p-Terphenyl-d14</i>	106			23.0-120

<sup>1</sup> Cp

<sup>2</sup> Tc

<sup>3</sup> Ss

<sup>4</sup> Cn

<sup>5</sup> Sr

<sup>6</sup> Qc

<sup>7</sup> Gl

<sup>8</sup> Al

<sup>9</sup> Sc

Laboratory Control Sample (LCS)

(LCS) R3428633-1 07/08/19 14:27

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
Anthracene	0.0800	0.0678	84.8	50.0-126	
Acenaphthene	0.0800	0.0609	76.1	50.0-120	
Acenaphthylene	0.0800	0.0650	81.3	50.0-120	
Benzo(a)anthracene	0.0800	0.0693	86.6	45.0-120	
Benzo(a)pyrene	0.0800	0.0656	82.0	42.0-120	
Benzo(b)fluoranthene	0.0800	0.0686	85.8	42.0-121	
Benzo(g,h,i)perylene	0.0800	0.0703	87.9	45.0-125	
Benzo(k)fluoranthene	0.0800	0.0715	89.4	49.0-125	
Chrysene	0.0800	0.0679	84.9	49.0-122	
Dibenz(a,h)anthracene	0.0800	0.0716	89.5	47.0-125	
Fluoranthene	0.0800	0.0750	93.8	49.0-129	
Fluorene	0.0800	0.0654	81.8	49.0-120	



Laboratory Control Sample (LCS)

(LCS) R3428633-1 07/08/19 14:27

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
Indeno(1,2,3-cd)pyrene	0.0800	0.0725	90.6	46.0-125	
Naphthalene	0.0800	0.0511	63.9	50.0-120	
Phenanthrene	0.0800	0.0661	82.6	47.0-120	
Pyrene	0.0800	0.0578	72.3	43.0-123	
1-Methylnaphthalene	0.0800	0.0573	71.6	51.0-121	
2-Methylnaphthalene	0.0800	0.0570	71.3	50.0-120	
(S) Nitrobenzene-d5			93.6	14.0-149	
(S) 2-Fluorobiphenyl			95.9	34.0-125	
(S) p-Terphenyl-d14			100	23.0-120	

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

L1113884-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1113884-01 07/08/19 17:23 • (MS) R3428633-3 07/08/19 17:44 • (MSD) R3428633-4 07/08/19 18:04

Analyte	Spike Amount mg/kg	Original Result mg/kg	MS Result mg/kg	MSD Result mg/kg	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Anthracene	0.0768	U	0.0847	0.0779	110	100	1	10.0-145			8.36	30
Acenaphthene	0.0768	0.0734	0.124	0.107	65.9	43.3	1	14.0-127			14.7	27
Acenaphthylene	0.0768	U	0.0930	0.0841	121	108	1	21.0-124			10.1	25
Benzo(a)anthracene	0.0768	U	0.0667	0.0679	86.8	87.5	1	10.0-139			1.78	30
Benzo(a)pyrene	0.0768	0.00201	0.0630	0.0641	79.4	80.0	1	10.0-141			1.73	31
Benzo(b)fluoranthene	0.0768	0.00212	0.0608	0.0592	76.4	73.6	1	10.0-140			2.67	36
Benzo(g,h,i)perylene	0.0768	0.00228	0.0617	0.0632	77.4	78.5	1	10.0-140			2.40	33
Benzo(k)fluoranthene	0.0768	U	0.0584	0.0649	76.0	83.6	1	10.0-137			10.5	31
Chrysene	0.0768	U	0.0635	0.0632	82.7	81.4	1	10.0-145			0.474	30
Dibenz(a,h)anthracene	0.0768	U	0.0612	0.0632	79.7	81.4	1	10.0-132			3.22	31
Fluoranthene	0.0768	0.0118	0.0778	0.0781	85.9	85.4	1	10.0-153			0.385	33
Fluorene	0.0768	0.0901	0.146	0.126	72.8	46.3	1	11.0-130			14.7	29
Indeno(1,2,3-cd)pyrene	0.0768	U	0.0616	0.0641	80.2	82.6	1	10.0-137			3.98	32
Naphthalene	0.0768	14.2	14.6	12.6	521	0.000	1	10.0-135	EV	EV	14.7	27
Phenanthrene	0.0768	0.0798	0.135	0.115	71.9	45.4	1	10.0-144			16.0	31
Pyrene	0.0768	0.00955	0.0613	0.0598	67.4	64.8	1	10.0-148			2.48	35
1-Methylnaphthalene	0.0768	8.83	9.05	7.11	286	0.000	1	10.0-142	EV	EV	24.0	28
2-Methylnaphthalene	0.0768	16.3	16.7	14.2	521	0.000	1	10.0-137	EV	EV	16.2	28
(S) Nitrobenzene-d5					60.3	53.0		14.0-149				
(S) 2-Fluorobiphenyl					90.9	90.6		34.0-125				
(S) p-Terphenyl-d14					90.9	88.5		23.0-120				



Method Blank (MB)

(MB) R3428722-2 07/09/19 01:37

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
Anthracene	U		0.00600	0.00600
Acenaphthene	U		0.00600	0.00600
Acenaphthylene	U		0.00600	0.00600
Benzo(a)anthracene	U		0.00600	0.00600
Benzo(a)pyrene	U		0.00600	0.00600
Benzo(b)fluoranthene	U		0.00600	0.00600
Benzo(g,h,i)perylene	U		0.00600	0.00600
Benzo(k)fluoranthene	U		0.00600	0.00600
Chrysene	U		0.00600	0.00600
Dibenz(a,h)anthracene	U		0.00600	0.00600
Fluoranthene	U		0.00600	0.00600
Fluorene	U		0.00600	0.00600
Indeno(1,2,3-cd)pyrene	U		0.00600	0.00600
Naphthalene	U		0.00200	0.0200
Phenanthrene	U		0.00600	0.00600
Pyrene	U		0.00600	0.00600
1-Methylnaphthalene	U		0.00200	0.0200
2-Methylnaphthalene	U		0.00200	0.0200
(S) Nitrobenzene-d5	57.4			14.0-149
(S) 2-Fluorobiphenyl	72.7			34.0-125
(S) p-Terphenyl-d14	93.5			23.0-120

<sup>1</sup> Cp

<sup>2</sup> Tc

<sup>3</sup> Ss

<sup>4</sup> Cn

<sup>5</sup> Sr

<sup>6</sup> Qc

<sup>7</sup> Gl

<sup>8</sup> Al

<sup>9</sup> Sc

Laboratory Control Sample (LCS)

(LCS) R3428722-1 07/09/19 01:16

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
Anthracene	0.0800	0.0646	80.7	50.0-126	
Acenaphthene	0.0800	0.0476	59.5	50.0-120	
Acenaphthylene	0.0800	0.0516	64.5	50.0-120	
Benzo(a)anthracene	0.0800	0.0706	88.3	45.0-120	
Benzo(a)pyrene	0.0800	0.0632	79.0	42.0-120	
Benzo(b)fluoranthene	0.0800	0.0659	82.4	42.0-121	
Benzo(g,h,i)perylene	0.0800	0.0713	89.1	45.0-125	
Benzo(k)fluoranthene	0.0800	0.0689	86.1	49.0-125	
Chrysene	0.0800	0.0666	83.3	49.0-122	
Dibenz(a,h)anthracene	0.0800	0.0734	91.8	47.0-125	
Fluoranthene	0.0800	0.0737	92.1	49.0-129	
Fluorene	0.0800	0.0542	67.8	49.0-120	



Laboratory Control Sample (LCS)

(LCS) R3428722-1 07/09/19 01:16

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	<u>LCS Qualifier</u>
Indeno(1,2,3-cd)pyrene	0.0800	0.0737	92.1	46.0-125	
Naphthalene	0.0800	0.0397	49.6	50.0-120	J4
Phenanthrene	0.0800	0.0586	73.3	47.0-120	
Pyrene	0.0800	0.0540	67.5	43.0-123	
1-Methylnaphthalene	0.0800	0.0449	56.1	51.0-121	
2-Methylnaphthalene	0.0800	0.0449	56.1	50.0-120	
(S) Nitrobenzene-d5			88.0	14.0-149	
(S) 2-Fluorobiphenyl			90.6	34.0-125	
(S) p-Terphenyl-d14			93.2	23.0-120	

- 1 Cp
- 2 Tc
- 3 Ss
- 4 Cn
- 5 Sr
- 6 Qc
- 7 Gl
- 8 Al
- 9 Sc



Method Blank (MB)

(MB) R3429055-2 07/09/19 15:38

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
Anthracene	U		0.00600	0.00600
Acenaphthene	U		0.00600	0.00600
Acenaphthylene	U		0.00600	0.00600
Benzo(a)anthracene	U		0.00600	0.00600
Benzo(a)pyrene	U		0.00600	0.00600
Benzo(b)fluoranthene	U		0.00600	0.00600
Benzo(g,h,i)perylene	U		0.00600	0.00600
Benzo(k)fluoranthene	U		0.00600	0.00600
Chrysene	U		0.00600	0.00600
Dibenz(a,h)anthracene	U		0.00600	0.00600
Fluoranthene	U		0.00600	0.00600
Fluorene	U		0.00600	0.00600
Indeno(1,2,3-cd)pyrene	U		0.00600	0.00600
Naphthalene	U		0.00200	0.0200
Phenanthrene	U		0.00600	0.00600
Pyrene	U		0.00600	0.00600
1-Methylnaphthalene	U		0.00200	0.0200
2-Methylnaphthalene	U		0.00200	0.0200
<i>(S) Nitrobenzene-d5</i>	90.2			14.0-149
<i>(S) 2-Fluorobiphenyl</i>	90.6			34.0-125
<i>(S) p-Terphenyl-d14</i>	95.0			23.0-120

<sup>1</sup> Cp

<sup>2</sup> Tc

<sup>3</sup> Ss

<sup>4</sup> Cn

<sup>5</sup> Sr

<sup>6</sup> Qc

<sup>7</sup> Gl

<sup>8</sup> Al

<sup>9</sup> Sc

Laboratory Control Sample (LCS)

(LCS) R3429055-1 07/09/19 15:18

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
Anthracene	0.0800	0.0538	67.3	50.0-126	
Acenaphthene	0.0800	0.0504	63.0	50.0-120	
Acenaphthylene	0.0800	0.0548	68.5	50.0-120	
Benzo(a)anthracene	0.0800	0.0552	69.0	45.0-120	
Benzo(a)pyrene	0.0800	0.0548	68.5	42.0-120	
Benzo(b)fluoranthene	0.0800	0.0538	67.3	42.0-121	
Benzo(g,h,i)perylene	0.0800	0.0563	70.4	45.0-125	
Benzo(k)fluoranthene	0.0800	0.0548	68.5	49.0-125	
Chrysene	0.0800	0.0535	66.9	49.0-122	
Dibenz(a,h)anthracene	0.0800	0.0564	70.5	47.0-125	
Fluoranthene	0.0800	0.0592	74.0	49.0-129	
Fluorene	0.0800	0.0525	65.6	49.0-120	



Laboratory Control Sample (LCS)

(LCS) R3429055-1 07/09/19 15:18

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	<u>LCS Qualifier</u>
Indeno(1,2,3-cd)pyrene	0.0800	0.0569	71.1	46.0-125	
Naphthalene	0.0800	0.0451	56.4	50.0-120	
Phenanthrene	0.0800	0.0512	64.0	47.0-120	
Pyrene	0.0800	0.0451	56.4	43.0-123	
1-Methylnaphthalene	0.0800	0.0497	62.1	51.0-121	
2-Methylnaphthalene	0.0800	0.0493	61.6	50.0-120	
(S) Nitrobenzene-d5			78.2	14.0-149	
(S) 2-Fluorobiphenyl			76.6	34.0-125	
(S) p-Terphenyl-d14			76.9	23.0-120	

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

L1113973-04 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1113973-04 07/09/19 21:37 • (MS) R3429055-3 07/09/19 21:57 • (MSD) R3429055-4 07/09/19 22:18

Analyte	Spike Amount (dry) mg/kg	Original Result (dry) mg/kg	MS Result (dry) mg/kg	MSD Result (dry) mg/kg	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	<u>MS Qualifier</u>	<u>MSD Qualifier</u>	RPD %	RPD Limits %
Anthracene	0.128	ND	0.0909	0.0747	70.9	58.3	1	10.0-145			19.6	30
Acenaphthene	0.128	ND	0.0733	0.0653	57.1	50.9	1	14.0-127			11.6	27
Acenaphthylene	0.128	ND	0.0796	0.0723	62.0	56.4	1	21.0-124			9.50	25
Benzo(a)anthracene	0.128	ND	0.0908	0.0743	70.8	57.9	1	10.0-139			20.0	30
Benzo(a)pyrene	0.128	ND	0.0927	0.0768	72.3	59.9	1	10.0-141			18.7	31
Benzo(b)fluoranthene	0.128	ND	0.0861	0.0682	67.1	53.1	1	10.0-140			23.3	36
Benzo(g,h,i)perylene	0.128	ND	0.0893	0.0738	69.6	57.5	1	10.0-140			19.1	33
Benzo(k)fluoranthene	0.128	ND	0.0913	0.0797	71.1	62.1	1	10.0-137			13.5	31
Chrysene	0.128	ND	0.0887	0.0760	69.1	59.3	1	10.0-145			15.4	30
Dibenz(a,h)anthracene	0.128	ND	0.0933	0.0807	72.8	62.9	1	10.0-132			14.6	31
Fluoranthene	0.128	ND	0.0975	0.0754	76.0	58.8	1	10.0-153			25.6	33
Fluorene	0.128	ND	0.0802	0.0682	62.5	53.1	1	11.0-130			16.2	29
Indeno(1,2,3-cd)pyrene	0.128	ND	0.0924	0.0778	72.0	60.6	1	10.0-137			17.2	32
Naphthalene	0.128	ND	0.0524	0.0539	40.9	42.0	1	10.0-135			2.71	27
Phenanthrene	0.128	ND	0.0815	0.0651	63.5	50.8	1	10.0-144			22.3	31
Pyrene	0.128	ND	0.0738	0.0571	57.5	44.5	1	10.0-148			25.5	35
1-Methylnaphthalene	0.128	ND	0.0635	0.0617	49.5	48.1	1	10.0-142			2.82	28
2-Methylnaphthalene	0.128	ND	0.0624	0.0613	48.6	47.8	1	10.0-137			1.82	28
(S) Nitrobenzene-d5					82.7	87.1		14.0-149				
(S) 2-Fluorobiphenyl					71.6	84.1		34.0-125				
(S) p-Terphenyl-d14					68.3	82.5		23.0-120				





## Guide to Reading and Understanding Your Laboratory Report

The information below is designed to better explain the various terms used in your report of analytical results from the Laboratory. This is not intended as a comprehensive explanation, and if you have additional questions please contact your project representative.

## Abbreviations and Definitions

(dry)	Results are reported based on the dry weight of the sample. [this will only be present on a dry report basis for soils].
MDL	Method Detection Limit.
ND	Not detected at the Reporting Limit (or MDL where applicable).
RDL	Reported Detection Limit.
RDL (dry)	Reported Detection Limit.
Rec.	Recovery.
RPD	Relative Percent Difference.
SDG	Sample Delivery Group.
(S)	Surrogate (Surrogate Standard) - Analytes added to every blank, sample, Laboratory Control Sample/Duplicate and Matrix Spike/Duplicate; used to evaluate analytical efficiency by measuring recovery. Surrogates are not expected to be detected in all environmental media.
U	Not detected at the Reporting Limit (or MDL where applicable).
Analyte	The name of the particular compound or analysis performed. Some Analyses and Methods will have multiple analytes reported.
Dilution	If the sample matrix contains an interfering material, the sample preparation volume or weight values differ from the standard, or if concentrations of analytes in the sample are higher than the highest limit of concentration that the laboratory can accurately report, the sample may be diluted for analysis. If a value different than 1 is used in this field, the result reported has already been corrected for this factor.
Limits	These are the target % recovery ranges or % difference value that the laboratory has historically determined as normal for the method and analyte being reported. Successful QC Sample analysis will target all analytes recovered or duplicated within these ranges.
Original Sample	The non-spiked sample in the prep batch used to determine the Relative Percent Difference (RPD) from a quality control sample. The Original Sample may not be included within the reported SDG.
Qualifier	This column provides a letter and/or number designation that corresponds to additional information concerning the result reported. If a Qualifier is present, a definition per Qualifier is provided within the Glossary and Definitions page and potentially a discussion of possible implications of the Qualifier in the Case Narrative if applicable.
Result	The actual analytical final result (corrected for any sample specific characteristics) reported for your sample. If there was no measurable result returned for a specific analyte, the result in this column may state "ND" (Not Detected) or "BDL" (Below Detectable Levels). The information in the results column should always be accompanied by either an MDL (Method Detection Limit) or RDL (Reporting Detection Limit) that defines the lowest value that the laboratory could detect or report for this analyte.
Uncertainty (Radiochemistry)	Confidence level of 2 sigma.
Case Narrative (Cn)	A brief discussion about the included sample results, including a discussion of any non-conformances to protocol observed either at sample receipt by the laboratory from the field or during the analytical process. If present, there will be a section in the Case Narrative to discuss the meaning of any data qualifiers used in the report.
Quality Control Summary (Qc)	This section of the report includes the results of the laboratory quality control analyses required by procedure or analytical methods to assist in evaluating the validity of the results reported for your samples. These analyses are not being performed on your samples typically, but on laboratory generated material.
Sample Chain of Custody (Sc)	This is the document created in the field when your samples were initially collected. This is used to verify the time and date of collection, the person collecting the samples, and the analyses that the laboratory is requested to perform. This chain of custody also documents all persons (excluding commercial shippers) that have had control or possession of the samples from the time of collection until delivery to the laboratory for analysis.
Sample Results (Sr)	This section of your report will provide the results of all testing performed on your samples. These results are provided by sample ID and are separated by the analyses performed on each sample. The header line of each analysis section for each sample will provide the name and method number for the analysis reported.
Sample Summary (Ss)	This section of the Analytical Report defines the specific analyses performed for each sample ID, including the dates and times of preparation and/or analysis.

## Qualifier Description

B	The same analyte is found in the associated blank.
E	The analyte concentration exceeds the upper limit of the calibration range of the instrument established by the initial calibration (ICAL).
J	The identification of the analyte is acceptable; the reported value is an estimate.
J0	J0: The identification of the analyte is acceptable, but the reported concentration is an estimate. The calibration method criteria.
J1	Surrogate recovery limits have been exceeded; values are outside upper control limits.
J2	Surrogate recovery limits have been exceeded; values are outside lower control limits.
J3	The associated batch QC was outside the established quality control range for precision.
J4	The associated batch QC was outside the established quality control range for accuracy.
J5	The sample matrix interfered with the ability to make any accurate determination; spike value is high.
J6	The sample matrix interfered with the ability to make any accurate determination; spike value is low.
J7	Surrogate recovery cannot be used for control limit evaluation due to dilution.

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc



Qualifier	Description
O1	The analyte failed the method required serial dilution test and/or subsequent post-spike criteria. These failures indicate matrix interference.
P1	RPD value not applicable for sample concentrations less than 5 times the reporting limit.
V	The sample concentration is too high to evaluate accurate spike recoveries.

<sup>1</sup> Cp

<sup>2</sup> Tc

<sup>3</sup> Ss

<sup>4</sup> Cn

<sup>5</sup> Sr

<sup>6</sup> Qc

<sup>7</sup> Gl

<sup>8</sup> Al

<sup>9</sup> Sc



Pace National is the only environmental laboratory accredited/certified to support your work nationwide from one location. One phone call, one point of contact, one laboratory. No other lab is as accessible or prepared to handle your needs throughout the country. Our capacity and capability from our single location laboratory is comparable to the collective totals of the network laboratories in our industry. The most significant benefit to our one location design is the design of our laboratory campus. The model is conducive to accelerated productivity, decreasing turn-around time, and preventing cross contamination, thus protecting sample integrity. Our focus on premium quality and prompt service allows us to be YOUR LAB OF CHOICE.

\* Not all certifications held by the laboratory are applicable to the results reported in the attached report.  
 \* Accreditation is only applicable to the test methods specified on each scope of accreditation held by Pace National.

## State Accreditations

Alabama	40660	Nebraska	NE-OS-15-05
Alaska	17-026	Nevada	TN-03-2002-34
Arizona	AZ0612	New Hampshire	2975
Arkansas	88-0469	New Jersey-NELAP	TN002
California	2932	New Mexico <sup>1</sup>	n/a
Colorado	TN00003	New York	11742
Connecticut	PH-0197	North Carolina	Env375
Florida	E87487	North Carolina <sup>1</sup>	DW21704
Georgia	NELAP	North Carolina <sup>3</sup>	41
Georgia <sup>1</sup>	923	North Dakota	R-140
Idaho	TN00003	Ohio-VAP	CL0069
Illinois	200008	Oklahoma	9915
Indiana	C-TN-01	Oregon	TN200002
Iowa	364	Pennsylvania	68-02979
Kansas	E-10277	Rhode Island	LA000356
Kentucky <sup>1,6</sup>	90010	South Carolina	84004
Kentucky <sup>2</sup>	16	South Dakota	n/a
Louisiana	AI30792	Tennessee <sup>1,4</sup>	2006
Louisiana <sup>1</sup>	LA180010	Texas	T104704245-18-15
Maine	TN0002	Texas <sup>5</sup>	LAB0152
Maryland	324	Utah	TN00003
Massachusetts	M-TN003	Vermont	VT2006
Michigan	9958	Virginia	460132
Minnesota	047-999-395	Washington	C847
Mississippi	TN00003	West Virginia	233
Missouri	340	Wisconsin	9980939910
Montana	CERT0086	Wyoming	A2LA

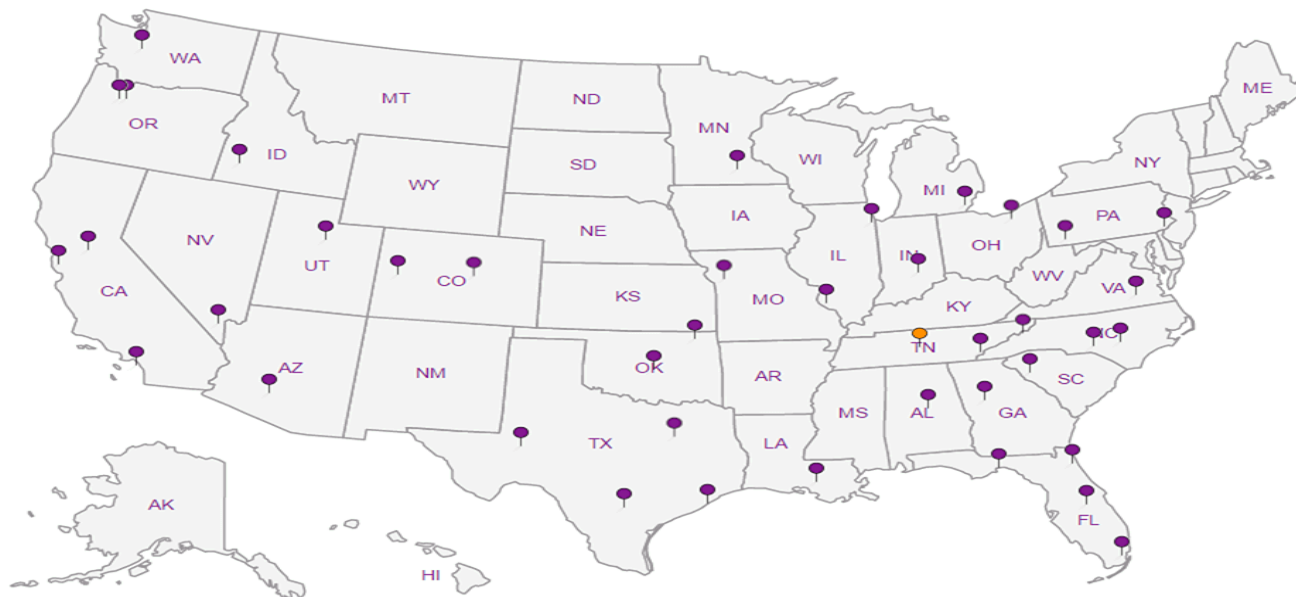
## Third Party Federal Accreditations

A2LA – ISO 17025	1461.01	AIHA-LAP,LLC EMLAP	100789
A2LA – ISO 17025 <sup>5</sup>	1461.02	DOD	1461.01
Canada	1461.01	USDA	P330-15-00234
EPA-Crypto	TN00003		

<sup>1</sup> Drinking Water <sup>2</sup> Underground Storage Tanks <sup>3</sup> Aquatic Toxicity <sup>4</sup> Chemical/Microbiological <sup>5</sup> Mold <sup>6</sup> Wastewater n/a Accreditation not applicable

## Our Locations

Pace National has sixty-four client support centers that provide sample pickup and/or the delivery of sampling supplies. If you would like assistance from one of our support offices, please contact our main office. Pace National performs all testing at our central laboratory.



1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl


8 Al

9 Sc

**S&ME Inc. - Spartanburg SC**  
 301 Zima Park Drive  
 Spartanburg, SC 29301

Billing Information:  
**Accounts Payable**  
 301 Zima Park Drive  
 Spartanburg, SC 29301

Pres Chk																			
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Chain of Custody Page 1 of 2  
  
 12065 Lebanon Rd  
 Mount Juliet, TN 37122  
 Phone: 615-758-5858  
 Phone: 800-767-5859  
 Fax: 615-758-5859

Report to:  
**Scott Dacus**

Email To: **sdacus@smeinc.com**

Project Description:

City/State Collected: **Rock Hill, SC**

Phone: **864-574-2360**  
 Fax: **864-576-8730**

Client Project #  
**4213-18-087**

Lab Project #  
**SMESPAR-4213-18-087**

Collected by (print):  
**Kevin McIntyre**

Site/Facility ID #  
**COLUMBIA**

P.O. #

Collected by (signature):  


**Rush?** (Lab MUST Be Notified)  
 \_\_\_ Same Day \_\_\_ Five Day  
 \_\_\_ Next Day \_\_\_ 5 Day (Rad Only)  
 \_\_\_ Two Day \_\_\_ 10 Day (Rad Only)  
 \_\_\_ Three Day

Quote #

Immediately Packed on Ice N \_\_\_ Y

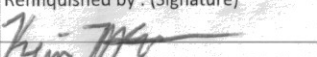
Date Results Needed

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No. of Cntrs	8081/8082,8270TCL,CN 4ozClr-NoPres	TALMetals,TS,PAHSIM 4ozClr-NoPres	V8260TCLSC - BLK 40mlAmb-NoPres-Blk	V8260TCLSC 40mlAmb/MeOH5ml/Syr											
SL1-3-SU-24		SS	24	6-26-19	1212	3	X	X	X												-01
SL1-3-SU-20		SS	20	6-26-19	1204	3	X	X	X												-02
SL1-4-SU-15		SS	15	6-26-19	1605	3	X	X	X												-03
EM-DUP-SU-2		SS		6-26-19	1550	3	X	X	X												-04
SL1-5-SU-6		SS	6	6-26-19	1350	3	X	X	X												-05
SL1-4-SU-12		SS	12	6-26-19	1600	3	X	X	X												-06
SL1-2-SU-18		SS	18	6-26-19	1109	3	X	X	X												-07
SL1-3-SU-16		SS	16	6-26-19	1159	3	X	X	X												-08
SL1-3-SU-4		SS	4	6-26-19	1140	3	X	X	X												-09
SL1-2-SU-14		SS	14	6-26-19	1100	3	X	X	X												-10

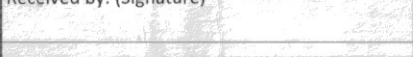
\* Matrix:  
 SS - Soil AIR - Air F - Filter  
 GW - Groundwater B - Bioassay  
 WW - WasteWater  
 DW - Drinking Water  
 OT - Other

Remarks:  
 RAD SCREEN: <0.5 mR/hr  
 pH \_\_\_\_\_ Temp \_\_\_\_\_  
 Flow \_\_\_\_\_ Other \_\_\_\_\_  
 Samples returned via:  
 \_\_\_ UPS  FedEx \_\_\_ Courier \_\_\_\_\_  
 Tracking # **4882 8631 6475**

Sample Receipt Checklist  
 COC Seal Present/Intact: \_\_\_ NP \_\_\_ Y \_\_\_ N  
 COC Signed/Accurate:  Y \_\_\_ N  
 Bottles arrive intact:  Y \_\_\_ N  
 Correct bottles used:  Y \_\_\_ N  
 Sufficient volume sent:  Y \_\_\_ N  
 If Applicable  
 VOA Zero Headspace:  Y \_\_\_ N  
 Preservation Correct/Checked:  Y \_\_\_ N

Relinquished by: (Signature)  


Date: **6-27-19**  
 Time:

Received by: (Signature)  


Trip Blank Received: Yes/No  
 1  HCL / MeOH  
 TBR

Relinquished by: (Signature)

Date: \_\_\_\_\_  
 Time: \_\_\_\_\_

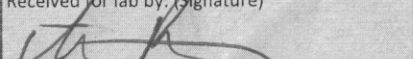
Received by: (Signature)

Temp: **17.10.15.18** °C  
 Bottles Received: **60**

If preservation required by Login: Date/Time

Relinquished by: (Signature)

Date: \_\_\_\_\_  
 Time: \_\_\_\_\_

Received for lab by: (Signature)  


Date: **6-28-19**  
 Time: **8:45**

Hold: \_\_\_\_\_  
 Condition: **NCF / OK**



# S&ME Inc. - Spartanburg SC

301 Zima Park Drive  
Spartanburg, SC 29301

### Billing Information:

Accounts Payable  
301 Zima Park Drive  
Spartanburg, SC 29301

Report to:  
**Scott Dacus**

Email To: [sdacus@smeinc.com](mailto:sdacus@smeinc.com)

Project  
Description:

City/State  
Collected:

Phone: **864-574-2360**  
Fax: **864-576-8730**

Client Project #  
**4213-18-087**

Lab Project #  
**SMESPAR-4213-18-087**

Collected by (print):

*Kevin McIntyre*

Site/Facility ID #  
**COLUMBIA**

P.O. #

Collected by (signature):

*Kevin McIntyre*

**Rush?** (Lab MUST Be Notified)

Same Day  Five Day  
 Next Day  5 Day (Rad Only)  
 Two Day  10 Day (Rad Only)  
 Three Day

Quote #

Date Results Needed

Immediately  
Packed on Ice N  Y

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No. of Cntrs	Pres Chk	Analysis / Container / Preservative
SLI-1-SU-10		SS	10	6-26-19	932	3	X	X
SLI-1-SU-5		SS	5	6-26-19	920	3	X	X
SLI-1-SU-20		SS	20	6-26-19	952	3	X	X
SLI-1-SU-14		SS	14	6-26-19	940	3	X	X
SLI-4-SU-8		SS	8	6-26-19	1548	3	X	X
SLI-5-SU-10		SS	10	6-26-19	1358	3	X	X
SLI-3-SU-8		SS	8	6-26-19	1148	3	X	X
SLI-3-SU-12		SS	12	6-26-19	1153	3	X	X
SLI-6-SU-11		SS	11	6-26-19	1500	3	X	X
SLI-6-SU-8		SS	8	6-26-19	1453	3	X	X

\* Matrix:  
SS - Soil AIR - Air F - Filter  
GW - Groundwater B - Bioassay  
WW - WasteWater  
DW - Drinking Water  
OT - Other \_\_\_\_\_

### Remarks:

**RAD SCREEN: <0.5 mR/hr**

pH \_\_\_\_\_ Temp \_\_\_\_\_

Flow \_\_\_\_\_ Other \_\_\_\_\_

Samples returned via:  
 UPS  FedEx  Courier \_\_\_\_\_

Tracking # **Same**

Sample Receipt Checklist	
COC Seal Present/Intact: <input checked="" type="checkbox"/> NP	<input checked="" type="checkbox"/> N
COC Signed/Accurate:	<input checked="" type="checkbox"/> N
Bottles arrive intact:	<input checked="" type="checkbox"/> N
Correct bottles used:	<input checked="" type="checkbox"/> N
Sufficient volume sent:	<input checked="" type="checkbox"/> N
If Applicable	
VOA Zero Headspace:	<input checked="" type="checkbox"/> N
Preservation Correct/Checked:	<input checked="" type="checkbox"/> Y <input type="checkbox"/> N

Relinquished by: (Signature)

*Kevin McIntyre*

Date:

6-27-19

Time:

Received by: (Signature)

Trip Blank Received: Yes / No

HCL / MeOH  
 TBR

Relinquished by: (Signature)

Date:

Time:

Received by: (Signature)

Temp: \_\_\_\_\_ °C Bottles Received:

1-730-1-1-87-2-60

If preservation required by Login: Date/Time

Relinquished by: (Signature)

Date:

Time:

Received for lab by: (Signature)

Date:

6-28-19

Time:

8:45

Hold:

Condition:

NCF / OK



12065 Lebanon Rd  
Mount Juliet, TN 37122  
Phone: 615-758-5858  
Phone: 800-767-5859  
Fax: 615-758-5859



L# **1113939**

Table #

Acctnum: **SMESPAR**

Template: **T150318**

Prelogin: **P708990**

TSR: **690 - Tom Mellette**

PB: **76 5-14-19**

Shipped Via: **FedEX Ground**

Remarks Sample # (lab only)

-11

-12

-13

-14

-15

-16

-17

-18

-19

-20

July 16, 2019

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

## S&ME Inc. - Spartanburg SC

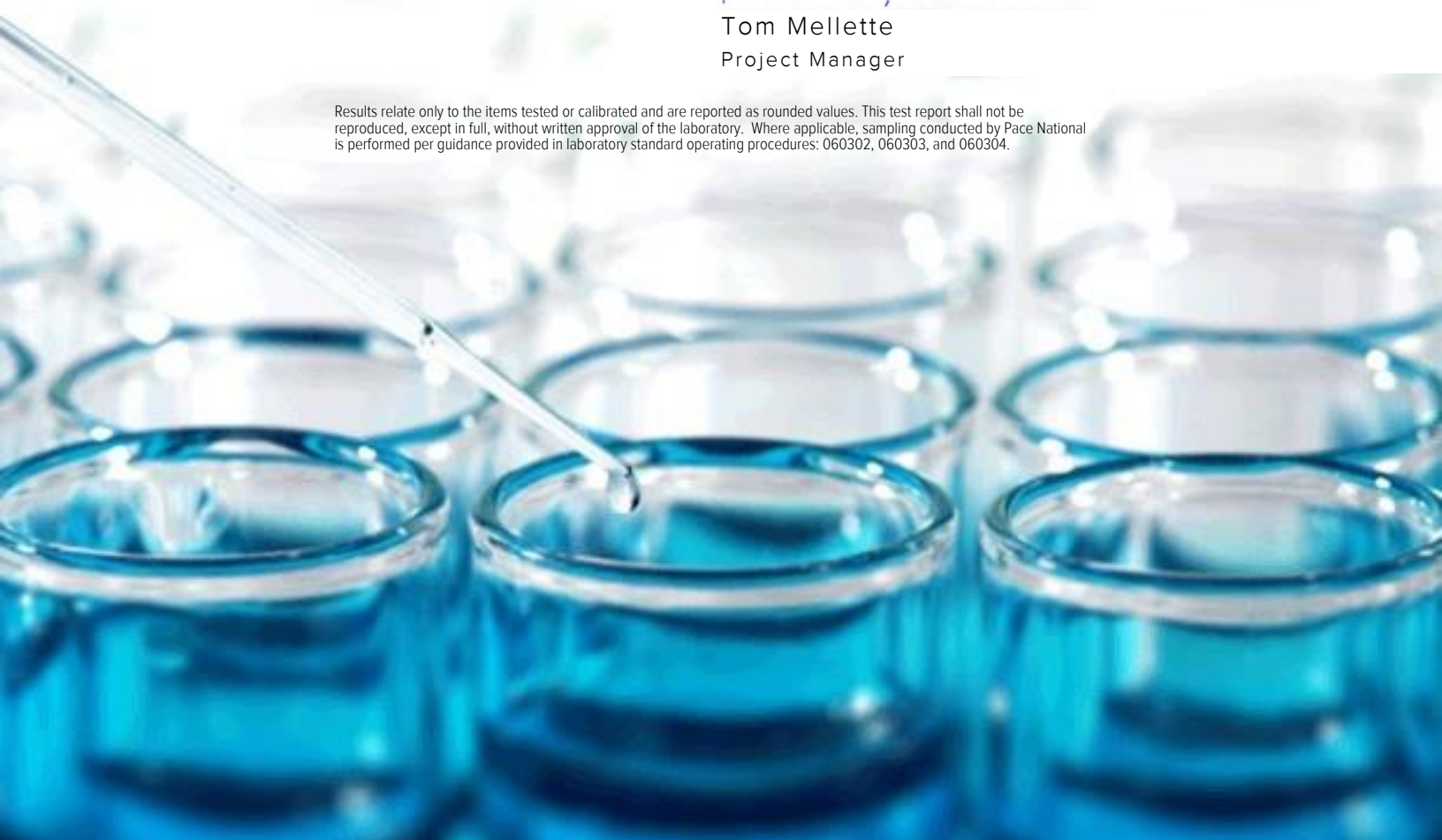
Sample Delivery Group: L1115323  
Samples Received: 07/03/2019  
Project Number: 4213-18-087  
Description: Project Columbia  
Site: COLUMBIA  
Report To: Scott Dacus  
301 Zima Park Drive  
Spartanburg, SC 29301

Entire Report Reviewed By:



Tom Mellette  
Project Manager

Results relate only to the items tested or calibrated and are reported as rounded values. This test report shall not be reproduced, except in full, without written approval of the laboratory. Where applicable, sampling conducted by Pace National is performed per guidance provided in laboratory standard operating procedures: 060302, 060303, and 060304.





<b>Cp: Cover Page</b>	<b>1</b>	<b>1</b> Cp
<b>Tc: Table of Contents</b>	<b>2</b>	
<b>Ss: Sample Summary</b>	<b>3</b>	<b>2</b> Tc
<b>Cn: Case Narrative</b>	<b>4</b>	
<b>Sr: Sample Results</b>	<b>5</b>	<b>3</b> Ss
WWD-1 L1115323-01	<b>5</b>	
TRIP BLANK L1115323-02	<b>10</b>	<b>4</b> Cn
<b>Qc: Quality Control Summary</b>	<b>11</b>	<b>5</b> Sr
Total Solids by Method 2540 G-2011	<b>11</b>	
Wet Chemistry by Method 9012B	<b>12</b>	<b>6</b> Qc
Mercury by Method 7471B	<b>14</b>	
Metals (ICP) by Method 6010D	<b>15</b>	<b>7</b> Gl
Volatile Organic Compounds (GC/MS) by Method 8260B	<b>17</b>	<b>8</b> Al
Pesticides (GC) by Method 8081B	<b>23</b>	
Polychlorinated Biphenyls (GC) by Method 8082 A	<b>25</b>	
Semi Volatile Organic Compounds (GC/MS) by Method 8270D	<b>26</b>	
Semi Volatile Organic Compounds (GC/MS) by Method 8270E-SIM	<b>30</b>	<b>9</b> Sc
<b>Gl: Glossary of Terms</b>	<b>32</b>	
<b>Al: Accreditations &amp; Locations</b>	<b>33</b>	
<b>Sc: Sample Chain of Custody</b>	<b>34</b>	



# SAMPLE SUMMARY

## WWD-1 L1115323-01 Solid

Collected by: Scott Dacus  
 Collected date/time: 07/01/19 13:16  
 Received date/time: 07/03/19 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1308794	1	07/10/19 15:40	07/10/19 15:49	KBC	Mt. Juliet, TN
Wet Chemistry by Method 9012B	WG1310726	1	07/15/19 09:00	07/15/19 17:56	JER	Mt. Juliet, TN
Mercury by Method 7471B	WG1306302	1	07/03/19 19:35	07/03/19 21:32	TCT	Mt. Juliet, TN
Metals (ICP) by Method 6010D	WG1306274	1	07/03/19 23:17	07/04/19 10:59	TRB	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1309943	26.8	07/01/19 13:16	07/12/19 11:20	JAH	Mt. Juliet, TN
Pesticides (GC) by Method 8081B	WG1309566	1	07/12/19 19:58	07/13/19 12:21	RP	Mt. Juliet, TN
Polychlorinated Biphenyls (GC) by Method 8082 A	WG1309566	1	07/12/19 19:58	07/13/19 10:16	MTJ	Mt. Juliet, TN
Semi Volatile Organic Compounds (GC/MS) by Method 8270D	WG1306679	1	07/08/19 17:02	07/09/19 15:16	JF	Mt. Juliet, TN
Semi Volatile Organic Compounds (GC/MS) by Method 8270D	WG1306679	10	07/08/19 17:02	07/10/19 23:42	JNJ	Mt. Juliet, TN
Semi Volatile Organic Compounds (GC/MS) by Method 8270E-SIM	WG1309196	1	07/11/19 06:23	07/11/19 19:07	LEA	Mt. Juliet, TN
Semi Volatile Organic Compounds (GC/MS) by Method 8270E-SIM	WG1309196	20	07/11/19 06:23	07/11/19 21:15	LEA	Mt. Juliet, TN

- 1 Cp
- 2 Tc
- 3 Ss
- 4 Cn
- 5 Sr
- 6 Qc
- 7 Gl
- 8 Al
- 9 Sc

## TRIP BLANK L1115323-02 GW

Collected by: Scott Dacus  
 Collected date/time: 07/01/19 00:00  
 Received date/time: 07/03/19 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1307769	1	07/08/19 11:35	07/08/19 11:35	BMB	Mt. Juliet, TN



All sample aliquots were received at the correct temperature, in the proper containers, with the appropriate preservatives, and within method specified holding times, unless qualified or notated within the report. Where applicable, all MDL (LOD) and RDL (LOQ) values reported for environmental samples have been corrected for the dilution factor used in the analysis. All Method and Batch Quality Control are within established criteria except where addressed in this case narrative, a non-conformance form or properly qualified within the sample results. By my digital signature below, I affirm to the best of my knowledge, all problems/anomalies observed by the laboratory as having the potential to affect the quality of the data have been identified by the laboratory, and no information or data have been knowingly withheld that would affect the quality of the data.

Tom Mellette  
Project Manager

- <sup>1</sup> Cp
- <sup>2</sup> Tc
- <sup>3</sup> Ss
- <sup>4</sup> Cn
- <sup>5</sup> Sr
- <sup>6</sup> Qc
- <sup>7</sup> Gl
- <sup>8</sup> Al
- <sup>9</sup> Sc



Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	43.3		1	07/10/2019 15:49	<a href="#">WG1308794</a>

Wet Chemistry by Method 9012B

Analyte	Result (dry)	Qualifier	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg		date / time	
Cyanide	ND	<a href="#">J3 J6</a>	0.578	1	07/15/2019 17:56	<a href="#">WG1310726</a>

Mercury by Method 7471B

Analyte	Result (dry)	Qualifier	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg		date / time	
Mercury	ND		0.0462	1	07/03/2019 21:32	<a href="#">WG1306302</a>

Metals (ICP) by Method 6010D

Analyte	Result (dry)	Qualifier	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg		date / time	
Aluminum	17500		23.1	1	07/04/2019 10:59	<a href="#">WG1306274</a>
Antimony	ND		4.62	1	07/04/2019 10:59	<a href="#">WG1306274</a>
Arsenic	ND		4.62	1	07/04/2019 10:59	<a href="#">WG1306274</a>
Barium	307		1.16	1	07/04/2019 10:59	<a href="#">WG1306274</a>
Beryllium	ND		0.462	1	07/04/2019 10:59	<a href="#">WG1306274</a>
Cadmium	ND		1.16	1	07/04/2019 10:59	<a href="#">WG1306274</a>
Calcium	190000		231	1	07/04/2019 10:59	<a href="#">WG1306274</a>
Chromium	32.1		2.31	1	07/04/2019 10:59	<a href="#">WG1306274</a>
Cobalt	14.0		2.31	1	07/04/2019 10:59	<a href="#">WG1306274</a>
Copper	51.1		4.62	1	07/04/2019 10:59	<a href="#">WG1306274</a>
Iron	13100		23.1	1	07/04/2019 10:59	<a href="#">WG1306274</a>
Lead	6.57		1.16	1	07/04/2019 10:59	<a href="#">WG1306274</a>
Magnesium	6550		231	1	07/04/2019 10:59	<a href="#">WG1306274</a>
Manganese	1190		2.31	1	07/04/2019 10:59	<a href="#">WG1306274</a>
Nickel	26.4		4.62	1	07/04/2019 10:59	<a href="#">WG1306274</a>
Potassium	9830		231	1	07/04/2019 10:59	<a href="#">WG1306274</a>
Selenium	ND		4.62	1	07/04/2019 10:59	<a href="#">WG1306274</a>
Silver	ND		2.31	1	07/04/2019 10:59	<a href="#">WG1306274</a>
Sodium	3250		231	1	07/04/2019 10:59	<a href="#">WG1306274</a>
Thallium	ND		4.62	1	07/04/2019 10:59	<a href="#">WG1306274</a>
Vanadium	31.3		4.62	1	07/04/2019 10:59	<a href="#">WG1306274</a>
Zinc	507		11.6	1	07/04/2019 10:59	<a href="#">WG1306274</a>

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result (dry)	Qualifier	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg		date / time	
Acetone	2.15	<a href="#">J4</a>	1.55	26.8	07/12/2019 11:20	<a href="#">WG1309943</a>
Benzene	ND		0.0619	26.8	07/12/2019 11:20	<a href="#">WG1309943</a>
Bromochloromethane	ND		0.310	26.8	07/12/2019 11:20	<a href="#">WG1309943</a>
Bromodichloromethane	ND		0.155	26.8	07/12/2019 11:20	<a href="#">WG1309943</a>
Bromoform	ND		1.55	26.8	07/12/2019 11:20	<a href="#">WG1309943</a>
Bromomethane	ND		0.774	26.8	07/12/2019 11:20	<a href="#">WG1309943</a>
Carbon disulfide	ND		0.774	26.8	07/12/2019 11:20	<a href="#">WG1309943</a>
Carbon tetrachloride	ND		0.310	26.8	07/12/2019 11:20	<a href="#">WG1309943</a>
Chlorobenzene	ND		0.155	26.8	07/12/2019 11:20	<a href="#">WG1309943</a>
Chlorodibromomethane	ND		0.155	26.8	07/12/2019 11:20	<a href="#">WG1309943</a>
Chloroethane	ND		0.310	26.8	07/12/2019 11:20	<a href="#">WG1309943</a>
Chloroform	ND		0.155	26.8	07/12/2019 11:20	<a href="#">WG1309943</a>
Chloromethane	ND		0.774	26.8	07/12/2019 11:20	<a href="#">WG1309943</a>

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc



Collected date/time: 07/01/19 13:16

L1115323

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result (dry) mg/kg	Qualifier	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Cyclohexane	ND		0.155	26.8	07/12/2019 11:20	WG1309943
1,2-Dibromo-3-Chloropropane	ND		1.55	26.8	07/12/2019 11:20	WG1309943
1,2-Dibromoethane	ND		0.155	26.8	07/12/2019 11:20	WG1309943
Dichlorodifluoromethane	ND	J4	0.155	26.8	07/12/2019 11:20	WG1309943
1,1-Dichloroethane	ND		0.155	26.8	07/12/2019 11:20	WG1309943
1,2-Dichloroethane	ND		0.155	26.8	07/12/2019 11:20	WG1309943
1,2-Dichlorobenzene	ND		0.310	26.8	07/12/2019 11:20	WG1309943
1,3-Dichlorobenzene	ND		0.310	26.8	07/12/2019 11:20	WG1309943
1,4-Dichlorobenzene	ND		0.310	26.8	07/12/2019 11:20	WG1309943
1,1-Dichloroethene	ND		0.155	26.8	07/12/2019 11:20	WG1309943
cis-1,2-Dichloroethene	ND		0.155	26.8	07/12/2019 11:20	WG1309943
trans-1,2-Dichloroethene	ND		0.310	26.8	07/12/2019 11:20	WG1309943
1,2-Dichloropropane	ND		0.310	26.8	07/12/2019 11:20	WG1309943
cis-1,3-Dichloropropene	ND		0.155	26.8	07/12/2019 11:20	WG1309943
trans-1,3-Dichloropropene	ND		0.310	26.8	07/12/2019 11:20	WG1309943
Ethylbenzene	ND		0.155	26.8	07/12/2019 11:20	WG1309943
2-Hexanone	ND		1.55	26.8	07/12/2019 11:20	WG1309943
Isopropylbenzene	ND		0.155	26.8	07/12/2019 11:20	WG1309943
2-Butanone (MEK)	ND		1.55	26.8	07/12/2019 11:20	WG1309943
Methyl Acetate	1.92		0.310	26.8	07/12/2019 11:20	WG1309943
Methyl Cyclohexane	ND		0.310	26.8	07/12/2019 11:20	WG1309943
Methylene Chloride	ND		1.55	26.8	07/12/2019 11:20	WG1309943
4-Methyl-2-pentanone (MIBK)	ND		1.55	26.8	07/12/2019 11:20	WG1309943
Methyl tert-butyl ether	ND		0.0619	26.8	07/12/2019 11:20	WG1309943
Styrene	ND		0.774	26.8	07/12/2019 11:20	WG1309943
1,1,2,2-Tetrachloroethane	ND		0.155	26.8	07/12/2019 11:20	WG1309943
Tetrachloroethene	ND		0.155	26.8	07/12/2019 11:20	WG1309943
Toluene	ND		0.310	26.8	07/12/2019 11:20	WG1309943
1,2,3-Trichlorobenzene	ND		0.155	26.8	07/12/2019 11:20	WG1309943
1,2,4-Trichlorobenzene	ND		0.774	26.8	07/12/2019 11:20	WG1309943
1,1,1-Trichloroethane	ND		0.155	26.8	07/12/2019 11:20	WG1309943
1,1,2-Trichloroethane	ND		0.155	26.8	07/12/2019 11:20	WG1309943
Trichloroethene	ND		0.0619	26.8	07/12/2019 11:20	WG1309943
Trichlorofluoromethane	ND		0.155	26.8	07/12/2019 11:20	WG1309943
1,1,2-Trichlorotrifluoroethane	ND		0.155	26.8	07/12/2019 11:20	WG1309943
Vinyl chloride	ND		0.155	26.8	07/12/2019 11:20	WG1309943
Xylenes, Total	ND		0.402	26.8	07/12/2019 11:20	WG1309943
(S) Toluene-d8	105		75.0-131		07/12/2019 11:20	WG1309943
(S) 4-Bromofluorobenzene	100		67.0-138		07/12/2019 11:20	WG1309943
(S) 1,2-Dichloroethane-d4	97.6		70.0-130		07/12/2019 11:20	WG1309943

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

Pesticides (GC) by Method 8081B

Analyte	Result (dry) mg/kg	Qualifier	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Aldrin	ND		0.0462	1	07/13/2019 12:21	WG1309566
Alpha BHC	ND		0.0462	1	07/13/2019 12:21	WG1309566
Beta BHC	ND		0.0462	1	07/13/2019 12:21	WG1309566
Delta BHC	ND		0.0462	1	07/13/2019 12:21	WG1309566
Gamma BHC	ND		0.0462	1	07/13/2019 12:21	WG1309566
Chlordane	ND		0.462	1	07/13/2019 12:21	WG1309566
4,4-DDD	ND		0.0462	1	07/13/2019 12:21	WG1309566
4,4-DDE	ND		0.0462	1	07/13/2019 12:21	WG1309566
4,4-DDT	ND		0.0462	1	07/13/2019 12:21	WG1309566
Dieldrin	ND		0.0462	1	07/13/2019 12:21	WG1309566
Endosulfan I	ND		0.0462	1	07/13/2019 12:21	WG1309566
Endosulfan II	ND		0.0462	1	07/13/2019 12:21	WG1309566



Collected date/time: 07/01/19 13:16

L1115323

## Pesticides (GC) by Method 8081B

Analyte	Result (dry) mg/kg	Qualifier	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Endosulfan sulfate	ND		0.0462	1	07/13/2019 12:21	<a href="#">WG1309566</a>
Endrin	ND		0.0462	1	07/13/2019 12:21	<a href="#">WG1309566</a>
Endrin aldehyde	ND		0.0462	1	07/13/2019 12:21	<a href="#">WG1309566</a>
Endrin ketone	ND		0.0462	1	07/13/2019 12:21	<a href="#">WG1309566</a>
Heptachlor	ND		0.0462	1	07/13/2019 12:21	<a href="#">WG1309566</a>
Heptachlor epoxide	ND	<u>J3 J5</u>	0.0462	1	07/13/2019 12:21	<a href="#">WG1309566</a>
Hexachlorobenzene	ND		0.0462	1	07/13/2019 12:21	<a href="#">WG1309566</a>
Methoxychlor	ND	<u>J3</u>	0.0462	1	07/13/2019 12:21	<a href="#">WG1309566</a>
Toxaphene	ND		0.925	1	07/13/2019 12:21	<a href="#">WG1309566</a>
(S) Decachlorobiphenyl	78.3		10.0-135		07/13/2019 12:21	<a href="#">WG1309566</a>
(S) Tetrachloro-m-xylene	129		10.0-139		07/13/2019 12:21	<a href="#">WG1309566</a>

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

## Polychlorinated Biphenyls (GC) by Method 8082 A

Analyte	Result (dry) mg/kg	Qualifier	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
PCB 1016	ND		0.0393	1	07/13/2019 10:16	<a href="#">WG1309566</a>
PCB 1221	ND		0.0393	1	07/13/2019 10:16	<a href="#">WG1309566</a>
PCB 1232	ND		0.0393	1	07/13/2019 10:16	<a href="#">WG1309566</a>
PCB 1242	ND		0.0393	1	07/13/2019 10:16	<a href="#">WG1309566</a>
PCB 1248	ND		0.0393	1	07/13/2019 10:16	<a href="#">WG1309566</a>
PCB 1254	ND		0.0393	1	07/13/2019 10:16	<a href="#">WG1309566</a>
PCB 1260	ND		0.0393	1	07/13/2019 10:16	<a href="#">WG1309566</a>
(S) Decachlorobiphenyl	103		10.0-135		07/13/2019 10:16	<a href="#">WG1309566</a>
(S) Tetrachloro-m-xylene	74.2		10.0-139		07/13/2019 10:16	<a href="#">WG1309566</a>

7 Gl

8 Al

9 Sc

## Semi Volatile Organic Compounds (GC/MS) by Method 8270D

Analyte	Result (dry) mg/kg	Qualifier	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Acenaphthene	ND		0.0770	1	07/09/2019 15:16	<a href="#">WG1306679</a>
Acenaphthylene	ND		0.0770	1	07/09/2019 15:16	<a href="#">WG1306679</a>
Acetophenone	ND	<u>J4</u>	0.770	1	07/09/2019 15:16	<a href="#">WG1306679</a>
Anthracene	ND		0.0770	1	07/09/2019 15:16	<a href="#">WG1306679</a>
Atrazine	ND		0.770	1	07/09/2019 15:16	<a href="#">WG1306679</a>
Benzaldehyde	ND	<u>J4</u>	0.770	1	07/09/2019 15:16	<a href="#">WG1306679</a>
Benzo(a)anthracene	ND		0.0770	1	07/09/2019 15:16	<a href="#">WG1306679</a>
Benzo(b)fluoranthene	ND		0.0770	1	07/09/2019 15:16	<a href="#">WG1306679</a>
Benzo(k)fluoranthene	ND		0.0770	1	07/09/2019 15:16	<a href="#">WG1306679</a>
Benzo(g,h,i)perylene	ND		0.0770	1	07/09/2019 15:16	<a href="#">WG1306679</a>
Benzo(a)pyrene	ND		0.0770	1	07/09/2019 15:16	<a href="#">WG1306679</a>
Biphenyl	ND		0.770	1	07/09/2019 15:16	<a href="#">WG1306679</a>
Bis(2-chloroethoxy)methane	ND	<u>J4</u>	7.70	10	07/10/2019 23:42	<a href="#">WG1306679</a>
Bis(2-chloroethyl)ether	ND	<u>J4</u>	0.770	1	07/09/2019 15:16	<a href="#">WG1306679</a>
Bis(2-chloroisopropyl)ether	ND	<u>J4</u>	0.770	1	07/09/2019 15:16	<a href="#">WG1306679</a>
4-Bromophenyl-phenylether	ND		0.770	1	07/09/2019 15:16	<a href="#">WG1306679</a>
Caprolactam	ND		7.70	10	07/10/2019 23:42	<a href="#">WG1306679</a>
Carbazole	ND		0.770	1	07/09/2019 15:16	<a href="#">WG1306679</a>
4-Chloroaniline	ND	<u>J4</u>	7.70	10	07/10/2019 23:42	<a href="#">WG1306679</a>
2-Chloronaphthalene	ND		0.0770	1	07/09/2019 15:16	<a href="#">WG1306679</a>
4-Chlorophenyl-phenylether	ND		0.770	1	07/09/2019 15:16	<a href="#">WG1306679</a>
Chrysene	ND		0.0770	1	07/09/2019 15:16	<a href="#">WG1306679</a>
Dibenz(a,h)anthracene	ND		0.0770	1	07/09/2019 15:16	<a href="#">WG1306679</a>
Dibenzofuran	ND		0.770	1	07/09/2019 15:16	<a href="#">WG1306679</a>
3,3-Dichlorobenzidine	ND		0.770	1	07/09/2019 15:16	<a href="#">WG1306679</a>
2,4-Dinitrotoluene	ND		0.770	1	07/09/2019 15:16	<a href="#">WG1306679</a>
2,6-Dinitrotoluene	ND		0.770	1	07/09/2019 15:16	<a href="#">WG1306679</a>



Collected date/time: 07/01/19 13:16

L1115323

Semi Volatile Organic Compounds (GC/MS) by Method 8270D

Analyte	Result (dry) mg/kg	Qualifier	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Fluoranthene	ND		0.0770	1	07/09/2019 15:16	WG1306679
Fluorene	ND		0.0770	1	07/09/2019 15:16	WG1306679
Hexachlorobenzene	ND		0.770	1	07/09/2019 15:16	WG1306679
Hexachloro-1,3-butadiene	ND	J4	7.70	10	07/10/2019 23:42	WG1306679
Hexachlorocyclopentadiene	ND		0.770	1	07/09/2019 15:16	WG1306679
Hexachloroethane	ND	J4	0.770	1	07/09/2019 15:16	WG1306679
Indeno(1,2,3-cd)pyrene	ND		0.0770	1	07/09/2019 15:16	WG1306679
Isophorone	ND	J4	7.70	10	07/10/2019 23:42	WG1306679
2-Methylnaphthalene	ND	J4	0.770	10	07/10/2019 23:42	WG1306679
Naphthalene	ND	J4	0.770	10	07/10/2019 23:42	WG1306679
2-Nitroaniline	ND		0.770	1	07/09/2019 15:16	WG1306679
3-Nitroaniline	ND		0.770	1	07/09/2019 15:16	WG1306679
4-Nitroaniline	ND		0.770	1	07/09/2019 15:16	WG1306679
Nitrobenzene	ND	J4	7.70	10	07/10/2019 23:42	WG1306679
n-Nitrosodiphenylamine	ND		0.770	1	07/09/2019 15:16	WG1306679
n-Nitrosodi-n-propylamine	ND	J4	0.770	1	07/09/2019 15:16	WG1306679
Phenanthrene	ND		0.0770	1	07/09/2019 15:16	WG1306679
Benzylbutyl phthalate	ND		0.770	1	07/09/2019 15:16	WG1306679
Bis(2-ethylhexyl)phthalate	ND		0.770	1	07/09/2019 15:16	WG1306679
Di-n-butyl phthalate	ND		0.770	1	07/09/2019 15:16	WG1306679
Diethyl phthalate	ND		0.770	1	07/09/2019 15:16	WG1306679
Dimethyl phthalate	ND		0.770	1	07/09/2019 15:16	WG1306679
Di-n-octyl phthalate	ND		0.770	1	07/09/2019 15:16	WG1306679
Pyrene	ND		0.0770	1	07/09/2019 15:16	WG1306679
1,2,4,5-Tetrachlorobenzene	ND		7.70	10	07/10/2019 23:42	WG1306679
4-Chloro-3-methylphenol	ND	J4	7.70	10	07/10/2019 23:42	WG1306679
2-Chlorophenol	ND		0.770	1	07/09/2019 15:16	WG1306679
2-Methylphenol	ND		0.770	1	07/09/2019 15:16	WG1306679
3&4-Methyl Phenol	0.823		0.770	1	07/09/2019 15:16	WG1306679
2,4-Dichlorophenol	ND	J4	7.70	10	07/10/2019 23:42	WG1306679
2,4-Dimethylphenol	ND	J4	7.70	10	07/10/2019 23:42	WG1306679
4,6-Dinitro-2-methylphenol	ND		0.770	1	07/09/2019 15:16	WG1306679
2,4-Dinitrophenol	ND		0.770	1	07/09/2019 15:16	WG1306679
2-Nitrophenol	ND	J4	7.70	10	07/10/2019 23:42	WG1306679
4-Nitrophenol	ND		0.770	1	07/09/2019 15:16	WG1306679
Pentachlorophenol	ND		0.770	1	07/09/2019 15:16	WG1306679
Phenol	1.43		0.770	1	07/09/2019 15:16	WG1306679
2,4,5-Trichlorophenol	ND		0.770	1	07/09/2019 15:16	WG1306679
2,4,6-Trichlorophenol	ND		0.770	1	07/09/2019 15:16	WG1306679
(S) 2-Fluorophenol	67.2		12.0-120		07/09/2019 15:16	WG1306679
(S) 2-Fluorophenol	79.2		12.0-120		07/10/2019 23:42	WG1306679
(S) Phenol-d5	74.9		10.0-120		07/10/2019 23:42	WG1306679
(S) Phenol-d5	60.5		10.0-120		07/09/2019 15:16	WG1306679
(S) Nitrobenzene-d5	91.5		10.0-122		07/10/2019 23:42	WG1306679
(S) Nitrobenzene-d5	35.3		10.0-122		07/09/2019 15:16	WG1306679
(S) 2-Fluorobiphenyl	64.4		15.0-120		07/10/2019 23:42	WG1306679
(S) 2-Fluorobiphenyl	51.4		15.0-120		07/09/2019 15:16	WG1306679
(S) 2,4,6-Tribromophenol	74.9		10.0-127		07/10/2019 23:42	WG1306679
(S) 2,4,6-Tribromophenol	61.6		10.0-127		07/09/2019 15:16	WG1306679
(S) p-Terphenyl-d14	34.3		10.0-120		07/10/2019 23:42	WG1306679
(S) p-Terphenyl-d14	29.5		10.0-120		07/09/2019 15:16	WG1306679

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

Sample Narrative:

L1115323-01 WG1306679: IS/SURR failed on lower dilution.



Collected date/time: 07/01/19 13:16

L1115323

Semi Volatile Organic Compounds (GC/MS) by Method 8270E-SIM

Analyte	Result (dry) mg/kg	Qualifier	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Anthracene	ND		0.0139	1	07/11/2019 19:07	WG1309196
Acenaphthene	ND		0.0139	1	07/11/2019 19:07	WG1309196
Acenaphthylene	ND		0.0139	1	07/11/2019 19:07	WG1309196
Benzo(a)anthracene	ND		0.0139	1	07/11/2019 19:07	WG1309196
Benzo(a)pyrene	ND		0.0139	1	07/11/2019 19:07	WG1309196
Benzo(b)fluoranthene	ND		0.0139	1	07/11/2019 19:07	WG1309196
Benzo(g,h,i)perylene	ND		0.0139	1	07/11/2019 19:07	WG1309196
Benzo(k)fluoranthene	ND		0.0139	1	07/11/2019 19:07	WG1309196
Chrysene	ND		0.0139	1	07/11/2019 19:07	WG1309196
Dibenz(a,h)anthracene	ND		0.0139	1	07/11/2019 19:07	WG1309196
Fluoranthene	ND		0.0139	1	07/11/2019 19:07	WG1309196
Fluorene	0.0677		0.0139	1	07/11/2019 19:07	WG1309196
Indeno(1,2,3-cd)pyrene	ND		0.0139	1	07/11/2019 19:07	WG1309196
Naphthalene	ND		0.925	20	07/11/2019 21:15	WG1309196
Phenanthrene	0.0610		0.0139	1	07/11/2019 19:07	WG1309196
Pyrene	ND		0.0139	1	07/11/2019 19:07	WG1309196
1-Methylnaphthalene	ND		0.925	20	07/11/2019 21:15	WG1309196
2-Methylnaphthalene	ND		0.925	20	07/11/2019 21:15	WG1309196
(S) p-Terphenyl-d14	59.1		23.0-120		07/11/2019 19:07	WG1309196
(S) p-Terphenyl-d14	80.1	J7	23.0-120		07/11/2019 21:15	WG1309196
(S) Nitrobenzene-d5	49.4		14.0-149		07/11/2019 19:07	WG1309196
(S) Nitrobenzene-d5	79.7	J7	14.0-149		07/11/2019 21:15	WG1309196
(S) 2-Fluorobiphenyl	71.2		34.0-125		07/11/2019 19:07	WG1309196
(S) 2-Fluorobiphenyl	70.1	J7	34.0-125		07/11/2019 21:15	WG1309196

- 1 Cp
- 2 Tc
- 3 Ss
- 4 Cn
- 5 Sr
- 6 Qc
- 7 Gl
- 8 Al
- 9 Sc





Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	ug/l		ug/l		date / time	
Acetone	ND		50.0	1	07/08/2019 11:35	WG1307769
Benzene	ND		1.00	1	07/08/2019 11:35	WG1307769
Bromochloromethane	ND		1.00	1	07/08/2019 11:35	WG1307769
Bromodichloromethane	ND		1.00	1	07/08/2019 11:35	WG1307769
Bromoform	ND		1.00	1	07/08/2019 11:35	WG1307769
Bromomethane	ND		5.00	1	07/08/2019 11:35	WG1307769
Carbon disulfide	ND		1.00	1	07/08/2019 11:35	WG1307769
Carbon tetrachloride	ND		1.00	1	07/08/2019 11:35	WG1307769
Chlorobenzene	ND		1.00	1	07/08/2019 11:35	WG1307769
Chlorodibromomethane	ND		1.00	1	07/08/2019 11:35	WG1307769
Chloroethane	ND		5.00	1	07/08/2019 11:35	WG1307769
Chloroform	ND		5.00	1	07/08/2019 11:35	WG1307769
Chloromethane	ND		2.50	1	07/08/2019 11:35	WG1307769
Cyclohexane	ND		1.00	1	07/08/2019 11:35	WG1307769
1,2-Dibromo-3-Chloropropane	ND		5.00	1	07/08/2019 11:35	WG1307769
1,2-Dibromoethane	ND		1.00	1	07/08/2019 11:35	WG1307769
1,2-Dichlorobenzene	ND		1.00	1	07/08/2019 11:35	WG1307769
1,3-Dichlorobenzene	ND		1.00	1	07/08/2019 11:35	WG1307769
1,4-Dichlorobenzene	ND		1.00	1	07/08/2019 11:35	WG1307769
Dichlorodifluoromethane	ND	J4	5.00	1	07/08/2019 11:35	WG1307769
1,1-Dichloroethane	ND		1.00	1	07/08/2019 11:35	WG1307769
1,2-Dichloroethane	ND		1.00	1	07/08/2019 11:35	WG1307769
1,1-Dichloroethene	ND		1.00	1	07/08/2019 11:35	WG1307769
cis-1,2-Dichloroethene	ND		1.00	1	07/08/2019 11:35	WG1307769
trans-1,2-Dichloroethene	ND		1.00	1	07/08/2019 11:35	WG1307769
1,2-Dichloropropane	ND		1.00	1	07/08/2019 11:35	WG1307769
cis-1,3-Dichloropropene	ND		1.00	1	07/08/2019 11:35	WG1307769
trans-1,3-Dichloropropene	ND		1.00	1	07/08/2019 11:35	WG1307769
Ethylbenzene	ND		1.00	1	07/08/2019 11:35	WG1307769
2-Hexanone	ND		10.0	1	07/08/2019 11:35	WG1307769
Isopropylbenzene	ND		1.00	1	07/08/2019 11:35	WG1307769
2-Butanone (MEK)	ND		10.0	1	07/08/2019 11:35	WG1307769
Methyl Acetate	ND		20.0	1	07/08/2019 11:35	WG1307769
Methyl Cyclohexane	ND		1.00	1	07/08/2019 11:35	WG1307769
Methylene Chloride	ND		5.00	1	07/08/2019 11:35	WG1307769
4-Methyl-2-pentanone (MIBK)	ND		10.0	1	07/08/2019 11:35	WG1307769
Methyl tert-butyl ether	ND		1.00	1	07/08/2019 11:35	WG1307769
Styrene	ND		1.00	1	07/08/2019 11:35	WG1307769
1,1,2,2-Tetrachloroethane	ND		1.00	1	07/08/2019 11:35	WG1307769
Tetrachloroethene	ND		1.00	1	07/08/2019 11:35	WG1307769
Toluene	ND		1.00	1	07/08/2019 11:35	WG1307769
1,2,3-Trichlorobenzene	ND		1.00	1	07/08/2019 11:35	WG1307769
1,2,4-Trichlorobenzene	ND		1.00	1	07/08/2019 11:35	WG1307769
1,1,1-Trichloroethane	ND		1.00	1	07/08/2019 11:35	WG1307769
1,1,2-Trichloroethane	ND		1.00	1	07/08/2019 11:35	WG1307769
Trichloroethene	ND		1.00	1	07/08/2019 11:35	WG1307769
Trichlorofluoromethane	ND		5.00	1	07/08/2019 11:35	WG1307769
1,1,2-Trichlorotrifluoroethane	ND		1.00	1	07/08/2019 11:35	WG1307769
Vinyl chloride	ND		1.00	1	07/08/2019 11:35	WG1307769
Xylenes, Total	ND		3.00	1	07/08/2019 11:35	WG1307769
(S) Toluene-d8	103		80.0-120		07/08/2019 11:35	WG1307769
(S) 4-Bromofluorobenzene	107		77.0-126		07/08/2019 11:35	WG1307769
(S) 1,2-Dichloroethane-d4	111		70.0-130		07/08/2019 11:35	WG1307769

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc



Method Blank (MB)

(MB) R3429647-1 07/10/19 15:49

Analyte	MB Result	<u>MB Qualifier</u>	MB MDL	MB RDL
	%		%	%
Total Solids	0.000			

<sup>1</sup> Cp

<sup>2</sup> Tc

<sup>3</sup> Ss

<sup>4</sup> Cn

<sup>5</sup> Sr

<sup>6</sup> Qc

L1115305-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1115305-01 07/10/19 15:49 • (DUP) R3429647-3 07/10/19 15:49

Analyte	Original Result	DUP Result	Dilution	DUP RPD	<u>DUP Qualifier</u>	DUP RPD Limits
	%	%		%		%
Total Solids	96.5	96.5	1	0.0151		10

<sup>7</sup> Gl

<sup>8</sup> Al

Laboratory Control Sample (LCS)

(LCS) R3429647-2 07/10/19 15:49

Analyte	Spike Amount	LCS Result	LCS Rec.	Rec. Limits	<u>LCS Qualifier</u>
	%	%	%	%	
Total Solids	50.0	50.0	100	85.0-115	

<sup>9</sup> Sc



Method Blank (MB)

(MB) R3430814-1 07/15/19 17:38

Analyte	MB Result	MB Qualifier	MB MDL	MB RDL
Cyanide	0.0408	<u>J</u>	0.0390	0.250

<sup>1</sup> Cp

<sup>2</sup> Tc

<sup>3</sup> Ss

<sup>4</sup> Cn

<sup>5</sup> Sr

<sup>6</sup> Qc

<sup>7</sup> Gl

<sup>8</sup> Al

<sup>9</sup> Sc

L1113617-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1113617-01 07/15/19 17:42 • (DUP) R3430814-3 07/15/19 17:43

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
Cyanide	ND	0.0601	1	0.000		20

L1115683-02 Original Sample (OS) • Duplicate (DUP)

(OS) L1115683-02 07/15/19 18:05 • (DUP) R3430814-8 07/15/19 18:06

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
Cyanide	ND	0.0749	1	0.000		20

Laboratory Control Sample (LCS)

(LCS) R3430814-2 07/15/19 17:39

Analyte	Spike Amount	LCS Result	LCS Rec.	Rec. Limits	LCS Qualifier
Cyanide	2.50	2.57	103	50.0-150	

L1115323-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1115323-01 07/15/19 17:56 • (MS) R3430814-4 07/15/19 17:58 • (MSD) R3430814-5 07/15/19 17:59

Analyte	Spike Amount (dry)	Original Result (dry)	MS Result (dry)	MSD Result (dry)	MS Rec.	MSD Rec.	Dilution	Rec. Limits	MS Qualifier	MSD Qualifier	RPD	RPD Limits
Cyanide	3.85	ND	1.67	3.07	40.5	77.1	1	75.0-125	<u>J6</u>	<u>J3</u>	59.4	20



[L1115323-01](#)

L111548-04 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L111548-04 07/15/19 18:00 • (MS) R3430814-6 07/15/19 18:03 • (MSD) R3430814-7 07/15/19 18:04

Analyte	Spike Amount mg/kg	Original Result mg/kg	MS Result mg/kg	MSD Result mg/kg	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Cyanide	1.67	ND	2.39	2.38	141	140	1	75.0-125	<u>J5</u>	<u>J5</u>	0.585	20

<sup>1</sup> Cp

<sup>2</sup> Tc

<sup>3</sup> Ss

<sup>4</sup> Cn

<sup>5</sup> Sr

<sup>6</sup> Qc

<sup>7</sup> Gl

<sup>8</sup> Al

<sup>9</sup> Sc



Method Blank (MB)

(MB) R3427475-1 07/03/19 21:08

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
Mercury	0.00420	<span style="color: purple;">J</span>	0.00280	0.0200

<sup>1</sup> Cp

<sup>2</sup> Tc

<sup>3</sup> Ss

<sup>4</sup> Cn

<sup>5</sup> Sr

<sup>6</sup> Qc

<sup>7</sup> Gl

<sup>8</sup> Al

<sup>9</sup> Sc

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3427475-2 07/03/19 21:15 • (LCSD) R3427475-3 07/03/19 21:18

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCSD Result mg/kg	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Mercury	0.500	0.504	0.499	101	99.8	80.0-120			1.01	20

L1114038-04 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1114038-04 07/03/19 21:20 • (MS) R3427475-4 07/03/19 21:23 • (MSD) R3427475-5 07/03/19 21:25

Analyte	Spike Amount (dry) mg/kg	Original Result (dry) mg/kg	MS Result (dry) mg/kg	MSD Result (dry) mg/kg	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Mercury	0.568	0.0689	0.600	0.337	93.4	47.2	1	75.0-125		<span style="color: purple;">J3 J6</span>	56.1	20



Method Blank (MB)

(MB) R3427668-1 07/04/19 10:22

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
Aluminum	U		3.50	10.0
Antimony	U		0.750	2.00
Arsenic	U		0.460	2.00
Barium	U		0.170	0.500
Beryllium	U		0.0700	0.200
Cadmium	U		0.0700	0.500
Calcium	U		4.63	100
Chromium	U		0.140	1.00
Cobalt	U		0.230	1.00
Copper	U		0.530	2.00
Iron	U		1.41	10.0
Lead	U		0.190	0.500
Magnesium	U		1.11	100
Manganese	U		0.120	1.00
Nickel	U		0.490	2.00
Potassium	U		10.2	100
Selenium	U		0.620	2.00
Silver	U		0.120	1.00
Sodium	20.8	J	9.85	100
Thallium	U		0.650	2.00
Vanadium	U		0.240	2.00
Zinc	U		0.590	5.00

<sup>1</sup> Cp

<sup>2</sup> Tc

<sup>3</sup> Ss

<sup>4</sup> Cn

<sup>5</sup> Sr

<sup>6</sup> Qc

<sup>7</sup> Gl

<sup>8</sup> Al

<sup>9</sup> Sc

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3427668-2 07/04/19 10:25 • (LCSD) R3427668-3 07/04/19 10:27

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCSD Result mg/kg	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Aluminum	1000	1040	1010	104	101	80.0-120			3.38	20
Antimony	100	101	99.1	101	99.1	80.0-120			1.86	20
Arsenic	100	97.9	96.3	97.9	96.3	80.0-120			1.59	20
Barium	100	105	102	105	102	80.0-120			2.10	20
Beryllium	100	103	100	103	100	80.0-120			3.17	20
Cadmium	100	100	98.1	100	98.1	80.0-120			1.90	20
Calcium	1000	1060	1030	106	103	80.0-120			2.60	20
Chromium	100	103	102	103	102	80.0-120			0.977	20
Cobalt	100	103	101	103	101	80.0-120			1.85	20
Copper	100	101	100	101	100	80.0-120			0.867	20
Iron	1000	1060	1030	106	103	80.0-120			2.63	20



[L1115323-01](#)

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3427668-2 07/04/19 10:25 • (LCSD) R3427668-3 07/04/19 10:27

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCSD Result mg/kg	LCS Rec. %	LCSD Rec. %	Rec. Limits %	<u>LCS Qualifier</u>	<u>LCSD Qualifier</u>	RPD %	RPD Limits %
Lead	100	99.7	97.8	99.7	97.8	80.0-120			1.89	20
Magnesium	1000	1060	1030	106	103	80.0-120			2.81	20
Manganese	100	100	98.8	100	98.8	80.0-120			1.34	20
Nickel	100	102	101	102	101	80.0-120			1.60	20
Potassium	1000	1040	1000	104	100	80.0-120			3.50	20
Selenium	100	97.5	95.0	97.5	95.0	80.0-120			2.64	20
Silver	20.0	18.7	18.4	93.3	92.1	80.0-120			1.31	20
Sodium	1000	1040	1000	104	100	80.0-120			3.42	20
Thallium	100	96.8	95.3	96.8	95.3	80.0-120			1.55	20
Vanadium	100	103	99.8	103	99.8	80.0-120			3.59	20
Zinc	100	102	100	102	100	80.0-120			1.73	20

<sup>1</sup> Cp

<sup>2</sup> Tc

<sup>3</sup> Ss

<sup>4</sup> Cn

<sup>5</sup> Sr

<sup>6</sup> Qc

<sup>7</sup> Gl

<sup>8</sup> Al

<sup>9</sup> Sc

L1115162-02 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1115162-02 07/04/19 10:29 • (MS) R3427668-6 07/04/19 10:36 • (MSD) R3427668-7 07/04/19 10:39

Analyte	Spike Amount (dry) mg/kg	Original Result (dry) mg/kg	MS Result (dry) mg/kg	MSD Result (dry) mg/kg	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	<u>MS Qualifier</u>	<u>MSD Qualifier</u>	RPD %	RPD Limits %
Aluminum	1110	6540	6980	7970	40.2	129	1	75.0-125	<u>V</u>	<u>V</u>	13.3	20
Antimony	111	ND	87.9	91.7	78.0	81.4	1	75.0-125			4.24	20
Arsenic	111	2.40	101	103	88.8	90.4	1	75.0-125			1.71	20
Barium	111	78.2	181	181	92.4	92.8	1	75.0-125			0.263	20
Beryllium	111	ND	103	103	92.8	93.1	1	75.0-125			0.233	20
Cadmium	111	0.783	103	104	92.2	93.1	1	75.0-125			0.906	20
Calcium	1110	3620	4540	4750	82.5	101	1	75.0-125			4.50	20
Chromium	111	8.47	112	114	92.9	94.6	1	75.0-125			1.72	20
Cobalt	111	8.30	117	118	97.9	99.0	1	75.0-125			1.02	20
Copper	111	11.4	115	118	93.6	95.6	1	75.0-125			1.89	20
Iron	1110	21500	20400	23200	0.000	147	1	75.0-125	<u>V</u>	<u>V</u>	12.6	20
Lead	111	5.98	111	112	94.8	95.5	1	75.0-125			0.760	20
Magnesium	1110	4220	5040	5300	73.5	97.2	1	75.0-125	<u>J6</u>		5.08	20
Manganese	111	314	403	415	79.9	90.6	1	75.0-125			2.90	20
Nickel	111	9.68	119	118	98.1	97.9	1	75.0-125			0.148	20
Potassium	1110	1490	2340	2470	76.3	88.2	1	75.0-125			5.49	20
Selenium	111	ND	100	101	90.3	90.6	1	75.0-125			0.380	20
Silver	22.2	ND	18.7	19.0	84.3	85.3	1	75.0-125			1.26	20
Sodium	1110	182	1190	1230	90.8	94.6	1	75.0-125			3.44	20
Thallium	111	ND	101	101	90.6	90.6	1	75.0-125			0.0390	20
Vanadium	111	49.6	143	153	83.9	92.9	1	75.0-125			6.77	20
Zinc	111	46.1	143	147	87.5	90.6	1	75.0-125			2.34	20





Method Blank (MB)

(MB) R3428634-3 07/08/19 11:15

Analyte	MB Result ug/l	MB Qualifier	MB MDL ug/l	MB RDL ug/l
Acetone	U		10.0	50.0
Benzene	U		0.331	1.00
Bromochloromethane	U		0.520	1.00
Bromodichloromethane	U		0.380	1.00
Bromoform	U		0.469	1.00
Bromomethane	U		0.866	5.00
Carbon disulfide	U		0.275	1.00
Carbon tetrachloride	U		0.379	1.00
Chlorobenzene	U		0.348	1.00
Chlorodibromomethane	U		0.327	1.00
Chloroethane	U		0.453	5.00
Chloroform	U		0.324	5.00
Chloromethane	U		0.276	2.50
Cyclohexane	U		0.390	1.00
1,2-Dibromo-3-Chloropropane	U		1.33	5.00
1,2-Dibromoethane	U		0.381	1.00
1,2-Dichlorobenzene	U		0.349	1.00
1,3-Dichlorobenzene	U		0.220	1.00
1,4-Dichlorobenzene	U		0.274	1.00
Dichlorodifluoromethane	U		0.551	5.00
1,1-Dichloroethane	U		0.259	1.00
1,2-Dichloroethane	U		0.361	1.00
1,1-Dichloroethene	U		0.398	1.00
cis-1,2-Dichloroethene	U		0.260	1.00
trans-1,2-Dichloroethene	U		0.396	1.00
1,2-Dichloropropane	U		0.306	1.00
cis-1,3-Dichloropropene	U		0.418	1.00
trans-1,3-Dichloropropene	U		0.419	1.00
Ethylbenzene	U		0.384	1.00
2-Hexanone	U		3.82	10.0
Isopropylbenzene	U		0.326	1.00
2-Butanone (MEK)	U		3.93	10.0
Methyl Acetate	U		4.30	20.0
Methyl Cyclohexane	U		0.380	1.00
Methylene Chloride	U		1.00	5.00
4-Methyl-2-pentanone (MIBK)	U		2.14	10.0
Methyl tert-butyl ether	U		0.367	1.00
Styrene	U		0.307	1.00
1,1,2,2-Tetrachloroethane	U		0.130	1.00
Tetrachloroethene	U		0.372	1.00

<sup>1</sup> Cp

<sup>2</sup> Tc

<sup>3</sup> Ss

<sup>4</sup> Cn

<sup>5</sup> Sr

<sup>6</sup> Qc

<sup>7</sup> Gl

<sup>8</sup> Al

<sup>9</sup> Sc



Method Blank (MB)

(MB) R3428634-3 07/08/19 11:15

Analyte	MB Result ug/l	MB Qualifier	MB MDL ug/l	MB RDL ug/l
Toluene	U		0.412	1.00
1,1,2-Trichlorotrifluoroethane	U		0.303	1.00
1,2,3-Trichlorobenzene	U		0.230	1.00
1,2,4-Trichlorobenzene	U		0.355	1.00
1,1,1-Trichloroethane	U		0.319	1.00
1,1,2-Trichloroethane	U		0.383	1.00
Trichloroethene	U		0.398	1.00
Trichlorofluoromethane	U		1.20	5.00
Vinyl chloride	U		0.259	1.00
Xylenes, Total	U		1.06	3.00
(S) Toluene-d8	103			80.0-120
(S) 4-Bromofluorobenzene	106			77.0-126
(S) 1,2-Dichloroethane-d4	108			70.0-130

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3428634-1 07/08/19 10:14 • (LCSD) R3428634-2 07/08/19 10:35

Analyte	Spike Amount ug/l	LCS Result ug/l	LCSD Result ug/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Acetone	125	154	143	123	114	70.0-130			7.55	27
Benzene	25.0	24.1	24.7	96.5	98.6	70.0-130			2.15	20
Bromodichloromethane	25.0	28.2	28.2	113	113	70.0-130			0.0336	20
Bromoform	25.0	24.5	25.1	97.9	100	70.0-130			2.46	20
Bromomethane	25.0	26.3	25.7	105	103	70.0-130			2.37	25
Bromochloromethane	25.0	26.0	26.4	104	106	70.0-130			1.75	20
Carbon tetrachloride	25.0	27.9	28.5	112	114	70.0-130			2.27	20
Chlorobenzene	25.0	22.1	22.9	88.6	91.5	70.0-130			3.24	20
Chlorodibromomethane	25.0	24.4	24.6	97.8	98.5	70.0-130			0.763	20
Chloroethane	25.0	26.7	27.3	107	109	70.0-130			2.44	20
Carbon disulfide	25.0	30.0	30.2	120	121	70.0-130			0.654	20
Chloroform	25.0	25.9	26.3	104	105	70.0-130			1.36	20
Chloromethane	25.0	27.8	28.8	111	115	70.0-130			3.64	20
1,2-Dibromo-3-Chloropropane	25.0	21.8	22.0	87.1	88.0	70.0-130			1.11	20
1,2-Dibromoethane	25.0	23.2	23.3	92.6	93.4	70.0-130			0.800	20
1,2-Dichlorobenzene	25.0	23.7	24.4	94.8	97.5	70.0-130			2.82	20
1,3-Dichlorobenzene	25.0	23.3	23.7	93.2	94.7	70.0-130			1.59	20
1,4-Dichlorobenzene	25.0	23.4	23.8	93.6	95.4	70.0-130			1.86	20
Dichlorodifluoromethane	25.0	46.7	47.4	187	189	70.0-130	J4	J4	1.38	20
1,1-Dichloroethane	25.0	26.2	26.0	105	104	70.0-130			0.772	20



Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3428634-1 07/08/19 10:14 • (LCSD) R3428634-2 07/08/19 10:35

Analyte	Spike Amount ug/l	LCS Result ug/l	LCSD Result ug/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	<u>LCS Qualifier</u>	<u>LCSD Qualifier</u>	RPD %	RPD Limits %
1,2-Dichloroethane	25.0	26.9	26.4	108	106	70.0-130			1.95	20
1,1-Dichloroethene	25.0	27.8	28.7	111	115	70.0-130			3.22	20
cis-1,2-Dichloroethene	25.0	24.2	25.0	97.0	100	70.0-130			3.05	20
trans-1,2-Dichloroethene	25.0	26.7	27.5	107	110	70.0-130			2.81	20
1,2-Dichloropropane	25.0	24.3	25.4	97.2	102	70.0-130			4.48	20
cis-1,3-Dichloropropene	25.0	26.5	27.0	106	108	70.0-130			1.75	20
trans-1,3-Dichloropropene	25.0	21.8	22.5	87.3	90.2	70.0-130			3.22	20
Ethylbenzene	25.0	23.0	24.0	92.2	96.1	70.0-130			4.21	20
Isopropylbenzene	25.0	24.3	26.1	97.4	105	70.0-130			7.08	20
2-Hexanone	125	102	105	81.6	84.0	70.0-130			2.90	20
2-Butanone (MEK)	125	141	144	113	115	70.0-130			1.96	20
Methylene Chloride	25.0	24.9	24.7	99.6	98.8	70.0-130			0.772	20
4-Methyl-2-pentanone (MIBK)	125	106	110	84.9	88.1	70.0-130			3.68	20
Methyl tert-butyl ether	25.0	26.1	26.6	104	106	70.0-130			1.69	20
Styrene	25.0	23.6	24.2	94.3	96.8	70.0-130			2.67	20
1,1,2,2-Tetrachloroethane	25.0	20.6	21.0	82.5	83.9	70.0-130			1.77	20
Tetrachloroethene	25.0	22.8	23.8	91.4	95.1	70.0-130			4.02	20
Toluene	25.0	21.8	22.3	87.1	89.3	70.0-130			2.55	20
1,1,2-Trichlorotrifluoroethane	25.0	22.9	25.4	91.7	102	70.0-130			10.3	20
1,2,3-Trichlorobenzene	25.0	26.0	28.2	104	113	70.0-130			8.06	20
1,2,4-Trichlorobenzene	25.0	27.4	29.5	109	118	70.0-130			7.60	20
1,1,1-Trichloroethane	25.0	27.5	28.8	110	115	70.0-130			4.53	20
1,1,2-Trichloroethane	25.0	22.1	22.7	88.4	90.9	70.0-130			2.74	20
Trichloroethene	25.0	25.6	25.9	102	104	70.0-130			1.32	20
Trichlorofluoromethane	25.0	28.4	29.0	114	116	70.0-130			2.14	20
Vinyl chloride	25.0	26.4	27.6	106	110	70.0-130			4.40	20
Xylenes, Total	75.0	70.0	72.1	93.3	96.1	70.0-130			2.96	20
(S) Toluene-d8				94.9	94.3	80.0-120				
(S) 4-Bromofluorobenzene				104	105	77.0-126				
(S) 1,2-Dichloroethane-d4				119	113	70.0-130				

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc



Method Blank (MB)

(MB) R3430129-2 07/12/19 10:42

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
Acetone	U		0.0137	0.0250
Benzene	U		0.000400	0.00100
Bromodichloromethane	U		0.000788	0.00250
Bromochloromethane	U		0.00113	0.00500
Bromoform	U		0.00598	0.0250
Bromomethane	U		0.00370	0.0125
Carbon disulfide	U		0.00406	0.0125
Carbon tetrachloride	U		0.00108	0.00500
Chlorobenzene	U		0.000573	0.00250
Chlorodibromomethane	U		0.000450	0.00250
Chloroethane	U		0.00108	0.00500
Chloroform	U		0.000415	0.00250
Chloromethane	U		0.00139	0.0125
Cyclohexane	U		0.000508	0.00250
1,2-Dibromo-3-Chloropropane	U		0.00510	0.0250
1,2-Dibromoethane	U		0.000525	0.00250
1,2-Dichlorobenzene	U		0.00145	0.00500
1,3-Dichlorobenzene	U		0.00170	0.00500
1,4-Dichlorobenzene	U		0.00197	0.00500
Dichlorodifluoromethane	U		0.000818	0.00250
1,1-Dichloroethane	U		0.000575	0.00250
1,2-Dichloroethane	U		0.000475	0.00250
1,1-Dichloroethene	U		0.000500	0.00250
cis-1,2-Dichloroethene	U		0.000690	0.00250
trans-1,2-Dichloroethene	U		0.00143	0.00500
1,2-Dichloropropane	U		0.00127	0.00500
cis-1,3-Dichloropropene	U		0.000678	0.00250
trans-1,3-Dichloropropene	U		0.00153	0.00500
Ethylbenzene	U		0.000530	0.00250
2-Hexanone	U		0.0100	0.0250
Isopropylbenzene	U		0.000863	0.00250
2-Butanone (MEK)	0.0313		0.0125	0.0250
Methyl Acetate	U		0.00210	0.00500
Methyl Cyclohexane	U		0.00103	0.00500
Methylene Chloride	0.00790	U	0.00664	0.0250
4-Methyl-2-pentanone (MIBK)	U		0.0100	0.0250
Methyl tert-butyl ether	U		0.000295	0.00100
Styrene	U		0.00273	0.0125
1,1,2,2-Tetrachloroethane	U		0.000390	0.00250
Tetrachloroethene	U		0.000700	0.00250

<sup>1</sup> Cp

<sup>2</sup> Tc

<sup>3</sup> Ss

<sup>4</sup> Cn

<sup>5</sup> Sr

<sup>6</sup> Qc

<sup>7</sup> Gl

<sup>8</sup> Al

<sup>9</sup> Sc



Method Blank (MB)

(MB) R3430129-2 07/12/19 10:42

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
Toluene	U		0.00125	0.00500
1,1,2-Trichlorotrifluoroethane	U		0.000675	0.00250
1,2,3-Trichlorobenzene	U		0.000625	0.00250
1,2,4-Trichlorobenzene	U		0.00482	0.0125
1,1,1-Trichloroethane	U		0.000275	0.00250
1,1,2-Trichloroethane	U		0.000883	0.00250
Trichloroethene	U		0.000400	0.00100
Trichlorofluoromethane	U		0.000500	0.00250
Vinyl chloride	U		0.000683	0.00250
Xylenes, Total	U		0.00478	0.00650
(S) Toluene-d8	103			75.0-131
(S) 4-Bromofluorobenzene	94.8			67.0-138
(S) 1,2-Dichloroethane-d4	96.9			70.0-130

Laboratory Control Sample (LCS)

(LCS) R3430129-1 07/12/19 09:15

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
Acetone	0.625	0.843	135	70.0-130	<u>J4</u>
Benzene	0.125	0.132	106	70.0-130	
Bromodichloromethane	0.125	0.131	105	70.0-130	
Bromoform	0.125	0.130	104	70.0-130	
Bromochloromethane	0.125	0.130	104	70.0-130	
Bromomethane	0.125	0.137	110	70.0-130	
Carbon tetrachloride	0.125	0.129	103	70.0-130	
Carbon disulfide	0.125	0.137	110	70.0-130	
Chlorobenzene	0.125	0.139	111	70.0-130	
Chlorodibromomethane	0.125	0.133	106	70.0-130	
Chloroethane	0.125	0.140	112	70.0-130	
Chloroform	0.125	0.129	103	70.0-130	
Chloromethane	0.125	0.117	93.8	70.0-130	
1,2-Dibromo-3-Chloropropane	0.125	0.118	94.1	70.0-130	
1,2-Dibromoethane	0.125	0.143	114	70.0-130	
1,2-Dichlorobenzene	0.125	0.125	100	70.0-130	
1,3-Dichlorobenzene	0.125	0.132	106	70.0-130	
1,4-Dichlorobenzene	0.125	0.124	98.8	70.0-130	
Dichlorodifluoromethane	0.125	0.197	157	70.0-130	<u>J4</u>
1,1-Dichloroethane	0.125	0.130	104	70.0-130	

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc



Laboratory Control Sample (LCS)

(LCS) R3430129-1 07/12/19 09:15

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	<u>LCS Qualifier</u>
1,2-Dichloroethane	0.125	0.122	97.2	70.0-130	
1,1-Dichloroethene	0.125	0.140	112	70.0-130	
cis-1,2-Dichloroethene	0.125	0.126	101	70.0-130	
trans-1,2-Dichloroethene	0.125	0.129	103	70.0-130	
1,2-Dichloropropane	0.125	0.136	109	70.0-130	
cis-1,3-Dichloropropene	0.125	0.138	110	70.0-130	
trans-1,3-Dichloropropene	0.125	0.136	109	70.0-130	
Ethylbenzene	0.125	0.137	110	70.0-130	
2-Hexanone	0.625	0.717	115	70.0-130	
Isopropylbenzene	0.125	0.138	110	70.0-130	
2-Butanone (MEK)	0.625	0.737	118	70.0-130	
Methylene Chloride	0.125	0.129	103	70.0-130	
4-Methyl-2-pentanone (MIBK)	0.625	0.614	98.3	70.0-130	
Methyl tert-butyl ether	0.125	0.108	86.1	70.0-130	
Styrene	0.125	0.141	113	70.0-130	
1,1,2,2-Tetrachloroethane	0.125	0.132	106	70.0-130	
Tetrachloroethene	0.125	0.146	117	70.0-130	
Toluene	0.125	0.137	109	70.0-130	
1,1,2-Trichlorotrifluoroethane	0.125	0.144	115	70.0-130	
1,2,3-Trichlorobenzene	0.125	0.122	97.4	70.0-130	
1,2,4-Trichlorobenzene	0.125	0.120	96.0	70.0-130	
1,1,1-Trichloroethane	0.125	0.131	105	70.0-130	
1,1,2-Trichloroethane	0.125	0.137	109	70.0-130	
Trichloroethene	0.125	0.126	101	70.0-130	
Trichlorofluoromethane	0.125	0.145	116	70.0-130	
Vinyl chloride	0.125	0.141	113	70.0-130	
Xylenes, Total	0.375	0.408	109	70.0-130	
(S) Toluene-d8			107	75.0-131	
(S) 4-Bromofluorobenzene			98.6	67.0-138	
(S) 1,2-Dichloroethane-d4			100	70.0-130	

<sup>1</sup> Cp

<sup>2</sup> Tc

<sup>3</sup> Ss

<sup>4</sup> Cn

<sup>5</sup> Sr

<sup>6</sup> Qc

<sup>7</sup> Gl

<sup>8</sup> Al

<sup>9</sup> Sc



Method Blank (MB)

(MB) R3430338-2 07/13/19 08:25

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
Aldrin	U		0.00135	0.0200
Alpha BHC	U		0.00136	0.0200
Beta BHC	U		0.00160	0.0200
Delta BHC	U		0.00143	0.0200
Gamma BHC	U		0.00145	0.0200
4,4-DDD	U		0.00156	0.0200
4,4-DDE	U		0.00154	0.0200
4,4-DDT	U		0.00200	0.0200
Dieldrin	U		0.00152	0.0200
Endosulfan I	U		0.00149	0.0200
Endosulfan II	U		0.00160	0.0200
Endosulfan sulfate	U		0.00151	0.0200
Endrin	U		0.00157	0.0200
Endrin aldehyde	U		0.00129	0.0200
Endrin ketone	U		0.00165	0.0200
Heptachlor	U		0.00154	0.0200
Heptachlor epoxide	U		0.00161	0.0200
Hexachlorobenzene	U		0.00124	0.0200
Methoxychlor	U		0.00178	0.0200
Chlordane	U		0.0390	0.200
Toxaphene	U		0.0360	0.400
(S) Decachlorobiphenyl	96.1			10.0-135
(S) Tetrachloro-m-xylene	99.5			10.0-139

<sup>1</sup> Cp

<sup>2</sup> Tc

<sup>3</sup> Ss

<sup>4</sup> Cn

<sup>5</sup> Sr

<sup>6</sup> Qc

<sup>7</sup> Gl

<sup>8</sup> Al

<sup>9</sup> Sc

Laboratory Control Sample (LCS)

(LCS) R3430338-1 07/13/19 08:00

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
Aldrin	0.0666	0.0636	95.5	70.0-130	
Alpha BHC	0.0666	0.0648	97.3	70.0-130	
Beta BHC	0.0666	0.0590	88.6	70.0-130	
Delta BHC	0.0666	0.0654	98.2	70.0-130	
Gamma BHC	0.0666	0.0652	97.9	70.0-130	
4,4-DDD	0.0666	0.0621	93.2	70.0-130	
4,4-DDE	0.0666	0.0618	92.8	70.0-130	
4,4-DDT	0.0666	0.0621	93.2	70.0-130	
Dieldrin	0.0666	0.0628	94.3	70.0-130	
Endosulfan I	0.0666	0.0641	96.2	70.0-130	





Laboratory Control Sample (LCS)

(LCS) R3430338-1 07/13/19 08:00

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	<u>LCS Qualifier</u>
Endosulfan II	0.0666	0.0634	95.2	70.0-130	
Endosulfan sulfate	0.0666	0.0618	92.8	70.0-130	
Endrin	0.0666	0.0627	94.1	70.0-130	
Endrin aldehyde	0.0666	0.0611	91.7	70.0-130	
Endrin ketone	0.0666	0.0718	108	70.0-130	
Heptachlor	0.0666	0.0633	95.0	70.0-130	
Heptachlor epoxide	0.0666	0.0645	96.8	70.0-130	
Hexachlorobenzene	0.0666	0.0630	94.6	70.0-130	
Methoxychlor	0.0666	0.0595	89.3	70.0-130	
<i>(S) Decachlorobiphenyl</i>			89.8	10.0-135	
<i>(S) Tetrachloro-m-xylene</i>			92.6	10.0-139	

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

L1115323-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1115323-01 07/13/19 12:21 • (MS) R3430338-3 07/13/19 12:34 • (MSD) R3430338-4 07/13/19 12:46

Analyte	Spike Amount (dry) mg/kg	Original Result (dry) mg/kg	MS Result (dry) mg/kg	MSD Result (dry) mg/kg	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	<u>MS Qualifier</u>	<u>MSD Qualifier</u>	RPD %	RPD Limits %
Aldrin	0.154	ND	0.118	0.134	76.4	86.8	1	20.2-150	P	P	12.7	21
Alpha BHC	0.154	ND	0.113	0.129	73.4	83.5	1	35.3-155	P	P	12.8	20
Beta BHC	0.154	ND	0.123	0.135	79.6	87.5	1	30.4-160	P	P	9.52	21
Delta BHC	0.154	ND	0.117	0.135	76.1	87.5	1	27.8-160	P	P	13.9	22
Gamma BHC	0.154	ND	0.117	0.133	75.8	86.2	1	32.6-149	P	P	12.8	20
4,4-DDD	0.154	ND	0.123	0.135	79.7	87.5	1	33.0-145	P	P	9.34	21
4,4-DDE	0.154	ND	0.114	0.130	74.3	84.2	1	26.3-151	P	P	12.5	21
4,4-DDT	0.154	ND	0.0698	0.0793	45.3	51.5	1	11.8-145	P	P	12.7	21
Dieldrin	0.154	ND	0.100	0.110	65.2	71.2	1	24.8-149	P	P	8.81	20
Endosulfan I	0.154	ND	0.122	0.143	79.4	92.9	1	20.7-152	P	P	15.7	20
Endosulfan II	0.154	ND	0.123	0.140	80.0	90.8	1	22.1-150	P	P	12.7	21
Endosulfan sulfate	0.154	ND	0.110	0.120	71.6	78.1	1	24.6-151	P	P	8.63	22
Endrin	0.154	ND	0.116	0.129	75.4	83.6	1	27.3-149	P	P	10.4	20
Endrin aldehyde	0.154	ND	0.0885	0.0996	57.5	64.7	1	11.0-157	P	P	11.8	23
Endrin ketone	0.154	ND	0.159	0.190	104	124	1	28.5-148	P	P	17.6	21
Heptachlor	0.154	ND	0.102	0.115	66.4	74.8	1	26.7-144	P	P	11.9	20
Heptachlor epoxide	0.154	ND	0.182	0.277	118	180	1	25.2-155	P	J3 J5 P	41.6	20
Hexachlorobenzene	0.154	ND	0.0929	0.0975	60.4	63.4	1	19.0-156	P	P	4.85	20
Methoxychlor	0.154	ND	0.110	0.140	71.2	91.1	1	10.0-164	P	J3 P	24.6	22
<i>(S) Decachlorobiphenyl</i>					70.3	79.1		10.0-135				
<i>(S) Tetrachloro-m-xylene</i>					112	116		10.0-139				



Method Blank (MB)

(MB) R3430418-1 07/13/19 09:13

Analyte	MB Result	MB Qualifier	MB MDL	MB RDL
	mg/kg		mg/kg	mg/kg
PCB 1260	U		0.00494	0.0170
PCB 1016	U		0.00350	0.0170
PCB 1221	U		0.00537	0.0170
PCB 1232	U		0.00417	0.0170
PCB 1242	U		0.00318	0.0170
PCB 1248	U		0.00315	0.0170
PCB 1254	U		0.00472	0.0170
(S) Decachlorobiphenyl	120			10.0-135
(S) Tetrachloro-m-xylene	103			10.0-139

<sup>1</sup> Cp

<sup>2</sup> Tc

<sup>3</sup> Ss

<sup>4</sup> Cn

<sup>5</sup> Sr

<sup>6</sup> Qc

<sup>7</sup> Gl

<sup>8</sup> Al

<sup>9</sup> Sc

Laboratory Control Sample (LCS)

(LCS) R3430418-2 07/13/19 09:26

Analyte	Spike Amount	LCS Result	LCS Rec.	Rec. Limits	LCS Qualifier
	mg/kg	mg/kg	%	%	
PCB 1260	0.167	0.183	110	70.0-130	
PCB 1016	0.167	0.176	105	70.0-130	
(S) Decachlorobiphenyl			126	10.0-135	
(S) Tetrachloro-m-xylene			104	10.0-139	

L1115543-06 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1115543-06 07/14/19 17:55 • (MS) R3430662-1 07/14/19 18:07 • (MSD) R3430662-2 07/14/19 18:20

Analyte	Spike Amount (dry)	Original Result (dry)	MS Result (dry)	MSD Result (dry)	MS Rec.	MSD Rec.	Dilution	Rec. Limits	MS Qualifier	MSD Qualifier	RPD	RPD Limits
	mg/kg	mg/kg	mg/kg	mg/kg	%	%		%			%	%
PCB 1260	0.281	U	0.281	0.425	100	151	1	24.6-127	P	J3 J5 P	41.0	23
PCB 1016	0.281	U	0.547	0.548	195	195	1	23.9-147	J5 P	J5 P	0.307	33
(S) Decachlorobiphenyl					100	92.3		10.0-135				
(S) Tetrachloro-m-xylene					88.4	83.9		10.0-139				



Method Blank (MB)

(MB) R3428906-2 07/09/19 09:42

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
Acenaphthene	U		0.00642	0.0333
Acenaphthylene	U		0.00671	0.0333
Acetophenone	U		0.0752	0.333
Anthracene	U		0.00632	0.0333
Atrazine	U		0.0938	0.333
Benzaldehyde	U		0.0532	0.333
Benzo(a)anthracene	U		0.00428	0.0333
Benzo(b)fluoranthene	U		0.00695	0.0333
Benzo(k)fluoranthene	U		0.00582	0.0333
Benzo(g,h,i)perylene	U		0.00721	0.0333
Benzo(a)pyrene	U		0.00548	0.0333
Biphenyl	U		0.00588	0.333
Bis(2-chloroethoxy)methane	U		0.00770	0.333
Bis(2-chloroethyl)ether	U		0.00896	0.333
Bis(2-chloroisopropyl)ether	U		0.00760	0.333
4-Bromophenyl-phenylether	U		0.0114	0.333
Caprolactam	U		0.104	0.333
Carbazole	U		0.00524	0.333
4-Chloroaniline	U		0.0352	0.333
2-Chloronaphthalene	U		0.00639	0.0333
4-Chlorophenyl-phenylether	U		0.00627	0.333
Chrysene	U		0.00555	0.0333
Dibenz(a,h)anthracene	U		0.00821	0.0333
Dibenzofuran	U		0.00518	0.333
3,3-Dichlorobenzidine	U		0.0794	0.333
2,4-Dinitrotoluene	U		0.00607	0.333
2,6-Dinitrotoluene	U		0.00737	0.333
Fluoranthene	U		0.00496	0.0333
Fluorene	U		0.00682	0.0333
Hexachlorobenzene	U		0.00856	0.333
Hexachloro-1,3-butadiene	U		0.0100	0.333
Hexachlorocyclopentadiene	U		0.0587	0.333
Hexachloroethane	U		0.0134	0.333
Indeno(1,2,3-cd)pyrene	U		0.00772	0.0333
Isophorone	U		0.00522	0.333
2-Methylnaphthalene	U		0.00861	0.0333
Naphthalene	U		0.00889	0.0333
2-Nitroaniline	U		0.00755	0.333
3-Nitroaniline	U		0.00850	0.333
4-Nitroaniline	U		0.00639	0.333

<sup>1</sup> Cp

<sup>2</sup> Tc

<sup>3</sup> Ss

<sup>4</sup> Cn

<sup>5</sup> Sr

<sup>6</sup> Qc

<sup>7</sup> Gl

<sup>8</sup> Al

<sup>9</sup> Sc



Method Blank (MB)

(MB) R3428906-2 07/09/19 09:42

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
Nitrobenzene	U		0.00695	0.333
n-Nitrosodiphenylamine	U		0.0900	0.333
n-Nitrosodi-n-propylamine	U		0.00906	0.333
Phenanthrene	U		0.00528	0.0333
Benzylbutyl phthalate	U		0.0103	0.333
Bis(2-ethylhexyl)phthalate	U		0.0120	0.333
Di-n-butyl phthalate	U		0.0109	0.333
Diethyl phthalate	U		0.00691	0.333
Dimethyl phthalate	U		0.00540	0.333
Di-n-octyl phthalate	U		0.00907	0.333
Pyrene	U		0.0123	0.0333
4-Chloro-3-methylphenol	U		0.00477	0.333
2-Chlorophenol	U		0.00831	0.333
2-Methylphenol	U		0.00986	0.333
3&4-Methyl Phenol	U		0.00783	0.333
2,4-Dichlorophenol	U		0.00746	0.333
2,4-Dimethylphenol	U		0.0471	0.333
4,6-Dinitro-2-methylphenol	U		0.124	0.333
2,4-Dinitrophenol	U		0.0980	0.333
2-Nitrophenol	U		0.0130	0.333
4-Nitrophenol	U		0.0525	0.333
Pentachlorophenol	U		0.0480	0.333
Phenol	U		0.00695	0.333
1,2,4,5-Tetrachlorobenzene	U		0.0762	0.333
2,4,5-Trichlorophenol	U		0.0104	0.333
2,4,6-Trichlorophenol	U		0.00779	0.333
(S) Nitrobenzene-d5	67.3			10.0-122
(S) 2-Fluorobiphenyl	68.5			15.0-120
(S) p-Terphenyl-d14	85.6			10.0-120
(S) Phenol-d5	70.0			10.0-120
(S) 2-Fluorophenol	82.3			12.0-120
(S) 2,4,6-Tribromophenol	75.1			10.0-127

<sup>1</sup> Cp

<sup>2</sup> Tc

<sup>3</sup> Ss

<sup>4</sup> Cn

<sup>5</sup> Sr

<sup>6</sup> Qc

<sup>7</sup> Gl

<sup>8</sup> Al

<sup>9</sup> Sc



Laboratory Control Sample (LCS)

(LCS) R3428906-1 07/09/19 09:23

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
Acenaphthene	0.666	0.483	72.5	70.0-130	
Acenaphthylene	0.666	0.498	74.8	70.0-130	
Acetophenone	0.666	0.443	66.5	70.0-130	J4
Anthracene	0.666	0.491	73.7	70.0-130	
Atrazine	0.666	0.551	82.7	70.0-130	
Benzaldehyde	0.666	0.365	54.8	70.0-130	J4
Benzo(a)anthracene	0.666	0.542	81.4	70.0-130	
Benzo(b)fluoranthene	0.666	0.559	83.9	70.0-130	
Benzo(k)fluoranthene	0.666	0.547	82.1	70.0-130	
Benzo(g,h,i)perylene	0.666	0.575	86.3	70.0-130	
Benzo(a)pyrene	0.666	0.550	82.6	70.0-130	
Biphenyl	0.666	0.477	71.6	70.0-130	
Bis(2-chlorethoxy)methane	0.666	0.364	54.7	70.0-130	J4
Bis(2-chloroethyl)ether	0.666	0.425	63.8	70.0-130	J4
Bis(2-chloroisopropyl)ether	0.666	0.413	62.0	70.0-130	J4
4-Bromophenyl-phenylether	0.666	0.495	74.3	70.0-130	
Caprolactam	0.666	0.512	76.9	70.0-130	
Carbazole	0.666	0.491	73.7	70.0-130	
4-Chloroaniline	0.666	0.382	57.4	70.0-130	J4
2-Chloronaphthalene	0.666	0.483	72.5	70.0-130	
4-Chlorophenyl-phenylether	0.666	0.535	80.3	70.0-130	
Chrysene	0.666	0.616	92.5	70.0-130	
Dibenz(a,h)anthracene	0.666	0.542	81.4	70.0-130	
Dibenzofuran	0.666	0.493	74.0	70.0-130	
3,3-Dichlorobenzidine	1.33	0.961	72.3	70.0-130	
2,4-Dinitrotoluene	0.666	0.589	88.4	70.0-130	
2,6-Dinitrotoluene	0.666	0.536	80.5	70.0-130	
Fluoranthene	0.666	0.489	73.4	70.0-130	
Fluorene	0.666	0.505	75.8	70.0-130	
Hexachlorobenzene	0.666	0.488	73.3	70.0-130	
Hexachloro-1,3-butadiene	0.666	0.364	54.7	70.0-130	J4
Hexachlorocyclopentadiene	0.666	0.533	80.0	70.0-130	
Hexachloroethane	0.666	0.400	60.1	70.0-130	J4
Indeno(1,2,3-cd)pyrene	0.666	0.568	85.3	70.0-130	
Isophorone	0.666	0.382	57.4	70.0-130	J4
2-Methylnaphthalene	0.666	0.357	53.6	70.0-130	J4
Naphthalene	0.666	0.372	55.9	70.0-130	J4
2-Nitroaniline	0.666	0.550	82.6	70.0-130	
3-Nitroaniline	0.666	0.512	76.9	70.0-130	
4-Nitroaniline	0.666	0.502	75.4	70.0-130	

<sup>1</sup> Cp

<sup>2</sup> Tc

<sup>3</sup> Ss

<sup>4</sup> Cn

<sup>5</sup> Sr

<sup>6</sup> Qc

<sup>7</sup> Gl

<sup>8</sup> Al

<sup>9</sup> Sc



Laboratory Control Sample (LCS)

(LCS) R3428906-1 07/09/19 09:23

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
Nitrobenzene	0.666	0.381	57.2	70.0-130	J4
n-Nitrosodiphenylamine	0.666	0.466	70.0	70.0-130	
n-Nitrosodi-n-propylamine	0.666	0.436	65.5	70.0-130	J4
Phenanthrene	0.666	0.500	75.1	70.0-130	
Benzylbutyl phthalate	0.666	0.558	83.8	70.0-130	
Bis(2-ethylhexyl)phthalate	0.666	0.529	79.4	70.0-130	
Di-n-butyl phthalate	0.666	0.494	74.2	70.0-130	
Diethyl phthalate	0.666	0.534	80.2	70.0-130	
Dimethyl phthalate	0.666	0.512	76.9	70.0-130	
Di-n-octyl phthalate	0.666	0.517	77.6	70.0-130	
Pyrene	0.666	0.541	81.2	70.0-130	
4-Chloro-3-methylphenol	0.666	0.444	66.7	70.0-130	J4
2-Chlorophenol	0.666	0.475	71.3	70.0-130	
2-Methylphenol	0.666	0.537	80.6	70.0-130	
3&4-Methyl Phenol	0.666	0.571	85.7	70.0-130	
2,4-Dichlorophenol	0.666	0.418	62.8	70.0-130	J4
2,4-Dimethylphenol	0.666	0.407	61.1	70.0-130	J4
4,6-Dinitro-2-methylphenol	0.666	0.521	78.2	70.0-130	
2,4-Dinitrophenol	0.666	0.494	74.2	70.0-130	
2-Nitrophenol	0.666	0.411	61.7	70.0-130	J4
4-Nitrophenol	0.666	0.559	83.9	70.0-130	
Pentachlorophenol	0.666	0.548	82.3	70.0-130	
Phenol	0.666	0.477	71.6	70.0-130	
1,2,4,5-Tetrachlorobenzene	0.666	0.491	73.7	70.0-130	
2,4,5-Trichlorophenol	0.666	0.608	91.3	70.0-130	
2,4,6-Trichlorophenol	0.666	0.558	83.8	70.0-130	
(S) Nitrobenzene-d5			64.6	10.0-122	
(S) 2-Fluorobiphenyl			72.7	15.0-120	
(S) p-Terphenyl-d14			82.3	10.0-120	
(S) Phenol-d5			70.9	10.0-120	
(S) 2-Fluorophenol			81.4	12.0-120	
(S) 2,4,6-Tribromophenol			83.3	10.0-127	

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc



Method Blank (MB)

(MB) R3429748-2 07/11/19 11:36

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
Anthracene	U		0.00600	0.00600
Acenaphthene	U		0.00600	0.00600
Acenaphthylene	U		0.00600	0.00600
Benzo(a)anthracene	U		0.00600	0.00600
Benzo(a)pyrene	U		0.00600	0.00600
Benzo(b)fluoranthene	U		0.00600	0.00600
Benzo(g,h,i)perylene	U		0.00600	0.00600
Benzo(k)fluoranthene	U		0.00600	0.00600
Chrysene	U		0.00600	0.00600
Dibenz(a,h)anthracene	U		0.00600	0.00600
Fluoranthene	U		0.00600	0.00600
Fluorene	U		0.00600	0.00600
Indeno(1,2,3-cd)pyrene	U		0.00600	0.00600
Naphthalene	U		0.00200	0.0200
Phenanthrene	U		0.00600	0.00600
Pyrene	U		0.00600	0.00600
1-Methylnaphthalene	U		0.00200	0.0200
2-Methylnaphthalene	U		0.00200	0.0200
<i>(S) Nitrobenzene-d5</i>	62.9			14.0-149
<i>(S) 2-Fluorobiphenyl</i>	69.4			34.0-125
<i>(S) p-Terphenyl-d14</i>	72.2			23.0-120

<sup>1</sup> Cp

<sup>2</sup> Tc

<sup>3</sup> Ss

<sup>4</sup> Cn

<sup>5</sup> Sr

<sup>6</sup> Qc

<sup>7</sup> Gl

<sup>8</sup> Al

<sup>9</sup> Sc

Laboratory Control Sample (LCS)

(LCS) R3429748-1 07/11/19 11:15

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
Anthracene	0.0800	0.0618	77.3	50.0-126	
Acenaphthene	0.0800	0.0599	74.9	50.0-120	
Acenaphthylene	0.0800	0.0658	82.3	50.0-120	
Benzo(a)anthracene	0.0800	0.0599	74.9	45.0-120	
Benzo(a)pyrene	0.0800	0.0601	75.1	42.0-120	
Benzo(b)fluoranthene	0.0800	0.0631	78.9	42.0-121	
Benzo(g,h,i)perylene	0.0800	0.0626	78.3	45.0-125	
Benzo(k)fluoranthene	0.0800	0.0605	75.6	49.0-125	
Chrysene	0.0800	0.0579	72.4	49.0-122	
Dibenz(a,h)anthracene	0.0800	0.0630	78.8	47.0-125	
Fluoranthene	0.0800	0.0618	77.3	49.0-129	
Fluorene	0.0800	0.0616	77.0	49.0-120	





Laboratory Control Sample (LCS)

(LCS) R3429748-1 07/11/19 11:15

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	<u>LCS Qualifier</u>
Indeno(1,2,3-cd)pyrene	0.0800	0.0642	80.3	46.0-125	
Naphthalene	0.0800	0.0562	70.3	50.0-120	
Phenanthrene	0.0800	0.0585	73.1	47.0-120	
Pyrene	0.0800	0.0596	74.5	43.0-123	
1-Methylnaphthalene	0.0800	0.0694	86.8	51.0-121	
2-Methylnaphthalene	0.0800	0.0664	83.0	50.0-120	
(S) Nitrobenzene-d5			75.9	14.0-149	
(S) 2-Fluorobiphenyl			77.7	34.0-125	
(S) p-Terphenyl-d14			79.0	23.0-120	

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

L1114955-03 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1114955-03 07/11/19 16:15 • (MS) R3429748-3 07/11/19 16:37 • (MSD) R3429748-4 07/11/19 16:58

Analyte	Spike Amount mg/kg	Original Result mg/kg	MS Result mg/kg	MSD Result mg/kg	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	<u>MS Qualifier</u>	<u>MSD Qualifier</u>	RPD %	RPD Limits %
Anthracene	0.0800	ND	0.0651	0.0767	81.4	95.9	1	10.0-145			16.4	30
Acenaphthene	0.0800	ND	0.0545	0.0597	68.1	74.6	1	14.0-127			9.11	27
Acenaphthylene	0.0800	ND	0.0583	0.0640	72.9	80.0	1	21.0-124			9.32	25
Benzo(a)anthracene	0.0800	ND	0.0592	0.0621	74.0	77.6	1	10.0-139			4.78	30
Benzo(a)pyrene	0.0800	ND	0.0585	0.0628	73.1	78.5	1	10.0-141			7.09	31
Benzo(b)fluoranthene	0.0800	ND	0.0611	0.0642	76.4	80.3	1	10.0-140			4.95	36
Benzo(g,h,i)perylene	0.0800	ND	0.0587	0.0604	73.4	75.5	1	10.0-140			2.85	33
Benzo(k)fluoranthene	0.0800	ND	0.0546	0.0591	68.3	73.9	1	10.0-137			7.92	31
Chrysene	0.0800	ND	0.0625	0.0707	78.1	88.4	1	10.0-145			12.3	30
Dibenz(a,h)anthracene	0.0800	ND	0.0568	0.0578	71.0	72.3	1	10.0-132			1.75	31
Fluoranthene	0.0800	ND	0.0665	0.0686	83.1	85.8	1	10.0-153			3.11	33
Fluorene	0.0800	ND	0.0595	0.0684	74.4	85.5	1	11.0-130			13.9	29
Indeno(1,2,3-cd)pyrene	0.0800	ND	0.0572	0.0591	71.5	73.9	1	10.0-137			3.27	32
Naphthalene	0.0800	ND	0.0519	0.0574	64.9	71.8	1	10.0-135			10.1	27
Phenanthrene	0.0800	ND	0.0732	0.0852	91.5	107	1	10.0-144			15.2	31
Pyrene	0.0800	ND	0.0686	0.0834	85.8	104	1	10.0-148			19.5	35
1-Methylnaphthalene	0.0800	ND	0.0574	0.0634	71.8	79.3	1	10.0-142			9.93	28
2-Methylnaphthalene	0.0800	ND	0.0560	0.0616	70.0	77.0	1	10.0-137			9.52	28
(S) Nitrobenzene-d5					72.1	76.4		14.0-149				
(S) 2-Fluorobiphenyl					74.9	78.5		34.0-125				
(S) p-Terphenyl-d14					80.2	84.3		23.0-120				



Guide to Reading and Understanding Your Laboratory Report

The information below is designed to better explain the various terms used in your report of analytical results from the Laboratory. This is not intended as a comprehensive explanation, and if you have additional questions please contact your project representative.

Abbreviations and Definitions

(dry)	Results are reported based on the dry weight of the sample. [this will only be present on a dry report basis for soils].
MDL	Method Detection Limit.
ND	Not detected at the Reporting Limit (or MDL where applicable).
RDL	Reported Detection Limit.
RDL (dry)	Reported Detection Limit.
Rec.	Recovery.
RPD	Relative Percent Difference.
SDG	Sample Delivery Group.
(S)	Surrogate (Surrogate Standard) - Analytes added to every blank, sample, Laboratory Control Sample/Duplicate and Matrix Spike/Duplicate; used to evaluate analytical efficiency by measuring recovery. Surrogates are not expected to be detected in all environmental media.
U	Not detected at the Reporting Limit (or MDL where applicable).
Analyte	The name of the particular compound or analysis performed. Some Analyses and Methods will have multiple analytes reported.
Dilution	If the sample matrix contains an interfering material, the sample preparation volume or weight values differ from the standard, or if concentrations of analytes in the sample are higher than the highest limit of concentration that the laboratory can accurately report, the sample may be diluted for analysis. If a value different than 1 is used in this field, the result reported has already been corrected for this factor.
Limits	These are the target % recovery ranges or % difference value that the laboratory has historically determined as normal for the method and analyte being reported. Successful QC Sample analysis will target all analytes recovered or duplicated within these ranges.
Original Sample	The non-spiked sample in the prep batch used to determine the Relative Percent Difference (RPD) from a quality control sample. The Original Sample may not be included within the reported SDG.
Qualifier	This column provides a letter and/or number designation that corresponds to additional information concerning the result reported. If a Qualifier is present, a definition per Qualifier is provided within the Glossary and Definitions page and potentially a discussion of possible implications of the Qualifier in the Case Narrative if applicable.
Result	The actual analytical final result (corrected for any sample specific characteristics) reported for your sample. If there was no measurable result returned for a specific analyte, the result in this column may state "ND" (Not Detected) or "BDL" (Below Detectable Levels). The information in the results column should always be accompanied by either an MDL (Method Detection Limit) or RDL (Reporting Detection Limit) that defines the lowest value that the laboratory could detect or report for this analyte.
Uncertainty (Radiochemistry)	Confidence level of 2 sigma.
Case Narrative (Cn)	A brief discussion about the included sample results, including a discussion of any non-conformances to protocol observed either at sample receipt by the laboratory from the field or during the analytical process. If present, there will be a section in the Case Narrative to discuss the meaning of any data qualifiers used in the report.
Quality Control Summary (Qc)	This section of the report includes the results of the laboratory quality control analyses required by procedure or analytical methods to assist in evaluating the validity of the results reported for your samples. These analyses are not being performed on your samples typically, but on laboratory generated material.
Sample Chain of Custody (Sc)	This is the document created in the field when your samples were initially collected. This is used to verify the time and date of collection, the person collecting the samples, and the analyses that the laboratory is requested to perform. This chain of custody also documents all persons (excluding commercial shippers) that have had control or possession of the samples from the time of collection until delivery to the laboratory for analysis.
Sample Results (Sr)	This section of your report will provide the results of all testing performed on your samples. These results are provided by sample ID and are separated by the analyses performed on each sample. The header line of each analysis section for each sample will provide the name and method number for the analysis reported.
Sample Summary (Ss)	This section of the Analytical Report defines the specific analyses performed for each sample ID, including the dates and times of preparation and/or analysis.

- 1 Cp
- 2 Tc
- 3 Ss
- 4 Cn
- 5 Sr
- 6 Qc
- 7 Gl
- 8 Al
- 9 Sc

Qualifier	Description
J	The identification of the analyte is acceptable; the reported value is an estimate.
J3	The associated batch QC was outside the established quality control range for precision.
J4	The associated batch QC was outside the established quality control range for accuracy.
J5	The sample matrix interfered with the ability to make any accurate determination; spike value is high.
J6	The sample matrix interfered with the ability to make any accurate determination; spike value is low.
J7	Surrogate recovery cannot be used for control limit evaluation due to dilution.
P	RPD between the primary and confirmatory analysis exceeded 40%.
V	The sample concentration is too high to evaluate accurate spike recoveries.



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\* Not all certifications held by the laboratory are applicable to the results reported in the attached report.  
 \* Accreditation is only applicable to the test methods specified on each scope of accreditation held by Pace National.

## State Accreditations

Alabama	40660	Nebraska	NE-OS-15-05
Alaska	17-026	Nevada	TN-03-2002-34
Arizona	AZ0612	New Hampshire	2975
Arkansas	88-0469	New Jersey-NELAP	TN002
California	2932	New Mexico <sup>1</sup>	n/a
Colorado	TN00003	New York	11742
Connecticut	PH-0197	North Carolina	Env375
Florida	E87487	North Carolina <sup>1</sup>	DW21704
Georgia	NELAP	North Carolina <sup>3</sup>	41
Georgia <sup>1</sup>	923	North Dakota	R-140
Idaho	TN00003	Ohio-VAP	CL0069
Illinois	200008	Oklahoma	9915
Indiana	C-TN-01	Oregon	TN200002
Iowa	364	Pennsylvania	68-02979
Kansas	E-10277	Rhode Island	LA000356
Kentucky <sup>1,6</sup>	90010	South Carolina	84004
Kentucky <sup>2</sup>	16	South Dakota	n/a
Louisiana	AI30792	Tennessee <sup>1,4</sup>	2006
Louisiana <sup>1</sup>	LA180010	Texas	T104704245-18-15
Maine	TN0002	Texas <sup>5</sup>	LAB0152
Maryland	324	Utah	TN00003
Massachusetts	M-TN003	Vermont	VT2006
Michigan	9958	Virginia	460132
Minnesota	047-999-395	Washington	C847
Mississippi	TN00003	West Virginia	233
Missouri	340	Wisconsin	9980939910
Montana	CERT0086	Wyoming	A2LA

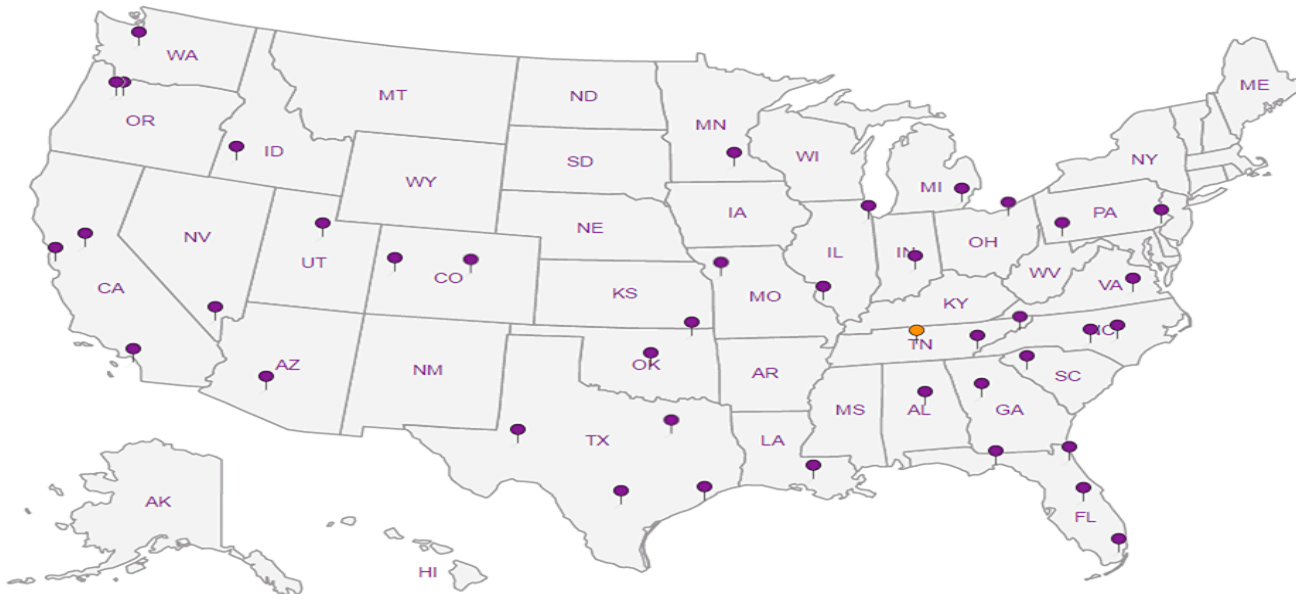
## Third Party Federal Accreditations

A2LA – ISO 17025	1461.01	AIHA-LAP,LLC EMLAP	100789
A2LA – ISO 17025 <sup>5</sup>	1461.02	DOD	1461.01
Canada	1461.01	USDA	P330-15-00234
EPA-Crypto	TN00003		

<sup>1</sup> Drinking Water <sup>2</sup> Underground Storage Tanks <sup>3</sup> Aquatic Toxicity <sup>4</sup> Chemical/Microbiological <sup>5</sup> Mold <sup>6</sup> Wastewater n/a Accreditation not applicable

## Our Locations

Pace National has sixty-four client support centers that provide sample pickup and/or the delivery of sampling supplies. If you would like assistance from one of our support offices, please contact our main office. Pace National performs all testing at our central laboratory.



1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

**S&ME Inc. - Spartanburg SC**

301 Zima Park Drive  
Spartanburg, SC 29301

Billing Information:  
Accounts Payable  
301 Zima Park Drive  
Spartanburg, SC 29301

Report to:  
**Scott Dacus**

Email To: sdacus@smeinc.com

Project Description: **PROJECT COLUMBIA**

City/State Collected: **SC**

Phone: 864-574-2360  
Fax: 864-576-8730

Client Project #  
**4213-18-087**

Lab Project #  
**SMESPAR-4213-18-087**

Collected by (print):  
**SCOTT DACUS**

Site/Facility ID #  
**COLUMBIA**

P.O. #  
**4213-18-087**

Collected by (signature):  
*[Signature]*

Rush? (Lab MUST Be Notified)  
 Same Day  Five Day  
 Next Day  5 Day (Rad Only)  
 Two Day  10 Day (Rad Only)  
 Three Day

Quote #  
Date Results Needed

Immediately Packed on Ice N  Y

No. of Cntrs

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No. of Cntrs	8081/8082,8270TCL,CN 4ozClr-NoPres	TALMetals,TS,PAHSIM 4ozClr-NoPres	V8260TCL5C - BLK 40ml/Amb-NoPres-Blk	V8260TCL5C 40ml/Amb/MeOH5ml/Syr	4oz Clr. No Pres	Remarks	Sample # (lab only)
WWD-1	Grab	SS		7/1/19	1316	4	X	X		X	X		-01
		<del>SS</del>				3	X	X		X			
		SS				3	X	X		X			
		SS				3	X	X		X			
		SS				3	X	X		X			
		SS				3	X	X		X			
TRIP BLANK		GW				1			X				02
TRIP BLANK		<del>GW</del>				1			X				

**RAD SCREEN: <0.5 mR/hr**

\* Matrix:  
SS - Soil AIR - Air F - Filter  
GW - Groundwater B - Bioassay  
WW - WasteWater  
DW - Drinking Water  
OT - Other

Remarks:

pH \_\_\_\_\_ Temp \_\_\_\_\_  
Flow \_\_\_\_\_ Other \_\_\_\_\_

Samples returned via:  
 UPS  FedEx  Courier

Tracking # **4882 8631 6361**

Sample Receipt Checklist:  
 COC Seal Present/Intact:  NP  Y  N  
 COC Signed/Accurate:  Y  N  
 Bottles arrive intact:  Y  N  
 Correct bottles used:  Y  N  
 Sufficient volume sent:  Y  N  
 If Applicable  
 VOA Zero Headspace:  Y  N  
 Preservation Correct/Checked:  Y  N

Relinquished by: (Signature) *[Signature]* Date: 7/2/19 Time: 1700

Received by: (Signature) *[Signature]* Trip Blank Received:  Yes  No  
HCL / MeOH TBR

Relinquished by: (Signature) Date: Time:

Received by: (Signature) Temp: 1.4±0.1-4ppm 4  
Bottles Received:

Relinquished by: (Signature) Date: Time:

Received for lab by: (Signature) *[Signature]* Date: 7/3/19 Time: 8:45

If preservation required by Login: Date/Time  
Hold: Condition: NCF / OK



L# **L1115323**  
**1070**

Acctnum: **SMESPAR**  
Template: **T150318**  
Prelogin: **P708990**  
TSR: **690 - Tom Mellette**  
PB: **76 5-14-19**

Shipped Via: **FedEX Ground**

**Report Prepared for:**

Benita Miller  
Pace Analytical National  
12065 Lebanon Road  
Mount Juliet TN 37122

**REPORT OF  
LABORATORY  
ANALYSIS FOR  
PCDD/PCDF**

**Report Information:**

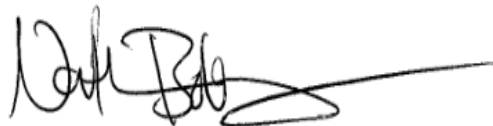
**Pace Project #: 10482233**  
**Sample Receipt Date: 07/09/2019**  
**Client Project #: L1115326: WG1306208**  
**Client Sub PO #: L1115326**  
**State Cert #: 74003**

**Invoicing & Reporting Options:**

The report provided has been invoiced as a Level 2 PCDD/PCDF Report. If an upgrade of this report package is requested, an additional charge may be applied.

Please review the attached invoice for accuracy and forward any questions to Nathan Boberg, your Pace Project Manager.

**This report has been reviewed by:**



July 19, 2019

Nathan Boberg, Project Manager  
612-360-0728  
(612) 607-6444 (fax)  
nathan.boberg@pacelabs.com



**Report of Laboratory Analysis**

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The results relate only to the samples included in this report.

**Report Prepared Date:**

July 19, 2019



## **DISCUSSION**

This report presents the results from the analysis performed on one sample submitted by a representative of Pace Analytical National. The sample was analyzed for the presence or absence of polychlorodibenzo-p-dioxins (PCDDs) and polychlorodibenzofurans (PCDFs) using a modified version of USEPA Method 8290. Estimated Maximum Possible Concentration (EMPC) values were treated as positives in the toxic equivalence calculations. The reporting limits were set to correspond to the lowest calibration points and a nominal 10-gram sample amount, and the sensitivity was verified by signal-to-noise measurements. The quantitation limits, adjusted for sample extraction amount, may be somewhat higher or lower than the reporting limits provided in this report.

The recoveries of the isotopically-labeled PCDD/PCDF internal standards in the sample extract ranged from 45-68%. Except for one elevated value, which was flagged "R" on the results table, the labeled internal standard recoveries obtained for this project were within the 40-135% target range specified in Method 8290. Also, since the quantification of the native 2,3,7,8-substituted congeners was based on isotope dilution, the data were automatically corrected for recovery and accurate values were obtained.

Values were flagged "P" where polychlorinated diphenyl ethers were present. Concentrations below the calibration range were flagged "J" and should be regarded as estimates.

A laboratory method blank was prepared and analyzed with the sample batch as part of our routine quality control procedures. The results show the blank to be free of PCDDs and PCDFs at the reporting limits.

A laboratory spike sample was also prepared with the sample batch using clean reference matrix that had been fortified with native standard materials. The results show that the spiked native compounds were recovered at 96-119%. These results were within the target range for the method. Matrix spikes were prepared with the sample batch using sample material from a separate project; results from these analyses will be provided upon request.

The response obtained for the labeled 1,2,3,4,6,7,8-HpCDF in calibration standard analysis U190718A\_18 was outside the target range. As specified in the method, the average of the daily response factors for this compound was used in the calculations for the samples from this runshift. The affected values were flagged "Y" on the results tables. It should be noted that the accuracy of the native congener determinations was not impacted by this deviation.

## **REPORT OF LABORATORY ANALYSIS**

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## Minnesota Laboratory Certifications

Authority	Certificate #	Authority	Certificate #
A2LA	2926.01	Minnesota - Pet	1240
Alabama	40770	Mississippi	MN00064
Alaska - DW	MN00064	Missouri - DW	10100
Alaska - UST	17-009	Montana	CERT0092
Arizona	AZ0014	Nebraska	NE-OS-18-06
Arkansas - DW	MN00064	Nevada	MN00064
Arkansas - WW	88-0680	New Hampshire	2081
CNMI Saipan	MP0003	New Jersey (NE)	MN002
California	2929	New York	11647
Colorado	MN00064	North Carolina	27700
Connecticut	PH-0256	North Carolina -	27700
EPA Region 8+	via MN 027-053	North Carolina -	530
Florida (NELAP)	E87605	North Dakota	R-036
Georgia	959	Ohio - DW	41244
Guam	17-001r	Ohio - VAP	CL101
Hawaii	MN00064	Oklahoma	9507
Idaho	MN00064	Oregon - Primar	MN300001
Illinois	200011	Oregon - Secon	MN200001
Indiana	C-MN-01	Pennsylvania	68-00563
Iowa	368	Puerto Rico	MN00064
Kansas	E-10167	South Carolina	74003
Kentucky - DW	90062	South Dakota	NA
Kentucky - WW	90062	Tennessee	TN02818
Louisiana - DE	03086	Texas	T104704192
Louisiana - DW	MN00064	Utah (NELAP)	MN00064
Maine	MN00064	Virginia	460163
Maryland	322	Washington	C486
Massachusetts	M-MN064	West Virginia -	382
Michigan	9909	West Virginia -	9952C
Minnesota	027-053-137	Wisconsin	999407970
Minnesota - De	via MN 027-053	Wyoming - UST	2926.01

## REPORT OF LABORATORY ANALYSIS

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# **Appendix A**

## Sample Management





Document Name:  
**Sample Condition Upon Receipt Form**

Document No.:  
**F-MN-L-213-rev.28**

Document Revised: 09May2019  
Page 1 of 1  
Issuing Authority:  
Pace Minnesota Quality Office

**Sample Condition Upon Receipt**

Client Name: \_\_\_\_\_ Project #: \_\_\_\_\_

**WO# : 10482233**  
PM: NB3 Due Date: 07/18/19  
CLIENT: ESC\_TN

Courier:  Fed Ex  UPS  USPS  Client  
 Pace  Speedee  Commercial See Exception

Tracking Number: 1082 5989 0620

Custody Seal on Cooler/Box Present?  Yes  No

Packing Material:  Bubble Wrap  Bubble Bags  None  Other: \_\_\_\_\_

Thermometer:  T1(0461)  T2(1336)  T3(0459)  
 T4(0254)  T5(0489)

Type of Ice:  Wet  Blue  None  Dry  Melted

Biological Tissue Frozen?  Yes  No  N/A

Temp Blank?  Yes  No

Note: Each West Virginia Sample must have temp taken (no temp blanks)  
Temp should be above freezing to 6°C

Correction Factor: 0.1 Cooler Temp Read w/temp blank: 0.4 °C  
Cooler Temp Corrected w/temp blank: 0.3 °C

Average Corrected Temp (no temp blank only): \_\_\_\_\_ °C See Exceptions

USDA Regulated Soil: (  N/A, water sample/Other: \_\_\_\_\_ )  
Did samples originate in a quarantine zone within the United States: AL, AR, CA, FL, GA, ID, LA, MS, NC, NM, NY, OK, OR, SC, TN, TX or VA (check maps)?  Yes  No

Date/Initials of Person Examining Contents: 7/9/19 cmj  
Did samples originate from a foreign source (internationally, including Hawaii and Puerto Rico)?  Yes  No


If Yes to either question, fill out a Regulated Soil Checklist (F-MN-Q-338) and include with SCUR/COC paperwork.

		COMMENTS:
Chain of Custody Present and Filled Out?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	1.
Chain of Custody Relinquished?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	2.
Sampler Name and/or Signature on COC?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	3.
Samples Arrived within Hold Time?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	4.
Short Hold Time Analysis (<72 hr)?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	5. <input type="checkbox"/> Fecal Coliform <input type="checkbox"/> HPC <input type="checkbox"/> Total Coliform/E coli <input type="checkbox"/> BOD/cBOD <input type="checkbox"/> Hex Chrome <input type="checkbox"/> Turbidity <input type="checkbox"/> Nitrate <input type="checkbox"/> Nitrite <input type="checkbox"/> Orthophos <input type="checkbox"/> Other
Rush Turn Around Time Requested?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	6.
Sufficient Volume?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	7.
Correct Containers Used?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	8.
-Pace Containers Used?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	9.
Containers Intact?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	10. Is sediment visible in the dissolved container? <input type="checkbox"/> Yes <input type="checkbox"/> No
Field Filtered Volume Received for Dissolved Tests?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	11. If no, write ID/ Date/Time on Container Below: See Exception <input type="checkbox"/>
Is sufficient information available to reconcile the samples to the COC?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	
Matrix: <input type="checkbox"/> Water <input type="checkbox"/> Soil <input type="checkbox"/> Oil <input checked="" type="checkbox"/> Other <u>SL</u>	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	
All containers needing acid/base preservation have been checked?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	12. Sample # <input type="checkbox"/> NaOH <input type="checkbox"/> HNO <sub>3</sub> <input type="checkbox"/> H <sub>2</sub> SO <sub>4</sub> <input type="checkbox"/> Zinc Acetate
All containers needing preservation are found to be in compliance with EPA recommendation (HNO <sub>3</sub> , H <sub>2</sub> SO <sub>4</sub> , <2pH, NaOH >9 Sulfide, NaOH >12 Cyanide)	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	Positive for Res. Chlorine? <input type="checkbox"/> Yes <input type="checkbox"/> No See Exception <input type="checkbox"/>
Exceptions: VOA, Coliform, TOC/DOC Oil and Grease, DRO/8015 (water) and Dioxin/PFAS	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	Res. Chlorine 0-6 Roll pH Paper Lot# 0-6 Strip 0-14 Strip
Headspace in VOA Vials (greater than 6mm)?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	13. See Exception <input type="checkbox"/>
Trip Blank Present?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	14. Pace Trip Blank Lot # (if purchased):
Trip Blank Custody Seals Present?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	

**CLIENT NOTIFICATION/RESOLUTION**

Person Contacted: \_\_\_\_\_ Date/Time: \_\_\_\_\_ Field Data Required?  Yes  No  
Comments/Resolution: \_\_\_\_\_

Project Manager Review: Walter Boberg Date: 7/10/19  
Whenever there is a discrepancy affecting North Carolina compliance samples, a copy of this form will be sent to the North Carolina DEHNR Certification Office (i.e. out of field, incorrect preservative, out of temp, incorrect containers).

	Document Name: <b>Regulated Soil Checklist</b>	Document Revised: 13Feb2018 Page 1 of 2
	Document No.: <b>F-MN-Q-338-Rev.06</b>	Issuing Authority: Pace Minnesota Quality Office

**USDA REGULATED SOIL CHECKLIST**

To Be Completed by SR Staff:

WO: 10482233 Date: 7/9/17 Initials: CMJ

Sample Origin (circle one): DOMESTIC QUARANTINED FOREIGN

(Note: soil samples from Hawaii, Guam, Puerto Rico and the US Virgin Islands are considered to be of a Foreign Source)

If Domestic, circle State of Origin: AL AR CA FL GA LA MS NC NM NY OK OR SC TN TX VA

(Includes: IFA, SOD, Golden Nematode, Karnal Bunt and Witchweed)

(USDA Permit/Compliance Agreement authorizes movement of samples from these domestic regulated zones)

List County: YORK

If Quarantined, circle State of Origin: FL ID TX CA

List County: \_\_\_\_\_

(Includes Fruit Fly, Giant African Snail and Pale Cyst Nematode)

(Movement is not authorized for Pale Cyst Nematode [ID or Giant African Snail [FL], remaining quarantines require additional paperwork)


If Foreign, list Country of Origin: \_\_\_\_\_

(Movement from some Canadian Provinces is not allowed. Refer to CS-232 Regulated Soil Flow Chart)

REQUIREMENT	ACTION	COMPLETED
PPQ-530 Paperwork must be included for any samples from counties with a Fruit Fly Quarantine in TX. Refer to <b>MN-S063</b> through <b>MN-S065</b>	Scan PPQ-530 to the corresponding Project folder on the x drive. If PPQ-530 is not present, contact the Waste Coordinator and do not continue processing samples.	YES NO <u>N/A</u>
Samples from ID may not be moved from the quarantined region. Refer to <b>MN-S055</b>	If samples originated in a quarantined zone, contact the Waste Coordinator and do not continue processing samples.	YES NO <u>N/A</u>
Samples from Giant African Snail Quarantine in FL may not be moved from the quarantined region. Refer to <b>MN-S068</b>	If samples originated in a quarantined zone, contact the Waste Coordinator and do not continue processing samples.	YES NO <u>N/A</u>

REQUIREMENT	ACTION	COMPLETED
"Special Handling" stickers are to be placed on all samples.	Did "special handling" stickers get placed on all sample containers?	YES <u>NO</u>
Samples must be segregated and stored in designated bins, shelves and coolers.	Were samples placed in a designated cooler, containers and shelves?	<u>YES</u> NO
Samples must be double contained to prevent accidental release.	Were there any signs of breakage or leakage (check for broken glass and/or loose soil in the cooler)? If NO, ice and melt water can be disposed of by normal process (down the drain). If YES, were ice and melt water separated from the cooler and disposed of properly?	YES <u>NO</u>
	Any broken glass and/or loose soil are to be bagged and placed in a USDA Regulated satellite container or active drum (see Waste Coordinator). Ice and melt water should be baked at a temperature range of 121-154°F for 2 hours and then cooled before going down the drain.	YES NO <u>N/A</u>
Equipment and supplies that have come into contact samples must be decontaminated.	Was the cooler(s) and/or countertop(s) decontaminated using either a fresh 10% bleach solution or 70% ethanol? (Gloves and other lab supplies will be bagged and placed in the USDA Regulated satellite container or active drum).	YES <u>NO</u>

Comments: \_\_\_\_\_

	Document Name: <b>Regulated Soil Checklist</b>	Document Revised: 13Feb2018 Page 2 of 2
	Document No.: <b>F-MN-Q-338-Rev.06</b>	Issuing Authority: Pace Minnesota Quality Office

To Be Completed by PM and/or PC:

Sample Analysis to be conducted (circle all that apply):

Name of Subcontract Lab (s): MN Subcontract Lab

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REQUIREMENT	ACTION	COMPLETED		
Permission to ship untreated soil must be on file prior to shipping to any subcontract lab, including IR Pace Labs.	Go to: J:\SHARE\PRJ_MGR\10_Client Services Department Documents\Regulated Soils Permits – if permission to ship letter is not there, contact the Waste Coordinator.	YES	NO	N/A
Shipment must include a valid copy of the receiving lab's permit as well as permission to ship letter.	Is a copy of all needed paperwork included with the COC? Do <b>NOT</b> ship samples until all necessary paperwork is compiled.	YES	NO	N/A

Comments:

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Project Manager Signature: Nathan Boberg Date: 7/10/19

## Reporting Flags

- A = Reporting Limit based on signal to noise
- B = Less than 10x higher than method blank level
- C = Result obtained from confirmation analysis
- D = Result obtained from analysis of diluted sample
- E = Exceeds calibration range
- I = Interference present
- J = Estimated value
- L = Suppressive interference, analyte may be biased low
- Nn = Value obtained from additional analysis
- P = PCDE Interference
- R = Recovery outside target range
- S = Peak saturated
- U = Analyte not detected
- V = Result verified by confirmation analysis
- X = %D Exceeds limits
- Y = Calculated using average of daily RFs
- \* = See Discussion

### REPORT OF LABORATORY ANALYSIS

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## **Appendix B**

### Sample Analysis Summary





### Method 8290 Sample Analysis Results

Client - Pace Analytical National

Client's Sample ID	WWD-1		
Lab Sample ID	10482233001		
Filename	F190717A_06		
Injected By	SMT		
Total Amount Extracted	16.6 g	Matrix	Solid
% Moisture	73.7	Dilution	NA
Dry Weight Extracted	4.37 g	Collected	07/01/2019 13:16
ICAL ID	F190620	Received	07/09/2019 08:50
CCal Filename(s)	F190717A_01 & F190717A_17	Extracted	07/12/2019 17:50
Method Blank ID	BLANK-71839	Analyzed	07/17/2019 15:32

Native Isomers	Conc ng/Kg	EMPC ng/Kg	RL ng/Kg		Internal Standards	ng's Added	Percent Recovery
2,3,7,8-TCDF	----	5.9	1.0	P	2,3,7,8-TCDF-13C	2.00	62
Total TCDF	77	----	1.0		2,3,7,8-TCDD-13C	2.00	63
					1,2,3,7,8-PeCDF-13C	2.00	57
2,3,7,8-TCDD	1.4	----	1.0	J	2,3,4,7,8-PeCDF-13C	2.00	58
Total TCDD	30	----	1.0		1,2,3,7,8-PeCDD-13C	2.00	68
					1,2,3,4,7,8-HxCDF-13C	2.00	56
1,2,3,7,8-PeCDF	ND	----	5.0		1,2,3,6,7,8-HxCDF-13C	2.00	58
2,3,4,7,8-PeCDF	ND	----	5.0		2,3,4,6,7,8-HxCDF-13C	2.00	53
Total PeCDF	8.9	----	5.0	J	1,2,3,7,8,9-HxCDF-13C	2.00	51
					1,2,3,4,7,8-HxCDD-13C	2.00	54
1,2,3,7,8-PeCDD	ND	----	5.0		1,2,3,6,7,8-HxCDD-13C	2.00	53
Total PeCDD	ND	----	5.0		1,2,3,4,6,7,8-HpCDF-13C	2.00	53
					1,2,3,4,7,8,9-HpCDF-13C	2.00	54
1,2,3,4,7,8-HxCDF	ND	----	5.0		1,2,3,4,6,7,8-HpCDD-13C	2.00	60
1,2,3,6,7,8-HxCDF	ND	----	5.0		OCDD-13C	4.00	45
2,3,4,6,7,8-HxCDF	ND	----	5.0				
1,2,3,7,8,9-HxCDF	ND	----	5.0		1,2,3,4-TCDD-13C	2.00	NA
Total HxCDF	ND	----	5.0		1,2,3,7,8,9-HxCDD-13C	2.00	NA
1,2,3,4,7,8-HxCDD	ND	----	5.0		2,3,7,8-TCDD-37Cl4	0.20	76
1,2,3,6,7,8-HxCDD	ND	----	5.0				
1,2,3,7,8,9-HxCDD	ND	----	5.0				
Total HxCDD	ND	----	5.0				
1,2,3,4,6,7,8-HpCDF	ND	----	5.0		Total 2,3,7,8-TCDD		
1,2,3,4,7,8,9-HpCDF	ND	----	5.0		Equivalence: 2.4 ng/Kg		
Total HpCDF	ND	----	5.0		(Lower-bound - Using ITE Factors)		
1,2,3,4,6,7,8-HpCDD	8.9	----	5.0	J			
Total HpCDD	20	----	5.0				
OCDF	ND	----	10				
OCDD	400	----	10				

Conc = Concentration (Totals include 2,3,7,8-substituted isomers).  
 EMPC = Estimated Maximum Possible Concentration  
 RL = Reporting Limit

ND = Not Detected  
 NA = Not Applicable  
 NC = Not Calculated

Results reported on a dry weight basis and are valid to no more than 2 significant figures.  
 J = Estimated value  
 P = PCDE Interference

## REPORT OF LABORATORY ANALYSIS

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### Method 8290 Blank Analysis Results

Lab Sample Name	DFBLKGD	Matrix	Solid
Lab Sample ID	BLANK-71839	Dilution	NA
Filename	U190718A_11	Extracted	07/12/2019 17:50
Total Amount Extracted	10.4 g	Analyzed	07/18/2019 16:25
ICAL ID	U190716	Injected By	SMT
CCal Filename(s)	U190718A_02 & U190718A_18		

Native Isomers	Conc ng/Kg	EMPC ng/Kg	RL ng/Kg	Internal Standards	ng's Added	Percent Recovery
2,3,7,8-TCDF	ND	----	1.0	2,3,7,8-TCDF-13C	2.00	66
Total TCDF	ND	----	1.0	2,3,7,8-TCDD-13C	2.00	65
				1,2,3,7,8-PeCDF-13C	2.00	113
2,3,7,8-TCDD	ND	----	1.0	2,3,4,7,8-PeCDF-13C	2.00	131
Total TCDD	ND	----	1.0	1,2,3,7,8-PeCDD-13C	2.00	144 R
				1,2,3,4,7,8-HxCDF-13C	2.00	60
1,2,3,7,8-PeCDF	ND	----	5.0	1,2,3,6,7,8-HxCDF-13C	2.00	63
2,3,4,7,8-PeCDF	ND	----	5.0	2,3,4,6,7,8-HxCDF-13C	2.00	62
Total PeCDF	ND	----	5.0	1,2,3,7,8,9-HxCDF-13C	2.00	62
				1,2,3,4,7,8-HxCDD-13C	2.00	60
1,2,3,7,8-PeCDD	ND	----	5.0	1,2,3,6,7,8-HxCDD-13C	2.00	56
Total PeCDD	ND	----	5.0	1,2,3,4,6,7,8-HpCDF-13C	2.00	41 Y
				1,2,3,4,7,8,9-HpCDF-13C	2.00	54
1,2,3,4,7,8-HxCDF	ND	----	5.0	1,2,3,4,6,7,8-HpCDD-13C	2.00	56
1,2,3,6,7,8-HxCDF	ND	----	5.0	OCDD-13C	4.00	40
2,3,4,6,7,8-HxCDF	ND	----	5.0			
1,2,3,7,8,9-HxCDF	ND	----	5.0	1,2,3,4-TCDD-13C	2.00	NA
Total HxCDF	ND	----	5.0	1,2,3,7,8,9-HxCDD-13C	2.00	NA
1,2,3,4,7,8-HxCDD	ND	----	5.0	2,3,7,8-TCDD-37Cl4	0.20	83
1,2,3,6,7,8-HxCDD	ND	----	5.0			
1,2,3,7,8,9-HxCDD	ND	----	5.0			
Total HxCDD	ND	----	5.0			
1,2,3,4,6,7,8-HpCDF	ND	----	5.0	Total 2,3,7,8-TCDD		
1,2,3,4,7,8,9-HpCDF	ND	----	5.0	Equivalence: 0.00 ng/Kg		
Total HpCDF	ND	----	5.0	(Lower-bound - Using ITE Factors)		
1,2,3,4,6,7,8-HpCDD	ND	----	5.0			
Total HpCDD	ND	----	5.0			
OCDF	ND	----	10			
OCDD	ND	----	10			

Conc = Concentration (Totals include 2,3,7,8-substituted isomers).

EMPC = Estimated Maximum Possible Concentration

RL = Reporting Limit

Results reported on a total weight basis and are valid to no more than 2 significant figures.

R = Recovery outside target range

Y = Calculated using average of daily RFs

## REPORT OF LABORATORY ANALYSIS

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**Method 8290 Laboratory Control Spike Results**

Lab Sample ID	LCS-71840	Matrix	Solid
Filename	U190718A_05	Dilution	NA
Total Amount Extracted	10.2 g	Extracted	07/12/2019 17:50
ICAL ID	U190716	Analyzed	07/18/2019 11:47
CCal Filename(s)	U190718A_02 & U190718A_18	Injected By	SMT
Method Blank ID	BLANK-71839		

Native Isomers	Qs (ng)	Qm (ng)	% Rec.	Internal Standards	ng's Added	Percent Recovery
2,3,7,8-TCDF	0.20	0.20	102	2,3,7,8-TCDF-13C	2.0	73
Total TCDF				2,3,7,8-TCDD-13C	2.0	79
				1,2,3,7,8-PeCDF-13C	2.0	83
2,3,7,8-TCDD	0.20	0.24	119	2,3,4,7,8-PeCDF-13C	2.0	91
Total TCDD				1,2,3,7,8-PeCDD-13C	2.0	102
				1,2,3,4,7,8-HxCDF-13C	2.0	57
1,2,3,7,8-PeCDF	1.0	1.0	104	1,2,3,6,7,8-HxCDF-13C	2.0	60
2,3,4,7,8-PeCDF	1.0	1.1	107	2,3,4,6,7,8-HxCDF-13C	2.0	59
Total PeCDF				1,2,3,7,8,9-HxCDF-13C	2.0	69
				1,2,3,4,7,8-HxCDD-13C	2.0	62
1,2,3,7,8-PeCDD	1.0	0.96	96	1,2,3,6,7,8-HxCDD-13C	2.0	57
Total PeCDD				1,2,3,4,6,7,8-HpCDF-13C	2.0	52 Y
				1,2,3,4,7,8,9-HpCDF-13C	2.0	65
1,2,3,4,7,8-HxCDF	1.0	1.1	113	1,2,3,4,6,7,8-HpCDD-13C	2.0	68
1,2,3,6,7,8-HxCDF	1.0	1.1	107	OCDD-13C	4.0	53
2,3,4,6,7,8-HxCDF	1.0	1.0	101			
1,2,3,7,8,9-HxCDF	1.0	1.0	101	1,2,3,4-TCDD-13C	2.0	NA
Total HxCDF				1,2,3,7,8,9-HxCDD-13C	2.0	NA
1,2,3,4,7,8-HxCDD	1.0	1.1	111	2,3,7,8-TCDD-37Cl4	0.20	105
1,2,3,6,7,8-HxCDD	1.0	1.1	113			
1,2,3,7,8,9-HxCDD	1.0	1.1	111			
Total HxCDD						
1,2,3,4,6,7,8-HpCDF	1.0	1.1	107			
1,2,3,4,7,8,9-HpCDF	1.0	1.0	101			
Total HpCDF						
1,2,3,4,6,7,8-HpCDD	1.0	1.0	101			
Total HpCDD						
OCDF	2.0	2.1	106			
OCDD	2.0	2.3	116			

Qs = Quantity Spiked  
Qm = Quantity Measured  
Rec. = Recovery (Expressed as Percent)  
R = Recovery outside of target range

Y = RF averaging used in calculations  
Nn = Value obtained from additional analysis  
NA = Not Applicable  
\* = See Discussion

**REPORT OF LABORATORY ANALYSIS**

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## **Appendix B – Well Completion Reports**

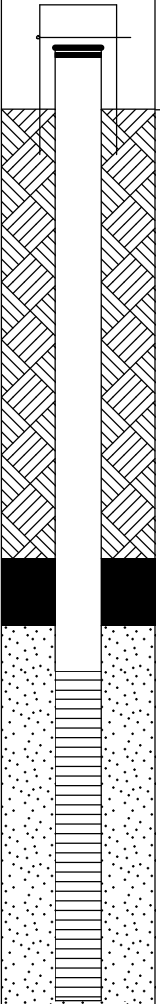
# WELL COMPLETION REPORT FOR R2-MW-1

PROJECT: **New Indy - Catawba Mill Historical Area**  
 PROJECT NO: **S&ME 4213-18-087**  
 PROJECT LOCATION: **Catawba, South Carolina**

WATER LEVEL: **28 ft BGS @ TOB**

DRILLING CONTRACTOR: **Geologic Exploration**  
 DRILLING METHOD: **8-Inch Hollow Stem Augers**  
 DATE COMPLETED: **6/25/19**

LATITUDE:  
 LONGITUDE:  
 TOP OF CASING ELEVATION:  
 DATUM: **NGVD29**  
 LOGGED BY: **Sergey Goretoy**

STRATA			WELL DETAILS	DEPTH (ft.)	LEGEND	ELEVATION (ft.)	WELL CONSTRUCTION DETAILS																																												
DESCRIPTION	SYMBOL	DEPTH (ft.)																																																	
				-2.3			<p><b>PROTECTIVE CASING</b>                      Diameter: <b>8 inch</b>                      Type: <b>Steel</b>                      Interval: <b>3 ft ALS to 1 ft BLS</b></p> <p><b>RISER CASING</b>                      Diameter: <b>2.0 inch</b>                      Type: <b>PVC</b>                      Interval: <b>2.5 ft ALS to 25 ft BLS</b></p> <p><b>GROUT</b>                      Type: <b>Neat Cement/Bentonite</b>                      Interval: <b>LS to 20 ft BLS</b></p> <p><b>SEAL</b>                      Type: <b>Bentonite</b>                      Interval: <b>20 ft BLS to 23 ft BLS</b></p> <p><b>FILTERPACK</b>                      Type: <b>#2 Filter Sand</b>                      Interval: <b>23 ft BLS to 40 ft BLS</b></p> <p><b>SCREEN</b>                      Diameter: <b>2.0 inch</b>                      Type: <b>PVC</b>                      Interval: <b>25 ft BLS to 40 ft BLS</b></p> <p><b>LEGEND</b></p> <table style="font-size: small;"> <tr><td></td><td>FILTER PACK</td><td>ALS</td><td>ABOVE LAND SURFACE</td></tr> <tr><td></td><td>BENTONITE</td><td>BLS</td><td>BELOW LAND SURFACE</td></tr> <tr><td></td><td>CEMENT GROUT</td><td>TOC</td><td>TOP OF CASING</td></tr> <tr><td></td><td>CUTTINGS / BACKFILL</td><td>GS</td><td>GROUND SURFACE</td></tr> <tr><td></td><td>STATIC WATER LEVEL</td><td>BS</td><td>BENTONITE SEAL</td></tr> <tr><td></td><td>WATER LEVEL AT TOB</td><td>BOC</td><td>BASE OF OUTER CASING</td></tr> <tr><td></td><td></td><td>FP</td><td>FILTER PACK</td></tr> <tr><td></td><td></td><td>TSC</td><td>TOP OF SCREEN</td></tr> <tr><td></td><td></td><td>BSC</td><td>BOTTOM OF SCREEN</td></tr> <tr><td></td><td></td><td>TD</td><td>TOTAL DEPTH</td></tr> <tr><td></td><td></td><td>CG</td><td>CEMENT GROUT</td></tr> </table>		FILTER PACK	ALS	ABOVE LAND SURFACE		BENTONITE	BLS	BELOW LAND SURFACE		CEMENT GROUT	TOC	TOP OF CASING		CUTTINGS / BACKFILL	GS	GROUND SURFACE		STATIC WATER LEVEL	BS	BENTONITE SEAL		WATER LEVEL AT TOB	BOC	BASE OF OUTER CASING			FP	FILTER PACK			TSC	TOP OF SCREEN			BSC	BOTTOM OF SCREEN			TD	TOTAL DEPTH			CG	CEMENT GROUT
	FILTER PACK	ALS	ABOVE LAND SURFACE																																																
	BENTONITE	BLS	BELOW LAND SURFACE																																																
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	CUTTINGS / BACKFILL	GS	GROUND SURFACE																																																
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	WATER LEVEL AT TOB	BOC	BASE OF OUTER CASING																																																
		FP	FILTER PACK																																																
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		BSC	BOTTOM OF SCREEN																																																
		TD	TOTAL DEPTH																																																
		CG	CEMENT GROUT																																																
		0		0.0	GS																																														
Grayish brown clayey sandy <b>SILT</b> ; trace organics, fill		5																																																	
Bluish gray <b>SILT</b> , trace rounded pebbles, alluvium		15																																																	
Gray sandy <b>SILT</b> ; with clay, organics, alluvium		20		20.0																																															
		25		23.0																																															
		25		25.0																																															
Brown micaceous silty fine to medium <b>SAND</b> ; wet, residual		30																																																	
Brown micaceous silty fine to very coarse <b>SAND</b> ; wet, residual		35																																																	
Boring Terminated at 40 feet.		40		39.7																																															
				40.0																																															

MONITORING WELL - HISTORICAL AREA WELL LOGS.GPJ - S&ME.GDT 8/14/19



**COMPLETION REPORT OF  
WELL No. R2-MW-1**





















# WELL COMPLETION REPORT FOR R2-MW-2

PROJECT: **New Indy - Catawba Mill Historical Area**  
 PROJECT NO: **S&ME 4213-18-087**  
 PROJECT LOCATION: **Catawba, South Carolina**







WATER LEVEL: **59 ft BGS @ TOB**

DRILLING CONTRACTOR: **Geologic Exploration**  
 DRILLING METHOD: **8-Inch Hollow Stem Augers**  
 DATE COMPLETED: **6/26/19**

LATITUDE:  
 LONGITUDE:  
 TOP OF CASING ELEVATION:  
 DATUM: **NGVD29**  
 LOGGED BY: **Sergey Goretoy**

STRATA			WELL DETAILS	DEPTH (ft.)	LEGEND	ELEVATION (ft.)	WELL CONSTRUCTION DETAILS
DESCRIPTION	SYMBOL	DEPTH (ft.)					
		0		0.0	GS	0.0	<b>PROTECTIVE CASING</b> Diameter: <b>8 inch</b> Type: <b>Steel, Manhole</b> Interval: <b>LS to 1 ft BLS</b>
		0.3		0.3		0.3	
		0.5		0.5		0.5	<b>RISER CASING</b> Diameter: <b>2.0 inch</b> Type: <b>PVC</b> Interval: <b>0.24 ft BLS to 57 ft BLS</b>
		5		5		5	
Orange brown sandy <b>CLAY</b> ; fill		10		10		10	<b>GROUT</b> Type: <b>Neat Cement/Bentonite</b> Interval: <b>0.5 ft BLS to 52 ft BLS</b>
		15		15		15	
		20		20		20	
		25		25		25	
		30		30		30	
		35		35		35	
		40		40		40	
		45		45		45	
		50		50		50	
		52.0		52.0		52.0	
		55.0		55.0		55.0	<b>SEAL</b> Type: <b>Bentonite</b> Interval: <b>52 ft BLS to 55 ft BLS</b>
		57.0		57.0		57.0	
Brown micaceous silty fine to medium <b>SAND</b> , moist, alluvium		60		60		60	<b>FILTERPACK</b> Type: <b>#2 Filter Sand</b> Interval: <b>55 ft BLS to 67 ft BLS</b>
		65		65		65	
Brown micaceous fine to very coarse <b>SAND</b> ; poorly sorted with rounded pebbles, wet, alluvium Boring Terminated at 67 feet.		66.7		66.7		66.7	<b>SCREEN</b> Diameter: <b>2.0 inch</b> Type: <b>PVC</b> Interval: <b>57 ft BLS to 67 ft BLS</b>
		67.0		67.0		67.0	

### LEGEND

- |   |   |
|---|---|
| <ul style="list-style-type: none"> <li> FILTER PACK</li> <li> BENTONITE</li> <li> CEMENT GROUT</li> <li> CUTTINGS / BACKFILL</li> <li> STATIC WATER LEVEL</li> <li> WATER LEVEL AT TOB</li> </ul> | <ul style="list-style-type: none"> <li>ALS ABOVE LAND SURFACE</li> <li>BLS BELOW LAND SURFACE</li> <li>TOC TOP OF CASING</li> <li>GS GROUND SURFACE</li> <li>BS BENTONITE SEAL</li> <li>BOC BASE OF OUTER CASING</li> <li>FP FILTER PACK</li> <li>TSC TOP OF SCREEN</li> <li>BSC BOTTOM OF SCREEN</li> <li>TD TOTAL DEPTH</li> <li>CG CEMENT GROUT</li> </ul> |
|---|---|

MONITORING WELL HISTORICAL AREA WELL LOGS.GPJ S&ME.GDT 8/14/19



**COMPLETION REPORT OF  
WELL No. R2-MW-2**



































































# WELL COMPLETION REPORT FOR R2-MW-3

PROJECT: **New Indy - Catawba Mill Historical Area**  
 PROJECT NO: **S&ME 4213-18-087**  
 PROJECT LOCATION: **Catawba, South Carolina**

WATER LEVEL: **61 ft BGS @ TOB**

DRILLING CONTRACTOR: **Geologic Exploration**  
 DRILLING METHOD: **8-Inch Hollow Stem Augers**  
 DATE COMPLETED: **6/27/19**

LATITUDE:  
 LONGITUDE:  
 TOP OF CASING ELEVATION:  
 DATUM: **NGVD29**  
 LOGGED BY: **Sergey Goretoy**

STRATA			WELL DETAILS	DEPTH (ft.)	LEGEND	ELEVATION (ft.)	WELL CONSTRUCTION DETAILS																																				
DESCRIPTION	SYMBOL	DEPTH (ft.)																																									
		0		0.0	GS	0.0	<b>PROTECTIVE CASING</b> Diameter: <b>8 inch</b> Type: <b>Steel, Manhole</b> Interval: <b>LS to 1 ft BLS</b>																																				
		0.3		0.3		0.3																																					
		0.5		0.5		0.5	<b>RISER CASING</b> Diameter: <b>2.0 inch</b> Type: <b>PVC</b> Interval: <b>0.24 ft BLS to 59 ft BLS</b>																																				
		5		5		5																																					
Split-spoon samples not collected. See lithology for R2-MW-2.		10		10		10	<b>GROUT</b> Type: <b>Neat Cement/Bentonite</b> Interval: <b>0.5 ft BLS to 54 ft BLS</b>																																				
		15		15		15																																					
		20			20			20																																			
		25			25			25																																			
		30			30			30																																			
		35			35			35																																			
		40			40			40																																			
		45			45			45																																			
		50			50			50																																			
		55			55			55																																			
		54.0		54.0		54.0	<b>FILTERPACK</b> Type: <b>#2 Filter Sand</b> Interval: <b>57 ft BLS to 70 ft BLS</b>																																				
		57.0		57.0		57.0																																					
		59.0		59.0		59.0	<b>SCREEN</b> Diameter: <b>2.0 inch</b> Type: <b>PVC</b> Interval: <b>59 ft BLS to 69 ft BLS</b>																																				
		60		60		60																																					
		65		65		65	<b>LEGEND</b>																																				
		68.7		68.7		68.7																																					
		70.0		70.0		70.0	<table style="width: 100%; border: none;"> <tr> <td style="width: 50%; vertical-align: top;"> <table border="0"> <tr><td></td><td>FILTER PACK</td></tr> <tr><td></td><td>BENTONITE</td></tr> <tr><td></td><td>CEMENT GROUT</td></tr> <tr><td></td><td>CUTTINGS / BACKFILL</td></tr> <tr><td></td><td>STATIC WATER LEVEL</td></tr> <tr><td></td><td>WATER LEVEL AT TOB</td></tr> </table> </td> <td style="width: 50%; vertical-align: top;"> <table border="0"> <tr><td>ALS</td><td>ABOVE LAND SURFACE</td></tr> <tr><td>BLS</td><td>BELOW LAND SURFACE</td></tr> <tr><td>TOC</td><td>TOP OF CASING</td></tr> <tr><td>GS</td><td>GROUND SURFACE</td></tr> <tr><td>BS</td><td>BENTONITE SEAL</td></tr> <tr><td>BOC</td><td>BASE OF OUTER CASING</td></tr> <tr><td>FP</td><td>FILTER PACK</td></tr> <tr><td>TSC</td><td>TOP OF SCREEN</td></tr> <tr><td>BSC</td><td>BOTTOM OF SCREEN</td></tr> <tr><td>TD</td><td>TOTAL DEPTH</td></tr> <tr><td>CG</td><td>CEMENT GROUT</td></tr> </table> </td> </tr> </table>	<table border="0"> <tr><td></td><td>FILTER PACK</td></tr> <tr><td></td><td>BENTONITE</td></tr> <tr><td></td><td>CEMENT GROUT</td></tr> <tr><td></td><td>CUTTINGS / BACKFILL</td></tr> <tr><td></td><td>STATIC WATER LEVEL</td></tr> <tr><td></td><td>WATER LEVEL AT TOB</td></tr> </table>		FILTER PACK		BENTONITE		CEMENT GROUT		CUTTINGS / BACKFILL		STATIC WATER LEVEL		WATER LEVEL AT TOB	<table border="0"> <tr><td>ALS</td><td>ABOVE LAND SURFACE</td></tr> <tr><td>BLS</td><td>BELOW LAND SURFACE</td></tr> <tr><td>TOC</td><td>TOP OF CASING</td></tr> <tr><td>GS</td><td>GROUND SURFACE</td></tr> <tr><td>BS</td><td>BENTONITE SEAL</td></tr> <tr><td>BOC</td><td>BASE OF OUTER CASING</td></tr> <tr><td>FP</td><td>FILTER PACK</td></tr> <tr><td>TSC</td><td>TOP OF SCREEN</td></tr> <tr><td>BSC</td><td>BOTTOM OF SCREEN</td></tr> <tr><td>TD</td><td>TOTAL DEPTH</td></tr> <tr><td>CG</td><td>CEMENT GROUT</td></tr> </table>	ALS	ABOVE LAND SURFACE	BLS	BELOW LAND SURFACE	TOC	TOP OF CASING	GS	GROUND SURFACE	BS	BENTONITE SEAL	BOC	BASE OF OUTER CASING	FP	FILTER PACK	TSC	TOP OF SCREEN	BSC	BOTTOM OF SCREEN	TD	TOTAL DEPTH	CG	CEMENT GROUT
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		70		70		70	Boring Terminated at 70 feet.																																				

MONITORING WELL HISTORICAL AREA WELL LOGS.GPJ S&ME.GDT 8/14/19



**COMPLETION REPORT OF  
WELL No. R2-MW-3**



# WELL COMPLETION REPORT FOR R2-MW-4

PROJECT: **New Indy - Catawba Mill Historical Area**  
 PROJECT NO: **S&ME 4213-18-087**  
 PROJECT LOCATION: **Catawba, South Carolina**

WATER LEVEL: **18 ft BGS @ TOB**

DRILLING CONTRACTOR: **Geologic Exploration**  
 DRILLING METHOD: **8-Inch Hollow Stem Augers**  
 DATE COMPLETED: **6/28/19**

LATITUDE:  
 LONGITUDE:  
 TOP OF CASING ELEVATION:  
 DATUM: **NGVD29**  
 LOGGED BY: **Sergey Goretoy**

STRATA			WELL DETAILS	DEPTH (ft.)	LEGEND	ELEVATION (ft.)	WELL CONSTRUCTION DETAILS
DESCRIPTION	SYMBOL	DEPTH (ft.)					
		0	-2.3				<b>PROTECTIVE CASING</b> Diameter: <b>8 inch</b> Type: <b>Steel</b> Interval: <b>3 ft ALS to 1 ft BLS</b>
		0.0	0.0	GS			
Brown micaceous silty fine to medium <b>SAND</b> ; alluvium	[Hatched Pattern]	5					<b>RISER CASING</b> Diameter: <b>2.0 inch</b> Type: <b>PVC</b> Interval: <b>2.5 ft ALS to 15 ft BLS</b>
		10.0	10.0				
	[Solid Black]	13.0	13.0				<b>GROUT</b> Type: <b>Neat Cement/Bentonite</b> Interval: <b>LS to 10 ft BLS</b>
		15.0	15.0				
	[Dotted Pattern]	20					<b>SEAL</b> Type: <b>Bentonite</b> Interval: <b>10 ft BLS to 13 ft BLS</b>
		25	25.0				
Gray micaceous silty fine to medium <b>SAND</b> ; wet, alluvium	[Dotted Pattern]	25	24.7				<b>FILTERPACK</b> Type: <b>#2 Filter Sand</b> Interval: <b>13 ft BLS to 25 ft BLS</b>
Boring Terminated at 25 feet.			25.0				
	[Horizontal Lines]						<b>SCREEN</b> Diameter: <b>2.0 inch</b> Type: <b>PVC</b> Interval: <b>15 ft BLS to 25 ft BLS</b>
<b>LEGEND</b>							
[Dotted Pattern]	FILTER PACK	ALS	ABOVE LAND SURFACE				
[Solid Black]	BENTONITE	BLS	BELOW LAND SURFACE				
[Hatched Pattern]	CEMENT GROUT	TOC	TOP OF CASING				
[Hatched Pattern]	CUTTINGS / BACKFILL	GS	GROUND SURFACE				
[Downward Arrow]	STATIC WATER LEVEL	BS	BENTONITE SEAL				
[Upward Arrow]	WATER LEVEL AT TOB	BOC	BASE OF OUTER CASING				
		FP	FILTER PACK				
		TSC	TOP OF SCREEN				
		BSC	BOTTOM OF SCREEN				
		TD	TOTAL DEPTH				
		CG	CEMENT GROUT				

MONITORING WELL - HISTORICAL AREA WELL LOGS.GPJ - S&ME.GDT 8/14/19



**COMPLETION REPORT OF  
WELL No. R2-MW-4**

# WELL COMPLETION REPORT FOR R2-MW-5

PROJECT: **New Indy - Catawba Mill Historical Area**  
 PROJECT NO: **S&ME 4213-18-087**  
 PROJECT LOCATION: **Catawba, South Carolina**

WATER LEVEL: **25 ft BGS @ TOB**

DRILLING CONTRACTOR: **Geologic Exploration**  
 DRILLING METHOD: **8-Inch Hollow Stem Augers**  
 DATE COMPLETED: **6/28/19**

LATITUDE:  
 LONGITUDE:  
 TOP OF CASING ELEVATION:  
 DATUM: **NGVD29**  
 LOGGED BY: **Sergey Goretoy**

STRATA			WELL DETAILS	DEPTH (ft.)	LEGEND	ELEVATION (ft.)	WELL CONSTRUCTION DETAILS																																				
DESCRIPTION	SYMBOL	DEPTH (ft.)																																									
				-2.3			<p><b>PROTECTIVE CASING</b>                      Diameter: <b>8 inch</b>                      Type: <b>Steel</b>                      Interval: <b>3 ft ALS to 1 ft BLS</b></p> <p><b>RISER CASING</b>                      Diameter: <b>2.0 inch</b>                      Type: <b>PVC</b>                      Interval: <b>2.5 ft ALS to 20 ft BLS</b></p> <p><b>GROUT</b>                      Type: <b>Neat Cement/Bentonite</b>                      Interval: <b>LS to 15 ft BLS</b></p> <p><b>SEAL</b>                      Type: <b>Bentonite</b>                      Interval: <b>15 ft BLS to 18 ft BLS</b></p> <p><b>FILTERPACK</b>                      Type: <b>#2 Filter Sand</b>                      Interval: <b>18 ft BLS to 35 ft BLS</b></p> <p><b>SCREEN</b>                      Diameter: <b>2.0 inch</b>                      Type: <b>PVC</b>                      Interval: <b>20 ft BLS to 35 ft BLS</b></p> <p><b>LEGEND</b></p> <table style="width: 100%; border: none;"> <tr> <td style="width: 50%; vertical-align: top;"> <table border="0"> <tr><td></td><td>FILTER PACK</td></tr> <tr><td></td><td>BENTONITE</td></tr> <tr><td></td><td>CEMENT GROUT</td></tr> <tr><td></td><td>CUTTINGS / BACKFILL</td></tr> <tr><td></td><td>STATIC WATER LEVEL</td></tr> <tr><td></td><td>WATER LEVEL AT TOB</td></tr> </table> </td> <td style="width: 50%; vertical-align: top;"> <table border="0"> <tr><td>ALS</td><td>ABOVE LAND SURFACE</td></tr> <tr><td>BLS</td><td>BELOW LAND SURFACE</td></tr> <tr><td>TOC</td><td>TOP OF CASING</td></tr> <tr><td>GS</td><td>GROUND SURFACE</td></tr> <tr><td>BS</td><td>BENTONITE SEAL</td></tr> <tr><td>BOC</td><td>BASE OF OUTER CASING</td></tr> <tr><td>FP</td><td>FILTER PACK</td></tr> <tr><td>TSC</td><td>TOP OF SCREEN</td></tr> <tr><td>BSC</td><td>BOTTOM OF SCREEN</td></tr> <tr><td>TD</td><td>TOTAL DEPTH</td></tr> <tr><td>CG</td><td>CEMENT GROUT</td></tr> </table> </td> </tr> </table>	<table border="0"> <tr><td></td><td>FILTER PACK</td></tr> <tr><td></td><td>BENTONITE</td></tr> <tr><td></td><td>CEMENT GROUT</td></tr> <tr><td></td><td>CUTTINGS / BACKFILL</td></tr> <tr><td></td><td>STATIC WATER LEVEL</td></tr> <tr><td></td><td>WATER LEVEL AT TOB</td></tr> </table>		FILTER PACK		BENTONITE		CEMENT GROUT		CUTTINGS / BACKFILL		STATIC WATER LEVEL		WATER LEVEL AT TOB	<table border="0"> <tr><td>ALS</td><td>ABOVE LAND SURFACE</td></tr> <tr><td>BLS</td><td>BELOW LAND SURFACE</td></tr> <tr><td>TOC</td><td>TOP OF CASING</td></tr> <tr><td>GS</td><td>GROUND SURFACE</td></tr> <tr><td>BS</td><td>BENTONITE SEAL</td></tr> <tr><td>BOC</td><td>BASE OF OUTER CASING</td></tr> <tr><td>FP</td><td>FILTER PACK</td></tr> <tr><td>TSC</td><td>TOP OF SCREEN</td></tr> <tr><td>BSC</td><td>BOTTOM OF SCREEN</td></tr> <tr><td>TD</td><td>TOTAL DEPTH</td></tr> <tr><td>CG</td><td>CEMENT GROUT</td></tr> </table>	ALS	ABOVE LAND SURFACE	BLS	BELOW LAND SURFACE	TOC	TOP OF CASING	GS	GROUND SURFACE	BS	BENTONITE SEAL	BOC	BASE OF OUTER CASING	FP	FILTER PACK	TSC	TOP OF SCREEN	BSC	BOTTOM OF SCREEN	TD	TOTAL DEPTH	CG	CEMENT GROUT
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Brown silty fine to medium <b>SAND</b> ; fill		5																																									
Orange brown micaceous fine sandy <b>SILT</b> ; fill		10																																									
Gray micaceous silty fine to medium <b>SAND</b> ; moist, alluvium		15		15.0																																							
		20		18.0																																							
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Gray brown micaceous clayey <b>SILT</b> ; wet, alluvium		25																																									
		30																																									
Green gray silty fine to very coarse <b>SAND</b> ; wet, alluvium		35		34.7																																							
Boring Terminated at 35 feet.				35.0																																							

MONITORING WELL - HISTORICAL AREA WELL LOGS.GPJ - S&ME.GDT 8/14/19



**COMPLETION REPORT OF  
WELL No. R2-MW-5**

# WELL COMPLETION REPORT FOR R2-MW-6

PROJECT: **New Indy - Catawba Mill Historical Area**  
 PROJECT NO: **S&ME 4213-18-087**  
 PROJECT LOCATION: **Catawba, South Carolina**

WATER LEVEL: **19 ft BGS @ TOB**

DRILLING CONTRACTOR: **Geologic Exploration**  
 DRILLING METHOD: **8-Inch Hollow Stem Augers**  
 DATE COMPLETED: **6/25/19**

LATITUDE:  
 LONGITUDE:  
 TOP OF CASING ELEVATION:  
 DATUM: **NGVD29**  
 LOGGED BY: **Sergey Goretoy**

STRATA			WELL DETAILS	DEPTH (ft.)	LEGEND	ELEVATION (ft.)	WELL CONSTRUCTION DETAILS																																				
DESCRIPTION	SYMBOL	DEPTH (ft.)																																									
				-2.3			<b>PROTECTIVE CASING</b> Diameter: <b>8 inch</b> Type: <b>Steel</b> Interval: <b>3 ft ALS to 1 ft BLS</b>																																				
		0		0.0	GS																																						
Brown clayey sandy <b>SILT</b> ; fill		5		8.0			<b>RISER CASING</b> Diameter: <b>2.0 inch</b> Type: <b>PVC</b> Interval: <b>2.5 ft ALS to 13 ft BLS</b>																																				
Black gray silty <b>SAND</b> ; trace organics, fill		10		11.0			<b>GROUT</b> Type: <b>Neat Cement/Bentonite</b> Interval: <b>LS to 8 ft BLS</b>																																				
Brown gray mottled clayey sandy <b>SILT</b> ; trace organics, possible alluvium		15		13.0			<b>SEAL</b> Type: <b>Bentonite</b> Interval: <b>8 ft BLS to 11 ft BLS</b>																																				
Brown silty coarse <b>SAND</b> ; trace muscovite, wet, residuum		20		20			<b>FILTERPACK</b> Type: <b>#2 Filter Sand</b> Interval: <b>11 ft BLS to 28.5 ft BLS</b>																																				
Gray micaceous silty fine to medium <b>SAND</b>		25		25			<b>SCREEN</b> Diameter: <b>2.0 inch</b> Type: <b>PVC</b> Interval: <b>13 ft BLS to 28 ft BLS</b>																																				
Refusal at 28.5 feet.				27.7			<b>LEGEND</b> <table style="width: 100%; border: none;"> <tr> <td style="width: 50%; vertical-align: top;"> <table style="width: 100%; border: none;"> <tr><td style="width: 20px;"></td><td>FILTER PACK</td></tr> <tr><td style="width: 20px;"></td><td>BENTONITE</td></tr> <tr><td style="width: 20px;"></td><td>CEMENT GROUT</td></tr> <tr><td style="width: 20px;"></td><td>CUTTINGS / BACKFILL</td></tr> <tr><td style="width: 20px;"></td><td>STATIC WATER LEVEL</td></tr> <tr><td style="width: 20px;"></td><td>WATER LEVEL AT TOB</td></tr> </table> </td> <td style="width: 50%; vertical-align: top;"> <table style="width: 100%; border: none;"> <tr><td>ALS</td><td>ABOVE LAND SURFACE</td></tr> <tr><td>BLS</td><td>BELOW LAND SURFACE</td></tr> <tr><td>TOC</td><td>TOP OF CASING</td></tr> <tr><td>GS</td><td>GROUND SURFACE</td></tr> <tr><td>BS</td><td>BENTONITE SEAL</td></tr> <tr><td>BOC</td><td>BASE OF OUTER CASING</td></tr> <tr><td>FP</td><td>FILTER PACK</td></tr> <tr><td>TSC</td><td>TOP OF SCREEN</td></tr> <tr><td>BSC</td><td>BOTTOM OF SCREEN</td></tr> <tr><td>TD</td><td>TOTAL DEPTH</td></tr> <tr><td>CG</td><td>CEMENT GROUT</td></tr> </table> </td> </tr> </table>	<table style="width: 100%; border: none;"> <tr><td style="width: 20px;"></td><td>FILTER PACK</td></tr> <tr><td style="width: 20px;"></td><td>BENTONITE</td></tr> <tr><td style="width: 20px;"></td><td>CEMENT GROUT</td></tr> <tr><td style="width: 20px;"></td><td>CUTTINGS / BACKFILL</td></tr> <tr><td style="width: 20px;"></td><td>STATIC WATER LEVEL</td></tr> <tr><td style="width: 20px;"></td><td>WATER LEVEL AT TOB</td></tr> </table>		FILTER PACK		BENTONITE		CEMENT GROUT		CUTTINGS / BACKFILL		STATIC WATER LEVEL		WATER LEVEL AT TOB	<table style="width: 100%; border: none;"> <tr><td>ALS</td><td>ABOVE LAND SURFACE</td></tr> <tr><td>BLS</td><td>BELOW LAND SURFACE</td></tr> <tr><td>TOC</td><td>TOP OF CASING</td></tr> <tr><td>GS</td><td>GROUND SURFACE</td></tr> <tr><td>BS</td><td>BENTONITE SEAL</td></tr> <tr><td>BOC</td><td>BASE OF OUTER CASING</td></tr> <tr><td>FP</td><td>FILTER PACK</td></tr> <tr><td>TSC</td><td>TOP OF SCREEN</td></tr> <tr><td>BSC</td><td>BOTTOM OF SCREEN</td></tr> <tr><td>TD</td><td>TOTAL DEPTH</td></tr> <tr><td>CG</td><td>CEMENT GROUT</td></tr> </table>	ALS	ABOVE LAND SURFACE	BLS	BELOW LAND SURFACE	TOC	TOP OF CASING	GS	GROUND SURFACE	BS	BENTONITE SEAL	BOC	BASE OF OUTER CASING	FP	FILTER PACK	TSC	TOP OF SCREEN	BSC	BOTTOM OF SCREEN	TD	TOTAL DEPTH	CG	CEMENT GROUT
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MONITORING WELL - HISTORICAL AREA WELL LOGS.GPJ - S&ME.GDT 8/14/19



**COMPLETION REPORT OF  
WELL No. R2-MW-6**

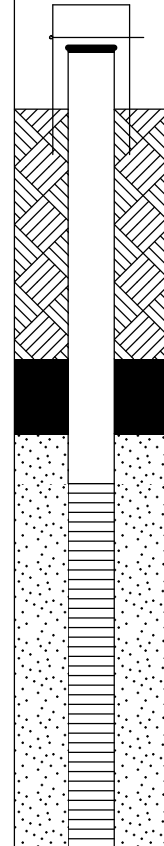




































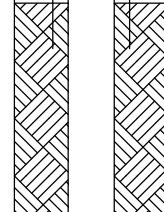
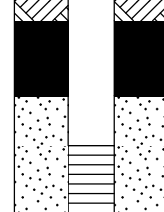
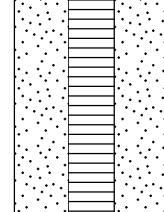
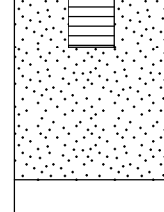
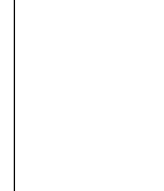
# WELL COMPLETION REPORT FOR R43-MW-1

PROJECT: **New Indy - Catawba Mill Historical Area**  
 PROJECT NO: **S&ME 4213-18-087**  
 PROJECT LOCATION: **Catawba, South Carolina**

WATER LEVEL: **19 ft BGS @ TOB**

DRILLING CONTRACTOR: **Geologic Exploration**  
 DRILLING METHOD: **8-Inch Hollow Stem Augers**  
 DATE COMPLETED: **6/24/19**

LATITUDE:  
 LONGITUDE:  
 TOP OF CASING ELEVATION:  
 DATUM: **NGVD29**  
 LOGGED BY: **Scott Dacus**

STRATA			WELL DETAILS	DEPTH (ft.)	LEGEND	ELEVATION (ft.)	WELL CONSTRUCTION DETAILS																																				
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				-2.3			<p><b>PROTECTIVE CASING</b>                      Diameter: <b>8 inch</b>                      Type: <b>Steel</b>                      Interval: <b>3 ft ALS to 1 ft BLS</b></p> <p><b>RISER CASING</b>                      Diameter: <b>2.0 inch</b>                      Type: <b>PVC</b>                      Interval: <b>2.5 ft ALS to 15 ft BLS</b></p> <p><b>GROUT</b>                      Type: <b>Neat Cement/Bentonite</b>                      Interval: <b>LS to 10 ft BLS</b></p> <p><b>SEAL</b>                      Type: <b>Bentonite</b>                      Interval: <b>10 ft BLS to 13 ft BLS</b></p> <p><b>FILTERPACK</b>                      Type: <b>#2 Filter Sand</b>                      Interval: <b>13 ft BLS to 35 ft BLS</b></p> <p><b>SCREEN</b>                      Diameter: <b>2.0 inch</b>                      Type: <b>PVC</b>                      Interval: <b>15 ft BLS to 30 ft BLS</b></p> <p><b>LEGEND</b></p> <table style="width: 100%; border: none;"> <tr> <td style="width: 50%; vertical-align: top;"> <table border="0"> <tr><td></td><td>FILTER PACK</td></tr> <tr><td></td><td>BENTONITE</td></tr> <tr><td></td><td>CEMENT GROUT</td></tr> <tr><td></td><td>CUTTINGS / BACKFILL</td></tr> <tr><td></td><td>STATIC WATER LEVEL</td></tr> <tr><td></td><td>WATER LEVEL AT TOB</td></tr> </table> </td> <td style="width: 50%; vertical-align: top;"> <table border="0"> <tr><td>ALS</td><td>ABOVE LAND SURFACE</td></tr> <tr><td>BLS</td><td>BELOW LAND SURFACE</td></tr> <tr><td>TOC</td><td>TOP OF CASING</td></tr> <tr><td>GS</td><td>GROUND SURFACE</td></tr> <tr><td>BS</td><td>BENTONITE SEAL</td></tr> <tr><td>BOC</td><td>BASE OF OUTER CASING</td></tr> <tr><td>FP</td><td>FILTER PACK</td></tr> <tr><td>TSC</td><td>TOP OF SCREEN</td></tr> <tr><td>BSC</td><td>BOTTOM OF SCREEN</td></tr> <tr><td>TD</td><td>TOTAL DEPTH</td></tr> <tr><td>CG</td><td>CEMENT GROUT</td></tr> </table> </td> </tr> </table>	<table border="0"> <tr><td></td><td>FILTER PACK</td></tr> <tr><td></td><td>BENTONITE</td></tr> <tr><td></td><td>CEMENT GROUT</td></tr> <tr><td></td><td>CUTTINGS / BACKFILL</td></tr> <tr><td></td><td>STATIC WATER LEVEL</td></tr> <tr><td></td><td>WATER LEVEL AT TOB</td></tr> </table>		FILTER PACK		BENTONITE		CEMENT GROUT		CUTTINGS / BACKFILL		STATIC WATER LEVEL		WATER LEVEL AT TOB	<table border="0"> <tr><td>ALS</td><td>ABOVE LAND SURFACE</td></tr> <tr><td>BLS</td><td>BELOW LAND SURFACE</td></tr> <tr><td>TOC</td><td>TOP OF CASING</td></tr> <tr><td>GS</td><td>GROUND SURFACE</td></tr> <tr><td>BS</td><td>BENTONITE SEAL</td></tr> <tr><td>BOC</td><td>BASE OF OUTER CASING</td></tr> <tr><td>FP</td><td>FILTER PACK</td></tr> <tr><td>TSC</td><td>TOP OF SCREEN</td></tr> <tr><td>BSC</td><td>BOTTOM OF SCREEN</td></tr> <tr><td>TD</td><td>TOTAL DEPTH</td></tr> <tr><td>CG</td><td>CEMENT GROUT</td></tr> </table>	ALS	ABOVE LAND SURFACE	BLS	BELOW LAND SURFACE	TOC	TOP OF CASING	GS	GROUND SURFACE	BS	BENTONITE SEAL	BOC	BASE OF OUTER CASING	FP	FILTER PACK	TSC	TOP OF SCREEN	BSC	BOTTOM OF SCREEN	TD	TOTAL DEPTH	CG	CEMENT GROUT
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Red brown silty <b>CLAY</b> ; fill		5																																									
Red brown mottled micaceous clayey <b>SILT</b> ; fill		10		10.0																																							
Orange brown micaceous clayey sandy <b>SILT</b> ; fill		15		13.0																																							
		15		15.0																																							
Brown micaceous sandy <b>SILT</b> ; residuum		20																																									
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		30		29.7																																							
		35		35.0																																							
Light brown micaceous fine sandy <b>SILT</b> ; saprolite Boring Terminated at 35 feet.																																											

MONITORING WELL - HISTORICAL AREA WELL LOGS.GPJ - S&ME.GDT 8/14/19



**COMPLETION REPORT OF  
WELL No. R43-MW-1**

# WELL COMPLETION REPORT FOR R43-MW-2

PROJECT: **New Indy - Catawba Mill Historical Area**  
 PROJECT NO: **S&ME 4213-18-087**  
 PROJECT LOCATION: **Catawba, South Carolina**

WATER LEVEL: **13 ft BGS @ TOB**

DRILLING CONTRACTOR: **Geologic Exploration**  
 DRILLING METHOD: **8-Inch Hollow Stem Augers**  
 DATE COMPLETED: **6/24/19**

LATITUDE:  
 LONGITUDE:  
 TOP OF CASING ELEVATION:  
 DATUM: **NGVD29**  
 LOGGED BY: **Sergey Goretoy**

STRATA			WELL DETAILS	DEPTH (ft.)	LEGEND	ELEVATION (ft.)	WELL CONSTRUCTION DETAILS																																				
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		0		0.0	GS																																						
Red brown mottled micaceous clayey <b>SILT</b> ; fill		5		3.0			<b>RISER CASING</b> Diameter: <b>2.0 inch</b> Type: <b>PVC</b> Interval: <b>2.5 ft ALS to 8 ft BLS</b>																																				
		6.0		6.0																																							
		8.0		8.0			<b>GROUT</b> Type: <b>Neat Cement/Bentonite</b> Interval: <b>LS to 3 ft BLS</b>																																				
		10.0		10.0																																							
Orange brown micaceous sandy clayey <b>SILT</b> ; wet at 19 ft, fill		15		15.0			<b>SEAL</b> Type: <b>Bentonite</b> Interval: <b>3 ft BLS to 6 ft BLS</b>																																				
		20.0		20.0																																							
		22.7		22.7			<b>FILTERPACK</b> Type: <b>#2 Filter Sand</b> Interval: <b>6 ft BLS to 25 ft BLS</b>																																				
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Brown micaceous sandy <b>SILT</b> ; residuum Boring Terminated at 25 feet.		25		25.0			<b>SCREEN</b> Diameter: <b>2.0 inch</b> Type: <b>PVC</b> Interval: <b>8 ft BLS to 23 ft BLS</b>																																				
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TD	TOTAL DEPTH																																										
CG	CEMENT GROUT																																										

MONITORING WELL - HISTORICAL AREA WELL LOGS.GPJ - S&ME.GDT 8/14/19



**COMPLETION REPORT OF  
WELL No. R43-MW-2**

# WELL COMPLETION REPORT FOR R43-MW-3

PROJECT: **New Indy - Catawba Mill Historical Area**  
 PROJECT NO: **S&ME 4213-18-087**  
 PROJECT LOCATION: **Catawba, South Carolina**

WATER LEVEL: **14 ft BGS @ TOB**

DRILLING CONTRACTOR: **Geologic Exploration**  
 DRILLING METHOD: **8-Inch Hollow Stem Augers**  
 DATE COMPLETED: **6/25/19**

LATITUDE:  
 LONGITUDE:  
 TOP OF CASING ELEVATION:  
 DATUM: **NGVD29**  
 LOGGED BY: **Sergey Goretoy**

STRATA			WELL DETAILS	DEPTH (ft.)	LEGEND	ELEVATION (ft.)	WELL CONSTRUCTION DETAILS
DESCRIPTION	SYMBOL	DEPTH (ft.)					
		0		0.0	GS		<b>PROTECTIVE CASING</b> Diameter: <b>8 inch</b> Type: <b>Steel, Manhole</b> Interval: <b>LS to 1 ft BLS</b>
Brown silty fine to very coarse <b>SAND</b> ; fill		5		5.0			<b>RISER CASING</b> Diameter: <b>2.0 inch</b> Type: <b>PVC</b> Interval: <b>0.24 ft BLS to 11 ft BLS</b>
Brown sandy silt <b>SILT</b> ; fill		10		10.0			<b>GROUT</b> Type: <b>Neat Cement/Bentonite</b> Interval: <b>0.5 ft BLS to 5 ft BLS</b>
		15		12.0			<b>SEAL</b> Type: <b>Bentonite</b> Interval: <b>5 ft BLS to 10 ft BLS</b>
Orange brown micaceous sandy <b>SILT</b> ; wet, fill		20		20.0			<b>FILTERPACK</b> Type: <b>#2 Filter Sand</b> Interval: <b>10 ft BLS to 35 ft BLS</b>
		25		25.0			<b>SCREEN</b> Diameter: <b>2.0 inch</b> Type: <b>PVC</b> Interval: <b>12 ft BLS to 27 ft BLS</b>
Brown micaceous silty <b>SAND</b> ; residuum Boring Terminated at 35 feet.		35		26.7		35.0	<b>LEGEND</b> <div style="display: flex; justify-content: space-between;"> <div style="width: 45%;"> <ul style="list-style-type: none"> <li> FILTER PACK</li> <li> BENTONITE</li> <li> CEMENT GROUT</li> <li> CUTTINGS / BACKFILL</li> <li> STATIC WATER LEVEL</li> <li> WATER LEVEL AT TOB</li> </ul> </div> <div style="width: 45%;"> <ul style="list-style-type: none"> <li>ALS ABOVE LAND SURFACE</li> <li>BLS BELOW LAND SURFACE</li> <li>TOC TOP OF CASING</li> <li>GS GROUND SURFACE</li> <li>BS BENTONITE SEAL</li> <li>BOC BASE OF OUTER CASING</li> <li>FP FILTER PACK</li> <li>TSC TOP OF SCREEN</li> <li>BSC BOTTOM OF SCREEN</li> <li>TD TOTAL DEPTH</li> <li>CG CEMENT GROUT</li> </ul> </div> </div>

MONITORING WELL - HISTORICAL AREA WELL LOGS.GPJ - S&ME.GDT 8/14/19



**COMPLETION REPORT OF  
WELL No. R43-MW-3**

## **Appendix C – Well Development Summary Sheets**



# S&ME

## MONITORING WELL DEVELOPMENT SUMMARY SHEET

### General

1. Job Name:	<u>Catawba Mill - Historical Area</u>	2. Project No.:	<u>4213-18-087</u>
3. Developed By:	<u>S. Dacus/K. McIntyre</u>	4. Weather:	<u>Sunny, Hot</u>
5. Location:	<u>Catawba , SC</u>	6. Well #:	<u>R43-MW-1</u>

### Water Level Information:

1. Date:	<u>6/27/2019</u>		
2. Static Water Level:	<u>22</u>	Ft. Below MP	
3. Description of Measuring Point (MP):		<u>TOC</u>	
4. Height of MP above/below Land Surface:		<u>approx 3 ft AGS</u>	
5. Method of Water Level Measurement:		<u>Electric Water Level Tape</u>	

### Evacuation Procedure:

1. Date:	<u>6/27/2019</u>		
2. Method of Evacuation:	<u>Submersible Pump</u>	3. Tot. Depth:	<u>33</u> Ft. Below M. P.
4. Casing Diameter (in.):	<u>2</u>	5. Height of water Column (Ft.):	<u>11.00</u>
6. Volume of Water in Well (gal):	<u>1.87</u>		

### Notes:

Pump Rate: approx. 1-2 gal/min Vol Pumped: 20 gal

No visible sediment in purge water at end of development

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# S&ME

## MONITORING WELL DEVELOPMENT SUMMARY SHEET

### General

1. Job Name:	<u>Catawba Mill - Historical Area</u>	2. Project No.:	<u>4213-18-087</u>
3. Developed By:	<u>S. Dacus/K. McIntyre</u>	4. Weather:	<u>Sunny, Hot</u>
5. Location:	<u>Catawba , SC</u>	6. Well #:	<u>R43-MW-2</u>

### Water Level Information:

1. Date:	<u>6/27/2019</u>		
2. Static Water Level:	<u>16</u>	Ft. Below MP	
3. Description of Measuring Point (MP):		<u>TOC</u>	
4. Height of MP above/below Land Surface:		<u>approx 3 ft AGS</u>	
5. Method of Water Level Measurement:		<u>Electric Water Level Tape</u>	

### Evacuation Procedure:

1. Date:	<u>6/27/2019</u>		
2. Method of Evacuation:	<u>Submersible Pump</u>	3. Tot. Depth:	<u>26</u> Ft. Below M. P.
4. Casing Diameter (in.):	<u>2</u>	5. Height of water Column (Ft.):	<u>10.00</u>
6. Volume of Water in Well (gal):	<u>1.70</u>		

### Notes:

Pump Rate: approx. 1-2 gal/min Vol Pumped: 20 gal

No visible sediment in purge water at end of development

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# S&ME

## MONITORING WELL DEVELOPMENT SUMMARY SHEET

### General

1. Job Name:	<u>Catawba Mill - Historical Area</u>	2. Project No.:	<u>4213-18-087</u>
3. Developed By:	<u>S. Dacus/K. McIntyre</u>	4. Weather:	<u>Sunny, Hot</u>
5. Location:	<u>Catawba , SC</u>	6. Well #:	<u>R43-MW-3</u>

### Water Level Information:

1. Date:	<u>6/28/2019</u>		
2. Static Water Level:	<u>14</u>	Ft. Below MP	
3. Description of Measuring Point (MP):	<u>TOC</u>		
4. Height of MP above/below Land Surface:	<u>approx GS</u>		
5. Method of Water Level Measurement:	<u>Electric Water Level Tape</u>		

### Evacuation Procedure:

1. Date:	<u>6/28/2019</u>		
2. Method of Evacuation:	<u>Submersible Pump</u>	3. Tot. Depth:	<u>26</u> Ft. Below M. P.
4. Casing Diameter (in.):	<u>2</u>	5. Height of water Column (Ft.):	<u>12.00</u>
6. Volume of Water in Well (gal):	<u>2.04</u>		

### Notes:

Pump Rate: approx. 1-2 gal/min Vol Pumped: 20 gal

No visible sediment in purge water at end of development

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# S&ME

## MONITORING WELL DEVELOPMENT SUMMARY SHEET

### General

1. Job Name:	<u>Catawba Mill - Historical Area</u>	2. Project No.:	<u>4213-18-087</u>
3. Developed By:	<u>S. Dacus/K. McIntyre</u>	4. Weather:	<u>Sunny, Hot</u>
5. Location:	<u>Catawba , SC</u>	6. Well #:	<u>R2-MW-1</u>

### Water Level Information:

1. Date:	<u>6/27/2019</u>		
2. Static Water Level:	<u>31</u>	Ft. Below MP	
3. Description of Measuring Point (MP):	<u>TOC</u>		
4. Height of MP above/below Land Surface:	<u>approx 3 ft AGS</u>		
5. Method of Water Level Measurement:	<u>Electric Water Level Tape</u>		

### Evacuation Procedure:

1. Date:	<u>6/27/2019</u>		
2. Method of Evacuation:	<u>Submersible Pump</u>	3. Tot. Depth:	<u>43</u> Ft. Below M. P.
4. Casing Diameter (in.):	<u>2</u>	5. Height of water Column (Ft.):	<u>12.00</u>
6. Volume of Water in Well (gal):	<u>2.04</u>		

### Notes:

Pump Rate: approx. 1-2 gal/min Vol Pumped: 30 gal

No visible sediment in purge water at end of development

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# S&ME

## MONITORING WELL DEVELOPMENT SUMMARY SHEET

### General

1. Job Name: Catawba Mill - Historical Area 2. Project No.: 4213-18-087  
3. Developed By: S. Dacus/K. McIntyre 4. Weather: Sunny, Hot  
5. Location: Catawba , SC 6. Well #: R2-MW-2

### Water Level Information:

1. Date: 6/28/2019  
2. Static Water Level: 59 Ft. Below MP  
3. Description of Measuring Point (MP): TOC  
4. Height of MP above/below Land Surface: approx GS  
5. Method of Water Level Measurement: Electric Water Level Tape

### Evacuation Procedure:

1. Date: 6/28/2019  
2. Method of Evacuation: Submersible Pump 3. Tot. Depth: 67 Ft. Below M. P.  
4. Casing Diameter (in.): 2 5. Height of water Column (Ft.): 8.00  
6. Volume of Water in Well (gal): 1.36

### Notes:

Pump Rate: approx. 1-2 gal/min Vol Pumped: 20 gal  
No visible sediment in purge water at end of development

# S&ME

## MONITORING WELL DEVELOPMENT SUMMARY SHEET

### General

1. Job Name:	<u>Catawba Mill - Historical Area</u>	2. Project No.:	<u>4213-18-087</u>
3. Developed By:	<u>S. Dacus/K. McIntyre</u>	4. Weather:	<u>Sunny, Hot</u>
5. Location:	<u>Catawba , SC</u>	6. Well #:	<u>R2-MW-3</u>

### Water Level Information:

1. Date:	<u>6/28/2019</u>		
2. Static Water Level:	<u>61</u>	Ft. Below MP	
3. Description of Measuring Point (MP):	<u>TOC</u>		
4. Height of MP above/below Land Surface:	<u>approx GS</u>		
5. Method of Water Level Measurement:	<u>Electric Water Level Tape</u>		

### Evacuation Procedure:

1. Date:	<u>6/28/2019</u>		
2. Method of Evacuation:	<u>Submersible Pump</u>	3. Tot. Depth:	<u>69</u> Ft. Below M. P.
4. Casing Diameter (in.):	<u>2</u>	5. Height of water Column (Ft.):	<u>8.00</u>
6. Volume of Water in Well (gal):	<u>1.36</u>		

### Notes:

Pump Rate: approx. 1-2 gal/min Vol Pumped: 20 gal

No visible sediment in purge water at end of development

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# S&ME

## MONITORING WELL DEVELOPMENT SUMMARY SHEET

### General

1. Job Name:	<u>Catawba Mill - Historical Area</u>	2. Project No.:	<u>4213-18-087</u>
3. Developed By:	<u>S. Dacus/K. McIntyre</u>	4. Weather:	<u>Sunny, Hot</u>
5. Location:	<u>Catawba , SC</u>	6. Well #:	<u>R2-MW-4</u>

### Water Level Information:

1. Date:	<u>7/1/2019</u>		
2. Static Water Level:	<u>21</u>	Ft. Below MP	
3. Description of Measuring Point (MP):		<u>TOC</u>	
4. Height of MP above/below Land Surface:		<u>approx 3 ft AGS</u>	
5. Method of Water Level Measurement:		<u>Electric Water Level Tape</u>	

### Evacuation Procedure:

1. Date:	<u>7/1/2019</u>		
2. Method of Evacuation:	<u>Submersible Pump</u>	3. Tot. Depth:	<u>28</u> Ft. Below M. P.
4. Casing Diameter (in.):	<u>2</u>	5. Height of water Column (Ft.):	<u>7.00</u>
6. Volume of Water in Well (gal):	<u>1.19</u>		

### Notes:

Pump Rate: approx. 1-2 gal/min Vol Pumped: 30 gal

No visible sediment in purge water at end of development

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# S&ME

## MONITORING WELL DEVELOPMENT SUMMARY SHEET

### General

1. Job Name:	<u>Catawba Mill - Historical Area</u>	2. Project No.:	<u>4213-18-087</u>
3. Developed By:	<u>S. Dacus/K. McIntyre</u>	4. Weather:	<u>Sunny, Hot</u>
5. Location:	<u>Catawba , SC</u>	6. Well #:	<u>R2-MW-5</u>

### Water Level Information:

1. Date:	<u>7/1/2019</u>		
2. Static Water Level:	<u>28</u>	Ft. Below MP	
3. Description of Measuring Point (MP):	<u>TOC</u>		
4. Height of MP above/below Land Surface:	<u>approx 3 ft AGS</u>		
5. Method of Water Level Measurement:	<u>Electric Water Level Tape</u>		

### Evacuation Procedure:

1. Date:	<u>7/1/2019</u>		
2. Method of Evacuation:	<u>Submersible Pump</u>	3. Tot. Depth:	<u>38</u> Ft. Below M. P.
4. Casing Diameter (in.):	<u>2</u>	5. Height of water Column (Ft.):	<u>10.00</u>
6. Volume of Water in Well (gal):	<u>1.70</u>		

### Notes:

Pump Rate: approx. 1-2 gal/min Vol Pumped: 30 gal

No visible sediment in purge water at end of development

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# S&ME

## MONITORING WELL DEVELOPMENT SUMMARY SHEET

### General

1. Job Name:	<u>Catawba Mill - Historical Area</u>	2. Project No.:	<u>4213-18-087</u>
3. Developed By:	<u>S. Dacus/K. McIntyre</u>	4. Weather:	<u>Sunny, Hot</u>
5. Location:	<u>Catawba , SC</u>	6. Well #:	<u>R2-MW-6</u>

### Water Level Information:

1. Date:	<u>6/27/2019</u>		
2. Static Water Level:	<u>22</u>	Ft. Below MP	
3. Description of Measuring Point (MP):		<u>TOC</u>	
4. Height of MP above/below Land Surface:		<u>approx 3 ft AGS</u>	
5. Method of Water Level Measurement:		<u>Electric Water Level Tape</u>	

### Evacuation Procedure:

1. Date:	<u>6/27/2019</u>		
2. Method of Evacuation:	<u>Submersible Pump</u>	3. Tot. Depth:	<u>31</u> Ft. Below M. P.
4. Casing Diameter (in.):	<u>2</u>	5. Height of water Column (Ft.):	<u>9.00</u>
6. Volume of Water in Well (gal):	<u>1.53</u>		

### Notes:

Pump Rate: approx. 1-2 gal/min Vol Pumped: 25 gal

No visible sediment in purge water at end of development

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## **Appendix D – Sample Collection Summary Sheets**

# S&ME

## LOW FLOW SAMPLE COLLECTION SUMMARY SHEET

### General

1. Job Name: New Indy 2. Project No.: 4213-18-083  
3. Sampled By: K. McIntyre 4. Weather: Overcast  
5. Location: Rock Hill, SC 6. Well #: R2-MW-1

### Water Level Information:

1. Date: 7/11/2019 2. Time: 8:50  
3. Static Water Level: 32.55 Ft. Below MP  
4. Description of Measuring Point (MP): Top of Casing  
5. Height of MP above/below (circle) Land Surface: 36" above  
6. Method of Water Level Measurement: Electric Water Level Tape

### Evacuation Procedure:

1. Date: 7/11/2019 2. Time Started: 9:23 3. Time Finished: 10:47  
4. Method of Evacuation: Whaler 5. Tot. Depth: 43.50 Ft. Below M. P.  
6. Casing Diameter (in.): 2 7. Height of water Column (Ft.): 10.95  
8. Decon Procedure: Soap, DI

### Record of Well Development:

Time	10:00	10:05	10:10	10:15	10:20
Water Temp (C)	24.1	23.7	23	23	23.7
pH (Standard Units)	6.29	6.28	6.28	6.28	6.28
Spec. Cond. (umhos)	2336	2338	2334	2342	2343
Turbidity (NTU)	171	144	121	100	66.4
D.O. (mg/L)	0.35	0.34	0.32	0.31	0.29
Water Level (Ft.)	32.46	32.46	32.46	32.46	32.46
Pump Rate (ml/min.)	250	250	250	250	250
Odor (subjective)	none	none	none	none	none
Other:					

Time	10:25	10:30	10:35	10:40	10:45
Water Temp (C)	24.1	23.9	24	24.6	24.7
pH (Standard Units)	6.27	6.27	6.27	6.27	6.27
Spec. Cond. (umhos)	2336	2371	2362	2374	2376
Turbidity (NTU)	60.2	30.9	15.6	16.5	15.1
D.O. (mg/L)	0.28	0.29	0.28	0.26	0.26
Water Level (Ft.)	32.46	32.46	32.46	32.46	32.46
Pump Rate (ml/min.)	250	250	250	250	250
Odor (subjective)	none	none	none	none	none
Other:					

Total Volume Purged (Gal.): 7.5

### Sampling Information

1. Date: 7/11/2019 2. Time: 10:50  
3. Sample Containers (Number/Size/Type): 2/1L/Amber, 6/100mL/Amber, 2/250mL/HDPE, 3/40mL/Amber  
4. Analysis Required: SV8290, 8081/8270PAH/8270TCLD, CN, TAL Metals, V8260TCL  
5. Samples Preserved: yes 6. Preservative: Ice, HNO3, NaOH  
7. Lab Performing Analysis: Pace Labs

Notes: \_\_\_\_\_

# S&ME

## LOW FLOW SAMPLE COLLECTION SUMMARY SHEET

### General

1. Job Name: New Indy 2. Project No.: 4213-18-087 p492  
3. Sampled By: K. McIntyre 4. Weather: hot, humid  
5. Location: Rock Hill, SC 6. Well #: R2-MW-2

### Water Level Information:

1. Date: 7/8/2019 2. Time: 15:25  
3. Static Water Level: 59.62 Ft. Below MP  
4. Description of Measuring Point (MP): Top of Casing  
5. Height of MP above/below (circle) Land Surface: 3" Below  
6. Method of Water Level Measurement: Electric Water Level Tape

### Evacuation Procedure:

1. Date: 7/8/2019 2. Time Started: 15:33 3. Time Finished: 16:32  
4. Method of Evacuation: whaler 5. Tot. Depth: 67.00 Ft. Below M. P.  
6. Casing Diameter (in.): 2 7. Height of water Column (Ft.): 7.38  
8. Decon Procedure: Soap, DI

### Record of Well Development:

Time	15:50	15:55	16:00	16:05	16:15
Water Temp (C)	21.45	21.47	21.15	20.6	19.85
pH (Standard Units)	6.53	6.54	6.54	6.53	6.55
Spec. Cond. (umhos)	3.286	3.287	3.294	3.299	3.296
Turbidity (NTU)	79	52.9	32.8	31.9	26.4
D.O. (mg/L)	2.5	0.66	0.48	0.36	0.23
Water Level (Ft.)	59.63	59.63	59.63	59.63	59.63
Pump Rate (ml/min.)	400	400	400	400	400
Odor (subjective)	petroleum, slight	petroleum, slight	petroleum, slight	petroleum, slight	petroleum, slight
Other:					

Time	16:20	16:25	16:30		
Water Temp (C)	19.76	19.61	19.85		
pH (Standard Units)	6.54	6.55	6.54		
Spec. Cond. (umhos)	3.296	3.295	3.295		
Turbidity (NTU)	22.2	22.6	19.2		
D.O. (mg/L)	0.37	0.24	0.21		
Water Level (Ft.)	59.63	59.63	59.63		
Pump Rate (ml/min.)	400	400	400		
Odor (subjective)	petroleum, slight	petroleum, slight	petroleum, slight		
Other:					

Total Volume Purged (Gal.): 7.5

### Sampling Information

1. Date: 7/8/2019 2. Time: 16:32  
3. Sample Containers (Number/Size/Type): 2/1L/Amber, 6/100mL/Amber, 2/250mL/HDPE, 3/40mL/Amber  
4. Analysis Required: SV8290, 8081/8270PAH/8270TCLD, CN, TAL Metals, V8260TCL  
5. Samples Preserved: y 6. Preservative: Ice, Nitric Acid, NaOH  
7. Lab Performing Analysis: Pace Labs

Notes: \_\_\_\_\_

# S&ME

## LOW FLOW SAMPLE COLLECTION SUMMARY SHEET

General

1. Job Name: <u>New Indy</u>	2. Project No.: <u>4213-18-083</u>
3. Sampled By: <u>K. McIntyre</u>	4. Weather: <u>Overcast</u>
5. Location: <u>Rock Hill, SC</u>	6. Well #: <u>R2-MW-3</u>

Water Level Information:

1. Date: <u>7/9/2019</u>	2. Time: <u>8:51</u>
3. Static Water Level: <u>60.70</u> Ft. Below MP	
4. Description of Measuring Point (MP): <u>Top of Casing</u>	
5. Height of MP above/below (circle) Land Surface: <u>6" Below</u>	
6. Method of Water Level Measurement: <u>Electric Water Level Tape</u>	

Evacuation Procedure:

1. Date: <u>7/9/2019</u>	2. Time Started: <u>9:00</u>	3. Time Finished: <u>10:00</u>
4. Method of Evacuation: <u>variable whaler</u>	5. Tot. Depth: <u>69.00</u> Ft. Below M. P.	
6. Casing Diameter (in.): <u>2</u>	7. Height of water Column (Ft.): <u>8.30</u>	
8. Decon Procedure: <u>Soap, DI</u>		

Record of Well Development:

Time	9:20	9:25	9:30	9:35	9:40
Water Temp (C)	21	20.9	20.8	20.9	21
pH (Standard Units)	6.21	6.21	6.21	6.21	6.21
Spec. Cond. (umhos)	3.207	3.22	3.283	3.297	3.317
Turbidity (NTU)	114	92.6	83.3	51.4	42.8
D.O. (mg/L)	0.93	0.92	0.85	0.77	0.82
Water Level (Ft.)	60.69	60.69	60.69	60.73	60.73
Pump Rate (ml/min.)	500	500	500	500	500
Odor (subjective)	petroleum, slight	petroleum, slight	petroleum, slight	petroleum, slight	petroleum, slight
Other:					

Time	9:45	9:50	9:50	9:55	10:00
Water Temp (C)	21.2	21.1	21.1	21.1	21.1
pH (Standard Units)	6.21	6.21	6.21	6.21	6.21
Spec. Cond. (umhos)	3.328	3.34	3.322	3.268	3.31
Turbidity (NTU)	39.6	31.3	29.2	28.3	31.5
D.O. (mg/L)	0.77	0.69	0.66	0.39	0.37
Water Level (Ft.)	60.72	60.71	60.72	60.72	60.72
Pump Rate (ml/min.)	500	500	500	500	500
Odor (subjective)	petroleum, slight	petroleum, slight	petroleum, slight	petroleum, slight	petroleum, slight
Other:					

Total Volume Purged (Gal.): 9.5

Sampling Information

1. Date: <u>7/9/2019</u>	2. Time: <u>10:15</u>
3. Sample Containers (Number/Size/Type): <u>2/1L/Amber, 6/100mL/Amber, 2/250mL/HDPE, 3/40mL/Amber</u>	
4. Analysis Required: <u>SV8290, 8081/8270PAH/8270TCLD, CN, TAL Metals, V8260TCL</u>	
5. Samples Preserved: <u>y</u>	6. Preservative: <u>Ice, HNO3, NaOH</u>
7. Lab Performing Analysis: <u>Pace Labs</u>	

Notes: \_\_\_\_\_

# S&ME

## LOW FLOW SAMPLE COLLECTION SUMMARY SHEET

General

1. Job Name: <u>New Indy</u>	2. Project No.: <u>4213-18-083</u>
3. Sampled By: <u>K. McIntyre</u>	4. Weather: <u>Overcast</u>
5. Location: <u>Rock Hill, SC</u>	6. Well #: <u>R2-MW-4</u>

Water Level Information:

1. Date: <u>7/9/2019</u>	2. Time: <u>11:00</u>
3. Static Water Level: <u>17.45</u> Ft. Below MP	
4. Description of Measuring Point (MP): <u>Top of Casing</u>	
5. Height of MP above/below (circle) Land Surface: <u>3' 3" above</u>	
6. Method of Water Level Measurement: <u>Electric Water Level Tape</u>	

Evacuation Procedure:

1. Date: <u>7/9/2019</u>	2. Time Started: <u>11:03</u>	3. Time Finished: <u>11:33</u>
4. Method of Evacuation: <u>variable whaler</u>	5. Tot. Depth: <u>28.95</u> Ft. Below M. P.	
6. Casing Diameter (in.): <u>2</u>	7. Height of water Column (Ft.): <u>11.50</u>	
8. Decon Procedure: <u>Soap, DI</u>		

Record of Well Development:

Time	11:08	11:13	11:18	11:23	11:28
Water Temp (C)	20.8	20.8	20.8	20.8	20.8
pH (Standard Units)	5.65	5.65	5.64	5.65	5.64
Spec. Cond. (umhos)	308.2	315.2	309.4	312.1	310.7
Turbidity (NTU)	74.7	110	70.4	32.2	26.4
D.O. (mg/L)	0.65	0.48	0.3	0.30	0.33
Water Level (Ft.)	19.69	19.44	19.44	19.46	19.52
Pump Rate (ml/min.)	500	500	500	500	500
Odor (subjective)	none	none	none	none	none
Other:					

Time	11:33				
Water Temp (C)	20.8				
pH (Standard Units)	5.65				
Spec. Cond. (umhos)	311.6				
Turbidity (NTU)	28.6				
D.O. (mg/L)	0.3				
Water Level (Ft.)	19.53				
Pump Rate (ml/min.)	500				
Odor (subjective)	none				
Other:					

Total Volume Purged (Gal.): \_\_\_\_\_

Sampling Information

1. Date: <u>7/9/2019</u>	2. Time: <u>11:40</u>
3. Sample Containers (Number/Size/Type): <u>2/1L/Amber, 6/100mL/Amber, 2/250mL/HDPE, 3/40mL/Amber</u>	
4. Analysis Required: <u>SV8290, 8081/8270PAH/8270TCLD, CN, TAL Metals, V8260TCL</u>	
5. Samples Preserved: <u>y</u>	6. Preservative: <u>Ice, HNO3, NaOH</u>
7. Lab Performing Analysis: <u>Pace Labs</u>	

Notes: \_\_\_\_\_



# S&ME

## LOW FLOW SAMPLE COLLECTION SUMMARY SHEET

### General

1. Job Name: New Indy 2. Project No.: 4213-18-083  
3. Sampled By: K. McIntyre 4. Weather: Overcast  
5. Location: Rock Hill, SC 6. Well #: R2-MW-5

### Water Level Information:

1. Date: 7/9/2019 2. Time: 12:50  
3. Static Water Level: 27.49 Ft. Below MP  
4. Description of Measuring Point (MP): Top of Casing  
5. Height of MP above/below (circle) Land Surface: 3' 4" above  
6. Method of Water Level Measurement: Electric Water Level Tape

### Evacuation Procedure:

1. Date: 7/9/2019 2. Time Started: 13:00 3. Time Finished: 13:50  
4. Method of Evacuation: variable whaler 5. Tot. Depth: 38.65 Ft. Below M. P.  
6. Casing Diameter (in.): 2 7. Height of water Column (Ft.): 11.16  
8. Decon Procedure: Soap, DI

### Record of Well Development:

Time	13:15	13:20	13:25	13:30	13:35
Water Temp (C)	18.9	18.7	18.8	18.8	18.8
pH (Standard Units)	5.37	5.44	5.46	5.45	5.43
Spec. Cond. (umhos)	790	770	776	778	776
Turbidity (NTU)	286	211	181	153	50
D.O. (mg/L)	5.32	3.88	4.18	4.30	3.87
Water Level (Ft.)	27.88	27.98	27.99	28.01	28.01
Pump Rate (ml/min.)	450	450	450	450	450
Odor (subjective)	none	none	none	none	none
Other:	bubbles in the line				

Time	13:40	13:45	13:50		
Water Temp (C)	18.7	18.7	18.8		
pH (Standard Units)	5.41	5.39	5.39		
Spec. Cond. (umhos)	793	786	789		
Turbidity (NTU)	7	5.57	7.25		
D.O. (mg/L)	4.27	4	3.71		
Water Level (Ft.)	28.01	28.01	28.01		
Pump Rate (ml/min.)	450	450	450		
Odor (subjective)	none	none	none		
Other:					

Total Volume Purged (Gal.): 5

### Sampling Information

1. Date: 7/9/2019 2. Time: 13:55  
3. Sample Containers (Number/Size/Type): 2/1L/Amber, 6/100mL/Amber, 2/250mL/HDPE, 3/40mL/Amber  
4. Analysis Required: SV8290, 8081/8270PAH/8270TCLD, CN, TAL Metals, V8260TCL  
5. Samples Preserved: y 6. Preservative: Ice, HNO3, NaOH  
7. Lab Performing Analysis: Pace Labs

Notes: \_\_\_\_\_

**LOW FLOW  
SAMPLE COLLECTION  
SUMMARY SHEET**

General

1. Job Name: Project Columbia- Catawba Historical Area 2. Project No.: 4213-180087  
 3. Sampled By: S. Goretoy, R. Beheler 4. Weather: Overcast 80  
 5. Location: Catawba, SC 6. Well #: R2-MW-6

Water Level Information:

1. Date: 7/11/2019 2. Time: 900 3. Static WL: 22.11 Ft. Below MP  
 4. Description of Measuring Point (MP): Top of Casing  
 5. Height of MP above/below Land Surface: 2.0'  
 6. Method of Water Level Measurement: Electric Water Level Tape

Evacuation Procedure:

1. Date: 7.11.19 2. Time Evac Started: 908 3. Time Evac. Finished: 1010  
 4. Method of Evacuation: Low Flow Peristaltic 5. Tot. Depth: 31 Ft. Below M. P.  
 6. Casing Diameter (in.): 2" 7. Height of water Column (Ft.): 8.89  
 8. Decon Procedure: Di/Alconox

Meter Calibration:

Meter S/N: S/N 14C 101882  
 Buffer pH 7.00: 7 Buffer pH 4.01: 3.97 Buffer pH 10.01: 10.02 Cond. 1000: 998  
 Actual Actual Actual Actual  
 Buffer Lot #: 00654-04 Buffer Lot #: 00654-00 Buffer Lot #: 00654-08

Record of Well Development:

Time	Initial	915	930	946	955	1001
Water Temp (C)						18.53
pH (Standard Units)						6.86
Spec. Cond. (umhos)						765
Turbidity (NTU)		191	33.1	11.2		10
D.O. (mg/L)						0.87
ORP						-98.2
Odor (subjective)						none
W.L. (ft)	22.15	22.17	22.17	22.14		22.14
Pump Rate (mL/min)		250	250	250		250
Other:						

Time	1006	1008				
Water Temp (C)	18.84	18.79				
pH (Standard Units)	6.82	6.79				
Spec. Cond. (umhos)	765	767				
Turbidity (NTU)	10	9.44				
D.O. (mg/L)	0.82	0.81				
ORP	-97.8	-92.2				
Odor (subjective)	none	none				
W.L.	22.14	22.14				
Pump Rate	250	250				
Other:						

Total Volume Purged (gal.): 4

Sampling Information

1. Date: 7/11/2019 2. Time: 1010  
 3. Sample Containers(No./Size/Type): 2/1L/Amber,6/100mL/Amber,2/250mL/HDPE,3/40mL/Amber  
 4. Analysis Required: SV8290,8081/8270PAH/8270TCLD, CN, TAL Metals, V8260TCL  
 5. Samples Preserved: Yes 6. Preservative: Ice, Nitric Acid, NaOH  
 9. Lab Performing Analysis: Pace Labs

Comments: tubing set 27'

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# S&ME

## LOW FLOW SAMPLE COLLECTION SUMMARY SHEET

### General

1. Job Name: Project Columbia 2. Project No.: 4213-18-083  
3. Sampled By: K. McIntyre 4. Weather: Overcast  
5. Location: Catawba, SC 6. Well #: R43-MW-1

### Water Level Information:

1. Date: 7/15/2019 2. Time: \_\_\_\_\_  
3. Static Water Level: 23.28 Ft. Below MP  
4. Description of Measuring Point (MP): Top of Casing  
5. Height of MP above/below (circle) Land Surface: 3' Above  
6. Method of Water Level Measurement: Electric Water Level Tape

### Evacuation Procedure:

1. Date: 7/15/2019 2. Time Started: 14:04 3. Time Finished: 15:26  
4. Method of Evacuation: Peristaltic Pump 5. Tot. Depth: 33.45 Ft. Below M. P.  
6. Casing Diameter (in.): 2 7. Height of water Column (Ft.): 10.17  
8. Decon Procedure: New Tubing

### Record of Well Development:

Time	14:40	14:45	14:50	14:55	15:00
Water Temp (C)	21.8	21.5	21.4	21	21.2
pH (Standard Units)	6.93	6.93	6.93	6.93	6.92
Spec. Cond. (umhos)	1469	1511	1544	1564	1560
Turbidity (NTU)	551	449	378	255	228
D.O. (mg/L)	0.21	0.19	0.2	0.18	0.17
Water Level (Ft.)	24.09	24.1	24.1	24.1	24.11
Pump Rate (ml/min.)	350	350	350	350	350
Odor (subjective)	none	none	none	none	none
Other:					

Time	15:05	15:10	15:15	15:20	15:25
Water Temp (C)	21.2	20.6	20.9	21	21.1
pH (Standard Units)	6.92	6.93	6.93	6.93	6.93
Spec. Cond. (umhos)	1560	1565	1571	1572	1572
Turbidity (NTU)	189	151	120	124	113
D.O. (mg/L)	0.2	0.18	0.16	0.16	0.16
Water Level (Ft.)	24.12	24.13	24.13	24.13	24.13
Pump Rate (ml/min.)	350	350	350	350	350
Odor (subjective)	none	none	none	none	none
Other:					

Total Volume Purged (Gal.): 6

### Sampling Information

1. Date: 7/15/2019 2. Time: 15:30  
3. Sample Containers (Number/Size/Type): 2/1L/Amber, 6/100mL/Amber, 2/250mL/HDPE, 3/40mL/Amber  
4. Analysis Required: SV8290, 8081/8270PAH/8270TCLD, CN, TAL Metals, V8260TCL  
5. Samples Preserved: yes 6. Preservative: Ice, HNO3, NaOH  
7. Lab Performing Analysis: Pace Labs

Notes: \_\_\_\_\_

# S&ME

## LOW FLOW SAMPLE COLLECTION SUMMARY SHEET

### General

1. Job Name: New Indy 2. Project No.: 4213-18-087  
3. Sampled By: K. McIntyre 4. Weather: Clear, Humid  
5. Location: Catawba, SC 6. Well #: R43-MW-2

### Water Level Information:

1. Date: 7/16/2019 2. Time: 9:30  
3. Static Water Level: 15.49 Ft. Below MP  
4. Description of Measuring Point (MP): Top of Casing  
5. Height of MP above/below (circle) Land Surface: 2.5' Above  
6. Method of Water Level Measurement: Electric Water Level Tape

### Evacuation Procedure:

1. Date: 7/16/2019 2. Time Started: 9:40 3. Time Finished: \_\_\_\_\_  
4. Method of Evacuation: Peristaltic Pump 5. Tot. Depth: 25.90 Ft. Below M. P.  
6. Casing Diameter (in.): 2 7. Height of water Column (Ft.): 10.41  
8. Decon Procedure: New Tubing

### Record of Well Development:

Time	10:10	10:15	10:20	10:25	10:30
Water Temp (C)	21.6	21.6	21.7	21.9	22.2
pH (Standard Units)	6.75	6.73	6.73	6.72	6.71
Spec. Cond. (umhos)	1369	1331	1310	1291	1284
Turbidity (NTU)	108	102	67.6	61.9	43.9
D.O. (mg/L)	0.13	0.12	0.12	0.11	0.11
Water Level (Ft.)	15.6	15.6	15.6	15.6	15.6
Pump Rate (ml/min.)	225	225	225	225	225
Odor (subjective)	none	none	none	none	none
Other:					

Time	10:35	10:40	10:45	10:50	10:50
Water Temp (C)	22.1	22	22.3	22.1	22.1
pH (Standard Units)	6.70	6.7	6.69	6.69	6.69
Spec. Cond. (umhos)	1282	1280	1270	1271	1264
Turbidity (NTU)	29.2	23.7	12.6	11.9	11.6
D.O. (mg/L)	0.12	0.11	0.1	0.1	0.1
Water Level (Ft.)	15.60	15.60	15.60	15.60	15.60
Pump Rate (ml/min.)	225	225	225	225	225
Odor (subjective)	none	none	none	none	none
Other:					

Total Volume Purged (Gal.): 5

### Sampling Information

1. Date: 7/16/2019 2. Time: 10:57  
3. Sample Containers (Number/Size/Type): 2/1L/Amber, 6/100mL/Amber, 2/250mL/HDPE, 3/40mL/Amber  
4. Analysis Required: SV8290, 8081/8270PAH/8270TCLD, CN, TAL Metals, V8260TCL  
5. Samples Preserved: y 6. Preservative: Ice, Nitric Acid, NaOH  
7. Lab Performing Analysis: Pace Labs

Notes: \_\_\_\_\_

# S&ME

## LOW FLOW SAMPLE COLLECTION SUMMARY SHEET

General

1. Job Name: <u>New Indy</u>	2. Project No.: <u>4213-18-087</u>
3. Sampled By: <u>K. McIntyre</u>	4. Weather: <u>Clear, Humid</u>
5. Location: <u>Catawba, SC</u>	6. Well #: <u>R43-MW-3</u>

Water Level Information:

1. Date: <u>7/16/2019</u>	2. Time: <u>11:21</u>
3. Static Water Level: <u>13.73</u> Ft. Below MP	
4. Description of Measuring Point (MP): <u>Top of Casing</u>	
5. Height of MP above/below (circle) Land Surface: <u>4" Below</u>	
6. Method of Water Level Measurement: <u>Electric Water Level Tape</u>	

Evacuation Procedure:

1. Date: <u>7/16/2019</u>	2. Time Started: <u>11:28</u>	3. Time Finished: <u>13:03</u>
4. Method of Evacuation: <u>Peristaltic Pump</u>	5. Tot. Depth: <u>27.23</u> Ft. Below M. P.	
6. Casing Diameter (in.): <u>2</u>	7. Height of water Column (Ft.): <u>13.50</u>	
8. Decon Procedure: <u>New Tubing</u>		

Record of Well Development:

Time	12:00	12:22	12:27	12:32	12:37
Water Temp (C)	25.1	24.6	22.7	22.6	22.7
pH (Standard Units)	6.41	6.4	6.4	6.41	6.42
Spec. Cond. (umhos)	2234	2198	2215	2220	2236
Turbidity (NTU)	133	116	108	67.9	29.3
D.O. (mg/L)	0.18	0.11	0.15	0.11	0.1
Water Level (Ft.)	13.79	13.78	13.78	13.78	13.78
Pump Rate (ml/min.)	250	300	300	300	300
Odor (subjective)	none	none	none	none	none
Other:					

Time	12:42	12:47	12:52	12:57	13:02
Water Temp (C)	22.4	22.4	22.2	22.6	22
pH (Standard Units)	6.42	6.42	6.42	6.42	6.42
Spec. Cond. (umhos)	2238	2230	2232	2237	2234
Turbidity (NTU)	20.5	11.5	8.78	7.53	5.78
D.O. (mg/L)	0.09	0.09	0.08	0.08	0.08
Water Level (Ft.)	13.78	13.78	13.78	13.78	13.78
Pump Rate (ml/min.)	300	300	300	300	300
Odor (subjective)	none	none	none	none	none
Other:					

Total Volume Purged (Gal.): 7                      7.40

Sampling Information

1. Date: <u>7/16/2019</u>	2. Time: <u>13:10</u>
3. Sample Containers (Number/Size/Type): <u>2/1L/Amber, 6/100mL/Amber, 2/250mL/HDPE, 3/40mL/Amber</u>	
4. Analysis Required: <u>SV8290, 8081/8270PAH/8270TCLD, CN, TAL Metals, V8260TCL</u>	
5. Samples Preserved: <u>y</u>	6. Preservative: <u>Ice, Nitric Acid, NaOH</u>
7. Lab Performing Analysis: <u>Pace Labs</u>	

Notes: \_\_\_\_\_

# S&ME

## LOW FLOW SAMPLE COLLECTION SUMMARY SHEET

**General**

1. Job Name: <u>New Indy</u>	2. Project No.: <u>4213-18-083</u>
3. Sampled By: <u>K. McIntyre</u>	4. Weather: <u>Overcast</u>
5. Location: <u>Rock Hill, SC</u>	6. Well #: <u>GW-4A</u>

**Water Level Information:**

1. Date: <u>7/10/2019</u>	2. Time: <u>9:22</u>
3. Static Water Level: <u>29.39</u> Ft. Below MP	4. Description of Measuring Point (MP): <u>Top of Casing</u>
5. Height of MP above/below (circle) Land Surface: <u>20" above</u>	
6. Method of Water Level Measurement: <u>Electric Water Level Tape</u>	

**Evacuation Procedure:**

1. Date: <u>7/10/2019</u>	2. Time Started: <u>9:40</u>	3. Time Finished: <u>10:15</u>
4. Method of Evacuation: <u>peristaltic</u>	5. Tot. Depth: <u>55.46</u> Ft. Below M. P.	
6. Casing Diameter (in.): <u>2</u>	7. Height of water Column (Ft.): <u>26.07</u>	
8. Decon Procedure: <u>new tubing</u>		

**Record of Well Development:**

Time	9:50	9:58	10:03	10:08	10:13
Water Temp (C)	18.4	18.6	18.9	19	19
pH (Standard Units)	6.46	6.45	6.43	6.42	6.44
Spec. Cond. (umhos)	117.6	166.4	117.1	115.3	115.3
Turbidity (NTU)	49.8	18	10.2	8.08	7.6
D.O. (mg/L)	4	3.49	3.28	3.45	3.31
Water Level (Ft.)	30.49	30.5	30.53	30.55	30.58
Pump Rate (ml/min.)	250	250	250	250	250
Odor (subjective)	none	none	none	none	none
Other:					

Time					
Water Temp (C)					
pH (Standard Units)					
Spec. Cond. (umhos)					
Turbidity (NTU)					
D.O. (mg/L)					
Water Level (Ft.)					
Pump Rate (ml/min.)					
Odor (subjective)					
Other:					

Total Volume Purged (Gal.): 2.8

**Sampling Information**

1. Date: <u>7/10/2019</u>	2. Time: <u>10:25</u>
3. Sample Containers (Number/Size/Type): <u>2/1L/Amber, 6/100mL/Amber, 2/250mL/HDPE, 3/40mL/Amber</u>	
4. Analysis Required: <u>SV8290, 8081/8270PAH/8270TCLD, CN, TAL Metals, V8260TCL</u>	
5. Samples Preserved: <u>y</u>	6. Preservative: <u>Ice, HNO3, NaOH</u>
7. Lab Performing Analysis: <u>Pace Labs</u>	

Notes: \_\_\_\_\_

# S&ME

## LOW FLOW SAMPLE COLLECTION SUMMARY SHEET

General

1. Job Name: <u>New Indy</u>	2. Project No.: <u>4213-18-083</u>
3. Sampled By: <u>K. McIntyre</u>	4. Weather: <u>Overcast</u>
5. Location: <u>Rock Hill, SC</u>	6. Well #: <u>GW-4B</u>

Water Level Information:

1. Date: <u>7/10/2019</u>	2. Time: <u>10:35</u>
3. Static Water Level: <u>27.49</u> Ft. Below MP	
4. Description of Measuring Point (MP): <u>Top of Casing</u>	
5. Height of MP above/below (circle) Land Surface: <u>23" above</u>	
6. Method of Water Level Measurement: <u>Electric Water Level Tape</u>	

Evacuation Procedure:

1. Date: <u>7/10/2019</u>	2. Time Started: <u>10:44</u>	3. Time Finished: <u>11:15</u>
4. Method of Evacuation: <u>Peristaltic</u>	5. Tot. Depth: <u>83.16</u> Ft. Below M. P.	
6. Casing Diameter (in.): <u>2</u>	7. Height of water Column (Ft.): <u>55.67</u>	
8. Decon Procedure: <u>New Tubing</u>		

Record of Well Development:

Time	10:58	11:04	11:09	11:14	
Water Temp (C)	18.7	18.7	18.8	18.7	
pH (Standard Units)	6.88	6.89	6.87	6.89	
Spec. Cond. (umhos)	127	126.9	127	127	
Turbidity (NTU)	12.4	6.86	4.55	5.07	
D.O. (mg/L)	4.04	3.94	3.85	4.01	
Water Level (Ft.)	28.46	28.47	28.47	28.47	
Pump Rate (ml/min.)	200	200	200	200	
Odor (subjective)	none	none	none	none	
Other:					

Time					
Water Temp (C)					
pH (Standard Units)					
Spec. Cond. (umhos)					
Turbidity (NTU)					
D.O. (mg/L)					
Water Level (Ft.)					
Pump Rate (ml/min.)					
Odor (subjective)					
Other:					

Total Volume Purged (Gal.): 2.5

Sampling Information

1. Date: <u>7/10/2019</u>	2. Time: <u>11:20</u>
3. Sample Containers (Number/Size/Type): <u>2/1L/Amber, 6/100mL/Amber, 2/250mL/HDPE, 3/40mL/Amber</u>	
4. Analysis Required: <u>SV8290, 8081/8270PAH/8270TCLD, CN, TAL Metals, V8260TCL</u>	
5. Samples Preserved: <u>y</u>	6. Preservative: <u>Ice, HNO3, NaOH</u>
7. Lab Performing Analysis: <u>Pace Labs</u>	

Notes: \_\_\_\_\_

**LOW FLOW  
SAMPLE COLLECTION  
SUMMARY SHEET**

General

1. Job Name: Project Columbia- Catawba Historical Area 2. Project No.: 4213-180087  
 3. Sampled By: S. Gorettoy, R. Beheler 4. Weather: Overcast 76  
 5. Location: Catawba, SC 6. Well #: GW-5

Water Level Information:

1. Date: 7/10/2019 2. Time: 1233 3. Static WL: 3.86 Ft. Below MP  
 4. Description of Measuring Point (MP): Top of Casing  
 5. Height of MP above/below Land Surface: 1.5'  
 6. Method of Water Level Measurement: Electric Water Level Tape

Evacuation Procedure:

1. Date: 7.10.2019 2. Time Evac Started: 1237 3. Time Evac. Finished: 1455  
 4. Method of Evacuation: Low Flow Peristaltic 5. Tot. Depth: 25 Ft. Below M. P.  
 6. Casing Diameter (in.): 2" 7. Height of water Column (Ft.): 21.14  
 8. Decon Procedure: Di/Alconox

Meter Calibration:

Meter S/N: S/N 14C 101882  
 Buffer pH 7.00: 7.02 Buffer pH 4.01: 4.05 Buffer pH 10.01: 10.13 Cond. 1000: 1003  
                   Actual                   Actual                   Actual                   Actual  
 Buffer Lot #: 00654-04 Buffer Lot #: 00654-00 Buffer Lot #: 00654-08

Record of Well Development:

Time	Initial	1242	1255	1322	1340	1410
Water Temp (C)						
pH (Standard Units)						
Spec. Cond. (umhos)						
Turbidity (NTU)		72	134	35.9	34.1	23.8
D.O. (mg/L)						
ORP						
Odor (subjective)						
W.L. (ft)	3.52	4.7	7.03	10.97	13.21	16.09
Pump Rate (mL/min)	0	150	125	125	125	200
Other:						

Time	1425	1435	1445	1455	1559	1620
Water Temp (C)	17.27	17.02	17.04	17.17	24.54	18.3
pH (Standard Units)	6.16	6.15	6.2	6.26	6.53	6.19
Spec. Cond. (umhos)	883	793	798	1117	1278	1331
Turbidity (NTU)	28.6	28.8	37.3	-	18.2	18.1
D.O. (mg/L)	1.47	1.25	2.01	3.66	4.7	3.59
ORP	31.4	28.7	20.5	10.3	-22.1	11.4
Odor (subjective)	none	none	none	none	none	none
W.L.	19.08	21	22.94	24.38	17.83	21.65
Pump Rate	200	200			100 ml/min	
Other:				Purged Dry	sample	post sample

Total Volume Purged (gal.): 5

Sampling Information

1. Date: 7/10/2019 2. Time: 1600  
 3. Sample Containers(No./Size/Type): 2/1L/Amber, 6/100mL/Amber, 2/250mL/HDPE, 3/40mL/Amber  
 4. Analysis Required: SV8290, 8081/8270PAH/8270TCLD, CN, TAL Metals, V8260TCL  
 5. Samples Preserved: Yes 6. Preservative: Ice, Nitric Acid, NaOH  
 9. Lab Performing Analysis: Pace Labs

Comments: tubing set at 24'. Purged dry at low flow. Sampling after recharge

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**LOW FLOW  
SAMPLE COLLECTION  
SUMMARY SHEET**

General

1. Job Name: Project Columbia- Catawba Historical Area 2. Project No.: 4213-180087  
 3. Sampled By: S. Goretoy, R. Beheler 4. Weather: Overcast 76  
 5. Location: Catawba, SC 6. Well #: GW-5B

Water Level Information:

1. Date: 7/10/2019 2. Time: 923 3. Static WL: 6.92 Ft. Below MP  
 4. Description of Measuring Point (MP): Top of Casing  
 5. Height of MP above/below Land Surface: 1.5'  
 6. Method of Water Level Measurement: Electric Water Level Tape

Evacuation Procedure:

1. Date: 7.10.2019 2. Time Evac Started: 928 3. Time Evac. Finished: 1045  
 4. Method of Evacuation: Low Flow Peristaltic 5. Tot. Depth: 200 Ft. Below M. P.  
 6. Casing Diameter (in.): 6" steel open bore 7. Height of water Column (Ft.): 193.08  
 8. Decon Procedure: Di/Alconox

Meter Calibration:

Meter S/N: S/N 14C 101882  
 Buffer pH 7.00: 7.02 Buffer pH 4.01: 4.05 Buffer pH 10.01: 10.13 Cond. 1000: 1003  
 Actual Actual Actual Actual Actual  
 Buffer Lot #: 00654-04 Buffer Lot #: 00654-00 Buffer Lot #: 00654-08

Record of Well Development:

Time	Initial	951	1009	1024	1030	1033
Water Temp (C)			16.67	16.58	16.37	16.31
pH (Standard Units)			7.18	7.47	7.53	7.56
Spec. Cond. (umhos)			200	201	201	201
Turbidity (NTU)		28.9	29.5	18.8	23.4	21.1
D.O. (mg/L)			0.86	0.46	0.47	0.5
ORP			-162.8	-181.8	-179.6	-198.6
Odor (subjective)			none	none	none	none
W.L. (ft)		6.97	6.98	6.98	6.98	6.98
Pump Rate (mL/min)		350	350	350	350	350
Other:						

Time	1036	1039	1042	1045		
Water Temp (C)	16.35	16.57	16.57	16.64		
pH (Standard Units)	7.56	7.43	7.44	7.42		
Spec. Cond. (umhos)	202	204	204	204		
Turbidity (NTU)	22.1	21.7	20.8	20.3		
D.O. (mg/L)	0.49	0.54	0.52	0.53		
ORP	-199.3	-152.3	-144.3	-147.7		
Odor (subjective)	none	none	none	none		
W.L.	6.98	6.98	6.98	6.98		
Pump Rate	350	350	350	350		
Other:						

Total Volume Purged (gal.): 7.5

Sampling Information

1. Date: 7/10/2019 2. Time: 1047  
 3. Sample Containers(No./Size/Type): 2/1L/Amber, 6/100mL/Amber, 2/250mL/HDPE, 3/40mL/Amber  
 4. Analysis Required: SV8290, 8081/8270PAH/8270TCLD, CN, TAL Metals, V8260TCL  
 5. Samples Preserved: Yes 6. Preservative: Ice, Nitric Acid, NaOH  
 9. Lab Performing Analysis: Pace Labs

Comments: tubing set at 15'. Flow through cell 500 mL

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# S&ME

## LOW FLOW SAMPLE COLLECTION SUMMARY SHEET

### General

1. Job Name: New Indy 2. Project No.: 4213-18-083  
3. Sampled By: K. McIntyre 4. Weather: Overcast  
5. Location: Rock Hill, SC 6. Well #: GW-6

### Water Level Information:

1. Date: 7/9/2019 2. Time: 14:23  
3. Static Water Level: 14.68 Ft. Below MP  
4. Description of Measuring Point (MP): Top of Casing  
5. Height of MP above/below (circle) Land Surface: 1' 11" above  
6. Method of Water Level Measurement: Electric Water Level Tape

### Evacuation Procedure:

1. Date: 7/9/2019 2. Time Started: 14:35 3. Time Finished: 15:35  
4. Method of Evacuation: peristaltic 5. Tot. Depth: 25.35 Ft. Below M. P.  
6. Casing Diameter (in.): 2 7. Height of water Column (Ft.): 10.67  
8. Decon Procedure: new tubing

### Record of Well Development:

Time	14:45	14:50	14:55	15:10	15:15
Water Temp (C)	17.4	17.2	17.6	17.2	17.1
pH (Standard Units)	6.08	6.1	6.1	6.12	6.1
Spec. Cond. (umhos)	1154	1117	1163	1097	1079
Turbidity (NTU)	591	411	285	140	140
D.O. (mg/L)	6.21	6.28	6.14	5.84	5.68
Water Level (Ft.)	16.32	16.32	16.3	16.37	16.5
Pump Rate (ml/min.)	400	400	400	400	400
Odor (subjective)	none	none	none	none	none
Other:	bubbles in line				

Time	15:20	15:25	15:30	15:35	
Water Temp (C)	18.3	18.2	18.2	18.4	
pH (Standard Units)	6.21	6.19	6.21	6.22	
Spec. Cond. (umhos)	1167	1173	1191	1180	
Turbidity (NTU)	126	115	110	123	
D.O. (mg/L)	6.86	6.72	6.84	6.94	
Water Level (Ft.)	16.03	15.82	15.7	15.68	
Pump Rate (ml/min.)	200	200	200	200	
Odor (subjective)	none	none	none	none	
Other:					

Total Volume Purged (Gal.): 5.5

### Sampling Information

1. Date: 7/9/2019 2. Time: 15:45  
3. Sample Containers (Number/Size/Type): 2/1L/Amber, 6/100mL/Amber, 2/250mL/HDPE, 3/40mL/Amber  
4. Analysis Required: SV8290, 8081/8270PAH/8270TCLD, CN, TAL Metals, V8260TCL  
5. Samples Preserved: y 6. Preservative: Ice, HNO3, NaOH  
7. Lab Performing Analysis: Pace Labs

Notes: \_\_\_\_\_

**LOW FLOW  
SAMPLE COLLECTION  
SUMMARY SHEET**

General

1. Job Name: Project Columbia- Catawba Historical Area 2. Project No.: 4213-180087  
 3. Sampled By: S. Goretoy, R. Beheler 4. Weather: Overcast 76  
 5. Location: Catawba, SC 6. Well #: GW-6B

Water Level Information:

1. Date: 7/9/2019 2. Time: 1446 3. Static WL: 13.92 Ft. Below MP  
 4. Description of Measuring Point (MP): Top of Casing  
 5. Height of MP above/below Land Surface: 2'  
 6. Method of Water Level Measurement: Electric Water Level Tape

Evacuation Procedure:

1. Date: 7.9.2019 2. Time Evac Started: 1450 3. Time Evac. Finished: 1615  
 4. Method of Evacuation: Low Flow Peristaltic 5. Tot. Depth: 109 Ft. Below M. P.  
 6. Casing Diameter (in.): 2" 96.00  
 8. Decon Procedure: Di/Alconox

Meter Calibration:

Meter S/N: S/N 14C 101882  
 Buffer pH 7.00: 7 Buffer pH 4.01: 3.97 Buffer pH 10.01: 10.02 Cond. 1000: 998  
 Actual Actual Actual Actual Actual  
 Buffer Lot #: 00654-04 Buffer Lot #: 00654-00 Buffer Lot #: 00654-08

Record of Well Development:

Time	Initial	1500	1508	1520	1540	1600
Water Temp (C)	16.8	17.62	14.83	15.13	15.39	15.14
pH (Standard Units)	7.59	7.8	7.89	7.96	7.98	7.87
Spec. Cond. (umhos)	323	323	322	321	324	341
Turbidity (NTU)	4.12	5	8.2	2.08	2.09	
D.O. (mg/L)	8.35	6.45	6.5	6.15	4.78	2.55
ORP	57.9	49.8	45.2	40.6	36.8	2.8
Odor (subjective)	none	none	none	none	none	none
W.L.	15.15	15.43	17.97	20.92	21.4	21.45
pump rate	125 ml/min	250 ml/min	1L/min	900ml/min	900 ml/min	900 ml/min
Other:						

Time	1605	1610	1615			
Water Temp (C)	15.9	15.93	16.02			
pH (Standard Units)	7.84	7.81	7.81			
Spec. Cond. (umhos)	346	350	351			
Turbidity (NTU)	1.3	2	2.73			
D.O. (mg/L)	1.99	1.53	1.42			
ORP	1.5	-0.3	-2			
Odor (subjective)	none	none	none			
W.L.	20.15	18.75	18.4			
Pump Rate	400 ml/min	400 ml/min	400 ml/min			
Other:						

Total Volume Purged (gal.): 6.5

Sampling Information

1. Date: 7/9/2019 2. Time: 1618  
 3. Sample Containers(No./Size/Type): 2/1L/Amber, 6/100mL/Amber, 2/250mL/HDPE, 3/40mL/Amber  
 4. Analysis Required: SV8290, 8081/8270PAH/8270TCLD, CN, TAL Metals, V8260TCL  
 5. Samples Preserved: Yes 6. Preservative: Ice, Nitric Acid, NaOH  
 9. Lab Performing Analysis: Pace Labs

Comments: \_\_\_\_\_  
 \_\_\_\_\_  
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# S&ME

## LOW FLOW SAMPLE COLLECTION SUMMARY SHEET

### General

1. Job Name: New Indy 2. Project No.: 4213-18-083  
3. Sampled By: K. McIntyre 4. Weather: Overcast  
5. Location: Rock Hill, SC 6. Well #: GW-9

### Water Level Information:

1. Date: 7/10/2019 2. Time: 15:00  
3. Static Water Level: 11.01 Ft. Below MP  
4. Description of Measuring Point (MP): Top of Casing  
5. Height of MP above/below (circle) Land Surface: 1.2' above  
6. Method of Water Level Measurement: Electric Water Level Tape

### Evacuation Procedure:

1. Date: 7/10/2019 2. Time Started: 15:10 3. Time Finished: 15:37  
4. Method of Evacuation: Peristaltic 5. Tot. Depth: 43.60 Ft. Below M. P.  
6. Casing Diameter (in.): 2 7. Height of water Column (Ft.): 32.59  
8. Decon Procedure: New Tubing

### Record of Well Development:

Time	15:15	15:20	15:25	15:30	15:35
Water Temp (C)	32.7	31.5	31.4	30.9	31.4
pH (Standard Units)	5.17	5.14	5.12	5.11	5.09
Spec. Cond. (umhos)	868	862	859	857	856
Turbidity (NTU)	12.6	7.36	5.46	4.88	2.42
D.O. (mg/L)	0.33	0.2	0.19	0.15	0.14
Water Level (Ft.)	11.18	11.47	11.5	11.47	11.47
Pump Rate (ml/min.)	500	500	500	500	500
Odor (subjective)	none	none	none	none	none
Other:					

Time					
Water Temp (C)					
pH (Standard Units)					
Spec. Cond. (umhos)					
Turbidity (NTU)					
D.O. (mg/L)					
Water Level (Ft.)					
Pump Rate (ml/min.)					
Odor (subjective)					
Other:					

Total Volume Purged (Gal.): 3.5

### Sampling Information

1. Date: 7/10/2019 2. Time: 15:40  
3. Sample Containers (Number/Size/Type): 2/1L/Amber, 6/100mL/Amber, 2/250mL/HDPE, 3/40mL/Amber  
4. Analysis Required: SV8290, 8081/8270PAH/8270TCLD, CN, TAL Metals, V8260TCL  
5. Samples Preserved: y 6. Preservative: Ice, HNO3, NaOH  
7. Lab Performing Analysis: Pace Labs

Notes: \_\_\_\_\_

# S&ME

## LOW FLOW SAMPLE COLLECTION SUMMARY SHEET

**General**

1. Job Name: <u>Project Columbia</u>	2. Project No.: <u>4213-18-083</u>
3. Sampled By: <u>K. McIntyre</u>	4. Weather: <u>Overcast</u>
5. Location: <u>Catawba, SC</u>	6. Well #: <u>GW-10</u>

**Water Level Information:**

1. Date: <u>7/15/2019</u>	2. Time: <u>12:24</u>
3. Static Water Level: <u>19.11</u> Ft. Below MP	
4. Description of Measuring Point (MP): <u>Top of Casing</u>	
5. Height of MP above/below (circle) Land Surface: <u>1' Above</u>	
6. Method of Water Level Measurement: <u>Electric Water Level Tape</u>	

**Evacuation Procedure:**

1. Date: <u>7/15/2019</u>	2. Time Started: <u>12:31</u>	3. Time Finished: <u>13:21</u>
4. Method of Evacuation: <u>Peristaltic Pump</u>	5. Tot. Depth: <u>34.92</u> Ft. Below M. P.	
6. Casing Diameter (in.): <u>2</u>	7. Height of water Column (Ft.): <u>15.81</u>	
8. Decon Procedure: <u>New Tubing</u>		

**Record of Well Development:**

Time	12:40	12:45	12:50	12:55	13:00
Water Temp (C)	25.4	25	25.1	25	25
pH (Standard Units)	4.64	4.62	4.63	4.63	4.62
Spec. Cond. (umhos)	731	770	804	829	840
Turbidity (NTU)	47.6	23.2	5.71	6.4	2.07
D.O. (mg/L)	2.08	1.7	1.48	1.31	1.39
Water Level (Ft.)	19.37	19.37	19.37	19.37	19.37
Pump Rate (ml/min.)	450	450	450	450	450
Odor (subjective)	none	none	none	none	none
Other:					

Time	13:05	13:10	13:15	13:20	
Water Temp (C)	23.7	23.5	25.2	25.7	
pH (Standard Units)	4.62	4.62	4.62	4.62	
Spec. Cond. (umhos)	846	852	863	878	
Turbidity (NTU)	1.37	1.12	1.11	0.9	
D.O. (mg/L)	1.31	1.17	1.27	1.21	
Water Level (Ft.)	19.37	19.37	19.37	19.37	
Pump Rate (ml/min.)	450	450	450	450	
Odor (subjective)	none	none	none	none	
Other:				cloud cover causing temperature variation	

Total Volume Purged (Gal.): 5

**Sampling Information**

1. Date: <u>7/15/2019</u>	2. Time: <u>13:25</u>
3. Sample Containers (Number/Size/Type): <u>2/1L/Amber, 6/100mL/Amber, 2/250mL/HDPE, 3/40mL/Amber</u>	
4. Analysis Required: <u>SV8290, 8081/8270PAH/8270TCLD, CN, TAL Metals, V8260TCL</u>	
5. Samples Preserved: <u>yes</u>	6. Preservative: <u>Ice, HNO3, NaOH</u>
7. Lab Performing Analysis: <u>Pace Labs</u>	

Notes: \_\_\_\_\_

**LOW FLOW  
SAMPLE COLLECTION  
SUMMARY SHEET**

General

1. Job Name: Project Columbia- Catawba Historical Area 2. Project No.: 4213-180087  
 3. Sampled By: S. Goretoy, R. Beheler 4. Weather: Overcast 76  
 5. Location: Catawba, SC 6. Well #: GW-11

Water Level Information:

1. Date: 7/9/2019 2. Time: 1142 3. Static WL: 15.60 Ft. Below MP  
 4. Description of Measuring Point (MP): Top of Casing  
 5. Height of MP above/below Land Surface: 1.2'  
 6. Method of Water Level Measurement: Electric Water Level Tape

Evacuation Procedure:

1. Date: 7.9.2019 2. Time Evac Started: 1142 3. Time Evac. Finished: 1312  
 4. Method of Evacuation: Low Flow Peristaltic 5. Tot. Depth: 27.25 Ft. Below M. P.  
 6. Casing Diameter (in.): 2" 7. Height of water Column (Ft.): 11.65  
 8. Decon Procedure: Di/Alconox

Meter Calibration:

Meter S/N: S/N 14C 101882  
 Buffer pH 7.00: 7 Buffer pH 4.01: 3.97 Buffer pH 10.01: 10.02 Cond. 1000: 998  
 Actual Actual Actual Actual Actual  
 Buffer Lot #: 00654-04 Buffer Lot #: 00654-00 Buffer Lot #: 00654-08

Record of Well Development:

Time	Initial	1148	1155	1217	1235	1255
Water Temp (C)		18.4	19.47	20.32	20.13	21.83
pH (Standard Units)		6.2	5.84	5.59	5.6	5.68
Spec. Cond. (umhos)		127	121	120	124	131
Turbidity (NTU)		143	128	120	170	123
D.O. (mg/L)		2.69	2.48	2.67	2.64	3.16
ORP		136.7	162.1	182.1	178	156
Odor (subjective)		none				
W.L.		17.95	20.1	22.62	24.95	25.46
pump rate		250ml/min	100 ml/min	100 ml/min	100 ml/min	100 ml/min
Other:						

Time	1305	1310	1648	post sample		
Water Temp (C)	21.55	20.66	19.9	19.78		
pH (Standard Units)	5.8	5.77	6.15	5.96		
Spec. Cond. (umhos)	154	156	237	196		
Turbidity (NTU)	80.5	87.8	42	46.7		
D.O. (mg/L)	3.8	4.62	4.13	3.71		
ORP	159.2	163.4	114.9	128.4		
Odor (subjective)						
W.L.	25.9	26	17.6	24.51		
Pump Rate	80 ml/min	100 ml/min	100ml/min			
Other:						

Total Volume Purged (gal.): 2.4

Sampling Information

1. Date: 7/9/2019 2. Time: 1650  
 3. Sample Containers(No./Size/Type): 2/1L/Amber, 6/100mL/Amber, 2/250mL/HDPE, 3/40mL/Amber  
 4. Analysis Required: SV8290, 8081/8270PAH/8270TCLD, CN, TAL Metals, V8260TCL  
 5. Samples Preserved: Yes 6. Preservative: Ice, Nitric Acid, NaOH  
 9. Lab Performing Analysis: Pace Labs

Comments: Tubing set at 34'. Shut off pump at 1238 to measure recharge (recharge rate at 0.07'/min). Well pumped dry at 1312. Let recharge. Well tag on protective cover is incorrect. Says screen interval 26-36'.

**LOW FLOW  
SAMPLE COLLECTION  
SUMMARY SHEET**

General

1. Job Name: Project Columbia- Catawba Historical Area 2. Project No.: 4213-180087  
 3. Sampled By: S. Goretoy, R. Beheler 4. Weather: Sunny 87  
 5. Location: Catawba, SC 6. Well #: GW-12

Water Level Information:

1. Date: 7/11/2019 2. Time: 1215 3. Static WL: 17.82 Ft. Below MP  
 4. Description of Measuring Point (MP): Top of Casing  
 5. Height of MP above/below Land Surface: 1.5'  
 6. Method of Water Level Measurement: Electric Water Level Tape

Evacuation Procedure:

1. Date: 7.11.19 2. Time Evac Started: 1221 3. Time Evac. Finished: 1340  
 4. Method of Evacuation: Low Flow Peristaltic 5. Tot. Depth: 46.5 Ft. Below M. P.  
 6. Casing Diameter (in.): 2" 7. Height of water Column (Ft.): 28.68  
 8. Decon Procedure: Di/Alconox

Meter Calibration:

Meter S/N: S/N 14C 101882  
 Buffer pH 7.00: 7 Buffer pH 4.01: 3.97 Buffer pH 10.01: 10.02 Cond. 1000: 998  
 Actual Actual Actual Actual Actual  
 Buffer Lot #: 00654-04 Buffer Lot #: 00654-00 Buffer Lot #: 00654-08

Record of Well Development:

Time	1225	1230	1235	1245	1300	1315
Water Temp (C)						
pH (Standard Units)						
Spec. Cond. (umhos)						
Turbidity (NTU)	107			78.6	23.4	11.8
D.O. (mg/L)						
ORP						
Odor (subjective)						
W.L. (ft)	18.4	18.67	18.63	18.64	18.64	18.64
Pump Rate (mL/min)	200	100	100	100	100	100
Other:						

Time	1325	1330	1335	1340		
Water Temp (C)	23.7	23.72	23.78	23.86		
pH (Standard Units)	6.18	6.12	6.18	6.2		
Spec. Cond. (umhos)	59	58	58	58		
Turbidity (NTU)	7.09	7.36	7.02	8.26		
D.O. (mg/L)	4.78	5.11	5.54	5.59		
ORP	97.7	102.3	99.8	99.1		
Odor (subjective)	none	none	none	none		
W.L.	18.64	18.64	18.64	18.64		
Pump Rate	100	100	100	100		
Other:						

Total Volume Purged (gal.): 2.5

Sampling Information

1. Date: 7/11/2019 2. Time: 1343  
 3. Sample Containers(No./Size/Type): 2/1L/Amber, 6/100mL/Amber, 2/250mL/HDPE, 3/40mL/Amber  
 4. Analysis Required: SV8290, 8081/8270PAH/8270TCLD, CN, TAL Metals, V8260TCL  
 5. Samples Preserved: Yes 6. Preservative: Ice, Nitric Acid, NaOH  
 9. Lab Performing Analysis: Pace Labs

Comments: tubing set 44'  
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 \_\_\_\_\_  
 \_\_\_\_\_

# S&ME

## LOW FLOW SAMPLE COLLECTION SUMMARY SHEET

**General**

1. Job Name: <u>Project Columbia</u>	2. Project No.: <u>4213-18-083</u>
3. Sampled By: <u>K. McIntyre</u>	4. Weather: <u>Overcast</u>
5. Location: <u>Catawba, SC</u>	6. Well #: <u>GW-13</u>

**Water Level Information:**

1. Date: <u>7/15/2019</u>	2. Time: <u>10:32</u>
3. Static Water Level: <u>20.54</u> Ft. Below MP	
4. Description of Measuring Point (MP): <u>Top of Casing</u>	
5. Height of MP above/below (circle) Land Surface: <u>1.4'</u> above	
6. Method of Water Level Measurement: <u>Electric Water Level Tape</u>	

**Evacuation Procedure:**

1. Date: <u>7/15/2019</u>	2. Time Started: <u>10:45</u>	3. Time Finished: <u>11:36</u>
4. Method of Evacuation: <u>Peristaltic Pump</u>	5. Tot. Depth: <u>40.45</u> Ft. Below M. P.	
6. Casing Diameter (in.): <u>2</u>	7. Height of water Column (Ft.): <u>19.91</u>	
8. Decon Procedure: <u>New Tubing</u>		

**Record of Well Development:**

Time	10:50	10:55	11:00	11:05	11:10
Water Temp (C)	19.8	20	20.1	19.7	19.7
pH (Standard Units)	5.87	5.87	5.88	5.88	5.88
Spec. Cond. (umhos)	1766	1759	1765	1763	1762
Turbidity (NTU)	27.2	16.5	19.2	9.26	8.85
D.O. (mg/L)	0.77	0.37	0.32	0.32	0.31
Water Level (Ft.)	23.15	23.7	24.12	24.57	25
Pump Rate (ml/min.)	100	100	100	100	100
Odor (subjective)	none	none	none	none	none
Other:					

Time	11:15	11:20	11:25	11:30	11:35
Water Temp (C)	19.9	20	19.8	20.3	20
pH (Standard Units)	5.89	5.94	5.94	5.94	5.95
Spec. Cond. (umhos)	1761	1781	1807	1816	1858
Turbidity (NTU)	9.84	6.51	3.37	4.87	2.08
D.O. (mg/L)	0.63	1.94	1.66	1.63	1.53
Water Level (Ft.)	25.18	25.48	25.67	25.86	26.01
Pump Rate (ml/min.)	100	100	100	100	100
Odor (subjective)	none	none	none	none	none
Other:					

Total Volume Purged (Gal.): 2

**Sampling Information**

1. Date: <u>7/15/2019</u>	2. Time: <u>11:38</u>
3. Sample Containers (Number/Size/Type): <u>2/1L/Amber, 6/100mL/Amber, 2/250mL/HDPE, 3/40mL/Amber</u>	
4. Analysis Required: <u>SV8290, 8081/8270PAH/8270TCLD, CN, TAL Metals, V8260TCL</u>	
5. Samples Preserved: <u>yes</u>	6. Preservative: <u>Ice, HNO3, NaOH</u>
7. Lab Performing Analysis: <u>Pace Labs</u>	

Notes: \_\_\_\_\_



**LOW FLOW  
SAMPLE COLLECTION  
SUMMARY SHEET**

General

1. Job Name: Project Columbia- Catawba Historical Area 2. Project No.: 4213-180087  
 3. Sampled By: S. Goretoy, R. Beheler 4. Weather: Sunny 75  
 5. Location: Catawba, SC 6. Well #: GW-14

Water Level Information:

1. Date: 7/12/2019 2. Time: 908 3. Static WL: 14.89 Ft. Below MP  
 4. Description of Measuring Point (MP): Top of Casing  
 5. Height of MP above/below Land Surface: 1.5'  
 6. Method of Water Level Measurement: Electric Water Level Tape

Evacuation Procedure:

1. Date: 7.12.19 2. Time Evac Started: 913 3. Time Evac. Finished: 1127  
 4. Method of Evacuation: Low Flow Peristaltic 5. Tot. Depth: 25 Ft. Below M. P.  
 6. Casing Diameter (in.): 2" 7. Height of water Column (Ft.): 10.11  
 8. Decon Procedure: Di/Alconox

Meter Calibration:

Meter S/N: S/N 14C 101882  
 Buffer pH 7.00: 7.02 Buffer pH 4.01: 3.98 Buffer pH 10.01: 10.08 Cond. 1000: 1000  
                   Actual                   Actual                   Actual                   Actual  
 Buffer Lot #: 00654-04 Buffer Lot #: 00654-00 Buffer Lot #: 00654-08

Record of Well Development:

Time	919	930	940	1000	1010	1020
Water Temp (C)						
pH (Standard Units)						
Spec. Cond. (umhos)						
Turbidity (NTU)	533	129	73.3	76.6	20.4	25.3
D.O. (mg/L)						
ORP						
Odor (subjective)						
W.L. (ft)	15.3	15.64	15.7	15.72	15.74	15.75
Pump Rate (mL/min)	150	150	150	150	150	150
Other:						

Time	1030	1110	1115	1120	1124	1128
Water Temp (C)	19.91	21.36	21.31	21.29	21.44	21.3
pH (Standard Units)	4.74	4.73	4.74	4.74	4.75	4.74
Spec. Cond. (umhos)	828	829	830	833	836	842
Turbidity (NTU)	37.8	225	182	168	182	171
D.O. (mg/L)	1.34	1.23	1.03	0.81	0.78	0.78
ORP	195.2	198.4	201.1	204.1	205	205.9
Odor (subjective)	none	none	none	none	none	none
W.L.	15.75	15.69	15.69	15.69	15.69	15.69
Pump Rate	150	150	150	150	150	150
Other:						

Total Volume Purged (gal.): 4.5

Sampling Information

1. Date: 7/12/2019 2. Time: 1130  
 3. Sample Containers(No./Size/Type): 2/1L/Amber, 6/100mL/Amber, 2/250mL/HDPE, 3/40mL/Amber  
 4. Analysis Required: SV8290, 8081/8270PAH/8270TCLD, CN, TAL Metals, V8260TCL  
 5. Samples Preserved: Yes 6. Preservative: Ice, Nitric Acid, NaOH  
 9. Lab Performing Analysis: Pace Labs

Comments: tubing set 19'. Grass around pad 5' radius, dead. Possibly sprayed with herbicide. Initial purge started at 0913. Ran into pumping issues at 1045 that required moving tubing within well. Turbidity increased, begin purge #2. well needs development

# S&ME

## LOW FLOW SAMPLE COLLECTION SUMMARY SHEET

General

1. Job Name: <u>New Indy</u>	2. Project No.: <u>4213-18-083</u>
3. Sampled By: <u>K. McIntyre</u>	4. Weather: <u>Overcast</u>
5. Location: <u>Rock Hill, SC</u>	6. Well #: <u>GW-15R</u>

Water Level Information:

1. Date: <u>7/12/2019</u>	2. Time: <u>9:04</u>
3. Static Water Level: <u>14.16</u> Ft. Below MP	4. Description of Measuring Point (MP): <u>Top of Casing</u>
5. Height of MP above/below (circle) Land Surface: <u>1.55' above</u>	
6. Method of Water Level Measurement: <u>Electric Water Level Tape</u>	

Evacuation Procedure:

1. Date: <u>7/12/2019</u>	2. Time Started: <u>9:18</u>	3. Time Finished: <u>9:37</u>
4. Method of Evacuation: <u>Peristaltic Pump</u>	5. Tot. Depth: <u>26.75</u> Ft. Below M. P.	
6. Casing Diameter (in.): <u>2</u>	7. Height of water Column (Ft.): <u>12.59</u>	
8. Decon Procedure: <u>New Tubing</u>		

Record of Well Development:

Time	9:25	9:30	9:35		
Water Temp (C)	23.5	23.7	23.5		
pH (Standard Units)	5.47	5.47	5.44		
Spec. Cond. (umhos)	784	794	802		
Turbidity (NTU)	5.75	3.76	5.65		
D.O. (mg/L)	2.1	2.12	1.97		
Water Level (Ft.)	14.66	14.69	14.69		
Pump Rate (ml/min.)	250	250	250		
Odor (subjective)	none	none	none		
Other:					

Time					
Water Temp (C)					
pH (Standard Units)					
Spec. Cond. (umhos)					
Turbidity (NTU)					
D.O. (mg/L)					
Water Level (Ft.)					
Pump Rate (ml/min.)					
Odor (subjective)					
Other:					

Total Volume Purged (Gal.): 2

Sampling Information

1. Date: <u>7/12/2019</u>	2. Time: <u>9:45</u>
3. Sample Containers (Number/Size/Type): <u>2/1L/Amber, 6/100mL/Amber, 2/250mL/HDPE, 3/40mL/Amber</u>	
4. Analysis Required: <u>SV8290, 8081/8270PAH/8270TCLD, CN, TAL Metals, V8260TCL</u>	
5. Samples Preserved: <u>yes</u>	6. Preservative: <u>Ice, HNO3, NaOH</u>
7. Lab Performing Analysis: <u>Pace Labs</u>	

Notes: \_\_\_\_\_

# S&ME

## LOW FLOW SAMPLE COLLECTION SUMMARY SHEET

General

1. Job Name: <u>New Indy</u>	2. Project No.: <u>4213-18-083</u>
3. Sampled By: <u>K. McIntyre</u>	4. Weather: <u>Overcast</u>
5. Location: <u>Rock Hill, SC</u>	6. Well #: <u>GW-15BR</u>

Water Level Information:

1. Date: <u>7/12/2019</u>	2. Time: <u>9:44</u>
3. Static Water Level: <u>14.07</u> Ft. Below MP	
4. Description of Measuring Point (MP): <u>Top of Casing</u>	
5. Height of MP above/below (circle) Land Surface: <u>2.61' Above</u>	
6. Method of Water Level Measurement: <u>Electric Water Level Tape</u>	

Evacuation Procedure:

1. Date: <u>7/12/2019</u>	2. Time Started: <u>10:06</u>	3. Time Finished: <u>10:28</u>
4. Method of Evacuation: <u>Peristaltic Pump</u>	5. Tot. Depth: <u>118.00</u> Ft. Below M. P.	
6. Casing Diameter (in.): <u>2</u>	7. Height of water Column (Ft.): <u>103.93</u>	
8. Decon Procedure: <u>New Tubing</u>		

Record of Well Development:

Time	10:17	10:22	10:27		
Water Temp (C)	24.3	24.7	24.9		
pH (Standard Units)	6.04	6.04	6.03		
Spec. Cond. (umhos)	1923	1924	1928		
Turbidity (NTU)	0.75	0.51	0.53		
D.O. (mg/L)	0.49	0.28	0.24		
Water Level (Ft.)	16.33	16.16	16.05		
Pump Rate (ml/min.)	200	200	200		
Odor (subjective)	none	none	none		
Other:					

Time					
Water Temp (C)					
pH (Standard Units)					
Spec. Cond. (umhos)					
Turbidity (NTU)					
D.O. (mg/L)					
Water Level (Ft.)					
Pump Rate (ml/min.)					
Odor (subjective)					
Other:					

Total Volume Purged (Gal.): 1.5

Sampling Information

1. Date: <u>7/12/2019</u>	2. Time: <u>10:30</u>
3. Sample Containers (Number/Size/Type): <u>2/1L/Amber, 6/100mL/Amber, 2/250mL/HDPE, 3/40mL/Amber</u>	
4. Analysis Required: <u>SV8290, 8081/8270PAH/8270TCLD, CN, TAL Metals, V8260TCL</u>	
5. Samples Preserved: <u>yes</u>	6. Preservative: <u>Ice, HNO3, NaOH</u>
7. Lab Performing Analysis: <u>Pace Labs</u>	

Notes: \_\_\_\_\_

# S&ME

## LOW FLOW SAMPLE COLLECTION SUMMARY SHEET

General

1. Job Name: <u>New Indy</u>	2. Project No.: <u>4213-18-083</u>
3. Sampled By: <u>K. McIntyre</u>	4. Weather: <u>Overcast</u>
5. Location: <u>Rock Hill, SC</u>	6. Well #: <u>GW-16</u>

Water Level Information:

1. Date: <u>7/10/2019</u>	2. Time: <u>13:11</u>
3. Static Water Level: <u>8.31</u> Ft. Below MP	
4. Description of Measuring Point (MP): <u>Top of Casing</u>	
5. Height of MP above/below (circle) Land Surface: <u>2' 4" above</u>	
6. Method of Water Level Measurement: <u>Electric Water Level Tape</u>	

Evacuation Procedure:

1. Date: <u>7/10/2019</u>	2. Time Started: <u>13:21</u>	3. Time Finished: <u>14:23</u>
4. Method of Evacuation: <u>Peristaltic</u>	5. Tot. Depth: <u>18.22</u> Ft. Below M. P.	
6. Casing Diameter (in.): <u>2</u>	7. Height of water Column (Ft.): <u>9.91</u>	
8. Decon Procedure: <u>New Tubing</u>		

Record of Well Development:

Time	13:37	13:42	13:47	13:52	13:57
Water Temp (C)	26.5	28.9	28.2	27.6	26.1
pH (Standard Units)	6.47	6.47	6.47	6.47	6.47
Spec. Cond. (umhos)	1153	1156	1153	1132	1134
Turbidity (NTU)	57.9	25.5	8.14	13	12.6
D.O. (mg/L)	0.34	0.19	0.15	0.16	0.17
Water Level (Ft.)	10.43	11.24	11.82	12.11	12.06
Pump Rate (ml/min.)	100	100	100	100	100
Odor (subjective)	none	none	none	none	none
Other:					

Time	14:02	14:07	14:12	14:17	14:22
Water Temp (C)	26.4	28.6	28.8	27	27.3
pH (Standard Units)	6.47	6.45	6.45	6.43	6.43
Spec. Cond. (umhos)	1128	1147	1169	1175	1175
Turbidity (NTU)	35.8	23.7	17.2	10.3	8.49
D.O. (mg/L)	0.25	0.22	0.2	0.18	0.18
Water Level (Ft.)	12.06	12.08	12.13	12.3	12.42
Pump Rate (ml/min.)	100	100	100	100	100
Odor (subjective)	none	none	none	none	none
Other:					

Total Volume Purged (Gal.): 2.5

Sampling Information

1. Date: <u>7/10/2019</u>	2. Time: <u>14:30</u>
3. Sample Containers (Number/Size/Type): <u>2/1L/Amber, 6/100mL/Amber, 2/250mL/HDPE, 3/40mL/Amber</u>	
4. Analysis Required: <u>SV8290, 8081/8270PAH/8270TCLD, CN, TAL Metals, V8260TCL</u>	
5. Samples Preserved: <u>y</u>	6. Preservative: <u>Ice, HNO3, NaOH</u>
7. Lab Performing Analysis: <u>Pace Labs</u>	

Notes: \_\_\_\_\_

# S&ME

## LOW FLOW SAMPLE COLLECTION SUMMARY SHEET

### General

1. Job Name: New Indy 2. Project No.: 4213-18-083  
3. Sampled By: K. McIntyre 4. Weather: Overcast  
5. Location: Rock Hill, SC 6. Well #: GW-17

### Water Level Information:

1. Date: 7/11/2019 2. Time: 13:08  
3. Static Water Level: 15.09 Ft. Below MP  
4. Description of Measuring Point (MP): Top of Casing  
5. Height of MP above/below (circle) Land Surface: 2.3' above  
6. Method of Water Level Measurement: Electric Water Level Tape

### Evacuation Procedure:

1. Date: 7/11/2019 2. Time Started: 13:10 3. Time Finished: 13:52  
4. Method of Evacuation: Peristaltic Pump 5. Tot. Depth: 19.55 Ft. Below M. P.  
6. Casing Diameter (in.): 2 7. Height of water Column (Ft.): 4.46  
8. Decon Procedure: New Tubing

### Record of Well Development:

Time	13:20	13:25	13:30	13:35	13:40
Water Temp (C)	21.2	20.9	21.9	23	22.9
pH (Standard Units)	5.92	5.86	5.86	5.87	5.88
Spec. Cond. (umhos)	656	737	757	788	790
Turbidity (NTU)	52.1	21.7	19.6	8.66	8.03
D.O. (mg/L)	0.51	0.23	0.22	0.28	0.49
Water Level (Ft.)	15.53	15.77	15.95	16.68	17.36
Pump Rate (ml/min.)	200	200	150	100	100
Odor (subjective)	marshy, slight	marshy, slight	marshy, slight	marshy, slight	marshy, slight
Other:					

Time	13:45	13:50			
Water Temp (C)	23.5	23			
pH (Standard Units)	5.89	5.89			
Spec. Cond. (umhos)	784	752			
Turbidity (NTU)	7.8	40			
D.O. (mg/L)	0.68	1.5			
Water Level (Ft.)	18.13	dry			
Pump Rate (ml/min.)	100	100			
Odor (subjective)	marshy, slight	marshy, slight			
Other:		dry			

Total Volume Purged (Gal.): 1.5

### Sampling Information

1. Date: 7/11/2019 2. Time: 15:30  
3. Sample Containers (Number/Size/Type): 2/1L/Amber, 6/100mL/Amber, 2/250mL/HDPE, 3/40mL/Amber  
4. Analysis Required: SV8290, 8081/8270PAH/8270TCLD, CN, TAL Metals, V8260TCL  
5. Samples Preserved: yes 6. Preservative: Ice, HNO3, NaOH  
7. Lab Performing Analysis: Pace Labs

Notes: \_\_\_\_\_

# S&ME

## LOW FLOW SAMPLE COLLECTION SUMMARY SHEET

**General**

1. Job Name: <u>New Indy</u>	2. Project No.: <u>4213-18-083</u>
3. Sampled By: <u>K. McIntyre</u>	4. Weather: <u>Overcast</u>
5. Location: <u>Rock Hill, SC</u>	6. Well #: <u>GW-18</u>

**Water Level Information:**

1. Date: <u>7/11/2019</u>	2. Time: <u>11:13</u>
3. Static Water Level: <u>13.60</u> Ft. Below MP	4. Description of Measuring Point (MP): <u>Top of Casing</u>
5. Height of MP above/below (circle) Land Surface: <u>36" above</u>	
6. Method of Water Level Measurement: <u>Electric Water Level Tape</u>	

**Evacuation Procedure:**

1. Date: <u>7/11/2019</u>	2. Time Started: <u>11:21</u>	3. Time Finished: <u>12:41</u>
4. Method of Evacuation: <u>Peristaltic Pump</u>	5. Tot. Depth: <u>21.85</u> Ft. Below M. P.	
6. Casing Diameter (in.): <u>2</u>	7. Height of water Column (Ft.): <u>8.25</u>	
8. Decon Procedure: <u>New Tubing</u>		

**Record of Well Development:**

Time	11:55	12:00	12:05	12:10	12:15
Water Temp (C)	20.8	20.8	20.9	21.4	21.6
pH (Standard Units)	6.43	6.41	6.41	6.39	6.38
Spec. Cond. (umhos)	783	847	875	924	960
Turbidity (NTU)	6.6	7.37	4.57	2.45	2.71
D.O. (mg/L)	0.14	0.19	0.16	0.15	0.16
Water Level (Ft.)	15.74	15.84	15.85	15.85	15.85
Pump Rate (ml/min.)	200	200	200	200	200
Odor (subjective)	none	none	none	none	none
Other:					

Time	12:20	12:25	12:30	12:35	12:40
Water Temp (C)	21.6	21.2	20.3	21.2	21.4
pH (Standard Units)	6.37	6.36	6.35	6.35	6.34
Spec. Cond. (umhos)	1001	1017	1045	1062	1104
Turbidity (NTU)	2.45	2.92	2.35	2.32	2.97
D.O. (mg/L)	0.16	0.17	0.17	0.16	0.16
Water Level (Ft.)	15.85	15.85	15.85	15.85	15.85
Pump Rate (ml/min.)	200	200	200	200	200
Odor (subjective)	none	none	none	none	none
Other:					

Total Volume Purged (Gal.): 6.5

**Sampling Information**

1. Date: <u>7/11/2019</u>	2. Time: <u>12:47</u>
3. Sample Containers (Number/Size/Type): <u>2/1L/Amber, 6/100mL/Amber, 2/250mL/HDPE, 3/40mL/Amber</u>	
4. Analysis Required: <u>SV8290, 8081/8270PAH/8270TCLD, CN, TAL Metals, V8260TCL</u>	
5. Samples Preserved: <u>yes</u>	6. Preservative: <u>Ice, HNO3, NaOH</u>
7. Lab Performing Analysis: <u>Pace Labs</u>	

Notes: \_\_\_\_\_

## **Appendix E – Laboratory Analytical Reports - Groundwater**

## S&ME Inc. - Spartanburg SC

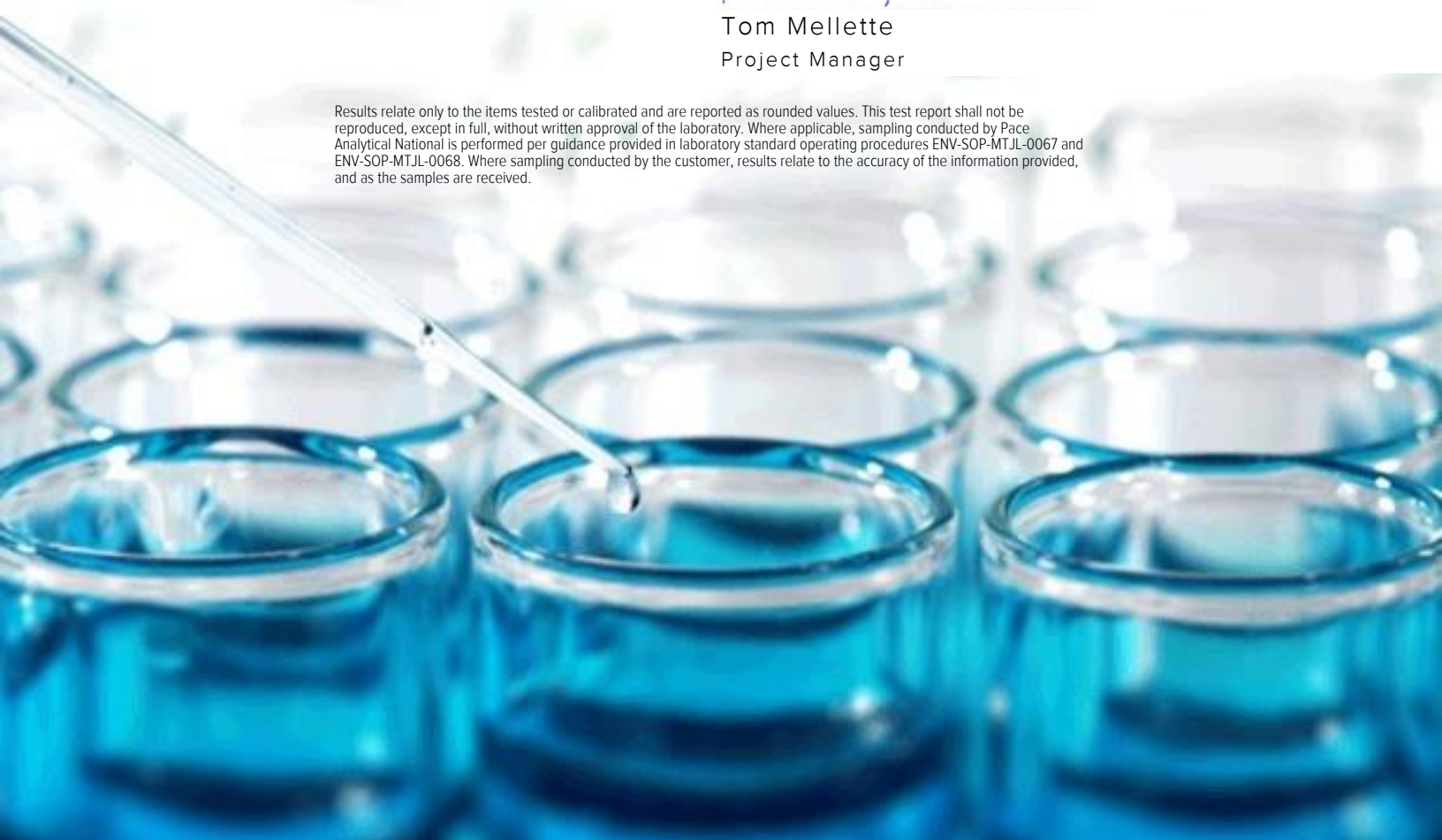
Sample Delivery Group: L1117417  
Samples Received: 07/11/2019  
Project Number: 4213-18-087  
Description: New Indy  
Site: COLUMBIA  
Report To: Scott Dacus  
301 Zima Park Drive  
Spartanburg, SC 29301

Entire Report Reviewed By:



Tom Mellette  
Project Manager

Results relate only to the items tested or calibrated and are reported as rounded values. This test report shall not be reproduced, except in full, without written approval of the laboratory. Where applicable, sampling conducted by Pace Analytical National is performed per guidance provided in laboratory standard operating procedures ENV-SOP-MTJL-0067 and ENV-SOP-MTJL-0068. Where sampling conducted by the customer, results relate to the accuracy of the information provided, and as the samples are received.







<b>Cp: Cover Page</b>	<b>1</b>	<b><sup>1</sup>Cp</b>
<b>Tc: Table of Contents</b>	<b>2</b>	
<b>Ss: Sample Summary</b>	<b>3</b>	<b><sup>2</sup>Tc</b>
<b>Cn: Case Narrative</b>	<b>5</b>	
<b>Gl: Glossary of Terms</b>	<b>6</b>	<b><sup>3</sup>Ss</b>
<b>Al: Accreditations &amp; Locations</b>	<b>7</b>	<b><sup>4</sup>Cn</b>
<b>Sc: Sample Chain of Custody</b>	<b>8</b>	<b><sup>5</sup>Gl</b>
		<b><sup>6</sup>Al</b>
		<b><sup>7</sup>Sc</b>

# SAMPLE SUMMARY

## GW-9 L1117417-01 GW

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Subcontracted Analyses	WG1309910	1	08/02/19 00:00	08/02/19 00:00	CBM	Minneapolis, MN 55414

Collected by SG / KM  
 Collected date/time 07/10/19 15:40  
 Received date/time 07/11/19 08:45

## GW-16 L1117417-02 GW

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Subcontracted Analyses	WG1309910	1	08/02/19 00:00	08/02/19 00:00	CBM	Minneapolis, MN 55414

Collected by SG / KM  
 Collected date/time 07/10/19 14:30  
 Received date/time 07/11/19 08:45

## GW-4B L1117417-03 GW

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Subcontracted Analyses	WG1309910	1	08/02/19 00:00	08/02/19 00:00	CBM	Minneapolis, MN 55414

Collected by SG / KM  
 Collected date/time 07/10/19 11:20  
 Received date/time 07/11/19 08:45

## CM-DUP-GW-1 L1117417-04 GW

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Subcontracted Analyses	WG1309910	1	08/02/19 00:00	08/02/19 00:00	CBM	Minneapolis, MN 55414

Collected by SG / KM  
 Collected date/time 07/10/19 15:55  
 Received date/time 07/11/19 08:45

## GW-4A L1117417-05 GW

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Subcontracted Analyses	WG1309910	1	08/02/19 00:00	08/02/19 00:00	CBM	Minneapolis, MN 55414

Collected by SG / KM  
 Collected date/time 07/10/19 10:25  
 Received date/time 07/11/19 08:45

## GW-6 L1117417-06 GW

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Subcontracted Analyses	WG1309910	1	08/02/19 00:00	08/02/19 00:00	CBM	Minneapolis, MN 55414

Collected by SG / KM  
 Collected date/time 07/09/19 15:45  
 Received date/time 07/11/19 08:45

## R2-MW-5 L1117417-07 GW

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Subcontracted Analyses	WG1309910	1	08/02/19 00:00	08/02/19 00:00	CBM	Minneapolis, MN 55414

Collected by SG / KM  
 Collected date/time 07/09/19 13:55  
 Received date/time 07/11/19 08:45

## R2-MW-4 L1117417-08 GW

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Subcontracted Analyses	WG1309910	1	08/02/19 00:00	08/02/19 00:00	CBM	Minneapolis, MN 55414

Collected by SG / KM  
 Collected date/time 07/09/19 11:40  
 Received date/time 07/11/19 08:45

1 Cp

2 Tc

3 Ss

4 Cn

5 Gl

6 Al

7 Sc

# SAMPLE SUMMARY



## R2-MW-3 L1117417-09 GW

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Subcontracted Analyses	WG1309910	1	08/02/19 00:00	08/02/19 00:00	CBM	Minneapolis, MN 55414

Collected by SG / KM  
 Collected date/time 07/09/19 10:15  
 Received date/time 07/11/19 08:45

- 1 Cp
- 2 Tc
- 3 Ss
- 4 Cn
- 5 Gl
- 6 Al
- 7 Sc

## R2-MW-2 L1117417-10 GW

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Subcontracted Analyses	WG1309910	1	08/02/19 00:00	08/02/19 00:00	CBM	Minneapolis, MN 55414

Collected by SG / KM  
 Collected date/time 07/08/19 16:32  
 Received date/time 07/11/19 08:45

## GW-6B L1117417-11 GW

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Subcontracted Analyses	WG1309910	1	08/02/19 00:00	08/02/19 00:00	CBM	Minneapolis, MN 55414

Collected by SG / KM  
 Collected date/time 07/09/19 16:18  
 Received date/time 07/11/19 08:45

## GW-11 L1117417-12 GW

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Subcontracted Analyses	WG1309910	1	08/02/19 00:00	08/02/19 00:00	CBM	Minneapolis, MN 55414

Collected by SG / KM  
 Collected date/time 07/09/19 16:50  
 Received date/time 07/11/19 08:45

## GW-5 L1117417-13 GW

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Subcontracted Analyses	WG1309910	1	08/02/19 00:00	08/02/19 00:00	CBM	Minneapolis, MN 55414

Collected by SG / KM  
 Collected date/time 07/10/19 16:00  
 Received date/time 07/11/19 08:45

## GW-5B L1117417-14 GW

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Subcontracted Analyses	WG1309910	1	08/02/19 00:00	08/02/19 00:00	CBM	Minneapolis, MN 55414

Collected by SG / KM  
 Collected date/time 07/10/19 10:47  
 Received date/time 07/11/19 08:45



All sample aliquots were received at the correct temperature, in the proper containers, with the appropriate preservatives, and within method specified holding times, unless qualified or notated within the report. Where applicable, all MDL (LOD) and RDL (LOQ) values reported for environmental samples have been corrected for the dilution factor used in the analysis. All Method and Batch Quality Control are within established criteria except where addressed in this case narrative, a non-conformance form or properly qualified within the sample results. By my digital signature below, I affirm to the best of my knowledge, all problems/anomalies observed by the laboratory as having the potential to affect the quality of the data have been identified by the laboratory, and no information or data have been knowingly withheld that would affect the quality of the data.

Tom Mellette  
Project Manager

- <sup>1</sup> Cp
- <sup>2</sup> Tc
- <sup>3</sup> Ss
- <sup>4</sup> Cn
- <sup>5</sup> Gl
- <sup>6</sup> Al
- <sup>7</sup> Sc

### Project Narrative

---

L1117417 -01, -02, -03, -04, -05, -06, -07, -08, -09, -10, -11, -12, -13, -14 contains subout data that is included after the chain of custody.



Guide to Reading and Understanding Your Laboratory Report

The information below is designed to better explain the various terms used in your report of analytical results from the Laboratory. This is not intended as a comprehensive explanation, and if you have additional questions please contact your project representative.

Results Disclaimer - Information that may be provided by the customer, and contained within this report, include Permit Limits, Project Name, Sample ID, Sample Matrix, Sample Preservation, Field Blanks, Field Spikes, Field Duplicates, On-Site Data, Sampling Collection Dates/Times, and Sampling Location. Results relate to the accuracy of this information provided, and as the samples are received.

Abbreviations and Definitions

SDG	Sample Delivery Group.
Uncertainty (Radiochemistry)	Confidence level of 2 sigma.
Case Narrative (Cn)	A brief discussion about the included sample results, including a discussion of any non-conformances to protocol observed either at sample receipt by the laboratory from the field or during the analytical process. If present, there will be a section in the Case Narrative to discuss the meaning of any data qualifiers used in the report.
Quality Control Summary (Qc)	This section of the report includes the results of the laboratory quality control analyses required by procedure or analytical methods to assist in evaluating the validity of the results reported for your samples. These analyses are not being performed on your samples typically, but on laboratory generated material.
Sample Chain of Custody (Sc)	This is the document created in the field when your samples were initially collected. This is used to verify the time and date of collection, the person collecting the samples, and the analyses that the laboratory is requested to perform. This chain of custody also documents all persons (excluding commercial shippers) that have had control or possession of the samples from the time of collection until delivery to the laboratory for analysis.
Sample Results (Sr)	This section of your report will provide the results of all testing performed on your samples. These results are provided by sample ID and are separated by the analyses performed on each sample. The header line of each analysis section for each sample will provide the name and method number for the analysis reported.
Sample Summary (Ss)	This section of the Analytical Report defines the specific analyses performed for each sample ID, including the dates and times of preparation and/or analysis.

- 1 Cp
- 2 Tc
- 3 Ss
- 4 Cn
- 5 Gl
- 6 Al
- 7 Sc

Qualifier Description

The remainder of this page intentionally left blank, there are no qualifiers applied to this SDG.



Pace National is the only environmental laboratory accredited/certified to support your work nationwide from one location. One phone call, one point of contact, one laboratory. No other lab is as accessible or prepared to handle your needs throughout the country. Our capacity and capability from our single location laboratory is comparable to the collective totals of the network laboratories in our industry. The most significant benefit to our one location design is the design of our laboratory campus. The model is conducive to accelerated productivity, decreasing turn-around time, and preventing cross contamination, thus protecting sample integrity. Our focus on premium quality and prompt service allows us to be YOUR LAB OF CHOICE.

\* Not all certifications held by the laboratory are applicable to the results reported in the attached report.  
 \* Accreditation is only applicable to the test methods specified on each scope of accreditation held by Pace National.

## State Accreditations

Alabama	40660	Nebraska	NE-OS-15-05
Alaska	17-026	Nevada	TN-03-2002-34
Arizona	AZ0612	New Hampshire	2975
Arkansas	88-0469	New Jersey-NELAP	TN002
California	2932	New Mexico <sup>1</sup>	n/a
Colorado	TN00003	New York	11742
Connecticut	PH-0197	North Carolina	Env375
Florida	E87487	North Carolina <sup>1</sup>	DW21704
Georgia	NELAP	North Carolina <sup>3</sup>	41
Georgia <sup>1</sup>	923	North Dakota	R-140
Idaho	TN00003	Ohio-VAP	CL0069
Illinois	200008	Oklahoma	9915
Indiana	C-TN-01	Oregon	TN200002
Iowa	364	Pennsylvania	68-02979
Kansas	E-10277	Rhode Island	LA000356
Kentucky <sup>1,6</sup>	90010	South Carolina	84004
Kentucky <sup>2</sup>	16	South Dakota	n/a
Louisiana	AI30792	Tennessee <sup>1,4</sup>	2006
Louisiana <sup>1</sup>	LA180010	Texas	T104704245-18-15
Maine	TN0002	Texas <sup>5</sup>	LAB0152
Maryland	324	Utah	TN00003
Massachusetts	M-TN003	Vermont	VT2006
Michigan	9958	Virginia	460132
Minnesota	047-999-395	Washington	C847
Mississippi	TN00003	West Virginia	233
Missouri	340	Wisconsin	9980939910
Montana	CERT0086	Wyoming	A2LA

1 Cp

2 Tc

3 Ss

4 Cn

5 Gl

6 AI

7 Sc

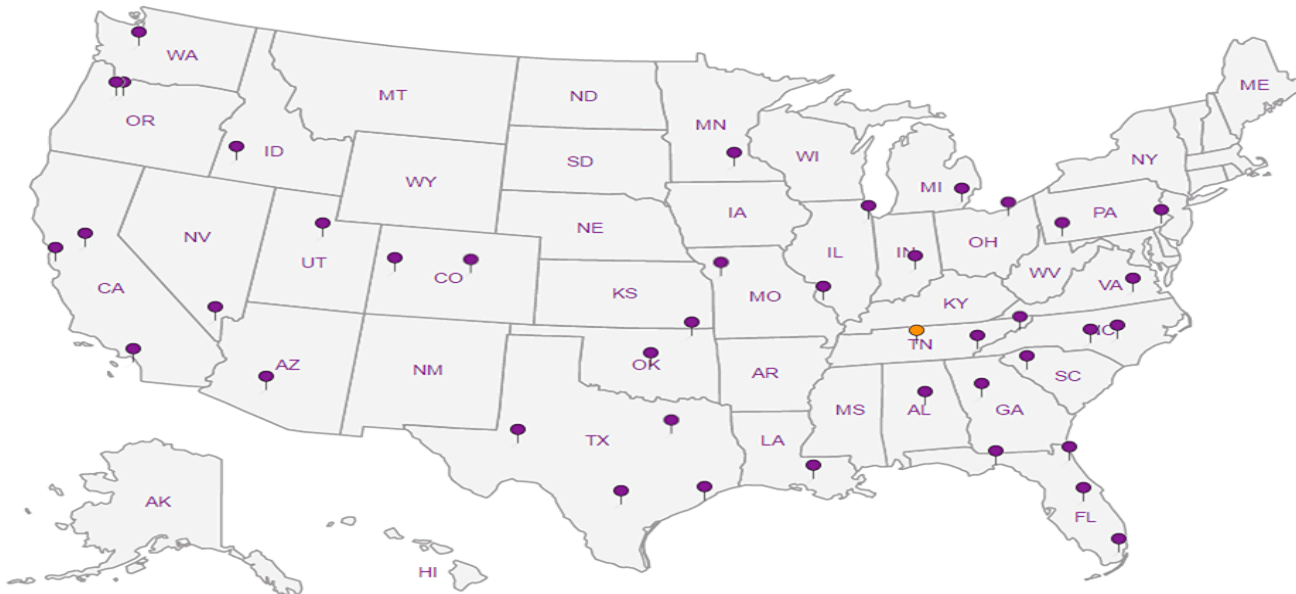
## Third Party Federal Accreditations

A2LA – ISO 17025	1461.01	AIHA-LAP,LLC EMLAP	100789
A2LA – ISO 17025 <sup>5</sup>	1461.02	DOD	1461.01
Canada	1461.01	USDA	P330-15-00234
EPA-Crypto	TN00003		

<sup>1</sup> Drinking Water <sup>2</sup> Underground Storage Tanks <sup>3</sup> Aquatic Toxicity <sup>4</sup> Chemical/Microbiological <sup>5</sup> Mold <sup>6</sup> Wastewater n/a Accreditation not applicable

## Our Locations

Pace National has sixty-four client support centers that provide sample pickup and/or the delivery of sampling supplies. If you would like assistance from one of our support offices, please contact our main office. Pace National performs all testing at our central laboratory.



**S&ME Inc. - Spartanburg SC**

301 Zima Park Drive  
Spartanburg, SC 29301

Billing Information:  
Accounts Payable  
301 Zima Park Drive  
Spartanburg, SC 29301

Report to:  
**Scott Dacus**

Email To: [sdacus@smeinc.com](mailto:sdacus@smeinc.com)

Project  
Description: **NEW INDY**

City/State  
Collected: **ROCK HILL, SC**

Phone: **864-574-2360**  
Fax: **864-576-8730**

Client Project #  
**4213-18-087**

Lab Project #  
**SMESPAR-4213-18-087**

Collected by (print):  
**S. COBETZ  
K. MCINTYRE**

Site/Facility ID #  
**COLUMBIA**

P.O. #

Collected by (signature):

**Rush?** (Lab MUST Be Notified)

Quote #

Same Day  Five Day  
 Next Day  5 Day (Rad Only)  
 Two Day  10 Day (Rad Only)  
 Three Day

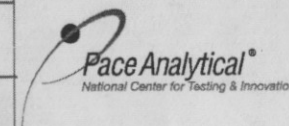
Date Results Needed

Immediately  
Packed on Ice N  Y

Pres  
Chk

Analysis / Container / Preservative

Chain of Custody Page **1** of **2**



12065 Lebanon Rd  
Mount Juliet, TN 37122  
Phone: 615-758-5858  
Phone: 800-767-5859  
Fax: 615-758-5859



L# **117417**

**F104**

Acctnum: **SMESPAR**

Template: **T137919**

Prelogin: **P716850**

TSR: **690 - Tom Mellette**

PB: **TB 6-28-19**

Shipped Via: **FedEX Ground**

Remarks Sample # (lab only)

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No. of Cntrs	SV8290 1L-Amb-NoPres
GW-9	GRAB	GW	42'	7.10.19	1540	2	X
GW-16	GRAB	GW	15.7'	7.10.19	1430	2	X
GW-4B	GRAB	GW	81.6'	7.10.19	1120	2	X
CM-DUP-GW-1	GRAB	GW	-	7.10.19	1555	2	X
GW-4A	GRAB	GW	52'	7.10.19	1025	2	X
GW-6	GRAB	GW	21.8'	7.9.19	1545	2	X
R2-MW-5	GRAB	GW	36.1	7.9.19	1355	2	X
R2-MW-4	GRAB	GW	26.4	7.9.19	1140	2	X
R2-MW-3	GRAB	GW	66.5	7.9.19	1015	2	X
R2-MW-2	GRAB	GW	65.5	7.8.19	1632	2	X

\* Matrix:  
SS - Soil AIR - Air F - Filter  
GW - Groundwater B - Bioassay  
WW - WasteWater  
DW - Drinking Water  
OT - Other

Remarks:

Samples returned via:

UPS  FedEx  Courier

Tracking #

pH \_\_\_\_\_ Temp \_\_\_\_\_

Flow \_\_\_\_\_ Other \_\_\_\_\_

Sample Receipt Checklist

COC Seal Present/Intact:  Y  N

COC Signed/Accurate:  Y  N

Bottles arrive intact:  Y  N

Correct bottles used:  Y  N

Sufficient volume sent:  Y  N

If Applicable

VOA Zero Headspace:  Y  N

Preservation Correct/Checked:  Y  N

**RAD SCREEN: <0.5 mR/hr**

Relinquished by: (Signature)

Date:

Time:

Received by: (Signature)

Trip Blank Received: Yes  No   
HCL/MeOH  
TBR

7.10.19 1702

Relinquished by: (Signature)

Date:

Time:

Received by: (Signature)

Temp: \_\_\_\_\_ °C Bottles Received: **28**  
**39.1-38.5**

If preservation required by Login: Date/Time

Relinquished by: (Signature)

Date:

Time:

Received for lab by: (Signature)

Date: **7/11/19** Time: **845**

Hold:

Condition:  
NCF /  OK

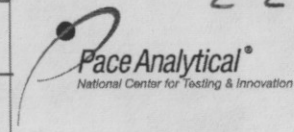


**S&ME Inc. - Spartanburg SC**  
 301 Zima Park Drive  
 Spartanburg, SC 29301

Billing Information:  
**Accounts Payable**  
 301 Zima Park Drive  
 Spartanburg, SC 29301

Pres  
 Chk

Analysis / Container / Preservative



12065 Lebanon Rd  
 Mount Juliet, TN 37122  
 Phone: 615-758-5858  
 Phone: 800-767-5859  
 Fax: 615-758-5859



Report to:  
**Scott Dacus**

Email To: **sdacus@smeinc.com**

Project Description: **NEW INDY**

City/State: **Rock Hill, SC**  
 Collected:

Phone: **864-574-2360**  
 Fax: **864-576-8730**

Client Project #  
**4213-18-087**

Lab Project #  
**SMESPAR-4213-18-087**

Collected by (print): **S. COLETON**  
**K. MCINTYRE**

Site/Facility ID #  
**COLUMBIA**

P.O. #

Collected by (signature):

**Rush?** (Lab MUST Be Notified)  
 Same Day  Five Day  
 Next Day  5 Day (Rad Only)  
 Two Day  10 Day (Rad Only)  
 Three Day

Quote #

Immediately Packed on Ice N  Y

Date Results Needed

No. of  
 Cntrs

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No. of Cntrs	SV8290 1L-Amb-NoPres	Analysis	Container	Preservative	Remarks	Sample # (lab only)
GW-6B	GRAB	GW	107'	7.9.19	1618	2	X					11
GW-11	GRAB	GW	34'	7.9.19	1650	2	X					12
GW-5	GRAB	GW	24'	7.10.19	1600	2	X					13
GW-5B	GRAB	GW	15'	7.10.19	1047	2	X					14
		GW				2	X					
		GW				2	X					
		GW				2	X					
		GW				2	X					
		GW				2	X					
		GW				2	X					

\* Matrix:  
 SS - Soil AIR - Air F - Filter  
 GW - Groundwater B - Bioassay  
 WW - WasteWater  
 DW - Drinking Water  
 OT - Other

Remarks:  
 pH \_\_\_\_\_ Temp \_\_\_\_\_  
 Flow \_\_\_\_\_ Other \_\_\_\_\_  
 Samples returned via:  
 UPS  FedEx  Courier \_\_\_\_\_  
 Tracking # \_\_\_\_\_

**Sample Receipt Checklist**  
 COC Seal Present/Intact:  Y  N  
 COC Signed/Accurate:  Y  N  
 Bottles arrive intact:  Y  N  
 Correct bottles used:  Y  N  
 Sufficient volume sent:  Y  N  
 If Applicable  
 VOA Zero Headspace:  Y  N  
 Preservation Conducted:  Y  N

Relinquished by: (Signature)

Date: **7.10.19**  
 Time: **1702**

Received by: (Signature)  
 Trip Blank Received: Yes  No   
 HCL/MeOH  
 TBR

Temp: \_\_\_\_\_ °C  
 Bottles Received: **28**

**RAD SCREEN: <0.5 mPV/hr**  
 If preservation required by Login: Date/Time

Relinquished by: (Signature)

Date: \_\_\_\_\_  
 Time: \_\_\_\_\_

Received by: (Signature)

Temp: **3.9:1=3.85** °C  
 Bottles Received: **28**

Hold: \_\_\_\_\_  
 Condition: NCF /  OK

Relinquished by: (Signature)

Date: \_\_\_\_\_  
 Time: \_\_\_\_\_

Received for lab by: (Signature)

Date: **7/11/19**  
 Time: **845**

Hold: \_\_\_\_\_  
 Condition: NCF /  OK



**Report Prepared for:**

Benita Miller  
Pace Analytical National  
12065 Lebanon Road  
Mount Juliet TN 37122

**REPORT OF  
LABORATORY  
ANALYSIS FOR  
PCDD/PCDF**

**Report Information:**

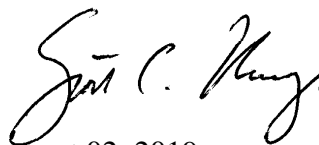
**Pace Project #: 10482896**  
**Sample Receipt Date: 07/12/2019**  
**Client Project #: L1117417: WG1309910**  
**Client Sub PO #: L1117417**  
**State Cert #: 74003**

**Invoicing & Reporting Options:**

The report provided has been invoiced as a Level 2 PCDD/PCDF Report. If an upgrade of this report package is requested, an additional charge may be applied.

Please review the attached invoice for accuracy and forward any questions to Nathan Boberg, your Pace Project Manager.

**This report has been reviewed by:**



August 02, 2019

Scott Unze, Project Manager  
(612) 607-6383  
(612) 607-6444 (fax)  
scott.unze@pacelabs.com

**Report Prepared Date:**

August 2, 2019



**Report of Laboratory Analysis**

This report should not be reproduced, except in full, without the written consent of Pace Analytical Services, Inc.

The results relate only to the samples included in this report.



## **DISCUSSION**

This report presents the results from the analyses performed on fourteen samples submitted by a representative of Pace Analytical National. The samples were analyzed for the presence or absence of polychlorodibenzo-p-dioxins (PCDDs) and polychlorodibenzofurans (PCDFs) using a modified version of USEPA Method 8290. Estimated Maximum Possible Concentration (EMPC) values were treated as positives in the toxic equivalence calculations. The reporting limits were set to correspond to the lowest calibration points and a nominal 1-liter sample amount, and the sensitivity was verified by signal-to-noise measurements. The quantitation limits, adjusted for sample extraction amount, may be somewhat higher or lower than the reporting limits provided in this report.

The recoveries of the isotopically-labeled PCDD/PCDF internal standards in the sample extracts ranged from 36-112%. Except for one low value, which was flagged "R" on the results table, the labeled internal standard recoveries obtained for this project were within the 40-135% target range specified in Method 8290. Also, since the quantification of the native 2,3,7,8-substituted congeners was based on isotope dilution, the data were automatically corrected for recovery and accurate values were obtained.

A laboratory method blank was prepared and analyzed with each sample batch as part of our routine quality control procedures. The results show the blanks to be free of PCDDs and PCDFs at the reporting limits.

Laboratory spike samples were also prepared with each sample batch using clean reference matrix that had been fortified with native standard materials. The results show that the spiked native compounds were recovered at 87-126% with relative percent differences of 0.0-11.9%. These results were within the target ranges for the method. Matrix spikes were not prepared with the sample batches.

The response obtained for the labeled OCDD in calibration standard analysis Y190730C\_18 was outside the target range. As specified in our procedures for this method, the average of the daily response factors for this compound was used in the calculations for the samples from this runshift. The affected values were flagged "Y" on the results tables. It should be noted that the accuracy of the native congener determinations was not impacted by this deviation.

## **REPORT OF LABORATORY ANALYSIS**

This report shall not be reproduced, except in full,  
without the written consent of Pace Analytical Services, Inc.

## Minnesota Laboratory Certifications

Authority	Certificate #	Authority	Certificate #
A2LA	2926.01	Minnesota - Pet	1240
Alabama	40770	Mississippi	MN00064
Alaska - DW	MN00064	Missouri - DW	10100
Alaska - UST	17-009	Montana	CERT0092
Arizona	AZ0014	Nebraska	NE-OS-18-06
Arkansas - DW	MN00064	Nevada	MN00064
Arkansas - WW	88-0680	New Hampshire	2081
CNMI Saipan	MP0003	New Jersey (NE)	MN002
California	2929	New York	11647
Colorado	MN00064	North Carolina	27700
Connecticut	PH-0256	North Carolina -	27700
EPA Region 8+	via MN 027-053	North Carolina -	530
Florida (NELAP)	E87605	North Dakota	R-036
Georgia	959	Ohio - DW	41244
Guam	17-001r	Ohio - VAP	CL101
Hawaii	MN00064	Oklahoma	9507
Idaho	MN00064	Oregon - Primar	MN300001
Illinois	200011	Oregon - Secon	MN200001
Indiana	C-MN-01	Pennsylvania	68-00563
Iowa	368	Puerto Rico	MN00064
Kansas	E-10167	South Carolina	74003
Kentucky - DW	90062	South Dakota	NA
Kentucky - WW	90062	Tennessee	TN02818
Louisiana - DE	03086	Texas	T104704192
Louisiana - DW	MN00064	Utah (NELAP)	MN00064
Maine	MN00064	Virginia	460163
Maryland	322	Washington	C486
Massachusetts	M-MN064	West Virginia -	382
Michigan	9909	West Virginia -	9952C
Minnesota	027-053-137	Wisconsin	999407970
Minnesota - De	via MN 027-053	Wyoming - UST	2926.01

## REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,  
without the written consent of Pace Analytical Services, Inc.

# Appendix A

## Sample Management

NO#: 10482896

**CHAIN-OF-CUSTODY**  
The Chain-of-Custody is a LEGAL



**Section A**  
**Required Client Information:**  
 Company: Pace Analytical National  
 Address: 12065 Lebanon Road  
 Mount Juliet, TN 37122  
 Phone: (615)773-9756 Fax: (615)758-5659  
 Requested Due Date: 26-Jul

**Section B**  
**Required Project Information:**  
 Report To: Pace Analytical National Subout Team  
 Copy To:  
 Purchase Order #: L1117417  
 Project Name: New Indy  
 Project #: 4213-18-087

**Section C**  
**Invoice Information:**  
 Attention: Scott Dacus  
 Company Name:  
 Address:  
 Pace Quote:  
 Pace Project Manager: Nathan Boberg  
 Pace Profile #: 38076

**Regulatory Agency:**  
**State / Location:**  
 York County, SC

Page: 1 Of 2

SAMPLE ID (A-Z, 0-9, -, ) Sample Ids must be unique	MATRIX Drinking Water Water Waste Water Product Solid Oil Wipe Air Other Tissue	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED		SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	PRESERVATIVES						ANALYSES TEST Y/N	EPA 8290	Residual Chlorine (Y/N)	
				START DATE	END DATE			H2SO4	HNO3	HCl	NaOH	Na2S2O3	Methanol				Other
1	GW-9	WT	WT	10-Jul	15:40	2	2										001
2	GW-16	WT	WT	10-Jul	14:30	2	2										002
3	GW-4B	WT	WT	10-Jul	11:20	2	2										003
4	CM-DUP-GW-1	WT	WT	10-Jul	15:55	2	2										004
5	GW-4A	WT	WT	10-Jul	10:25	2	2										005
6	GW-6	WT	WT	09-Jul	15:45	2	2										006
7	R2-MW-5	WT	WT	09-Jul	13:55	2	2										007
8	R2-MW-4	WT	WT	09-Jul	11:40	2	2										008
9	R2-MW-3	WT	WT	09-Jul	10:15	2	2										009
10	R2-MW-2	WT	WT	08-Jul	16:32	2	2										010
11	GW-6B	WT	WT	09-Jul	16:18	2	2										011
12	GW-11	WT	WT	09-Jul	16:50	2	2										012

**ADDITIONAL COMMENTS:**  
 Pace Analytical National Batch: WG1308910  
 Pace Analytical National SDGs: L1117417  
 Location: Minneapolis, MN 55414

**RELINQUISHED BY / AFFILIATION:**  
 Benita Miller

**ACCEPTED BY / AFFILIATION:**  
*[Signature]*

**DATE:** 7-12-05  
**TIME:** 8:40

**TEMP IN C:** 1.9, 2.3, 3.4, 1.5, 1.8

**SAMPLE CONDITIONS:**  
 Received on: (Y/N)  
 Ice (Y/N)  
 Sealed (Y/N)  
 Custody (Y/N)  
 Cooler (Y/N)  
 Samples Intact (Y/N)

**SAMPLER NAME AND SIGNATURE:**  
**PRINT Name of SAMPLER:**  
**SIGNATURE of SAMPLER:**  
**DATE Signed:**

# CHAIN-OF-CUSTODY / Analytical Request Document

The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed accurately.

<b>Section A</b>		<b>Section B</b>		<b>Section C</b>	
<b>Required Client Information:</b>		<b>Required Project Information:</b>		<b>Invoice Information:</b>	
Company: Pace Analytical National	Report To: Pace Analytical National Subout Team	Copy To:	Attention: Scott Decus	Company Name:	
Address: 12065 Lebaron Road	Mont Juliet, TN 37122	Purchase Order #: L1117417	Project Name: New Indy	Address:	
Email: SuboutTeam@pacenational.com	Phone: (615)773-9756	Fax: (615)758-5859	Project #: 4213-18-087	Pace Project Manager: Nathan Boberg	
Requested Due Date: 26-Jul			Pace Profile #: 38076		

No	SAMPLE ID	MATRIX	CODE	COLLECTED		SAMPLE TYPE (G-RAB C-CMP)	MATRIX CODE (see valid codes to left)	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives	Y/N	Requested Analysis Filtered (Y/N)	Residual Chlorine (Y/N)
				START DATE	END DATE								
1	GW-5	Drinking Water	DW	10-Jul	16:00	WT	WT	2	Unpreserved				
2	GW-5B	Waste Water	WW	10-Jul	10:47	WT	WT	2	H2SO4				013
3		Water	W						HCl				014
4		Product	P						NaOH				
5		Soil/Solid	SL						Na2S2O3				
6		Oil	OL						Methanol				
7		Wipes	WP						Other				
8		Air	AR										
9		Other	OT										
10		Tissue	TS										

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS
	Benita Miller	11-Jul	15:46	<i>[Signature]</i>	7-12-05	8:40	TEMP in C 1-0 2-3 3-4 1-5 1-8
Pace Analytical National Batch: WG1309910							Received on
Pace Analytical National SDGs: L1117417							Ice (Y/N)
Location: Minneapolis, MN 55414							Custody (Y/N)
							Sealed Cooler (Y/N)
							Samples Intact (Y/N)



<b>Sample Condition Upon Receipt</b>	Client Name: <u>Pace National</u>	Project #: <b>WO# : 10482896</b>
Courier: <input checked="" type="checkbox"/> Fed Ex <input type="checkbox"/> UPS <input type="checkbox"/> USPS <input type="checkbox"/> Client <input type="checkbox"/> Pace <input type="checkbox"/> SpeeDee <input type="checkbox"/> Commercial <input type="checkbox"/> See Exception	Tracking Number: <u>108259898712/8701/8745/8723/8734</u>	PM: NB3      Due Date: <b>07/26/19</b> CLIENT: <b>ESC_TN</b>

Custody Seal on Cooler/Box Present?  Yes  No      Seals Intact?  Yes  No      Biological Tissue Frozen?  Yes  No  N/A  
 Packing Material:  Bubble Wrap  Bubble Bags  None  Other: \_\_\_\_\_      Temp Blank?  Yes  No  
 Thermometer:  T1(0461)  T2(1336)  T3(0459)      Type of Ice:  Wet  Blue  None  Dry  Melted  
 T4(0254)  T5(0489)

**Note: Each West Virginia Sample must have temp taken (no temp blanks)**

Temp should be above freezing to 6°C	Cooler Temp Read w/temp blank: <u>0.8, 2.1, 3.2, 1.3, 1.6</u> °C	Average Corrected Temp (no temp blank only): _____ °C
Correction Factor: <u>+0.2</u>	Cooler Temp Corrected w/temp blank: <u>1.0, 2.3, 3.4, 1.5, 1.8</u> °C	See Exceptions <input type="checkbox"/>

USDA Regulated Soil: (  N/A, water sample/Other: \_\_\_\_\_ )      Date/Initials of Person Examining Contents: 7-12-19 AA  
 Did samples originate in a quarantine zone within the United States: AL, AR, CA, FL, GA, ID, LA, MS, NC, NM, NY, OK, OR, SC, TN, TX or VA (check maps)?  Yes  No      Did samples originate from a foreign source (internationally, including Hawaii and Puerto Rico)?  Yes  No  
**If Yes to either question, fill out a Regulated Soil Checklist (F-MN-Q-338) and include with SCUR/COC paperwork.**

	COMMENTS:
Chain of Custody Present and Filled Out? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	1.
Chain of Custody Relinquished? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	2.
Sampler Name and/or Signature on COC? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	3.
Samples Arrived within Hold Time? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	4.
Short Hold Time Analysis (<72 hr)? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	5. <input type="checkbox"/> Fecal Coliform <input type="checkbox"/> HPC <input type="checkbox"/> Total Coliform/E coli <input type="checkbox"/> BOD/cBOD <input type="checkbox"/> Hex Chrome <input type="checkbox"/> Turbidity <input type="checkbox"/> Nitrate <input type="checkbox"/> Nitrite <input type="checkbox"/> Orthophos <input type="checkbox"/> Other
Rush Turn Around Time Requested? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	6.
Sufficient Volume? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	7.
Correct Containers Used? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No -Pace Containers Used? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	8.
Containers intact? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	9.
Field Filtered Volume Received for Dissolved Tests? <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	10. Is sediment visible in the dissolved container? <input type="checkbox"/> Yes <input type="checkbox"/> No
Is sufficient information available to reconcile the samples to the COC? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No Matrix: <input checked="" type="checkbox"/> Water <input type="checkbox"/> Soil <input type="checkbox"/> Oil <input type="checkbox"/> Other	11. If no, write ID/ Date/Time on Container Below: _____ See Exception <input type="checkbox"/>
All containers needing acid/base preservation have been checked? <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	12. Sample # _____ <input type="checkbox"/> NaOH <input type="checkbox"/> HNO <sub>3</sub> <input type="checkbox"/> H <sub>2</sub> SO <sub>4</sub> <input type="checkbox"/> Zinc Acetate
All containers needing preservation are found to be in compliance with EPA recommendation? (HNO <sub>3</sub> , H <sub>2</sub> SO <sub>4</sub> , <2pH, NaOH >9 Sulfide, NaOH >12 Cyanide) <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	Positive for Res. Chlorine? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No      See Exception <input type="checkbox"/> pH Paper Lot# _____
Exceptions: VOA, Coliform, TOC/DOC Oil and Grease, DRO/8015 (water) and Dioxin/PFAS <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	Res. Chlorine    0-6 Roll    0-6 Strip    0-14 Strip
Headspace in VOA Vials (greater than 6mm)? <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	13. _____ See Exception <input type="checkbox"/>
Trip Blank Present? <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	14. _____
Trip Blank Custody Seals Present? <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	Pace Trip Blank Lot # (if purchased): _____

**CLIENT NOTIFICATION/RESOLUTION**      Field Data Required?  Yes  No  
 Person Contacted: \_\_\_\_\_ Date/Time: \_\_\_\_\_  
 Comments/Resolution: \_\_\_\_\_

Project Manager Review: Walter Boberg      Date: 7/15/19

Note: Whenever there is a discrepancy affecting North Carolina compliance samples, a copy of this form will be sent to the North Carolina DEHNR Certification Office (i.e. out of hold, incorrect preservative, out of temp, incorrect containers).

Labeled by: AA (4)

## Sub-Contract Chain of Custody

Batch Date/Time: 07/11/19 15:23  
 Sub-Contract Lab: PACEMN  
 Address: 1700 Elm Street Suite 200  
 City/State: Minneapolis, MN 55414  
 Contact:  
 Nathan.Boberg@pacelabs.com

WO: WG1309910  
 Results Due Date: 07/26/19  
 ESC Purchase Order #: L1117417  
 Send Reports to: Benita Miller  
 Email: SuboutTeam@esclabsciences.com



12065 Lebanon Rd.  
 Mt. Juliet, TN 37122  
 call: (615)773-9756

Sample ID Container ID	Matrix	State	Collect Date	Sample Number Lab Use Only	Sample Comments Lab Use Only
GW-9	GW	SC	07/10/19 15:40	1. L1117417-01	EPA 8290, York County, SC
GW-16	GW	SC	07/10/19 14:30	2. L1117417-02	EPA 8290, York County, SC
GW-4B	GW	SC	07/10/19 11:20	3. L1117417-03	EPA 8290, York County, SC
CM-DUP-GW-1	GW	SC	07/10/19 15:55	4. L1117417-04	EPA 8290, York County, SC
GW-4A	GW	SC	07/10/19 10:25	5. L1117417-05	EPA 8290, York County, SC
GW-6	GW	SC	07/09/19 15:45	6. L1117417-06	EPA 8290, York County, SC
R2-MW-5	GW	SC	07/09/19 13:55	7. L1117417-07	EPA 8290, York County, SC
R2-MW-4	GW	SC	07/09/19 11:40	8. L1117417-08	EPA 8290, York County, SC
R2-MW-3	GW	SC	07/09/19 10:15	9. L1117417-09	EPA 8290, York County, SC
R2-MW-2	GW	SC	07/08/19 16:32	10. L1117417-10	EPA 8290, York County, SC
GW-6B	GW	SC	07/09/19 16:18	11. L1117417-11	EPA 8290, York County, SC
GW-11	GW	SC	07/09/19 16:50	12. L1117417-12	EPA 8290, York County, SC
GW-5	GW	SC	07/10/19 16:00	13. L1117417-13	EPA 8290, York County, SC
GW-5B	GW	SC	07/10/19 10:47	14. L1117417-14	EPA 8290, York County, SC

\*= Container used for multiple Samples and/or Analyses

Relinquished by: *Nathan Boberg* Date: 7/11/19  
 Received by: \_\_\_\_\_ Date: \_\_\_\_\_  
 Relinquished by: \_\_\_\_\_ Date: \_\_\_\_\_  
 Received by: \_\_\_\_\_ Date: \_\_\_\_\_



## Reporting Flags

- A = Reporting Limit based on signal to noise
- B = Less than 10x higher than method blank level
- C = Result obtained from confirmation analysis
- D = Result obtained from analysis of diluted sample
- E = Exceeds calibration range
- I = Interference present
- J = Estimated value
- L = Suppressive interference, analyte may be biased low
- Nn = Value obtained from additional analysis
- P = PCDE Interference
- R = Recovery outside target range
- S = Peak saturated
- U = Analyte not detected
- V = Result verified by confirmation analysis
- X = %D Exceeds limits
- Y = Calculated using average of daily RFs
- \* = See Discussion

### REPORT OF LABORATORY ANALYSIS

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# Appendix B

## Sample Analysis Summary



### Method 8290 Sample Analysis Results

Client - Pace Analytical National

Client's Sample ID	GW-9		
Lab Sample ID	10482896001		
Filename	F190801D_04		
Injected By	SMT		
Total Amount Extracted	1060 mL	Matrix	Water
% Moisture	NA	Dilution	NA
Dry Weight Extracted	NA	Collected	07/10/2019 15:40
ICAL ID	F190721	Received	07/12/2019 08:40
CCal Filename(s)	F190801D_01 & F190801D_17	Extracted	07/25/2019 11:40
Method Blank ID	BLANK-72222	Analyzed	08/01/2019 19:32

Native Isomers	Conc pg/L	EMPC pg/L	RL pg/L	Internal Standards	ng's Added	Percent Recovery
2,3,7,8-TCDF	ND	----	10	2,3,7,8-TCDF-13C	2.00	91
Total TCDF	ND	----	10	2,3,7,8-TCDD-13C	2.00	81
				1,2,3,7,8-PeCDF-13C	2.00	90
2,3,7,8-TCDD	ND	----	10	2,3,4,7,8-PeCDF-13C	2.00	98
Total TCDD	ND	----	10	1,2,3,7,8-PeCDD-13C	2.00	102
				1,2,3,4,7,8-HxCDF-13C	2.00	69
1,2,3,7,8-PeCDF	ND	----	50	1,2,3,6,7,8-HxCDF-13C	2.00	77
2,3,4,7,8-PeCDF	ND	----	50	2,3,4,6,7,8-HxCDF-13C	2.00	75
Total PeCDF	ND	----	50	1,2,3,7,8,9-HxCDF-13C	2.00	87
				1,2,3,4,7,8-HxCDD-13C	2.00	63
1,2,3,7,8-PeCDD	ND	----	50	1,2,3,6,7,8-HxCDD-13C	2.00	70
Total PeCDD	ND	----	50	1,2,3,4,6,7,8-HpCDF-13C	2.00	68
				1,2,3,4,7,8,9-HpCDF-13C	2.00	82
1,2,3,4,7,8-HxCDF	ND	----	50	1,2,3,4,6,7,8-HpCDD-13C	2.00	76
1,2,3,6,7,8-HxCDF	ND	----	50	OCDD-13C	4.00	82
2,3,4,6,7,8-HxCDF	ND	----	50			
1,2,3,7,8,9-HxCDF	ND	----	50	1,2,3,4-TCDD-13C	2.00	NA
Total HxCDF	ND	----	50	1,2,3,7,8,9-HxCDD-13C	2.00	NA
1,2,3,4,7,8-HxCDD	ND	----	50	2,3,7,8-TCDD-37Cl4	0.20	110
1,2,3,6,7,8-HxCDD	ND	----	50			
1,2,3,7,8,9-HxCDD	ND	----	50			
Total HxCDD	ND	----	50			
1,2,3,4,6,7,8-HpCDF	ND	----	50	Total 2,3,7,8-TCDD		
1,2,3,4,7,8,9-HpCDF	ND	----	50	Equivalence: 0.00 pg/L		
Total HpCDF	ND	----	50	(Lower-bound - Using ITE Factors)		
1,2,3,4,6,7,8-HpCDD	ND	----	50			
Total HpCDD	ND	----	50			
OCDF	ND	----	100			
OCDD	ND	----	100			

Conc = Concentration (Totals include 2,3,7,8-substituted isomers).  
 EMPC = Estimated Maximum Possible Concentration  
 RL = Reporting Limit

ND = Not Detected  
 NA = Not Applicable  
 NC = Not Calculated

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### Method 8290 Sample Analysis Results

Client - Pace Analytical National

Client's Sample ID	GW-16		
Lab Sample ID	10482896002		
Filename	Y190731A_10		
Injected By	SMT		
Total Amount Extracted	1050 mL	Matrix	Water
% Moisture	NA	Dilution	NA
Dry Weight Extracted	NA	Collected	07/10/2019 14:30
ICAL ID	Y190730	Received	07/12/2019 08:40
CCal Filename(s)	Y190731A_01 & Y190731A_18	Extracted	07/25/2019 11:40
Method Blank ID	BLANK-72222	Analyzed	07/31/2019 17:14

Native Isomers	Conc pg/L	EMPC pg/L	RL pg/L	Internal Standards	ng's Added	Percent Recovery
2,3,7,8-TCDF	ND	----	10	2,3,7,8-TCDF-13C	2.00	81
Total TCDF	ND	----	10	2,3,7,8-TCDD-13C	2.00	84
				1,2,3,7,8-PeCDF-13C	2.00	85
2,3,7,8-TCDD	ND	----	10	2,3,4,7,8-PeCDF-13C	2.00	84
Total TCDD	ND	----	10	1,2,3,7,8-PeCDD-13C	2.00	99
				1,2,3,4,7,8-HxCDF-13C	2.00	69
1,2,3,7,8-PeCDF	ND	----	50	1,2,3,6,7,8-HxCDF-13C	2.00	71
2,3,4,7,8-PeCDF	ND	----	50	2,3,4,6,7,8-HxCDF-13C	2.00	75
Total PeCDF	ND	----	50	1,2,3,7,8,9-HxCDF-13C	2.00	72
				1,2,3,4,7,8-HxCDD-13C	2.00	65
1,2,3,7,8-PeCDD	ND	----	50	1,2,3,6,7,8-HxCDD-13C	2.00	67
Total PeCDD	ND	----	50	1,2,3,4,6,7,8-HpCDF-13C	2.00	66
				1,2,3,4,7,8,9-HpCDF-13C	2.00	66
1,2,3,4,7,8-HxCDF	ND	----	50	1,2,3,4,6,7,8-HpCDD-13C	2.00	75
1,2,3,6,7,8-HxCDF	ND	----	50	OCDD-13C	4.00	55
2,3,4,6,7,8-HxCDF	ND	----	50			
1,2,3,7,8,9-HxCDF	ND	----	50	1,2,3,4-TCDD-13C	2.00	NA
Total HxCDF	ND	----	50	1,2,3,7,8,9-HxCDD-13C	2.00	NA
1,2,3,4,7,8-HxCDD	ND	----	50	2,3,7,8-TCDD-37Cl4	0.20	108
1,2,3,6,7,8-HxCDD	ND	----	50			
1,2,3,7,8,9-HxCDD	ND	----	50			
Total HxCDD	ND	----	50			
1,2,3,4,6,7,8-HpCDF	ND	----	50	Total 2,3,7,8-TCDD		
1,2,3,4,7,8,9-HpCDF	ND	----	50	Equivalence: 0.00 pg/L		
Total HpCDF	ND	----	50	(Lower-bound - Using ITE Factors)		
1,2,3,4,6,7,8-HpCDD	ND	----	50			
Total HpCDD	ND	----	50			
OCDF	ND	----	100			
OCDD	ND	----	100			

Conc = Concentration (Totals include 2,3,7,8-substituted isomers).  
 EMPC = Estimated Maximum Possible Concentration  
 RL = Reporting Limit

ND = Not Detected  
 NA = Not Applicable  
 NC = Not Calculated

## REPORT OF LABORATORY ANALYSIS

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### Method 8290 Sample Analysis Results

Client - Pace Analytical National

Client's Sample ID	GW-4B		
Lab Sample ID	10482896003		
Filename	Y190731A_11		
Injected By	SMT		
Total Amount Extracted	1050 mL	Matrix	Water
% Moisture	NA	Dilution	NA
Dry Weight Extracted	NA	Collected	07/10/2019 11:20
ICAL ID	Y190730	Received	07/12/2019 08:40
CCal Filename(s)	Y190731A_01 & Y190731A_18	Extracted	07/29/2019 11:50
Method Blank ID	BLANK-72266	Analyzed	07/31/2019 17:58

Native Isomers	Conc pg/L	EMPC pg/L	RL pg/L	Internal Standards	ng's Added	Percent Recovery
2,3,7,8-TCDF	ND	----	10	2,3,7,8-TCDF-13C	2.00	77
Total TCDF	ND	----	10	2,3,7,8-TCDD-13C	2.00	81
				1,2,3,7,8-PeCDF-13C	2.00	79
2,3,7,8-TCDD	ND	----	10	2,3,4,7,8-PeCDF-13C	2.00	80
Total TCDD	ND	----	10	1,2,3,7,8-PeCDD-13C	2.00	92
				1,2,3,4,7,8-HxCDF-13C	2.00	69
1,2,3,7,8-PeCDF	ND	----	50	1,2,3,6,7,8-HxCDF-13C	2.00	71
2,3,4,7,8-PeCDF	ND	----	50	2,3,4,6,7,8-HxCDF-13C	2.00	73
Total PeCDF	ND	----	50	1,2,3,7,8,9-HxCDF-13C	2.00	69
				1,2,3,4,7,8-HxCDD-13C	2.00	64
1,2,3,7,8-PeCDD	ND	----	50	1,2,3,6,7,8-HxCDD-13C	2.00	66
Total PeCDD	ND	----	50	1,2,3,4,6,7,8-HpCDF-13C	2.00	60
				1,2,3,4,7,8,9-HpCDF-13C	2.00	58
1,2,3,4,7,8-HxCDF	ND	----	50	1,2,3,4,6,7,8-HpCDD-13C	2.00	68
1,2,3,6,7,8-HxCDF	ND	----	50	OCDD-13C	4.00	52
2,3,4,6,7,8-HxCDF	ND	----	50			
1,2,3,7,8,9-HxCDF	ND	----	50	1,2,3,4-TCDD-13C	2.00	NA
Total HxCDF	ND	----	50	1,2,3,7,8,9-HxCDD-13C	2.00	NA
1,2,3,4,7,8-HxCDD	ND	----	50	2,3,7,8-TCDD-37Cl4	0.20	103
1,2,3,6,7,8-HxCDD	ND	----	50			
1,2,3,7,8,9-HxCDD	ND	----	50			
Total HxCDD	ND	----	50			
1,2,3,4,6,7,8-HpCDF	ND	----	50	Total 2,3,7,8-TCDD		
1,2,3,4,7,8,9-HpCDF	ND	----	50	Equivalence: 0.00 pg/L		
Total HpCDF	ND	----	50	(Lower-bound - Using ITE Factors)		
1,2,3,4,6,7,8-HpCDD	ND	----	50			
Total HpCDD	ND	----	50			
OCDF	ND	----	100			
OCDD	ND	----	100			

Conc = Concentration (Totals include 2,3,7,8-substituted isomers).  
EMPC = Estimated Maximum Possible Concentration  
RL = Reporting Limit

ND = Not Detected  
NA = Not Applicable  
NC = Not Calculated

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### Method 8290 Sample Analysis Results

Client - Pace Analytical National

Client's Sample ID	CM-DUP-GW-1		
Lab Sample ID	10482896004		
Filename	Y190731A_12		
Injected By	SMT		
Total Amount Extracted	1050 mL	Matrix	Water
% Moisture	NA	Dilution	NA
Dry Weight Extracted	NA	Collected	07/10/2019 15:55
ICAL ID	Y190730	Received	07/12/2019 08:40
CCal Filename(s)	Y190731A_01 & Y190731A_18	Extracted	07/25/2019 11:40
Method Blank ID	BLANK-72222	Analyzed	07/31/2019 18:43

Native Isomers	Conc pg/L	EMPC pg/L	RL pg/L	Internal Standards	ng's Added	Percent Recovery
2,3,7,8-TCDF	ND	----	10	2,3,7,8-TCDF-13C	2.00	69
Total TCDF	ND	----	10	2,3,7,8-TCDD-13C	2.00	72
				1,2,3,7,8-PeCDF-13C	2.00	72
2,3,7,8-TCDD	ND	----	10	2,3,4,7,8-PeCDF-13C	2.00	72
Total TCDD	ND	----	10	1,2,3,7,8-PeCDD-13C	2.00	84
				1,2,3,4,7,8-HxCDF-13C	2.00	64
1,2,3,7,8-PeCDF	ND	----	50	1,2,3,6,7,8-HxCDF-13C	2.00	64
2,3,4,7,8-PeCDF	ND	----	50	2,3,4,6,7,8-HxCDF-13C	2.00	65
Total PeCDF	ND	----	50	1,2,3,7,8,9-HxCDF-13C	2.00	65
				1,2,3,4,7,8-HxCDD-13C	2.00	59
1,2,3,7,8-PeCDD	ND	----	50	1,2,3,6,7,8-HxCDD-13C	2.00	61
Total PeCDD	ND	----	50	1,2,3,4,6,7,8-HpCDF-13C	2.00	58
				1,2,3,4,7,8,9-HpCDF-13C	2.00	62
1,2,3,4,7,8-HxCDF	ND	----	50	1,2,3,4,6,7,8-HpCDD-13C	2.00	65
1,2,3,6,7,8-HxCDF	ND	----	50	OCDD-13C	4.00	41
2,3,4,6,7,8-HxCDF	ND	----	50			
1,2,3,7,8,9-HxCDF	ND	----	50	1,2,3,4-TCDD-13C	2.00	NA
Total HxCDF	ND	----	50	1,2,3,7,8,9-HxCDD-13C	2.00	NA
1,2,3,4,7,8-HxCDD	ND	----	50	2,3,7,8-TCDD-37Cl4	0.20	87
1,2,3,6,7,8-HxCDD	ND	----	50			
1,2,3,7,8,9-HxCDD	ND	----	50			
Total HxCDD	ND	----	50			
1,2,3,4,6,7,8-HpCDF	ND	----	50	Total 2,3,7,8-TCDD		
1,2,3,4,7,8,9-HpCDF	ND	----	50	Equivalence: 2.8 pg/L		
Total HpCDF	74	----	50	(Lower-bound - Using ITE Factors)		
1,2,3,4,6,7,8-HpCDD	150	----	50			
Total HpCDD	230	----	50			
OCDF	160	----	100			
OCDD	1100	----	100			

Conc = Concentration (Totals include 2,3,7,8-substituted isomers).  
 EMPC = Estimated Maximum Possible Concentration  
 RL = Reporting Limit

ND = Not Detected  
 NA = Not Applicable  
 NC = Not Calculated

## REPORT OF LABORATORY ANALYSIS

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### Method 8290 Sample Analysis Results

Client - Pace Analytical National

Client's Sample ID	GW-4A		
Lab Sample ID	10482896005		
Filename	Y190731A_13		
Injected By	SMT		
Total Amount Extracted	1020 mL	Matrix	Water
% Moisture	NA	Dilution	NA
Dry Weight Extracted	NA	Collected	07/10/2019 10:25
ICAL ID	Y190730	Received	07/12/2019 08:40
CCal Filename(s)	Y190731A_01 & Y190731A_18	Extracted	07/25/2019 11:40
Method Blank ID	BLANK-72222	Analyzed	07/31/2019 19:27

Native Isomers	Conc pg/L	EMPC pg/L	RL pg/L	Internal Standards	ng's Added	Percent Recovery
2,3,7,8-TCDF	ND	----	10	2,3,7,8-TCDF-13C	2.00	80
Total TCDF	ND	----	10	2,3,7,8-TCDD-13C	2.00	84
				1,2,3,7,8-PeCDF-13C	2.00	85
2,3,7,8-TCDD	ND	----	10	2,3,4,7,8-PeCDF-13C	2.00	83
Total TCDD	ND	----	10	1,2,3,7,8-PeCDD-13C	2.00	97
				1,2,3,4,7,8-HxCDF-13C	2.00	69
1,2,3,7,8-PeCDF	ND	----	50	1,2,3,6,7,8-HxCDF-13C	2.00	72
2,3,4,7,8-PeCDF	ND	----	50	2,3,4,6,7,8-HxCDF-13C	2.00	75
Total PeCDF	ND	----	50	1,2,3,7,8,9-HxCDF-13C	2.00	73
				1,2,3,4,7,8-HxCDD-13C	2.00	65
1,2,3,7,8-PeCDD	ND	----	50	1,2,3,6,7,8-HxCDD-13C	2.00	67
Total PeCDD	ND	----	50	1,2,3,4,6,7,8-HpCDF-13C	2.00	68
				1,2,3,4,7,8,9-HpCDF-13C	2.00	69
1,2,3,4,7,8-HxCDF	ND	----	50	1,2,3,4,6,7,8-HpCDD-13C	2.00	75
1,2,3,6,7,8-HxCDF	ND	----	50	OCDD-13C	4.00	57
2,3,4,6,7,8-HxCDF	ND	----	50			
1,2,3,7,8,9-HxCDF	ND	----	50	1,2,3,4-TCDD-13C	2.00	NA
Total HxCDF	ND	----	50	1,2,3,7,8,9-HxCDD-13C	2.00	NA
1,2,3,4,7,8-HxCDD	ND	----	50	2,3,7,8-TCDD-37Cl4	0.20	106
1,2,3,6,7,8-HxCDD	ND	----	50			
1,2,3,7,8,9-HxCDD	ND	----	50			
Total HxCDD	ND	----	50			
1,2,3,4,6,7,8-HpCDF	ND	----	50	Total 2,3,7,8-TCDD		
1,2,3,4,7,8,9-HpCDF	ND	----	50	Equivalence: 0.00 pg/L		
Total HpCDF	ND	----	50	(Lower-bound - Using ITE Factors)		
1,2,3,4,6,7,8-HpCDD	ND	----	50			
Total HpCDD	ND	----	50			
OCDF	ND	----	100			
OCDD	ND	----	100			

Conc = Concentration (Totals include 2,3,7,8-substituted isomers).  
EMPC = Estimated Maximum Possible Concentration  
RL = Reporting Limit

ND = Not Detected  
NA = Not Applicable  
NC = Not Calculated

## REPORT OF LABORATORY ANALYSIS

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### Method 8290 Sample Analysis Results

Client - Pace Analytical National

Client's Sample ID	GW-6		
Lab Sample ID	10482896006		
Filename	Y190731A_14		
Injected By	SMT		
Total Amount Extracted	1060 mL	Matrix	Water
% Moisture	NA	Dilution	NA
Dry Weight Extracted	NA	Collected	07/09/2019 15:45
ICAL ID	Y190730	Received	07/12/2019 08:40
CCal Filename(s)	Y190731A_01 & Y190731A_18	Extracted	07/25/2019 11:40
Method Blank ID	BLANK-72222	Analyzed	07/31/2019 20:12

Native Isomers	Conc pg/L	EMPC pg/L	RL pg/L	Internal Standards	ng's Added	Percent Recovery
2,3,7,8-TCDF	ND	----	10	2,3,7,8-TCDF-13C	2.00	79
Total TCDF	ND	----	10	2,3,7,8-TCDD-13C	2.00	82
				1,2,3,7,8-PeCDF-13C	2.00	84
2,3,7,8-TCDD	ND	----	10	2,3,4,7,8-PeCDF-13C	2.00	82
Total TCDD	ND	----	10	1,2,3,7,8-PeCDD-13C	2.00	97
				1,2,3,4,7,8-HxCDF-13C	2.00	69
1,2,3,7,8-PeCDF	ND	----	50	1,2,3,6,7,8-HxCDF-13C	2.00	71
2,3,4,7,8-PeCDF	ND	----	50	2,3,4,6,7,8-HxCDF-13C	2.00	75
Total PeCDF	ND	----	50	1,2,3,7,8,9-HxCDF-13C	2.00	73
				1,2,3,4,7,8-HxCDD-13C	2.00	66
1,2,3,7,8-PeCDD	ND	----	50	1,2,3,6,7,8-HxCDD-13C	2.00	68
Total PeCDD	ND	----	50	1,2,3,4,6,7,8-HpCDF-13C	2.00	69
				1,2,3,4,7,8,9-HpCDF-13C	2.00	69
1,2,3,4,7,8-HxCDF	ND	----	50	1,2,3,4,6,7,8-HpCDD-13C	2.00	77
1,2,3,6,7,8-HxCDF	ND	----	50	OCDD-13C	4.00	55
2,3,4,6,7,8-HxCDF	ND	----	50			
1,2,3,7,8,9-HxCDF	ND	----	50	1,2,3,4-TCDD-13C	2.00	NA
Total HxCDF	ND	----	50	1,2,3,7,8,9-HxCDD-13C	2.00	NA
1,2,3,4,7,8-HxCDD	ND	----	50	2,3,7,8-TCDD-37Cl4	0.20	104
1,2,3,6,7,8-HxCDD	ND	----	50			
1,2,3,7,8,9-HxCDD	ND	----	50			
Total HxCDD	ND	----	50			
1,2,3,4,6,7,8-HpCDF	ND	----	50	Total 2,3,7,8-TCDD		
1,2,3,4,7,8,9-HpCDF	ND	----	50	Equivalence: 0.00 pg/L		
Total HpCDF	ND	----	50	(Lower-bound - Using ITE Factors)		
1,2,3,4,6,7,8-HpCDD	ND	----	50			
Total HpCDD	ND	----	50			
OCDF	ND	----	100			
OCDD	ND	----	100			

Conc = Concentration (Totals include 2,3,7,8-substituted isomers).  
 EMPC = Estimated Maximum Possible Concentration  
 RL = Reporting Limit

ND = Not Detected  
 NA = Not Applicable  
 NC = Not Calculated

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### Method 8290 Sample Analysis Results

Client - Pace Analytical National

Client's Sample ID	R2-MW-5		
Lab Sample ID	10482896007		
Filename	Y190731A_15		
Injected By	SMT		
Total Amount Extracted	1050 mL	Matrix	Water
% Moisture	NA	Dilution	NA
Dry Weight Extracted	NA	Collected	07/09/2019 13:55
ICAL ID	Y190730	Received	07/12/2019 08:40
CCal Filename(s)	Y190731A_01 & Y190731A_18	Extracted	07/25/2019 11:40
Method Blank ID	BLANK-72222	Analyzed	07/31/2019 20:56

Native Isomers	Conc pg/L	EMPC pg/L	RL pg/L	Internal Standards	ng's Added	Percent Recovery
2,3,7,8-TCDF	ND	----	10	2,3,7,8-TCDF-13C	2.00	84
Total TCDF	ND	----	10	2,3,7,8-TCDD-13C	2.00	87
				1,2,3,7,8-PeCDF-13C	2.00	88
2,3,7,8-TCDD	ND	----	10	2,3,4,7,8-PeCDF-13C	2.00	86
Total TCDD	ND	----	10	1,2,3,7,8-PeCDD-13C	2.00	102
				1,2,3,4,7,8-HxCDF-13C	2.00	73
1,2,3,7,8-PeCDF	ND	----	50	1,2,3,6,7,8-HxCDF-13C	2.00	75
2,3,4,7,8-PeCDF	ND	----	50	2,3,4,6,7,8-HxCDF-13C	2.00	78
Total PeCDF	ND	----	50	1,2,3,7,8,9-HxCDF-13C	2.00	78
				1,2,3,4,7,8-HxCDD-13C	2.00	70
1,2,3,7,8-PeCDD	ND	----	50	1,2,3,6,7,8-HxCDD-13C	2.00	71
Total PeCDD	ND	----	50	1,2,3,4,6,7,8-HpCDF-13C	2.00	72
				1,2,3,4,7,8,9-HpCDF-13C	2.00	75
1,2,3,4,7,8-HxCDF	ND	----	50	1,2,3,4,6,7,8-HpCDD-13C	2.00	81
1,2,3,6,7,8-HxCDF	ND	----	50	OCDD-13C	4.00	62
2,3,4,6,7,8-HxCDF	ND	----	50			
1,2,3,7,8,9-HxCDF	ND	----	50	1,2,3,4-TCDD-13C	2.00	NA
Total HxCDF	ND	----	50	1,2,3,7,8,9-HxCDD-13C	2.00	NA
1,2,3,4,7,8-HxCDD	ND	----	50	2,3,7,8-TCDD-37Cl4	0.20	103
1,2,3,6,7,8-HxCDD	ND	----	50			
1,2,3,7,8,9-HxCDD	ND	----	50			
Total HxCDD	ND	----	50			
1,2,3,4,6,7,8-HpCDF	ND	----	50	Total 2,3,7,8-TCDD		
1,2,3,4,7,8,9-HpCDF	ND	----	50	Equivalence: 0.00 pg/L		
Total HpCDF	ND	----	50	(Lower-bound - Using ITE Factors)		
1,2,3,4,6,7,8-HpCDD	ND	----	50			
Total HpCDD	ND	----	50			
OCDF	ND	----	100			
OCDD	ND	----	100			

Conc = Concentration (Totals include 2,3,7,8-substituted isomers).  
 EMPC = Estimated Maximum Possible Concentration  
 RL = Reporting Limit

ND = Not Detected  
 NA = Not Applicable  
 NC = Not Calculated

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### Method 8290 Sample Analysis Results

Client - Pace Analytical National

Client's Sample ID	R2-MW-4		
Lab Sample ID	10482896008		
Filename	Y190731A_16		
Injected By	SMT		
Total Amount Extracted	1010 mL	Matrix	Water
% Moisture	NA	Dilution	NA
Dry Weight Extracted	NA	Collected	07/09/2019 11:40
ICAL ID	Y190730	Received	07/12/2019 08:40
CCal Filename(s)	Y190731A_01 & Y190731A_18	Extracted	07/25/2019 11:40
Method Blank ID	BLANK-72222	Analyzed	07/31/2019 21:41

Native Isomers	Conc pg/L	EMPC pg/L	RL pg/L	Internal Standards	ng's Added	Percent Recovery
2,3,7,8-TCDF	ND	----	10	2,3,7,8-TCDF-13C	2.00	92
Total TCDF	ND	----	10	2,3,7,8-TCDD-13C	2.00	97
				1,2,3,7,8-PeCDF-13C	2.00	100
2,3,7,8-TCDD	ND	----	10	2,3,4,7,8-PeCDF-13C	2.00	96
Total TCDD	ND	----	10	1,2,3,7,8-PeCDD-13C	2.00	112
				1,2,3,4,7,8-HxCDF-13C	2.00	79
1,2,3,7,8-PeCDF	ND	----	50	1,2,3,6,7,8-HxCDF-13C	2.00	83
2,3,4,7,8-PeCDF	ND	----	50	2,3,4,6,7,8-HxCDF-13C	2.00	86
Total PeCDF	ND	----	50	1,2,3,7,8,9-HxCDF-13C	2.00	86
				1,2,3,4,7,8-HxCDD-13C	2.00	78
1,2,3,7,8-PeCDD	ND	----	50	1,2,3,6,7,8-HxCDD-13C	2.00	79
Total PeCDD	ND	----	50	1,2,3,4,6,7,8-HpCDF-13C	2.00	81
				1,2,3,4,7,8,9-HpCDF-13C	2.00	81
1,2,3,4,7,8-HxCDF	ND	----	50	1,2,3,4,6,7,8-HpCDD-13C	2.00	89
1,2,3,6,7,8-HxCDF	ND	----	50	OCDD-13C	4.00	68
2,3,4,6,7,8-HxCDF	ND	----	50			
1,2,3,7,8,9-HxCDF	ND	----	50	1,2,3,4-TCDD-13C	2.00	NA
Total HxCDF	ND	----	50	1,2,3,7,8,9-HxCDD-13C	2.00	NA
1,2,3,4,7,8-HxCDD	ND	----	50	2,3,7,8-TCDD-37Cl4	0.20	116
1,2,3,6,7,8-HxCDD	ND	----	50			
1,2,3,7,8,9-HxCDD	ND	----	50			
Total HxCDD	ND	----	50			
1,2,3,4,6,7,8-HpCDF	ND	----	50	Total 2,3,7,8-TCDD		
1,2,3,4,7,8,9-HpCDF	ND	----	50	Equivalence: 0.00 pg/L		
Total HpCDF	ND	----	50	(Lower-bound - Using ITE Factors)		
1,2,3,4,6,7,8-HpCDD	ND	----	50			
Total HpCDD	ND	----	50			
OCDF	ND	----	100			
OCDD	ND	----	100			

Conc = Concentration (Totals include 2,3,7,8-substituted isomers).  
 EMPC = Estimated Maximum Possible Concentration  
 RL = Reporting Limit

ND = Not Detected  
 NA = Not Applicable  
 NC = Not Calculated

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### Method 8290 Sample Analysis Results

Client - Pace Analytical National

Client's Sample ID	R2-MW-3		
Lab Sample ID	10482896009		
Filename	U190731A_11		
Injected By	SMT		
Total Amount Extracted	1070 mL	Matrix	Water
% Moisture	NA	Dilution	NA
Dry Weight Extracted	NA	Collected	07/09/2019 10:15
ICAL ID	U190730	Received	07/12/2019 08:40
CCal Filename(s)	U190731A_01 & U190731A_18	Extracted	07/26/2019 11:30
Method Blank ID	BLANK-72244	Analyzed	07/31/2019 16:01

Native Isomers	Conc pg/L	EMPC pg/L	RL pg/L	Internal Standards	ng's Added	Percent Recovery
2,3,7,8-TCDF	ND	----	10	2,3,7,8-TCDF-13C	2.00	83
Total TCDF	ND	----	10	2,3,7,8-TCDD-13C	2.00	78
				1,2,3,7,8-PeCDF-13C	2.00	72
2,3,7,8-TCDD	ND	----	10	2,3,4,7,8-PeCDF-13C	2.00	72
Total TCDD	ND	----	10	1,2,3,7,8-PeCDD-13C	2.00	78
				1,2,3,4,7,8-HxCDF-13C	2.00	77
1,2,3,7,8-PeCDF	ND	----	50	1,2,3,6,7,8-HxCDF-13C	2.00	72
2,3,4,7,8-PeCDF	ND	----	50	2,3,4,6,7,8-HxCDF-13C	2.00	77
Total PeCDF	ND	----	50	1,2,3,7,8,9-HxCDF-13C	2.00	77
				1,2,3,4,7,8-HxCDD-13C	2.00	73
1,2,3,7,8-PeCDD	ND	----	50	1,2,3,6,7,8-HxCDD-13C	2.00	59
Total PeCDD	ND	----	50	1,2,3,4,6,7,8-HpCDF-13C	2.00	52
				1,2,3,4,7,8,9-HpCDF-13C	2.00	57
1,2,3,4,7,8-HxCDF	ND	----	50	1,2,3,4,6,7,8-HpCDD-13C	2.00	52
1,2,3,6,7,8-HxCDF	ND	----	50	OCDD-13C	4.00	36 R
2,3,4,6,7,8-HxCDF	ND	----	50			
1,2,3,7,8,9-HxCDF	ND	----	50	1,2,3,4-TCDD-13C	2.00	NA
Total HxCDF	ND	----	50	1,2,3,7,8,9-HxCDD-13C	2.00	NA
1,2,3,4,7,8-HxCDD	ND	----	50	2,3,7,8-TCDD-37Cl4	0.20	101
1,2,3,6,7,8-HxCDD	ND	----	50			
1,2,3,7,8,9-HxCDD	ND	----	50			
Total HxCDD	ND	----	50			
1,2,3,4,6,7,8-HpCDF	ND	----	50	Total 2,3,7,8-TCDD		
1,2,3,4,7,8,9-HpCDF	ND	----	50	Equivalence: 0.00 pg/L		
Total HpCDF	ND	----	50	(Lower-bound - Using ITE Factors)		
1,2,3,4,6,7,8-HpCDD	ND	----	50			
Total HpCDD	ND	----	50			
OCDF	ND	----	100			
OCDD	ND	----	100			

Conc = Concentration (Totals include 2,3,7,8-substituted isomers).  
 EMPC = Estimated Maximum Possible Concentration  
 RL = Reporting Limit

ND = Not Detected  
 NA = Not Applicable  
 NC = Not Calculated

R = Recovery outside target range

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### Method 8290 Sample Analysis Results

Client - Pace Analytical National

Client's Sample ID	R2-MW-2		
Lab Sample ID	10482896010		
Filename	U190731A_12		
Injected By	SMT		
Total Amount Extracted	1060 mL	Matrix	Water
% Moisture	NA	Dilution	NA
Dry Weight Extracted	NA	Collected	07/08/2019 16:32
ICAL ID	U190730	Received	07/12/2019 08:40
CCal Filename(s)	U190731A_01 & U190731A_18	Extracted	07/26/2019 11:30
Method Blank ID	BLANK-72244	Analyzed	07/31/2019 16:46

Native Isomers	Conc pg/L	EMPC pg/L	RL pg/L	Internal Standards	ng's Added	Percent Recovery
2,3,7,8-TCDF	ND	----	10	2,3,7,8-TCDF-13C	2.00	76
Total TCDF	ND	----	10	2,3,7,8-TCDD-13C	2.00	73
				1,2,3,7,8-PeCDF-13C	2.00	66
2,3,7,8-TCDD	ND	----	10	2,3,4,7,8-PeCDF-13C	2.00	64
Total TCDD	ND	----	10	1,2,3,7,8-PeCDD-13C	2.00	70
				1,2,3,4,7,8-HxCDF-13C	2.00	64
1,2,3,7,8-PeCDF	ND	----	50	1,2,3,6,7,8-HxCDF-13C	2.00	63
2,3,4,7,8-PeCDF	ND	----	50	2,3,4,6,7,8-HxCDF-13C	2.00	65
Total PeCDF	ND	----	50	1,2,3,7,8,9-HxCDF-13C	2.00	70
				1,2,3,4,7,8-HxCDD-13C	2.00	61
1,2,3,7,8-PeCDD	ND	----	50	1,2,3,6,7,8-HxCDD-13C	2.00	55
Total PeCDD	ND	----	50	1,2,3,4,6,7,8-HpCDF-13C	2.00	51
				1,2,3,4,7,8,9-HpCDF-13C	2.00	54
1,2,3,4,7,8-HxCDF	ND	----	50	1,2,3,4,6,7,8-HpCDD-13C	2.00	51
1,2,3,6,7,8-HxCDF	ND	----	50	OCDD-13C	4.00	41
2,3,4,6,7,8-HxCDF	ND	----	50			
1,2,3,7,8,9-HxCDF	ND	----	50	1,2,3,4-TCDD-13C	2.00	NA
Total HxCDF	ND	----	50	1,2,3,7,8,9-HxCDD-13C	2.00	NA
1,2,3,4,7,8-HxCDD	ND	----	50	2,3,7,8-TCDD-37Cl4	0.20	92
1,2,3,6,7,8-HxCDD	ND	----	50			
1,2,3,7,8,9-HxCDD	ND	----	50			
Total HxCDD	ND	----	50			
1,2,3,4,6,7,8-HpCDF	ND	----	50	Total 2,3,7,8-TCDD		
1,2,3,4,7,8,9-HpCDF	ND	----	50	Equivalence: 0.00 pg/L		
Total HpCDF	ND	----	50	(Lower-bound - Using ITE Factors)		
1,2,3,4,6,7,8-HpCDD	ND	----	50			
Total HpCDD	ND	----	50			
OCDF	ND	----	100			
OCDD	ND	----	100			

Conc = Concentration (Totals include 2,3,7,8-substituted isomers).  
 EMPC = Estimated Maximum Possible Concentration  
 RL = Reporting Limit

ND = Not Detected  
 NA = Not Applicable  
 NC = Not Calculated

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### Method 8290 Sample Analysis Results

Client - Pace Analytical National

Client's Sample ID	GW-6B		
Lab Sample ID	10482896011		
Filename	U190731A_13		
Injected By	SMT		
Total Amount Extracted	1060 mL	Matrix	Water
% Moisture	NA	Dilution	NA
Dry Weight Extracted	NA	Collected	07/09/2019 16:18
ICAL ID	U190730	Received	07/12/2019 08:40
CCal Filename(s)	U190731A_01 & U190731A_18	Extracted	07/26/2019 11:30
Method Blank ID	BLANK-72244	Analyzed	07/31/2019 17:31

Native Isomers	Conc pg/L	EMPC pg/L	RL pg/L	Internal Standards	ng's Added	Percent Recovery
2,3,7,8-TCDF	ND	----	10	2,3,7,8-TCDF-13C	2.00	81
Total TCDF	ND	----	10	2,3,7,8-TCDD-13C	2.00	79
				1,2,3,7,8-PeCDF-13C	2.00	77
2,3,7,8-TCDD	ND	----	10	2,3,4,7,8-PeCDF-13C	2.00	75
Total TCDD	ND	----	10	1,2,3,7,8-PeCDD-13C	2.00	84
				1,2,3,4,7,8-HxCDF-13C	2.00	78
1,2,3,7,8-PeCDF	ND	----	50	1,2,3,6,7,8-HxCDF-13C	2.00	74
2,3,4,7,8-PeCDF	ND	----	50	2,3,4,6,7,8-HxCDF-13C	2.00	75
Total PeCDF	ND	----	50	1,2,3,7,8,9-HxCDF-13C	2.00	79
				1,2,3,4,7,8-HxCDD-13C	2.00	71
1,2,3,7,8-PeCDD	ND	----	50	1,2,3,6,7,8-HxCDD-13C	2.00	64
Total PeCDD	ND	----	50	1,2,3,4,6,7,8-HpCDF-13C	2.00	57
				1,2,3,4,7,8,9-HpCDF-13C	2.00	60
1,2,3,4,7,8-HxCDF	ND	----	50	1,2,3,4,6,7,8-HpCDD-13C	2.00	57
1,2,3,6,7,8-HxCDF	ND	----	50	OCDD-13C	4.00	43
2,3,4,6,7,8-HxCDF	ND	----	50			
1,2,3,7,8,9-HxCDF	ND	----	50	1,2,3,4-TCDD-13C	2.00	NA
Total HxCDF	ND	----	50	1,2,3,7,8,9-HxCDD-13C	2.00	NA
1,2,3,4,7,8-HxCDD	ND	----	50	2,3,7,8-TCDD-37Cl4	0.20	111
1,2,3,6,7,8-HxCDD	ND	----	50			
1,2,3,7,8,9-HxCDD	ND	----	50			
Total HxCDD	ND	----	50			
1,2,3,4,6,7,8-HpCDF	ND	----	50	Total 2,3,7,8-TCDD		
1,2,3,4,7,8,9-HpCDF	ND	----	50	Equivalence: 0.00 pg/L		
Total HpCDF	ND	----	50	(Lower-bound - Using ITE Factors)		
1,2,3,4,6,7,8-HpCDD	ND	----	50			
Total HpCDD	ND	----	50			
OCDF	ND	----	100			
OCDD	ND	----	100			

Conc = Concentration (Totals include 2,3,7,8-substituted isomers).  
EMPC = Estimated Maximum Possible Concentration  
RL = Reporting Limit

ND = Not Detected  
NA = Not Applicable  
NC = Not Calculated

## REPORT OF LABORATORY ANALYSIS

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### Method 8290 Sample Analysis Results

Client - Pace Analytical National

Client's Sample ID	GW-11		
Lab Sample ID	10482896012		
Filename	U190731A_14		
Injected By	SMT		
Total Amount Extracted	1030 mL	Matrix	Water
% Moisture	NA	Dilution	NA
Dry Weight Extracted	NA	Collected	07/09/2019 16:50
ICAL ID	U190730	Received	07/12/2019 08:40
CCal Filename(s)	U190731A_01 & U190731A_18	Extracted	07/26/2019 11:30
Method Blank ID	BLANK-72244	Analyzed	07/31/2019 18:15

Native Isomers	Conc pg/L	EMPC pg/L	RL pg/L	Internal Standards	ng's Added	Percent Recovery
2,3,7,8-TCDF	ND	----	10	2,3,7,8-TCDF-13C	2.00	85
Total TCDF	ND	----	10	2,3,7,8-TCDD-13C	2.00	84
				1,2,3,7,8-PeCDF-13C	2.00	82
2,3,7,8-TCDD	ND	----	10	2,3,4,7,8-PeCDF-13C	2.00	81
Total TCDD	ND	----	10	1,2,3,7,8-PeCDD-13C	2.00	90
				1,2,3,4,7,8-HxCDF-13C	2.00	85
1,2,3,7,8-PeCDF	ND	----	50	1,2,3,6,7,8-HxCDF-13C	2.00	81
2,3,4,7,8-PeCDF	ND	----	50	2,3,4,6,7,8-HxCDF-13C	2.00	83
Total PeCDF	ND	----	50	1,2,3,7,8,9-HxCDF-13C	2.00	86
				1,2,3,4,7,8-HxCDD-13C	2.00	75
1,2,3,7,8-PeCDD	ND	----	50	1,2,3,6,7,8-HxCDD-13C	2.00	69
Total PeCDD	ND	----	50	1,2,3,4,6,7,8-HpCDF-13C	2.00	65
				1,2,3,4,7,8,9-HpCDF-13C	2.00	66
1,2,3,4,7,8-HxCDF	ND	----	50	1,2,3,4,6,7,8-HpCDD-13C	2.00	63
1,2,3,6,7,8-HxCDF	ND	----	50	OCDD-13C	4.00	49
2,3,4,6,7,8-HxCDF	ND	----	50			
1,2,3,7,8,9-HxCDF	ND	----	50	1,2,3,4-TCDD-13C	2.00	NA
Total HxCDF	ND	----	50	1,2,3,7,8,9-HxCDD-13C	2.00	NA
1,2,3,4,7,8-HxCDD	ND	----	50	2,3,7,8-TCDD-37Cl4	0.20	104
1,2,3,6,7,8-HxCDD	ND	----	50			
1,2,3,7,8,9-HxCDD	ND	----	50			
Total HxCDD	ND	----	50			
1,2,3,4,6,7,8-HpCDF	ND	----	50	Total 2,3,7,8-TCDD		
1,2,3,4,7,8,9-HpCDF	ND	----	50	Equivalence: 0.00 pg/L		
Total HpCDF	ND	----	50	(Lower-bound - Using ITE Factors)		
1,2,3,4,6,7,8-HpCDD	ND	----	50			
Total HpCDD	ND	----	50			
OCDF	ND	----	100			
OCDD	ND	----	100			

Conc = Concentration (Totals include 2,3,7,8-substituted isomers).  
 EMPC = Estimated Maximum Possible Concentration  
 RL = Reporting Limit

ND = Not Detected  
 NA = Not Applicable  
 NC = Not Calculated

## REPORT OF LABORATORY ANALYSIS

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### Method 8290 Sample Analysis Results

Client - Pace Analytical National

Client's Sample ID	GW-5		
Lab Sample ID	10482896013		
Filename	U190731A_15		
Injected By	SMT		
Total Amount Extracted	1040 mL	Matrix	Water
% Moisture	NA	Dilution	NA
Dry Weight Extracted	NA	Collected	07/10/2019 16:00
ICAL ID	U190730	Received	07/12/2019 08:40
CCal Filename(s)	U190731A_01 & U190731A_18	Extracted	07/26/2019 11:30
Method Blank ID	BLANK-72244	Analyzed	07/31/2019 19:00

Native Isomers	Conc pg/L	EMPC pg/L	RL pg/L	Internal Standards	ng's Added	Percent Recovery
2,3,7,8-TCDF	ND	----	10	2,3,7,8-TCDF-13C	2.00	82
Total TCDF	ND	----	10	2,3,7,8-TCDD-13C	2.00	81
				1,2,3,7,8-PeCDF-13C	2.00	80
2,3,7,8-TCDD	ND	----	10	2,3,4,7,8-PeCDF-13C	2.00	80
Total TCDD	ND	----	10	1,2,3,7,8-PeCDD-13C	2.00	89
				1,2,3,4,7,8-HxCDF-13C	2.00	76
1,2,3,7,8-PeCDF	ND	----	50	1,2,3,6,7,8-HxCDF-13C	2.00	72
2,3,4,7,8-PeCDF	ND	----	50	2,3,4,6,7,8-HxCDF-13C	2.00	77
Total PeCDF	ND	----	50	1,2,3,7,8,9-HxCDF-13C	2.00	82
				1,2,3,4,7,8-HxCDD-13C	2.00	72
1,2,3,7,8-PeCDD	ND	----	50	1,2,3,6,7,8-HxCDD-13C	2.00	63
Total PeCDD	ND	----	50	1,2,3,4,6,7,8-HpCDF-13C	2.00	58
				1,2,3,4,7,8,9-HpCDF-13C	2.00	62
1,2,3,4,7,8-HxCDF	ND	----	50	1,2,3,4,6,7,8-HpCDD-13C	2.00	60
1,2,3,6,7,8-HxCDF	ND	----	50	OCDD-13C	4.00	50
2,3,4,6,7,8-HxCDF	ND	----	50			
1,2,3,7,8,9-HxCDF	ND	----	50	1,2,3,4-TCDD-13C	2.00	NA
Total HxCDF	ND	----	50	1,2,3,7,8,9-HxCDD-13C	2.00	NA
1,2,3,4,7,8-HxCDD	ND	----	50	2,3,7,8-TCDD-37Cl4	0.20	99
1,2,3,6,7,8-HxCDD	ND	----	50			
1,2,3,7,8,9-HxCDD	ND	----	50			
Total HxCDD	ND	----	50			
1,2,3,4,6,7,8-HpCDF	ND	----	50	Total 2,3,7,8-TCDD		
1,2,3,4,7,8,9-HpCDF	ND	----	50	Equivalence: 0.00 pg/L		
Total HpCDF	ND	----	50	(Lower-bound - Using ITE Factors)		
1,2,3,4,6,7,8-HpCDD	ND	----	50			
Total HpCDD	ND	----	50			
OCDF	ND	----	100			
OCDD	ND	----	100			

Conc = Concentration (Totals include 2,3,7,8-substituted isomers).  
 EMPC = Estimated Maximum Possible Concentration  
 RL = Reporting Limit

ND = Not Detected  
 NA = Not Applicable  
 NC = Not Calculated

## REPORT OF LABORATORY ANALYSIS

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### Method 8290 Sample Analysis Results

Client - Pace Analytical National

Client's Sample ID	GW-5B		
Lab Sample ID	10482896014		
Filename	U190731A_16		
Injected By	SMT		
Total Amount Extracted	1050 mL	Matrix	Water
% Moisture	NA	Dilution	NA
Dry Weight Extracted	NA	Collected	07/10/2019 10:47
ICAL ID	U190730	Received	07/12/2019 08:40
CCal Filename(s)	U190731A_01 & U190731A_18	Extracted	07/26/2019 11:30
Method Blank ID	BLANK-72244	Analyzed	07/31/2019 19:44

Native Isomers	Conc pg/L	EMPC pg/L	RL pg/L	Internal Standards	ng's Added	Percent Recovery
2,3,7,8-TCDF	ND	----	10	2,3,7,8-TCDF-13C	2.00	74
Total TCDF	ND	----	10	2,3,7,8-TCDD-13C	2.00	72
				1,2,3,7,8-PeCDF-13C	2.00	71
2,3,7,8-TCDD	ND	----	10	2,3,4,7,8-PeCDF-13C	2.00	70
Total TCDD	ND	----	10	1,2,3,7,8-PeCDD-13C	2.00	77
				1,2,3,4,7,8-HxCDF-13C	2.00	67
1,2,3,7,8-PeCDF	ND	----	50	1,2,3,6,7,8-HxCDF-13C	2.00	65
2,3,4,7,8-PeCDF	ND	----	50	2,3,4,6,7,8-HxCDF-13C	2.00	65
Total PeCDF	ND	----	50	1,2,3,7,8,9-HxCDF-13C	2.00	72
				1,2,3,4,7,8-HxCDD-13C	2.00	63
1,2,3,7,8-PeCDD	ND	----	50	1,2,3,6,7,8-HxCDD-13C	2.00	57
Total PeCDD	ND	----	50	1,2,3,4,6,7,8-HpCDF-13C	2.00	54
				1,2,3,4,7,8,9-HpCDF-13C	2.00	58
1,2,3,4,7,8-HxCDF	ND	----	50	1,2,3,4,6,7,8-HpCDD-13C	2.00	52
1,2,3,6,7,8-HxCDF	ND	----	50	OCDD-13C	4.00	46
2,3,4,6,7,8-HxCDF	ND	----	50			
1,2,3,7,8,9-HxCDF	ND	----	50	1,2,3,4-TCDD-13C	2.00	NA
Total HxCDF	ND	----	50	1,2,3,7,8,9-HxCDD-13C	2.00	NA
1,2,3,4,7,8-HxCDD	ND	----	50	2,3,7,8-TCDD-37Cl4	0.20	91
1,2,3,6,7,8-HxCDD	ND	----	50			
1,2,3,7,8,9-HxCDD	ND	----	50			
Total HxCDD	ND	----	50			
1,2,3,4,6,7,8-HpCDF	ND	----	50	Total 2,3,7,8-TCDD		
1,2,3,4,7,8,9-HpCDF	ND	----	50	Equivalence: 0.00 pg/L		
Total HpCDF	ND	----	50	(Lower-bound - Using ITE Factors)		
1,2,3,4,6,7,8-HpCDD	ND	----	50			
Total HpCDD	ND	----	50			
OCDF	ND	----	100			
OCDD	ND	----	100			

Conc = Concentration (Totals include 2,3,7,8-substituted isomers).  
 EMPC = Estimated Maximum Possible Concentration  
 RL = Reporting Limit

ND = Not Detected  
 NA = Not Applicable  
 NC = Not Calculated

## REPORT OF LABORATORY ANALYSIS

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### Method 8290 Blank Analysis Results

Lab Sample Name	DFBLKOL	Matrix	Water
Lab Sample ID	BLANK-72244	Dilution	NA
Filename	Y190730C_05	Extracted	07/26/2019 11:30
Total Amount Extracted	920 mL	Analyzed	07/30/2019 23:23
ICAL ID	Y190730	Injected By	SMT
CCal Filename(s)	Y190730C_01 & Y190730C_18		

Native Isomers	Conc pg/L	EMPC pg/L	RL pg/L	Internal Standards	ng's Added	Percent Recovery
2,3,7,8-TCDF	ND	----	10	2,3,7,8-TCDF-13C	2.00	71
Total TCDF	ND	----	10	2,3,7,8-TCDD-13C	2.00	75
				1,2,3,7,8-PeCDF-13C	2.00	72
2,3,7,8-TCDD	ND	----	10	2,3,4,7,8-PeCDF-13C	2.00	70
Total TCDD	ND	----	10	1,2,3,7,8-PeCDD-13C	2.00	79
				1,2,3,4,7,8-HxCDF-13C	2.00	64
1,2,3,7,8-PeCDF	ND	----	50	1,2,3,6,7,8-HxCDF-13C	2.00	65
2,3,4,7,8-PeCDF	ND	----	50	2,3,4,6,7,8-HxCDF-13C	2.00	67
Total PeCDF	ND	----	50	1,2,3,7,8,9-HxCDF-13C	2.00	72
				1,2,3,4,7,8-HxCDD-13C	2.00	64
1,2,3,7,8-PeCDD	ND	----	50	1,2,3,6,7,8-HxCDD-13C	2.00	63
Total PeCDD	ND	----	50	1,2,3,4,6,7,8-HpCDF-13C	2.00	67
				1,2,3,4,7,8,9-HpCDF-13C	2.00	68
1,2,3,4,7,8-HxCDF	ND	----	50	1,2,3,4,6,7,8-HpCDD-13C	2.00	71
1,2,3,6,7,8-HxCDF	ND	----	50	OCDD-13C	4.00	56 Y
2,3,4,6,7,8-HxCDF	ND	----	50			
1,2,3,7,8,9-HxCDF	ND	----	50	1,2,3,4-TCDD-13C	2.00	NA
Total HxCDF	ND	----	50	1,2,3,7,8,9-HxCDD-13C	2.00	NA
1,2,3,4,7,8-HxCDD	ND	----	50	2,3,7,8-TCDD-37Cl4	0.20	100
1,2,3,6,7,8-HxCDD	ND	----	50			
1,2,3,7,8,9-HxCDD	ND	----	50			
Total HxCDD	ND	----	50			
1,2,3,4,6,7,8-HpCDF	ND	----	50	Total 2,3,7,8-TCDD		
1,2,3,4,7,8,9-HpCDF	ND	----	50	Equivalence: 0.00 pg/L		
Total HpCDF	ND	----	50	(Lower-bound - Using ITE Factors)		
1,2,3,4,6,7,8-HpCDD	ND	----	50			
Total HpCDD	ND	----	50			
OCDF	ND	----	100			
OCDD	ND	----	100			

Conc = Concentration (Totals include 2,3,7,8-substituted isomers).  
 EMPC = Estimated Maximum Possible Concentration  
 RL = Reporting Limit

Y = Calculated using average of daily RFs

## REPORT OF LABORATORY ANALYSIS

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**Method 8290 Blank Analysis Results**

Lab Sample Name	DFBLKOE	Matrix	Water
Lab Sample ID	BLANK-72222	Dilution	NA
Filename	U190730B_07	Extracted	07/25/2019 11:40
Total Amount Extracted	951 mL	Analyzed	07/30/2019 23:57
ICAL ID	U190730	Injected By	SMT
CCal Filename(s)	U190730B_01 & U190730B_17		

Native Isomers	Conc pg/L	EMPC pg/L	RL pg/L	Internal Standards	ng's Added	Percent Recovery
2,3,7,8-TCDF	ND	----	10	2,3,7,8-TCDF-13C	2.00	79
Total TCDF	ND	----	10	2,3,7,8-TCDD-13C	2.00	84
				1,2,3,7,8-PeCDF-13C	2.00	77
2,3,7,8-TCDD	ND	----	10	2,3,4,7,8-PeCDF-13C	2.00	77
Total TCDD	ND	----	10	1,2,3,7,8-PeCDD-13C	2.00	89
				1,2,3,4,7,8-HxCDF-13C	2.00	76
1,2,3,7,8-PeCDF	ND	----	50	1,2,3,6,7,8-HxCDF-13C	2.00	74
2,3,4,7,8-PeCDF	ND	----	50	2,3,4,6,7,8-HxCDF-13C	2.00	79
Total PeCDF	ND	----	50	1,2,3,7,8,9-HxCDF-13C	2.00	80
				1,2,3,4,7,8-HxCDD-13C	2.00	77
1,2,3,7,8-PeCDD	ND	----	50	1,2,3,6,7,8-HxCDD-13C	2.00	70
Total PeCDD	ND	----	50	1,2,3,4,6,7,8-HpCDF-13C	2.00	70
				1,2,3,4,7,8,9-HpCDF-13C	2.00	73
1,2,3,4,7,8-HxCDF	ND	----	50	1,2,3,4,6,7,8-HpCDD-13C	2.00	78
1,2,3,6,7,8-HxCDF	ND	----	50	OCDD-13C	4.00	62
2,3,4,6,7,8-HxCDF	ND	----	50			
1,2,3,7,8,9-HxCDF	ND	----	50	1,2,3,4-TCDD-13C	2.00	NA
Total HxCDF	ND	----	50	1,2,3,7,8,9-HxCDD-13C	2.00	NA
1,2,3,4,7,8-HxCDD	ND	----	50	2,3,7,8-TCDD-37Cl4	0.20	116
1,2,3,6,7,8-HxCDD	ND	----	50			
1,2,3,7,8,9-HxCDD	ND	----	50			
Total HxCDD	ND	----	50			
1,2,3,4,6,7,8-HpCDF	ND	----	50	Total 2,3,7,8-TCDD		
1,2,3,4,7,8,9-HpCDF	ND	----	50	Equivalence: 0.00 pg/L		
Total HpCDF	ND	----	50	(Lower-bound - Using ITE Factors)		
1,2,3,4,6,7,8-HpCDD	ND	----	50			
Total HpCDD	ND	----	50			
OCDF	ND	----	100			
OCDD	ND	----	100			

Conc = Concentration (Totals include 2,3,7,8-substituted isomers).

EMPC = Estimated Maximum Possible Concentration

RL = Reporting Limit

**REPORT OF LABORATORY ANALYSIS**

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### Method 8290 Blank Analysis Results

Lab Sample Name	DFBLKOR	Matrix	Water
Lab Sample ID	BLANK-72266	Dilution	NA
Filename	U190731A_05	Extracted	07/29/2019 11:50
Total Amount Extracted	1030 mL	Analyzed	07/31/2019 11:33
ICAL ID	U190730	Injected By	SMT
CCal Filename(s)	U190731A_01 & U190731A_18		

Native Isomers	Conc pg/L	EMPC pg/L	RL pg/L	Internal Standards	ng's Added	Percent Recovery
2,3,7,8-TCDF	ND	----	10	2,3,7,8-TCDF-13C	2.00	79
Total TCDF	ND	----	10	2,3,7,8-TCDD-13C	2.00	80
				1,2,3,7,8-PeCDF-13C	2.00	77
2,3,7,8-TCDD	ND	----	10	2,3,4,7,8-PeCDF-13C	2.00	78
Total TCDD	ND	----	10	1,2,3,7,8-PeCDD-13C	2.00	86
				1,2,3,4,7,8-HxCDF-13C	2.00	73
1,2,3,7,8-PeCDF	ND	----	50	1,2,3,6,7,8-HxCDF-13C	2.00	72
2,3,4,7,8-PeCDF	ND	----	50	2,3,4,6,7,8-HxCDF-13C	2.00	74
Total PeCDF	ND	----	50	1,2,3,7,8,9-HxCDF-13C	2.00	77
				1,2,3,4,7,8-HxCDD-13C	2.00	75
1,2,3,7,8-PeCDD	ND	----	50	1,2,3,6,7,8-HxCDD-13C	2.00	69
Total PeCDD	ND	----	50	1,2,3,4,6,7,8-HpCDF-13C	2.00	67
				1,2,3,4,7,8,9-HpCDF-13C	2.00	71
1,2,3,4,7,8-HxCDF	ND	----	50	1,2,3,4,6,7,8-HpCDD-13C	2.00	71
1,2,3,6,7,8-HxCDF	ND	----	50	OCDD-13C	4.00	58
2,3,4,6,7,8-HxCDF	ND	----	50			
1,2,3,7,8,9-HxCDF	ND	----	50	1,2,3,4-TCDD-13C	2.00	NA
Total HxCDF	ND	----	50	1,2,3,7,8,9-HxCDD-13C	2.00	NA
1,2,3,4,7,8-HxCDD	ND	----	50	2,3,7,8-TCDD-37Cl4	0.20	108
1,2,3,6,7,8-HxCDD	ND	----	50			
1,2,3,7,8,9-HxCDD	ND	----	50			
Total HxCDD	ND	----	50			
1,2,3,4,6,7,8-HpCDF	ND	----	50	Total 2,3,7,8-TCDD		
1,2,3,4,7,8,9-HpCDF	ND	----	50	Equivalence: 0.00 pg/L		
Total HpCDF	ND	----	50	(Lower-bound - Using ITE Factors)		
1,2,3,4,6,7,8-HpCDD	ND	----	50			
Total HpCDD	ND	----	50			
OCDF	ND	----	100			
OCDD	ND	----	100			

Conc = Concentration (Totals include 2,3,7,8-substituted isomers).  
EMPC = Estimated Maximum Possible Concentration  
RL = Reporting Limit

## REPORT OF LABORATORY ANALYSIS

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### Method 8290 Laboratory Control Spike Results

Lab Sample ID	LCS-72223	Matrix	Water
Filename	U190730B_02	Dilution	NA
Total Amount Extracted	959 mL	Extracted	07/25/2019 11:40
ICAL ID	U190730	Analyzed	07/30/2019 20:14
CCal Filename(s)	U190730B_01 & U190730B_17	Injected By	SMT
Method Blank ID	BLANK-72222		

Native Isomers	Qs (ng)	Qm (ng)	% Rec.	Internal Standards	ng's Added	Percent Recovery
2,3,7,8-TCDF	0.20	0.20	100	2,3,7,8-TCDF-13C	2.0	90
Total TCDF				2,3,7,8-TCDD-13C	2.0	93
				1,2,3,7,8-PeCDF-13C	2.0	90
2,3,7,8-TCDD	0.20	0.21	106	2,3,4,7,8-PeCDF-13C	2.0	91
Total TCDD				1,2,3,7,8-PeCDD-13C	2.0	105
				1,2,3,4,7,8-HxCDF-13C	2.0	85
1,2,3,7,8-PeCDF	1.0	1.00	100	1,2,3,6,7,8-HxCDF-13C	2.0	84
2,3,4,7,8-PeCDF	1.0	1.0	102	2,3,4,6,7,8-HxCDF-13C	2.0	85
Total PeCDF				1,2,3,7,8,9-HxCDF-13C	2.0	89
				1,2,3,4,7,8-HxCDD-13C	2.0	82
1,2,3,7,8-PeCDD	1.0	0.90	90	1,2,3,6,7,8-HxCDD-13C	2.0	79
Total PeCDD				1,2,3,4,6,7,8-HpCDF-13C	2.0	79
				1,2,3,4,7,8,9-HpCDF-13C	2.0	83
1,2,3,4,7,8-HxCDF	1.0	1.1	107	1,2,3,4,6,7,8-HpCDD-13C	2.0	86
1,2,3,6,7,8-HxCDF	1.0	1.0	103	OCDD-13C	4.0	72
2,3,4,6,7,8-HxCDF	1.0	0.97	97			
1,2,3,7,8,9-HxCDF	1.0	0.97	97	1,2,3,4-TCDD-13C	2.0	NA
Total HxCDF				1,2,3,7,8,9-HxCDD-13C	2.0	NA
1,2,3,4,7,8-HxCDD	1.0	1.1	105	2,3,7,8-TCDD-37Cl4	0.20	124
1,2,3,6,7,8-HxCDD	1.0	1.1	106			
1,2,3,7,8,9-HxCDD	1.0	1.1	108			
Total HxCDD						
1,2,3,4,6,7,8-HpCDF	1.0	1.0	101			
1,2,3,4,7,8,9-HpCDF	1.0	1.0	100			
Total HpCDF						
1,2,3,4,6,7,8-HpCDD	1.0	0.98	98			
Total HpCDD						
OCDF	2.0	2.0	101			
OCDD	2.0	2.1	105			

Qs = Quantity Spiked  
 Qm = Quantity Measured  
 Rec. = Recovery (Expressed as Percent)  
 R = Recovery outside of target range

Y = RF averaging used in calculations  
 Nn = Value obtained from additional analysis  
 NA = Not Applicable  
 \* = See Discussion

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**Method 8290 Laboratory Control Spike Results**

Lab Sample ID	LCS-72245	Matrix	Water
Filename	Y190730C_02	Dilution	NA
Total Amount Extracted	967 mL	Extracted	07/26/2019 11:30
ICAL ID	Y190730	Analyzed	07/30/2019 21:09
CCal Filename(s)	Y190730C_01 & Y190730C_18	Injected By	SMT
Method Blank ID	BLANK-72244		

Native Isomers	Qs (ng)	Qm (ng)	% Rec.	Internal Standards	ng's Added	Percent Recovery
2,3,7,8-TCDF	0.20	0.19	95	2,3,7,8-TCDF-13C	2.0	72
Total TCDF				2,3,7,8-TCDD-13C	2.0	75
				1,2,3,7,8-PeCDF-13C	2.0	72
2,3,7,8-TCDD	0.20	0.21	103	2,3,4,7,8-PeCDF-13C	2.0	71
Total TCDD				1,2,3,7,8-PeCDD-13C	2.0	78
				1,2,3,4,7,8-HxCDF-13C	2.0	60
1,2,3,7,8-PeCDF	1.0	0.95	95	1,2,3,6,7,8-HxCDF-13C	2.0	64
2,3,4,7,8-PeCDF	1.0	0.98	98	2,3,4,6,7,8-HxCDF-13C	2.0	67
Total PeCDF				1,2,3,7,8,9-HxCDF-13C	2.0	72
				1,2,3,4,7,8-HxCDD-13C	2.0	66
1,2,3,7,8-PeCDD	1.0	0.88	88	1,2,3,6,7,8-HxCDD-13C	2.0	65
Total PeCDD				1,2,3,4,6,7,8-HpCDF-13C	2.0	68
				1,2,3,4,7,8,9-HpCDF-13C	2.0	72
1,2,3,4,7,8-HxCDF	1.0	1.0	102	1,2,3,4,6,7,8-HpCDD-13C	2.0	74
1,2,3,6,7,8-HxCDF	1.0	0.98	98	OCDD-13C	4.0	60 Y
2,3,4,6,7,8-HxCDF	1.0	0.96	96			
1,2,3,7,8,9-HxCDF	1.0	0.94	94	1,2,3,4-TCDD-13C	2.0	NA
Total HxCDF				1,2,3,7,8,9-HxCDD-13C	2.0	NA
1,2,3,4,7,8-HxCDD	1.0	0.99	99	2,3,7,8-TCDD-37Cl4	0.20	96
1,2,3,6,7,8-HxCDD	1.0	1.0	104			
1,2,3,7,8,9-HxCDD	1.0	1.0	104			
Total HxCDD						
1,2,3,4,6,7,8-HpCDF	1.0	1.0	101			
1,2,3,4,7,8,9-HpCDF	1.0	0.95	95			
Total HpCDF						
1,2,3,4,6,7,8-HpCDD	1.0	0.96	96			
Total HpCDD						
OCDF	2.0	2.1	105			
OCDD	2.0	2.2	108			

Qs = Quantity Spiked  
Qm = Quantity Measured  
Rec. = Recovery (Expressed as Percent)  
R = Recovery outside of target range

Y = RF averaging used in calculations  
Nn = Value obtained from additional analysis  
NA = Not Applicable  
\* = See Discussion

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**Method 8290 Laboratory Control Spike Results**

Lab Sample ID	LCS-72267	Matrix	Water
Filename	U190731A_02	Dilution	NA
Total Amount Extracted	1030 mL	Extracted	07/29/2019 11:50
ICAL ID	U190730	Analyzed	07/31/2019 09:21
CCal Filename(s)	U190731A_01 & U190731A_18	Injected By	SMT
Method Blank ID	BLANK-72266		

Native Isomers	Qs (ng)	Qm (ng)	% Rec.	Internal Standards	ng's Added	Percent Recovery
2,3,7,8-TCDF	0.20	0.22	109	2,3,7,8-TCDF-13C	2.0	78
Total TCDF				2,3,7,8-TCDD-13C	2.0	79
				1,2,3,7,8-PeCDF-13C	2.0	79
2,3,7,8-TCDD	0.20	0.23	116	2,3,4,7,8-PeCDF-13C	2.0	81
Total TCDD				1,2,3,7,8-PeCDD-13C	2.0	89
				1,2,3,4,7,8-HxCDF-13C	2.0	68
1,2,3,7,8-PeCDF	1.0	1.1	108	1,2,3,6,7,8-HxCDF-13C	2.0	69
2,3,4,7,8-PeCDF	1.0	1.1	109	2,3,4,6,7,8-HxCDF-13C	2.0	74
Total PeCDF				1,2,3,7,8,9-HxCDF-13C	2.0	75
				1,2,3,4,7,8-HxCDD-13C	2.0	67
1,2,3,7,8-PeCDD	1.0	0.97	97	1,2,3,6,7,8-HxCDD-13C	2.0	66
Total PeCDD				1,2,3,4,6,7,8-HpCDF-13C	2.0	61
				1,2,3,4,7,8,9-HpCDF-13C	2.0	66
1,2,3,4,7,8-HxCDF	1.0	1.1	110	1,2,3,4,6,7,8-HpCDD-13C	2.0	63
1,2,3,6,7,8-HxCDF	1.0	1.1	105	OCDD-13C	4.0	55
2,3,4,6,7,8-HxCDF	1.0	1.0	101			
1,2,3,7,8,9-HxCDF	1.0	1.0	100	1,2,3,4-TCDD-13C	2.0	NA
Total HxCDF				1,2,3,7,8,9-HxCDD-13C	2.0	NA
1,2,3,4,7,8-HxCDD	1.0	1.1	112	2,3,7,8-TCDD-37Cl4	0.20	110
1,2,3,6,7,8-HxCDD	1.0	1.2	118			
1,2,3,7,8,9-HxCDD	1.0	1.2	117			
Total HxCDD						
1,2,3,4,6,7,8-HpCDF	1.0	1.1	108			
1,2,3,4,7,8,9-HpCDF	1.0	1.1	105			
Total HpCDF						
1,2,3,4,6,7,8-HpCDD	1.0	1.0	103			
Total HpCDD						
OCDF	2.0	2.3	115			
OCDD	2.0	2.3	115			

Qs = Quantity Spiked  
Qm = Quantity Measured  
Rec. = Recovery (Expressed as Percent)  
R = Recovery outside of target range

Y = RF averaging used in calculations  
Nn = Value obtained from additional analysis  
NA = Not Applicable  
\* = See Discussion

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### Method 8290 Laboratory Control Spike Results

Lab Sample ID	LCSD-72224	Matrix	Water
Filename	U190730B_03	Dilution	NA
Total Amount Extracted	968 mL	Extracted	07/25/2019 11:40
ICAL ID	U190730	Analyzed	07/30/2019 20:59
CCal Filename(s)	U190730B_01 & U190730B_17	Injected By	SMT
Method Blank ID	BLANK-72222		

Native Isomers	Qs (ng)	Qm (ng)	% Rec.	Internal Standards	ng's Added	Percent Recovery
2,3,7,8-TCDF	0.20	0.20	99	2,3,7,8-TCDF-13C	2.0	86
Total TCDF				2,3,7,8-TCDD-13C	2.0	88
				1,2,3,7,8-PeCDF-13C	2.0	82
2,3,7,8-TCDD	0.20	0.20	102	2,3,4,7,8-PeCDF-13C	2.0	84
Total TCDD				1,2,3,7,8-PeCDD-13C	2.0	93
				1,2,3,4,7,8-HxCDF-13C	2.0	81
1,2,3,7,8-PeCDF	1.0	1.0	101	1,2,3,6,7,8-HxCDF-13C	2.0	78
2,3,4,7,8-PeCDF	1.0	1.0	101	2,3,4,6,7,8-HxCDF-13C	2.0	82
Total PeCDF				1,2,3,7,8,9-HxCDF-13C	2.0	84
				1,2,3,4,7,8-HxCDD-13C	2.0	81
1,2,3,7,8-PeCDD	1.0	0.92	92	1,2,3,6,7,8-HxCDD-13C	2.0	74
Total PeCDD				1,2,3,4,6,7,8-HpCDF-13C	2.0	73
				1,2,3,4,7,8,9-HpCDF-13C	2.0	78
1,2,3,4,7,8-HxCDF	1.0	1.0	102	1,2,3,4,6,7,8-HpCDD-13C	2.0	78
1,2,3,6,7,8-HxCDF	1.0	1.0	102	OCDD-13C	4.0	63
2,3,4,6,7,8-HxCDF	1.0	0.95	95			
1,2,3,7,8,9-HxCDF	1.0	0.93	93	1,2,3,4-TCDD-13C	2.0	NA
Total HxCDF				1,2,3,7,8,9-HxCDD-13C	2.0	NA
1,2,3,4,7,8-HxCDD	1.0	1.0	103	2,3,7,8-TCDD-37Cl4	0.20	125
1,2,3,6,7,8-HxCDD	1.0	1.1	108			
1,2,3,7,8,9-HxCDD	1.0	1.1	105			
Total HxCDD						
1,2,3,4,6,7,8-HpCDF	1.0	1.00	100			
1,2,3,4,7,8,9-HpCDF	1.0	0.90	90			
Total HpCDF						
1,2,3,4,6,7,8-HpCDD	1.0	0.87	87			
Total HpCDD						
OCDF	2.0	2.0	98			
OCDD	2.0	2.1	104			

Qs = Quantity Spiked  
 Qm = Quantity Measured  
 Rec. = Recovery (Expressed as Percent)  
 R = Recovery outside of target range

Y = RF averaging used in calculations  
 Nn = Value obtained from additional analysis  
 NA = Not Applicable  
 \* = See Discussion

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**Method 8290 Laboratory Control Spike Results**

Lab Sample ID	LCSD-72246	Matrix	Water
Filename	Y190730C_03	Dilution	NA
Total Amount Extracted	1020 mL	Extracted	07/26/2019 11:30
ICAL ID	Y190730	Analyzed	07/30/2019 21:54
CCal Filename(s)	Y190730C_01 & Y190730C_18	Injected By	SMT
Method Blank ID	BLANK-72244		

Native Isomers	Qs (ng)	Qm (ng)	% Rec.	Internal Standards	ng's Added	Percent Recovery
2,3,7,8-TCDF	0.20	0.20	98	2,3,7,8-TCDF-13C	2.0	76
Total TCDF				2,3,7,8-TCDD-13C	2.0	79
				1,2,3,7,8-PeCDF-13C	2.0	80
2,3,7,8-TCDD	0.20	0.21	106	2,3,4,7,8-PeCDF-13C	2.0	80
Total TCDD				1,2,3,7,8-PeCDD-13C	2.0	91
				1,2,3,4,7,8-HxCDF-13C	2.0	68
1,2,3,7,8-PeCDF	1.0	0.95	95	1,2,3,6,7,8-HxCDF-13C	2.0	69
2,3,4,7,8-PeCDF	1.0	1.00	100	2,3,4,6,7,8-HxCDF-13C	2.0	72
Total PeCDF				1,2,3,7,8,9-HxCDF-13C	2.0	73
				1,2,3,4,7,8-HxCDD-13C	2.0	69
1,2,3,7,8-PeCDD	1.0	0.91	91	1,2,3,6,7,8-HxCDD-13C	2.0	68
Total PeCDD				1,2,3,4,6,7,8-HpCDF-13C	2.0	69
				1,2,3,4,7,8,9-HpCDF-13C	2.0	70
1,2,3,4,7,8-HxCDF	1.0	1.0	102	1,2,3,4,6,7,8-HpCDD-13C	2.0	75
1,2,3,6,7,8-HxCDF	1.0	0.98	98	OCDD-13C	4.0	63 Y
2,3,4,6,7,8-HxCDF	1.0	0.97	97			
1,2,3,7,8,9-HxCDF	1.0	0.95	95	1,2,3,4-TCDD-13C	2.0	NA
Total HxCDF				1,2,3,7,8,9-HxCDD-13C	2.0	NA
1,2,3,4,7,8-HxCDD	1.0	1.0	101	2,3,7,8-TCDD-37Cl4	0.20	99
1,2,3,6,7,8-HxCDD	1.0	1.1	106			
1,2,3,7,8,9-HxCDD	1.0	1.1	109			
Total HxCDD						
1,2,3,4,6,7,8-HpCDF	1.0	1.0	102			
1,2,3,4,7,8,9-HpCDF	1.0	0.99	99			
Total HpCDF						
1,2,3,4,6,7,8-HpCDD	1.0	0.96	96			
Total HpCDD						
OCDF	2.0	2.0	101			
OCDD	2.0	2.1	104			

Qs = Quantity Spiked  
Qm = Quantity Measured  
Rec. = Recovery (Expressed as Percent)  
R = Recovery outside of target range

Y = RF averaging used in calculations  
Nn = Value obtained from additional analysis  
NA = Not Applicable  
\* = See Discussion

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### Method 8290 Laboratory Control Spike Results

Lab Sample ID	LCSD-72268	Matrix	Water
Filename	U190731A_03	Dilution	NA
Total Amount Extracted	1040 mL	Extracted	07/29/2019 11:50
ICAL ID	U190730	Analyzed	07/31/2019 10:04
CCal Filename(s)	U190731A_01 & U190731A_18	Injected By	SMT
Method Blank ID	BLANK-72266		

Native Isomers	Qs (ng)	Qm (ng)	% Rec.	Internal Standards	ng's Added	Percent Recovery
2,3,7,8-TCDF	0.20	0.23	113	2,3,7,8-TCDF-13C	2.0	73
Total TCDF				2,3,7,8-TCDD-13C	2.0	72
				1,2,3,7,8-PeCDF-13C	2.0	71
2,3,7,8-TCDD	0.20	0.25	125	2,3,4,7,8-PeCDF-13C	2.0	71
Total TCDD				1,2,3,7,8-PeCDD-13C	2.0	82
				1,2,3,4,7,8-HxCDF-13C	2.0	68
1,2,3,7,8-PeCDF	1.0	1.2	115	1,2,3,6,7,8-HxCDF-13C	2.0	66
2,3,4,7,8-PeCDF	1.0	1.2	115	2,3,4,6,7,8-HxCDF-13C	2.0	71
Total PeCDF				1,2,3,7,8,9-HxCDF-13C	2.0	72
				1,2,3,4,7,8-HxCDD-13C	2.0	68
1,2,3,7,8-PeCDD	1.0	1.0	102	1,2,3,6,7,8-HxCDD-13C	2.0	63
Total PeCDD				1,2,3,4,6,7,8-HpCDF-13C	2.0	57
				1,2,3,4,7,8,9-HpCDF-13C	2.0	58
1,2,3,4,7,8-HxCDF	1.0	1.2	118	1,2,3,4,6,7,8-HpCDD-13C	2.0	57
1,2,3,6,7,8-HxCDF	1.0	1.2	115	OCDD-13C	4.0	46
2,3,4,6,7,8-HxCDF	1.0	1.1	107			
1,2,3,7,8,9-HxCDF	1.0	1.1	109	1,2,3,4-TCDD-13C	2.0	NA
Total HxCDF				1,2,3,7,8,9-HxCDD-13C	2.0	NA
1,2,3,4,7,8-HxCDD	1.0	1.2	120	2,3,7,8-TCDD-37Cl4	0.20	102
1,2,3,6,7,8-HxCDD	1.0	1.2	123			
1,2,3,7,8,9-HxCDD	1.0	1.3	126			
Total HxCDD						
1,2,3,4,6,7,8-HpCDF	1.0	1.2	119			
1,2,3,4,7,8,9-HpCDF	1.0	1.1	114			
Total HpCDF						
1,2,3,4,6,7,8-HpCDD	1.0	1.1	111			
Total HpCDD						
OCDF	2.0	2.5	125			
OCDD	2.0	2.5	125			

Qs = Quantity Spiked  
 Qm = Quantity Measured  
 Rec. = Recovery (Expressed as Percent)  
 R = Recovery outside of target range

Y = RF averaging used in calculations  
 Nn = Value obtained from additional analysis  
 NA = Not Applicable  
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**Method 8290**

**Spike Recovery Relative Percent Difference (RPD) Results**

Client Pace Analytical National

Spike 1 ID LCS-72223  
 Spike 1 Filename U190730B\_02

Spike 2 ID LCSD-72224  
 Spike 2 Filename U190730B\_03

Compound	Spike 1 %REC	Spike 2 %REC	%RPD
2,3,7,8-TCDF	100	99	1.0
2,3,7,8-TCDD	106	102	3.8
1,2,3,7,8-PeCDF	100	101	1.0
2,3,4,7,8-PeCDF	102	101	1.0
1,2,3,7,8-PeCDD	90	92	2.2
1,2,3,4,7,8-HxCDF	107	102	4.8
1,2,3,6,7,8-HxCDF	103	102	1.0
2,3,4,6,7,8-HxCDF	97	95	2.1
1,2,3,7,8,9-HxCDF	97	93	4.2
1,2,3,4,7,8-HxCDD	105	103	1.9
1,2,3,6,7,8-HxCDD	106	108	1.9
1,2,3,7,8,9-HxCDD	108	105	2.8
1,2,3,4,6,7,8-HpCDF	101	100	1.0
1,2,3,4,7,8,9-HpCDF	100	90	10.5
1,2,3,4,6,7,8-HpCDD	98	87	11.9
OCDF	101	98	3.0
OCDD	105	104	1.0

%REC = Percent Recovered

RPD = The difference between the two values divided by the mean value

**REPORT OF LABORATORY ANALYSIS**

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**Method 8290**

**Spike Recovery Relative Percent Difference (RPD) Results**

Client Pace Analytical National

Spike 1 ID LCS-72245  
 Spike 1 Filename Y190730C\_02

Spike 2 ID LCSD-72246  
 Spike 2 Filename Y190730C\_03

Compound	Spike 1 %REC	Spike 2 %REC	%RPD
2,3,7,8-TCDF	95	98	3.1
2,3,7,8-TCDD	103	106	2.9
1,2,3,7,8-PeCDF	95	95	0.0
2,3,4,7,8-PeCDF	98	100	2.0
1,2,3,7,8-PeCDD	88	91	3.4
1,2,3,4,7,8-HxCDF	102	102	0.0
1,2,3,6,7,8-HxCDF	98	98	0.0
2,3,4,6,7,8-HxCDF	96	97	1.0
1,2,3,7,8,9-HxCDF	94	95	1.1
1,2,3,4,7,8-HxCDD	99	101	2.0
1,2,3,6,7,8-HxCDD	104	106	1.9
1,2,3,7,8,9-HxCDD	104	109	4.7
1,2,3,4,6,7,8-HpCDF	101	102	1.0
1,2,3,4,7,8,9-HpCDF	95	99	4.1
1,2,3,4,6,7,8-HpCDD	96	96	0.0
OCDF	105	101	3.9
OCDD	108	104	3.8

%REC = Percent Recovered

RPD = The difference between the two values divided by the mean value

**REPORT OF LABORATORY ANALYSIS**

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**Method 8290**

**Spike Recovery Relative Percent Difference (RPD) Results**

Client Pace Analytical National

Spike 1 ID LCS-72267  
 Spike 1 Filename U190731A\_02

Spike 2 ID LCSD-72268  
 Spike 2 Filename U190731A\_03

Compound	Spike 1 %REC	Spike 2 %REC	%RPD
2,3,7,8-TCDF	109	113	3.6
2,3,7,8-TCDD	116	125	7.5
1,2,3,7,8-PeCDF	108	115	6.3
2,3,4,7,8-PeCDF	109	115	5.4
1,2,3,7,8-PeCDD	97	102	5.0
1,2,3,4,7,8-HxCDF	110	118	7.0
1,2,3,6,7,8-HxCDF	105	115	9.1
2,3,4,6,7,8-HxCDF	101	107	5.8
1,2,3,7,8,9-HxCDF	100	109	8.6
1,2,3,4,7,8-HxCDD	112	120	6.9
1,2,3,6,7,8-HxCDD	118	123	4.1
1,2,3,7,8,9-HxCDD	117	126	7.4
1,2,3,4,6,7,8-HpCDF	108	119	9.7
1,2,3,4,7,8,9-HpCDF	105	114	8.2
1,2,3,4,6,7,8-HpCDD	103	111	7.5
OCDF	115	125	8.3
OCDD	115	125	8.3

%REC = Percent Recovered

RPD = The difference between the two values divided by the mean value

**REPORT OF LABORATORY ANALYSIS**

This report shall not be reproduced, except in full,  
 without the written consent of Pace Analytical Services, Inc.

July 25, 2019

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

## S&ME Inc. - Spartanburg SC

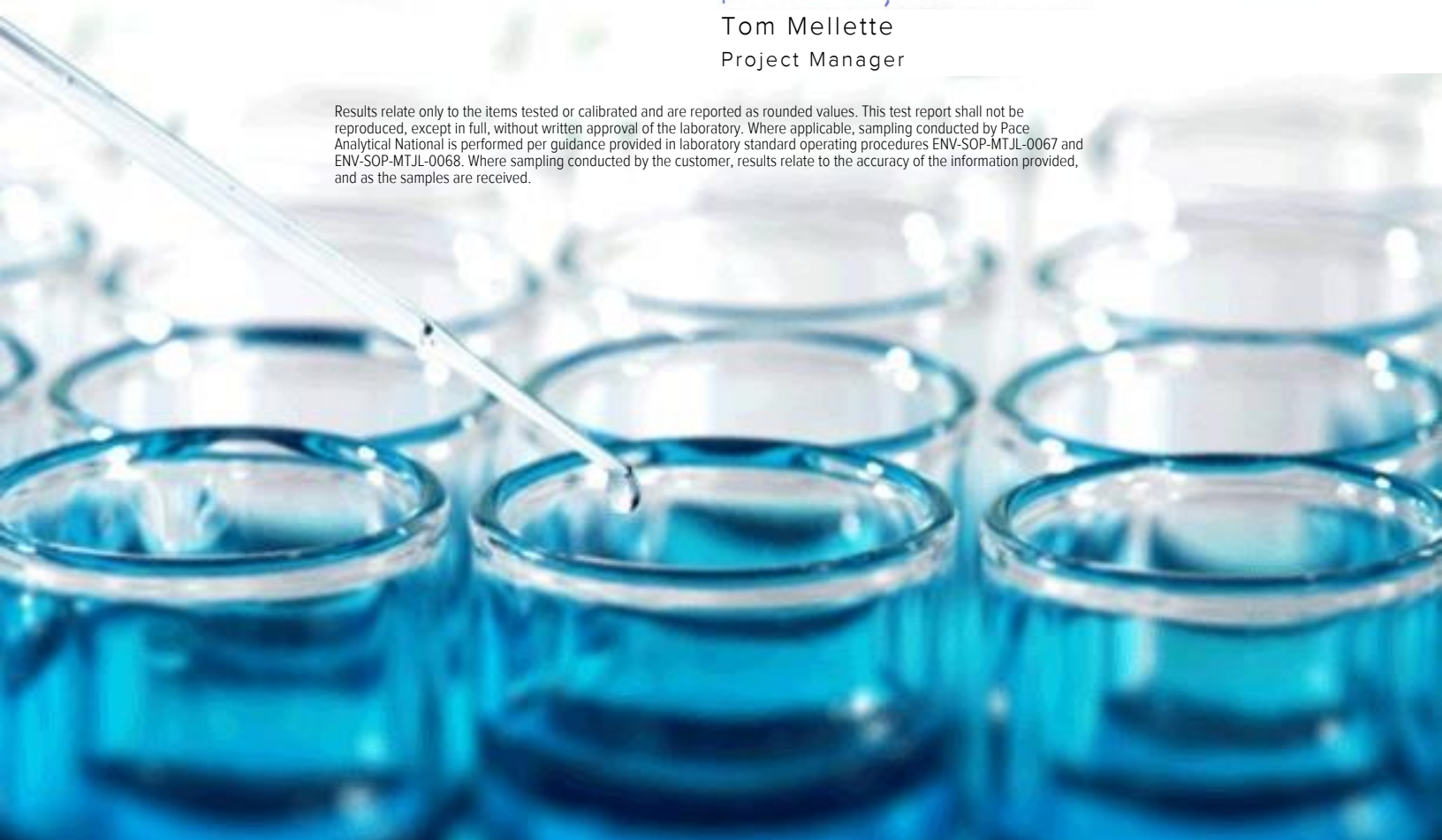
Sample Delivery Group: L1117439  
Samples Received: 07/11/2019  
Project Number: 4213-18-087  
Description: New Indy  
Site: COLUMBIA  
Report To: Scott Dacus  
301 Zima Park Drive  
Spartanburg, SC 29301

Entire Report Reviewed By:



Tom Mellette  
Project Manager

Results relate only to the items tested or calibrated and are reported as rounded values. This test report shall not be reproduced, except in full, without written approval of the laboratory. Where applicable, sampling conducted by Pace Analytical National is performed per guidance provided in laboratory standard operating procedures ENV-SOP-MTJL-0067 and ENV-SOP-MTJL-0068. Where sampling conducted by the customer, results relate to the accuracy of the information provided, and as the samples are received.





<b>Cp: Cover Page</b>	<b>1</b>
<b>Tc: Table of Contents</b>	<b>2</b>
<b>Ss: Sample Summary</b>	<b>3</b>
<b>Cn: Case Narrative</b>	<b>7</b>
<b>Sr: Sample Results</b>	<b>8</b>
GW-9 L1117439-01	8
GW-16 L1117439-02	13
GW-4B L1117439-03	18
CM-DUP-GW-1 L1117439-04	23
GW-4A L1117439-05	28
GW-6 L1117439-06	33
R2-MW-5 L1117439-07	38
R2-MW-4 L1117439-08	43
R2-MW-3 L1117439-09	48
R2-MW-2 L1117439-10	53
GW-6B L1117439-11	58
GW-11 L1117439-12	63
GW-5 L1117439-13	68
GW-5B L1117439-14	73
<b>Qc: Quality Control Summary</b>	<b>78</b>
Wet Chemistry by Method 4500CN E-2011	78
Mercury by Method 7470A	80
Metals (ICP) by Method 6010D	81
Volatile Organic Compounds (GC/MS) by Method 8260B	83
Pesticides (GC) by Method 8081B	86
Polychlorinated Biphenyls (GC) by Method 8082 A	93
Semi Volatile Organic Compounds (GC/MS) by Method 8270D	96
Semi Volatile Organic Compounds (GC/MS) by Method 8270E-SIM	112
<b>Gl: Glossary of Terms</b>	<b>117</b>
<b>Al: Accreditations &amp; Locations</b>	<b>119</b>
<b>Sc: Sample Chain of Custody</b>	<b>120</b>

1	Cp
2	Tc
3	Ss
4	Cn
5	Sr
6	Qc
7	Gl
8	Al
9	Sc

# SAMPLE SUMMARY

## GW-9 L1117439-01 GW

Collected by  
SF / KM      Collected date/time  
07/10/19 15:40      Received date/time  
07/11/19 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Wet Chemistry by Method 4500CN E-2011	WG1314079	1	07/19/19 09:07	07/19/19 16:43	JER	Mt. Juliet, TN
Mercury by Method 7470A	WG1309989	1	07/11/19 18:32	07/12/19 09:39	TRB	Mt. Juliet, TN
Metals (ICP) by Method 6010D	WG1310249	1	07/15/19 08:00	07/16/19 11:37	CCE	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1310149	1	07/12/19 02:41	07/12/19 02:41	JHH	Mt. Juliet, TN
Pesticides (GC) by Method 8081B	WG1311221	1	07/16/19 17:16	07/17/19 09:21	LEL	Mt. Juliet, TN
Polychlorinated Biphenyls (GC) by Method 8082 A	WG1311221	1	07/16/19 17:16	07/17/19 10:22	MTJ	Mt. Juliet, TN
Semi Volatile Organic Compounds (GC/MS) by Method 8270D	WG1312111	1	07/16/19 16:50	07/17/19 12:55	AO	Mt. Juliet, TN
Semi Volatile Organic Compounds (GC/MS) by Method 8270E-SIM	WG1311104	1	07/14/19 16:38	07/15/19 10:38	AAT	Mt. Juliet, TN

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Cp

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Tc

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Ss

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Qc

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Gl

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Al

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Sc

## GW-16 L1117439-02 GW

Collected by  
SF / KM      Collected date/time  
07/10/19 14:30      Received date/time  
07/11/19 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Wet Chemistry by Method 4500CN E-2011	WG1314079	1	07/19/19 09:07	07/19/19 16:45	JER	Mt. Juliet, TN
Mercury by Method 7470A	WG1309989	1	07/11/19 18:32	07/12/19 09:42	TRB	Mt. Juliet, TN
Metals (ICP) by Method 6010D	WG1310249	1	07/15/19 08:00	07/16/19 11:48	CCE	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1310149	1	07/12/19 03:01	07/12/19 03:01	JHH	Mt. Juliet, TN
Pesticides (GC) by Method 8081B	WG1311221	1	07/16/19 17:16	07/17/19 09:36	LEL	Mt. Juliet, TN
Polychlorinated Biphenyls (GC) by Method 8082 A	WG1311221	1	07/16/19 17:16	07/17/19 10:36	MTJ	Mt. Juliet, TN
Semi Volatile Organic Compounds (GC/MS) by Method 8270D	WG1312111	1.06	07/16/19 16:50	07/17/19 13:17	AO	Mt. Juliet, TN
Semi Volatile Organic Compounds (GC/MS) by Method 8270E-SIM	WG1311104	1	07/14/19 16:38	07/15/19 11:01	AAT	Mt. Juliet, TN

## GW-4B L1117439-03 GW

Collected by  
SF / KM      Collected date/time  
07/10/19 11:20      Received date/time  
07/11/19 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Wet Chemistry by Method 4500CN E-2011	WG1314079	1	07/19/19 09:07	07/19/19 16:48	JER	Mt. Juliet, TN
Mercury by Method 7470A	WG1309989	1	07/11/19 18:32	07/12/19 09:44	TRB	Mt. Juliet, TN
Metals (ICP) by Method 6010D	WG1310249	1	07/15/19 08:00	07/16/19 11:51	CCE	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1310149	1	07/12/19 03:20	07/12/19 03:20	JHH	Mt. Juliet, TN
Pesticides (GC) by Method 8081B	WG1311221	1	07/16/19 17:16	07/17/19 09:51	LEL	Mt. Juliet, TN
Polychlorinated Biphenyls (GC) by Method 8082 A	WG1311221	1	07/16/19 17:16	07/17/19 10:51	MTJ	Mt. Juliet, TN
Semi Volatile Organic Compounds (GC/MS) by Method 8270D	WG1312111	1	07/16/19 16:50	07/17/19 13:40	AO	Mt. Juliet, TN
Semi Volatile Organic Compounds (GC/MS) by Method 8270E-SIM	WG1311104	1.04	07/14/19 16:38	07/15/19 11:23	AAT	Mt. Juliet, TN

## CM-DUP-GW-1 L1117439-04 GW

Collected by  
SF / KM      Collected date/time  
07/10/19 15:55      Received date/time  
07/11/19 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Wet Chemistry by Method 4500CN E-2011	WG1314079	1	07/19/19 09:07	07/19/19 16:49	JER	Mt. Juliet, TN
Mercury by Method 7470A	WG1309989	1	07/11/19 18:32	07/12/19 09:46	TRB	Mt. Juliet, TN
Metals (ICP) by Method 6010D	WG1310249	1	07/15/19 08:00	07/16/19 11:54	CCE	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1310149	1	07/12/19 03:40	07/12/19 03:40	JHH	Mt. Juliet, TN
Pesticides (GC) by Method 8081B	WG1311221	1	07/16/19 17:16	07/17/19 10:06	LEL	Mt. Juliet, TN
Polychlorinated Biphenyls (GC) by Method 8082 A	WG1311221	1	07/16/19 17:16	07/17/19 11:05	MTJ	Mt. Juliet, TN
Semi Volatile Organic Compounds (GC/MS) by Method 8270D	WG1312111	1	07/16/19 16:50	07/17/19 14:03	AO	Mt. Juliet, TN
Semi Volatile Organic Compounds (GC/MS) by Method 8270E-SIM	WG1311224	1	07/15/19 16:12	07/15/19 23:01	AAT	Mt. Juliet, TN

# SAMPLE SUMMARY



## GW-4A L1117439-05 GW

Collected by  
SF / KM      Collected date/time  
07/10/19 10:25      Received date/time  
07/11/19 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Wet Chemistry by Method 4500CN E-2011	WG1313327	1	07/18/19 14:36	07/18/19 20:00	JER	Mt. Juliet, TN
Mercury by Method 7470A	WG1309989	1	07/11/19 18:32	07/12/19 09:49	TRB	Mt. Juliet, TN
Metals (ICP) by Method 6010D	WG1310249	1	07/15/19 08:00	07/16/19 12:02	CCE	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1310149	1	07/12/19 03:59	07/12/19 03:59	JHH	Mt. Juliet, TN
Pesticides (GC) by Method 8081B	WG1311221	1	07/16/19 17:16	07/17/19 10:20	LEL	Mt. Juliet, TN
Polychlorinated Biphenyls (GC) by Method 8082 A	WG1311221	1	07/16/19 17:16	07/17/19 11:19	MTJ	Mt. Juliet, TN
Semi Volatile Organic Compounds (GC/MS) by Method 8270D	WG1311218	1	07/16/19 06:50	07/16/19 23:35	AO	Mt. Juliet, TN
Semi Volatile Organic Compounds (GC/MS) by Method 8270E-SIM	WG1311224	1	07/15/19 16:12	07/15/19 23:23	AAT	Mt. Juliet, TN

1  
Cp

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Tc

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Ss

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Cn

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Sr

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Qc

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Gl

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Al

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Sc

## GW-6 L1117439-06 GW

Collected by  
SF / KM      Collected date/time  
07/09/19 15:45      Received date/time  
07/11/19 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Wet Chemistry by Method 4500CN E-2011	WG1313327	1	07/18/19 14:36	07/18/19 20:02	JER	Mt. Juliet, TN
Mercury by Method 7470A	WG1309989	1	07/11/19 18:32	07/12/19 09:51	TRB	Mt. Juliet, TN
Metals (ICP) by Method 6010D	WG1310249	1	07/15/19 08:00	07/16/19 12:05	CCE	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1310149	1	07/12/19 04:19	07/12/19 04:19	JHH	Mt. Juliet, TN
Pesticides (GC) by Method 8081B	WG1310080	1	07/12/19 07:15	07/13/19 10:05	RP	Mt. Juliet, TN
Polychlorinated Biphenyls (GC) by Method 8082 A	WG1310080	1	07/12/19 07:15	07/13/19 19:44	MTJ	Mt. Juliet, TN
Semi Volatile Organic Compounds (GC/MS) by Method 8270D	WG1312111	1	07/16/19 16:50	07/17/19 14:25	AO	Mt. Juliet, TN
Semi Volatile Organic Compounds (GC/MS) by Method 8270E-SIM	WG1311224	1	07/15/19 16:12	07/15/19 23:45	AAT	Mt. Juliet, TN

## R2-MW-5 L1117439-07 GW

Collected by  
SF / KM      Collected date/time  
07/09/19 13:55      Received date/time  
07/11/19 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Wet Chemistry by Method 4500CN E-2011	WG1313327	1	07/18/19 14:36	07/18/19 20:03	JER	Mt. Juliet, TN
Mercury by Method 7470A	WG1309989	1	07/11/19 18:32	07/12/19 09:53	TRB	Mt. Juliet, TN
Metals (ICP) by Method 6010D	WG1310249	1	07/15/19 08:00	07/16/19 12:08	CCE	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1310149	1	07/12/19 04:38	07/12/19 04:38	JHH	Mt. Juliet, TN
Pesticides (GC) by Method 8081B	WG1310080	1	07/12/19 07:15	07/13/19 10:17	RP	Mt. Juliet, TN
Polychlorinated Biphenyls (GC) by Method 8082 A	WG1310080	1	07/12/19 07:15	07/13/19 19:56	MTJ	Mt. Juliet, TN
Semi Volatile Organic Compounds (GC/MS) by Method 8270D	WG1312111	1	07/16/19 16:50	07/17/19 14:48	AO	Mt. Juliet, TN
Semi Volatile Organic Compounds (GC/MS) by Method 8270E-SIM	WG1311224	1	07/15/19 16:12	07/16/19 00:06	AAT	Mt. Juliet, TN

## R2-MW-4 L1117439-08 GW

Collected by  
SF / KM      Collected date/time  
07/09/19 11:40      Received date/time  
07/11/19 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Wet Chemistry by Method 4500CN E-2011	WG1313327	1	07/18/19 14:36	07/18/19 20:04	JER	Mt. Juliet, TN
Mercury by Method 7470A	WG1309989	1	07/11/19 18:32	07/12/19 09:56	TRB	Mt. Juliet, TN
Metals (ICP) by Method 6010D	WG1310249	1	07/15/19 08:00	07/16/19 12:11	CCE	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1310149	1	07/12/19 04:58	07/12/19 04:58	JHH	Mt. Juliet, TN
Pesticides (GC) by Method 8081B	WG1310080	1	07/12/19 07:15	07/13/19 10:30	RP	Mt. Juliet, TN
Polychlorinated Biphenyls (GC) by Method 8082 A	WG1310080	1	07/12/19 07:15	07/13/19 20:09	MTJ	Mt. Juliet, TN
Semi Volatile Organic Compounds (GC/MS) by Method 8270D	WG1312111	1	07/16/19 16:50	07/17/19 15:11	AO	Mt. Juliet, TN
Semi Volatile Organic Compounds (GC/MS) by Method 8270E-SIM	WG1311224	1	07/15/19 16:12	07/16/19 00:28	AAT	Mt. Juliet, TN



# SAMPLE SUMMARY

## R2-MW-3 L1117439-09 GW

Collected by  
SF / KM      Collected date/time  
07/09/19 10:15      Received date/time  
07/11/19 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Wet Chemistry by Method 4500CN E-2011	WG1313327	1	07/18/19 14:36	07/18/19 20:09	JER	Mt. Juliet, TN
Mercury by Method 7470A	WG1309989	1	07/11/19 18:32	07/12/19 09:58	TRB	Mt. Juliet, TN
Metals (ICP) by Method 6010D	WG1310249	1	07/15/19 08:00	07/16/19 12:14	CCE	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1310149	1	07/12/19 05:17	07/12/19 05:17	JHH	Mt. Juliet, TN
Pesticides (GC) by Method 8081B	WG1310080	1	07/12/19 07:15	07/13/19 10:42	RP	Mt. Juliet, TN
Polychlorinated Biphenyls (GC) by Method 8082 A	WG1310080	1	07/12/19 07:15	07/13/19 20:21	MTJ	Mt. Juliet, TN
Semi Volatile Organic Compounds (GC/MS) by Method 8270D	WG1311627	1	07/15/19 16:26	07/16/19 03:18	AO	Mt. Juliet, TN
Semi Volatile Organic Compounds (GC/MS) by Method 8270E-SIM	WG1311224	1	07/15/19 16:12	07/16/19 00:50	AAT	Mt. Juliet, TN

1  
Cp

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Tc

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Ss

4  
Cn

5  
Sr

## R2-MW-2 L1117439-10 GW

Collected by  
SF / KM      Collected date/time  
07/09/19 16:32      Received date/time  
07/11/19 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Wet Chemistry by Method 4500CN E-2011	WG1313327	1	07/18/19 14:36	07/18/19 20:10	JER	Mt. Juliet, TN
Mercury by Method 7470A	WG1309989	1	07/11/19 18:32	07/12/19 10:00	TRB	Mt. Juliet, TN
Metals (ICP) by Method 6010D	WG1310249	1	07/15/19 08:00	07/16/19 12:17	CCE	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1310149	1	07/12/19 05:37	07/12/19 05:37	JHH	Mt. Juliet, TN
Pesticides (GC) by Method 8081B	WG1310080	1	07/12/19 07:15	07/13/19 10:54	RP	Mt. Juliet, TN
Polychlorinated Biphenyls (GC) by Method 8082 A	WG1310080	1	07/12/19 07:15	07/13/19 20:34	MTJ	Mt. Juliet, TN
Semi Volatile Organic Compounds (GC/MS) by Method 8270D	WG1311218	1	07/16/19 06:50	07/16/19 23:56	AO	Mt. Juliet, TN
Semi Volatile Organic Compounds (GC/MS) by Method 8270E-SIM	WG1311224	1	07/15/19 16:12	07/16/19 01:12	AAT	Mt. Juliet, TN

6  
Qc

7  
Gl

8  
Al

9  
Sc

## GW-6B L1117439-11 GW

Collected by  
SF / KM      Collected date/time  
07/09/19 16:18      Received date/time  
07/11/19 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Wet Chemistry by Method 4500CN E-2011	WG1313327	1	07/18/19 14:36	07/18/19 20:11	JER	Mt. Juliet, TN
Mercury by Method 7470A	WG1309989	1	07/11/19 18:32	07/12/19 10:07	TRB	Mt. Juliet, TN
Metals (ICP) by Method 6010D	WG1310249	1	07/15/19 08:00	07/16/19 12:20	CCE	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1310149	1	07/12/19 05:56	07/12/19 05:56	JHH	Mt. Juliet, TN
Pesticides (GC) by Method 8081B	WG1310080	1	07/12/19 07:15	07/13/19 11:07	RP	Mt. Juliet, TN
Polychlorinated Biphenyls (GC) by Method 8082 A	WG1310080	1	07/12/19 07:15	07/13/19 20:46	MTJ	Mt. Juliet, TN
Semi Volatile Organic Compounds (GC/MS) by Method 8270D	WG1311218	1	07/16/19 06:50	07/17/19 00:16	AO	Mt. Juliet, TN
Semi Volatile Organic Compounds (GC/MS) by Method 8270E-SIM	WG1311224	1	07/15/19 16:12	07/16/19 01:34	AAT	Mt. Juliet, TN

## GW-11 L1117439-12 GW

Collected by  
SF / KM      Collected date/time  
07/09/19 16:50      Received date/time  
07/11/19 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Wet Chemistry by Method 4500CN E-2011	WG1313327	1	07/18/19 14:36	07/18/19 20:12	JER	Mt. Juliet, TN
Mercury by Method 7470A	WG1309989	1	07/11/19 18:32	07/12/19 10:09	TRB	Mt. Juliet, TN
Metals (ICP) by Method 6010D	WG1310249	1	07/15/19 08:00	07/16/19 12:23	CCE	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1310149	1	07/12/19 06:16	07/12/19 06:16	JHH	Mt. Juliet, TN
Pesticides (GC) by Method 8081B	WG1310080	1	07/12/19 07:15	07/13/19 11:20	RP	Mt. Juliet, TN
Polychlorinated Biphenyls (GC) by Method 8082 A	WG1310080	1	07/12/19 07:15	07/13/19 20:59	MTJ	Mt. Juliet, TN
Semi Volatile Organic Compounds (GC/MS) by Method 8270D	WG1311218	1	07/16/19 06:50	07/17/19 00:36	AO	Mt. Juliet, TN
Semi Volatile Organic Compounds (GC/MS) by Method 8270E-SIM	WG1311224	1	07/15/19 16:12	07/16/19 01:56	AAT	Mt. Juliet, TN

# SAMPLE SUMMARY

## GW-5 L1117439-13 GW

Collected by  
SF / KM      Collected date/time  
07/10/19 16:00      Received date/time  
07/11/19 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Wet Chemistry by Method 4500CN E-2011	WG1313327	1	07/18/19 14:36	07/18/19 20:13	JER	Mt. Juliet, TN
Mercury by Method 7470A	WG1309989	1	07/11/19 18:32	07/12/19 10:11	TRB	Mt. Juliet, TN
Metals (ICP) by Method 6010D	WG1310249	1	07/15/19 08:00	07/16/19 12:26	CCE	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1310149	1	07/12/19 06:35	07/12/19 06:35	JHH	Mt. Juliet, TN
Pesticides (GC) by Method 8081B	WG1311221	2	07/16/19 17:16	07/17/19 10:35	LEL	Mt. Juliet, TN
Polychlorinated Biphenyls (GC) by Method 8082 A	WG1311221	2	07/16/19 17:16	07/17/19 11:34	MTJ	Mt. Juliet, TN
Semi Volatile Organic Compounds (GC/MS) by Method 8270D	WG1312111	1	07/16/19 16:50	07/17/19 17:04	AO	Mt. Juliet, TN
Semi Volatile Organic Compounds (GC/MS) by Method 8270E-SIM	WG1311224	1	07/15/19 16:12	07/16/19 02:18	AAT	Mt. Juliet, TN

1  
Cp

2  
Tc

3  
Ss

4  
Cn

5  
Sr

6  
Qc

7  
Gl

8  
Al

9  
Sc

## GW-5B L1117439-14 GW

Collected by  
SF / KM      Collected date/time  
07/10/19 10:47      Received date/time  
07/11/19 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Wet Chemistry by Method 4500CN E-2011	WG1313327	1	07/18/19 14:36	07/18/19 20:15	JER	Mt. Juliet, TN
Mercury by Method 7470A	WG1309989	1	07/11/19 18:32	07/12/19 09:19	TRB	Mt. Juliet, TN
Metals (ICP) by Method 6010D	WG1310249	1	07/15/19 08:00	07/16/19 12:29	CCE	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1310149	1	07/12/19 06:55	07/12/19 06:55	JHH	Mt. Juliet, TN
Pesticides (GC) by Method 8081B	WG1311222	1	07/17/19 17:02	07/18/19 09:40	ADF	Mt. Juliet, TN
Polychlorinated Biphenyls (GC) by Method 8082 A	WG1314363	1	07/20/19 17:34	07/21/19 13:54	RP	Mt. Juliet, TN
Semi Volatile Organic Compounds (GC/MS) by Method 8270D	WG1311627	1	07/15/19 16:26	07/16/19 03:59	AO	Mt. Juliet, TN
Semi Volatile Organic Compounds (GC/MS) by Method 8270E-SIM	WG1311224	1	07/15/19 16:12	07/16/19 02:40	AAT	Mt. Juliet, TN



All sample aliquots were received at the correct temperature, in the proper containers, with the appropriate preservatives, and within method specified holding times, unless qualified or notated within the report. Where applicable, all MDL (LOD) and RDL (LOQ) values reported for environmental samples have been corrected for the dilution factor used in the analysis. All Method and Batch Quality Control are within established criteria except where addressed in this case narrative, a non-conformance form or properly qualified within the sample results. By my digital signature below, I affirm to the best of my knowledge, all problems/anomalies observed by the laboratory as having the potential to affect the quality of the data have been identified by the laboratory, and no information or data have been knowingly withheld that would affect the quality of the data.

Tom Mellette  
Project Manager

- <sup>1</sup> Cp
- <sup>2</sup> Tc
- <sup>3</sup> Ss
- <sup>4</sup> Cn
- <sup>5</sup> Sr
- <sup>6</sup> Qc
- <sup>7</sup> Gl
- <sup>8</sup> Al
- <sup>9</sup> Sc

### Sample Handling and Receiving

The following analysis were performed from an unpreserved, insufficiently or inadequately preserved sample.

<u>Lab Sample ID</u>	<u>Project Sample ID</u>	<u>Method</u>
<a href="#">L1117439-09</a>	<a href="#">R2-MW-3</a>	4500CN E-2011
<a href="#">L1117439-10</a>	<a href="#">R2-MW-2</a>	4500CN E-2011



## Wet Chemistry by Method 4500CN E-2011

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	ug/l		ug/l		date / time	
Cyanide	ND		5.00	1	07/19/2019 16:43	<a href="#">WG1314079</a>

## Mercury by Method 7470A

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	ug/l		ug/l		date / time	
Mercury	ND		0.200	1	07/12/2019 09:39	<a href="#">WG1309989</a>

## Metals (ICP) by Method 6010D

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	ug/l		ug/l		date / time	
Aluminum	ND		200	1	07/16/2019 11:37	<a href="#">WG1310249</a>
Antimony	ND		10.0	1	07/16/2019 11:37	<a href="#">WG1310249</a>
Arsenic	ND		10.0	1	07/16/2019 11:37	<a href="#">WG1310249</a>
Barium	722	<u>O1</u>	5.00	1	07/16/2019 11:37	<a href="#">WG1310249</a>
Beryllium	ND		2.00	1	07/16/2019 11:37	<a href="#">WG1310249</a>
Cadmium	ND		2.00	1	07/16/2019 11:37	<a href="#">WG1310249</a>
Calcium	15800	<u>O1</u>	1000	1	07/16/2019 11:37	<a href="#">WG1310249</a>
Chromium	ND		10.0	1	07/16/2019 11:37	<a href="#">WG1310249</a>
Cobalt	ND		10.0	1	07/16/2019 11:37	<a href="#">WG1310249</a>
Copper	ND		10.0	1	07/16/2019 11:37	<a href="#">WG1310249</a>
Iron	284		100	1	07/16/2019 11:37	<a href="#">WG1310249</a>
Lead	ND		5.00	1	07/16/2019 11:37	<a href="#">WG1310249</a>
Magnesium	11000		1000	1	07/16/2019 11:37	<a href="#">WG1310249</a>
Manganese	496	<u>O1</u>	10.0	1	07/16/2019 11:37	<a href="#">WG1310249</a>
Nickel	45.3		10.0	1	07/16/2019 11:37	<a href="#">WG1310249</a>
Potassium	5310		1000	1	07/16/2019 11:37	<a href="#">WG1310249</a>
Selenium	ND		10.0	1	07/16/2019 11:37	<a href="#">WG1310249</a>
Silver	ND		5.00	1	07/16/2019 11:37	<a href="#">WG1310249</a>
Sodium	120000	<u>O1 V</u>	1000	1	07/16/2019 11:37	<a href="#">WG1310249</a>
Thallium	ND		10.0	1	07/16/2019 11:37	<a href="#">WG1310249</a>
Vanadium	ND		20.0	1	07/16/2019 11:37	<a href="#">WG1310249</a>
Zinc	63.4		50.0	1	07/16/2019 11:37	<a href="#">WG1310249</a>

## Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	ug/l		ug/l		date / time	
Acetone	ND	<u>J4</u>	50.0	1	07/12/2019 02:41	<a href="#">WG1310149</a>
Benzene	ND		1.00	1	07/12/2019 02:41	<a href="#">WG1310149</a>
Bromochloromethane	ND		1.00	1	07/12/2019 02:41	<a href="#">WG1310149</a>
Bromodichloromethane	ND		1.00	1	07/12/2019 02:41	<a href="#">WG1310149</a>
Bromoform	ND		1.00	1	07/12/2019 02:41	<a href="#">WG1310149</a>
Bromomethane	ND		5.00	1	07/12/2019 02:41	<a href="#">WG1310149</a>
Carbon disulfide	ND		1.00	1	07/12/2019 02:41	<a href="#">WG1310149</a>
Carbon tetrachloride	ND		1.00	1	07/12/2019 02:41	<a href="#">WG1310149</a>
Chlorobenzene	1.69		1.00	1	07/12/2019 02:41	<a href="#">WG1310149</a>
Chlorodibromomethane	ND		1.00	1	07/12/2019 02:41	<a href="#">WG1310149</a>
Chloroethane	ND		5.00	1	07/12/2019 02:41	<a href="#">WG1310149</a>
Chloroform	78.0		5.00	1	07/12/2019 02:41	<a href="#">WG1310149</a>
Chloromethane	ND		2.50	1	07/12/2019 02:41	<a href="#">WG1310149</a>
Cyclohexane	ND		1.00	1	07/12/2019 02:41	<a href="#">WG1310149</a>
1,2-Dibromo-3-Chloropropane	ND		5.00	1	07/12/2019 02:41	<a href="#">WG1310149</a>
1,2-Dibromoethane	ND		1.00	1	07/12/2019 02:41	<a href="#">WG1310149</a>
1,2-Dichlorobenzene	ND		1.00	1	07/12/2019 02:41	<a href="#">WG1310149</a>
1,3-Dichlorobenzene	ND		1.00	1	07/12/2019 02:41	<a href="#">WG1310149</a>

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc



Collected date/time: 07/10/19 15:40

L1117439

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result ug/l	Qualifier	RDL ug/l	Dilution	Analysis date / time	Batch
1,4-Dichlorobenzene	1.61		1.00	1	07/12/2019 02:41	WG1310149
Dichlorodifluoromethane	ND		5.00	1	07/12/2019 02:41	WG1310149
1,1-Dichloroethane	ND		1.00	1	07/12/2019 02:41	WG1310149
1,2-Dichloroethane	ND		1.00	1	07/12/2019 02:41	WG1310149
1,1-Dichloroethene	2.05		1.00	1	07/12/2019 02:41	WG1310149
cis-1,2-Dichloroethene	ND		1.00	1	07/12/2019 02:41	WG1310149
trans-1,2-Dichloroethene	ND		1.00	1	07/12/2019 02:41	WG1310149
1,2-Dichloropropane	ND		1.00	1	07/12/2019 02:41	WG1310149
cis-1,3-Dichloropropene	ND		1.00	1	07/12/2019 02:41	WG1310149
trans-1,3-Dichloropropene	ND		1.00	1	07/12/2019 02:41	WG1310149
Ethylbenzene	ND		1.00	1	07/12/2019 02:41	WG1310149
2-Hexanone	ND		10.0	1	07/12/2019 02:41	WG1310149
Isopropylbenzene	ND		1.00	1	07/12/2019 02:41	WG1310149
2-Butanone (MEK)	ND	J4	10.0	1	07/12/2019 02:41	WG1310149
Methyl Acetate	ND		20.0	1	07/12/2019 02:41	WG1310149
Methyl Cyclohexane	ND		1.00	1	07/12/2019 02:41	WG1310149
Methylene Chloride	ND		5.00	1	07/12/2019 02:41	WG1310149
4-Methyl-2-pentanone (MIBK)	ND		10.0	1	07/12/2019 02:41	WG1310149
Methyl tert-butyl ether	ND		1.00	1	07/12/2019 02:41	WG1310149
Styrene	ND		1.00	1	07/12/2019 02:41	WG1310149
1,1,2,2-Tetrachloroethane	ND		1.00	1	07/12/2019 02:41	WG1310149
Tetrachloroethene	ND		1.00	1	07/12/2019 02:41	WG1310149
Toluene	ND		1.00	1	07/12/2019 02:41	WG1310149
1,2,3-Trichlorobenzene	ND		1.00	1	07/12/2019 02:41	WG1310149
1,2,4-Trichlorobenzene	1.43		1.00	1	07/12/2019 02:41	WG1310149
1,1,1-Trichloroethane	ND		1.00	1	07/12/2019 02:41	WG1310149
1,1,2-Trichloroethane	ND		1.00	1	07/12/2019 02:41	WG1310149
Trichloroethene	1.36		1.00	1	07/12/2019 02:41	WG1310149
Trichlorofluoromethane	ND		5.00	1	07/12/2019 02:41	WG1310149
1,1,2-Trichlorotrifluoroethane	ND		1.00	1	07/12/2019 02:41	WG1310149
Vinyl chloride	ND		1.00	1	07/12/2019 02:41	WG1310149
Xylenes, Total	ND		3.00	1	07/12/2019 02:41	WG1310149
(S) Toluene-d8	104		80.0-120		07/12/2019 02:41	WG1310149
(S) 4-Bromofluorobenzene	97.2		77.0-126		07/12/2019 02:41	WG1310149
(S) 1,2-Dichloroethane-d4	108		70.0-130		07/12/2019 02:41	WG1310149

- 1 Cp
- 2 Tc
- 3 Ss
- 4 Cn
- 5 Sr
- 6 Qc
- 7 Gl
- 8 Al
- 9 Sc

Pesticides (GC) by Method 8081B

Analyte	Result ug/l	Qualifier	RDL ug/l	Dilution	Analysis date / time	Batch
Aldrin	ND	J4	0.0500	1	07/17/2019 09:21	WG1311221
Alpha BHC	ND		0.0500	1	07/17/2019 09:21	WG1311221
Beta BHC	ND		0.0500	1	07/17/2019 09:21	WG1311221
Delta BHC	ND		0.0500	1	07/17/2019 09:21	WG1311221
Gamma BHC	ND	J4	0.0500	1	07/17/2019 09:21	WG1311221
Chlordane	ND		5.00	1	07/17/2019 09:21	WG1311221
4,4-DDD	ND		0.0500	1	07/17/2019 09:21	WG1311221
4,4-DDE	ND		0.0500	1	07/17/2019 09:21	WG1311221
4,4-DDT	ND		0.0500	1	07/17/2019 09:21	WG1311221
Dieldrin	ND		0.0500	1	07/17/2019 09:21	WG1311221
Endosulfan I	ND		0.0500	1	07/17/2019 09:21	WG1311221
Endosulfan II	ND		0.0500	1	07/17/2019 09:21	WG1311221
Endosulfan sulfate	ND		0.0500	1	07/17/2019 09:21	WG1311221
Endrin	ND		0.0500	1	07/17/2019 09:21	WG1311221
Endrin aldehyde	ND		0.0500	1	07/17/2019 09:21	WG1311221
Endrin ketone	ND		0.0500	1	07/17/2019 09:21	WG1311221
Heptachlor	ND	J4	0.0500	1	07/17/2019 09:21	WG1311221



Collected date/time: 07/10/19 15:40

L1117439

## Pesticides (GC) by Method 8081B

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	ug/l		ug/l		date / time	
Heptachlor epoxide	ND		0.0500	1	07/17/2019 09:21	<a href="#">WG1311221</a>
Hexachlorobenzene	ND	J4	0.0500	1	07/17/2019 09:21	<a href="#">WG1311221</a>
Methoxychlor	ND		0.0500	1	07/17/2019 09:21	<a href="#">WG1311221</a>
Toxaphene	ND		0.500	1	07/17/2019 09:21	<a href="#">WG1311221</a>
(S) Decachlorobiphenyl	77.0		10.0-128		07/17/2019 09:21	<a href="#">WG1311221</a>
(S) Tetrachloro-m-xylene	77.4		10.0-127		07/17/2019 09:21	<a href="#">WG1311221</a>

1 Cp

2 Tc

3 Ss

4 Cn

## Polychlorinated Biphenyls (GC) by Method 8082 A

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	ug/l		ug/l		date / time	
PCB 1016	ND		0.500	1	07/17/2019 10:22	<a href="#">WG1311221</a>
PCB 1221	ND		0.500	1	07/17/2019 10:22	<a href="#">WG1311221</a>
PCB 1232	ND		0.500	1	07/17/2019 10:22	<a href="#">WG1311221</a>
PCB 1242	ND		0.500	1	07/17/2019 10:22	<a href="#">WG1311221</a>
PCB 1248	ND		0.500	1	07/17/2019 10:22	<a href="#">WG1311221</a>
PCB 1254	ND		0.500	1	07/17/2019 10:22	<a href="#">WG1311221</a>
PCB 1260	ND	J4	0.500	1	07/17/2019 10:22	<a href="#">WG1311221</a>
(S) Decachlorobiphenyl	82.1		10.0-128		07/17/2019 10:22	<a href="#">WG1311221</a>
(S) Tetrachloro-m-xylene	54.8		10.0-127		07/17/2019 10:22	<a href="#">WG1311221</a>

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

## Semi Volatile Organic Compounds (GC/MS) by Method 8270D

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	ug/l		ug/l		date / time	
Acenaphthene	ND	J4	1.00	1	07/17/2019 12:55	<a href="#">WG1312111</a>
Acenaphthylene	ND	J4	1.00	1	07/17/2019 12:55	<a href="#">WG1312111</a>
Acetophenone	ND	J4	10.0	1	07/17/2019 12:55	<a href="#">WG1312111</a>
Anthracene	ND	J4	1.00	1	07/17/2019 12:55	<a href="#">WG1312111</a>
Atrazine	ND		10.0	1	07/17/2019 12:55	<a href="#">WG1312111</a>
Benzaldehyde	ND	J4	10.0	1	07/17/2019 12:55	<a href="#">WG1312111</a>
Benzo(a)anthracene	ND		1.00	1	07/17/2019 12:55	<a href="#">WG1312111</a>
Benzo(b)fluoranthene	ND		1.00	1	07/17/2019 12:55	<a href="#">WG1312111</a>
Benzo(k)fluoranthene	ND		1.00	1	07/17/2019 12:55	<a href="#">WG1312111</a>
Benzo(g,h,i)perylene	ND		1.00	1	07/17/2019 12:55	<a href="#">WG1312111</a>
Benzo(a)pyrene	ND		1.00	1	07/17/2019 12:55	<a href="#">WG1312111</a>
Biphenyl	ND	J4	10.0	1	07/17/2019 12:55	<a href="#">WG1312111</a>
Bis(2-chloroethoxy)methane	ND	J4	10.0	1	07/17/2019 12:55	<a href="#">WG1312111</a>
Bis(2-chloroethyl)ether	ND	J4	10.0	1	07/17/2019 12:55	<a href="#">WG1312111</a>
Bis(2-chloroisopropyl)ether	ND	J4	10.0	1	07/17/2019 12:55	<a href="#">WG1312111</a>
4-Bromophenyl-phenylether	ND	J4	10.0	1	07/17/2019 12:55	<a href="#">WG1312111</a>
Caprolactam	ND	J4	10.0	1	07/17/2019 12:55	<a href="#">WG1312111</a>
Carbazole	ND		10.0	1	07/17/2019 12:55	<a href="#">WG1312111</a>
4-Chloroaniline	ND	J4	10.0	1	07/17/2019 12:55	<a href="#">WG1312111</a>
2-Chloronaphthalene	ND	J4	1.00	1	07/17/2019 12:55	<a href="#">WG1312111</a>
4-Chlorophenyl-phenylether	ND	J4	10.0	1	07/17/2019 12:55	<a href="#">WG1312111</a>
Chrysene	ND		1.00	1	07/17/2019 12:55	<a href="#">WG1312111</a>
Dibenz(a,h)anthracene	ND		1.00	1	07/17/2019 12:55	<a href="#">WG1312111</a>
Dibenzofuran	ND	J4	10.0	1	07/17/2019 12:55	<a href="#">WG1312111</a>
3,3-Dichlorobenzidine	ND	J4	10.0	1	07/17/2019 12:55	<a href="#">WG1312111</a>
2,4-Dinitrotoluene	ND		10.0	1	07/17/2019 12:55	<a href="#">WG1312111</a>
2,6-Dinitrotoluene	ND	J4	10.0	1	07/17/2019 12:55	<a href="#">WG1312111</a>
Fluoranthene	ND		1.00	1	07/17/2019 12:55	<a href="#">WG1312111</a>
Fluorene	ND	J4	1.00	1	07/17/2019 12:55	<a href="#">WG1312111</a>
Hexachlorobenzene	ND	J4	1.00	1	07/17/2019 12:55	<a href="#">WG1312111</a>
Hexachloro-1,3-butadiene	ND	J4	10.0	1	07/17/2019 12:55	<a href="#">WG1312111</a>
Hexachlorocyclopentadiene	ND	J4	10.0	1	07/17/2019 12:55	<a href="#">WG1312111</a>



Collected date/time: 07/10/19 15:40

L1117439

Semi Volatile Organic Compounds (GC/MS) by Method 8270D

Analyte	Result ug/l	Qualifier	RDL ug/l	Dilution	Analysis date / time	Batch
Hexachloroethane	ND	J4	10.0	1	07/17/2019 12:55	WG1312111
Indeno(1,2,3-cd)pyrene	ND		1.00	1	07/17/2019 12:55	WG1312111
Isophorone	ND	J4	10.0	1	07/17/2019 12:55	WG1312111
2-Methylnaphthalene	ND	J4	1.00	1	07/17/2019 12:55	WG1312111
Naphthalene	ND	J4	1.00	1	07/17/2019 12:55	WG1312111
2-Nitroaniline	ND	J4	10.0	1	07/17/2019 12:55	WG1312111
3-Nitroaniline	ND		10.0	1	07/17/2019 12:55	WG1312111
4-Nitroaniline	ND		10.0	1	07/17/2019 12:55	WG1312111
Nitrobenzene	ND	J4	10.0	1	07/17/2019 12:55	WG1312111
n-Nitrosodiphenylamine	ND	J4	10.0	1	07/17/2019 12:55	WG1312111
n-Nitrosodi-n-propylamine	ND	J4	10.0	1	07/17/2019 12:55	WG1312111
Phenanthrene	ND	J4	1.00	1	07/17/2019 12:55	WG1312111
Benzylbutyl phthalate	ND		3.00	1	07/17/2019 12:55	WG1312111
Bis(2-ethylhexyl)phthalate	ND		3.00	1	07/17/2019 12:55	WG1312111
Di-n-butyl phthalate	ND		3.00	1	07/17/2019 12:55	WG1312111
Diethyl phthalate	ND		3.00	1	07/17/2019 12:55	WG1312111
Dimethyl phthalate	ND	J4	3.00	1	07/17/2019 12:55	WG1312111
Di-n-octyl phthalate	ND	J4	3.00	1	07/17/2019 12:55	WG1312111
Pyrene	ND	J4	1.00	1	07/17/2019 12:55	WG1312111
1,2,4,5-Tetrachlorobenzene	ND	J4	10.0	1	07/17/2019 12:55	WG1312111
4-Chloro-3-methylphenol	ND	J4	10.0	1	07/17/2019 12:55	WG1312111
2-Chlorophenol	ND	J4	10.0	1	07/17/2019 12:55	WG1312111
2-Methylphenol	ND	J4	10.0	1	07/17/2019 12:55	WG1312111
3&4-Methyl Phenol	ND	J4	10.0	1	07/17/2019 12:55	WG1312111
2,4-Dichlorophenol	ND	J4	10.0	1	07/17/2019 12:55	WG1312111
2,4-Dimethylphenol	ND	J4	10.0	1	07/17/2019 12:55	WG1312111
4,6-Dinitro-2-methylphenol	ND		10.0	1	07/17/2019 12:55	WG1312111
2,4-Dinitrophenol	ND	J4	10.0	1	07/17/2019 12:55	WG1312111
2-Nitrophenol	ND	J4	10.0	1	07/17/2019 12:55	WG1312111
4-Nitrophenol	ND	J4	10.0	1	07/17/2019 12:55	WG1312111
Pentachlorophenol	ND	J4	10.0	1	07/17/2019 12:55	WG1312111
Phenol	ND	J4	10.0	1	07/17/2019 12:55	WG1312111
2,4,5-Trichlorophenol	ND	J4	10.0	1	07/17/2019 12:55	WG1312111
2,4,6-Trichlorophenol	ND	J4	10.0	1	07/17/2019 12:55	WG1312111
(S) Nitrobenzene-d5	16.1		10.0-127		07/17/2019 12:55	WG1312111
(S) 2-Fluorobiphenyl	15.8		10.0-130		07/17/2019 12:55	WG1312111
(S) p-Terphenyl-d14	21.7		10.0-128		07/17/2019 12:55	WG1312111
(S) Phenol-d5	4.36	J2	10.0-120		07/17/2019 12:55	WG1312111
(S) 2-Fluorophenol	6.75	J2	10.0-120		07/17/2019 12:55	WG1312111
(S) 2,4,6-Tribromophenol	16.1		10.0-155		07/17/2019 12:55	WG1312111

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

Sample Narrative:

L1117439-01 WG1312111: Duplicate analysis was performed.

Semi Volatile Organic Compounds (GC/MS) by Method 8270E-SIM

Analyte	Result ug/l	Qualifier	RDL ug/l	Dilution	Analysis date / time	Batch
Anthracene	ND		0.0500	1	07/15/2019 10:38	WG1311104
Acenaphthene	0.107		0.0500	1	07/15/2019 10:38	WG1311104
Acenaphthylene	ND		0.0500	1	07/15/2019 10:38	WG1311104
Benzo(a)anthracene	ND		0.0500	1	07/15/2019 10:38	WG1311104
Benzo(a)pyrene	ND		0.0500	1	07/15/2019 10:38	WG1311104
Benzo(b)fluoranthene	ND		0.0500	1	07/15/2019 10:38	WG1311104
Benzo(g,h,i)perylene	ND		0.0500	1	07/15/2019 10:38	WG1311104
Benzo(k)fluoranthene	ND		0.0500	1	07/15/2019 10:38	WG1311104
Chrysene	ND		0.0500	1	07/15/2019 10:38	WG1311104



Collected date/time: 07/10/19 15:40

L1117439

Semi Volatile Organic Compounds (GC/MS) by Method 8270E-SIM

Analyte	Result ug/l	Qualifier	RDL ug/l	Dilution	Analysis date / time	Batch
Dibenz(a,h)anthracene	ND		0.0500	1	07/15/2019 10:38	<a href="#">WG1311104</a>
Fluoranthene	ND		0.0500	1	07/15/2019 10:38	<a href="#">WG1311104</a>
Fluorene	ND		0.0500	1	07/15/2019 10:38	<a href="#">WG1311104</a>
Indeno(1,2,3-cd)pyrene	ND		0.0500	1	07/15/2019 10:38	<a href="#">WG1311104</a>
Naphthalene	0.712		0.250	1	07/15/2019 10:38	<a href="#">WG1311104</a>
Phenanthrene	ND		0.0500	1	07/15/2019 10:38	<a href="#">WG1311104</a>
Pyrene	ND		0.0500	1	07/15/2019 10:38	<a href="#">WG1311104</a>
<i>(S) Nitrobenzene-d5</i>	101		11.0-135		07/15/2019 10:38	<a href="#">WG1311104</a>
<i>(S) 2-Fluorobiphenyl</i>	77.7		32.0-120		07/15/2019 10:38	<a href="#">WG1311104</a>
<i>(S) p-Terphenyl-d14</i>	83.7		23.0-122		07/15/2019 10:38	<a href="#">WG1311104</a>

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc





Wet Chemistry by Method 4500CN E-2011

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	ug/l		ug/l		date / time	
Cyanide	ND	<u>J3</u>	5.00	1	07/19/2019 16:45	<a href="#">WG1314079</a>

Mercury by Method 7470A

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	ug/l		ug/l		date / time	
Mercury	ND		0.200	1	07/12/2019 09:42	<a href="#">WG1309989</a>

Metals (ICP) by Method 6010D

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	ug/l		ug/l		date / time	
Aluminum	ND		200	1	07/16/2019 11:48	<a href="#">WG1310249</a>
Antimony	ND		10.0	1	07/16/2019 11:48	<a href="#">WG1310249</a>
Arsenic	ND		10.0	1	07/16/2019 11:48	<a href="#">WG1310249</a>
Barium	57.5		5.00	1	07/16/2019 11:48	<a href="#">WG1310249</a>
Beryllium	ND		2.00	1	07/16/2019 11:48	<a href="#">WG1310249</a>
Cadmium	ND		2.00	1	07/16/2019 11:48	<a href="#">WG1310249</a>
Calcium	41800		1000	1	07/16/2019 11:48	<a href="#">WG1310249</a>
Chromium	ND		10.0	1	07/16/2019 11:48	<a href="#">WG1310249</a>
Cobalt	ND		10.0	1	07/16/2019 11:48	<a href="#">WG1310249</a>
Copper	ND		10.0	1	07/16/2019 11:48	<a href="#">WG1310249</a>
Iron	47200		100	1	07/16/2019 11:48	<a href="#">WG1310249</a>
Lead	ND		5.00	1	07/16/2019 11:48	<a href="#">WG1310249</a>
Magnesium	7920		1000	1	07/16/2019 11:48	<a href="#">WG1310249</a>
Manganese	970		10.0	1	07/16/2019 11:48	<a href="#">WG1310249</a>
Nickel	ND		10.0	1	07/16/2019 11:48	<a href="#">WG1310249</a>
Potassium	3540		1000	1	07/16/2019 11:48	<a href="#">WG1310249</a>
Selenium	ND		10.0	1	07/16/2019 11:48	<a href="#">WG1310249</a>
Silver	ND		5.00	1	07/16/2019 11:48	<a href="#">WG1310249</a>
Sodium	173000		1000	1	07/16/2019 11:48	<a href="#">WG1310249</a>
Thallium	ND		10.0	1	07/16/2019 11:48	<a href="#">WG1310249</a>
Vanadium	ND		20.0	1	07/16/2019 11:48	<a href="#">WG1310249</a>
Zinc	ND		50.0	1	07/16/2019 11:48	<a href="#">WG1310249</a>

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	ug/l		ug/l		date / time	
Acetone	ND	<u>J4</u>	50.0	1	07/12/2019 03:01	<a href="#">WG1310149</a>
Benzene	ND		1.00	1	07/12/2019 03:01	<a href="#">WG1310149</a>
Bromochloromethane	ND		1.00	1	07/12/2019 03:01	<a href="#">WG1310149</a>
Bromodichloromethane	ND		1.00	1	07/12/2019 03:01	<a href="#">WG1310149</a>
Bromoform	ND		1.00	1	07/12/2019 03:01	<a href="#">WG1310149</a>
Bromomethane	ND		5.00	1	07/12/2019 03:01	<a href="#">WG1310149</a>
Carbon disulfide	ND		1.00	1	07/12/2019 03:01	<a href="#">WG1310149</a>
Carbon tetrachloride	ND		1.00	1	07/12/2019 03:01	<a href="#">WG1310149</a>
Chlorobenzene	ND		1.00	1	07/12/2019 03:01	<a href="#">WG1310149</a>
Chlorodibromomethane	ND		1.00	1	07/12/2019 03:01	<a href="#">WG1310149</a>
Chloroethane	ND		5.00	1	07/12/2019 03:01	<a href="#">WG1310149</a>
Chloroform	ND		5.00	1	07/12/2019 03:01	<a href="#">WG1310149</a>
Chloromethane	ND		2.50	1	07/12/2019 03:01	<a href="#">WG1310149</a>
Cyclohexane	ND		1.00	1	07/12/2019 03:01	<a href="#">WG1310149</a>
1,2-Dibromo-3-Chloropropane	ND		5.00	1	07/12/2019 03:01	<a href="#">WG1310149</a>
1,2-Dibromoethane	ND		1.00	1	07/12/2019 03:01	<a href="#">WG1310149</a>
1,2-Dichlorobenzene	ND		1.00	1	07/12/2019 03:01	<a href="#">WG1310149</a>
1,3-Dichlorobenzene	ND		1.00	1	07/12/2019 03:01	<a href="#">WG1310149</a>

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc



Collected date/time: 07/10/19 14:30

L1117439

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	ug/l		ug/l		date / time	
1,4-Dichlorobenzene	ND		1.00	1	07/12/2019 03:01	WG1310149
Dichlorodifluoromethane	ND		5.00	1	07/12/2019 03:01	WG1310149
1,1-Dichloroethane	ND		1.00	1	07/12/2019 03:01	WG1310149
1,2-Dichloroethane	ND		1.00	1	07/12/2019 03:01	WG1310149
1,1-Dichloroethene	ND		1.00	1	07/12/2019 03:01	WG1310149
cis-1,2-Dichloroethene	ND		1.00	1	07/12/2019 03:01	WG1310149
trans-1,2-Dichloroethene	ND		1.00	1	07/12/2019 03:01	WG1310149
1,2-Dichloropropane	ND		1.00	1	07/12/2019 03:01	WG1310149
cis-1,3-Dichloropropene	ND		1.00	1	07/12/2019 03:01	WG1310149
trans-1,3-Dichloropropene	ND		1.00	1	07/12/2019 03:01	WG1310149
Ethylbenzene	ND		1.00	1	07/12/2019 03:01	WG1310149
2-Hexanone	ND		10.0	1	07/12/2019 03:01	WG1310149
Isopropylbenzene	ND		1.00	1	07/12/2019 03:01	WG1310149
2-Butanone (MEK)	ND	J4	10.0	1	07/12/2019 03:01	WG1310149
Methyl Acetate	ND		20.0	1	07/12/2019 03:01	WG1310149
Methyl Cyclohexane	ND		1.00	1	07/12/2019 03:01	WG1310149
Methylene Chloride	ND		5.00	1	07/12/2019 03:01	WG1310149
4-Methyl-2-pentanone (MIBK)	ND		10.0	1	07/12/2019 03:01	WG1310149
Methyl tert-butyl ether	ND		1.00	1	07/12/2019 03:01	WG1310149
Styrene	ND		1.00	1	07/12/2019 03:01	WG1310149
1,1,2,2-Tetrachloroethane	ND		1.00	1	07/12/2019 03:01	WG1310149
Tetrachloroethene	ND		1.00	1	07/12/2019 03:01	WG1310149
Toluene	ND		1.00	1	07/12/2019 03:01	WG1310149
1,2,3-Trichlorobenzene	ND		1.00	1	07/12/2019 03:01	WG1310149
1,2,4-Trichlorobenzene	ND		1.00	1	07/12/2019 03:01	WG1310149
1,1,1-Trichloroethane	ND		1.00	1	07/12/2019 03:01	WG1310149
1,1,2-Trichloroethane	ND		1.00	1	07/12/2019 03:01	WG1310149
Trichloroethene	ND		1.00	1	07/12/2019 03:01	WG1310149
Trichlorofluoromethane	ND		5.00	1	07/12/2019 03:01	WG1310149
1,1,2-Trichlorotrifluoroethane	ND		1.00	1	07/12/2019 03:01	WG1310149
Vinyl chloride	ND		1.00	1	07/12/2019 03:01	WG1310149
Xylenes, Total	ND		3.00	1	07/12/2019 03:01	WG1310149
(S) Toluene-d8	109		80.0-120		07/12/2019 03:01	WG1310149
(S) 4-Bromofluorobenzene	101		77.0-126		07/12/2019 03:01	WG1310149
(S) 1,2-Dichloroethane-d4	105		70.0-130		07/12/2019 03:01	WG1310149

- 1 Cp
- 2 Tc
- 3 Ss
- 4 Cn
- 5 Sr
- 6 Qc
- 7 Gl
- 8 Al
- 9 Sc

Pesticides (GC) by Method 8081B

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	ug/l		ug/l		date / time	
Aldrin	ND	J4	0.0500	1	07/17/2019 09:36	WG1311221
Alpha BHC	ND		0.0500	1	07/17/2019 09:36	WG1311221
Beta BHC	ND		0.0500	1	07/17/2019 09:36	WG1311221
Delta BHC	ND		0.0500	1	07/17/2019 09:36	WG1311221
Gamma BHC	ND	J4	0.0500	1	07/17/2019 09:36	WG1311221
Chlordane	ND		5.00	1	07/17/2019 09:36	WG1311221
4,4-DDD	ND		0.0500	1	07/17/2019 09:36	WG1311221
4,4-DDE	ND		0.0500	1	07/17/2019 09:36	WG1311221
4,4-DDT	ND		0.0500	1	07/17/2019 09:36	WG1311221
Dieldrin	ND		0.0500	1	07/17/2019 09:36	WG1311221
Endosulfan I	ND		0.0500	1	07/17/2019 09:36	WG1311221
Endosulfan II	ND		0.0500	1	07/17/2019 09:36	WG1311221
Endosulfan sulfate	ND		0.0500	1	07/17/2019 09:36	WG1311221
Endrin	ND		0.0500	1	07/17/2019 09:36	WG1311221
Endrin aldehyde	ND		0.0500	1	07/17/2019 09:36	WG1311221
Endrin ketone	ND		0.0500	1	07/17/2019 09:36	WG1311221
Heptachlor	ND	J4	0.0500	1	07/17/2019 09:36	WG1311221



Collected date/time: 07/10/19 14:30

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Pesticides (GC) by Method 8081B

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	ug/l		ug/l		date / time	
Heptachlor epoxide	ND		0.0500	1	07/17/2019 09:36	<a href="#">WG1311221</a>
Hexachlorobenzene	ND	J4	0.0500	1	07/17/2019 09:36	<a href="#">WG1311221</a>
Methoxychlor	ND		0.0500	1	07/17/2019 09:36	<a href="#">WG1311221</a>
Toxaphene	ND		0.500	1	07/17/2019 09:36	<a href="#">WG1311221</a>
(S) Decachlorobiphenyl	46.5		10.0-128		07/17/2019 09:36	<a href="#">WG1311221</a>
(S) Tetrachloro-m-xylene	62.1		10.0-127		07/17/2019 09:36	<a href="#">WG1311221</a>

- 1 Cp
- 2 Tc
- 3 Ss
- 4 Cn
- 5 Sr
- 6 Qc
- 7 Gl
- 8 Al
- 9 Sc

Polychlorinated Biphenyls (GC) by Method 8082 A

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	ug/l		ug/l		date / time	
PCB 1016	ND		0.500	1	07/17/2019 10:36	<a href="#">WG1311221</a>
PCB 1221	ND		0.500	1	07/17/2019 10:36	<a href="#">WG1311221</a>
PCB 1232	ND		0.500	1	07/17/2019 10:36	<a href="#">WG1311221</a>
PCB 1242	ND		0.500	1	07/17/2019 10:36	<a href="#">WG1311221</a>
PCB 1248	ND		0.500	1	07/17/2019 10:36	<a href="#">WG1311221</a>
PCB 1254	ND		0.500	1	07/17/2019 10:36	<a href="#">WG1311221</a>
PCB 1260	ND	J4	0.500	1	07/17/2019 10:36	<a href="#">WG1311221</a>
(S) Decachlorobiphenyl	53.1		10.0-128		07/17/2019 10:36	<a href="#">WG1311221</a>
(S) Tetrachloro-m-xylene	55.6		10.0-127		07/17/2019 10:36	<a href="#">WG1311221</a>

Semi Volatile Organic Compounds (GC/MS) by Method 8270D

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	ug/l		ug/l		date / time	
Acenaphthene	ND	J4	1.06	1.06	07/17/2019 13:17	<a href="#">WG1312111</a>
Acenaphthylene	ND	J4	1.06	1.06	07/17/2019 13:17	<a href="#">WG1312111</a>
Acetophenone	ND	J4	10.6	1.06	07/17/2019 13:17	<a href="#">WG1312111</a>
Anthracene	ND	J4	1.06	1.06	07/17/2019 13:17	<a href="#">WG1312111</a>
Atrazine	ND		10.6	1.06	07/17/2019 13:17	<a href="#">WG1312111</a>
Benzaldehyde	ND	J4	10.6	1.06	07/17/2019 13:17	<a href="#">WG1312111</a>
Benzo(a)anthracene	ND		1.06	1.06	07/17/2019 13:17	<a href="#">WG1312111</a>
Benzo(b)fluoranthene	ND		1.06	1.06	07/17/2019 13:17	<a href="#">WG1312111</a>
Benzo(k)fluoranthene	ND		1.06	1.06	07/17/2019 13:17	<a href="#">WG1312111</a>
Benzo(g,h,i)perylene	ND		1.06	1.06	07/17/2019 13:17	<a href="#">WG1312111</a>
Benzo(a)pyrene	ND		1.06	1.06	07/17/2019 13:17	<a href="#">WG1312111</a>
Biphenyl	ND	J4	10.6	1.06	07/17/2019 13:17	<a href="#">WG1312111</a>
Bis(2-chloroethoxy)methane	ND	J4	10.6	1.06	07/17/2019 13:17	<a href="#">WG1312111</a>
Bis(2-chloroethyl)ether	ND	J4	10.6	1.06	07/17/2019 13:17	<a href="#">WG1312111</a>
Bis(2-chloroisopropyl)ether	ND	J4	10.6	1.06	07/17/2019 13:17	<a href="#">WG1312111</a>
4-Bromophenyl-phenylether	ND	J4	10.6	1.06	07/17/2019 13:17	<a href="#">WG1312111</a>
Caprolactam	ND	J4	10.6	1.06	07/17/2019 13:17	<a href="#">WG1312111</a>
Carbazole	ND		10.6	1.06	07/17/2019 13:17	<a href="#">WG1312111</a>
4-Chloroaniline	ND	J4	10.6	1.06	07/17/2019 13:17	<a href="#">WG1312111</a>
2-Chloronaphthalene	ND	J4	1.06	1.06	07/17/2019 13:17	<a href="#">WG1312111</a>
4-Chlorophenyl-phenylether	ND	J4	10.6	1.06	07/17/2019 13:17	<a href="#">WG1312111</a>
Chrysene	ND		1.06	1.06	07/17/2019 13:17	<a href="#">WG1312111</a>
Dibenz(a,h)anthracene	ND		1.06	1.06	07/17/2019 13:17	<a href="#">WG1312111</a>
Dibenzofuran	ND	J4	10.6	1.06	07/17/2019 13:17	<a href="#">WG1312111</a>
3,3-Dichlorobenzidine	ND	J4	10.6	1.06	07/17/2019 13:17	<a href="#">WG1312111</a>
2,4-Dinitrotoluene	ND		10.6	1.06	07/17/2019 13:17	<a href="#">WG1312111</a>
2,6-Dinitrotoluene	ND	J4	10.6	1.06	07/17/2019 13:17	<a href="#">WG1312111</a>
Fluoranthene	ND		1.06	1.06	07/17/2019 13:17	<a href="#">WG1312111</a>
Fluorene	ND	J4	1.06	1.06	07/17/2019 13:17	<a href="#">WG1312111</a>
Hexachlorobenzene	ND	J4	1.06	1.06	07/17/2019 13:17	<a href="#">WG1312111</a>
Hexachloro-1,3-butadiene	ND	J4	10.6	1.06	07/17/2019 13:17	<a href="#">WG1312111</a>
Hexachlorocyclopentadiene	ND	J4	10.6	1.06	07/17/2019 13:17	<a href="#">WG1312111</a>



Collected date/time: 07/10/19 14:30

L1117439

Semi Volatile Organic Compounds (GC/MS) by Method 8270D

Analyte	Result ug/l	Qualifier	RDL ug/l	Dilution	Analysis date / time	Batch
Hexachloroethane	ND	J4	10.6	1.06	07/17/2019 13:17	WG1312111
Indeno(1,2,3-cd)pyrene	ND		1.06	1.06	07/17/2019 13:17	WG1312111
Isophorone	ND	J4	10.6	1.06	07/17/2019 13:17	WG1312111
2-Methylnaphthalene	ND	J4	1.06	1.06	07/17/2019 13:17	WG1312111
Naphthalene	ND	J4	1.06	1.06	07/17/2019 13:17	WG1312111
2-Nitroaniline	ND	J4	10.6	1.06	07/17/2019 13:17	WG1312111
3-Nitroaniline	ND		10.6	1.06	07/17/2019 13:17	WG1312111
4-Nitroaniline	ND		10.6	1.06	07/17/2019 13:17	WG1312111
Nitrobenzene	ND	J4	10.6	1.06	07/17/2019 13:17	WG1312111
n-Nitrosodiphenylamine	ND	J4	10.6	1.06	07/17/2019 13:17	WG1312111
n-Nitrosodi-n-propylamine	ND	J4	10.6	1.06	07/17/2019 13:17	WG1312111
Phenanthrene	ND	J4	1.06	1.06	07/17/2019 13:17	WG1312111
Benzylbutyl phthalate	ND		3.18	1.06	07/17/2019 13:17	WG1312111
Bis(2-ethylhexyl)phthalate	ND		3.18	1.06	07/17/2019 13:17	WG1312111
Di-n-butyl phthalate	ND		3.18	1.06	07/17/2019 13:17	WG1312111
Diethyl phthalate	ND		3.18	1.06	07/17/2019 13:17	WG1312111
Dimethyl phthalate	ND	J4	3.18	1.06	07/17/2019 13:17	WG1312111
Di-n-octyl phthalate	ND	J4	3.18	1.06	07/17/2019 13:17	WG1312111
Pyrene	ND	J4	1.06	1.06	07/17/2019 13:17	WG1312111
1,2,4,5-Tetrachlorobenzene	ND	J4	10.6	1.06	07/17/2019 13:17	WG1312111
4-Chloro-3-methylphenol	ND	J4	10.6	1.06	07/17/2019 13:17	WG1312111
2-Chlorophenol	ND	J4	10.6	1.06	07/17/2019 13:17	WG1312111
2-Methylphenol	ND	J4	10.6	1.06	07/17/2019 13:17	WG1312111
3&4-Methyl Phenol	ND	J4	10.6	1.06	07/17/2019 13:17	WG1312111
2,4-Dichlorophenol	ND	J4	10.6	1.06	07/17/2019 13:17	WG1312111
2,4-Dimethylphenol	ND	J4	10.6	1.06	07/17/2019 13:17	WG1312111
4,6-Dinitro-2-methylphenol	ND		10.6	1.06	07/17/2019 13:17	WG1312111
2,4-Dinitrophenol	ND	J4	10.6	1.06	07/17/2019 13:17	WG1312111
2-Nitrophenol	ND	J4	10.6	1.06	07/17/2019 13:17	WG1312111
4-Nitrophenol	ND	J4	10.6	1.06	07/17/2019 13:17	WG1312111
Pentachlorophenol	ND	J4	10.6	1.06	07/17/2019 13:17	WG1312111
Phenol	ND	J4	10.6	1.06	07/17/2019 13:17	WG1312111
2,4,5-Trichlorophenol	ND	J4	10.6	1.06	07/17/2019 13:17	WG1312111
2,4,6-Trichlorophenol	ND	J4	10.6	1.06	07/17/2019 13:17	WG1312111
(S) Nitrobenzene-d5	11.8		10.0-127		07/17/2019 13:17	WG1312111
(S) 2-Fluorobiphenyl	14.2		10.0-130		07/17/2019 13:17	WG1312111
(S) p-Terphenyl-d14	49.3		10.0-128		07/17/2019 13:17	WG1312111
(S) Phenol-d5	4.58	J2	10.0-120		07/17/2019 13:17	WG1312111
(S) 2-Fluorophenol	4.93	J2	10.0-120		07/17/2019 13:17	WG1312111
(S) 2,4,6-Tribromophenol	35.0		10.0-155		07/17/2019 13:17	WG1312111

- 1 Cp
- 2 Tc
- 3 Ss
- 4 Cn
- 5 Sr
- 6 Qc
- 7 Gl
- 8 Al
- 9 Sc

Sample Narrative:

L1117439-02 WG1312111: Duplicate analysis was performed.

Semi Volatile Organic Compounds (GC/MS) by Method 8270E-SIM

Analyte	Result ug/l	Qualifier	RDL ug/l	Dilution	Analysis date / time	Batch
Anthracene	ND		0.0500	1	07/15/2019 11:01	WG1311104
Acenaphthene	0.0503		0.0500	1	07/15/2019 11:01	WG1311104
Acenaphthylene	ND		0.0500	1	07/15/2019 11:01	WG1311104
Benzo(a)anthracene	ND		0.0500	1	07/15/2019 11:01	WG1311104
Benzo(a)pyrene	ND		0.0500	1	07/15/2019 11:01	WG1311104
Benzo(b)fluoranthene	ND		0.0500	1	07/15/2019 11:01	WG1311104
Benzo(g,h,i)perylene	ND		0.0500	1	07/15/2019 11:01	WG1311104
Benzo(k)fluoranthene	ND		0.0500	1	07/15/2019 11:01	WG1311104
Chrysene	ND		0.0500	1	07/15/2019 11:01	WG1311104



Collected date/time: 07/10/19 14:30

L1117439

Semi Volatile Organic Compounds (GC/MS) by Method 8270E-SIM

Analyte	Result ug/l	Qualifier	RDL ug/l	Dilution	Analysis date / time	Batch
Dibenz(a,h)anthracene	ND		0.0500	1	07/15/2019 11:01	<a href="#">WG1311104</a>
Fluoranthene	ND		0.0500	1	07/15/2019 11:01	<a href="#">WG1311104</a>
Fluorene	0.0763		0.0500	1	07/15/2019 11:01	<a href="#">WG1311104</a>
Indeno(1,2,3-cd)pyrene	ND		0.0500	1	07/15/2019 11:01	<a href="#">WG1311104</a>
Naphthalene	ND		0.250	1	07/15/2019 11:01	<a href="#">WG1311104</a>
Phenanthrene	ND		0.0500	1	07/15/2019 11:01	<a href="#">WG1311104</a>
Pyrene	ND		0.0500	1	07/15/2019 11:01	<a href="#">WG1311104</a>
<i>(S)</i> Nitrobenzene-d5	97.4		11.0-135		07/15/2019 11:01	<a href="#">WG1311104</a>
<i>(S)</i> 2-Fluorobiphenyl	75.3		32.0-120		07/15/2019 11:01	<a href="#">WG1311104</a>
<i>(S)</i> p-Terphenyl-d14	82.6		23.0-122		07/15/2019 11:01	<a href="#">WG1311104</a>

- 1 Cp
- 2 Tc
- 3 Ss
- 4 Cn
- 5 Sr
- 6 Qc
- 7 Gl
- 8 Al
- 9 Sc



Wet Chemistry by Method 4500CN E-2011

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	ug/l		ug/l		date / time	
Cyanide	ND		5.00	1	07/19/2019 16:48	<a href="#">WG1314079</a>

1 Cp

2 Tc

Mercury by Method 7470A

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	ug/l		ug/l		date / time	
Mercury	ND		0.200	1	07/12/2019 09:44	<a href="#">WG1309989</a>

3 Ss

4 Cn

Metals (ICP) by Method 6010D

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	ug/l		ug/l		date / time	
Aluminum	ND		200	1	07/16/2019 11:51	<a href="#">WG1310249</a>
Antimony	ND		10.0	1	07/16/2019 11:51	<a href="#">WG1310249</a>
Arsenic	ND		10.0	1	07/16/2019 11:51	<a href="#">WG1310249</a>
Barium	8.70		5.00	1	07/16/2019 11:51	<a href="#">WG1310249</a>
Beryllium	ND		2.00	1	07/16/2019 11:51	<a href="#">WG1310249</a>
Cadmium	ND		2.00	1	07/16/2019 11:51	<a href="#">WG1310249</a>
Calcium	12200		1000	1	07/16/2019 11:51	<a href="#">WG1310249</a>
Chromium	ND		10.0	1	07/16/2019 11:51	<a href="#">WG1310249</a>
Cobalt	ND		10.0	1	07/16/2019 11:51	<a href="#">WG1310249</a>
Copper	ND		10.0	1	07/16/2019 11:51	<a href="#">WG1310249</a>
Iron	ND		100	1	07/16/2019 11:51	<a href="#">WG1310249</a>
Lead	ND		5.00	1	07/16/2019 11:51	<a href="#">WG1310249</a>
Magnesium	5140		1000	1	07/16/2019 11:51	<a href="#">WG1310249</a>
Manganese	ND		10.0	1	07/16/2019 11:51	<a href="#">WG1310249</a>
Nickel	ND		10.0	1	07/16/2019 11:51	<a href="#">WG1310249</a>
Potassium	1240		1000	1	07/16/2019 11:51	<a href="#">WG1310249</a>
Selenium	ND		10.0	1	07/16/2019 11:51	<a href="#">WG1310249</a>
Silver	ND		5.00	1	07/16/2019 11:51	<a href="#">WG1310249</a>
Sodium	6020		1000	1	07/16/2019 11:51	<a href="#">WG1310249</a>
Thallium	ND		10.0	1	07/16/2019 11:51	<a href="#">WG1310249</a>
Vanadium	ND		20.0	1	07/16/2019 11:51	<a href="#">WG1310249</a>
Zinc	ND		50.0	1	07/16/2019 11:51	<a href="#">WG1310249</a>

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	ug/l		ug/l		date / time	
Acetone	ND	<u>J4</u>	50.0	1	07/12/2019 03:20	<a href="#">WG1310149</a>
Benzene	ND		1.00	1	07/12/2019 03:20	<a href="#">WG1310149</a>
Bromochloromethane	ND		1.00	1	07/12/2019 03:20	<a href="#">WG1310149</a>
Bromodichloromethane	ND		1.00	1	07/12/2019 03:20	<a href="#">WG1310149</a>
Bromoform	ND		1.00	1	07/12/2019 03:20	<a href="#">WG1310149</a>
Bromomethane	ND		5.00	1	07/12/2019 03:20	<a href="#">WG1310149</a>
Carbon disulfide	ND		1.00	1	07/12/2019 03:20	<a href="#">WG1310149</a>
Carbon tetrachloride	ND		1.00	1	07/12/2019 03:20	<a href="#">WG1310149</a>
Chlorobenzene	ND		1.00	1	07/12/2019 03:20	<a href="#">WG1310149</a>
Chlorodibromomethane	ND		1.00	1	07/12/2019 03:20	<a href="#">WG1310149</a>
Chloroethane	ND		5.00	1	07/12/2019 03:20	<a href="#">WG1310149</a>
Chloroform	ND		5.00	1	07/12/2019 03:20	<a href="#">WG1310149</a>
Chloromethane	ND		2.50	1	07/12/2019 03:20	<a href="#">WG1310149</a>
Cyclohexane	ND		1.00	1	07/12/2019 03:20	<a href="#">WG1310149</a>
1,2-Dibromo-3-Chloropropane	ND		5.00	1	07/12/2019 03:20	<a href="#">WG1310149</a>
1,2-Dibromoethane	ND		1.00	1	07/12/2019 03:20	<a href="#">WG1310149</a>
1,2-Dichlorobenzene	ND		1.00	1	07/12/2019 03:20	<a href="#">WG1310149</a>
1,3-Dichlorobenzene	ND		1.00	1	07/12/2019 03:20	<a href="#">WG1310149</a>



Collected date/time: 07/10/19 11:20

L1117439

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	ug/l		ug/l		date / time	
1,4-Dichlorobenzene	ND		1.00	1	07/12/2019 03:20	WG1310149
Dichlorodifluoromethane	ND		5.00	1	07/12/2019 03:20	WG1310149
1,1-Dichloroethane	ND		1.00	1	07/12/2019 03:20	WG1310149
1,2-Dichloroethane	ND		1.00	1	07/12/2019 03:20	WG1310149
1,1-Dichloroethene	ND		1.00	1	07/12/2019 03:20	WG1310149
cis-1,2-Dichloroethene	ND		1.00	1	07/12/2019 03:20	WG1310149
trans-1,2-Dichloroethene	ND		1.00	1	07/12/2019 03:20	WG1310149
1,2-Dichloropropane	ND		1.00	1	07/12/2019 03:20	WG1310149
cis-1,3-Dichloropropene	ND		1.00	1	07/12/2019 03:20	WG1310149
trans-1,3-Dichloropropene	ND		1.00	1	07/12/2019 03:20	WG1310149
Ethylbenzene	ND		1.00	1	07/12/2019 03:20	WG1310149
2-Hexanone	ND		10.0	1	07/12/2019 03:20	WG1310149
Isopropylbenzene	ND		1.00	1	07/12/2019 03:20	WG1310149
2-Butanone (MEK)	ND	J4	10.0	1	07/12/2019 03:20	WG1310149
Methyl Acetate	ND		20.0	1	07/12/2019 03:20	WG1310149
Methyl Cyclohexane	ND		1.00	1	07/12/2019 03:20	WG1310149
Methylene Chloride	ND		5.00	1	07/12/2019 03:20	WG1310149
4-Methyl-2-pentanone (MIBK)	ND		10.0	1	07/12/2019 03:20	WG1310149
Methyl tert-butyl ether	ND		1.00	1	07/12/2019 03:20	WG1310149
Styrene	ND		1.00	1	07/12/2019 03:20	WG1310149
1,1,2,2-Tetrachloroethane	ND		1.00	1	07/12/2019 03:20	WG1310149
Tetrachloroethene	ND		1.00	1	07/12/2019 03:20	WG1310149
Toluene	ND		1.00	1	07/12/2019 03:20	WG1310149
1,2,3-Trichlorobenzene	ND		1.00	1	07/12/2019 03:20	WG1310149
1,2,4-Trichlorobenzene	ND		1.00	1	07/12/2019 03:20	WG1310149
1,1,1-Trichloroethane	ND		1.00	1	07/12/2019 03:20	WG1310149
1,1,2-Trichloroethane	ND		1.00	1	07/12/2019 03:20	WG1310149
Trichloroethene	ND		1.00	1	07/12/2019 03:20	WG1310149
Trichlorofluoromethane	ND		5.00	1	07/12/2019 03:20	WG1310149
1,1,2-Trichlorotrifluoroethane	ND		1.00	1	07/12/2019 03:20	WG1310149
Vinyl chloride	ND		1.00	1	07/12/2019 03:20	WG1310149
Xylenes, Total	ND		3.00	1	07/12/2019 03:20	WG1310149
(S) Toluene-d8	112		80.0-120		07/12/2019 03:20	WG1310149
(S) 4-Bromofluorobenzene	100		77.0-126		07/12/2019 03:20	WG1310149
(S) 1,2-Dichloroethane-d4	106		70.0-130		07/12/2019 03:20	WG1310149

- 1 Cp
- 2 Tc
- 3 Ss
- 4 Cn
- 5 Sr
- 6 Qc
- 7 Gl
- 8 Al
- 9 Sc

Pesticides (GC) by Method 8081B

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	ug/l		ug/l		date / time	
Aldrin	ND	J4	0.0500	1	07/17/2019 09:51	WG1311221
Alpha BHC	ND		0.0500	1	07/17/2019 09:51	WG1311221
Beta BHC	ND		0.0500	1	07/17/2019 09:51	WG1311221
Delta BHC	ND		0.0500	1	07/17/2019 09:51	WG1311221
Gamma BHC	ND	J4	0.0500	1	07/17/2019 09:51	WG1311221
Chlordane	ND		5.00	1	07/17/2019 09:51	WG1311221
4,4-DDD	ND		0.0500	1	07/17/2019 09:51	WG1311221
4,4-DDE	ND		0.0500	1	07/17/2019 09:51	WG1311221
4,4-DDT	ND		0.0500	1	07/17/2019 09:51	WG1311221
Dieldrin	ND		0.0500	1	07/17/2019 09:51	WG1311221
Endosulfan I	ND		0.0500	1	07/17/2019 09:51	WG1311221
Endosulfan II	ND		0.0500	1	07/17/2019 09:51	WG1311221
Endosulfan sulfate	ND		0.0500	1	07/17/2019 09:51	WG1311221
Endrin	ND		0.0500	1	07/17/2019 09:51	WG1311221
Endrin aldehyde	ND		0.0500	1	07/17/2019 09:51	WG1311221
Endrin ketone	ND		0.0500	1	07/17/2019 09:51	WG1311221
Heptachlor	ND	J4	0.0500	1	07/17/2019 09:51	WG1311221



Collected date/time: 07/10/19 11:20

L1117439

Pesticides (GC) by Method 8081B

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	ug/l		ug/l		date / time	
Heptachlor epoxide	ND		0.0500	1	07/17/2019 09:51	<a href="#">WG1311221</a>
Hexachlorobenzene	ND	J4	0.0500	1	07/17/2019 09:51	<a href="#">WG1311221</a>
Methoxychlor	ND		0.0500	1	07/17/2019 09:51	<a href="#">WG1311221</a>
Toxaphene	ND		0.500	1	07/17/2019 09:51	<a href="#">WG1311221</a>
(S) Decachlorobiphenyl	70.0		10.0-128		07/17/2019 09:51	<a href="#">WG1311221</a>
(S) Tetrachloro-m-xylene	66.2		10.0-127		07/17/2019 09:51	<a href="#">WG1311221</a>

- 1 Cp
- 2 Tc
- 3 Ss
- 4 Cn
- 5 Sr
- 6 Qc
- 7 Gl
- 8 Al
- 9 Sc

Polychlorinated Biphenyls (GC) by Method 8082 A

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	ug/l		ug/l		date / time	
PCB 1016	ND		0.500	1	07/17/2019 10:51	<a href="#">WG1311221</a>
PCB 1221	ND		0.500	1	07/17/2019 10:51	<a href="#">WG1311221</a>
PCB 1232	ND		0.500	1	07/17/2019 10:51	<a href="#">WG1311221</a>
PCB 1242	ND		0.500	1	07/17/2019 10:51	<a href="#">WG1311221</a>
PCB 1248	ND		0.500	1	07/17/2019 10:51	<a href="#">WG1311221</a>
PCB 1254	ND		0.500	1	07/17/2019 10:51	<a href="#">WG1311221</a>
PCB 1260	ND	J4	0.500	1	07/17/2019 10:51	<a href="#">WG1311221</a>
(S) Decachlorobiphenyl	60.2		10.0-128		07/17/2019 10:51	<a href="#">WG1311221</a>
(S) Tetrachloro-m-xylene	48.8		10.0-127		07/17/2019 10:51	<a href="#">WG1311221</a>

Semi Volatile Organic Compounds (GC/MS) by Method 8270D

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	ug/l		ug/l		date / time	
Acenaphthene	ND	J4	1.00	1	07/17/2019 13:40	<a href="#">WG1312111</a>
Acenaphthylene	ND	J4	1.00	1	07/17/2019 13:40	<a href="#">WG1312111</a>
Acetophenone	ND	J4	10.0	1	07/17/2019 13:40	<a href="#">WG1312111</a>
Anthracene	ND	J4	1.00	1	07/17/2019 13:40	<a href="#">WG1312111</a>
Atrazine	ND		10.0	1	07/17/2019 13:40	<a href="#">WG1312111</a>
Benzaldehyde	ND	J4	10.0	1	07/17/2019 13:40	<a href="#">WG1312111</a>
Benzo(a)anthracene	ND		1.00	1	07/17/2019 13:40	<a href="#">WG1312111</a>
Benzo(b)fluoranthene	ND		1.00	1	07/17/2019 13:40	<a href="#">WG1312111</a>
Benzo(k)fluoranthene	ND		1.00	1	07/17/2019 13:40	<a href="#">WG1312111</a>
Benzo(g,h,i)perylene	ND		1.00	1	07/17/2019 13:40	<a href="#">WG1312111</a>
Benzo(a)pyrene	ND		1.00	1	07/17/2019 13:40	<a href="#">WG1312111</a>
Biphenyl	ND	J4	10.0	1	07/17/2019 13:40	<a href="#">WG1312111</a>
Bis(2-chloroethoxy)methane	ND	J4	10.0	1	07/17/2019 13:40	<a href="#">WG1312111</a>
Bis(2-chloroethyl)ether	ND	J4	10.0	1	07/17/2019 13:40	<a href="#">WG1312111</a>
Bis(2-chloroisopropyl)ether	ND	J4	10.0	1	07/17/2019 13:40	<a href="#">WG1312111</a>
4-Bromophenyl-phenylether	ND	J4	10.0	1	07/17/2019 13:40	<a href="#">WG1312111</a>
Caprolactam	ND	J4	10.0	1	07/17/2019 13:40	<a href="#">WG1312111</a>
Carbazole	ND		10.0	1	07/17/2019 13:40	<a href="#">WG1312111</a>
4-Chloroaniline	ND	J4	10.0	1	07/17/2019 13:40	<a href="#">WG1312111</a>
2-Chloronaphthalene	ND	J4	1.00	1	07/17/2019 13:40	<a href="#">WG1312111</a>
4-Chlorophenyl-phenylether	ND	J4	10.0	1	07/17/2019 13:40	<a href="#">WG1312111</a>
Chrysene	ND		1.00	1	07/17/2019 13:40	<a href="#">WG1312111</a>
Dibenz(a,h)anthracene	ND		1.00	1	07/17/2019 13:40	<a href="#">WG1312111</a>
Dibenzofuran	ND	J4	10.0	1	07/17/2019 13:40	<a href="#">WG1312111</a>
3,3-Dichlorobenzidine	ND	J4	10.0	1	07/17/2019 13:40	<a href="#">WG1312111</a>
2,4-Dinitrotoluene	ND		10.0	1	07/17/2019 13:40	<a href="#">WG1312111</a>
2,6-Dinitrotoluene	ND	J4	10.0	1	07/17/2019 13:40	<a href="#">WG1312111</a>
Fluoranthene	ND		1.00	1	07/17/2019 13:40	<a href="#">WG1312111</a>
Fluorene	ND	J4	1.00	1	07/17/2019 13:40	<a href="#">WG1312111</a>
Hexachlorobenzene	ND	J4	1.00	1	07/17/2019 13:40	<a href="#">WG1312111</a>
Hexachloro-1,3-butadiene	ND	J4	10.0	1	07/17/2019 13:40	<a href="#">WG1312111</a>
Hexachlorocyclopentadiene	ND	J4	10.0	1	07/17/2019 13:40	<a href="#">WG1312111</a>





Collected date/time: 07/10/19 11:20

L1117439

Semi Volatile Organic Compounds (GC/MS) by Method 8270D

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	ug/l		ug/l		date / time	
Hexachloroethane	ND	J4	10.0	1	07/17/2019 13:40	WG1312111
Indeno(1,2,3-cd)pyrene	ND		1.00	1	07/17/2019 13:40	WG1312111
Isophorone	ND	J4	10.0	1	07/17/2019 13:40	WG1312111
2-Methylnaphthalene	ND	J4	1.00	1	07/17/2019 13:40	WG1312111
Naphthalene	ND	J4	1.00	1	07/17/2019 13:40	WG1312111
2-Nitroaniline	ND	J4	10.0	1	07/17/2019 13:40	WG1312111
3-Nitroaniline	ND		10.0	1	07/17/2019 13:40	WG1312111
4-Nitroaniline	ND		10.0	1	07/17/2019 13:40	WG1312111
Nitrobenzene	ND	J4	10.0	1	07/17/2019 13:40	WG1312111
n-Nitrosodiphenylamine	ND	J4	10.0	1	07/17/2019 13:40	WG1312111
n-Nitrosodi-n-propylamine	ND	J4	10.0	1	07/17/2019 13:40	WG1312111
Phenanthrene	ND	J4	1.00	1	07/17/2019 13:40	WG1312111
Benzylbutyl phthalate	ND		3.00	1	07/17/2019 13:40	WG1312111
Bis(2-ethylhexyl)phthalate	ND		3.00	1	07/17/2019 13:40	WG1312111
Di-n-butyl phthalate	ND		3.00	1	07/17/2019 13:40	WG1312111
Diethyl phthalate	ND		3.00	1	07/17/2019 13:40	WG1312111
Dimethyl phthalate	ND	J4	3.00	1	07/17/2019 13:40	WG1312111
Di-n-octyl phthalate	ND	J4	3.00	1	07/17/2019 13:40	WG1312111
Pyrene	ND	J4	1.00	1	07/17/2019 13:40	WG1312111
1,2,4,5-Tetrachlorobenzene	ND	J4	10.0	1	07/17/2019 13:40	WG1312111
4-Chloro-3-methylphenol	ND	J4	10.0	1	07/17/2019 13:40	WG1312111
2-Chlorophenol	ND	J4	10.0	1	07/17/2019 13:40	WG1312111
2-Methylphenol	ND	J4	10.0	1	07/17/2019 13:40	WG1312111
3&4-Methyl Phenol	ND	J4	10.0	1	07/17/2019 13:40	WG1312111
2,4-Dichlorophenol	ND	J4	10.0	1	07/17/2019 13:40	WG1312111
2,4-Dimethylphenol	ND	J4	10.0	1	07/17/2019 13:40	WG1312111
4,6-Dinitro-2-methylphenol	ND		10.0	1	07/17/2019 13:40	WG1312111
2,4-Dinitrophenol	ND	J4	10.0	1	07/17/2019 13:40	WG1312111
2-Nitrophenol	ND	J4	10.0	1	07/17/2019 13:40	WG1312111
4-Nitrophenol	ND	J4	10.0	1	07/17/2019 13:40	WG1312111
Pentachlorophenol	ND	J4	10.0	1	07/17/2019 13:40	WG1312111
Phenol	ND	J4	10.0	1	07/17/2019 13:40	WG1312111
2,4,5-Trichlorophenol	ND	J4	10.0	1	07/17/2019 13:40	WG1312111
2,4,6-Trichlorophenol	ND	J4	10.0	1	07/17/2019 13:40	WG1312111
(S) Nitrobenzene-d5	14.1		10.0-127		07/17/2019 13:40	WG1312111
(S) 2-Fluorobiphenyl	16.1		10.0-130		07/17/2019 13:40	WG1312111
(S) p-Terphenyl-d14	61.8		10.0-128		07/17/2019 13:40	WG1312111
(S) Phenol-d5	4.20	J2	10.0-120		07/17/2019 13:40	WG1312111
(S) 2-Fluorophenol	5.60	J2	10.0-120		07/17/2019 13:40	WG1312111
(S) 2,4,6-Tribromophenol	25.5		10.0-155		07/17/2019 13:40	WG1312111

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

Sample Narrative:

L1117439-03 WG1312111: Duplicate analysis was performed.

Semi Volatile Organic Compounds (GC/MS) by Method 8270E-SIM

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	ug/l		ug/l		date / time	
Anthracene	ND		0.0520	1.04	07/15/2019 11:23	WG1311104
Acenaphthene	ND		0.0520	1.04	07/15/2019 11:23	WG1311104
Acenaphthylene	ND		0.0520	1.04	07/15/2019 11:23	WG1311104
Benzo(a)anthracene	ND		0.0520	1.04	07/15/2019 11:23	WG1311104
Benzo(a)pyrene	ND		0.0520	1.04	07/15/2019 11:23	WG1311104
Benzo(b)fluoranthene	ND		0.0520	1.04	07/15/2019 11:23	WG1311104
Benzo(g,h,i)perylene	ND		0.0520	1.04	07/15/2019 11:23	WG1311104
Benzo(k)fluoranthene	ND		0.0520	1.04	07/15/2019 11:23	WG1311104
Chrysene	ND		0.0520	1.04	07/15/2019 11:23	WG1311104



Collected date/time: 07/10/19 11:20

L1117439

Semi Volatile Organic Compounds (GC/MS) by Method 8270E-SIM

Analyte	Result ug/l	Qualifier	RDL ug/l	Dilution	Analysis date / time	Batch
Dibenz(a,h)anthracene	ND		0.0520	1.04	07/15/2019 11:23	<a href="#">WG1311104</a>
Fluoranthene	ND		0.0520	1.04	07/15/2019 11:23	<a href="#">WG1311104</a>
Fluorene	ND		0.0520	1.04	07/15/2019 11:23	<a href="#">WG1311104</a>
Indeno(1,2,3-cd)pyrene	ND		0.0520	1.04	07/15/2019 11:23	<a href="#">WG1311104</a>
Naphthalene	ND		0.260	1.04	07/15/2019 11:23	<a href="#">WG1311104</a>
Phenanthrene	ND		0.0520	1.04	07/15/2019 11:23	<a href="#">WG1311104</a>
Pyrene	ND		0.0520	1.04	07/15/2019 11:23	<a href="#">WG1311104</a>
<i>(S) Nitrobenzene-d5</i>	104		11.0-135		07/15/2019 11:23	<a href="#">WG1311104</a>
<i>(S) 2-Fluorobiphenyl</i>	80.8		32.0-120		07/15/2019 11:23	<a href="#">WG1311104</a>
<i>(S) p-Terphenyl-d14</i>	84.1		23.0-122		07/15/2019 11:23	<a href="#">WG1311104</a>

Sample Narrative:

L1117439-03 WG1311104: Dilution due to sample volume.

- 1 Cp
- 2 Tc
- 3 Ss
- 4 Cn
- 5 Sr
- 6 Qc
- 7 Gl
- 8 Al
- 9 Sc



Wet Chemistry by Method 4500CN E-2011

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	ug/l		ug/l		date / time	
Cyanide	ND		5.00	1	07/19/2019 16:49	<a href="#">WG1314079</a>

1 Cp

2 Tc

Mercury by Method 7470A

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	ug/l		ug/l		date / time	
Mercury	ND		0.200	1	07/12/2019 09:46	<a href="#">WG1309989</a>

3 Ss

4 Cn

Metals (ICP) by Method 6010D

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	ug/l		ug/l		date / time	
Aluminum	ND		200	1	07/16/2019 11:54	<a href="#">WG1310249</a>
Antimony	ND		10.0	1	07/16/2019 11:54	<a href="#">WG1310249</a>
Arsenic	ND		10.0	1	07/16/2019 11:54	<a href="#">WG1310249</a>
Barium	724		5.00	1	07/16/2019 11:54	<a href="#">WG1310249</a>
Beryllium	ND		2.00	1	07/16/2019 11:54	<a href="#">WG1310249</a>
Cadmium	ND		2.00	1	07/16/2019 11:54	<a href="#">WG1310249</a>
Calcium	15700		1000	1	07/16/2019 11:54	<a href="#">WG1310249</a>
Chromium	ND		10.0	1	07/16/2019 11:54	<a href="#">WG1310249</a>
Cobalt	ND		10.0	1	07/16/2019 11:54	<a href="#">WG1310249</a>
Copper	ND		10.0	1	07/16/2019 11:54	<a href="#">WG1310249</a>
Iron	374		100	1	07/16/2019 11:54	<a href="#">WG1310249</a>
Lead	ND		5.00	1	07/16/2019 11:54	<a href="#">WG1310249</a>
Magnesium	11100		1000	1	07/16/2019 11:54	<a href="#">WG1310249</a>
Manganese	510		10.0	1	07/16/2019 11:54	<a href="#">WG1310249</a>
Nickel	45.6		10.0	1	07/16/2019 11:54	<a href="#">WG1310249</a>
Potassium	5390		1000	1	07/16/2019 11:54	<a href="#">WG1310249</a>
Selenium	ND		10.0	1	07/16/2019 11:54	<a href="#">WG1310249</a>
Silver	ND		5.00	1	07/16/2019 11:54	<a href="#">WG1310249</a>
Sodium	121000		1000	1	07/16/2019 11:54	<a href="#">WG1310249</a>
Thallium	ND		10.0	1	07/16/2019 11:54	<a href="#">WG1310249</a>
Vanadium	ND		20.0	1	07/16/2019 11:54	<a href="#">WG1310249</a>
Zinc	63.8		50.0	1	07/16/2019 11:54	<a href="#">WG1310249</a>

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	ug/l		ug/l		date / time	
Acetone	ND	J4	50.0	1	07/12/2019 03:40	<a href="#">WG1310149</a>
Benzene	ND		1.00	1	07/12/2019 03:40	<a href="#">WG1310149</a>
Bromochloromethane	ND		1.00	1	07/12/2019 03:40	<a href="#">WG1310149</a>
Bromodichloromethane	ND		1.00	1	07/12/2019 03:40	<a href="#">WG1310149</a>
Bromoform	ND		1.00	1	07/12/2019 03:40	<a href="#">WG1310149</a>
Bromomethane	ND		5.00	1	07/12/2019 03:40	<a href="#">WG1310149</a>
Carbon disulfide	ND		1.00	1	07/12/2019 03:40	<a href="#">WG1310149</a>
Carbon tetrachloride	ND		1.00	1	07/12/2019 03:40	<a href="#">WG1310149</a>
Chlorobenzene	1.83		1.00	1	07/12/2019 03:40	<a href="#">WG1310149</a>
Chlorodibromomethane	ND		1.00	1	07/12/2019 03:40	<a href="#">WG1310149</a>
Chloroethane	ND		5.00	1	07/12/2019 03:40	<a href="#">WG1310149</a>
Chloroform	80.1		5.00	1	07/12/2019 03:40	<a href="#">WG1310149</a>
Chloromethane	ND		2.50	1	07/12/2019 03:40	<a href="#">WG1310149</a>
Cyclohexane	ND		1.00	1	07/12/2019 03:40	<a href="#">WG1310149</a>
1,2-Dibromo-3-Chloropropane	ND		5.00	1	07/12/2019 03:40	<a href="#">WG1310149</a>
1,2-Dibromoethane	ND		1.00	1	07/12/2019 03:40	<a href="#">WG1310149</a>
1,2-Dichlorobenzene	ND		1.00	1	07/12/2019 03:40	<a href="#">WG1310149</a>
1,3-Dichlorobenzene	ND		1.00	1	07/12/2019 03:40	<a href="#">WG1310149</a>



Collected date/time: 07/10/19 15:55

L1117439

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result ug/l	Qualifier	RDL ug/l	Dilution	Analysis date / time	Batch
1,4-Dichlorobenzene	1.92		1.00	1	07/12/2019 03:40	WG1310149
Dichlorodifluoromethane	ND		5.00	1	07/12/2019 03:40	WG1310149
1,1-Dichloroethane	ND		1.00	1	07/12/2019 03:40	WG1310149
1,2-Dichloroethane	ND		1.00	1	07/12/2019 03:40	WG1310149
1,1-Dichloroethene	1.91		1.00	1	07/12/2019 03:40	WG1310149
cis-1,2-Dichloroethene	ND		1.00	1	07/12/2019 03:40	WG1310149
trans-1,2-Dichloroethene	ND		1.00	1	07/12/2019 03:40	WG1310149
1,2-Dichloropropane	ND		1.00	1	07/12/2019 03:40	WG1310149
cis-1,3-Dichloropropene	ND		1.00	1	07/12/2019 03:40	WG1310149
trans-1,3-Dichloropropene	ND		1.00	1	07/12/2019 03:40	WG1310149
Ethylbenzene	ND		1.00	1	07/12/2019 03:40	WG1310149
2-Hexanone	ND		10.0	1	07/12/2019 03:40	WG1310149
Isopropylbenzene	ND		1.00	1	07/12/2019 03:40	WG1310149
2-Butanone (MEK)	ND	J4	10.0	1	07/12/2019 03:40	WG1310149
Methyl Acetate	ND		20.0	1	07/12/2019 03:40	WG1310149
Methyl Cyclohexane	ND		1.00	1	07/12/2019 03:40	WG1310149
Methylene Chloride	ND		5.00	1	07/12/2019 03:40	WG1310149
4-Methyl-2-pentanone (MIBK)	ND		10.0	1	07/12/2019 03:40	WG1310149
Methyl tert-butyl ether	ND		1.00	1	07/12/2019 03:40	WG1310149
Styrene	ND		1.00	1	07/12/2019 03:40	WG1310149
1,1,2,2-Tetrachloroethane	ND		1.00	1	07/12/2019 03:40	WG1310149
Tetrachloroethene	ND		1.00	1	07/12/2019 03:40	WG1310149
Toluene	ND		1.00	1	07/12/2019 03:40	WG1310149
1,2,3-Trichlorobenzene	ND		1.00	1	07/12/2019 03:40	WG1310149
1,2,4-Trichlorobenzene	1.70		1.00	1	07/12/2019 03:40	WG1310149
1,1,1-Trichloroethane	ND		1.00	1	07/12/2019 03:40	WG1310149
1,1,2-Trichloroethane	ND		1.00	1	07/12/2019 03:40	WG1310149
Trichloroethene	1.33		1.00	1	07/12/2019 03:40	WG1310149
Trichlorofluoromethane	ND		5.00	1	07/12/2019 03:40	WG1310149
1,1,2-Trichlorotrifluoroethane	ND		1.00	1	07/12/2019 03:40	WG1310149
Vinyl chloride	ND		1.00	1	07/12/2019 03:40	WG1310149
Xylenes, Total	ND		3.00	1	07/12/2019 03:40	WG1310149
(S) Toluene-d8	108		80.0-120		07/12/2019 03:40	WG1310149
(S) 4-Bromofluorobenzene	102		77.0-126		07/12/2019 03:40	WG1310149
(S) 1,2-Dichloroethane-d4	106		70.0-130		07/12/2019 03:40	WG1310149

- 1 Cp
- 2 Tc
- 3 Ss
- 4 Cn
- 5 Sr
- 6 Qc
- 7 Gl
- 8 Al
- 9 Sc

Pesticides (GC) by Method 8081B

Analyte	Result ug/l	Qualifier	RDL ug/l	Dilution	Analysis date / time	Batch
Aldrin	ND	J4	0.0500	1	07/17/2019 10:06	WG1311221
Alpha BHC	ND		0.0500	1	07/17/2019 10:06	WG1311221
Beta BHC	ND		0.0500	1	07/17/2019 10:06	WG1311221
Delta BHC	ND		0.0500	1	07/17/2019 10:06	WG1311221
Gamma BHC	ND	J4	0.0500	1	07/17/2019 10:06	WG1311221
Chlordane	ND		5.00	1	07/17/2019 10:06	WG1311221
4,4-DDD	ND		0.0500	1	07/17/2019 10:06	WG1311221
4,4-DDE	ND		0.0500	1	07/17/2019 10:06	WG1311221
4,4-DDT	ND		0.0500	1	07/17/2019 10:06	WG1311221
Dieldrin	ND		0.0500	1	07/17/2019 10:06	WG1311221
Endosulfan I	ND		0.0500	1	07/17/2019 10:06	WG1311221
Endosulfan II	ND		0.0500	1	07/17/2019 10:06	WG1311221
Endosulfan sulfate	ND		0.0500	1	07/17/2019 10:06	WG1311221
Endrin	ND		0.0500	1	07/17/2019 10:06	WG1311221
Endrin aldehyde	ND		0.0500	1	07/17/2019 10:06	WG1311221
Endrin ketone	ND		0.0500	1	07/17/2019 10:06	WG1311221
Heptachlor	ND	J4	0.0500	1	07/17/2019 10:06	WG1311221



Collected date/time: 07/10/19 15:55

L1117439

Pesticides (GC) by Method 8081B

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	ug/l		ug/l		date / time	
Heptachlor epoxide	ND		0.0500	1	07/17/2019 10:06	<a href="#">WG1311221</a>
Hexachlorobenzene	ND	J4	0.0500	1	07/17/2019 10:06	<a href="#">WG1311221</a>
Methoxychlor	ND		0.0500	1	07/17/2019 10:06	<a href="#">WG1311221</a>
Toxaphene	ND		0.500	1	07/17/2019 10:06	<a href="#">WG1311221</a>
(S) Decachlorobiphenyl	80.0		10.0-128		07/17/2019 10:06	<a href="#">WG1311221</a>
(S) Tetrachloro-m-xylene	79.6		10.0-127		07/17/2019 10:06	<a href="#">WG1311221</a>

- 1 Cp
- 2 Tc
- 3 Ss
- 4 Cn
- 5 Sr
- 6 Qc
- 7 Gl
- 8 Al
- 9 Sc

Polychlorinated Biphenyls (GC) by Method 8082 A

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	ug/l		ug/l		date / time	
PCB 1016	ND		0.500	1	07/17/2019 11:05	<a href="#">WG1311221</a>
PCB 1221	ND		0.500	1	07/17/2019 11:05	<a href="#">WG1311221</a>
PCB 1232	ND		0.500	1	07/17/2019 11:05	<a href="#">WG1311221</a>
PCB 1242	ND		0.500	1	07/17/2019 11:05	<a href="#">WG1311221</a>
PCB 1248	ND		0.500	1	07/17/2019 11:05	<a href="#">WG1311221</a>
PCB 1254	ND		0.500	1	07/17/2019 11:05	<a href="#">WG1311221</a>
PCB 1260	ND	J4	0.500	1	07/17/2019 11:05	<a href="#">WG1311221</a>
(S) Decachlorobiphenyl	77.8		10.0-128		07/17/2019 11:05	<a href="#">WG1311221</a>
(S) Tetrachloro-m-xylene	51.4		10.0-127		07/17/2019 11:05	<a href="#">WG1311221</a>

Semi Volatile Organic Compounds (GC/MS) by Method 8270D

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	ug/l		ug/l		date / time	
Acenaphthene	ND	J4	1.00	1	07/17/2019 14:03	<a href="#">WG1312111</a>
Acenaphthylene	ND	J4	1.00	1	07/17/2019 14:03	<a href="#">WG1312111</a>
Acetophenone	ND	J4	10.0	1	07/17/2019 14:03	<a href="#">WG1312111</a>
Anthracene	ND	J4	1.00	1	07/17/2019 14:03	<a href="#">WG1312111</a>
Atrazine	ND		10.0	1	07/17/2019 14:03	<a href="#">WG1312111</a>
Benzaldehyde	ND	J4	10.0	1	07/17/2019 14:03	<a href="#">WG1312111</a>
Benzo(a)anthracene	ND		1.00	1	07/17/2019 14:03	<a href="#">WG1312111</a>
Benzo(b)fluoranthene	ND		1.00	1	07/17/2019 14:03	<a href="#">WG1312111</a>
Benzo(k)fluoranthene	ND		1.00	1	07/17/2019 14:03	<a href="#">WG1312111</a>
Benzo(g,h,i)perylene	ND		1.00	1	07/17/2019 14:03	<a href="#">WG1312111</a>
Benzo(a)pyrene	ND		1.00	1	07/17/2019 14:03	<a href="#">WG1312111</a>
Biphenyl	ND	J4	10.0	1	07/17/2019 14:03	<a href="#">WG1312111</a>
Bis(2-chloroethoxy)methane	ND	J4	10.0	1	07/17/2019 14:03	<a href="#">WG1312111</a>
Bis(2-chloroethyl)ether	ND	J4	10.0	1	07/17/2019 14:03	<a href="#">WG1312111</a>
Bis(2-chloroisopropyl)ether	ND	J4	10.0	1	07/17/2019 14:03	<a href="#">WG1312111</a>
4-Bromophenyl-phenylether	ND	J4	10.0	1	07/17/2019 14:03	<a href="#">WG1312111</a>
Caprolactam	ND	J4	10.0	1	07/17/2019 14:03	<a href="#">WG1312111</a>
Carbazole	ND		10.0	1	07/17/2019 14:03	<a href="#">WG1312111</a>
4-Chloroaniline	ND	J4	10.0	1	07/17/2019 14:03	<a href="#">WG1312111</a>
2-Chloronaphthalene	ND	J4	1.00	1	07/17/2019 14:03	<a href="#">WG1312111</a>
4-Chlorophenyl-phenylether	ND	J4	10.0	1	07/17/2019 14:03	<a href="#">WG1312111</a>
Chrysene	ND		1.00	1	07/17/2019 14:03	<a href="#">WG1312111</a>
Dibenz(a,h)anthracene	ND		1.00	1	07/17/2019 14:03	<a href="#">WG1312111</a>
Dibenzofuran	ND	J4	10.0	1	07/17/2019 14:03	<a href="#">WG1312111</a>
3,3-Dichlorobenzidine	ND	J4	10.0	1	07/17/2019 14:03	<a href="#">WG1312111</a>
2,4-Dinitrotoluene	ND		10.0	1	07/17/2019 14:03	<a href="#">WG1312111</a>
2,6-Dinitrotoluene	ND	J4	10.0	1	07/17/2019 14:03	<a href="#">WG1312111</a>
Fluoranthene	ND		1.00	1	07/17/2019 14:03	<a href="#">WG1312111</a>
Fluorene	ND	J4	1.00	1	07/17/2019 14:03	<a href="#">WG1312111</a>
Hexachlorobenzene	ND	J4	1.00	1	07/17/2019 14:03	<a href="#">WG1312111</a>
Hexachloro-1,3-butadiene	ND	J4	10.0	1	07/17/2019 14:03	<a href="#">WG1312111</a>
Hexachlorocyclopentadiene	ND	J4	10.0	1	07/17/2019 14:03	<a href="#">WG1312111</a>



Collected date/time: 07/10/19 15:55

L1117439

Semi Volatile Organic Compounds (GC/MS) by Method 8270D

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	ug/l		ug/l		date / time	
Hexachloroethane	ND	J4	10.0	1	07/17/2019 14:03	WG1312111
Indeno(1,2,3-cd)pyrene	ND		1.00	1	07/17/2019 14:03	WG1312111
Isophorone	ND	J4	10.0	1	07/17/2019 14:03	WG1312111
2-Methylnaphthalene	ND	J4	1.00	1	07/17/2019 14:03	WG1312111
Naphthalene	ND	J4	1.00	1	07/17/2019 14:03	WG1312111
2-Nitroaniline	ND	J4	10.0	1	07/17/2019 14:03	WG1312111
3-Nitroaniline	ND		10.0	1	07/17/2019 14:03	WG1312111
4-Nitroaniline	ND		10.0	1	07/17/2019 14:03	WG1312111
Nitrobenzene	ND	J4	10.0	1	07/17/2019 14:03	WG1312111
n-Nitrosodiphenylamine	ND	J4	10.0	1	07/17/2019 14:03	WG1312111
n-Nitrosodi-n-propylamine	ND	J4	10.0	1	07/17/2019 14:03	WG1312111
Phenanthrene	ND	J4	1.00	1	07/17/2019 14:03	WG1312111
Benzylbutyl phthalate	ND		3.00	1	07/17/2019 14:03	WG1312111
Bis(2-ethylhexyl)phthalate	ND		3.00	1	07/17/2019 14:03	WG1312111
Di-n-butyl phthalate	ND		3.00	1	07/17/2019 14:03	WG1312111
Diethyl phthalate	ND		3.00	1	07/17/2019 14:03	WG1312111
Dimethyl phthalate	ND	J4	3.00	1	07/17/2019 14:03	WG1312111
Di-n-octyl phthalate	ND	J4	3.00	1	07/17/2019 14:03	WG1312111
Pyrene	ND	J4	1.00	1	07/17/2019 14:03	WG1312111
1,2,4,5-Tetrachlorobenzene	ND	J4	10.0	1	07/17/2019 14:03	WG1312111
4-Chloro-3-methylphenol	ND	J4	10.0	1	07/17/2019 14:03	WG1312111
2-Chlorophenol	ND	J4	10.0	1	07/17/2019 14:03	WG1312111
2-Methylphenol	ND	J4	10.0	1	07/17/2019 14:03	WG1312111
3&4-Methyl Phenol	ND	J4	10.0	1	07/17/2019 14:03	WG1312111
2,4-Dichlorophenol	ND	J4	10.0	1	07/17/2019 14:03	WG1312111
2,4-Dimethylphenol	ND	J4	10.0	1	07/17/2019 14:03	WG1312111
4,6-Dinitro-2-methylphenol	ND		10.0	1	07/17/2019 14:03	WG1312111
2,4-Dinitrophenol	ND	J4	10.0	1	07/17/2019 14:03	WG1312111
2-Nitrophenol	ND	J4	10.0	1	07/17/2019 14:03	WG1312111
4-Nitrophenol	ND	J4	10.0	1	07/17/2019 14:03	WG1312111
Pentachlorophenol	ND	J4	10.0	1	07/17/2019 14:03	WG1312111
Phenol	ND	J4	10.0	1	07/17/2019 14:03	WG1312111
2,4,5-Trichlorophenol	ND	J4	10.0	1	07/17/2019 14:03	WG1312111
2,4,6-Trichlorophenol	ND	J4	10.0	1	07/17/2019 14:03	WG1312111
(S) Nitrobenzene-d5	17.0		10.0-127		07/17/2019 14:03	WG1312111
(S) 2-Fluorobiphenyl	18.8		10.0-130		07/17/2019 14:03	WG1312111
(S) p-Terphenyl-d14	52.6		10.0-128		07/17/2019 14:03	WG1312111
(S) Phenol-d5	4.51	J2	10.0-120		07/17/2019 14:03	WG1312111
(S) 2-Fluorophenol	6.00	J2	10.0-120		07/17/2019 14:03	WG1312111
(S) 2,4,6-Tribromophenol	35.9		10.0-155		07/17/2019 14:03	WG1312111

- 1 Cp
- 2 Tc
- 3 Ss
- 4 Cn
- 5 Sr
- 6 Qc
- 7 Gl
- 8 Al
- 9 Sc

Sample Narrative:

L1117439-04 WG1312111: Duplicate analysis was performed.

Semi Volatile Organic Compounds (GC/MS) by Method 8270E-SIM

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	ug/l		ug/l		date / time	
Anthracene	ND		0.0500	1	07/15/2019 23:01	WG1311224
Acenaphthene	ND	J4	0.0500	1	07/15/2019 23:01	WG1311224
Acenaphthylene	ND	J4	0.0500	1	07/15/2019 23:01	WG1311224
Benzo(a)anthracene	ND		0.0500	1	07/15/2019 23:01	WG1311224
Benzo(a)pyrene	ND		0.0500	1	07/15/2019 23:01	WG1311224
Benzo(b)fluoranthene	ND		0.0500	1	07/15/2019 23:01	WG1311224
Benzo(g,h,i)perylene	ND		0.0500	1	07/15/2019 23:01	WG1311224
Benzo(k)fluoranthene	ND		0.0500	1	07/15/2019 23:01	WG1311224
Chrysene	ND		0.0500	1	07/15/2019 23:01	WG1311224



Collected date/time: 07/10/19 15:55

L1117439

Semi Volatile Organic Compounds (GC/MS) by Method 8270E-SIM

Analyte	Result ug/l	Qualifier	RDL ug/l	Dilution	Analysis date / time	Batch
Dibenz(a,h)anthracene	ND		0.0500	1	07/15/2019 23:01	<a href="#">WG1311224</a>
Fluoranthene	ND		0.0500	1	07/15/2019 23:01	<a href="#">WG1311224</a>
Fluorene	ND	J4	0.0500	1	07/15/2019 23:01	<a href="#">WG1311224</a>
Indeno(1,2,3-cd)pyrene	ND		0.0500	1	07/15/2019 23:01	<a href="#">WG1311224</a>
Naphthalene	0.437	J4	0.250	1	07/15/2019 23:01	<a href="#">WG1311224</a>
Phenanthrene	ND	J4	0.0500	1	07/15/2019 23:01	<a href="#">WG1311224</a>
Pyrene	ND		0.0500	1	07/15/2019 23:01	<a href="#">WG1311224</a>
(S) Nitrobenzene-d5	109		11.0-135		07/15/2019 23:01	<a href="#">WG1311224</a>
(S) 2-Fluorobiphenyl	54.1		32.0-120		07/15/2019 23:01	<a href="#">WG1311224</a>
(S) p-Terphenyl-d14	81.9		23.0-122		07/15/2019 23:01	<a href="#">WG1311224</a>

- 1 Cp
- 2 Tc
- 3 Ss
- 4 Cn
- 5 Sr
- 6 Qc
- 7 Gl
- 8 Al
- 9 Sc



Wet Chemistry by Method 4500CN E-2011

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	ug/l		ug/l		date / time	
Cyanide	5.41	<u>B P1</u>	5.00	1	07/18/2019 20:00	<a href="#">WG1313327</a>

1 Cp

2 Tc

Mercury by Method 7470A

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	ug/l		ug/l		date / time	
Mercury	ND		0.200	1	07/12/2019 09:49	<a href="#">WG1309989</a>

3 Ss

4 Cn

Metals (ICP) by Method 6010D

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	ug/l		ug/l		date / time	
Aluminum	ND		200	1	07/16/2019 12:02	<a href="#">WG1310249</a>
Antimony	ND		10.0	1	07/16/2019 12:02	<a href="#">WG1310249</a>
Arsenic	ND		10.0	1	07/16/2019 12:02	<a href="#">WG1310249</a>
Barium	24.8		5.00	1	07/16/2019 12:02	<a href="#">WG1310249</a>
Beryllium	ND		2.00	1	07/16/2019 12:02	<a href="#">WG1310249</a>
Cadmium	ND		2.00	1	07/16/2019 12:02	<a href="#">WG1310249</a>
Calcium	11800		1000	1	07/16/2019 12:02	<a href="#">WG1310249</a>
Chromium	ND		10.0	1	07/16/2019 12:02	<a href="#">WG1310249</a>
Cobalt	ND		10.0	1	07/16/2019 12:02	<a href="#">WG1310249</a>
Copper	ND		10.0	1	07/16/2019 12:02	<a href="#">WG1310249</a>
Iron	ND		100	1	07/16/2019 12:02	<a href="#">WG1310249</a>
Lead	ND		5.00	1	07/16/2019 12:02	<a href="#">WG1310249</a>
Magnesium	4530		1000	1	07/16/2019 12:02	<a href="#">WG1310249</a>
Manganese	ND		10.0	1	07/16/2019 12:02	<a href="#">WG1310249</a>
Nickel	ND		10.0	1	07/16/2019 12:02	<a href="#">WG1310249</a>
Potassium	ND		1000	1	07/16/2019 12:02	<a href="#">WG1310249</a>
Selenium	ND		10.0	1	07/16/2019 12:02	<a href="#">WG1310249</a>
Silver	ND		5.00	1	07/16/2019 12:02	<a href="#">WG1310249</a>
Sodium	4650		1000	1	07/16/2019 12:02	<a href="#">WG1310249</a>
Thallium	ND		10.0	1	07/16/2019 12:02	<a href="#">WG1310249</a>
Vanadium	ND		20.0	1	07/16/2019 12:02	<a href="#">WG1310249</a>
Zinc	ND		50.0	1	07/16/2019 12:02	<a href="#">WG1310249</a>

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	ug/l		ug/l		date / time	
Acetone	ND	<u>J4</u>	50.0	1	07/12/2019 03:59	<a href="#">WG1310149</a>
Benzene	ND		1.00	1	07/12/2019 03:59	<a href="#">WG1310149</a>
Bromochloromethane	ND		1.00	1	07/12/2019 03:59	<a href="#">WG1310149</a>
Bromodichloromethane	ND		1.00	1	07/12/2019 03:59	<a href="#">WG1310149</a>
Bromoform	ND		1.00	1	07/12/2019 03:59	<a href="#">WG1310149</a>
Bromomethane	ND		5.00	1	07/12/2019 03:59	<a href="#">WG1310149</a>
Carbon disulfide	ND		1.00	1	07/12/2019 03:59	<a href="#">WG1310149</a>
Carbon tetrachloride	ND		1.00	1	07/12/2019 03:59	<a href="#">WG1310149</a>
Chlorobenzene	ND		1.00	1	07/12/2019 03:59	<a href="#">WG1310149</a>
Chlorodibromomethane	ND		1.00	1	07/12/2019 03:59	<a href="#">WG1310149</a>
Chloroethane	ND		5.00	1	07/12/2019 03:59	<a href="#">WG1310149</a>
Chloroform	ND		5.00	1	07/12/2019 03:59	<a href="#">WG1310149</a>
Chloromethane	ND		2.50	1	07/12/2019 03:59	<a href="#">WG1310149</a>
Cyclohexane	ND		1.00	1	07/12/2019 03:59	<a href="#">WG1310149</a>
1,2-Dibromo-3-Chloropropane	ND		5.00	1	07/12/2019 03:59	<a href="#">WG1310149</a>
1,2-Dibromoethane	ND		1.00	1	07/12/2019 03:59	<a href="#">WG1310149</a>
1,2-Dichlorobenzene	ND		1.00	1	07/12/2019 03:59	<a href="#">WG1310149</a>
1,3-Dichlorobenzene	ND		1.00	1	07/12/2019 03:59	<a href="#">WG1310149</a>





Collected date/time: 07/10/19 10:25

L1117439

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	ug/l		ug/l		date / time	
1,4-Dichlorobenzene	ND		1.00	1	07/12/2019 03:59	WG1310149
Dichlorodifluoromethane	ND		5.00	1	07/12/2019 03:59	WG1310149
1,1-Dichloroethane	ND		1.00	1	07/12/2019 03:59	WG1310149
1,2-Dichloroethane	ND		1.00	1	07/12/2019 03:59	WG1310149
1,1-Dichloroethene	ND		1.00	1	07/12/2019 03:59	WG1310149
cis-1,2-Dichloroethene	ND		1.00	1	07/12/2019 03:59	WG1310149
trans-1,2-Dichloroethene	ND		1.00	1	07/12/2019 03:59	WG1310149
1,2-Dichloropropane	ND		1.00	1	07/12/2019 03:59	WG1310149
cis-1,3-Dichloropropene	ND		1.00	1	07/12/2019 03:59	WG1310149
trans-1,3-Dichloropropene	ND		1.00	1	07/12/2019 03:59	WG1310149
Ethylbenzene	ND		1.00	1	07/12/2019 03:59	WG1310149
2-Hexanone	ND		10.0	1	07/12/2019 03:59	WG1310149
Isopropylbenzene	ND		1.00	1	07/12/2019 03:59	WG1310149
2-Butanone (MEK)	ND	J4	10.0	1	07/12/2019 03:59	WG1310149
Methyl Acetate	ND		20.0	1	07/12/2019 03:59	WG1310149
Methyl Cyclohexane	ND		1.00	1	07/12/2019 03:59	WG1310149
Methylene Chloride	ND		5.00	1	07/12/2019 03:59	WG1310149
4-Methyl-2-pentanone (MIBK)	ND		10.0	1	07/12/2019 03:59	WG1310149
Methyl tert-butyl ether	ND		1.00	1	07/12/2019 03:59	WG1310149
Styrene	ND		1.00	1	07/12/2019 03:59	WG1310149
1,1,2,2-Tetrachloroethane	ND		1.00	1	07/12/2019 03:59	WG1310149
Tetrachloroethene	ND		1.00	1	07/12/2019 03:59	WG1310149
Toluene	ND		1.00	1	07/12/2019 03:59	WG1310149
1,2,3-Trichlorobenzene	ND		1.00	1	07/12/2019 03:59	WG1310149
1,2,4-Trichlorobenzene	ND		1.00	1	07/12/2019 03:59	WG1310149
1,1,1-Trichloroethane	ND		1.00	1	07/12/2019 03:59	WG1310149
1,1,2-Trichloroethane	ND		1.00	1	07/12/2019 03:59	WG1310149
Trichloroethene	ND		1.00	1	07/12/2019 03:59	WG1310149
Trichlorofluoromethane	ND		5.00	1	07/12/2019 03:59	WG1310149
1,1,2-Trichlorotrifluoroethane	ND		1.00	1	07/12/2019 03:59	WG1310149
Vinyl chloride	ND		1.00	1	07/12/2019 03:59	WG1310149
Xylenes, Total	ND		3.00	1	07/12/2019 03:59	WG1310149
(S) Toluene-d8	109		80.0-120		07/12/2019 03:59	WG1310149
(S) 4-Bromofluorobenzene	98.2		77.0-126		07/12/2019 03:59	WG1310149
(S) 1,2-Dichloroethane-d4	105		70.0-130		07/12/2019 03:59	WG1310149

- 1 Cp
- 2 Tc
- 3 Ss
- 4 Cn
- 5 Sr
- 6 Qc
- 7 Gl
- 8 Al
- 9 Sc

Pesticides (GC) by Method 8081B

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	ug/l		ug/l		date / time	
Aldrin	ND	J4	0.0500	1	07/17/2019 10:20	WG1311221
Alpha BHC	ND		0.0500	1	07/17/2019 10:20	WG1311221
Beta BHC	ND		0.0500	1	07/17/2019 10:20	WG1311221
Delta BHC	ND		0.0500	1	07/17/2019 10:20	WG1311221
Gamma BHC	ND	J4	0.0500	1	07/17/2019 10:20	WG1311221
Chlordane	ND		5.00	1	07/17/2019 10:20	WG1311221
4,4-DDD	ND		0.0500	1	07/17/2019 10:20	WG1311221
4,4-DDE	ND		0.0500	1	07/17/2019 10:20	WG1311221
4,4-DDT	ND		0.0500	1	07/17/2019 10:20	WG1311221
Dieldrin	ND		0.0500	1	07/17/2019 10:20	WG1311221
Endosulfan I	ND		0.0500	1	07/17/2019 10:20	WG1311221
Endosulfan II	ND		0.0500	1	07/17/2019 10:20	WG1311221
Endosulfan sulfate	ND		0.0500	1	07/17/2019 10:20	WG1311221
Endrin	ND		0.0500	1	07/17/2019 10:20	WG1311221
Endrin aldehyde	ND		0.0500	1	07/17/2019 10:20	WG1311221
Endrin ketone	ND		0.0500	1	07/17/2019 10:20	WG1311221
Heptachlor	ND	J4	0.0500	1	07/17/2019 10:20	WG1311221



Collected date/time: 07/10/19 10:25

L1117439

Pesticides (GC) by Method 8081B

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	ug/l		ug/l		date / time	
Heptachlor epoxide	ND		0.0500	1	07/17/2019 10:20	WG1311221
Hexachlorobenzene	ND	J4	0.0500	1	07/17/2019 10:20	WG1311221
Methoxychlor	ND		0.0500	1	07/17/2019 10:20	WG1311221
Toxaphene	ND		0.500	1	07/17/2019 10:20	WG1311221
(S) Decachlorobiphenyl	69.8		10.0-128		07/17/2019 10:20	WG1311221
(S) Tetrachloro-m-xylene	60.5		10.0-127		07/17/2019 10:20	WG1311221

- 1 Cp
- 2 Tc
- 3 Ss
- 4 Cn
- 5 Sr
- 6 Qc
- 7 Gl
- 8 Al
- 9 Sc

Polychlorinated Biphenyls (GC) by Method 8082 A

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	ug/l		ug/l		date / time	
PCB 1016	ND		0.500	1	07/17/2019 11:19	WG1311221
PCB 1221	ND		0.500	1	07/17/2019 11:19	WG1311221
PCB 1232	ND		0.500	1	07/17/2019 11:19	WG1311221
PCB 1242	ND		0.500	1	07/17/2019 11:19	WG1311221
PCB 1248	ND		0.500	1	07/17/2019 11:19	WG1311221
PCB 1254	ND		0.500	1	07/17/2019 11:19	WG1311221
PCB 1260	ND	J4	0.500	1	07/17/2019 11:19	WG1311221
(S) Decachlorobiphenyl	65.8		10.0-128		07/17/2019 11:19	WG1311221
(S) Tetrachloro-m-xylene	49.4		10.0-127		07/17/2019 11:19	WG1311221

Semi Volatile Organic Compounds (GC/MS) by Method 8270D

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	ug/l		ug/l		date / time	
Acenaphthene	ND	J4	1.00	1	07/16/2019 23:35	WG1311218
Acenaphthylene	ND	J4	1.00	1	07/16/2019 23:35	WG1311218
Acetophenone	ND	J4	10.0	1	07/16/2019 23:35	WG1311218
Anthracene	ND	J4	1.00	1	07/16/2019 23:35	WG1311218
Atrazine	ND		10.0	1	07/16/2019 23:35	WG1311218
Benzaldehyde	ND	J4	10.0	1	07/16/2019 23:35	WG1311218
Benzo(a)anthracene	ND	J4	1.00	1	07/16/2019 23:35	WG1311218
Benzo(b)fluoranthene	ND		1.00	1	07/16/2019 23:35	WG1311218
Benzo(k)fluoranthene	ND		1.00	1	07/16/2019 23:35	WG1311218
Benzo(g,h,i)perylene	ND		1.00	1	07/16/2019 23:35	WG1311218
Benzo(a)pyrene	ND	J4	1.00	1	07/16/2019 23:35	WG1311218
Biphenyl	ND	J4	10.0	1	07/16/2019 23:35	WG1311218
Bis(2-chloroethoxy)methane	ND	J4	10.0	1	07/16/2019 23:35	WG1311218
Bis(2-chloroethyl)ether	ND	J4	10.0	1	07/16/2019 23:35	WG1311218
Bis(2-chloroisopropyl)ether	ND	J4	10.0	1	07/16/2019 23:35	WG1311218
4-Bromophenyl-phenylether	ND		10.0	1	07/16/2019 23:35	WG1311218
Caprolactam	ND	J4	10.0	1	07/16/2019 23:35	WG1311218
Carbazole	ND	J4	10.0	1	07/16/2019 23:35	WG1311218
4-Chloroaniline	ND	JO J4	50.0	1	07/16/2019 23:35	WG1311218
2-Chloronaphthalene	ND	J4	1.00	1	07/16/2019 23:35	WG1311218
4-Chlorophenyl-phenylether	ND	J4	10.0	1	07/16/2019 23:35	WG1311218
Chrysene	ND	J4	1.00	1	07/16/2019 23:35	WG1311218
Dibenz(a,h)anthracene	ND		1.00	1	07/16/2019 23:35	WG1311218
Dibenzofuran	ND	J4	10.0	1	07/16/2019 23:35	WG1311218
3,3-Dichlorobenzidine	ND	J4	10.0	1	07/16/2019 23:35	WG1311218
2,4-Dinitrotoluene	ND		10.0	1	07/16/2019 23:35	WG1311218
2,6-Dinitrotoluene	ND		10.0	1	07/16/2019 23:35	WG1311218
Fluoranthene	ND	J4	1.00	1	07/16/2019 23:35	WG1311218
Fluorene	ND	J4	1.00	1	07/16/2019 23:35	WG1311218
Hexachlorobenzene	ND		1.00	1	07/16/2019 23:35	WG1311218
Hexachloro-1,3-butadiene	ND	J4	10.0	1	07/16/2019 23:35	WG1311218
Hexachlorocyclopentadiene	ND	J4	10.0	1	07/16/2019 23:35	WG1311218



Collected date/time: 07/10/19 10:25

L1117439

Semi Volatile Organic Compounds (GC/MS) by Method 8270D

Analyte	Result ug/l	Qualifier	RDL ug/l	Dilution	Analysis date / time	Batch
Hexachloroethane	ND	J4	10.0	1	07/16/2019 23:35	WG1311218
Indeno(1,2,3-cd)pyrene	ND		1.00	1	07/16/2019 23:35	WG1311218
Isophorone	ND	J4	10.0	1	07/16/2019 23:35	WG1311218
2-Methylnaphthalene	ND	J4	1.00	1	07/16/2019 23:35	WG1311218
Naphthalene	ND	J4	1.00	1	07/16/2019 23:35	WG1311218
2-Nitroaniline	ND	J4	10.0	1	07/16/2019 23:35	WG1311218
3-Nitroaniline	ND	J4	10.0	1	07/16/2019 23:35	WG1311218
4-Nitroaniline	ND	J4	10.0	1	07/16/2019 23:35	WG1311218
Nitrobenzene	ND	J4	10.0	1	07/16/2019 23:35	WG1311218
n-Nitrosodiphenylamine	ND	J4	10.0	1	07/16/2019 23:35	WG1311218
n-Nitrosodi-n-propylamine	ND	J4	10.0	1	07/16/2019 23:35	WG1311218
Phenanthrene	ND	J4	1.00	1	07/16/2019 23:35	WG1311218
Benzylbutyl phthalate	ND		3.00	1	07/16/2019 23:35	WG1311218
Bis(2-ethylhexyl)phthalate	ND		3.00	1	07/16/2019 23:35	WG1311218
Di-n-butyl phthalate	ND		3.00	1	07/16/2019 23:35	WG1311218
Diethyl phthalate	ND		3.00	1	07/16/2019 23:35	WG1311218
Dimethyl phthalate	ND		3.00	1	07/16/2019 23:35	WG1311218
Di-n-octyl phthalate	ND		3.00	1	07/16/2019 23:35	WG1311218
Pyrene	ND	J4	1.00	1	07/16/2019 23:35	WG1311218
1,2,4,5-Tetrachlorobenzene	ND	J4	10.0	1	07/16/2019 23:35	WG1311218
4-Chloro-3-methylphenol	ND	J4	10.0	1	07/16/2019 23:35	WG1311218
2-Chlorophenol	ND	J4	10.0	1	07/16/2019 23:35	WG1311218
2-Methylphenol	ND	J4	10.0	1	07/16/2019 23:35	WG1311218
3&4-Methyl Phenol	ND	J4	10.0	1	07/16/2019 23:35	WG1311218
2,4-Dichlorophenol	ND	J4	10.0	1	07/16/2019 23:35	WG1311218
2,4-Dimethylphenol	ND	J4	10.0	1	07/16/2019 23:35	WG1311218
4,6-Dinitro-2-methylphenol	ND	J4	10.0	1	07/16/2019 23:35	WG1311218
2,4-Dinitrophenol	ND	J4	10.0	1	07/16/2019 23:35	WG1311218
2-Nitrophenol	ND	J4	10.0	1	07/16/2019 23:35	WG1311218
4-Nitrophenol	ND	J4	10.0	1	07/16/2019 23:35	WG1311218
Pentachlorophenol	ND	J4	10.0	1	07/16/2019 23:35	WG1311218
Phenol	ND	J4	10.0	1	07/16/2019 23:35	WG1311218
2,4,5-Trichlorophenol	ND	J4	10.0	1	07/16/2019 23:35	WG1311218
2,4,6-Trichlorophenol	ND		10.0	1	07/16/2019 23:35	WG1311218
(S) Nitrobenzene-d5	28.9		10.0-127		07/16/2019 23:35	WG1311218
(S) 2-Fluorobiphenyl	26.3		10.0-130		07/16/2019 23:35	WG1311218
(S) p-Terphenyl-d14	62.9		10.0-128		07/16/2019 23:35	WG1311218
(S) Phenol-d5	13.7		10.0-120		07/16/2019 23:35	WG1311218
(S) 2-Fluorophenol	22.7		10.0-120		07/16/2019 23:35	WG1311218
(S) 2,4,6-Tribromophenol	42.8		10.0-155		07/16/2019 23:35	WG1311218

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

Semi Volatile Organic Compounds (GC/MS) by Method 8270E-SIM

Analyte	Result ug/l	Qualifier	RDL ug/l	Dilution	Analysis date / time	Batch
Anthracene	ND		0.0500	1	07/15/2019 23:23	WG1311224
Acenaphthene	ND	J4	0.0500	1	07/15/2019 23:23	WG1311224
Acenaphthylene	ND	J4	0.0500	1	07/15/2019 23:23	WG1311224
Benzo(a)anthracene	ND		0.0500	1	07/15/2019 23:23	WG1311224
Benzo(a)pyrene	ND		0.0500	1	07/15/2019 23:23	WG1311224
Benzo(b)fluoranthene	ND		0.0500	1	07/15/2019 23:23	WG1311224
Benzo(g,h,i)perylene	ND		0.0500	1	07/15/2019 23:23	WG1311224
Benzo(k)fluoranthene	ND		0.0500	1	07/15/2019 23:23	WG1311224
Chrysene	ND		0.0500	1	07/15/2019 23:23	WG1311224
Dibenz(a,h)anthracene	ND		0.0500	1	07/15/2019 23:23	WG1311224
Fluoranthene	ND		0.0500	1	07/15/2019 23:23	WG1311224
Fluorene	ND	J4	0.0500	1	07/15/2019 23:23	WG1311224



Collected date/time: 07/10/19 10:25

L1117439

Semi Volatile Organic Compounds (GC/MS) by Method 8270E-SIM

Analyte	Result ug/l	Qualifier	RDL ug/l	Dilution	Analysis date / time	Batch
Indeno(1,2,3-cd)pyrene	ND		0.0500	1	07/15/2019 23:23	<a href="#">WG1311224</a>
Naphthalene	ND	<u>J4</u>	0.250	1	07/15/2019 23:23	<a href="#">WG1311224</a>
Phenanthrene	ND	<u>J4</u>	0.0500	1	07/15/2019 23:23	<a href="#">WG1311224</a>
Pyrene	ND		0.0500	1	07/15/2019 23:23	<a href="#">WG1311224</a>
<i>(S)</i> Nitrobenzene-d5	114		11.0-135		07/15/2019 23:23	<a href="#">WG1311224</a>
<i>(S)</i> 2-Fluorobiphenyl	56.8		32.0-120		07/15/2019 23:23	<a href="#">WG1311224</a>
<i>(S)</i> p-Terphenyl-d14	84.2		23.0-122		07/15/2019 23:23	<a href="#">WG1311224</a>

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc



## Wet Chemistry by Method 4500CN E-2011

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	ug/l		ug/l		date / time	
Cyanide	ND		5.00	1	07/18/2019 20:02	<a href="#">WG1313327</a>

## Mercury by Method 7470A

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	ug/l		ug/l		date / time	
Mercury	ND		0.200	1	07/12/2019 09:51	<a href="#">WG1309989</a>

## Metals (ICP) by Method 6010D

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	ug/l		ug/l		date / time	
Aluminum	ND		200	1	07/16/2019 12:05	<a href="#">WG1310249</a>
Antimony	ND		10.0	1	07/16/2019 12:05	<a href="#">WG1310249</a>
Arsenic	ND		10.0	1	07/16/2019 12:05	<a href="#">WG1310249</a>
Barium	559		5.00	1	07/16/2019 12:05	<a href="#">WG1310249</a>
Beryllium	ND		2.00	1	07/16/2019 12:05	<a href="#">WG1310249</a>
Cadmium	ND		2.00	1	07/16/2019 12:05	<a href="#">WG1310249</a>
Calcium	71700		1000	1	07/16/2019 12:05	<a href="#">WG1310249</a>
Chromium	ND		10.0	1	07/16/2019 12:05	<a href="#">WG1310249</a>
Cobalt	14.9		10.0	1	07/16/2019 12:05	<a href="#">WG1310249</a>
Copper	38.2		10.0	1	07/16/2019 12:05	<a href="#">WG1310249</a>
Iron	46000		100	1	07/16/2019 12:05	<a href="#">WG1310249</a>
Lead	ND		5.00	1	07/16/2019 12:05	<a href="#">WG1310249</a>
Magnesium	38900		1000	1	07/16/2019 12:05	<a href="#">WG1310249</a>
Manganese	2510		10.0	1	07/16/2019 12:05	<a href="#">WG1310249</a>
Nickel	15.5		10.0	1	07/16/2019 12:05	<a href="#">WG1310249</a>
Potassium	3900		1000	1	07/16/2019 12:05	<a href="#">WG1310249</a>
Selenium	ND		10.0	1	07/16/2019 12:05	<a href="#">WG1310249</a>
Silver	ND		5.00	1	07/16/2019 12:05	<a href="#">WG1310249</a>
Sodium	62900		1000	1	07/16/2019 12:05	<a href="#">WG1310249</a>
Thallium	ND		10.0	1	07/16/2019 12:05	<a href="#">WG1310249</a>
Vanadium	ND		20.0	1	07/16/2019 12:05	<a href="#">WG1310249</a>
Zinc	ND		50.0	1	07/16/2019 12:05	<a href="#">WG1310249</a>

## Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	ug/l		ug/l		date / time	
Acetone	ND	<u>J4</u>	50.0	1	07/12/2019 04:19	<a href="#">WG1310149</a>
Benzene	ND		1.00	1	07/12/2019 04:19	<a href="#">WG1310149</a>
Bromochloromethane	ND		1.00	1	07/12/2019 04:19	<a href="#">WG1310149</a>
Bromodichloromethane	ND		1.00	1	07/12/2019 04:19	<a href="#">WG1310149</a>
Bromoform	ND		1.00	1	07/12/2019 04:19	<a href="#">WG1310149</a>
Bromomethane	ND		5.00	1	07/12/2019 04:19	<a href="#">WG1310149</a>
Carbon disulfide	ND		1.00	1	07/12/2019 04:19	<a href="#">WG1310149</a>
Carbon tetrachloride	ND		1.00	1	07/12/2019 04:19	<a href="#">WG1310149</a>
Chlorobenzene	ND		1.00	1	07/12/2019 04:19	<a href="#">WG1310149</a>
Chlorodibromomethane	ND		1.00	1	07/12/2019 04:19	<a href="#">WG1310149</a>
Chloroethane	ND		5.00	1	07/12/2019 04:19	<a href="#">WG1310149</a>
Chloroform	ND		5.00	1	07/12/2019 04:19	<a href="#">WG1310149</a>
Chloromethane	ND		2.50	1	07/12/2019 04:19	<a href="#">WG1310149</a>
Cyclohexane	ND		1.00	1	07/12/2019 04:19	<a href="#">WG1310149</a>
1,2-Dibromo-3-Chloropropane	ND		5.00	1	07/12/2019 04:19	<a href="#">WG1310149</a>
1,2-Dibromoethane	ND		1.00	1	07/12/2019 04:19	<a href="#">WG1310149</a>
1,2-Dichlorobenzene	ND		1.00	1	07/12/2019 04:19	<a href="#">WG1310149</a>
1,3-Dichlorobenzene	ND		1.00	1	07/12/2019 04:19	<a href="#">WG1310149</a>

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc



Collected date/time: 07/09/19 15:45

L1117439

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	ug/l		ug/l		date / time	
1,4-Dichlorobenzene	ND		1.00	1	07/12/2019 04:19	WG1310149
Dichlorodifluoromethane	ND		5.00	1	07/12/2019 04:19	WG1310149
1,1-Dichloroethane	ND		1.00	1	07/12/2019 04:19	WG1310149
1,2-Dichloroethane	ND		1.00	1	07/12/2019 04:19	WG1310149
1,1-Dichloroethene	ND		1.00	1	07/12/2019 04:19	WG1310149
cis-1,2-Dichloroethene	ND		1.00	1	07/12/2019 04:19	WG1310149
trans-1,2-Dichloroethene	ND		1.00	1	07/12/2019 04:19	WG1310149
1,2-Dichloropropane	ND		1.00	1	07/12/2019 04:19	WG1310149
cis-1,3-Dichloropropene	ND		1.00	1	07/12/2019 04:19	WG1310149
trans-1,3-Dichloropropene	ND		1.00	1	07/12/2019 04:19	WG1310149
Ethylbenzene	ND		1.00	1	07/12/2019 04:19	WG1310149
2-Hexanone	ND		10.0	1	07/12/2019 04:19	WG1310149
Isopropylbenzene	ND		1.00	1	07/12/2019 04:19	WG1310149
2-Butanone (MEK)	ND	J4	10.0	1	07/12/2019 04:19	WG1310149
Methyl Acetate	ND		20.0	1	07/12/2019 04:19	WG1310149
Methyl Cyclohexane	ND		1.00	1	07/12/2019 04:19	WG1310149
Methylene Chloride	ND		5.00	1	07/12/2019 04:19	WG1310149
4-Methyl-2-pentanone (MIBK)	ND		10.0	1	07/12/2019 04:19	WG1310149
Methyl tert-butyl ether	ND		1.00	1	07/12/2019 04:19	WG1310149
Styrene	ND		1.00	1	07/12/2019 04:19	WG1310149
1,1,2,2-Tetrachloroethane	ND		1.00	1	07/12/2019 04:19	WG1310149
Tetrachloroethene	ND		1.00	1	07/12/2019 04:19	WG1310149
Toluene	ND		1.00	1	07/12/2019 04:19	WG1310149
1,2,3-Trichlorobenzene	ND		1.00	1	07/12/2019 04:19	WG1310149
1,2,4-Trichlorobenzene	ND		1.00	1	07/12/2019 04:19	WG1310149
1,1,1-Trichloroethane	ND		1.00	1	07/12/2019 04:19	WG1310149
1,1,2-Trichloroethane	ND		1.00	1	07/12/2019 04:19	WG1310149
Trichloroethene	ND		1.00	1	07/12/2019 04:19	WG1310149
Trichlorofluoromethane	ND		5.00	1	07/12/2019 04:19	WG1310149
1,1,2-Trichlorotrifluoroethane	ND		1.00	1	07/12/2019 04:19	WG1310149
Vinyl chloride	ND		1.00	1	07/12/2019 04:19	WG1310149
Xylenes, Total	ND		3.00	1	07/12/2019 04:19	WG1310149
(S) Toluene-d8	114		80.0-120		07/12/2019 04:19	WG1310149
(S) 4-Bromofluorobenzene	100		77.0-126		07/12/2019 04:19	WG1310149
(S) 1,2-Dichloroethane-d4	107		70.0-130		07/12/2019 04:19	WG1310149

- 1 Cp
- 2 Tc
- 3 Ss
- 4 Cn
- 5 Sr
- 6 Qc
- 7 Gl
- 8 Al
- 9 Sc

Pesticides (GC) by Method 8081B

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	ug/l		ug/l		date / time	
Aldrin	ND		0.0500	1	07/13/2019 10:05	WG1310080
Alpha BHC	ND		0.0500	1	07/13/2019 10:05	WG1310080
Beta BHC	ND		0.0500	1	07/13/2019 10:05	WG1310080
Delta BHC	ND		0.0500	1	07/13/2019 10:05	WG1310080
Gamma BHC	ND		0.0500	1	07/13/2019 10:05	WG1310080
Chlordane	ND		5.00	1	07/13/2019 10:05	WG1310080
4,4-DDD	ND		0.0500	1	07/13/2019 10:05	WG1310080
4,4-DDE	ND		0.0500	1	07/13/2019 10:05	WG1310080
4,4-DDT	ND		0.0500	1	07/13/2019 10:05	WG1310080
Dieldrin	ND		0.0500	1	07/13/2019 10:05	WG1310080
Endosulfan I	ND		0.0500	1	07/13/2019 10:05	WG1310080
Endosulfan II	ND		0.0500	1	07/13/2019 10:05	WG1310080
Endosulfan sulfate	ND		0.0500	1	07/13/2019 10:05	WG1310080
Endrin	ND		0.0500	1	07/13/2019 10:05	WG1310080
Endrin aldehyde	ND		0.0500	1	07/13/2019 10:05	WG1310080
Endrin ketone	ND		0.0500	1	07/13/2019 10:05	WG1310080
Heptachlor	ND		0.0500	1	07/13/2019 10:05	WG1310080



Collected date/time: 07/09/19 15:45

L1117439

Pesticides (GC) by Method 8081B

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	ug/l		ug/l		date / time	
Heptachlor epoxide	ND		0.0500	1	07/13/2019 10:05	<a href="#">WG1310080</a>
Hexachlorobenzene	ND		0.0500	1	07/13/2019 10:05	<a href="#">WG1310080</a>
Methoxychlor	ND		0.0500	1	07/13/2019 10:05	<a href="#">WG1310080</a>
Toxaphene	ND		0.500	1	07/13/2019 10:05	<a href="#">WG1310080</a>
(S) Decachlorobiphenyl	85.4		10.0-128		07/13/2019 10:05	<a href="#">WG1310080</a>
(S) Tetrachloro-m-xylene	75.7		10.0-127		07/13/2019 10:05	<a href="#">WG1310080</a>

- 1 Cp
- 2 Tc
- 3 Ss
- 4 Cn
- 5 Sr
- 6 Qc
- 7 Gl
- 8 Al
- 9 Sc

Polychlorinated Biphenyls (GC) by Method 8082 A

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	ug/l		ug/l		date / time	
PCB 1016	ND		0.500	1	07/13/2019 19:44	<a href="#">WG1310080</a>
PCB 1221	ND		0.500	1	07/13/2019 19:44	<a href="#">WG1310080</a>
PCB 1232	ND		0.500	1	07/13/2019 19:44	<a href="#">WG1310080</a>
PCB 1242	ND		0.500	1	07/13/2019 19:44	<a href="#">WG1310080</a>
PCB 1248	ND		0.500	1	07/13/2019 19:44	<a href="#">WG1310080</a>
PCB 1254	ND		0.500	1	07/13/2019 19:44	<a href="#">WG1310080</a>
PCB 1260	ND		0.500	1	07/13/2019 19:44	<a href="#">WG1310080</a>
(S) Decachlorobiphenyl	118		10.0-128		07/13/2019 19:44	<a href="#">WG1310080</a>
(S) Tetrachloro-m-xylene	78.4		10.0-127		07/13/2019 19:44	<a href="#">WG1310080</a>

Semi Volatile Organic Compounds (GC/MS) by Method 8270D

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	ug/l		ug/l		date / time	
Acenaphthene	ND	J4	1.00	1	07/17/2019 14:25	<a href="#">WG1312111</a>
Acenaphthylene	ND	J4	1.00	1	07/17/2019 14:25	<a href="#">WG1312111</a>
Acetophenone	ND	J4	10.0	1	07/17/2019 14:25	<a href="#">WG1312111</a>
Anthracene	ND	J4	1.00	1	07/17/2019 14:25	<a href="#">WG1312111</a>
Atrazine	ND		10.0	1	07/17/2019 14:25	<a href="#">WG1312111</a>
Benzaldehyde	ND	J4	10.0	1	07/17/2019 14:25	<a href="#">WG1312111</a>
Benzo(a)anthracene	ND		1.00	1	07/17/2019 14:25	<a href="#">WG1312111</a>
Benzo(b)fluoranthene	ND		1.00	1	07/17/2019 14:25	<a href="#">WG1312111</a>
Benzo(k)fluoranthene	ND		1.00	1	07/17/2019 14:25	<a href="#">WG1312111</a>
Benzo(g,h,i)perylene	ND		1.00	1	07/17/2019 14:25	<a href="#">WG1312111</a>
Benzo(a)pyrene	ND		1.00	1	07/17/2019 14:25	<a href="#">WG1312111</a>
Biphenyl	ND	J4	10.0	1	07/17/2019 14:25	<a href="#">WG1312111</a>
Bis(2-chloroethoxy)methane	ND	J4	10.0	1	07/17/2019 14:25	<a href="#">WG1312111</a>
Bis(2-chloroethyl)ether	ND	J4	10.0	1	07/17/2019 14:25	<a href="#">WG1312111</a>
Bis(2-chloroisopropyl)ether	ND	J4	10.0	1	07/17/2019 14:25	<a href="#">WG1312111</a>
4-Bromophenyl-phenylether	ND	J4	10.0	1	07/17/2019 14:25	<a href="#">WG1312111</a>
Caprolactam	ND	J4	10.0	1	07/17/2019 14:25	<a href="#">WG1312111</a>
Carbazole	ND		10.0	1	07/17/2019 14:25	<a href="#">WG1312111</a>
4-Chloroaniline	ND	J4	10.0	1	07/17/2019 14:25	<a href="#">WG1312111</a>
2-Chloronaphthalene	ND	J4	1.00	1	07/17/2019 14:25	<a href="#">WG1312111</a>
4-Chlorophenyl-phenylether	ND	J4	10.0	1	07/17/2019 14:25	<a href="#">WG1312111</a>
Chrysene	ND		1.00	1	07/17/2019 14:25	<a href="#">WG1312111</a>
Dibenz(a,h)anthracene	ND		1.00	1	07/17/2019 14:25	<a href="#">WG1312111</a>
Dibenzofuran	ND	J4	10.0	1	07/17/2019 14:25	<a href="#">WG1312111</a>
3,3-Dichlorobenzidine	ND	J4	10.0	1	07/17/2019 14:25	<a href="#">WG1312111</a>
2,4-Dinitrotoluene	ND		10.0	1	07/17/2019 14:25	<a href="#">WG1312111</a>
2,6-Dinitrotoluene	ND	J4	10.0	1	07/17/2019 14:25	<a href="#">WG1312111</a>
Fluoranthene	ND		1.00	1	07/17/2019 14:25	<a href="#">WG1312111</a>
Fluorene	ND	J4	1.00	1	07/17/2019 14:25	<a href="#">WG1312111</a>
Hexachlorobenzene	ND	J4	1.00	1	07/17/2019 14:25	<a href="#">WG1312111</a>
Hexachloro-1,3-butadiene	ND	J4	10.0	1	07/17/2019 14:25	<a href="#">WG1312111</a>
Hexachlorocyclopentadiene	ND	J4	10.0	1	07/17/2019 14:25	<a href="#">WG1312111</a>



Collected date/time: 07/09/19 15:45

L1117439

Semi Volatile Organic Compounds (GC/MS) by Method 8270D

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	ug/l		ug/l		date / time	
Hexachloroethane	ND	J4	10.0	1	07/17/2019 14:25	WG1312111
Indeno(1,2,3-cd)pyrene	ND		1.00	1	07/17/2019 14:25	WG1312111
Isophorone	ND	J4	10.0	1	07/17/2019 14:25	WG1312111
2-Methylnaphthalene	ND	J4	1.00	1	07/17/2019 14:25	WG1312111
Naphthalene	ND	J4	1.00	1	07/17/2019 14:25	WG1312111
2-Nitroaniline	ND	J4	10.0	1	07/17/2019 14:25	WG1312111
3-Nitroaniline	ND		10.0	1	07/17/2019 14:25	WG1312111
4-Nitroaniline	ND		10.0	1	07/17/2019 14:25	WG1312111
Nitrobenzene	ND	J4	10.0	1	07/17/2019 14:25	WG1312111
n-Nitrosodiphenylamine	ND	J4	10.0	1	07/17/2019 14:25	WG1312111
n-Nitrosodi-n-propylamine	ND	J4	10.0	1	07/17/2019 14:25	WG1312111
Phenanthrene	ND	J4	1.00	1	07/17/2019 14:25	WG1312111
Benzylbutyl phthalate	ND		3.00	1	07/17/2019 14:25	WG1312111
Bis(2-ethylhexyl)phthalate	ND		3.00	1	07/17/2019 14:25	WG1312111
Di-n-butyl phthalate	ND		3.00	1	07/17/2019 14:25	WG1312111
Diethyl phthalate	ND		3.00	1	07/17/2019 14:25	WG1312111
Dimethyl phthalate	ND	J4	3.00	1	07/17/2019 14:25	WG1312111
Di-n-octyl phthalate	ND	J4	3.00	1	07/17/2019 14:25	WG1312111
Pyrene	ND	J4	1.00	1	07/17/2019 14:25	WG1312111
1,2,4,5-Tetrachlorobenzene	ND	J4	10.0	1	07/17/2019 14:25	WG1312111
4-Chloro-3-methylphenol	ND	J4	10.0	1	07/17/2019 14:25	WG1312111
2-Chlorophenol	ND	J4	10.0	1	07/17/2019 14:25	WG1312111
2-Methylphenol	ND	J4	10.0	1	07/17/2019 14:25	WG1312111
3&4-Methyl Phenol	ND	J4	10.0	1	07/17/2019 14:25	WG1312111
2,4-Dichlorophenol	ND	J4	10.0	1	07/17/2019 14:25	WG1312111
2,4-Dimethylphenol	ND	J4	10.0	1	07/17/2019 14:25	WG1312111
4,6-Dinitro-2-methylphenol	ND		10.0	1	07/17/2019 14:25	WG1312111
2,4-Dinitrophenol	ND	J4	10.0	1	07/17/2019 14:25	WG1312111
2-Nitrophenol	ND	J4	10.0	1	07/17/2019 14:25	WG1312111
4-Nitrophenol	ND	J4	10.0	1	07/17/2019 14:25	WG1312111
Pentachlorophenol	ND	J4	10.0	1	07/17/2019 14:25	WG1312111
Phenol	ND	J4	10.0	1	07/17/2019 14:25	WG1312111
2,4,5-Trichlorophenol	ND	J4	10.0	1	07/17/2019 14:25	WG1312111
2,4,6-Trichlorophenol	ND	J4	10.0	1	07/17/2019 14:25	WG1312111
(S) Nitrobenzene-d5	10.7		10.0-127		07/17/2019 14:25	WG1312111
(S) 2-Fluorobiphenyl	11.9		10.0-130		07/17/2019 14:25	WG1312111
(S) p-Terphenyl-d14	44.9		10.0-128		07/17/2019 14:25	WG1312111
(S) Phenol-d5	4.29	J2	10.0-120		07/17/2019 14:25	WG1312111
(S) 2-Fluorophenol	4.97	J2	10.0-120		07/17/2019 14:25	WG1312111
(S) 2,4,6-Tribromophenol	17.2		10.0-155		07/17/2019 14:25	WG1312111

- 1 Cp
- 2 Tc
- 3 Ss
- 4 Cn
- 5 Sr
- 6 Qc
- 7 Gl
- 8 Al
- 9 Sc

Sample Narrative:

L1117439-06 WG1312111: Duplicate analysis was performed.

Semi Volatile Organic Compounds (GC/MS) by Method 8270E-SIM

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	ug/l		ug/l		date / time	
Anthracene	ND		0.0500	1	07/15/2019 23:45	WG1311224
Acenaphthene	ND	J4	0.0500	1	07/15/2019 23:45	WG1311224
Acenaphthylene	ND	J4	0.0500	1	07/15/2019 23:45	WG1311224
Benzo(a)anthracene	ND		0.0500	1	07/15/2019 23:45	WG1311224
Benzo(a)pyrene	ND		0.0500	1	07/15/2019 23:45	WG1311224
Benzo(b)fluoranthene	ND		0.0500	1	07/15/2019 23:45	WG1311224
Benzo(g,h,i)perylene	ND		0.0500	1	07/15/2019 23:45	WG1311224
Benzo(k)fluoranthene	ND		0.0500	1	07/15/2019 23:45	WG1311224
Chrysene	ND		0.0500	1	07/15/2019 23:45	WG1311224





Collected date/time: 07/09/19 15:45

L1117439

Semi Volatile Organic Compounds (GC/MS) by Method 8270E-SIM

Analyte	Result ug/l	Qualifier	RDL ug/l	Dilution	Analysis date / time	Batch
Dibenz(a,h)anthracene	ND		0.0500	1	07/15/2019 23:45	<a href="#">WG1311224</a>
Fluoranthene	ND		0.0500	1	07/15/2019 23:45	<a href="#">WG1311224</a>
Fluorene	ND	J4	0.0500	1	07/15/2019 23:45	<a href="#">WG1311224</a>
Indeno(1,2,3-cd)pyrene	ND		0.0500	1	07/15/2019 23:45	<a href="#">WG1311224</a>
Naphthalene	ND	J4	0.250	1	07/15/2019 23:45	<a href="#">WG1311224</a>
Phenanthrene	ND	J4	0.0500	1	07/15/2019 23:45	<a href="#">WG1311224</a>
Pyrene	ND		0.0500	1	07/15/2019 23:45	<a href="#">WG1311224</a>
(S) Nitrobenzene-d5	120		11.0-135		07/15/2019 23:45	<a href="#">WG1311224</a>
(S) 2-Fluorobiphenyl	61.1		32.0-120		07/15/2019 23:45	<a href="#">WG1311224</a>
(S) p-Terphenyl-d14	85.9		23.0-122		07/15/2019 23:45	<a href="#">WG1311224</a>

- 1 Cp
- 2 Tc
- 3 Ss
- 4 Cn
- 5 Sr
- 6 Qc
- 7 Gl
- 8 Al
- 9 Sc



Collected date/time: 07/09/19 13:55

L1117439

## Wet Chemistry by Method 4500CN E-2011

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	ug/l		ug/l		date / time	
Cyanide	ND		5.00	1	07/18/2019 20:03	<a href="#">WG1313327</a>

## Mercury by Method 7470A

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	ug/l		ug/l		date / time	
Mercury	ND		0.200	1	07/12/2019 09:53	<a href="#">WG1309989</a>

## Metals (ICP) by Method 6010D

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	ug/l		ug/l		date / time	
Aluminum	ND		200	1	07/16/2019 12:08	<a href="#">WG1310249</a>
Antimony	ND		10.0	1	07/16/2019 12:08	<a href="#">WG1310249</a>
Arsenic	ND		10.0	1	07/16/2019 12:08	<a href="#">WG1310249</a>
Barium	115		5.00	1	07/16/2019 12:08	<a href="#">WG1310249</a>
Beryllium	ND		2.00	1	07/16/2019 12:08	<a href="#">WG1310249</a>
Cadmium	ND		2.00	1	07/16/2019 12:08	<a href="#">WG1310249</a>
Calcium	17300		1000	1	07/16/2019 12:08	<a href="#">WG1310249</a>
Chromium	ND		10.0	1	07/16/2019 12:08	<a href="#">WG1310249</a>
Cobalt	43.3		10.0	1	07/16/2019 12:08	<a href="#">WG1310249</a>
Copper	ND		10.0	1	07/16/2019 12:08	<a href="#">WG1310249</a>
Iron	229		100	1	07/16/2019 12:08	<a href="#">WG1310249</a>
Lead	ND		5.00	1	07/16/2019 12:08	<a href="#">WG1310249</a>
Magnesium	16000		1000	1	07/16/2019 12:08	<a href="#">WG1310249</a>
Manganese	4060		10.0	1	07/16/2019 12:08	<a href="#">WG1310249</a>
Nickel	ND		10.0	1	07/16/2019 12:08	<a href="#">WG1310249</a>
Potassium	1030	<u>B</u>	1000	1	07/16/2019 12:08	<a href="#">WG1310249</a>
Selenium	ND		10.0	1	07/16/2019 12:08	<a href="#">WG1310249</a>
Silver	ND		5.00	1	07/16/2019 12:08	<a href="#">WG1310249</a>
Sodium	108000		1000	1	07/16/2019 12:08	<a href="#">WG1310249</a>
Thallium	ND		10.0	1	07/16/2019 12:08	<a href="#">WG1310249</a>
Vanadium	ND		20.0	1	07/16/2019 12:08	<a href="#">WG1310249</a>
Zinc	ND		50.0	1	07/16/2019 12:08	<a href="#">WG1310249</a>

## Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	ug/l		ug/l		date / time	
Acetone	ND	<u>J4</u>	50.0	1	07/12/2019 04:38	<a href="#">WG1310149</a>
Benzene	ND		1.00	1	07/12/2019 04:38	<a href="#">WG1310149</a>
Bromochloromethane	ND		1.00	1	07/12/2019 04:38	<a href="#">WG1310149</a>
Bromodichloromethane	ND		1.00	1	07/12/2019 04:38	<a href="#">WG1310149</a>
Bromoform	ND		1.00	1	07/12/2019 04:38	<a href="#">WG1310149</a>
Bromomethane	ND		5.00	1	07/12/2019 04:38	<a href="#">WG1310149</a>
Carbon disulfide	ND		1.00	1	07/12/2019 04:38	<a href="#">WG1310149</a>
Carbon tetrachloride	ND		1.00	1	07/12/2019 04:38	<a href="#">WG1310149</a>
Chlorobenzene	ND		1.00	1	07/12/2019 04:38	<a href="#">WG1310149</a>
Chlorodibromomethane	ND		1.00	1	07/12/2019 04:38	<a href="#">WG1310149</a>
Chloroethane	ND		5.00	1	07/12/2019 04:38	<a href="#">WG1310149</a>
Chloroform	ND		5.00	1	07/12/2019 04:38	<a href="#">WG1310149</a>
Chloromethane	ND		2.50	1	07/12/2019 04:38	<a href="#">WG1310149</a>
Cyclohexane	ND		1.00	1	07/12/2019 04:38	<a href="#">WG1310149</a>
1,2-Dibromo-3-Chloropropane	ND		5.00	1	07/12/2019 04:38	<a href="#">WG1310149</a>
1,2-Dibromoethane	ND		1.00	1	07/12/2019 04:38	<a href="#">WG1310149</a>
1,2-Dichlorobenzene	ND		1.00	1	07/12/2019 04:38	<a href="#">WG1310149</a>
1,3-Dichlorobenzene	ND		1.00	1	07/12/2019 04:38	<a href="#">WG1310149</a>

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc



Collected date/time: 07/09/19 13:55

L1117439

## Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result ug/l	Qualifier	RDL ug/l	Dilution	Analysis date / time	Batch
1,4-Dichlorobenzene	ND		1.00	1	07/12/2019 04:38	<a href="#">WG1310149</a>
Dichlorodifluoromethane	ND		5.00	1	07/12/2019 04:38	<a href="#">WG1310149</a>
1,1-Dichloroethane	ND		1.00	1	07/12/2019 04:38	<a href="#">WG1310149</a>
1,2-Dichloroethane	ND		1.00	1	07/12/2019 04:38	<a href="#">WG1310149</a>
1,1-Dichloroethene	ND		1.00	1	07/12/2019 04:38	<a href="#">WG1310149</a>
cis-1,2-Dichloroethene	ND		1.00	1	07/12/2019 04:38	<a href="#">WG1310149</a>
trans-1,2-Dichloroethene	ND		1.00	1	07/12/2019 04:38	<a href="#">WG1310149</a>
1,2-Dichloropropane	ND		1.00	1	07/12/2019 04:38	<a href="#">WG1310149</a>
cis-1,3-Dichloropropene	ND		1.00	1	07/12/2019 04:38	<a href="#">WG1310149</a>
trans-1,3-Dichloropropene	ND		1.00	1	07/12/2019 04:38	<a href="#">WG1310149</a>
Ethylbenzene	ND		1.00	1	07/12/2019 04:38	<a href="#">WG1310149</a>
2-Hexanone	ND		10.0	1	07/12/2019 04:38	<a href="#">WG1310149</a>
Isopropylbenzene	ND		1.00	1	07/12/2019 04:38	<a href="#">WG1310149</a>
2-Butanone (MEK)	ND	J4	10.0	1	07/12/2019 04:38	<a href="#">WG1310149</a>
Methyl Acetate	ND		20.0	1	07/12/2019 04:38	<a href="#">WG1310149</a>
Methyl Cyclohexane	ND		1.00	1	07/12/2019 04:38	<a href="#">WG1310149</a>
Methylene Chloride	ND		5.00	1	07/12/2019 04:38	<a href="#">WG1310149</a>
4-Methyl-2-pentanone (MIBK)	ND		10.0	1	07/12/2019 04:38	<a href="#">WG1310149</a>
Methyl tert-butyl ether	ND		1.00	1	07/12/2019 04:38	<a href="#">WG1310149</a>
Styrene	ND		1.00	1	07/12/2019 04:38	<a href="#">WG1310149</a>
1,1,2,2-Tetrachloroethane	ND		1.00	1	07/12/2019 04:38	<a href="#">WG1310149</a>
Tetrachloroethene	ND		1.00	1	07/12/2019 04:38	<a href="#">WG1310149</a>
Toluene	ND		1.00	1	07/12/2019 04:38	<a href="#">WG1310149</a>
1,2,3-Trichlorobenzene	ND		1.00	1	07/12/2019 04:38	<a href="#">WG1310149</a>
1,2,4-Trichlorobenzene	ND		1.00	1	07/12/2019 04:38	<a href="#">WG1310149</a>
1,1,1-Trichloroethane	ND		1.00	1	07/12/2019 04:38	<a href="#">WG1310149</a>
1,1,2-Trichloroethane	ND		1.00	1	07/12/2019 04:38	<a href="#">WG1310149</a>
Trichloroethene	ND		1.00	1	07/12/2019 04:38	<a href="#">WG1310149</a>
Trichlorofluoromethane	ND		5.00	1	07/12/2019 04:38	<a href="#">WG1310149</a>
1,1,2-Trichlorotrifluoroethane	ND		1.00	1	07/12/2019 04:38	<a href="#">WG1310149</a>
Vinyl chloride	ND		1.00	1	07/12/2019 04:38	<a href="#">WG1310149</a>
Xylenes, Total	ND		3.00	1	07/12/2019 04:38	<a href="#">WG1310149</a>
(S) Toluene-d8	113		80.0-120		07/12/2019 04:38	<a href="#">WG1310149</a>
(S) 4-Bromofluorobenzene	102		77.0-126		07/12/2019 04:38	<a href="#">WG1310149</a>
(S) 1,2-Dichloroethane-d4	106		70.0-130		07/12/2019 04:38	<a href="#">WG1310149</a>

- 1 Cp
- 2 Tc
- 3 Ss
- 4 Cn
- 5 Sr
- 6 Qc
- 7 Gl
- 8 Al
- 9 Sc

## Pesticides (GC) by Method 8081B

Analyte	Result ug/l	Qualifier	RDL ug/l	Dilution	Analysis date / time	Batch
Aldrin	ND		0.0500	1	07/13/2019 10:17	<a href="#">WG1310080</a>
Alpha BHC	ND		0.0500	1	07/13/2019 10:17	<a href="#">WG1310080</a>
Beta BHC	ND		0.0500	1	07/13/2019 10:17	<a href="#">WG1310080</a>
Delta BHC	ND		0.0500	1	07/13/2019 10:17	<a href="#">WG1310080</a>
Gamma BHC	ND		0.0500	1	07/13/2019 10:17	<a href="#">WG1310080</a>
Chlordane	ND		5.00	1	07/13/2019 10:17	<a href="#">WG1310080</a>
4,4-DDD	ND		0.0500	1	07/13/2019 10:17	<a href="#">WG1310080</a>
4,4-DDE	ND		0.0500	1	07/13/2019 10:17	<a href="#">WG1310080</a>
4,4-DDT	ND		0.0500	1	07/13/2019 10:17	<a href="#">WG1310080</a>
Dieldrin	ND		0.0500	1	07/13/2019 10:17	<a href="#">WG1310080</a>
Endosulfan I	ND		0.0500	1	07/13/2019 10:17	<a href="#">WG1310080</a>
Endosulfan II	ND		0.0500	1	07/13/2019 10:17	<a href="#">WG1310080</a>
Endosulfan sulfate	ND		0.0500	1	07/13/2019 10:17	<a href="#">WG1310080</a>
Endrin	ND		0.0500	1	07/13/2019 10:17	<a href="#">WG1310080</a>
Endrin aldehyde	ND		0.0500	1	07/13/2019 10:17	<a href="#">WG1310080</a>
Endrin ketone	ND		0.0500	1	07/13/2019 10:17	<a href="#">WG1310080</a>
Heptachlor	ND		0.0500	1	07/13/2019 10:17	<a href="#">WG1310080</a>

ACCOUNT:

S&amp;ME Inc. - Spartanburg SC

PROJECT:

4213-18-087

SDG:

L1117439

DATE/TIME:

07/25/19 15:19

PAGE:

39 of 121



Collected date/time: 07/09/19 13:55

L1117439

## Pesticides (GC) by Method 8081B

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	ug/l		ug/l		date / time	
Heptachlor epoxide	ND		0.0500	1	07/13/2019 10:17	<a href="#">WG1310080</a>
Hexachlorobenzene	ND		0.0500	1	07/13/2019 10:17	<a href="#">WG1310080</a>
Methoxychlor	ND		0.0500	1	07/13/2019 10:17	<a href="#">WG1310080</a>
Toxaphene	ND		0.500	1	07/13/2019 10:17	<a href="#">WG1310080</a>
(S) Decachlorobiphenyl	82.3		10.0-128		07/13/2019 10:17	<a href="#">WG1310080</a>
(S) Tetrachloro-m-xylene	66.2		10.0-127		07/13/2019 10:17	<a href="#">WG1310080</a>

## Polychlorinated Biphenyls (GC) by Method 8082 A

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	ug/l		ug/l		date / time	
PCB 1016	ND		0.500	1	07/13/2019 19:56	<a href="#">WG1310080</a>
PCB 1221	ND		0.500	1	07/13/2019 19:56	<a href="#">WG1310080</a>
PCB 1232	ND		0.500	1	07/13/2019 19:56	<a href="#">WG1310080</a>
PCB 1242	ND		0.500	1	07/13/2019 19:56	<a href="#">WG1310080</a>
PCB 1248	ND		0.500	1	07/13/2019 19:56	<a href="#">WG1310080</a>
PCB 1254	ND		0.500	1	07/13/2019 19:56	<a href="#">WG1310080</a>
PCB 1260	ND		0.500	1	07/13/2019 19:56	<a href="#">WG1310080</a>
(S) Decachlorobiphenyl	107		10.0-128		07/13/2019 19:56	<a href="#">WG1310080</a>
(S) Tetrachloro-m-xylene	69.0		10.0-127		07/13/2019 19:56	<a href="#">WG1310080</a>

## Semi Volatile Organic Compounds (GC/MS) by Method 8270D

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	ug/l		ug/l		date / time	
Acenaphthene	ND	J4	1.00	1	07/17/2019 14:48	<a href="#">WG1312111</a>
Acenaphthylene	ND	J4	1.00	1	07/17/2019 14:48	<a href="#">WG1312111</a>
Acetophenone	ND	J4	10.0	1	07/17/2019 14:48	<a href="#">WG1312111</a>
Anthracene	ND	J4	1.00	1	07/17/2019 14:48	<a href="#">WG1312111</a>
Atrazine	ND		10.0	1	07/17/2019 14:48	<a href="#">WG1312111</a>
Benzaldehyde	ND	J4	10.0	1	07/17/2019 14:48	<a href="#">WG1312111</a>
Benzo(a)anthracene	ND		1.00	1	07/17/2019 14:48	<a href="#">WG1312111</a>
Benzo(b)fluoranthene	ND		1.00	1	07/17/2019 14:48	<a href="#">WG1312111</a>
Benzo(k)fluoranthene	ND		1.00	1	07/17/2019 14:48	<a href="#">WG1312111</a>
Benzo(g,h,i)perylene	ND		1.00	1	07/17/2019 14:48	<a href="#">WG1312111</a>
Benzo(a)pyrene	ND		1.00	1	07/17/2019 14:48	<a href="#">WG1312111</a>
Biphenyl	ND	J4	10.0	1	07/17/2019 14:48	<a href="#">WG1312111</a>
Bis(2-chloroethoxy)methane	ND	J4	10.0	1	07/17/2019 14:48	<a href="#">WG1312111</a>
Bis(2-chloroethyl)ether	ND	J4	10.0	1	07/17/2019 14:48	<a href="#">WG1312111</a>
Bis(2-chloroisopropyl)ether	ND	J4	10.0	1	07/17/2019 14:48	<a href="#">WG1312111</a>
4-Bromophenyl-phenylether	ND	J4	10.0	1	07/17/2019 14:48	<a href="#">WG1312111</a>
Caprolactam	ND	J4	10.0	1	07/17/2019 14:48	<a href="#">WG1312111</a>
Carbazole	ND		10.0	1	07/17/2019 14:48	<a href="#">WG1312111</a>
4-Chloroaniline	ND	J4	10.0	1	07/17/2019 14:48	<a href="#">WG1312111</a>
2-Chloronaphthalene	ND	J4	1.00	1	07/17/2019 14:48	<a href="#">WG1312111</a>
4-Chlorophenyl-phenylether	ND	J4	10.0	1	07/17/2019 14:48	<a href="#">WG1312111</a>
Chrysene	ND		1.00	1	07/17/2019 14:48	<a href="#">WG1312111</a>
Dibenz(a,h)anthracene	ND		1.00	1	07/17/2019 14:48	<a href="#">WG1312111</a>
Dibenzofuran	ND	J4	10.0	1	07/17/2019 14:48	<a href="#">WG1312111</a>
3,3-Dichlorobenzidine	ND	J4	10.0	1	07/17/2019 14:48	<a href="#">WG1312111</a>
2,4-Dinitrotoluene	ND		10.0	1	07/17/2019 14:48	<a href="#">WG1312111</a>
2,6-Dinitrotoluene	ND	J4	10.0	1	07/17/2019 14:48	<a href="#">WG1312111</a>
Fluoranthene	ND		1.00	1	07/17/2019 14:48	<a href="#">WG1312111</a>
Fluorene	ND	J4	1.00	1	07/17/2019 14:48	<a href="#">WG1312111</a>
Hexachlorobenzene	ND	J4	1.00	1	07/17/2019 14:48	<a href="#">WG1312111</a>
Hexachloro-1,3-butadiene	ND	J4	10.0	1	07/17/2019 14:48	<a href="#">WG1312111</a>
Hexachlorocyclopentadiene	ND	J4	10.0	1	07/17/2019 14:48	<a href="#">WG1312111</a>

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

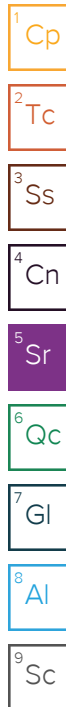


Collected date/time: 07/09/19 13:55

L1117439

## Semi Volatile Organic Compounds (GC/MS) by Method 8270D

Analyte	Result ug/l	Qualifier	RDL ug/l	Dilution	Analysis date / time	Batch
Hexachloroethane	ND	J4	10.0	1	07/17/2019 14:48	WG1312111
Indeno(1,2,3-cd)pyrene	ND		1.00	1	07/17/2019 14:48	WG1312111
Isophorone	ND	J4	10.0	1	07/17/2019 14:48	WG1312111
2-Methylnaphthalene	ND	J4	1.00	1	07/17/2019 14:48	WG1312111
Naphthalene	ND	J4	1.00	1	07/17/2019 14:48	WG1312111
2-Nitroaniline	ND	J4	10.0	1	07/17/2019 14:48	WG1312111
3-Nitroaniline	ND		10.0	1	07/17/2019 14:48	WG1312111
4-Nitroaniline	ND		10.0	1	07/17/2019 14:48	WG1312111
Nitrobenzene	ND	J4	10.0	1	07/17/2019 14:48	WG1312111
n-Nitrosodiphenylamine	ND	J4	10.0	1	07/17/2019 14:48	WG1312111
n-Nitrosodi-n-propylamine	ND	J4	10.0	1	07/17/2019 14:48	WG1312111
Phenanthrene	ND	J4	1.00	1	07/17/2019 14:48	WG1312111
Benzylbutyl phthalate	ND		3.00	1	07/17/2019 14:48	WG1312111
Bis(2-ethylhexyl)phthalate	ND		3.00	1	07/17/2019 14:48	WG1312111
Di-n-butyl phthalate	ND		3.00	1	07/17/2019 14:48	WG1312111
Diethyl phthalate	ND		3.00	1	07/17/2019 14:48	WG1312111
Dimethyl phthalate	ND	J4	3.00	1	07/17/2019 14:48	WG1312111
Di-n-octyl phthalate	ND	J4	3.00	1	07/17/2019 14:48	WG1312111
Pyrene	ND	J4	1.00	1	07/17/2019 14:48	WG1312111
1,2,4,5-Tetrachlorobenzene	ND	J4	10.0	1	07/17/2019 14:48	WG1312111
4-Chloro-3-methylphenol	ND	J4	10.0	1	07/17/2019 14:48	WG1312111
2-Chlorophenol	ND	J4	10.0	1	07/17/2019 14:48	WG1312111
2-Methylphenol	ND	J4	10.0	1	07/17/2019 14:48	WG1312111
3&4-Methyl Phenol	ND	J4	10.0	1	07/17/2019 14:48	WG1312111
2,4-Dichlorophenol	ND	J4	10.0	1	07/17/2019 14:48	WG1312111
2,4-Dimethylphenol	ND	J4	10.0	1	07/17/2019 14:48	WG1312111
4,6-Dinitro-2-methylphenol	ND		10.0	1	07/17/2019 14:48	WG1312111
2,4-Dinitrophenol	ND	J4	10.0	1	07/17/2019 14:48	WG1312111
2-Nitrophenol	ND	J4	10.0	1	07/17/2019 14:48	WG1312111
4-Nitrophenol	ND	J4	10.0	1	07/17/2019 14:48	WG1312111
Pentachlorophenol	ND	J4	10.0	1	07/17/2019 14:48	WG1312111
Phenol	ND	J4	10.0	1	07/17/2019 14:48	WG1312111
2,4,5-Trichlorophenol	ND	J4	10.0	1	07/17/2019 14:48	WG1312111
2,4,6-Trichlorophenol	ND	J4	10.0	1	07/17/2019 14:48	WG1312111
(S) Nitrobenzene-d5	7.98	J2	10.0-127		07/17/2019 14:48	WG1312111
(S) 2-Fluorobiphenyl	9.50	J2	10.0-130		07/17/2019 14:48	WG1312111
(S) p-Terphenyl-d14	53.6		10.0-128		07/17/2019 14:48	WG1312111
(S) Phenol-d5	2.91	J2	10.0-120		07/17/2019 14:48	WG1312111
(S) 2-Fluorophenol	3.34	J2	10.0-120		07/17/2019 14:48	WG1312111
(S) 2,4,6-Tribromophenol	26.2		10.0-155		07/17/2019 14:48	WG1312111



## Sample Narrative:

L1117439-07 WG1312111: Duplicate analysis was performed.

## Semi Volatile Organic Compounds (GC/MS) by Method 8270E-SIM

Analyte	Result ug/l	Qualifier	RDL ug/l	Dilution	Analysis date / time	Batch
Anthracene	ND		0.0500	1	07/16/2019 00:06	WG1311224
Acenaphthene	ND	J4	0.0500	1	07/16/2019 00:06	WG1311224
Acenaphthylene	ND	J4	0.0500	1	07/16/2019 00:06	WG1311224
Benzo(a)anthracene	ND		0.0500	1	07/16/2019 00:06	WG1311224
Benzo(a)pyrene	ND		0.0500	1	07/16/2019 00:06	WG1311224
Benzo(b)fluoranthene	ND		0.0500	1	07/16/2019 00:06	WG1311224
Benzo(g,h,i)perylene	ND		0.0500	1	07/16/2019 00:06	WG1311224
Benzo(k)fluoranthene	ND		0.0500	1	07/16/2019 00:06	WG1311224
Chrysene	ND		0.0500	1	07/16/2019 00:06	WG1311224



Semi Volatile Organic Compounds (GC/MS) by Method 8270E-SIM

Analyte	Result ug/l	Qualifier	RDL ug/l	Dilution	Analysis date / time	Batch
Dibenz(a,h)anthracene	ND		0.0500	1	07/16/2019 00:06	<a href="#">WG1311224</a>
Fluoranthene	ND		0.0500	1	07/16/2019 00:06	<a href="#">WG1311224</a>
Fluorene	ND	J4	0.0500	1	07/16/2019 00:06	<a href="#">WG1311224</a>
Indeno(1,2,3-cd)pyrene	ND		0.0500	1	07/16/2019 00:06	<a href="#">WG1311224</a>
Naphthalene	ND	J4	0.250	1	07/16/2019 00:06	<a href="#">WG1311224</a>
Phenanthrene	ND	J4	0.0500	1	07/16/2019 00:06	<a href="#">WG1311224</a>
Pyrene	ND		0.0500	1	07/16/2019 00:06	<a href="#">WG1311224</a>
(S) Nitrobenzene-d5	125		11.0-135		07/16/2019 00:06	<a href="#">WG1311224</a>
(S) 2-Fluorobiphenyl	63.2		32.0-120		07/16/2019 00:06	<a href="#">WG1311224</a>
(S) p-Terphenyl-d14	82.1		23.0-122		07/16/2019 00:06	<a href="#">WG1311224</a>

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc



## Wet Chemistry by Method 4500CN E-2011

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	ug/l		ug/l		date / time	
Cyanide	ND		5.00	1	07/18/2019 20:04	<a href="#">WG1313327</a>

## Mercury by Method 7470A

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	ug/l		ug/l		date / time	
Mercury	ND		0.200	1	07/12/2019 09:56	<a href="#">WG1309989</a>

## Metals (ICP) by Method 6010D

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	ug/l		ug/l		date / time	
Aluminum	ND		200	1	07/16/2019 12:11	<a href="#">WG1310249</a>
Antimony	ND		10.0	1	07/16/2019 12:11	<a href="#">WG1310249</a>
Arsenic	ND		10.0	1	07/16/2019 12:11	<a href="#">WG1310249</a>
Barium	42.9		5.00	1	07/16/2019 12:11	<a href="#">WG1310249</a>
Beryllium	ND		2.00	1	07/16/2019 12:11	<a href="#">WG1310249</a>
Cadmium	ND		2.00	1	07/16/2019 12:11	<a href="#">WG1310249</a>
Calcium	7200		1000	1	07/16/2019 12:11	<a href="#">WG1310249</a>
Chromium	ND		10.0	1	07/16/2019 12:11	<a href="#">WG1310249</a>
Cobalt	ND		10.0	1	07/16/2019 12:11	<a href="#">WG1310249</a>
Copper	ND		10.0	1	07/16/2019 12:11	<a href="#">WG1310249</a>
Iron	ND		100	1	07/16/2019 12:11	<a href="#">WG1310249</a>
Lead	ND		5.00	1	07/16/2019 12:11	<a href="#">WG1310249</a>
Magnesium	3650		1000	1	07/16/2019 12:11	<a href="#">WG1310249</a>
Manganese	985		10.0	1	07/16/2019 12:11	<a href="#">WG1310249</a>
Nickel	ND		10.0	1	07/16/2019 12:11	<a href="#">WG1310249</a>
Potassium	ND		1000	1	07/16/2019 12:11	<a href="#">WG1310249</a>
Selenium	ND		10.0	1	07/16/2019 12:11	<a href="#">WG1310249</a>
Silver	ND		5.00	1	07/16/2019 12:11	<a href="#">WG1310249</a>
Sodium	54100		1000	1	07/16/2019 12:11	<a href="#">WG1310249</a>
Thallium	ND		10.0	1	07/16/2019 12:11	<a href="#">WG1310249</a>
Vanadium	ND		20.0	1	07/16/2019 12:11	<a href="#">WG1310249</a>
Zinc	ND		50.0	1	07/16/2019 12:11	<a href="#">WG1310249</a>

## Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	ug/l		ug/l		date / time	
Acetone	ND	<u>J4</u>	50.0	1	07/12/2019 04:58	<a href="#">WG1310149</a>
Benzene	ND		1.00	1	07/12/2019 04:58	<a href="#">WG1310149</a>
Bromochloromethane	ND		1.00	1	07/12/2019 04:58	<a href="#">WG1310149</a>
Bromodichloromethane	ND		1.00	1	07/12/2019 04:58	<a href="#">WG1310149</a>
Bromoform	ND		1.00	1	07/12/2019 04:58	<a href="#">WG1310149</a>
Bromomethane	ND		5.00	1	07/12/2019 04:58	<a href="#">WG1310149</a>
Carbon disulfide	ND		1.00	1	07/12/2019 04:58	<a href="#">WG1310149</a>
Carbon tetrachloride	ND		1.00	1	07/12/2019 04:58	<a href="#">WG1310149</a>
Chlorobenzene	ND		1.00	1	07/12/2019 04:58	<a href="#">WG1310149</a>
Chlorodibromomethane	ND		1.00	1	07/12/2019 04:58	<a href="#">WG1310149</a>
Chloroethane	ND		5.00	1	07/12/2019 04:58	<a href="#">WG1310149</a>
Chloroform	ND		5.00	1	07/12/2019 04:58	<a href="#">WG1310149</a>
Chloromethane	ND		2.50	1	07/12/2019 04:58	<a href="#">WG1310149</a>
Cyclohexane	ND		1.00	1	07/12/2019 04:58	<a href="#">WG1310149</a>
1,2-Dibromo-3-Chloropropane	ND		5.00	1	07/12/2019 04:58	<a href="#">WG1310149</a>
1,2-Dibromoethane	ND		1.00	1	07/12/2019 04:58	<a href="#">WG1310149</a>
1,2-Dichlorobenzene	ND		1.00	1	07/12/2019 04:58	<a href="#">WG1310149</a>
1,3-Dichlorobenzene	ND		1.00	1	07/12/2019 04:58	<a href="#">WG1310149</a>

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc



Collected date/time: 07/09/19 11:40

L1117439

## Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result ug/l	Qualifier	RDL ug/l	Dilution	Analysis date / time	Batch	
1,4-Dichlorobenzene	ND		1.00	1	07/12/2019 04:58	WG1310149	1 Cp
Dichlorodifluoromethane	ND		5.00	1	07/12/2019 04:58	WG1310149	2 Tc
1,1-Dichloroethane	ND		1.00	1	07/12/2019 04:58	WG1310149	
1,2-Dichloroethane	ND		1.00	1	07/12/2019 04:58	WG1310149	3 Ss
1,1-Dichloroethene	ND		1.00	1	07/12/2019 04:58	WG1310149	
cis-1,2-Dichloroethene	ND		1.00	1	07/12/2019 04:58	WG1310149	4 Cn
trans-1,2-Dichloroethene	ND		1.00	1	07/12/2019 04:58	WG1310149	
1,2-Dichloropropane	ND		1.00	1	07/12/2019 04:58	WG1310149	
cis-1,3-Dichloropropene	ND		1.00	1	07/12/2019 04:58	WG1310149	5 Sr
trans-1,3-Dichloropropene	ND		1.00	1	07/12/2019 04:58	WG1310149	
Ethylbenzene	ND		1.00	1	07/12/2019 04:58	WG1310149	6 Qc
2-Hexanone	ND		10.0	1	07/12/2019 04:58	WG1310149	
Isopropylbenzene	ND		1.00	1	07/12/2019 04:58	WG1310149	
2-Butanone (MEK)	ND	J4	10.0	1	07/12/2019 04:58	WG1310149	7 Gl
Methyl Acetate	ND		20.0	1	07/12/2019 04:58	WG1310149	
Methyl Cyclohexane	ND		1.00	1	07/12/2019 04:58	WG1310149	8 Al
Methylene Chloride	ND		5.00	1	07/12/2019 04:58	WG1310149	
4-Methyl-2-pentanone (MIBK)	ND		10.0	1	07/12/2019 04:58	WG1310149	
Methyl tert-butyl ether	ND		1.00	1	07/12/2019 04:58	WG1310149	9 Sc
Styrene	ND		1.00	1	07/12/2019 04:58	WG1310149	
1,1,2,2-Tetrachloroethane	ND		1.00	1	07/12/2019 04:58	WG1310149	
Tetrachloroethene	ND		1.00	1	07/12/2019 04:58	WG1310149	
Toluene	ND		1.00	1	07/12/2019 04:58	WG1310149	
1,2,3-Trichlorobenzene	ND		1.00	1	07/12/2019 04:58	WG1310149	
1,2,4-Trichlorobenzene	ND		1.00	1	07/12/2019 04:58	WG1310149	
1,1,1-Trichloroethane	ND		1.00	1	07/12/2019 04:58	WG1310149	
1,1,2-Trichloroethane	ND		1.00	1	07/12/2019 04:58	WG1310149	
Trichloroethene	ND		1.00	1	07/12/2019 04:58	WG1310149	
Trichlorofluoromethane	ND		5.00	1	07/12/2019 04:58	WG1310149	
1,1,2-Trichlorotrifluoroethane	ND		1.00	1	07/12/2019 04:58	WG1310149	
Vinyl chloride	ND		1.00	1	07/12/2019 04:58	WG1310149	
Xylenes, Total	ND		3.00	1	07/12/2019 04:58	WG1310149	
(S) Toluene-d8	112		80.0-120		07/12/2019 04:58	WG1310149	
(S) 4-Bromofluorobenzene	105		77.0-126		07/12/2019 04:58	WG1310149	
(S) 1,2-Dichloroethane-d4	107		70.0-130		07/12/2019 04:58	WG1310149	

## Pesticides (GC) by Method 8081B

Analyte	Result ug/l	Qualifier	RDL ug/l	Dilution	Analysis date / time	Batch
Aldrin	ND		0.0500	1	07/13/2019 10:30	WG1310080
Alpha BHC	ND		0.0500	1	07/13/2019 10:30	WG1310080
Beta BHC	ND		0.0500	1	07/13/2019 10:30	WG1310080
Delta BHC	ND		0.0500	1	07/13/2019 10:30	WG1310080
Gamma BHC	ND		0.0500	1	07/13/2019 10:30	WG1310080
Chlordane	ND		5.00	1	07/13/2019 10:30	WG1310080
4,4-DDD	ND		0.0500	1	07/13/2019 10:30	WG1310080
4,4-DDE	ND		0.0500	1	07/13/2019 10:30	WG1310080
4,4-DDT	ND		0.0500	1	07/13/2019 10:30	WG1310080
Dieldrin	ND		0.0500	1	07/13/2019 10:30	WG1310080
Endosulfan I	ND		0.0500	1	07/13/2019 10:30	WG1310080
Endosulfan II	ND		0.0500	1	07/13/2019 10:30	WG1310080
Endosulfan sulfate	ND		0.0500	1	07/13/2019 10:30	WG1310080
Endrin	ND		0.0500	1	07/13/2019 10:30	WG1310080
Endrin aldehyde	ND		0.0500	1	07/13/2019 10:30	WG1310080
Endrin ketone	ND		0.0500	1	07/13/2019 10:30	WG1310080
Heptachlor	ND		0.0500	1	07/13/2019 10:30	WG1310080





Collected date/time: 07/09/19 11:40

L1117439

## Pesticides (GC) by Method 8081B

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	ug/l		ug/l		date / time	
Heptachlor epoxide	ND		0.0500	1	07/13/2019 10:30	<a href="#">WG1310080</a>
Hexachlorobenzene	ND		0.0500	1	07/13/2019 10:30	<a href="#">WG1310080</a>
Methoxychlor	ND		0.0500	1	07/13/2019 10:30	<a href="#">WG1310080</a>
Toxaphene	ND		0.500	1	07/13/2019 10:30	<a href="#">WG1310080</a>
(S) Decachlorobiphenyl	92.0		10.0-128		07/13/2019 10:30	<a href="#">WG1310080</a>
(S) Tetrachloro-m-xylene	72.0		10.0-127		07/13/2019 10:30	<a href="#">WG1310080</a>

## Polychlorinated Biphenyls (GC) by Method 8082 A

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	ug/l		ug/l		date / time	
PCB 1016	ND		0.500	1	07/13/2019 20:09	<a href="#">WG1310080</a>
PCB 1221	ND		0.500	1	07/13/2019 20:09	<a href="#">WG1310080</a>
PCB 1232	ND		0.500	1	07/13/2019 20:09	<a href="#">WG1310080</a>
PCB 1242	ND		0.500	1	07/13/2019 20:09	<a href="#">WG1310080</a>
PCB 1248	ND		0.500	1	07/13/2019 20:09	<a href="#">WG1310080</a>
PCB 1254	ND		0.500	1	07/13/2019 20:09	<a href="#">WG1310080</a>
PCB 1260	ND		0.500	1	07/13/2019 20:09	<a href="#">WG1310080</a>
(S) Decachlorobiphenyl	123		10.0-128		07/13/2019 20:09	<a href="#">WG1310080</a>
(S) Tetrachloro-m-xylene	76.6		10.0-127		07/13/2019 20:09	<a href="#">WG1310080</a>

## Semi Volatile Organic Compounds (GC/MS) by Method 8270D

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	ug/l		ug/l		date / time	
Acenaphthene	ND	J4	1.00	1	07/17/2019 15:11	<a href="#">WG1312111</a>
Acenaphthylene	ND	J4	1.00	1	07/17/2019 15:11	<a href="#">WG1312111</a>
Acetophenone	ND	J4	10.0	1	07/17/2019 15:11	<a href="#">WG1312111</a>
Anthracene	ND	J4	1.00	1	07/17/2019 15:11	<a href="#">WG1312111</a>
Atrazine	ND		10.0	1	07/17/2019 15:11	<a href="#">WG1312111</a>
Benzaldehyde	ND	J4	10.0	1	07/17/2019 15:11	<a href="#">WG1312111</a>
Benzo(a)anthracene	ND		1.00	1	07/17/2019 15:11	<a href="#">WG1312111</a>
Benzo(b)fluoranthene	ND		1.00	1	07/17/2019 15:11	<a href="#">WG1312111</a>
Benzo(k)fluoranthene	ND		1.00	1	07/17/2019 15:11	<a href="#">WG1312111</a>
Benzo(g,h,i)perylene	ND		1.00	1	07/17/2019 15:11	<a href="#">WG1312111</a>
Benzo(a)pyrene	ND		1.00	1	07/17/2019 15:11	<a href="#">WG1312111</a>
Biphenyl	ND	J4	10.0	1	07/17/2019 15:11	<a href="#">WG1312111</a>
Bis(2-chloroethoxy)methane	ND	J4	10.0	1	07/17/2019 15:11	<a href="#">WG1312111</a>
Bis(2-chloroethyl)ether	ND	J4	10.0	1	07/17/2019 15:11	<a href="#">WG1312111</a>
Bis(2-chloroisopropyl)ether	ND	J4	10.0	1	07/17/2019 15:11	<a href="#">WG1312111</a>
4-Bromophenyl-phenylether	ND	J4	10.0	1	07/17/2019 15:11	<a href="#">WG1312111</a>
Caprolactam	ND	J4	10.0	1	07/17/2019 15:11	<a href="#">WG1312111</a>
Carbazole	ND		10.0	1	07/17/2019 15:11	<a href="#">WG1312111</a>
4-Chloroaniline	ND	J4	10.0	1	07/17/2019 15:11	<a href="#">WG1312111</a>
2-Chloronaphthalene	ND	J4	1.00	1	07/17/2019 15:11	<a href="#">WG1312111</a>
4-Chlorophenyl-phenylether	ND	J4	10.0	1	07/17/2019 15:11	<a href="#">WG1312111</a>
Chrysene	ND		1.00	1	07/17/2019 15:11	<a href="#">WG1312111</a>
Dibenz(a,h)anthracene	ND		1.00	1	07/17/2019 15:11	<a href="#">WG1312111</a>
Dibenzofuran	ND	J4	10.0	1	07/17/2019 15:11	<a href="#">WG1312111</a>
3,3-Dichlorobenzidine	ND	J4	10.0	1	07/17/2019 15:11	<a href="#">WG1312111</a>
2,4-Dinitrotoluene	ND		10.0	1	07/17/2019 15:11	<a href="#">WG1312111</a>
2,6-Dinitrotoluene	ND	J4	10.0	1	07/17/2019 15:11	<a href="#">WG1312111</a>
Fluoranthene	ND		1.00	1	07/17/2019 15:11	<a href="#">WG1312111</a>
Fluorene	ND	J4	1.00	1	07/17/2019 15:11	<a href="#">WG1312111</a>
Hexachlorobenzene	ND	J4	1.00	1	07/17/2019 15:11	<a href="#">WG1312111</a>
Hexachloro-1,3-butadiene	ND	J4	10.0	1	07/17/2019 15:11	<a href="#">WG1312111</a>
Hexachlorocyclopentadiene	ND	J4	10.0	1	07/17/2019 15:11	<a href="#">WG1312111</a>

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

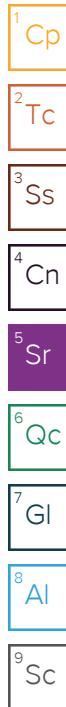


Collected date/time: 07/09/19 11:40

L1117439

## Semi Volatile Organic Compounds (GC/MS) by Method 8270D

Analyte	Result ug/l	Qualifier	RDL ug/l	Dilution	Analysis date / time	Batch
Hexachloroethane	ND	J4	10.0	1	07/17/2019 15:11	WG1312111
Indeno(1,2,3-cd)pyrene	ND		1.00	1	07/17/2019 15:11	WG1312111
Isophorone	ND	J4	10.0	1	07/17/2019 15:11	WG1312111
2-Methylnaphthalene	ND	J4	1.00	1	07/17/2019 15:11	WG1312111
Naphthalene	ND	J4	1.00	1	07/17/2019 15:11	WG1312111
2-Nitroaniline	ND	J4	10.0	1	07/17/2019 15:11	WG1312111
3-Nitroaniline	ND		10.0	1	07/17/2019 15:11	WG1312111
4-Nitroaniline	ND		10.0	1	07/17/2019 15:11	WG1312111
Nitrobenzene	ND	J4	10.0	1	07/17/2019 15:11	WG1312111
n-Nitrosodiphenylamine	ND	J4	10.0	1	07/17/2019 15:11	WG1312111
n-Nitrosodi-n-propylamine	ND	J4	10.0	1	07/17/2019 15:11	WG1312111
Phenanthrene	ND	J4	1.00	1	07/17/2019 15:11	WG1312111
Benzylbutyl phthalate	ND		3.00	1	07/17/2019 15:11	WG1312111
Bis(2-ethylhexyl)phthalate	ND		3.00	1	07/17/2019 15:11	WG1312111
Di-n-butyl phthalate	ND		3.00	1	07/17/2019 15:11	WG1312111
Diethyl phthalate	ND		3.00	1	07/17/2019 15:11	WG1312111
Dimethyl phthalate	ND	J4	3.00	1	07/17/2019 15:11	WG1312111
Di-n-octyl phthalate	ND	J4	3.00	1	07/17/2019 15:11	WG1312111
Pyrene	ND	J4	1.00	1	07/17/2019 15:11	WG1312111
1,2,4,5-Tetrachlorobenzene	ND	J4	10.0	1	07/17/2019 15:11	WG1312111
4-Chloro-3-methylphenol	ND	J4	10.0	1	07/17/2019 15:11	WG1312111
2-Chlorophenol	ND	J4	10.0	1	07/17/2019 15:11	WG1312111
2-Methylphenol	ND	J4	10.0	1	07/17/2019 15:11	WG1312111
3&4-Methyl Phenol	ND	J4	10.0	1	07/17/2019 15:11	WG1312111
2,4-Dichlorophenol	ND	J4	10.0	1	07/17/2019 15:11	WG1312111
2,4-Dimethylphenol	ND	J4	10.0	1	07/17/2019 15:11	WG1312111
4,6-Dinitro-2-methylphenol	ND		10.0	1	07/17/2019 15:11	WG1312111
2,4-Dinitrophenol	ND	J4	10.0	1	07/17/2019 15:11	WG1312111
2-Nitrophenol	ND	J4	10.0	1	07/17/2019 15:11	WG1312111
4-Nitrophenol	ND	J4	10.0	1	07/17/2019 15:11	WG1312111
Pentachlorophenol	ND	J4	10.0	1	07/17/2019 15:11	WG1312111
Phenol	ND	J4	10.0	1	07/17/2019 15:11	WG1312111
2,4,5-Trichlorophenol	ND	J4	10.0	1	07/17/2019 15:11	WG1312111
2,4,6-Trichlorophenol	ND	J4	10.0	1	07/17/2019 15:11	WG1312111
(S) Nitrobenzene-d5	7.01	J2	10.0-127		07/17/2019 15:11	WG1312111
(S) 2-Fluorobiphenyl	7.64	J2	10.0-130		07/17/2019 15:11	WG1312111
(S) p-Terphenyl-d14	14.3		10.0-128		07/17/2019 15:11	WG1312111
(S) Phenol-d5	2.72	J2	10.0-120		07/17/2019 15:11	WG1312111
(S) 2-Fluorophenol	3.51	J2	10.0-120		07/17/2019 15:11	WG1312111
(S) 2,4,6-Tribromophenol	9.95	J2	10.0-155		07/17/2019 15:11	WG1312111



## Sample Narrative:

L1117439-08 WG1312111: Duplicate analysis was performed.

## Semi Volatile Organic Compounds (GC/MS) by Method 8270E-SIM

Analyte	Result ug/l	Qualifier	RDL ug/l	Dilution	Analysis date / time	Batch
Anthracene	ND		0.0500	1	07/16/2019 00:28	WG1311224
Acenaphthene	ND	J4	0.0500	1	07/16/2019 00:28	WG1311224
Acenaphthylene	ND	J4	0.0500	1	07/16/2019 00:28	WG1311224
Benzo(a)anthracene	ND		0.0500	1	07/16/2019 00:28	WG1311224
Benzo(a)pyrene	ND		0.0500	1	07/16/2019 00:28	WG1311224
Benzo(b)fluoranthene	ND		0.0500	1	07/16/2019 00:28	WG1311224
Benzo(g,h,i)perylene	ND		0.0500	1	07/16/2019 00:28	WG1311224
Benzo(k)fluoranthene	ND		0.0500	1	07/16/2019 00:28	WG1311224
Chrysene	ND		0.0500	1	07/16/2019 00:28	WG1311224



Collected date/time: 07/09/19 11:40

L1117439

Semi Volatile Organic Compounds (GC/MS) by Method 8270E-SIM

Analyte	Result ug/l	Qualifier	RDL ug/l	Dilution	Analysis date / time	Batch
Dibenz(a,h)anthracene	ND		0.0500	1	07/16/2019 00:28	<a href="#">WG1311224</a>
Fluoranthene	ND		0.0500	1	07/16/2019 00:28	<a href="#">WG1311224</a>
Fluorene	ND	<u>J4</u>	0.0500	1	07/16/2019 00:28	<a href="#">WG1311224</a>
Indeno(1,2,3-cd)pyrene	ND		0.0500	1	07/16/2019 00:28	<a href="#">WG1311224</a>
Naphthalene	ND	<u>J4</u>	0.250	1	07/16/2019 00:28	<a href="#">WG1311224</a>
Phenanthrene	ND	<u>J4</u>	0.0500	1	07/16/2019 00:28	<a href="#">WG1311224</a>
Pyrene	ND		0.0500	1	07/16/2019 00:28	<a href="#">WG1311224</a>
<i>(S) Nitrobenzene-d5</i>	113		11.0-135		07/16/2019 00:28	<a href="#">WG1311224</a>
<i>(S) 2-Fluorobiphenyl</i>	56.3		32.0-120		07/16/2019 00:28	<a href="#">WG1311224</a>
<i>(S) p-Terphenyl-d14</i>	84.7		23.0-122		07/16/2019 00:28	<a href="#">WG1311224</a>

- 1 Cp
- 2 Tc
- 3 Ss
- 4 Cn
- 5 Sr
- 6 Qc
- 7 Gl
- 8 Al
- 9 Sc



## Wet Chemistry by Method 4500CN E-2011

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	ug/l		ug/l		date / time	
Cyanide	ND		5.00	1	07/18/2019 20:09	<a href="#">WG1313327</a>

## Mercury by Method 7470A

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	ug/l		ug/l		date / time	
Mercury	ND		0.200	1	07/12/2019 09:58	<a href="#">WG1309989</a>

## Metals (ICP) by Method 6010D

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	ug/l		ug/l		date / time	
Aluminum	205		200	1	07/16/2019 12:14	<a href="#">WG1310249</a>
Antimony	ND		10.0	1	07/16/2019 12:14	<a href="#">WG1310249</a>
Arsenic	ND		10.0	1	07/16/2019 12:14	<a href="#">WG1310249</a>
Barium	1190		5.00	1	07/16/2019 12:14	<a href="#">WG1310249</a>
Beryllium	ND		2.00	1	07/16/2019 12:14	<a href="#">WG1310249</a>
Cadmium	ND		2.00	1	07/16/2019 12:14	<a href="#">WG1310249</a>
Calcium	194000		1000	1	07/16/2019 12:14	<a href="#">WG1310249</a>
Chromium	ND		10.0	1	07/16/2019 12:14	<a href="#">WG1310249</a>
Cobalt	13.9		10.0	1	07/16/2019 12:14	<a href="#">WG1310249</a>
Copper	ND		10.0	1	07/16/2019 12:14	<a href="#">WG1310249</a>
Iron	53500		100	1	07/16/2019 12:14	<a href="#">WG1310249</a>
Lead	6.49		5.00	1	07/16/2019 12:14	<a href="#">WG1310249</a>
Magnesium	74900		1000	1	07/16/2019 12:14	<a href="#">WG1310249</a>
Manganese	8740		10.0	1	07/16/2019 12:14	<a href="#">WG1310249</a>
Nickel	102		10.0	1	07/16/2019 12:14	<a href="#">WG1310249</a>
Potassium	12900		1000	1	07/16/2019 12:14	<a href="#">WG1310249</a>
Selenium	11.7		10.0	1	07/16/2019 12:14	<a href="#">WG1310249</a>
Silver	ND		5.00	1	07/16/2019 12:14	<a href="#">WG1310249</a>
Sodium	492000		1000	1	07/16/2019 12:14	<a href="#">WG1310249</a>
Thallium	ND		10.0	1	07/16/2019 12:14	<a href="#">WG1310249</a>
Vanadium	21.0		20.0	1	07/16/2019 12:14	<a href="#">WG1310249</a>
Zinc	ND		50.0	1	07/16/2019 12:14	<a href="#">WG1310249</a>

## Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	ug/l		ug/l		date / time	
Acetone	ND	<u>J4</u>	50.0	1	07/12/2019 05:17	<a href="#">WG1310149</a>
Benzene	ND		1.00	1	07/12/2019 05:17	<a href="#">WG1310149</a>
Bromochloromethane	ND		1.00	1	07/12/2019 05:17	<a href="#">WG1310149</a>
Bromodichloromethane	ND		1.00	1	07/12/2019 05:17	<a href="#">WG1310149</a>
Bromoform	ND		1.00	1	07/12/2019 05:17	<a href="#">WG1310149</a>
Bromomethane	ND		5.00	1	07/12/2019 05:17	<a href="#">WG1310149</a>
Carbon disulfide	ND		1.00	1	07/12/2019 05:17	<a href="#">WG1310149</a>
Carbon tetrachloride	ND		1.00	1	07/12/2019 05:17	<a href="#">WG1310149</a>
Chlorobenzene	ND		1.00	1	07/12/2019 05:17	<a href="#">WG1310149</a>
Chlorodibromomethane	ND		1.00	1	07/12/2019 05:17	<a href="#">WG1310149</a>
Chloroethane	ND		5.00	1	07/12/2019 05:17	<a href="#">WG1310149</a>
Chloroform	ND		5.00	1	07/12/2019 05:17	<a href="#">WG1310149</a>
Chloromethane	ND		2.50	1	07/12/2019 05:17	<a href="#">WG1310149</a>
Cyclohexane	ND		1.00	1	07/12/2019 05:17	<a href="#">WG1310149</a>
1,2-Dibromo-3-Chloropropane	ND		5.00	1	07/12/2019 05:17	<a href="#">WG1310149</a>
1,2-Dibromoethane	ND		1.00	1	07/12/2019 05:17	<a href="#">WG1310149</a>
1,2-Dichlorobenzene	ND		1.00	1	07/12/2019 05:17	<a href="#">WG1310149</a>
1,3-Dichlorobenzene	ND		1.00	1	07/12/2019 05:17	<a href="#">WG1310149</a>

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc



Collected date/time: 07/09/19 10:15

L1117439

## Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result ug/l	Qualifier	RDL ug/l	Dilution	Analysis date / time	Batch
1,4-Dichlorobenzene	ND		1.00	1	07/12/2019 05:17	<a href="#">WG1310149</a>
Dichlorodifluoromethane	ND		5.00	1	07/12/2019 05:17	<a href="#">WG1310149</a>
1,1-Dichloroethane	ND		1.00	1	07/12/2019 05:17	<a href="#">WG1310149</a>
1,2-Dichloroethane	ND		1.00	1	07/12/2019 05:17	<a href="#">WG1310149</a>
1,1-Dichloroethene	ND		1.00	1	07/12/2019 05:17	<a href="#">WG1310149</a>
cis-1,2-Dichloroethene	ND		1.00	1	07/12/2019 05:17	<a href="#">WG1310149</a>
trans-1,2-Dichloroethene	ND		1.00	1	07/12/2019 05:17	<a href="#">WG1310149</a>
1,2-Dichloropropane	ND		1.00	1	07/12/2019 05:17	<a href="#">WG1310149</a>
cis-1,3-Dichloropropene	ND		1.00	1	07/12/2019 05:17	<a href="#">WG1310149</a>
trans-1,3-Dichloropropene	ND		1.00	1	07/12/2019 05:17	<a href="#">WG1310149</a>
Ethylbenzene	ND		1.00	1	07/12/2019 05:17	<a href="#">WG1310149</a>
2-Hexanone	ND		10.0	1	07/12/2019 05:17	<a href="#">WG1310149</a>
Isopropylbenzene	ND		1.00	1	07/12/2019 05:17	<a href="#">WG1310149</a>
2-Butanone (MEK)	ND	J4	10.0	1	07/12/2019 05:17	<a href="#">WG1310149</a>
Methyl Acetate	ND		20.0	1	07/12/2019 05:17	<a href="#">WG1310149</a>
Methyl Cyclohexane	ND		1.00	1	07/12/2019 05:17	<a href="#">WG1310149</a>
Methylene Chloride	ND		5.00	1	07/12/2019 05:17	<a href="#">WG1310149</a>
4-Methyl-2-pentanone (MIBK)	ND		10.0	1	07/12/2019 05:17	<a href="#">WG1310149</a>
Methyl tert-butyl ether	ND		1.00	1	07/12/2019 05:17	<a href="#">WG1310149</a>
Styrene	ND		1.00	1	07/12/2019 05:17	<a href="#">WG1310149</a>
1,1,2,2-Tetrachloroethane	ND		1.00	1	07/12/2019 05:17	<a href="#">WG1310149</a>
Tetrachloroethene	ND		1.00	1	07/12/2019 05:17	<a href="#">WG1310149</a>
Toluene	ND		1.00	1	07/12/2019 05:17	<a href="#">WG1310149</a>
1,2,3-Trichlorobenzene	ND		1.00	1	07/12/2019 05:17	<a href="#">WG1310149</a>
1,2,4-Trichlorobenzene	ND		1.00	1	07/12/2019 05:17	<a href="#">WG1310149</a>
1,1,1-Trichloroethane	ND		1.00	1	07/12/2019 05:17	<a href="#">WG1310149</a>
1,1,2-Trichloroethane	ND		1.00	1	07/12/2019 05:17	<a href="#">WG1310149</a>
Trichloroethene	ND		1.00	1	07/12/2019 05:17	<a href="#">WG1310149</a>
Trichlorofluoromethane	ND		5.00	1	07/12/2019 05:17	<a href="#">WG1310149</a>
1,1,2-Trichlorotrifluoroethane	ND		1.00	1	07/12/2019 05:17	<a href="#">WG1310149</a>
Vinyl chloride	ND		1.00	1	07/12/2019 05:17	<a href="#">WG1310149</a>
Xylenes, Total	ND		3.00	1	07/12/2019 05:17	<a href="#">WG1310149</a>
(S) Toluene-d8	112		80.0-120		07/12/2019 05:17	<a href="#">WG1310149</a>
(S) 4-Bromofluorobenzene	104		77.0-126		07/12/2019 05:17	<a href="#">WG1310149</a>
(S) 1,2-Dichloroethane-d4	107		70.0-130		07/12/2019 05:17	<a href="#">WG1310149</a>

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

## Pesticides (GC) by Method 8081B

Analyte	Result ug/l	Qualifier	RDL ug/l	Dilution	Analysis date / time	Batch
Aldrin	ND		0.0500	1	07/13/2019 10:42	<a href="#">WG1310080</a>
Alpha BHC	ND		0.0500	1	07/13/2019 10:42	<a href="#">WG1310080</a>
Beta BHC	ND		0.0500	1	07/13/2019 10:42	<a href="#">WG1310080</a>
Delta BHC	ND		0.0500	1	07/13/2019 10:42	<a href="#">WG1310080</a>
Gamma BHC	ND		0.0500	1	07/13/2019 10:42	<a href="#">WG1310080</a>
Chlordane	ND		5.00	1	07/13/2019 10:42	<a href="#">WG1310080</a>
4,4-DDD	ND		0.0500	1	07/13/2019 10:42	<a href="#">WG1310080</a>
4,4-DDE	ND		0.0500	1	07/13/2019 10:42	<a href="#">WG1310080</a>
4,4-DDT	ND		0.0500	1	07/13/2019 10:42	<a href="#">WG1310080</a>
Dieldrin	ND		0.0500	1	07/13/2019 10:42	<a href="#">WG1310080</a>
Endosulfan I	ND		0.0500	1	07/13/2019 10:42	<a href="#">WG1310080</a>
Endosulfan II	ND		0.0500	1	07/13/2019 10:42	<a href="#">WG1310080</a>
Endosulfan sulfate	ND		0.0500	1	07/13/2019 10:42	<a href="#">WG1310080</a>
Endrin	ND		0.0500	1	07/13/2019 10:42	<a href="#">WG1310080</a>
Endrin aldehyde	ND		0.0500	1	07/13/2019 10:42	<a href="#">WG1310080</a>
Endrin ketone	ND		0.0500	1	07/13/2019 10:42	<a href="#">WG1310080</a>
Heptachlor	ND		0.0500	1	07/13/2019 10:42	<a href="#">WG1310080</a>



Collected date/time: 07/09/19 10:15

L1117439

## Pesticides (GC) by Method 8081B

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	ug/l		ug/l		date / time	
Heptachlor epoxide	ND		0.0500	1	07/13/2019 10:42	<a href="#">WG1310080</a>
Hexachlorobenzene	ND		0.0500	1	07/13/2019 10:42	<a href="#">WG1310080</a>
Methoxychlor	ND		0.0500	1	07/13/2019 10:42	<a href="#">WG1310080</a>
Toxaphene	ND		0.500	1	07/13/2019 10:42	<a href="#">WG1310080</a>
(S) Decachlorobiphenyl	88.1		10.0-128		07/13/2019 10:42	<a href="#">WG1310080</a>
(S) Tetrachloro-m-xylene	74.4		10.0-127		07/13/2019 10:42	<a href="#">WG1310080</a>

## Polychlorinated Biphenyls (GC) by Method 8082 A

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	ug/l		ug/l		date / time	
PCB 1016	ND		0.500	1	07/13/2019 20:21	<a href="#">WG1310080</a>
PCB 1221	ND		0.500	1	07/13/2019 20:21	<a href="#">WG1310080</a>
PCB 1232	ND		0.500	1	07/13/2019 20:21	<a href="#">WG1310080</a>
PCB 1242	ND		0.500	1	07/13/2019 20:21	<a href="#">WG1310080</a>
PCB 1248	ND		0.500	1	07/13/2019 20:21	<a href="#">WG1310080</a>
PCB 1254	ND		0.500	1	07/13/2019 20:21	<a href="#">WG1310080</a>
PCB 1260	ND		0.500	1	07/13/2019 20:21	<a href="#">WG1310080</a>
(S) Decachlorobiphenyl	105		10.0-128		07/13/2019 20:21	<a href="#">WG1310080</a>
(S) Tetrachloro-m-xylene	83.4		10.0-127		07/13/2019 20:21	<a href="#">WG1310080</a>

## Semi Volatile Organic Compounds (GC/MS) by Method 8270D

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	ug/l		ug/l		date / time	
Acenaphthene	ND	J4	1.00	1	07/16/2019 03:18	<a href="#">WG1311627</a>
Acenaphthylene	ND	J4	1.00	1	07/16/2019 03:18	<a href="#">WG1311627</a>
Acetophenone	ND	J4	10.0	1	07/16/2019 03:18	<a href="#">WG1311627</a>
Anthracene	ND	J4	1.00	1	07/16/2019 03:18	<a href="#">WG1311627</a>
Atrazine	ND	J4	10.0	1	07/16/2019 03:18	<a href="#">WG1311627</a>
Benzaldehyde	ND	J4	10.0	1	07/16/2019 03:18	<a href="#">WG1311627</a>
Benzo(a)anthracene	ND	J4	1.00	1	07/16/2019 03:18	<a href="#">WG1311627</a>
Benzo(b)fluoranthene	ND	J4	1.00	1	07/16/2019 03:18	<a href="#">WG1311627</a>
Benzo(k)fluoranthene	ND	J4	1.00	1	07/16/2019 03:18	<a href="#">WG1311627</a>
Benzo(g,h,i)perylene	ND	J4	1.00	1	07/16/2019 03:18	<a href="#">WG1311627</a>
Benzo(a)pyrene	ND	J4	1.00	1	07/16/2019 03:18	<a href="#">WG1311627</a>
Biphenyl	ND	J4	10.0	1	07/16/2019 03:18	<a href="#">WG1311627</a>
Bis(2-chloroethoxy)methane	ND	J4	10.0	1	07/16/2019 03:18	<a href="#">WG1311627</a>
Bis(2-chloroethyl)ether	ND	J4	10.0	1	07/16/2019 03:18	<a href="#">WG1311627</a>
Bis(2-chloroisopropyl)ether	ND	J4	10.0	1	07/16/2019 03:18	<a href="#">WG1311627</a>
4-Bromophenyl-phenylether	ND	J4	10.0	1	07/16/2019 03:18	<a href="#">WG1311627</a>
Caprolactam	ND	J4	10.0	1	07/16/2019 03:18	<a href="#">WG1311627</a>
Carbazole	ND	J4	10.0	1	07/16/2019 03:18	<a href="#">WG1311627</a>
4-Chloroaniline	ND	JO J4	50.0	1	07/16/2019 03:18	<a href="#">WG1311627</a>
2-Chloronaphthalene	ND	J4	1.00	1	07/16/2019 03:18	<a href="#">WG1311627</a>
4-Chlorophenyl-phenylether	ND	J4	10.0	1	07/16/2019 03:18	<a href="#">WG1311627</a>
Chrysene	ND	J4	1.00	1	07/16/2019 03:18	<a href="#">WG1311627</a>
Dibenz(a,h)anthracene	ND	J4	1.00	1	07/16/2019 03:18	<a href="#">WG1311627</a>
Dibenzofuran	ND	J4	10.0	1	07/16/2019 03:18	<a href="#">WG1311627</a>
3,3-Dichlorobenzidine	ND	J4	10.0	1	07/16/2019 03:18	<a href="#">WG1311627</a>
2,4-Dinitrotoluene	ND	J4	10.0	1	07/16/2019 03:18	<a href="#">WG1311627</a>
2,6-Dinitrotoluene	ND	J4	10.0	1	07/16/2019 03:18	<a href="#">WG1311627</a>
Fluoranthene	ND	J4	1.00	1	07/16/2019 03:18	<a href="#">WG1311627</a>
Fluorene	ND	J4	1.00	1	07/16/2019 03:18	<a href="#">WG1311627</a>
Hexachlorobenzene	ND	J4	1.00	1	07/16/2019 03:18	<a href="#">WG1311627</a>
Hexachloro-1,3-butadiene	ND	J4	10.0	1	07/16/2019 03:18	<a href="#">WG1311627</a>
Hexachlorocyclopentadiene	ND	J4	10.0	1	07/16/2019 03:18	<a href="#">WG1311627</a>

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

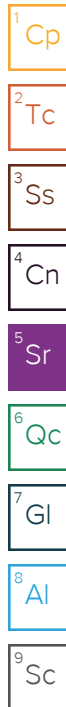


Collected date/time: 07/09/19 10:15

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## Semi Volatile Organic Compounds (GC/MS) by Method 8270D

Analyte	Result ug/l	Qualifier	RDL ug/l	Dilution	Analysis date / time	Batch
Hexachloroethane	ND	J4	10.0	1	07/16/2019 03:18	WG1311627
Indeno(1,2,3-cd)pyrene	ND		1.00	1	07/16/2019 03:18	WG1311627
Isophorone	ND	J4	10.0	1	07/16/2019 03:18	WG1311627
2-Methylnaphthalene	ND	J4	1.00	1	07/16/2019 03:18	WG1311627
Naphthalene	ND	J4	1.00	1	07/16/2019 03:18	WG1311627
2-Nitroaniline	ND	J4	10.0	1	07/16/2019 03:18	WG1311627
3-Nitroaniline	ND	J4	10.0	1	07/16/2019 03:18	WG1311627
4-Nitroaniline	ND	J4	10.0	1	07/16/2019 03:18	WG1311627
Nitrobenzene	ND	J4	10.0	1	07/16/2019 03:18	WG1311627
n-Nitrosodiphenylamine	ND	J4	10.0	1	07/16/2019 03:18	WG1311627
n-Nitrosodi-n-propylamine	ND	J4	10.0	1	07/16/2019 03:18	WG1311627
Phenanthrene	ND	J4	1.00	1	07/16/2019 03:18	WG1311627
Benzylbutyl phthalate	ND	J4	3.00	1	07/16/2019 03:18	WG1311627
Bis(2-ethylhexyl)phthalate	ND	J4	3.00	1	07/16/2019 03:18	WG1311627
Di-n-butyl phthalate	ND	J4	3.00	1	07/16/2019 03:18	WG1311627
Diethyl phthalate	ND	J4	3.00	1	07/16/2019 03:18	WG1311627
Dimethyl phthalate	ND	J4	3.00	1	07/16/2019 03:18	WG1311627
Di-n-octyl phthalate	ND	J4	3.00	1	07/16/2019 03:18	WG1311627
Pyrene	ND	J4	1.00	1	07/16/2019 03:18	WG1311627
1,2,4,5-Tetrachlorobenzene	ND	J4	10.0	1	07/16/2019 03:18	WG1311627
4-Chloro-3-methylphenol	ND	J4	10.0	1	07/16/2019 03:18	WG1311627
2-Chlorophenol	ND	J4	10.0	1	07/16/2019 03:18	WG1311627
2-Methylphenol	ND	J4	10.0	1	07/16/2019 03:18	WG1311627
3&4-Methyl Phenol	ND	J4	10.0	1	07/16/2019 03:18	WG1311627
2,4-Dichlorophenol	ND	J4	10.0	1	07/16/2019 03:18	WG1311627
2,4-Dimethylphenol	ND	J4	10.0	1	07/16/2019 03:18	WG1311627
4,6-Dinitro-2-methylphenol	ND	J4	10.0	1	07/16/2019 03:18	WG1311627
2,4-Dinitrophenol	ND	J4	10.0	1	07/16/2019 03:18	WG1311627
2-Nitrophenol	ND	J4	10.0	1	07/16/2019 03:18	WG1311627
4-Nitrophenol	ND	J4	10.0	1	07/16/2019 03:18	WG1311627
Pentachlorophenol	ND	J4	10.0	1	07/16/2019 03:18	WG1311627
Phenol	ND	J4	10.0	1	07/16/2019 03:18	WG1311627
2,4,5-Trichlorophenol	ND	J4	10.0	1	07/16/2019 03:18	WG1311627
2,4,6-Trichlorophenol	ND	J4	10.0	1	07/16/2019 03:18	WG1311627
(S) Nitrobenzene-d5	21.5		10.0-127		07/16/2019 03:18	WG1311627
(S) 2-Fluorobiphenyl	26.1		10.0-130		07/16/2019 03:18	WG1311627
(S) p-Terphenyl-d14	76.1		10.0-128		07/16/2019 03:18	WG1311627
(S) Phenol-d5	17.2		10.0-120		07/16/2019 03:18	WG1311627
(S) 2-Fluorophenol	22.8		10.0-120		07/16/2019 03:18	WG1311627
(S) 2,4,6-Tribromophenol	68.1		10.0-155		07/16/2019 03:18	WG1311627



## Sample Narrative:

L1117439-09 WG1311627: Duplicate analysis was performed.

## Semi Volatile Organic Compounds (GC/MS) by Method 8270E-SIM

Analyte	Result ug/l	Qualifier	RDL ug/l	Dilution	Analysis date / time	Batch
Anthracene	ND		0.0500	1	07/16/2019 00:50	WG1311224
Acenaphthene	ND	J4	0.0500	1	07/16/2019 00:50	WG1311224
Acenaphthylene	ND	J4	0.0500	1	07/16/2019 00:50	WG1311224
Benzo(a)anthracene	ND		0.0500	1	07/16/2019 00:50	WG1311224
Benzo(a)pyrene	ND		0.0500	1	07/16/2019 00:50	WG1311224
Benzo(b)fluoranthene	ND		0.0500	1	07/16/2019 00:50	WG1311224
Benzo(g,h,i)perylene	ND		0.0500	1	07/16/2019 00:50	WG1311224
Benzo(k)fluoranthene	ND		0.0500	1	07/16/2019 00:50	WG1311224
Chrysene	ND		0.0500	1	07/16/2019 00:50	WG1311224



Semi Volatile Organic Compounds (GC/MS) by Method 8270E-SIM

Analyte	Result ug/l	Qualifier	RDL ug/l	Dilution	Analysis date / time	Batch
Dibenz(a,h)anthracene	ND		0.0500	1	07/16/2019 00:50	<a href="#">WG1311224</a>
Fluoranthene	ND		0.0500	1	07/16/2019 00:50	<a href="#">WG1311224</a>
Fluorene	ND	<u>J4</u>	0.0500	1	07/16/2019 00:50	<a href="#">WG1311224</a>
Indeno(1,2,3-cd)pyrene	ND		0.0500	1	07/16/2019 00:50	<a href="#">WG1311224</a>
Naphthalene	ND	<u>J4</u>	0.250	1	07/16/2019 00:50	<a href="#">WG1311224</a>
Phenanthrene	ND	<u>J4</u>	0.0500	1	07/16/2019 00:50	<a href="#">WG1311224</a>
Pyrene	ND		0.0500	1	07/16/2019 00:50	<a href="#">WG1311224</a>
(S) Nitrobenzene-d5	123		11.0-135		07/16/2019 00:50	<a href="#">WG1311224</a>
(S) 2-Fluorobiphenyl	54.7		32.0-120		07/16/2019 00:50	<a href="#">WG1311224</a>
(S) p-Terphenyl-d14	82.1		23.0-122		07/16/2019 00:50	<a href="#">WG1311224</a>

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc





## Wet Chemistry by Method 4500CN E-2011

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	ug/l		ug/l		date / time	
Cyanide	ND		5.00	1	07/18/2019 20:10	<a href="#">WG1313327</a>

## Mercury by Method 7470A

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	ug/l		ug/l		date / time	
Mercury	ND		0.200	1	07/12/2019 10:00	<a href="#">WG1309989</a>

## Metals (ICP) by Method 6010D

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	ug/l		ug/l		date / time	
Aluminum	ND		200	1	07/16/2019 12:17	<a href="#">WG1310249</a>
Antimony	ND		10.0	1	07/16/2019 12:17	<a href="#">WG1310249</a>
Arsenic	ND		10.0	1	07/16/2019 12:17	<a href="#">WG1310249</a>
Barium	757		5.00	1	07/16/2019 12:17	<a href="#">WG1310249</a>
Beryllium	ND		2.00	1	07/16/2019 12:17	<a href="#">WG1310249</a>
Cadmium	ND		2.00	1	07/16/2019 12:17	<a href="#">WG1310249</a>
Calcium	183000		1000	1	07/16/2019 12:17	<a href="#">WG1310249</a>
Chromium	ND		10.0	1	07/16/2019 12:17	<a href="#">WG1310249</a>
Cobalt	18.5		10.0	1	07/16/2019 12:17	<a href="#">WG1310249</a>
Copper	ND		10.0	1	07/16/2019 12:17	<a href="#">WG1310249</a>
Iron	37300		100	1	07/16/2019 12:17	<a href="#">WG1310249</a>
Lead	ND		5.00	1	07/16/2019 12:17	<a href="#">WG1310249</a>
Magnesium	88200		1000	1	07/16/2019 12:17	<a href="#">WG1310249</a>
Manganese	3680		10.0	1	07/16/2019 12:17	<a href="#">WG1310249</a>
Nickel	93.6		10.0	1	07/16/2019 12:17	<a href="#">WG1310249</a>
Potassium	15900		1000	1	07/16/2019 12:17	<a href="#">WG1310249</a>
Selenium	ND		10.0	1	07/16/2019 12:17	<a href="#">WG1310249</a>
Silver	ND		5.00	1	07/16/2019 12:17	<a href="#">WG1310249</a>
Sodium	482000		1000	1	07/16/2019 12:17	<a href="#">WG1310249</a>
Thallium	ND		10.0	1	07/16/2019 12:17	<a href="#">WG1310249</a>
Vanadium	ND		20.0	1	07/16/2019 12:17	<a href="#">WG1310249</a>
Zinc	ND		50.0	1	07/16/2019 12:17	<a href="#">WG1310249</a>

## Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	ug/l		ug/l		date / time	
Acetone	ND	<u>J4</u>	50.0	1	07/12/2019 05:37	<a href="#">WG1310149</a>
Benzene	ND		1.00	1	07/12/2019 05:37	<a href="#">WG1310149</a>
Bromochloromethane	ND		1.00	1	07/12/2019 05:37	<a href="#">WG1310149</a>
Bromodichloromethane	ND		1.00	1	07/12/2019 05:37	<a href="#">WG1310149</a>
Bromoform	ND		1.00	1	07/12/2019 05:37	<a href="#">WG1310149</a>
Bromomethane	ND		5.00	1	07/12/2019 05:37	<a href="#">WG1310149</a>
Carbon disulfide	ND		1.00	1	07/12/2019 05:37	<a href="#">WG1310149</a>
Carbon tetrachloride	ND		1.00	1	07/12/2019 05:37	<a href="#">WG1310149</a>
Chlorobenzene	ND		1.00	1	07/12/2019 05:37	<a href="#">WG1310149</a>
Chlorodibromomethane	ND		1.00	1	07/12/2019 05:37	<a href="#">WG1310149</a>
Chloroethane	ND		5.00	1	07/12/2019 05:37	<a href="#">WG1310149</a>
Chloroform	ND		5.00	1	07/12/2019 05:37	<a href="#">WG1310149</a>
Chloromethane	ND		2.50	1	07/12/2019 05:37	<a href="#">WG1310149</a>
Cyclohexane	ND		1.00	1	07/12/2019 05:37	<a href="#">WG1310149</a>
1,2-Dibromo-3-Chloropropane	ND		5.00	1	07/12/2019 05:37	<a href="#">WG1310149</a>
1,2-Dibromoethane	ND		1.00	1	07/12/2019 05:37	<a href="#">WG1310149</a>
1,2-Dichlorobenzene	ND		1.00	1	07/12/2019 05:37	<a href="#">WG1310149</a>
1,3-Dichlorobenzene	ND		1.00	1	07/12/2019 05:37	<a href="#">WG1310149</a>

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

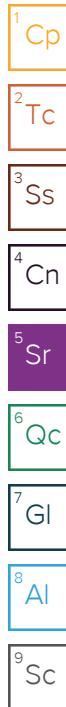


Collected date/time: 07/09/19 16:32

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## Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result ug/l	Qualifier	RDL ug/l	Dilution	Analysis date / time	Batch
1,4-Dichlorobenzene	ND		1.00	1	07/12/2019 05:37	<a href="#">WG1310149</a>
Dichlorodifluoromethane	ND		5.00	1	07/12/2019 05:37	<a href="#">WG1310149</a>
1,1-Dichloroethane	ND		1.00	1	07/12/2019 05:37	<a href="#">WG1310149</a>
1,2-Dichloroethane	ND		1.00	1	07/12/2019 05:37	<a href="#">WG1310149</a>
1,1-Dichloroethene	ND		1.00	1	07/12/2019 05:37	<a href="#">WG1310149</a>
cis-1,2-Dichloroethene	ND		1.00	1	07/12/2019 05:37	<a href="#">WG1310149</a>
trans-1,2-Dichloroethene	ND		1.00	1	07/12/2019 05:37	<a href="#">WG1310149</a>
1,2-Dichloropropane	ND		1.00	1	07/12/2019 05:37	<a href="#">WG1310149</a>
cis-1,3-Dichloropropene	ND		1.00	1	07/12/2019 05:37	<a href="#">WG1310149</a>
trans-1,3-Dichloropropene	ND		1.00	1	07/12/2019 05:37	<a href="#">WG1310149</a>
Ethylbenzene	ND		1.00	1	07/12/2019 05:37	<a href="#">WG1310149</a>
2-Hexanone	ND		10.0	1	07/12/2019 05:37	<a href="#">WG1310149</a>
Isopropylbenzene	ND		1.00	1	07/12/2019 05:37	<a href="#">WG1310149</a>
2-Butanone (MEK)	ND	J4	10.0	1	07/12/2019 05:37	<a href="#">WG1310149</a>
Methyl Acetate	ND		20.0	1	07/12/2019 05:37	<a href="#">WG1310149</a>
Methyl Cyclohexane	ND		1.00	1	07/12/2019 05:37	<a href="#">WG1310149</a>
Methylene Chloride	ND		5.00	1	07/12/2019 05:37	<a href="#">WG1310149</a>
4-Methyl-2-pentanone (MIBK)	ND		10.0	1	07/12/2019 05:37	<a href="#">WG1310149</a>
Methyl tert-butyl ether	ND		1.00	1	07/12/2019 05:37	<a href="#">WG1310149</a>
Styrene	ND		1.00	1	07/12/2019 05:37	<a href="#">WG1310149</a>
1,1,2,2-Tetrachloroethane	ND		1.00	1	07/12/2019 05:37	<a href="#">WG1310149</a>
Tetrachloroethene	ND		1.00	1	07/12/2019 05:37	<a href="#">WG1310149</a>
Toluene	ND		1.00	1	07/12/2019 05:37	<a href="#">WG1310149</a>
1,2,3-Trichlorobenzene	ND		1.00	1	07/12/2019 05:37	<a href="#">WG1310149</a>
1,2,4-Trichlorobenzene	ND		1.00	1	07/12/2019 05:37	<a href="#">WG1310149</a>
1,1,1-Trichloroethane	ND		1.00	1	07/12/2019 05:37	<a href="#">WG1310149</a>
1,1,2-Trichloroethane	ND		1.00	1	07/12/2019 05:37	<a href="#">WG1310149</a>
Trichloroethene	ND		1.00	1	07/12/2019 05:37	<a href="#">WG1310149</a>
Trichlorofluoromethane	ND		5.00	1	07/12/2019 05:37	<a href="#">WG1310149</a>
1,1,2-Trichlorotrifluoroethane	ND		1.00	1	07/12/2019 05:37	<a href="#">WG1310149</a>
Vinyl chloride	ND		1.00	1	07/12/2019 05:37	<a href="#">WG1310149</a>
Xylenes, Total	ND		3.00	1	07/12/2019 05:37	<a href="#">WG1310149</a>
(S) Toluene-d8	108		80.0-120		07/12/2019 05:37	<a href="#">WG1310149</a>
(S) 4-Bromofluorobenzene	101		77.0-126		07/12/2019 05:37	<a href="#">WG1310149</a>
(S) 1,2-Dichloroethane-d4	106		70.0-130		07/12/2019 05:37	<a href="#">WG1310149</a>



## Pesticides (GC) by Method 8081B

Analyte	Result ug/l	Qualifier	RDL ug/l	Dilution	Analysis date / time	Batch
Aldrin	ND		0.0500	1	07/13/2019 10:54	<a href="#">WG1310080</a>
Alpha BHC	ND		0.0500	1	07/13/2019 10:54	<a href="#">WG1310080</a>
Beta BHC	ND		0.0500	1	07/13/2019 10:54	<a href="#">WG1310080</a>
Delta BHC	ND		0.0500	1	07/13/2019 10:54	<a href="#">WG1310080</a>
Gamma BHC	ND		0.0500	1	07/13/2019 10:54	<a href="#">WG1310080</a>
Chlordane	ND		5.00	1	07/13/2019 10:54	<a href="#">WG1310080</a>
4,4-DDD	ND		0.0500	1	07/13/2019 10:54	<a href="#">WG1310080</a>
4,4-DDE	ND		0.0500	1	07/13/2019 10:54	<a href="#">WG1310080</a>
4,4-DDT	ND		0.0500	1	07/13/2019 10:54	<a href="#">WG1310080</a>
Dieldrin	ND		0.0500	1	07/13/2019 10:54	<a href="#">WG1310080</a>
Endosulfan I	ND		0.0500	1	07/13/2019 10:54	<a href="#">WG1310080</a>
Endosulfan II	ND		0.0500	1	07/13/2019 10:54	<a href="#">WG1310080</a>
Endosulfan sulfate	ND		0.0500	1	07/13/2019 10:54	<a href="#">WG1310080</a>
Endrin	ND		0.0500	1	07/13/2019 10:54	<a href="#">WG1310080</a>
Endrin aldehyde	ND		0.0500	1	07/13/2019 10:54	<a href="#">WG1310080</a>
Endrin ketone	ND		0.0500	1	07/13/2019 10:54	<a href="#">WG1310080</a>
Heptachlor	ND		0.0500	1	07/13/2019 10:54	<a href="#">WG1310080</a>



Collected date/time: 07/09/19 16:32

L1117439

## Pesticides (GC) by Method 8081B

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	ug/l		ug/l		date / time	
Heptachlor epoxide	ND		0.0500	1	07/13/2019 10:54	<a href="#">WG1310080</a>
Hexachlorobenzene	ND		0.0500	1	07/13/2019 10:54	<a href="#">WG1310080</a>
Methoxychlor	ND		0.0500	1	07/13/2019 10:54	<a href="#">WG1310080</a>
Toxaphene	ND		0.500	1	07/13/2019 10:54	<a href="#">WG1310080</a>
(S) Decachlorobiphenyl	97.1		10.0-128		07/13/2019 10:54	<a href="#">WG1310080</a>
(S) Tetrachloro-m-xylene	71.9		10.0-127		07/13/2019 10:54	<a href="#">WG1310080</a>

## Polychlorinated Biphenyls (GC) by Method 8082 A

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	ug/l		ug/l		date / time	
PCB 1016	ND		0.500	1	07/13/2019 20:34	<a href="#">WG1310080</a>
PCB 1221	ND		0.500	1	07/13/2019 20:34	<a href="#">WG1310080</a>
PCB 1232	ND		0.500	1	07/13/2019 20:34	<a href="#">WG1310080</a>
PCB 1242	ND		0.500	1	07/13/2019 20:34	<a href="#">WG1310080</a>
PCB 1248	ND		0.500	1	07/13/2019 20:34	<a href="#">WG1310080</a>
PCB 1254	ND		0.500	1	07/13/2019 20:34	<a href="#">WG1310080</a>
PCB 1260	ND		0.500	1	07/13/2019 20:34	<a href="#">WG1310080</a>
(S) Decachlorobiphenyl	133	J1	10.0-128		07/13/2019 20:34	<a href="#">WG1310080</a>
(S) Tetrachloro-m-xylene	93.8		10.0-127		07/13/2019 20:34	<a href="#">WG1310080</a>

## Semi Volatile Organic Compounds (GC/MS) by Method 8270D

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	ug/l		ug/l		date / time	
Acenaphthene	ND	J4	1.00	1	07/16/2019 23:56	<a href="#">WG1311218</a>
Acenaphthylene	ND	J4	1.00	1	07/16/2019 23:56	<a href="#">WG1311218</a>
Acetophenone	ND	J4	10.0	1	07/16/2019 23:56	<a href="#">WG1311218</a>
Anthracene	ND	J4	1.00	1	07/16/2019 23:56	<a href="#">WG1311218</a>
Atrazine	ND		10.0	1	07/16/2019 23:56	<a href="#">WG1311218</a>
Benzaldehyde	ND	J4	10.0	1	07/16/2019 23:56	<a href="#">WG1311218</a>
Benzo(a)anthracene	ND	J4	1.00	1	07/16/2019 23:56	<a href="#">WG1311218</a>
Benzo(b)fluoranthene	ND		1.00	1	07/16/2019 23:56	<a href="#">WG1311218</a>
Benzo(k)fluoranthene	ND		1.00	1	07/16/2019 23:56	<a href="#">WG1311218</a>
Benzo(g,h,i)perylene	ND		1.00	1	07/16/2019 23:56	<a href="#">WG1311218</a>
Benzo(a)pyrene	ND	J4	1.00	1	07/16/2019 23:56	<a href="#">WG1311218</a>
Biphenyl	ND	J4	10.0	1	07/16/2019 23:56	<a href="#">WG1311218</a>
Bis(2-chloroethoxy)methane	ND	J4	10.0	1	07/16/2019 23:56	<a href="#">WG1311218</a>
Bis(2-chloroethyl)ether	ND	J4	10.0	1	07/16/2019 23:56	<a href="#">WG1311218</a>
Bis(2-chloroisopropyl)ether	ND	J4	10.0	1	07/16/2019 23:56	<a href="#">WG1311218</a>
4-Bromophenyl-phenylether	ND		10.0	1	07/16/2019 23:56	<a href="#">WG1311218</a>
Caprolactam	ND	J4	10.0	1	07/16/2019 23:56	<a href="#">WG1311218</a>
Carbazole	ND	J4	10.0	1	07/16/2019 23:56	<a href="#">WG1311218</a>
4-Chloroaniline	ND	JO J4	50.0	1	07/16/2019 23:56	<a href="#">WG1311218</a>
2-Chloronaphthalene	ND	J4	1.00	1	07/16/2019 23:56	<a href="#">WG1311218</a>
4-Chlorophenyl-phenylether	ND	J4	10.0	1	07/16/2019 23:56	<a href="#">WG1311218</a>
Chrysene	ND	J4	1.00	1	07/16/2019 23:56	<a href="#">WG1311218</a>
Dibenz(a,h)anthracene	ND		1.00	1	07/16/2019 23:56	<a href="#">WG1311218</a>
Dibenzofuran	ND	J4	10.0	1	07/16/2019 23:56	<a href="#">WG1311218</a>
3,3-Dichlorobenzidine	ND	J4	10.0	1	07/16/2019 23:56	<a href="#">WG1311218</a>
2,4-Dinitrotoluene	ND		10.0	1	07/16/2019 23:56	<a href="#">WG1311218</a>
2,6-Dinitrotoluene	ND		10.0	1	07/16/2019 23:56	<a href="#">WG1311218</a>
Fluoranthene	ND	J4	1.00	1	07/16/2019 23:56	<a href="#">WG1311218</a>
Fluorene	ND	J4	1.00	1	07/16/2019 23:56	<a href="#">WG1311218</a>
Hexachlorobenzene	ND		1.00	1	07/16/2019 23:56	<a href="#">WG1311218</a>
Hexachloro-1,3-butadiene	ND	J4	10.0	1	07/16/2019 23:56	<a href="#">WG1311218</a>
Hexachlorocyclopentadiene	ND	J4	10.0	1	07/16/2019 23:56	<a href="#">WG1311218</a>

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc



Collected date/time: 07/09/19 16:32

L1117439

## Semi Volatile Organic Compounds (GC/MS) by Method 8270D

Analyte	Result ug/l	Qualifier	RDL ug/l	Dilution	Analysis date / time	Batch
Hexachloroethane	ND	J4	10.0	1	07/16/2019 23:56	WG1311218
Indeno(1,2,3-cd)pyrene	ND		1.00	1	07/16/2019 23:56	WG1311218
Isophorone	ND	J4	10.0	1	07/16/2019 23:56	WG1311218
2-Methylnaphthalene	ND	J4	1.00	1	07/16/2019 23:56	WG1311218
Naphthalene	ND	J4	1.00	1	07/16/2019 23:56	WG1311218
2-Nitroaniline	ND	J4	10.0	1	07/16/2019 23:56	WG1311218
3-Nitroaniline	ND	J4	10.0	1	07/16/2019 23:56	WG1311218
4-Nitroaniline	ND	J4	10.0	1	07/16/2019 23:56	WG1311218
Nitrobenzene	ND	J4	10.0	1	07/16/2019 23:56	WG1311218
n-Nitrosodiphenylamine	ND	J4	10.0	1	07/16/2019 23:56	WG1311218
n-Nitrosodi-n-propylamine	ND	J4	10.0	1	07/16/2019 23:56	WG1311218
Phenanthrene	ND	J4	1.00	1	07/16/2019 23:56	WG1311218
Benzylbutyl phthalate	ND		3.00	1	07/16/2019 23:56	WG1311218
Bis(2-ethylhexyl)phthalate	ND		3.00	1	07/16/2019 23:56	WG1311218
Di-n-butyl phthalate	ND		3.00	1	07/16/2019 23:56	WG1311218
Diethyl phthalate	ND		3.00	1	07/16/2019 23:56	WG1311218
Dimethyl phthalate	ND		3.00	1	07/16/2019 23:56	WG1311218
Di-n-octyl phthalate	ND		3.00	1	07/16/2019 23:56	WG1311218
Pyrene	ND	J4	1.00	1	07/16/2019 23:56	WG1311218
1,2,4,5-Tetrachlorobenzene	ND	J4	10.0	1	07/16/2019 23:56	WG1311218
4-Chloro-3-methylphenol	ND	J4	10.0	1	07/16/2019 23:56	WG1311218
2-Chlorophenol	ND	J4	10.0	1	07/16/2019 23:56	WG1311218
2-Methylphenol	ND	J4	10.0	1	07/16/2019 23:56	WG1311218
3&4-Methyl Phenol	ND	J4	10.0	1	07/16/2019 23:56	WG1311218
2,4-Dichlorophenol	ND	J4	10.0	1	07/16/2019 23:56	WG1311218
2,4-Dimethylphenol	ND	J4	10.0	1	07/16/2019 23:56	WG1311218
4,6-Dinitro-2-methylphenol	ND	J4	10.0	1	07/16/2019 23:56	WG1311218
2,4-Dinitrophenol	ND	J4	10.0	1	07/16/2019 23:56	WG1311218
2-Nitrophenol	ND	J4	10.0	1	07/16/2019 23:56	WG1311218
4-Nitrophenol	ND	J4	10.0	1	07/16/2019 23:56	WG1311218
Pentachlorophenol	ND	J4	10.0	1	07/16/2019 23:56	WG1311218
Phenol	ND	J4	10.0	1	07/16/2019 23:56	WG1311218
2,4,5-Trichlorophenol	ND	J4	10.0	1	07/16/2019 23:56	WG1311218
2,4,6-Trichlorophenol	ND		10.0	1	07/16/2019 23:56	WG1311218
(S) Nitrobenzene-d5	39.1		10.0-127		07/16/2019 23:56	WG1311218
(S) 2-Fluorobiphenyl	34.2		10.0-130		07/16/2019 23:56	WG1311218
(S) p-Terphenyl-d14	57.4		10.0-128		07/16/2019 23:56	WG1311218
(S) Phenol-d5	15.8		10.0-120		07/16/2019 23:56	WG1311218
(S) 2-Fluorophenol	26.1		10.0-120		07/16/2019 23:56	WG1311218
(S) 2,4,6-Tribromophenol	58.8		10.0-155		07/16/2019 23:56	WG1311218

- 1 Cp
- 2 Tc
- 3 Ss
- 4 Cn
- 5 Sr
- 6 Qc
- 7 Gl
- 8 Al
- 9 Sc

## Semi Volatile Organic Compounds (GC/MS) by Method 8270E-SIM

Analyte	Result ug/l	Qualifier	RDL ug/l	Dilution	Analysis date / time	Batch
Anthracene	ND		0.0500	1	07/16/2019 01:12	WG1311224
Acenaphthene	ND	J4	0.0500	1	07/16/2019 01:12	WG1311224
Acenaphthylene	ND	J4	0.0500	1	07/16/2019 01:12	WG1311224
Benzo(a)anthracene	ND		0.0500	1	07/16/2019 01:12	WG1311224
Benzo(a)pyrene	ND		0.0500	1	07/16/2019 01:12	WG1311224
Benzo(b)fluoranthene	ND		0.0500	1	07/16/2019 01:12	WG1311224
Benzo(g,h,i)perylene	ND		0.0500	1	07/16/2019 01:12	WG1311224
Benzo(k)fluoranthene	ND		0.0500	1	07/16/2019 01:12	WG1311224
Chrysene	ND		0.0500	1	07/16/2019 01:12	WG1311224
Dibenz(a,h)anthracene	ND		0.0500	1	07/16/2019 01:12	WG1311224
Fluoranthene	ND		0.0500	1	07/16/2019 01:12	WG1311224
Fluorene	0.0627	J4	0.0500	1	07/16/2019 01:12	WG1311224



Semi Volatile Organic Compounds (GC/MS) by Method 8270E-SIM

Analyte	Result ug/l	Qualifier	RDL ug/l	Dilution	Analysis date / time	Batch
Indeno(1,2,3-cd)pyrene	ND		0.0500	1	07/16/2019 01:12	<a href="#">WG1311224</a>
Naphthalene	ND	<u>J4</u>	0.250	1	07/16/2019 01:12	<a href="#">WG1311224</a>
Phenanthrene	ND	<u>J4</u>	0.0500	1	07/16/2019 01:12	<a href="#">WG1311224</a>
Pyrene	ND		0.0500	1	07/16/2019 01:12	<a href="#">WG1311224</a>
<i>(S)</i> Nitrobenzene-d5	115		11.0-135		07/16/2019 01:12	<a href="#">WG1311224</a>
<i>(S)</i> 2-Fluorobiphenyl	51.2		32.0-120		07/16/2019 01:12	<a href="#">WG1311224</a>
<i>(S)</i> p-Terphenyl-d14	82.7		23.0-122		07/16/2019 01:12	<a href="#">WG1311224</a>

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc



Wet Chemistry by Method 4500CN E-2011

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	ug/l		ug/l		date / time	
Cyanide	ND		5.00	1	07/18/2019 20:11	<a href="#">WG1313327</a>

1 Cp

2 Tc

Mercury by Method 7470A

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	ug/l		ug/l		date / time	
Mercury	ND		0.200	1	07/12/2019 10:07	<a href="#">WG1309989</a>

3 Ss

4 Cn

Metals (ICP) by Method 6010D

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	ug/l		ug/l		date / time	
Aluminum	ND		200	1	07/16/2019 12:20	<a href="#">WG1310249</a>
Antimony	ND		10.0	1	07/16/2019 12:20	<a href="#">WG1310249</a>
Arsenic	ND		10.0	1	07/16/2019 12:20	<a href="#">WG1310249</a>
Barium	7.11		5.00	1	07/16/2019 12:20	<a href="#">WG1310249</a>
Beryllium	ND		2.00	1	07/16/2019 12:20	<a href="#">WG1310249</a>
Cadmium	ND		2.00	1	07/16/2019 12:20	<a href="#">WG1310249</a>
Calcium	45900		1000	1	07/16/2019 12:20	<a href="#">WG1310249</a>
Chromium	ND		10.0	1	07/16/2019 12:20	<a href="#">WG1310249</a>
Cobalt	ND		10.0	1	07/16/2019 12:20	<a href="#">WG1310249</a>
Copper	ND		10.0	1	07/16/2019 12:20	<a href="#">WG1310249</a>
Iron	ND		100	1	07/16/2019 12:20	<a href="#">WG1310249</a>
Lead	ND		5.00	1	07/16/2019 12:20	<a href="#">WG1310249</a>
Magnesium	4890		1000	1	07/16/2019 12:20	<a href="#">WG1310249</a>
Manganese	35.3		10.0	1	07/16/2019 12:20	<a href="#">WG1310249</a>
Nickel	ND		10.0	1	07/16/2019 12:20	<a href="#">WG1310249</a>
Potassium	3740		1000	1	07/16/2019 12:20	<a href="#">WG1310249</a>
Selenium	ND		10.0	1	07/16/2019 12:20	<a href="#">WG1310249</a>
Silver	ND		5.00	1	07/16/2019 12:20	<a href="#">WG1310249</a>
Sodium	20800		1000	1	07/16/2019 12:20	<a href="#">WG1310249</a>
Thallium	ND		10.0	1	07/16/2019 12:20	<a href="#">WG1310249</a>
Vanadium	ND		20.0	1	07/16/2019 12:20	<a href="#">WG1310249</a>
Zinc	ND		50.0	1	07/16/2019 12:20	<a href="#">WG1310249</a>

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	ug/l		ug/l		date / time	
Acetone	ND	<u>J4</u>	50.0	1	07/12/2019 05:56	<a href="#">WG1310149</a>
Benzene	ND		1.00	1	07/12/2019 05:56	<a href="#">WG1310149</a>
Bromochloromethane	ND		1.00	1	07/12/2019 05:56	<a href="#">WG1310149</a>
Bromodichloromethane	ND		1.00	1	07/12/2019 05:56	<a href="#">WG1310149</a>
Bromoform	ND		1.00	1	07/12/2019 05:56	<a href="#">WG1310149</a>
Bromomethane	ND		5.00	1	07/12/2019 05:56	<a href="#">WG1310149</a>
Carbon disulfide	ND		1.00	1	07/12/2019 05:56	<a href="#">WG1310149</a>
Carbon tetrachloride	ND		1.00	1	07/12/2019 05:56	<a href="#">WG1310149</a>
Chlorobenzene	ND		1.00	1	07/12/2019 05:56	<a href="#">WG1310149</a>
Chlorodibromomethane	ND		1.00	1	07/12/2019 05:56	<a href="#">WG1310149</a>
Chloroethane	ND		5.00	1	07/12/2019 05:56	<a href="#">WG1310149</a>
Chloroform	ND		5.00	1	07/12/2019 05:56	<a href="#">WG1310149</a>
Chloromethane	ND		2.50	1	07/12/2019 05:56	<a href="#">WG1310149</a>
Cyclohexane	ND		1.00	1	07/12/2019 05:56	<a href="#">WG1310149</a>
1,2-Dibromo-3-Chloropropane	ND		5.00	1	07/12/2019 05:56	<a href="#">WG1310149</a>
1,2-Dibromoethane	ND		1.00	1	07/12/2019 05:56	<a href="#">WG1310149</a>
1,2-Dichlorobenzene	ND		1.00	1	07/12/2019 05:56	<a href="#">WG1310149</a>
1,3-Dichlorobenzene	ND		1.00	1	07/12/2019 05:56	<a href="#">WG1310149</a>



Collected date/time: 07/09/19 16:18

L1117439

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	ug/l		ug/l		date / time	
1,4-Dichlorobenzene	ND		1.00	1	07/12/2019 05:56	WG1310149
Dichlorodifluoromethane	ND		5.00	1	07/12/2019 05:56	WG1310149
1,1-Dichloroethane	ND		1.00	1	07/12/2019 05:56	WG1310149
1,2-Dichloroethane	ND		1.00	1	07/12/2019 05:56	WG1310149
1,1-Dichloroethene	ND		1.00	1	07/12/2019 05:56	WG1310149
cis-1,2-Dichloroethene	ND		1.00	1	07/12/2019 05:56	WG1310149
trans-1,2-Dichloroethene	ND		1.00	1	07/12/2019 05:56	WG1310149
1,2-Dichloropropane	ND		1.00	1	07/12/2019 05:56	WG1310149
cis-1,3-Dichloropropene	ND		1.00	1	07/12/2019 05:56	WG1310149
trans-1,3-Dichloropropene	ND		1.00	1	07/12/2019 05:56	WG1310149
Ethylbenzene	ND		1.00	1	07/12/2019 05:56	WG1310149
2-Hexanone	ND		10.0	1	07/12/2019 05:56	WG1310149
Isopropylbenzene	ND		1.00	1	07/12/2019 05:56	WG1310149
2-Butanone (MEK)	ND	J4	10.0	1	07/12/2019 05:56	WG1310149
Methyl Acetate	ND		20.0	1	07/12/2019 05:56	WG1310149
Methyl Cyclohexane	ND		1.00	1	07/12/2019 05:56	WG1310149
Methylene Chloride	ND		5.00	1	07/12/2019 05:56	WG1310149
4-Methyl-2-pentanone (MIBK)	ND		10.0	1	07/12/2019 05:56	WG1310149
Methyl tert-butyl ether	ND		1.00	1	07/12/2019 05:56	WG1310149
Styrene	ND		1.00	1	07/12/2019 05:56	WG1310149
1,1,2,2-Tetrachloroethane	ND		1.00	1	07/12/2019 05:56	WG1310149
Tetrachloroethene	ND		1.00	1	07/12/2019 05:56	WG1310149
Toluene	ND		1.00	1	07/12/2019 05:56	WG1310149
1,2,3-Trichlorobenzene	ND		1.00	1	07/12/2019 05:56	WG1310149
1,2,4-Trichlorobenzene	ND		1.00	1	07/12/2019 05:56	WG1310149
1,1,1-Trichloroethane	ND		1.00	1	07/12/2019 05:56	WG1310149
1,1,2-Trichloroethane	ND		1.00	1	07/12/2019 05:56	WG1310149
Trichloroethene	ND		1.00	1	07/12/2019 05:56	WG1310149
Trichlorofluoromethane	ND		5.00	1	07/12/2019 05:56	WG1310149
1,1,2-Trichlorotrifluoroethane	ND		1.00	1	07/12/2019 05:56	WG1310149
Vinyl chloride	ND		1.00	1	07/12/2019 05:56	WG1310149
Xylenes, Total	ND		3.00	1	07/12/2019 05:56	WG1310149
(S) Toluene-d8	110		80.0-120		07/12/2019 05:56	WG1310149
(S) 4-Bromofluorobenzene	104		77.0-126		07/12/2019 05:56	WG1310149
(S) 1,2-Dichloroethane-d4	102		70.0-130		07/12/2019 05:56	WG1310149

- 1 Cp
- 2 Tc
- 3 Ss
- 4 Cn
- 5 Sr
- 6 Qc
- 7 Gl
- 8 Al
- 9 Sc

Pesticides (GC) by Method 8081B

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	ug/l		ug/l		date / time	
Aldrin	ND		0.0500	1	07/13/2019 11:07	WG1310080
Alpha BHC	ND		0.0500	1	07/13/2019 11:07	WG1310080
Beta BHC	ND		0.0500	1	07/13/2019 11:07	WG1310080
Delta BHC	ND		0.0500	1	07/13/2019 11:07	WG1310080
Gamma BHC	ND		0.0500	1	07/13/2019 11:07	WG1310080
Chlordane	ND		5.00	1	07/13/2019 11:07	WG1310080
4,4-DDD	ND		0.0500	1	07/13/2019 11:07	WG1310080
4,4-DDE	ND		0.0500	1	07/13/2019 11:07	WG1310080
4,4-DDT	ND		0.0500	1	07/13/2019 11:07	WG1310080
Dieldrin	ND		0.0500	1	07/13/2019 11:07	WG1310080
Endosulfan I	ND		0.0500	1	07/13/2019 11:07	WG1310080
Endosulfan II	ND		0.0500	1	07/13/2019 11:07	WG1310080
Endosulfan sulfate	ND		0.0500	1	07/13/2019 11:07	WG1310080
Endrin	ND		0.0500	1	07/13/2019 11:07	WG1310080
Endrin aldehyde	ND		0.0500	1	07/13/2019 11:07	WG1310080
Endrin ketone	ND		0.0500	1	07/13/2019 11:07	WG1310080
Heptachlor	ND		0.0500	1	07/13/2019 11:07	WG1310080



Collected date/time: 07/09/19 16:18

L1117439

Pesticides (GC) by Method 8081B

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	ug/l		ug/l		date / time	
Heptachlor epoxide	ND		0.0500	1	07/13/2019 11:07	<a href="#">WG1310080</a>
Hexachlorobenzene	ND		0.0500	1	07/13/2019 11:07	<a href="#">WG1310080</a>
Methoxychlor	ND		0.0500	1	07/13/2019 11:07	<a href="#">WG1310080</a>
Toxaphene	ND		0.500	1	07/13/2019 11:07	<a href="#">WG1310080</a>
(S) Decachlorobiphenyl	90.8		10.0-128		07/13/2019 11:07	<a href="#">WG1310080</a>
(S) Tetrachloro-m-xylene	73.0		10.0-127		07/13/2019 11:07	<a href="#">WG1310080</a>

- 1 Cp
- 2 Tc
- 3 Ss
- 4 Cn
- 5 Sr
- 6 Qc
- 7 Gl
- 8 Al
- 9 Sc

Polychlorinated Biphenyls (GC) by Method 8082 A

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	ug/l		ug/l		date / time	
PCB 1016	ND		0.500	1	07/13/2019 20:46	<a href="#">WG1310080</a>
PCB 1221	ND		0.500	1	07/13/2019 20:46	<a href="#">WG1310080</a>
PCB 1232	ND		0.500	1	07/13/2019 20:46	<a href="#">WG1310080</a>
PCB 1242	ND		0.500	1	07/13/2019 20:46	<a href="#">WG1310080</a>
PCB 1248	ND		0.500	1	07/13/2019 20:46	<a href="#">WG1310080</a>
PCB 1254	ND		0.500	1	07/13/2019 20:46	<a href="#">WG1310080</a>
PCB 1260	ND		0.500	1	07/13/2019 20:46	<a href="#">WG1310080</a>
(S) Decachlorobiphenyl	121		10.0-128		07/13/2019 20:46	<a href="#">WG1310080</a>
(S) Tetrachloro-m-xylene	78.0		10.0-127		07/13/2019 20:46	<a href="#">WG1310080</a>

Semi Volatile Organic Compounds (GC/MS) by Method 8270D

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	ug/l		ug/l		date / time	
Acenaphthene	ND	J4	1.00	1	07/17/2019 00:16	<a href="#">WG1311218</a>
Acenaphthylene	ND	J4	1.00	1	07/17/2019 00:16	<a href="#">WG1311218</a>
Acetophenone	ND	J4	10.0	1	07/17/2019 00:16	<a href="#">WG1311218</a>
Anthracene	ND	J4	1.00	1	07/17/2019 00:16	<a href="#">WG1311218</a>
Atrazine	ND		10.0	1	07/17/2019 00:16	<a href="#">WG1311218</a>
Benzaldehyde	ND	J4	10.0	1	07/17/2019 00:16	<a href="#">WG1311218</a>
Benzo(a)anthracene	ND	J4	1.00	1	07/17/2019 00:16	<a href="#">WG1311218</a>
Benzo(b)fluoranthene	ND		1.00	1	07/17/2019 00:16	<a href="#">WG1311218</a>
Benzo(k)fluoranthene	ND		1.00	1	07/17/2019 00:16	<a href="#">WG1311218</a>
Benzo(g,h,i)perylene	ND		1.00	1	07/17/2019 00:16	<a href="#">WG1311218</a>
Benzo(a)pyrene	ND	J4	1.00	1	07/17/2019 00:16	<a href="#">WG1311218</a>
Biphenyl	ND	J4	10.0	1	07/17/2019 00:16	<a href="#">WG1311218</a>
Bis(2-chloroethoxy)methane	ND	J4	10.0	1	07/17/2019 00:16	<a href="#">WG1311218</a>
Bis(2-chloroethyl)ether	ND	J4	10.0	1	07/17/2019 00:16	<a href="#">WG1311218</a>
Bis(2-chloroisopropyl)ether	ND	J4	10.0	1	07/17/2019 00:16	<a href="#">WG1311218</a>
4-Bromophenyl-phenylether	ND		10.0	1	07/17/2019 00:16	<a href="#">WG1311218</a>
Caprolactam	ND	J4	10.0	1	07/17/2019 00:16	<a href="#">WG1311218</a>
Carbazole	ND	J4	10.0	1	07/17/2019 00:16	<a href="#">WG1311218</a>
4-Chloroaniline	ND	JO J4	50.0	1	07/17/2019 00:16	<a href="#">WG1311218</a>
2-Chloronaphthalene	ND	J4	1.00	1	07/17/2019 00:16	<a href="#">WG1311218</a>
4-Chlorophenyl-phenylether	ND	J4	10.0	1	07/17/2019 00:16	<a href="#">WG1311218</a>
Chrysene	ND	J4	1.00	1	07/17/2019 00:16	<a href="#">WG1311218</a>
Dibenz(a,h)anthracene	ND		1.00	1	07/17/2019 00:16	<a href="#">WG1311218</a>
Dibenzofuran	ND	J4	10.0	1	07/17/2019 00:16	<a href="#">WG1311218</a>
3,3-Dichlorobenzidine	ND	J4	10.0	1	07/17/2019 00:16	<a href="#">WG1311218</a>
2,4-Dinitrotoluene	ND		10.0	1	07/17/2019 00:16	<a href="#">WG1311218</a>
2,6-Dinitrotoluene	ND		10.0	1	07/17/2019 00:16	<a href="#">WG1311218</a>
Fluoranthene	ND	J4	1.00	1	07/17/2019 00:16	<a href="#">WG1311218</a>
Fluorene	ND	J4	1.00	1	07/17/2019 00:16	<a href="#">WG1311218</a>
Hexachlorobenzene	ND		1.00	1	07/17/2019 00:16	<a href="#">WG1311218</a>
Hexachloro-1,3-butadiene	ND	J4	10.0	1	07/17/2019 00:16	<a href="#">WG1311218</a>
Hexachlorocyclopentadiene	ND	J4	10.0	1	07/17/2019 00:16	<a href="#">WG1311218</a>





Collected date/time: 07/09/19 16:18

L1117439

Semi Volatile Organic Compounds (GC/MS) by Method 8270D

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	ug/l		ug/l		date / time	
Hexachloroethane	ND	J4	10.0	1	07/17/2019 00:16	WG1311218
Indeno(1,2,3-cd)pyrene	ND		1.00	1	07/17/2019 00:16	WG1311218
Isophorone	ND	J4	10.0	1	07/17/2019 00:16	WG1311218
2-Methylnaphthalene	ND	J4	1.00	1	07/17/2019 00:16	WG1311218
Naphthalene	ND	J4	1.00	1	07/17/2019 00:16	WG1311218
2-Nitroaniline	ND	J4	10.0	1	07/17/2019 00:16	WG1311218
3-Nitroaniline	ND	J4	10.0	1	07/17/2019 00:16	WG1311218
4-Nitroaniline	ND	J4	10.0	1	07/17/2019 00:16	WG1311218
Nitrobenzene	ND	J4	10.0	1	07/17/2019 00:16	WG1311218
n-Nitrosodiphenylamine	ND	J4	10.0	1	07/17/2019 00:16	WG1311218
n-Nitrosodi-n-propylamine	ND	J4	10.0	1	07/17/2019 00:16	WG1311218
Phenanthrene	ND	J4	1.00	1	07/17/2019 00:16	WG1311218
Benzylbutyl phthalate	ND		3.00	1	07/17/2019 00:16	WG1311218
Bis(2-ethylhexyl)phthalate	ND		3.00	1	07/17/2019 00:16	WG1311218
Di-n-butyl phthalate	ND		3.00	1	07/17/2019 00:16	WG1311218
Diethyl phthalate	ND		3.00	1	07/17/2019 00:16	WG1311218
Dimethyl phthalate	ND		3.00	1	07/17/2019 00:16	WG1311218
Di-n-octyl phthalate	ND		3.00	1	07/17/2019 00:16	WG1311218
Pyrene	ND	J4	1.00	1	07/17/2019 00:16	WG1311218
1,2,4,5-Tetrachlorobenzene	ND	J4	10.0	1	07/17/2019 00:16	WG1311218
4-Chloro-3-methylphenol	ND	J4	10.0	1	07/17/2019 00:16	WG1311218
2-Chlorophenol	ND	J4	10.0	1	07/17/2019 00:16	WG1311218
2-Methylphenol	ND	J4	10.0	1	07/17/2019 00:16	WG1311218
3&4-Methyl Phenol	ND	J4	10.0	1	07/17/2019 00:16	WG1311218
2,4-Dichlorophenol	ND	J4	10.0	1	07/17/2019 00:16	WG1311218
2,4-Dimethylphenol	ND	J4	10.0	1	07/17/2019 00:16	WG1311218
4,6-Dinitro-2-methylphenol	ND	J4	10.0	1	07/17/2019 00:16	WG1311218
2,4-Dinitrophenol	ND	J4	10.0	1	07/17/2019 00:16	WG1311218
2-Nitrophenol	ND	J4	10.0	1	07/17/2019 00:16	WG1311218
4-Nitrophenol	ND	J4	10.0	1	07/17/2019 00:16	WG1311218
Pentachlorophenol	ND	J4	10.0	1	07/17/2019 00:16	WG1311218
Phenol	ND	J4	10.0	1	07/17/2019 00:16	WG1311218
2,4,5-Trichlorophenol	ND	J4	10.0	1	07/17/2019 00:16	WG1311218
2,4,6-Trichlorophenol	ND		10.0	1	07/17/2019 00:16	WG1311218
(S) Nitrobenzene-d5	34.5		10.0-127		07/17/2019 00:16	WG1311218
(S) 2-Fluorobiphenyl	27.2		10.0-130		07/17/2019 00:16	WG1311218
(S) p-Terphenyl-d14	55.1		10.0-128		07/17/2019 00:16	WG1311218
(S) Phenol-d5	14.7		10.0-120		07/17/2019 00:16	WG1311218
(S) 2-Fluorophenol	24.8		10.0-120		07/17/2019 00:16	WG1311218
(S) 2,4,6-Tribromophenol	44.5		10.0-155		07/17/2019 00:16	WG1311218

- 1 Cp
- 2 Tc
- 3 Ss
- 4 Cn
- 5 Sr
- 6 Qc
- 7 Gl
- 8 Al
- 9 Sc

Semi Volatile Organic Compounds (GC/MS) by Method 8270E-SIM

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	ug/l		ug/l		date / time	
Anthracene	ND		0.0500	1	07/16/2019 01:34	WG1311224
Acenaphthene	ND	J4	0.0500	1	07/16/2019 01:34	WG1311224
Acenaphthylene	ND	J4	0.0500	1	07/16/2019 01:34	WG1311224
Benzo(a)anthracene	ND		0.0500	1	07/16/2019 01:34	WG1311224
Benzo(a)pyrene	ND		0.0500	1	07/16/2019 01:34	WG1311224
Benzo(b)fluoranthene	ND		0.0500	1	07/16/2019 01:34	WG1311224
Benzo(g,h,i)perylene	ND		0.0500	1	07/16/2019 01:34	WG1311224
Benzo(k)fluoranthene	ND		0.0500	1	07/16/2019 01:34	WG1311224
Chrysene	ND		0.0500	1	07/16/2019 01:34	WG1311224
Dibenz(a,h)anthracene	ND		0.0500	1	07/16/2019 01:34	WG1311224
Fluoranthene	ND		0.0500	1	07/16/2019 01:34	WG1311224
Fluorene	ND	J4	0.0500	1	07/16/2019 01:34	WG1311224



Collected date/time: 07/09/19 16:18

L1117439

Semi Volatile Organic Compounds (GC/MS) by Method 8270E-SIM

Analyte	Result ug/l	Qualifier	RDL ug/l	Dilution	Analysis date / time	Batch
Indeno(1,2,3-cd)pyrene	ND		0.0500	1	07/16/2019 01:34	<a href="#">WG1311224</a>
Naphthalene	ND	J4	0.250	1	07/16/2019 01:34	<a href="#">WG1311224</a>
Phenanthrene	ND	J4	0.0500	1	07/16/2019 01:34	<a href="#">WG1311224</a>
Pyrene	ND		0.0500	1	07/16/2019 01:34	<a href="#">WG1311224</a>
(S) Nitrobenzene-d5	83.2		11.0-135		07/16/2019 01:34	<a href="#">WG1311224</a>
(S) 2-Fluorobiphenyl	40.5		32.0-120		07/16/2019 01:34	<a href="#">WG1311224</a>
(S) p-Terphenyl-d14	69.5		23.0-122		07/16/2019 01:34	<a href="#">WG1311224</a>

- 1 Cp
- 2 Tc
- 3 Ss
- 4 Cn
- 5 Sr
- 6 Qc
- 7 Gl
- 8 Al
- 9 Sc



Wet Chemistry by Method 4500CN E-2011

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	ug/l		ug/l		date / time	
Cyanide	ND		5.00	1	07/18/2019 20:12	<a href="#">WG1313327</a>

1 Cp

2 Tc

Mercury by Method 7470A

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	ug/l		ug/l		date / time	
Mercury	ND		0.200	1	07/12/2019 10:09	<a href="#">WG1309989</a>

3 Ss

4 Cn

Metals (ICP) by Method 6010D

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	ug/l		ug/l		date / time	
Aluminum	237		200	1	07/16/2019 12:23	<a href="#">WG1310249</a>
Antimony	ND		10.0	1	07/16/2019 12:23	<a href="#">WG1310249</a>
Arsenic	ND		10.0	1	07/16/2019 12:23	<a href="#">WG1310249</a>
Barium	71.7		5.00	1	07/16/2019 12:23	<a href="#">WG1310249</a>
Beryllium	ND		2.00	1	07/16/2019 12:23	<a href="#">WG1310249</a>
Cadmium	ND		2.00	1	07/16/2019 12:23	<a href="#">WG1310249</a>
Calcium	13600		1000	1	07/16/2019 12:23	<a href="#">WG1310249</a>
Chromium	ND		10.0	1	07/16/2019 12:23	<a href="#">WG1310249</a>
Cobalt	ND		10.0	1	07/16/2019 12:23	<a href="#">WG1310249</a>
Copper	ND		10.0	1	07/16/2019 12:23	<a href="#">WG1310249</a>
Iron	345		100	1	07/16/2019 12:23	<a href="#">WG1310249</a>
Lead	ND		5.00	1	07/16/2019 12:23	<a href="#">WG1310249</a>
Magnesium	7590		1000	1	07/16/2019 12:23	<a href="#">WG1310249</a>
Manganese	138		10.0	1	07/16/2019 12:23	<a href="#">WG1310249</a>
Nickel	ND		10.0	1	07/16/2019 12:23	<a href="#">WG1310249</a>
Potassium	1000	B	1000	1	07/16/2019 12:23	<a href="#">WG1310249</a>
Selenium	ND		10.0	1	07/16/2019 12:23	<a href="#">WG1310249</a>
Silver	ND		5.00	1	07/16/2019 12:23	<a href="#">WG1310249</a>
Sodium	15300		1000	1	07/16/2019 12:23	<a href="#">WG1310249</a>
Thallium	ND		10.0	1	07/16/2019 12:23	<a href="#">WG1310249</a>
Vanadium	ND		20.0	1	07/16/2019 12:23	<a href="#">WG1310249</a>
Zinc	ND		50.0	1	07/16/2019 12:23	<a href="#">WG1310249</a>

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	ug/l		ug/l		date / time	
Acetone	ND	J4	50.0	1	07/12/2019 06:16	<a href="#">WG1310149</a>
Benzene	ND		1.00	1	07/12/2019 06:16	<a href="#">WG1310149</a>
Bromochloromethane	ND		1.00	1	07/12/2019 06:16	<a href="#">WG1310149</a>
Bromodichloromethane	ND		1.00	1	07/12/2019 06:16	<a href="#">WG1310149</a>
Bromoform	ND		1.00	1	07/12/2019 06:16	<a href="#">WG1310149</a>
Bromomethane	ND		5.00	1	07/12/2019 06:16	<a href="#">WG1310149</a>
Carbon disulfide	ND		1.00	1	07/12/2019 06:16	<a href="#">WG1310149</a>
Carbon tetrachloride	ND		1.00	1	07/12/2019 06:16	<a href="#">WG1310149</a>
Chlorobenzene	ND		1.00	1	07/12/2019 06:16	<a href="#">WG1310149</a>
Chlorodibromomethane	ND		1.00	1	07/12/2019 06:16	<a href="#">WG1310149</a>
Chloroethane	ND		5.00	1	07/12/2019 06:16	<a href="#">WG1310149</a>
Chloroform	ND		5.00	1	07/12/2019 06:16	<a href="#">WG1310149</a>
Chloromethane	ND		2.50	1	07/12/2019 06:16	<a href="#">WG1310149</a>
Cyclohexane	ND		1.00	1	07/12/2019 06:16	<a href="#">WG1310149</a>
1,2-Dibromo-3-Chloropropane	ND		5.00	1	07/12/2019 06:16	<a href="#">WG1310149</a>
1,2-Dibromoethane	ND		1.00	1	07/12/2019 06:16	<a href="#">WG1310149</a>
1,2-Dichlorobenzene	ND		1.00	1	07/12/2019 06:16	<a href="#">WG1310149</a>
1,3-Dichlorobenzene	ND		1.00	1	07/12/2019 06:16	<a href="#">WG1310149</a>



Collected date/time: 07/09/19 16:50

L1117439

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result ug/l	Qualifier	RDL ug/l	Dilution	Analysis date / time	Batch
1,4-Dichlorobenzene	ND		1.00	1	07/12/2019 06:16	WG1310149
Dichlorodifluoromethane	ND		5.00	1	07/12/2019 06:16	WG1310149
1,1-Dichloroethane	ND		1.00	1	07/12/2019 06:16	WG1310149
1,2-Dichloroethane	ND		1.00	1	07/12/2019 06:16	WG1310149
1,1-Dichloroethene	ND		1.00	1	07/12/2019 06:16	WG1310149
cis-1,2-Dichloroethene	ND		1.00	1	07/12/2019 06:16	WG1310149
trans-1,2-Dichloroethene	ND		1.00	1	07/12/2019 06:16	WG1310149
1,2-Dichloropropane	ND		1.00	1	07/12/2019 06:16	WG1310149
cis-1,3-Dichloropropene	ND		1.00	1	07/12/2019 06:16	WG1310149
trans-1,3-Dichloropropene	ND		1.00	1	07/12/2019 06:16	WG1310149
Ethylbenzene	ND		1.00	1	07/12/2019 06:16	WG1310149
2-Hexanone	ND		10.0	1	07/12/2019 06:16	WG1310149
Isopropylbenzene	ND		1.00	1	07/12/2019 06:16	WG1310149
2-Butanone (MEK)	ND	J4	10.0	1	07/12/2019 06:16	WG1310149
Methyl Acetate	ND		20.0	1	07/12/2019 06:16	WG1310149
Methyl Cyclohexane	ND		1.00	1	07/12/2019 06:16	WG1310149
Methylene Chloride	ND		5.00	1	07/12/2019 06:16	WG1310149
4-Methyl-2-pentanone (MIBK)	ND		10.0	1	07/12/2019 06:16	WG1310149
Methyl tert-butyl ether	ND		1.00	1	07/12/2019 06:16	WG1310149
Styrene	ND		1.00	1	07/12/2019 06:16	WG1310149
1,1,2,2-Tetrachloroethane	ND		1.00	1	07/12/2019 06:16	WG1310149
Tetrachloroethene	ND		1.00	1	07/12/2019 06:16	WG1310149
Toluene	ND		1.00	1	07/12/2019 06:16	WG1310149
1,2,3-Trichlorobenzene	ND		1.00	1	07/12/2019 06:16	WG1310149
1,2,4-Trichlorobenzene	ND		1.00	1	07/12/2019 06:16	WG1310149
1,1,1-Trichloroethane	ND		1.00	1	07/12/2019 06:16	WG1310149
1,1,2-Trichloroethane	ND		1.00	1	07/12/2019 06:16	WG1310149
Trichloroethene	ND		1.00	1	07/12/2019 06:16	WG1310149
Trichlorofluoromethane	ND		5.00	1	07/12/2019 06:16	WG1310149
1,1,2-Trichlorotrifluoroethane	ND		1.00	1	07/12/2019 06:16	WG1310149
Vinyl chloride	ND		1.00	1	07/12/2019 06:16	WG1310149
Xylenes, Total	ND		3.00	1	07/12/2019 06:16	WG1310149
(S) Toluene-d8	115		80.0-120		07/12/2019 06:16	WG1310149
(S) 4-Bromofluorobenzene	103		77.0-126		07/12/2019 06:16	WG1310149
(S) 1,2-Dichloroethane-d4	105		70.0-130		07/12/2019 06:16	WG1310149

- 1 Cp
- 2 Tc
- 3 Ss
- 4 Cn
- 5 Sr
- 6 Qc
- 7 Gl
- 8 Al
- 9 Sc

Pesticides (GC) by Method 8081B

Analyte	Result ug/l	Qualifier	RDL ug/l	Dilution	Analysis date / time	Batch
Aldrin	ND		0.0500	1	07/13/2019 11:20	WG1310080
Alpha BHC	ND		0.0500	1	07/13/2019 11:20	WG1310080
Beta BHC	ND		0.0500	1	07/13/2019 11:20	WG1310080
Delta BHC	ND		0.0500	1	07/13/2019 11:20	WG1310080
Gamma BHC	ND		0.0500	1	07/13/2019 11:20	WG1310080
Chlordane	ND		5.00	1	07/13/2019 11:20	WG1310080
4,4-DDD	ND		0.0500	1	07/13/2019 11:20	WG1310080
4,4-DDE	ND		0.0500	1	07/13/2019 11:20	WG1310080
4,4-DDT	ND		0.0500	1	07/13/2019 11:20	WG1310080
Dieldrin	ND		0.0500	1	07/13/2019 11:20	WG1310080
Endosulfan I	ND		0.0500	1	07/13/2019 11:20	WG1310080
Endosulfan II	ND		0.0500	1	07/13/2019 11:20	WG1310080
Endosulfan sulfate	ND		0.0500	1	07/13/2019 11:20	WG1310080
Endrin	ND		0.0500	1	07/13/2019 11:20	WG1310080
Endrin aldehyde	ND		0.0500	1	07/13/2019 11:20	WG1310080
Endrin ketone	ND		0.0500	1	07/13/2019 11:20	WG1310080
Heptachlor	ND		0.0500	1	07/13/2019 11:20	WG1310080



Collected date/time: 07/09/19 16:50

L1117439

Pesticides (GC) by Method 8081B

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	ug/l		ug/l		date / time	
Heptachlor epoxide	ND		0.0500	1	07/13/2019 11:20	<a href="#">WG1310080</a>
Hexachlorobenzene	ND		0.0500	1	07/13/2019 11:20	<a href="#">WG1310080</a>
Methoxychlor	ND		0.0500	1	07/13/2019 11:20	<a href="#">WG1310080</a>
Toxaphene	ND		0.500	1	07/13/2019 11:20	<a href="#">WG1310080</a>
(S) Decachlorobiphenyl	79.5		10.0-128		07/13/2019 11:20	<a href="#">WG1310080</a>
(S) Tetrachloro-m-xylene	72.9		10.0-127		07/13/2019 11:20	<a href="#">WG1310080</a>

- 1 Cp
- 2 Tc
- 3 Ss
- 4 Cn
- 5 Sr
- 6 Qc
- 7 Gl
- 8 Al
- 9 Sc

Polychlorinated Biphenyls (GC) by Method 8082 A

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	ug/l		ug/l		date / time	
PCB 1016	ND		0.500	1	07/13/2019 20:59	<a href="#">WG1310080</a>
PCB 1221	ND		0.500	1	07/13/2019 20:59	<a href="#">WG1310080</a>
PCB 1232	ND		0.500	1	07/13/2019 20:59	<a href="#">WG1310080</a>
PCB 1242	ND		0.500	1	07/13/2019 20:59	<a href="#">WG1310080</a>
PCB 1248	ND		0.500	1	07/13/2019 20:59	<a href="#">WG1310080</a>
PCB 1254	ND		0.500	1	07/13/2019 20:59	<a href="#">WG1310080</a>
PCB 1260	ND		0.500	1	07/13/2019 20:59	<a href="#">WG1310080</a>
(S) Decachlorobiphenyl	111		10.0-128		07/13/2019 20:59	<a href="#">WG1310080</a>
(S) Tetrachloro-m-xylene	72.7		10.0-127		07/13/2019 20:59	<a href="#">WG1310080</a>

Semi Volatile Organic Compounds (GC/MS) by Method 8270D

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	ug/l		ug/l		date / time	
Acenaphthene	ND	J4	1.00	1	07/17/2019 00:36	<a href="#">WG1311218</a>
Acenaphthylene	ND	J4	1.00	1	07/17/2019 00:36	<a href="#">WG1311218</a>
Acetophenone	ND	J4	10.0	1	07/17/2019 00:36	<a href="#">WG1311218</a>
Anthracene	ND	J4	1.00	1	07/17/2019 00:36	<a href="#">WG1311218</a>
Atrazine	ND		10.0	1	07/17/2019 00:36	<a href="#">WG1311218</a>
Benzaldehyde	ND	J4	10.0	1	07/17/2019 00:36	<a href="#">WG1311218</a>
Benzo(a)anthracene	ND	J4	1.00	1	07/17/2019 00:36	<a href="#">WG1311218</a>
Benzo(b)fluoranthene	ND		1.00	1	07/17/2019 00:36	<a href="#">WG1311218</a>
Benzo(k)fluoranthene	ND		1.00	1	07/17/2019 00:36	<a href="#">WG1311218</a>
Benzo(g,h,i)perylene	ND		1.00	1	07/17/2019 00:36	<a href="#">WG1311218</a>
Benzo(a)pyrene	ND	J4	1.00	1	07/17/2019 00:36	<a href="#">WG1311218</a>
Biphenyl	ND	J4	10.0	1	07/17/2019 00:36	<a href="#">WG1311218</a>
Bis(2-chloroethoxy)methane	ND	J4	10.0	1	07/17/2019 00:36	<a href="#">WG1311218</a>
Bis(2-chloroethyl)ether	ND	J4	10.0	1	07/17/2019 00:36	<a href="#">WG1311218</a>
Bis(2-chloroisopropyl)ether	ND	J4	10.0	1	07/17/2019 00:36	<a href="#">WG1311218</a>
4-Bromophenyl-phenylether	ND		10.0	1	07/17/2019 00:36	<a href="#">WG1311218</a>
Caprolactam	ND	J4	10.0	1	07/17/2019 00:36	<a href="#">WG1311218</a>
Carbazole	ND	J4	10.0	1	07/17/2019 00:36	<a href="#">WG1311218</a>
4-Chloroaniline	ND	JO J4	50.0	1	07/17/2019 00:36	<a href="#">WG1311218</a>
2-Chloronaphthalene	ND	J4	1.00	1	07/17/2019 00:36	<a href="#">WG1311218</a>
4-Chlorophenyl-phenylether	ND	J4	10.0	1	07/17/2019 00:36	<a href="#">WG1311218</a>
Chrysene	ND	J4	1.00	1	07/17/2019 00:36	<a href="#">WG1311218</a>
Dibenz(a,h)anthracene	ND		1.00	1	07/17/2019 00:36	<a href="#">WG1311218</a>
Dibenzofuran	ND	J4	10.0	1	07/17/2019 00:36	<a href="#">WG1311218</a>
3,3-Dichlorobenzidine	ND	J4	10.0	1	07/17/2019 00:36	<a href="#">WG1311218</a>
2,4-Dinitrotoluene	ND		10.0	1	07/17/2019 00:36	<a href="#">WG1311218</a>
2,6-Dinitrotoluene	ND		10.0	1	07/17/2019 00:36	<a href="#">WG1311218</a>
Fluoranthene	ND	J4	1.00	1	07/17/2019 00:36	<a href="#">WG1311218</a>
Fluorene	ND	J4	1.00	1	07/17/2019 00:36	<a href="#">WG1311218</a>
Hexachlorobenzene	ND		1.00	1	07/17/2019 00:36	<a href="#">WG1311218</a>
Hexachloro-1,3-butadiene	ND	J4	10.0	1	07/17/2019 00:36	<a href="#">WG1311218</a>
Hexachlorocyclopentadiene	ND	J4	10.0	1	07/17/2019 00:36	<a href="#">WG1311218</a>



Collected date/time: 07/09/19 16:50

L1117439

Semi Volatile Organic Compounds (GC/MS) by Method 8270D

Analyte	Result ug/l	Qualifier	RDL ug/l	Dilution	Analysis date / time	Batch
Hexachloroethane	ND	J4	10.0	1	07/17/2019 00:36	WG1311218
Indeno(1,2,3-cd)pyrene	ND		1.00	1	07/17/2019 00:36	WG1311218
Isophorone	ND	J4	10.0	1	07/17/2019 00:36	WG1311218
2-Methylnaphthalene	ND	J4	1.00	1	07/17/2019 00:36	WG1311218
Naphthalene	ND	J4	1.00	1	07/17/2019 00:36	WG1311218
2-Nitroaniline	ND	J4	10.0	1	07/17/2019 00:36	WG1311218
3-Nitroaniline	ND	J4	10.0	1	07/17/2019 00:36	WG1311218
4-Nitroaniline	ND	J4	10.0	1	07/17/2019 00:36	WG1311218
Nitrobenzene	ND	J4	10.0	1	07/17/2019 00:36	WG1311218
n-Nitrosodiphenylamine	ND	J4	10.0	1	07/17/2019 00:36	WG1311218
n-Nitrosodi-n-propylamine	ND	J4	10.0	1	07/17/2019 00:36	WG1311218
Phenanthrene	ND	J4	1.00	1	07/17/2019 00:36	WG1311218
Benzylbutyl phthalate	ND		3.00	1	07/17/2019 00:36	WG1311218
Bis(2-ethylhexyl)phthalate	ND		3.00	1	07/17/2019 00:36	WG1311218
Di-n-butyl phthalate	ND		3.00	1	07/17/2019 00:36	WG1311218
Diethyl phthalate	ND		3.00	1	07/17/2019 00:36	WG1311218
Dimethyl phthalate	ND		3.00	1	07/17/2019 00:36	WG1311218
Di-n-octyl phthalate	ND		3.00	1	07/17/2019 00:36	WG1311218
Pyrene	ND	J4	1.00	1	07/17/2019 00:36	WG1311218
1,2,4,5-Tetrachlorobenzene	ND	J4	10.0	1	07/17/2019 00:36	WG1311218
4-Chloro-3-methylphenol	ND	J4	10.0	1	07/17/2019 00:36	WG1311218
2-Chlorophenol	ND	J4	10.0	1	07/17/2019 00:36	WG1311218
2-Methylphenol	ND	J4	10.0	1	07/17/2019 00:36	WG1311218
3&4-Methyl Phenol	ND	J4	10.0	1	07/17/2019 00:36	WG1311218
2,4-Dichlorophenol	ND	J4	10.0	1	07/17/2019 00:36	WG1311218
2,4-Dimethylphenol	ND	J4	10.0	1	07/17/2019 00:36	WG1311218
4,6-Dinitro-2-methylphenol	ND	J4	10.0	1	07/17/2019 00:36	WG1311218
2,4-Dinitrophenol	ND	J4	10.0	1	07/17/2019 00:36	WG1311218
2-Nitrophenol	ND	J4	10.0	1	07/17/2019 00:36	WG1311218
4-Nitrophenol	ND	J4	10.0	1	07/17/2019 00:36	WG1311218
Pentachlorophenol	ND	J4	10.0	1	07/17/2019 00:36	WG1311218
Phenol	ND	J4	10.0	1	07/17/2019 00:36	WG1311218
2,4,5-Trichlorophenol	ND	J4	10.0	1	07/17/2019 00:36	WG1311218
2,4,6-Trichlorophenol	ND		10.0	1	07/17/2019 00:36	WG1311218
(S) Nitrobenzene-d5	38.7		10.0-127		07/17/2019 00:36	WG1311218
(S) 2-Fluorobiphenyl	34.6		10.0-130		07/17/2019 00:36	WG1311218
(S) p-Terphenyl-d14	65.1		10.0-128		07/17/2019 00:36	WG1311218
(S) Phenol-d5	14.3		10.0-120		07/17/2019 00:36	WG1311218
(S) 2-Fluorophenol	24.6		10.0-120		07/17/2019 00:36	WG1311218
(S) 2,4,6-Tribromophenol	50.0		10.0-155		07/17/2019 00:36	WG1311218

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

Semi Volatile Organic Compounds (GC/MS) by Method 8270E-SIM

Analyte	Result ug/l	Qualifier	RDL ug/l	Dilution	Analysis date / time	Batch
Anthracene	ND		0.0500	1	07/16/2019 01:56	WG1311224
Acenaphthene	ND	J4	0.0500	1	07/16/2019 01:56	WG1311224
Acenaphthylene	ND	J4	0.0500	1	07/16/2019 01:56	WG1311224
Benzo(a)anthracene	ND		0.0500	1	07/16/2019 01:56	WG1311224
Benzo(a)pyrene	ND		0.0500	1	07/16/2019 01:56	WG1311224
Benzo(b)fluoranthene	ND		0.0500	1	07/16/2019 01:56	WG1311224
Benzo(g,h,i)perylene	ND		0.0500	1	07/16/2019 01:56	WG1311224
Benzo(k)fluoranthene	ND		0.0500	1	07/16/2019 01:56	WG1311224
Chrysene	ND		0.0500	1	07/16/2019 01:56	WG1311224
Dibenz(a,h)anthracene	ND		0.0500	1	07/16/2019 01:56	WG1311224
Fluoranthene	ND		0.0500	1	07/16/2019 01:56	WG1311224
Fluorene	ND	J4	0.0500	1	07/16/2019 01:56	WG1311224



Collected date/time: 07/09/19 16:50

L1117439

Semi Volatile Organic Compounds (GC/MS) by Method 8270E-SIM

Analyte	Result ug/l	Qualifier	RDL ug/l	Dilution	Analysis date / time	Batch
Indeno(1,2,3-cd)pyrene	ND		0.0500	1	07/16/2019 01:56	<a href="#">WG1311224</a>
Naphthalene	ND	J4	0.250	1	07/16/2019 01:56	<a href="#">WG1311224</a>
Phenanthrene	ND	J4	0.0500	1	07/16/2019 01:56	<a href="#">WG1311224</a>
Pyrene	ND		0.0500	1	07/16/2019 01:56	<a href="#">WG1311224</a>
(S) Nitrobenzene-d5	110		11.0-135		07/16/2019 01:56	<a href="#">WG1311224</a>
(S) 2-Fluorobiphenyl	52.9		32.0-120		07/16/2019 01:56	<a href="#">WG1311224</a>
(S) p-Terphenyl-d14	79.5		23.0-122		07/16/2019 01:56	<a href="#">WG1311224</a>

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc



## Wet Chemistry by Method 4500CN E-2011

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	ug/l		ug/l		date / time	
Cyanide	ND		5.00	1	07/18/2019 20:13	<a href="#">WG1313327</a>

## Mercury by Method 7470A

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	ug/l		ug/l		date / time	
Mercury	ND		0.200	1	07/12/2019 10:11	<a href="#">WG1309989</a>

## Metals (ICP) by Method 6010D

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	ug/l		ug/l		date / time	
Aluminum	ND		200	1	07/16/2019 12:26	<a href="#">WG1310249</a>
Antimony	ND		10.0	1	07/16/2019 12:26	<a href="#">WG1310249</a>
Arsenic	ND		10.0	1	07/16/2019 12:26	<a href="#">WG1310249</a>
Barium	258		5.00	1	07/16/2019 12:26	<a href="#">WG1310249</a>
Beryllium	ND		2.00	1	07/16/2019 12:26	<a href="#">WG1310249</a>
Cadmium	ND		2.00	1	07/16/2019 12:26	<a href="#">WG1310249</a>
Calcium	115000		1000	1	07/16/2019 12:26	<a href="#">WG1310249</a>
Chromium	ND		10.0	1	07/16/2019 12:26	<a href="#">WG1310249</a>
Cobalt	ND		10.0	1	07/16/2019 12:26	<a href="#">WG1310249</a>
Copper	ND		10.0	1	07/16/2019 12:26	<a href="#">WG1310249</a>
Iron	3120		100	1	07/16/2019 12:26	<a href="#">WG1310249</a>
Lead	ND		5.00	1	07/16/2019 12:26	<a href="#">WG1310249</a>
Magnesium	39700		1000	1	07/16/2019 12:26	<a href="#">WG1310249</a>
Manganese	4580		10.0	1	07/16/2019 12:26	<a href="#">WG1310249</a>
Nickel	ND		10.0	1	07/16/2019 12:26	<a href="#">WG1310249</a>
Potassium	5580		1000	1	07/16/2019 12:26	<a href="#">WG1310249</a>
Selenium	ND		10.0	1	07/16/2019 12:26	<a href="#">WG1310249</a>
Silver	ND		5.00	1	07/16/2019 12:26	<a href="#">WG1310249</a>
Sodium	89100		1000	1	07/16/2019 12:26	<a href="#">WG1310249</a>
Thallium	ND		10.0	1	07/16/2019 12:26	<a href="#">WG1310249</a>
Vanadium	ND		20.0	1	07/16/2019 12:26	<a href="#">WG1310249</a>
Zinc	ND		50.0	1	07/16/2019 12:26	<a href="#">WG1310249</a>

## Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	ug/l		ug/l		date / time	
Acetone	ND	<u>J4</u>	50.0	1	07/12/2019 06:35	<a href="#">WG1310149</a>
Benzene	ND		1.00	1	07/12/2019 06:35	<a href="#">WG1310149</a>
Bromochloromethane	ND		1.00	1	07/12/2019 06:35	<a href="#">WG1310149</a>
Bromodichloromethane	ND		1.00	1	07/12/2019 06:35	<a href="#">WG1310149</a>
Bromoform	ND		1.00	1	07/12/2019 06:35	<a href="#">WG1310149</a>
Bromomethane	ND		5.00	1	07/12/2019 06:35	<a href="#">WG1310149</a>
Carbon disulfide	ND		1.00	1	07/12/2019 06:35	<a href="#">WG1310149</a>
Carbon tetrachloride	ND		1.00	1	07/12/2019 06:35	<a href="#">WG1310149</a>
Chlorobenzene	ND		1.00	1	07/12/2019 06:35	<a href="#">WG1310149</a>
Chlorodibromomethane	ND		1.00	1	07/12/2019 06:35	<a href="#">WG1310149</a>
Chloroethane	ND		5.00	1	07/12/2019 06:35	<a href="#">WG1310149</a>
Chloroform	ND		5.00	1	07/12/2019 06:35	<a href="#">WG1310149</a>
Chloromethane	ND		2.50	1	07/12/2019 06:35	<a href="#">WG1310149</a>
Cyclohexane	ND		1.00	1	07/12/2019 06:35	<a href="#">WG1310149</a>
1,2-Dibromo-3-Chloropropane	ND		5.00	1	07/12/2019 06:35	<a href="#">WG1310149</a>
1,2-Dibromoethane	ND		1.00	1	07/12/2019 06:35	<a href="#">WG1310149</a>
1,2-Dichlorobenzene	ND		1.00	1	07/12/2019 06:35	<a href="#">WG1310149</a>
1,3-Dichlorobenzene	ND		1.00	1	07/12/2019 06:35	<a href="#">WG1310149</a>

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc





Collected date/time: 07/10/19 16:00

L1117439

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	ug/l		ug/l		date / time	
1,4-Dichlorobenzene	ND		1.00	1	07/12/2019 06:35	WG1310149
Dichlorodifluoromethane	ND		5.00	1	07/12/2019 06:35	WG1310149
1,1-Dichloroethane	ND		1.00	1	07/12/2019 06:35	WG1310149
1,2-Dichloroethane	ND		1.00	1	07/12/2019 06:35	WG1310149
1,1-Dichloroethene	ND		1.00	1	07/12/2019 06:35	WG1310149
cis-1,2-Dichloroethene	ND		1.00	1	07/12/2019 06:35	WG1310149
trans-1,2-Dichloroethene	ND		1.00	1	07/12/2019 06:35	WG1310149
1,2-Dichloropropane	ND		1.00	1	07/12/2019 06:35	WG1310149
cis-1,3-Dichloropropene	ND		1.00	1	07/12/2019 06:35	WG1310149
trans-1,3-Dichloropropene	ND		1.00	1	07/12/2019 06:35	WG1310149
Ethylbenzene	ND		1.00	1	07/12/2019 06:35	WG1310149
2-Hexanone	ND		10.0	1	07/12/2019 06:35	WG1310149
Isopropylbenzene	ND		1.00	1	07/12/2019 06:35	WG1310149
2-Butanone (MEK)	ND	J4	10.0	1	07/12/2019 06:35	WG1310149
Methyl Acetate	ND		20.0	1	07/12/2019 06:35	WG1310149
Methyl Cyclohexane	ND		1.00	1	07/12/2019 06:35	WG1310149
Methylene Chloride	ND		5.00	1	07/12/2019 06:35	WG1310149
4-Methyl-2-pentanone (MIBK)	ND		10.0	1	07/12/2019 06:35	WG1310149
Methyl tert-butyl ether	ND		1.00	1	07/12/2019 06:35	WG1310149
Styrene	ND		1.00	1	07/12/2019 06:35	WG1310149
1,1,2,2-Tetrachloroethane	ND		1.00	1	07/12/2019 06:35	WG1310149
Tetrachloroethene	ND		1.00	1	07/12/2019 06:35	WG1310149
Toluene	ND		1.00	1	07/12/2019 06:35	WG1310149
1,2,3-Trichlorobenzene	ND		1.00	1	07/12/2019 06:35	WG1310149
1,2,4-Trichlorobenzene	ND		1.00	1	07/12/2019 06:35	WG1310149
1,1,1-Trichloroethane	ND		1.00	1	07/12/2019 06:35	WG1310149
1,1,2-Trichloroethane	ND		1.00	1	07/12/2019 06:35	WG1310149
Trichloroethene	ND		1.00	1	07/12/2019 06:35	WG1310149
Trichlorofluoromethane	ND		5.00	1	07/12/2019 06:35	WG1310149
1,1,2-Trichlorotrifluoroethane	ND		1.00	1	07/12/2019 06:35	WG1310149
Vinyl chloride	ND		1.00	1	07/12/2019 06:35	WG1310149
Xylenes, Total	ND		3.00	1	07/12/2019 06:35	WG1310149
(S) Toluene-d8	108		80.0-120		07/12/2019 06:35	WG1310149
(S) 4-Bromofluorobenzene	98.5		77.0-126		07/12/2019 06:35	WG1310149
(S) 1,2-Dichloroethane-d4	103		70.0-130		07/12/2019 06:35	WG1310149

- 1 Cp
- 2 Tc
- 3 Ss
- 4 Cn
- 5 Sr
- 6 Qc
- 7 Gl
- 8 Al
- 9 Sc

Pesticides (GC) by Method 8081B

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	ug/l		ug/l		date / time	
Aldrin	ND	J4	0.100	2	07/17/2019 10:35	WG1311221
Alpha BHC	ND		0.100	2	07/17/2019 10:35	WG1311221
Beta BHC	ND		0.100	2	07/17/2019 10:35	WG1311221
Delta BHC	ND		0.100	2	07/17/2019 10:35	WG1311221
Gamma BHC	ND	J4	0.100	2	07/17/2019 10:35	WG1311221
Chlordane	ND		10.0	2	07/17/2019 10:35	WG1311221
4,4-DDD	ND		0.100	2	07/17/2019 10:35	WG1311221
4,4-DDE	ND		0.100	2	07/17/2019 10:35	WG1311221
4,4-DDT	ND		0.100	2	07/17/2019 10:35	WG1311221
Dieldrin	ND		0.100	2	07/17/2019 10:35	WG1311221
Endosulfan I	ND		0.100	2	07/17/2019 10:35	WG1311221
Endosulfan II	ND		0.100	2	07/17/2019 10:35	WG1311221
Endosulfan sulfate	ND		0.100	2	07/17/2019 10:35	WG1311221
Endrin	ND		0.100	2	07/17/2019 10:35	WG1311221
Endrin aldehyde	ND		0.100	2	07/17/2019 10:35	WG1311221
Endrin ketone	ND		0.100	2	07/17/2019 10:35	WG1311221
Heptachlor	ND	J4	0.100	2	07/17/2019 10:35	WG1311221



Collected date/time: 07/10/19 16:00

L1117439

## Pesticides (GC) by Method 8081B

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	ug/l		ug/l		date / time	
Heptachlor epoxide	ND		0.100	2	07/17/2019 10:35	<a href="#">WG1311221</a>
Hexachlorobenzene	ND	J4	0.100	2	07/17/2019 10:35	<a href="#">WG1311221</a>
Methoxychlor	ND		0.100	2	07/17/2019 10:35	<a href="#">WG1311221</a>
Toxaphene	ND		1.00	2	07/17/2019 10:35	<a href="#">WG1311221</a>
(S) Decachlorobiphenyl	69.5		10.0-128		07/17/2019 10:35	<a href="#">WG1311221</a>
(S) Tetrachloro-m-xylene	56.0		10.0-127		07/17/2019 10:35	<a href="#">WG1311221</a>

## Polychlorinated Biphenyls (GC) by Method 8082 A

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	ug/l		ug/l		date / time	
PCB 1016	ND		1.00	2	07/17/2019 11:34	<a href="#">WG1311221</a>
PCB 1221	ND		1.00	2	07/17/2019 11:34	<a href="#">WG1311221</a>
PCB 1232	ND		1.00	2	07/17/2019 11:34	<a href="#">WG1311221</a>
PCB 1242	ND		1.00	2	07/17/2019 11:34	<a href="#">WG1311221</a>
PCB 1248	ND		1.00	2	07/17/2019 11:34	<a href="#">WG1311221</a>
PCB 1254	ND		1.00	2	07/17/2019 11:34	<a href="#">WG1311221</a>
PCB 1260	ND	J4	1.00	2	07/17/2019 11:34	<a href="#">WG1311221</a>
(S) Decachlorobiphenyl	56.0		10.0-128		07/17/2019 11:34	<a href="#">WG1311221</a>
(S) Tetrachloro-m-xylene	40.4		10.0-127		07/17/2019 11:34	<a href="#">WG1311221</a>

## Semi Volatile Organic Compounds (GC/MS) by Method 8270D

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	ug/l		ug/l		date / time	
Acenaphthene	ND	J4	1.00	1	07/17/2019 17:04	<a href="#">WG1312111</a>
Acenaphthylene	ND	J4	1.00	1	07/17/2019 17:04	<a href="#">WG1312111</a>
Acetophenone	ND	J4	10.0	1	07/17/2019 17:04	<a href="#">WG1312111</a>
Anthracene	ND	J4	1.00	1	07/17/2019 17:04	<a href="#">WG1312111</a>
Atrazine	ND		10.0	1	07/17/2019 17:04	<a href="#">WG1312111</a>
Benzaldehyde	ND	J4	10.0	1	07/17/2019 17:04	<a href="#">WG1312111</a>
Benzo(a)anthracene	ND		1.00	1	07/17/2019 17:04	<a href="#">WG1312111</a>
Benzo(b)fluoranthene	ND		1.00	1	07/17/2019 17:04	<a href="#">WG1312111</a>
Benzo(k)fluoranthene	ND		1.00	1	07/17/2019 17:04	<a href="#">WG1312111</a>
Benzo(g,h,i)perylene	ND		1.00	1	07/17/2019 17:04	<a href="#">WG1312111</a>
Benzo(a)pyrene	ND		1.00	1	07/17/2019 17:04	<a href="#">WG1312111</a>
Biphenyl	ND	J4	10.0	1	07/17/2019 17:04	<a href="#">WG1312111</a>
Bis(2-chloroethoxy)methane	ND	J4	10.0	1	07/17/2019 17:04	<a href="#">WG1312111</a>
Bis(2-chloroethyl)ether	ND	J4	10.0	1	07/17/2019 17:04	<a href="#">WG1312111</a>
Bis(2-chloroisopropyl)ether	ND	J4	10.0	1	07/17/2019 17:04	<a href="#">WG1312111</a>
4-Bromophenyl-phenylether	ND	J4	10.0	1	07/17/2019 17:04	<a href="#">WG1312111</a>
Caprolactam	ND	J4	10.0	1	07/17/2019 17:04	<a href="#">WG1312111</a>
Carbazole	ND		10.0	1	07/17/2019 17:04	<a href="#">WG1312111</a>
4-Chloroaniline	ND	J4	10.0	1	07/17/2019 17:04	<a href="#">WG1312111</a>
2-Chloronaphthalene	ND	J4	1.00	1	07/17/2019 17:04	<a href="#">WG1312111</a>
4-Chlorophenyl-phenylether	ND	J4	10.0	1	07/17/2019 17:04	<a href="#">WG1312111</a>
Chrysene	ND		1.00	1	07/17/2019 17:04	<a href="#">WG1312111</a>
Dibenz(a,h)anthracene	ND		1.00	1	07/17/2019 17:04	<a href="#">WG1312111</a>
Dibenzofuran	ND	J4	10.0	1	07/17/2019 17:04	<a href="#">WG1312111</a>
3,3-Dichlorobenzidine	ND	J4	10.0	1	07/17/2019 17:04	<a href="#">WG1312111</a>
2,4-Dinitrotoluene	ND		10.0	1	07/17/2019 17:04	<a href="#">WG1312111</a>
2,6-Dinitrotoluene	ND	J4	10.0	1	07/17/2019 17:04	<a href="#">WG1312111</a>
Fluoranthene	ND		1.00	1	07/17/2019 17:04	<a href="#">WG1312111</a>
Fluorene	ND	J4	1.00	1	07/17/2019 17:04	<a href="#">WG1312111</a>
Hexachlorobenzene	ND	J4	1.00	1	07/17/2019 17:04	<a href="#">WG1312111</a>
Hexachloro-1,3-butadiene	ND	J4	10.0	1	07/17/2019 17:04	<a href="#">WG1312111</a>
Hexachlorocyclopentadiene	ND	J4	10.0	1	07/17/2019 17:04	<a href="#">WG1312111</a>

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc



Collected date/time: 07/10/19 16:00

L1117439

Semi Volatile Organic Compounds (GC/MS) by Method 8270D

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	ug/l		ug/l		date / time	
Hexachloroethane	ND	J4	10.0	1	07/17/2019 17:04	WG1312111
Indeno(1,2,3-cd)pyrene	ND		1.00	1	07/17/2019 17:04	WG1312111
Isophorone	ND	J4	10.0	1	07/17/2019 17:04	WG1312111
2-Methylnaphthalene	ND	J4	1.00	1	07/17/2019 17:04	WG1312111
Naphthalene	ND	J4	1.00	1	07/17/2019 17:04	WG1312111
2-Nitroaniline	ND	J4	10.0	1	07/17/2019 17:04	WG1312111
3-Nitroaniline	ND		10.0	1	07/17/2019 17:04	WG1312111
4-Nitroaniline	ND		10.0	1	07/17/2019 17:04	WG1312111
Nitrobenzene	ND	J4	10.0	1	07/17/2019 17:04	WG1312111
n-Nitrosodiphenylamine	ND	J4	10.0	1	07/17/2019 17:04	WG1312111
n-Nitrosodi-n-propylamine	ND	J4	10.0	1	07/17/2019 17:04	WG1312111
Phenanthrene	ND	J4	1.00	1	07/17/2019 17:04	WG1312111
Benzylbutyl phthalate	ND		3.00	1	07/17/2019 17:04	WG1312111
Bis(2-ethylhexyl)phthalate	ND		3.00	1	07/17/2019 17:04	WG1312111
Di-n-butyl phthalate	ND		3.00	1	07/17/2019 17:04	WG1312111
Diethyl phthalate	ND		3.00	1	07/17/2019 17:04	WG1312111
Dimethyl phthalate	ND	J4	3.00	1	07/17/2019 17:04	WG1312111
Di-n-octyl phthalate	ND	J4	3.00	1	07/17/2019 17:04	WG1312111
Pyrene	ND	J4	1.00	1	07/17/2019 17:04	WG1312111
1,2,4,5-Tetrachlorobenzene	ND	J4	10.0	1	07/17/2019 17:04	WG1312111
4-Chloro-3-methylphenol	ND	J4	10.0	1	07/17/2019 17:04	WG1312111
2-Chlorophenol	ND	J4	10.0	1	07/17/2019 17:04	WG1312111
2-Methylphenol	ND	J4	10.0	1	07/17/2019 17:04	WG1312111
3&4-Methyl Phenol	ND	J4	10.0	1	07/17/2019 17:04	WG1312111
2,4-Dichlorophenol	ND	J4	10.0	1	07/17/2019 17:04	WG1312111
2,4-Dimethylphenol	ND	J4	10.0	1	07/17/2019 17:04	WG1312111
4,6-Dinitro-2-methylphenol	ND		10.0	1	07/17/2019 17:04	WG1312111
2,4-Dinitrophenol	ND	J4	10.0	1	07/17/2019 17:04	WG1312111
2-Nitrophenol	ND	J4	10.0	1	07/17/2019 17:04	WG1312111
4-Nitrophenol	ND	J4	10.0	1	07/17/2019 17:04	WG1312111
Pentachlorophenol	ND	J4	10.0	1	07/17/2019 17:04	WG1312111
Phenol	ND	J4	10.0	1	07/17/2019 17:04	WG1312111
2,4,5-Trichlorophenol	ND	J4	10.0	1	07/17/2019 17:04	WG1312111
2,4,6-Trichlorophenol	ND	J4	10.0	1	07/17/2019 17:04	WG1312111
(S) Nitrobenzene-d5	13.0		10.0-127		07/17/2019 17:04	WG1312111
(S) 2-Fluorobiphenyl	14.1		10.0-130		07/17/2019 17:04	WG1312111
(S) p-Terphenyl-d14	15.8		10.0-128		07/17/2019 17:04	WG1312111
(S) Phenol-d5	3.18	J2	10.0-120		07/17/2019 17:04	WG1312111
(S) 2-Fluorophenol	5.50	J2	10.0-120		07/17/2019 17:04	WG1312111
(S) 2,4,6-Tribromophenol	13.9		10.0-155		07/17/2019 17:04	WG1312111

1  
Cp

2  
Tc

3  
Ss

4  
Cn

5  
Sr

6  
Qc

7  
Gl

8  
Al

9  
Sc

Sample Narrative:

L1117439-13 WG1312111: Duplicate analysis was performed.

Semi Volatile Organic Compounds (GC/MS) by Method 8270E-SIM

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	ug/l		ug/l		date / time	
Anthracene	ND		0.0500	1	07/16/2019 02:18	WG1311224
Acenaphthene	ND	J4	0.0500	1	07/16/2019 02:18	WG1311224
Acenaphthylene	ND	J4	0.0500	1	07/16/2019 02:18	WG1311224
Benzo(a)anthracene	ND		0.0500	1	07/16/2019 02:18	WG1311224
Benzo(a)pyrene	ND		0.0500	1	07/16/2019 02:18	WG1311224
Benzo(b)fluoranthene	ND		0.0500	1	07/16/2019 02:18	WG1311224
Benzo(g,h,i)perylene	ND		0.0500	1	07/16/2019 02:18	WG1311224
Benzo(k)fluoranthene	ND		0.0500	1	07/16/2019 02:18	WG1311224
Chrysene	ND		0.0500	1	07/16/2019 02:18	WG1311224



Collected date/time: 07/10/19 16:00

L1117439

Semi Volatile Organic Compounds (GC/MS) by Method 8270E-SIM

Analyte	Result ug/l	Qualifier	RDL ug/l	Dilution	Analysis date / time	Batch
Dibenz(a,h)anthracene	ND		0.0500	1	07/16/2019 02:18	<a href="#">WG1311224</a>
Fluoranthene	ND		0.0500	1	07/16/2019 02:18	<a href="#">WG1311224</a>
Fluorene	ND	<u>J4</u>	0.0500	1	07/16/2019 02:18	<a href="#">WG1311224</a>
Indeno(1,2,3-cd)pyrene	ND		0.0500	1	07/16/2019 02:18	<a href="#">WG1311224</a>
Naphthalene	ND	<u>J4</u>	0.250	1	07/16/2019 02:18	<a href="#">WG1311224</a>
Phenanthrene	ND	<u>J4</u>	0.0500	1	07/16/2019 02:18	<a href="#">WG1311224</a>
Pyrene	ND		0.0500	1	07/16/2019 02:18	<a href="#">WG1311224</a>
<i>(S) Nitrobenzene-d5</i>	119		11.0-135		07/16/2019 02:18	<a href="#">WG1311224</a>
<i>(S) 2-Fluorobiphenyl</i>	58.9		32.0-120		07/16/2019 02:18	<a href="#">WG1311224</a>
<i>(S) p-Terphenyl-d14</i>	74.2		23.0-122		07/16/2019 02:18	<a href="#">WG1311224</a>

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc



Collected date/time: 07/10/19 10:47

L1117439

Wet Chemistry by Method 4500CN E-2011

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	ug/l		ug/l		date / time	
Cyanide	ND		5.00	1	07/18/2019 20:15	<a href="#">WG1313327</a>

1 Cp

2 Tc

Mercury by Method 7470A

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	ug/l		ug/l		date / time	
Mercury	ND		0.200	1	07/12/2019 09:19	<a href="#">WG1309989</a>

3 Ss

4 Cn

Metals (ICP) by Method 6010D

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	ug/l		ug/l		date / time	
Aluminum	ND		200	1	07/16/2019 12:29	<a href="#">WG1310249</a>
Antimony	ND		10.0	1	07/16/2019 12:29	<a href="#">WG1310249</a>
Arsenic	ND		10.0	1	07/16/2019 12:29	<a href="#">WG1310249</a>
Barium	34.6		5.00	1	07/16/2019 12:29	<a href="#">WG1310249</a>
Beryllium	ND		2.00	1	07/16/2019 12:29	<a href="#">WG1310249</a>
Cadmium	ND		2.00	1	07/16/2019 12:29	<a href="#">WG1310249</a>
Calcium	12900		1000	1	07/16/2019 12:29	<a href="#">WG1310249</a>
Chromium	ND		10.0	1	07/16/2019 12:29	<a href="#">WG1310249</a>
Cobalt	ND		10.0	1	07/16/2019 12:29	<a href="#">WG1310249</a>
Copper	ND		10.0	1	07/16/2019 12:29	<a href="#">WG1310249</a>
Iron	13800		100	1	07/16/2019 12:29	<a href="#">WG1310249</a>
Lead	ND		5.00	1	07/16/2019 12:29	<a href="#">WG1310249</a>
Magnesium	5040		1000	1	07/16/2019 12:29	<a href="#">WG1310249</a>
Manganese	342		10.0	1	07/16/2019 12:29	<a href="#">WG1310249</a>
Nickel	ND		10.0	1	07/16/2019 12:29	<a href="#">WG1310249</a>
Potassium	2260		1000	1	07/16/2019 12:29	<a href="#">WG1310249</a>
Selenium	ND		10.0	1	07/16/2019 12:29	<a href="#">WG1310249</a>
Silver	ND		5.00	1	07/16/2019 12:29	<a href="#">WG1310249</a>
Sodium	10500		1000	1	07/16/2019 12:29	<a href="#">WG1310249</a>
Thallium	ND		10.0	1	07/16/2019 12:29	<a href="#">WG1310249</a>
Vanadium	ND		20.0	1	07/16/2019 12:29	<a href="#">WG1310249</a>
Zinc	198		50.0	1	07/16/2019 12:29	<a href="#">WG1310249</a>

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	ug/l		ug/l		date / time	
Acetone	ND	<u>J4</u>	50.0	1	07/12/2019 06:55	<a href="#">WG1310149</a>
Benzene	ND		1.00	1	07/12/2019 06:55	<a href="#">WG1310149</a>
Bromochloromethane	ND		1.00	1	07/12/2019 06:55	<a href="#">WG1310149</a>
Bromodichloromethane	ND		1.00	1	07/12/2019 06:55	<a href="#">WG1310149</a>
Bromoform	ND		1.00	1	07/12/2019 06:55	<a href="#">WG1310149</a>
Bromomethane	ND		5.00	1	07/12/2019 06:55	<a href="#">WG1310149</a>
Carbon disulfide	ND		1.00	1	07/12/2019 06:55	<a href="#">WG1310149</a>
Carbon tetrachloride	ND		1.00	1	07/12/2019 06:55	<a href="#">WG1310149</a>
Chlorobenzene	ND		1.00	1	07/12/2019 06:55	<a href="#">WG1310149</a>
Chlorodibromomethane	ND		1.00	1	07/12/2019 06:55	<a href="#">WG1310149</a>
Chloroethane	ND		5.00	1	07/12/2019 06:55	<a href="#">WG1310149</a>
Chloroform	ND		5.00	1	07/12/2019 06:55	<a href="#">WG1310149</a>
Chloromethane	ND		2.50	1	07/12/2019 06:55	<a href="#">WG1310149</a>
Cyclohexane	ND		1.00	1	07/12/2019 06:55	<a href="#">WG1310149</a>
1,2-Dibromo-3-Chloropropane	ND		5.00	1	07/12/2019 06:55	<a href="#">WG1310149</a>
1,2-Dibromoethane	ND		1.00	1	07/12/2019 06:55	<a href="#">WG1310149</a>
1,2-Dichlorobenzene	ND		1.00	1	07/12/2019 06:55	<a href="#">WG1310149</a>
1,3-Dichlorobenzene	ND		1.00	1	07/12/2019 06:55	<a href="#">WG1310149</a>



Collected date/time: 07/10/19 10:47

L1117439

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	ug/l		ug/l		date / time	
1,4-Dichlorobenzene	ND		1.00	1	07/12/2019 06:55	WG1310149
Dichlorodifluoromethane	ND		5.00	1	07/12/2019 06:55	WG1310149
1,1-Dichloroethane	ND		1.00	1	07/12/2019 06:55	WG1310149
1,2-Dichloroethane	ND		1.00	1	07/12/2019 06:55	WG1310149
1,1-Dichloroethene	ND		1.00	1	07/12/2019 06:55	WG1310149
cis-1,2-Dichloroethene	ND		1.00	1	07/12/2019 06:55	WG1310149
trans-1,2-Dichloroethene	ND		1.00	1	07/12/2019 06:55	WG1310149
1,2-Dichloropropane	ND		1.00	1	07/12/2019 06:55	WG1310149
cis-1,3-Dichloropropene	ND		1.00	1	07/12/2019 06:55	WG1310149
trans-1,3-Dichloropropene	ND		1.00	1	07/12/2019 06:55	WG1310149
Ethylbenzene	ND		1.00	1	07/12/2019 06:55	WG1310149
2-Hexanone	ND		10.0	1	07/12/2019 06:55	WG1310149
Isopropylbenzene	ND		1.00	1	07/12/2019 06:55	WG1310149
2-Butanone (MEK)	ND	J4	10.0	1	07/12/2019 06:55	WG1310149
Methyl Acetate	ND		20.0	1	07/12/2019 06:55	WG1310149
Methyl Cyclohexane	ND		1.00	1	07/12/2019 06:55	WG1310149
Methylene Chloride	ND		5.00	1	07/12/2019 06:55	WG1310149
4-Methyl-2-pentanone (MIBK)	ND		10.0	1	07/12/2019 06:55	WG1310149
Methyl tert-butyl ether	ND		1.00	1	07/12/2019 06:55	WG1310149
Styrene	ND		1.00	1	07/12/2019 06:55	WG1310149
1,1,2,2-Tetrachloroethane	ND		1.00	1	07/12/2019 06:55	WG1310149
Tetrachloroethene	ND		1.00	1	07/12/2019 06:55	WG1310149
Toluene	ND		1.00	1	07/12/2019 06:55	WG1310149
1,2,3-Trichlorobenzene	ND		1.00	1	07/12/2019 06:55	WG1310149
1,2,4-Trichlorobenzene	ND		1.00	1	07/12/2019 06:55	WG1310149
1,1,1-Trichloroethane	ND		1.00	1	07/12/2019 06:55	WG1310149
1,1,2-Trichloroethane	ND		1.00	1	07/12/2019 06:55	WG1310149
Trichloroethene	ND		1.00	1	07/12/2019 06:55	WG1310149
Trichlorofluoromethane	ND		5.00	1	07/12/2019 06:55	WG1310149
1,1,2-Trichlorotrifluoroethane	ND		1.00	1	07/12/2019 06:55	WG1310149
Vinyl chloride	ND		1.00	1	07/12/2019 06:55	WG1310149
Xylenes, Total	ND		3.00	1	07/12/2019 06:55	WG1310149
(S) Toluene-d8	113		80.0-120		07/12/2019 06:55	WG1310149
(S) 4-Bromofluorobenzene	103		77.0-126		07/12/2019 06:55	WG1310149
(S) 1,2-Dichloroethane-d4	102		70.0-130		07/12/2019 06:55	WG1310149

- 1 Cp
- 2 Tc
- 3 Ss
- 4 Cn
- 5 Sr
- 6 Qc
- 7 Gl
- 8 Al
- 9 Sc

Pesticides (GC) by Method 8081B

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	ug/l		ug/l		date / time	
Aldrin	ND	J4	0.0500	1	07/18/2019 09:40	WG1311222
Alpha BHC	ND	J4	0.0500	1	07/18/2019 09:40	WG1311222
Beta BHC	ND		0.0500	1	07/18/2019 09:40	WG1311222
Delta BHC	ND		0.0500	1	07/18/2019 09:40	WG1311222
Gamma BHC	ND	J4	0.0500	1	07/18/2019 09:40	WG1311222
Chlordane	ND		5.00	1	07/18/2019 09:40	WG1311222
4,4-DDD	ND		0.0500	1	07/18/2019 09:40	WG1311222
4,4-DDE	ND		0.0500	1	07/18/2019 09:40	WG1311222
4,4-DDT	ND		0.0500	1	07/18/2019 09:40	WG1311222
Dieldrin	ND		0.0500	1	07/18/2019 09:40	WG1311222
Endosulfan I	ND		0.0500	1	07/18/2019 09:40	WG1311222
Endosulfan II	ND		0.0500	1	07/18/2019 09:40	WG1311222
Endosulfan sulfate	ND		0.0500	1	07/18/2019 09:40	WG1311222
Endrin	ND		0.0500	1	07/18/2019 09:40	WG1311222
Endrin aldehyde	ND		0.0500	1	07/18/2019 09:40	WG1311222
Endrin ketone	ND		0.0500	1	07/18/2019 09:40	WG1311222
Heptachlor	ND	J4	0.0500	1	07/18/2019 09:40	WG1311222



Collected date/time: 07/10/19 10:47

L1117439

Pesticides (GC) by Method 8081B

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	ug/l		ug/l		date / time	
Heptachlor epoxide	ND		0.0500	1	07/18/2019 09:40	<a href="#">WG1311222</a>
Hexachlorobenzene	ND	J4	0.0500	1	07/18/2019 09:40	<a href="#">WG1311222</a>
Methoxychlor	ND		0.0500	1	07/18/2019 09:40	<a href="#">WG1311222</a>
Toxaphene	ND		0.500	1	07/18/2019 09:40	<a href="#">WG1311222</a>
(S) Decachlorobiphenyl	87.9		10.0-128		07/18/2019 09:40	<a href="#">WG1311222</a>
(S) Tetrachloro-m-xylene	36.3		10.0-127		07/18/2019 09:40	<a href="#">WG1311222</a>

- 1 Cp
- 2 Tc
- 3 Ss
- 4 Cn

Sample Narrative:

L1117439-14 WG1311222: Duplicate analysis was performed.

Polychlorinated Biphenyls (GC) by Method 8082 A

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	ug/l		ug/l		date / time	
PCB 1016	ND		0.500	1	07/21/2019 13:54	<a href="#">WG1314363</a>
PCB 1221	ND		0.500	1	07/21/2019 13:54	<a href="#">WG1314363</a>
PCB 1232	ND		0.500	1	07/21/2019 13:54	<a href="#">WG1314363</a>
PCB 1242	ND		0.500	1	07/21/2019 13:54	<a href="#">WG1314363</a>
PCB 1248	ND		0.500	1	07/21/2019 13:54	<a href="#">WG1314363</a>
PCB 1254	ND		0.500	1	07/21/2019 13:54	<a href="#">WG1314363</a>
PCB 1260	ND		0.500	1	07/21/2019 13:54	<a href="#">WG1314363</a>
(S) Decachlorobiphenyl	71.7		10.0-128		07/21/2019 13:54	<a href="#">WG1314363</a>
(S) Tetrachloro-m-xylene	53.4		10.0-127		07/21/2019 13:54	<a href="#">WG1314363</a>

- 5 Sr
- 6 Qc
- 7 Gl
- 8 Al
- 9 Sc

Semi Volatile Organic Compounds (GC/MS) by Method 8270D

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	ug/l		ug/l		date / time	
Acenaphthene	ND	J4	1.00	1	07/16/2019 03:59	<a href="#">WG1311627</a>
Acenaphthylene	ND	J4	1.00	1	07/16/2019 03:59	<a href="#">WG1311627</a>
Acetophenone	ND	J4	10.0	1	07/16/2019 03:59	<a href="#">WG1311627</a>
Anthracene	ND	J4	1.00	1	07/16/2019 03:59	<a href="#">WG1311627</a>
Atrazine	ND	J4	10.0	1	07/16/2019 03:59	<a href="#">WG1311627</a>
Benzaldehyde	ND	J4	10.0	1	07/16/2019 03:59	<a href="#">WG1311627</a>
Benzo(a)anthracene	ND	J4	1.00	1	07/16/2019 03:59	<a href="#">WG1311627</a>
Benzo(b)fluoranthene	ND	J4	1.00	1	07/16/2019 03:59	<a href="#">WG1311627</a>
Benzo(k)fluoranthene	ND	J4	1.00	1	07/16/2019 03:59	<a href="#">WG1311627</a>
Benzo(g,h,i)perylene	ND	J4	1.00	1	07/16/2019 03:59	<a href="#">WG1311627</a>
Benzo(a)pyrene	ND	J4	1.00	1	07/16/2019 03:59	<a href="#">WG1311627</a>
Biphenyl	ND	J4	10.0	1	07/16/2019 03:59	<a href="#">WG1311627</a>
Bis(2-chloroethoxy)methane	ND	J4	10.0	1	07/16/2019 03:59	<a href="#">WG1311627</a>
Bis(2-chloroethyl)ether	ND	J4	10.0	1	07/16/2019 03:59	<a href="#">WG1311627</a>
Bis(2-chloroisopropyl)ether	ND	J4	10.0	1	07/16/2019 03:59	<a href="#">WG1311627</a>
4-Bromophenyl-phenylether	ND	J4	10.0	1	07/16/2019 03:59	<a href="#">WG1311627</a>
Caprolactam	ND	J4	10.0	1	07/16/2019 03:59	<a href="#">WG1311627</a>
Carbazole	ND	J4	10.0	1	07/16/2019 03:59	<a href="#">WG1311627</a>
4-Chloroaniline	ND	JO J4	50.0	1	07/16/2019 03:59	<a href="#">WG1311627</a>
2-Chloronaphthalene	ND	J4	1.00	1	07/16/2019 03:59	<a href="#">WG1311627</a>
4-Chlorophenyl-phenylether	ND	J4	10.0	1	07/16/2019 03:59	<a href="#">WG1311627</a>
Chrysene	ND	J4	1.00	1	07/16/2019 03:59	<a href="#">WG1311627</a>
Dibenz(a,h)anthracene	ND	J4	1.00	1	07/16/2019 03:59	<a href="#">WG1311627</a>
Dibenzofuran	ND	J4	10.0	1	07/16/2019 03:59	<a href="#">WG1311627</a>
3,3-Dichlorobenzidine	ND	J4	10.0	1	07/16/2019 03:59	<a href="#">WG1311627</a>
2,4-Dinitrotoluene	ND	J4	10.0	1	07/16/2019 03:59	<a href="#">WG1311627</a>
2,6-Dinitrotoluene	ND	J4	10.0	1	07/16/2019 03:59	<a href="#">WG1311627</a>
Fluoranthene	ND	J4	1.00	1	07/16/2019 03:59	<a href="#">WG1311627</a>
Fluorene	ND	J4	1.00	1	07/16/2019 03:59	<a href="#">WG1311627</a>



Collected date/time: 07/10/19 10:47

L1117439

Semi Volatile Organic Compounds (GC/MS) by Method 8270D

Analyte	Result ug/l	Qualifier	RDL ug/l	Dilution	Analysis date / time	Batch
Hexachlorobenzene	ND	J4	1.00	1	07/16/2019 03:59	WG1311627
Hexachloro-1,3-butadiene	ND	J4	10.0	1	07/16/2019 03:59	WG1311627
Hexachlorocyclopentadiene	ND	J4	10.0	1	07/16/2019 03:59	WG1311627
Hexachloroethane	ND	J4	10.0	1	07/16/2019 03:59	WG1311627
Indeno(1,2,3-cd)pyrene	ND		1.00	1	07/16/2019 03:59	WG1311627
Isophorone	ND	J4	10.0	1	07/16/2019 03:59	WG1311627
2-Methylnaphthalene	ND	J4	1.00	1	07/16/2019 03:59	WG1311627
Naphthalene	ND	J4	1.00	1	07/16/2019 03:59	WG1311627
2-Nitroaniline	ND	J4	10.0	1	07/16/2019 03:59	WG1311627
3-Nitroaniline	ND	J4	10.0	1	07/16/2019 03:59	WG1311627
4-Nitroaniline	ND	J4	10.0	1	07/16/2019 03:59	WG1311627
Nitrobenzene	ND	J4	10.0	1	07/16/2019 03:59	WG1311627
n-Nitrosodiphenylamine	ND	J4	10.0	1	07/16/2019 03:59	WG1311627
n-Nitrosodi-n-propylamine	ND	J4	10.0	1	07/16/2019 03:59	WG1311627
Phenanthrene	ND	J4	1.00	1	07/16/2019 03:59	WG1311627
Benzylbutyl phthalate	ND	J4	3.00	1	07/16/2019 03:59	WG1311627
Bis(2-ethylhexyl)phthalate	ND	J4	3.00	1	07/16/2019 03:59	WG1311627
Di-n-butyl phthalate	ND	J4	3.00	1	07/16/2019 03:59	WG1311627
Diethyl phthalate	ND	J4	3.00	1	07/16/2019 03:59	WG1311627
Dimethyl phthalate	ND	J4	3.00	1	07/16/2019 03:59	WG1311627
Di-n-octyl phthalate	ND	J4	3.00	1	07/16/2019 03:59	WG1311627
Pyrene	ND	J4	1.00	1	07/16/2019 03:59	WG1311627
1,2,4,5-Tetrachlorobenzene	ND	J4	10.0	1	07/16/2019 03:59	WG1311627
4-Chloro-3-methylphenol	ND	J4	10.0	1	07/16/2019 03:59	WG1311627
2-Chlorophenol	ND	J4	10.0	1	07/16/2019 03:59	WG1311627
2-Methylphenol	ND	J4	10.0	1	07/16/2019 03:59	WG1311627
3&4-Methyl Phenol	ND	J4	10.0	1	07/16/2019 03:59	WG1311627
2,4-Dichlorophenol	ND	J4	10.0	1	07/16/2019 03:59	WG1311627
2,4-Dimethylphenol	ND	J4	10.0	1	07/16/2019 03:59	WG1311627
4,6-Dinitro-2-methylphenol	ND	J4	10.0	1	07/16/2019 03:59	WG1311627
2,4-Dinitrophenol	ND	J4	10.0	1	07/16/2019 03:59	WG1311627
2-Nitrophenol	ND	J4	10.0	1	07/16/2019 03:59	WG1311627
4-Nitrophenol	ND	J4	10.0	1	07/16/2019 03:59	WG1311627
Pentachlorophenol	ND	J4	10.0	1	07/16/2019 03:59	WG1311627
Phenol	ND	J4	10.0	1	07/16/2019 03:59	WG1311627
2,4,5-Trichlorophenol	ND	J4	10.0	1	07/16/2019 03:59	WG1311627
2,4,6-Trichlorophenol	ND	J4	10.0	1	07/16/2019 03:59	WG1311627
(S) Nitrobenzene-d5	17.4		10.0-127		07/16/2019 03:59	WG1311627
(S) 2-Fluorobiphenyl	21.9		10.0-130		07/16/2019 03:59	WG1311627
(S) p-Terphenyl-d14	68.6		10.0-128		07/16/2019 03:59	WG1311627
(S) Phenol-d5	12.7		10.0-120		07/16/2019 03:59	WG1311627
(S) 2-Fluorophenol	18.1		10.0-120		07/16/2019 03:59	WG1311627
(S) 2,4,6-Tribromophenol	57.0		10.0-155		07/16/2019 03:59	WG1311627

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

Sample Narrative:

L1117439-14 WG1311627: Duplicate analysis was performed.

Semi Volatile Organic Compounds (GC/MS) by Method 8270E-SIM

Analyte	Result ug/l	Qualifier	RDL ug/l	Dilution	Analysis date / time	Batch
Anthracene	ND		0.0500	1	07/16/2019 02:40	WG1311224
Acenaphthene	ND	J4	0.0500	1	07/16/2019 02:40	WG1311224
Acenaphthylene	ND	J4	0.0500	1	07/16/2019 02:40	WG1311224
Benzo(a)anthracene	ND		0.0500	1	07/16/2019 02:40	WG1311224
Benzo(a)pyrene	ND		0.0500	1	07/16/2019 02:40	WG1311224
Benzo(b)fluoranthene	ND		0.0500	1	07/16/2019 02:40	WG1311224





Collected date/time: 07/10/19 10:47

L1117439

Semi Volatile Organic Compounds (GC/MS) by Method 8270E-SIM

Analyte	Result ug/l	Qualifier	RDL ug/l	Dilution	Analysis date / time	Batch
Benzo(g,h,i)perylene	ND		0.0500	1	07/16/2019 02:40	<a href="#">WG1311224</a>
Benzo(k)fluoranthene	ND		0.0500	1	07/16/2019 02:40	<a href="#">WG1311224</a>
Chrysene	ND		0.0500	1	07/16/2019 02:40	<a href="#">WG1311224</a>
Dibenz(a,h)anthracene	ND		0.0500	1	07/16/2019 02:40	<a href="#">WG1311224</a>
Fluoranthene	ND		0.0500	1	07/16/2019 02:40	<a href="#">WG1311224</a>
Fluorene	ND	<u>J4</u>	0.0500	1	07/16/2019 02:40	<a href="#">WG1311224</a>
Indeno(1,2,3-cd)pyrene	ND		0.0500	1	07/16/2019 02:40	<a href="#">WG1311224</a>
Naphthalene	ND	<u>J4</u>	0.250	1	07/16/2019 02:40	<a href="#">WG1311224</a>
Phenanthrene	ND	<u>J4</u>	0.0500	1	07/16/2019 02:40	<a href="#">WG1311224</a>
Pyrene	ND		0.0500	1	07/16/2019 02:40	<a href="#">WG1311224</a>
(S) Nitrobenzene-d5	87.4		11.0-135		07/16/2019 02:40	<a href="#">WG1311224</a>
(S) 2-Fluorobiphenyl	42.1		32.0-120		07/16/2019 02:40	<a href="#">WG1311224</a>
(S) p-Terphenyl-d14	74.7		23.0-122		07/16/2019 02:40	<a href="#">WG1311224</a>

- 1 Cp
- 2 Tc
- 3 Ss
- 4 Cn
- 5 Sr
- 6 Qc
- 7 Gl
- 8 Al
- 9 Sc



Method Blank (MB)

(MB) R3432107-1 07/18/19 19:55

Analyte	MB Result	MB Qualifier	MB MDL	MB RDL
Cyanide	2.78	<span style="color: purple;">J</span>	1.80	5.00

<sup>1</sup> Cp

<sup>2</sup> Tc

<sup>3</sup> Ss

<sup>4</sup> Cn

<sup>5</sup> Sr

<sup>6</sup> Qc

<sup>7</sup> Gl

<sup>8</sup> Al

<sup>9</sup> Sc

L1117439-05 Original Sample (OS) • Duplicate (DUP)

(OS) L1117439-05 07/18/19 20:00 • (DUP) R3432107-3 07/18/19 20:01

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
Cyanide	5.41	1.85	1	98.1	<span style="color: purple;">P1</span>	20

L1117439-13 Original Sample (OS) • Duplicate (DUP)

(OS) L1117439-13 07/18/19 20:13 • (DUP) R3432107-6 07/18/19 20:14

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
Cyanide	ND	0.000	1	0.000		20

Laboratory Control Sample (LCS)

(LCS) R3432107-2 07/18/19 19:56

Analyte	Spike Amount	LCS Result	LCS Rec.	Rec. Limits	LCS Qualifier
Cyanide	100	103	103	85.0-115	

L1117439-08 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1117439-08 07/18/19 20:04 • (MS) R3432107-4 07/18/19 20:07 • (MSD) R3432107-5 07/18/19 20:08

Analyte	Spike Amount	Original Result	MS Result	MSD Result	MS Rec.	MSD Rec.	Dilution	Rec. Limits	MS Qualifier	MSD Qualifier	RPD	RPD Limits
Cyanide	100	ND	79.4	77.8	77.0	75.4	1	75.0-125			2.04	20

L1117580-05 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1117580-05 07/18/19 20:22 • (MS) R3432107-7 07/18/19 20:23 • (MSD) R3432107-8 07/18/19 20:24

Analyte	Spike Amount	Original Result	MS Result	MSD Result	MS Rec.	MSD Rec.	Dilution	Rec. Limits	MS Qualifier	MSD Qualifier	RPD	RPD Limits
Cyanide	100	1260	1310	1320	50.0	60.0	1	75.0-125	<span style="color: purple;">EV</span>	<span style="color: purple;">EV</span>	0.760	20



Method Blank (MB)

(MB) R3432473-1 07/19/19 16:17

Analyte	MB Result	MB Qualifier	MB MDL	MB RDL
Cyanide	U		1.80	5.00

<sup>1</sup>Cp

<sup>2</sup>Tc

<sup>3</sup>Ss

<sup>4</sup>Cn

<sup>5</sup>Sr

<sup>6</sup>Qc

<sup>7</sup>Gl

<sup>8</sup>Al

<sup>9</sup>Sc

L1116921-02 Original Sample (OS) • Duplicate (DUP)

(OS) L1116921-02 07/19/19 16:23 • (DUP) R3432473-3 07/19/19 16:24

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
Cyanide	ND	0.000	1	0.000		20

L1117439-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1117439-01 07/19/19 16:43 • (DUP) R3432473-6 07/19/19 16:44

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
Cyanide	ND	0.000	1	0.000		20

Laboratory Control Sample (LCS)

(LCS) R3432473-2 07/19/19 16:18

Analyte	Spike Amount	LCS Result	LCS Rec.	Rec. Limits	LCS Qualifier
Cyanide	100	103	103	85.0-115	

L1117439-02 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1117439-02 07/19/19 16:45 • (MS) R3432473-7 07/19/19 16:46 • (MSD) R3432473-8 07/19/19 16:47

Analyte	Spike Amount	Original Result	MS Result	MSD Result	MS Rec.	MSD Rec.	Dilution	Rec. Limits	MS Qualifier	MSD Qualifier	RPD	RPD Limits
Cyanide	100	ND	95.9	76.1	95.9	76.1	1	75.0-125		J3	23.0	20



Method Blank (MB)

(MB) R3430054-1 07/12/19 09:12

Analyte	MB Result ug/l	MB Qualifier	MB MDL ug/l	MB RDL ug/l
Mercury	U		0.0490	0.200

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3430054-2 07/12/19 09:14 • (LCSD) R3430054-3 07/12/19 09:17

Analyte	Spike Amount ug/l	LCS Result ug/l	LCSD Result ug/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Mercury	3.00	2.72	2.85	90.8	94.9	80.0-120			4.45	20

L1117439-14 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1117439-14 07/12/19 09:19 • (MS) R3430054-4 07/12/19 09:21 • (MSD) R3430054-5 07/12/19 09:24

Analyte	Spike Amount ug/l	Original Result ug/l	MS Result ug/l	MSD Result ug/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Mercury	3.00	ND	2.84	2.68	94.6	89.4	1	75.0-125			5.64	20



Method Blank (MB)

(MB) R3431105-1 07/16/19 11:29

Analyte	MB Result ug/l	MB Qualifier	MB MDL ug/l	MB RDL ug/l
Aluminum	U		35.0	200
Antimony	U		7.50	10.0
Arsenic	U		6.50	10.0
Barium	U		1.70	5.00
Beryllium	U		0.700	2.00
Cadmium	U		0.700	2.00
Calcium	U		46.3	1000
Chromium	U		1.40	10.0
Cobalt	U		2.30	10.0
Copper	U		5.30	10.0
Iron	U		14.1	100
Lead	U		1.90	5.00
Magnesium	33.0	U	11.1	1000
Manganese	U		1.20	10.0
Nickel	U		4.90	10.0
Potassium	115	U	102	1000
Selenium	U		7.40	10.0
Silver	U		2.80	5.00
Sodium	115	U	98.5	1000
Thallium	U		6.50	10.0
Vanadium	U		2.40	20.0
Zinc	U		5.90	50.0

<sup>1</sup> Cp

<sup>2</sup> Tc

<sup>3</sup> Ss

<sup>4</sup> Cn

<sup>5</sup> Sr

<sup>6</sup> Qc

<sup>7</sup> Gl

<sup>8</sup> Al

<sup>9</sup> Sc

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3431105-2 07/16/19 11:31 • (LCSD) R3431105-3 07/16/19 11:34

Analyte	Spike Amount ug/l	LCS Result ug/l	LCSD Result ug/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Aluminum	10000	10200	10300	102	103	80.0-120			0.899	20
Antimony	1000	997	1000	99.7	100	80.0-120			0.616	20
Arsenic	1000	971	980	97.1	98.0	80.0-120			0.919	20
Barium	1000	1050	1060	105	106	80.0-120			0.721	20
Beryllium	1000	1000	1010	100	101	80.0-120			1.05	20
Cadmium	1000	1010	1020	101	102	80.0-120			0.632	20
Calcium	10000	10300	10400	103	104	80.0-120			1.15	20
Chromium	1000	1000	1010	100	101	80.0-120			0.774	20
Cobalt	1000	1020	1030	102	103	80.0-120			0.471	20
Copper	1000	977	989	97.7	98.9	80.0-120			1.17	20
Iron	10000	10200	10300	102	103	80.0-120			0.903	20



Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3431105-2 07/16/19 11:31 • (LCSD) R3431105-3 07/16/19 11:34

Analyte	Spike Amount ug/l	LCS Result ug/l	LCSD Result ug/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	<u>LCS Qualifier</u>	<u>LCSD Qualifier</u>	RPD %	RPD Limits %
Lead	1000	992	1000	99.2	100	80.0-120			0.842	20
Magnesium	10000	10400	10500	104	105	80.0-120			0.828	20
Manganese	1000	981	992	98.1	99.2	80.0-120			1.13	20
Nickel	1000	1010	1020	101	102	80.0-120			0.244	20
Potassium	10000	9930	10000	99.3	100	80.0-120			1.19	20
Selenium	1000	976	988	97.6	98.8	80.0-120			1.23	20
Silver	200	192	194	96.2	96.9	80.0-120			0.645	20
Sodium	10000	10300	10300	103	103	80.0-120			0.680	20
Thallium	1000	1010	1030	101	103	80.0-120			2.54	20
Vanadium	1000	1020	1030	102	103	80.0-120			0.642	20
Zinc	1000	990	996	99.0	99.6	80.0-120			0.604	20

<sup>1</sup> Cp

<sup>2</sup> Tc

<sup>3</sup> Ss

<sup>4</sup> Cn

<sup>5</sup> Sr

<sup>6</sup> Qc

<sup>7</sup> Gl

<sup>8</sup> Al

<sup>9</sup> Sc

L1117439-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1117439-01 07/16/19 11:37 • (MS) R3431105-5 07/16/19 11:42 • (MSD) R3431105-6 07/16/19 11:45

Analyte	Spike Amount ug/l	Original Result ug/l	MS Result ug/l	MSD Result ug/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	<u>MS Qualifier</u>	<u>MSD Qualifier</u>	RPD %	RPD Limits %
Aluminum	10000	ND	10300	10300	103	103	1	75.0-125			0.144	20
Antimony	1000	ND	1010	1010	101	101	1	75.0-125			0.0721	20
Arsenic	1000	ND	996	994	99.6	99.4	1	75.0-125			0.208	20
Barium	1000	722	1750	1750	103	103	1	75.0-125			0.0174	20
Beryllium	1000	ND	1030	1020	103	102	1	75.0-125			0.432	20
Cadmium	1000	ND	1020	1020	102	102	1	75.0-125			0.0704	20
Calcium	10000	15800	27200	27200	114	114	1	75.0-125			0.0479	20
Chromium	1000	ND	994	1010	99.4	101	1	75.0-125			1.27	20
Cobalt	1000	ND	1050	1050	104	104	1	75.0-125			0.0352	20
Copper	1000	ND	982	992	98.2	99.2	1	75.0-125			1.03	20
Iron	10000	284	10500	10600	102	103	1	75.0-125			0.735	20
Lead	1000	ND	1000	1000	100	100	1	75.0-125			0.233	20
Magnesium	10000	11000	21300	21300	102	103	1	75.0-125			0.175	20
Manganese	1000	496	1450	1470	95.6	97.1	1	75.0-125			1.01	20
Nickel	1000	45.3	1070	1070	103	103	1	75.0-125			0.0713	20
Potassium	10000	5310	14900	15100	95.9	98.3	1	75.0-125			1.60	20
Selenium	1000	ND	1010	1000	101	100	1	75.0-125			0.868	20
Silver	200	ND	194	195	97.1	97.4	1	75.0-125			0.226	20
Sodium	10000	120000	127000	128000	71.7	78.7	1	75.0-125	<u>V</u>		0.547	20
Thallium	1000	ND	1030	1000	103	100	1	75.0-125			2.97	20
Vanadium	1000	ND	1040	1030	104	102	1	75.0-125			1.66	20
Zinc	1000	63.4	1060	1060	99.8	99.5	1	75.0-125			0.279	20



Method Blank (MB)

(MB) R3430751-2 07/12/19 00:58

Analyte	MB Result ug/l	MB Qualifier	MB MDL ug/l	MB RDL ug/l
Acetone	U		10.0	50.0
Benzene	U		0.331	1.00
Bromodichloromethane	U		0.380	1.00
Bromochloromethane	U		0.520	1.00
Bromoform	U		0.469	1.00
Bromomethane	U		0.866	5.00
Carbon disulfide	U		0.275	1.00
Carbon tetrachloride	U		0.379	1.00
Chlorobenzene	U		0.348	1.00
Chlorodibromomethane	U		0.327	1.00
Chloroethane	U		0.453	5.00
Chloroform	U		0.324	5.00
Chloromethane	U		0.276	2.50
Cyclohexane	U		0.390	1.00
1,2-Dibromo-3-Chloropropane	U		1.33	5.00
1,2-Dibromoethane	U		0.381	1.00
1,2-Dichlorobenzene	U		0.349	1.00
1,3-Dichlorobenzene	U		0.220	1.00
1,4-Dichlorobenzene	U		0.274	1.00
Dichlorodifluoromethane	U		0.551	5.00
1,1-Dichloroethane	U		0.259	1.00
1,2-Dichloroethane	U		0.361	1.00
1,1-Dichloroethene	U		0.398	1.00
cis-1,2-Dichloroethene	U		0.260	1.00
trans-1,2-Dichloroethene	U		0.396	1.00
1,2-Dichloropropane	U		0.306	1.00
cis-1,3-Dichloropropene	U		0.418	1.00
trans-1,3-Dichloropropene	U		0.419	1.00
Ethylbenzene	U		0.384	1.00
2-Hexanone	U		3.82	10.0
2-Butanone (MEK)	U		3.93	10.0
Isopropylbenzene	U		0.326	1.00
Methyl Acetate	U		4.30	20.0
Methyl Cyclohexane	U		0.380	1.00
Methylene Chloride	U		1.00	5.00
4-Methyl-2-pentanone (MIBK)	U		2.14	10.0
Methyl tert-butyl ether	U		0.367	1.00
Styrene	U		0.307	1.00
1,1,2,2-Tetrachloroethane	U		0.130	1.00
Tetrachloroethene	U		0.372	1.00

<sup>1</sup> Cp

<sup>2</sup> Tc

<sup>3</sup> Ss

<sup>4</sup> Cn

<sup>5</sup> Sr

<sup>6</sup> Qc

<sup>7</sup> Gl

<sup>8</sup> Al

<sup>9</sup> Sc



Method Blank (MB)

(MB) R3430751-2 07/12/19 00:58

Analyte	MB Result ug/l	MB Qualifier	MB MDL ug/l	MB RDL ug/l
1,1,2-Trichlorotrifluoroethane	U		0.303	1.00
1,2,3-Trichlorobenzene	U		0.230	1.00
1,2,4-Trichlorobenzene	U		0.355	1.00
Toluene	U		0.412	1.00
1,1,1-Trichloroethane	U		0.319	1.00
1,1,2-Trichloroethane	U		0.383	1.00
Trichloroethene	U		0.398	1.00
Trichlorofluoromethane	U		1.20	5.00
Vinyl chloride	U		0.259	1.00
Xylenes, Total	U		1.06	3.00
(S) Toluene-d8	106			80.0-120
(S) 4-Bromofluorobenzene	96.4			77.0-126
(S) 1,2-Dichloroethane-d4	111			70.0-130

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

Laboratory Control Sample (LCS)

(LCS) R3430751-1 07/12/19 00:14

Analyte	Spike Amount ug/l	LCS Result ug/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Acetone	125	219	175	70.0-130	J4
Bromodichloromethane	25.0	26.5	106	70.0-130	
Bromochloromethane	25.0	26.9	107	70.0-130	
Bromoform	25.0	27.8	111	70.0-130	
Bromomethane	25.0	24.1	96.3	70.0-130	
Carbon disulfide	25.0	30.3	121	70.0-130	
Carbon tetrachloride	25.0	30.2	121	70.0-130	
Chlorobenzene	25.0	27.0	108	70.0-130	
Chlorodibromomethane	25.0	27.2	109	70.0-130	
Benzene	25.0	26.9	108	70.0-130	
Chloroethane	25.0	26.6	106	70.0-130	
Chloroform	25.0	27.0	108	70.0-130	
Chloromethane	25.0	22.2	89.0	70.0-130	
1,2-Dibromo-3-Chloropropane	25.0	25.6	102	70.0-130	
1,2-Dibromoethane	25.0	26.6	106	70.0-130	
1,2-Dichlorobenzene	25.0	26.6	106	70.0-130	
1,3-Dichlorobenzene	25.0	27.9	111	70.0-130	
1,4-Dichlorobenzene	25.0	27.2	109	70.0-130	
Dichlorodifluoromethane	25.0	31.4	126	70.0-130	
1,1-Dichloroethane	25.0	26.5	106	70.0-130	





Laboratory Control Sample (LCS)

(LCS) R3430751-1 07/12/19 00:14

Analyte	Spike Amount ug/l	LCS Result ug/l	LCS Rec. %	Rec. Limits %	<u>LCS Qualifier</u>
1,2-Dichloroethane	25.0	26.1	105	70.0-130	
1,1-Dichloroethene	25.0	29.7	119	70.0-130	
cis-1,2-Dichloroethene	25.0	26.5	106	70.0-130	
trans-1,2-Dichloroethene	25.0	28.5	114	70.0-130	
1,2-Dichloropropane	25.0	26.5	106	70.0-130	
cis-1,3-Dichloropropene	25.0	27.0	108	70.0-130	
trans-1,3-Dichloropropene	25.0	26.0	104	70.0-130	
2-Hexanone	125	148	119	70.0-130	
2-Butanone (MEK)	125	170	136	70.0-130	J4
Methylene Chloride	25.0	25.7	103	70.0-130	
4-Methyl-2-pentanone (MIBK)	125	129	103	70.0-130	
Ethylbenzene	25.0	26.5	106	70.0-130	
Styrene	25.0	29.3	117	70.0-130	
1,1,2,2-Tetrachloroethane	25.0	26.4	106	70.0-130	
Tetrachloroethene	25.0	29.4	118	70.0-130	
Isopropylbenzene	25.0	27.9	112	70.0-130	
1,1,2-Trichlorotrifluoroethane	25.0	30.3	121	70.0-130	
1,2,3-Trichlorobenzene	25.0	27.0	108	70.0-130	
1,2,4-Trichlorobenzene	25.0	27.6	110	70.0-130	
1,1,1-Trichloroethane	25.0	28.3	113	70.0-130	
1,1,2-Trichloroethane	25.0	26.7	107	70.0-130	
Methyl tert-butyl ether	25.0	25.9	103	70.0-130	
Trichloroethene	25.0	26.2	105	70.0-130	
Trichlorofluoromethane	25.0	31.0	124	70.0-130	
Vinyl chloride	25.0	27.8	111	70.0-130	
Toluene	25.0	27.3	109	70.0-130	
Xylenes, Total	75.0	81.7	109	70.0-130	
(S) Toluene-d8			109	80.0-120	
(S) 4-Bromofluorobenzene			101	77.0-126	
(S) 1,2-Dichloroethane-d4			108	70.0-130	

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc



Method Blank (MB)

(MB) R3430339-2 07/13/19 08:13

Analyte	MB Result ug/l	MB Qualifier	MB MDL ug/l	MB RDL ug/l
Aldrin	U		0.00813	0.0500
Alpha BHC	U		0.0166	0.0500
Beta BHC	U		0.0184	0.0500
Delta BHC	U		0.0197	0.0500
Gamma BHC	U		0.0176	0.0500
4,4-DDD	U		0.0170	0.0500
4,4-DDE	U		0.0164	0.0500
4,4-DDT	U		0.0177	0.0500
Dieldrin	U		0.00751	0.0500
Endosulfan I	U		0.0179	0.0500
Endosulfan II	U		0.0176	0.0500
Endosulfan sulfate	U		0.0196	0.0500
Endrin	U		0.0189	0.0500
Endrin aldehyde	U		0.0142	0.0500
Endrin ketone	U		0.0170	0.0500
Heptachlor	U		0.0108	0.0500
Heptachlor epoxide	U		0.0175	0.0500
Hexachlorobenzene	U		0.0134	0.0500
Methoxychlor	U		0.0193	0.0500
Chlordane	U		0.0977	5.00
Toxaphene	U		0.168	0.500
(S) Decachlorobiphenyl	89.9			10.0-128
(S) Tetrachloro-m-xylene	99.4			10.0-127

<sup>1</sup> Cp

<sup>2</sup> Tc

<sup>3</sup> Ss

<sup>4</sup> Cn

<sup>5</sup> Sr

<sup>6</sup> Qc

<sup>7</sup> Gl

<sup>8</sup> Al

<sup>9</sup> Sc

Laboratory Control Sample (LCS)

(LCS) R3430339-1 07/13/19 07:48

Analyte	Spike Amount ug/l	LCS Result ug/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Aldrin	1.00	0.988	98.8	70.0-130	
Alpha BHC	1.00	1.07	107	70.0-130	
Beta BHC	1.00	1.00	100	70.0-130	
Delta BHC	1.00	1.08	108	70.0-130	
Gamma BHC	1.00	1.07	107	70.0-130	
4,4-DDD	1.00	1.01	101	70.0-130	
4,4-DDE	1.00	0.996	99.6	70.0-130	
4,4-DDT	1.00	0.998	99.8	70.0-130	
Dieldrin	1.00	1.02	102	70.0-130	
Endosulfan I	1.00	1.07	107	70.0-130	



Laboratory Control Sample (LCS)

(LCS) R3430339-1 07/13/19 07:48

Analyte	Spike Amount ug/l	LCS Result ug/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Endosulfan II	1.00	1.06	106	70.0-130	
Endosulfan sulfate	1.00	1.03	103	70.0-130	
Endrin	1.00	1.03	103	70.0-130	
Endrin aldehyde	1.00	1.07	107	70.0-130	
Endrin ketone	1.00	1.15	115	70.0-130	
Heptachlor	1.00	0.983	98.3	70.0-130	
Heptachlor epoxide	1.00	1.04	104	70.0-130	
Hexachlorobenzene	1.00	0.946	94.6	70.0-130	
Methoxychlor	1.00	1.02	102	70.0-130	
(S) Decachlorobiphenyl			84.6	10.0-128	
(S) Tetrachloro-m-xylene			95.8	10.0-127	

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

L1117612-02 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1117612-02 07/13/19 11:44 • (MS) R3430339-3 07/13/19 11:57 • (MSD) R3430339-4 07/13/19 12:09

Analyte	Spike Amount ug/l	Original Result ug/l	MS Result ug/l	MSD Result ug/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Aldrin	1.00	U	0.579	0.508	57.9	50.8	1	35.0-126			13.1	24
Alpha BHC	1.00	U	0.723	0.656	72.3	65.6	1	55.0-133			9.72	20
Beta BHC	1.00	U	0.703	0.635	70.3	63.5	1	59.0-131			10.2	20
Delta BHC	1.00	U	0.708	0.643	70.8	64.3	1	61.0-134			9.62	20
Gamma BHC	1.00	U	0.727	0.659	72.7	65.9	1	56.0-133			9.81	20
4,4-DDD	1.00	U	0.703	0.635	70.3	63.5	1	59.0-138			10.2	20
4,4-DDE	1.00	U	0.643	0.576	64.3	57.6	1	58.0-131		J6	11.0	20
4,4-DDT	1.00	U	0.640	0.575	64.0	57.5	1	43.0-147			10.7	20
Dieldrin	1.00	U	0.714	0.643	71.4	64.3	1	62.0-136			10.5	20
Endosulfan I	1.00	U	0.715	0.649	71.5	64.9	1	62.0-137			9.68	20
Endosulfan II	1.00	U	0.741	0.671	74.1	67.1	1	62.0-136			9.92	20
Endosulfan sulfate	1.00	U	0.722	0.660	72.2	66.0	1	60.0-139			8.97	20
Endrin	1.00	U	0.723	0.655	72.3	65.5	1	58.0-135			9.87	20
Endrin aldehyde	1.00	U	0.691	0.627	69.1	62.7	1	56.0-128			9.71	20
Endrin ketone	1.00	U	0.831	0.774	83.1	77.4	1	54.0-142			7.10	20
Heptachlor	1.00	U	0.608	0.544	60.8	54.4	1	37.0-134			11.1	24
Heptachlor epoxide	1.00	U	0.691	0.624	69.1	62.4	1	60.0-132			10.2	20
Hexachlorobenzene	1.00	U	0.588	0.537	58.8	53.7	1	35.0-120			9.07	25
Methoxychlor	1.00	U	0.711	0.645	71.1	64.5	1	44.0-160			9.73	22
(S) Decachlorobiphenyl					60.2	57.5		10.0-128				
(S) Tetrachloro-m-xylene					66.3	58.0		10.0-127				



L1117612-02 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1117612-02 07/13/19 11:44 • (MS) R3430339-3 07/13/19 11:57 • (MSD) R3430339-4 07/13/19 12:09

Analyte	Spike Amount ug/l	Original Result ug/l	MS Result ug/l	MSD Result ug/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	<u>MS Qualifier</u>	<u>MSD Qualifier</u>	RPD %	RPD Limits %
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Sample Narrative:

OS: Dilution due to matrix impact during extraction procedure

<sup>1</sup> Cp

<sup>2</sup> Tc

<sup>3</sup> Ss

<sup>4</sup> Cn

<sup>5</sup> Sr

<sup>6</sup> Qc

<sup>7</sup> Gl

<sup>8</sup> Al

<sup>9</sup> Sc



Method Blank (MB)

(MB) R3431399-2 07/17/19 08:52

Analyte	MB Result ug/l	MB Qualifier	MB MDL ug/l	MB RDL ug/l
Aldrin	U		0.00813	0.0500
Alpha BHC	U		0.0166	0.0500
Beta BHC	U		0.0184	0.0500
Delta BHC	U		0.0197	0.0500
Gamma BHC	U		0.0176	0.0500
4,4-DDD	U		0.0170	0.0500
4,4-DDE	U		0.0164	0.0500
4,4-DDT	U		0.0177	0.0500
Dieldrin	U		0.00751	0.0500
Endosulfan I	U		0.0179	0.0500
Endosulfan II	U		0.0176	0.0500
Endosulfan sulfate	U		0.0196	0.0500
Endrin	U		0.0189	0.0500
Endrin aldehyde	U		0.0142	0.0500
Endrin ketone	U		0.0170	0.0500
Heptachlor	U		0.0108	0.0500
Heptachlor epoxide	U		0.0175	0.0500
Hexachlorobenzene	U		0.0134	0.0500
Methoxychlor	U		0.0193	0.0500
Chlordane	U		0.0977	5.00
Toxaphene	U		0.168	0.500
(S) Decachlorobiphenyl	72.5			10.0-128
(S) Tetrachloro-m-xylene	43.5			10.0-127

<sup>1</sup> Cp

<sup>2</sup> Tc

<sup>3</sup> Ss

<sup>4</sup> Cn

<sup>5</sup> Sr

<sup>6</sup> Qc

<sup>7</sup> Gl

<sup>8</sup> Al

<sup>9</sup> Sc

Laboratory Control Sample (LCS)

(LCS) R3431399-1 07/17/19 08:37

Analyte	Spike Amount ug/l	LCS Result ug/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Aldrin	1.00	0.652	65.2	70.0-130	<u>J4</u>
Alpha BHC	1.00	0.708	70.8	70.0-130	
Beta BHC	1.00	0.734	73.4	70.0-130	
Delta BHC	1.00	0.754	75.4	70.0-130	
Gamma BHC	1.00	0.697	69.7	70.0-130	<u>J4</u>
4,4-DDD	1.00	0.765	76.5	70.0-130	
4,4-DDE	1.00	0.741	74.1	70.0-130	
4,4-DDT	1.00	0.787	78.7	70.0-130	
Dieldrin	1.00	0.773	77.3	70.0-130	
Endosulfan I	1.00	0.779	77.9	70.0-130	



Laboratory Control Sample (LCS)

(LCS) R3431399-1 07/17/19 08:37

Analyte	Spike Amount ug/l	LCS Result ug/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Endosulfan II	1.00	0.797	79.7	70.0-130	
Endosulfan sulfate	1.00	0.809	80.9	70.0-130	
Endrin	1.00	0.784	78.4	70.0-130	
Endrin aldehyde	1.00	0.789	78.9	70.0-130	
Endrin ketone	1.00	0.797	79.7	70.0-130	
Heptachlor	1.00	0.673	67.3	70.0-130	J4
Heptachlor epoxide	1.00	0.815	81.5	70.0-130	
Hexachlorobenzene	1.00	0.590	59.0	70.0-130	J4
Methoxychlor	1.00	0.785	78.5	70.0-130	
(S) Decachlorobiphenyl			68.0	10.0-128	
(S) Tetrachloro-m-xylene			53.1	10.0-127	

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

L1118418-03 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1118418-03 07/17/19 11:34 • (MS) R3431399-3 07/17/19 11:49 • (MSD) R3431399-4 07/17/19 12:04

Analyte	Spike Amount ug/l	Original Result ug/l	MS Result ug/l	MSD Result ug/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Aldrin	1.00	U	0.665	0.680	66.5	68.0	1	35.0-126			2.23	24
Alpha BHC	1.00	U	0.743	0.777	74.3	77.7	1	55.0-133			4.47	20
Beta BHC	1.00	U	0.824	0.822	82.4	82.2	1	59.0-131			0.243	20
Delta BHC	1.00	U	0.827	0.827	82.7	82.7	1	61.0-134			0.000	20
Gamma BHC	1.00	U	0.735	0.764	73.5	76.4	1	56.0-133			3.87	20
4,4-DDD	1.00	U	0.802	0.788	80.2	78.8	1	59.0-138			1.76	20
4,4-DDE	1.00	U	0.753	0.732	75.3	73.2	1	58.0-131			2.83	20
4,4-DDT	1.00	U	0.797	0.770	79.7	77.0	1	43.0-147			3.45	20
Dieldrin	1.00	U	0.809	0.800	80.9	80.0	1	62.0-136			1.12	20
Endosulfan I	1.00	U	0.802	0.804	80.2	80.4	1	62.0-137			0.249	20
Endosulfan II	1.00	U	0.829	0.818	82.9	81.8	1	62.0-136			1.34	20
Endosulfan sulfate	1.00	U	0.852	0.884	85.2	88.4	1	60.0-139			3.69	20
Endrin	1.00	U	0.832	0.819	83.2	81.9	1	58.0-135			1.57	20
Endrin aldehyde	1.00	U	0.823	0.809	82.3	80.9	1	56.0-128			1.72	20
Endrin ketone	1.00	U	0.858	0.824	85.8	82.4	1	54.0-142		P	4.04	20
Heptachlor	1.00	U	0.706	0.722	70.6	72.2	1	37.0-134			2.24	24
Heptachlor epoxide	1.00	U	0.827	0.842	82.7	84.2	1	60.0-132			1.80	20
Hexachlorobenzene	1.00	U	0.602	0.620	60.2	62.0	1	35.0-120			2.95	25
Methoxychlor	1.00	U	0.851	0.839	85.1	83.9	1	44.0-160			1.42	22
(S) Decachlorobiphenyl					40.1	38.3		10.0-128				
(S) Tetrachloro-m-xylene					60.1	59.6		10.0-127				



Method Blank (MB)

(MB) R3432503-2 07/18/19 08:51

Analyte	MB Result ug/l	MB Qualifier	MB MDL ug/l	MB RDL ug/l
Aldrin	U		0.00813	0.0500
Alpha BHC	U		0.0166	0.0500
Beta BHC	U		0.0184	0.0500
Delta BHC	U		0.0197	0.0500
Gamma BHC	U		0.0176	0.0500
4,4-DDD	U		0.0170	0.0500
4,4-DDE	U		0.0164	0.0500
4,4-DDT	U		0.0177	0.0500
Dieldrin	U		0.00751	0.0500
Endosulfan I	U		0.0179	0.0500
Endosulfan II	U		0.0176	0.0500
Endosulfan sulfate	U		0.0196	0.0500
Endrin	U		0.0189	0.0500
Endrin aldehyde	U		0.0142	0.0500
Endrin ketone	U		0.0170	0.0500
Heptachlor	U		0.0108	0.0500
Heptachlor epoxide	U		0.0175	0.0500
Hexachlorobenzene	U		0.0134	0.0500
Methoxychlor	U		0.0193	0.0500
Chlordane	U		0.0977	5.00
Toxaphene	U		0.168	0.500
(S) Decachlorobiphenyl	20.5			10.0-128
(S) Tetrachloro-m-xylene	3.77	<u>J2</u>		10.0-127

<sup>1</sup> Cp

<sup>2</sup> Tc

<sup>3</sup> Ss

<sup>4</sup> Cn

<sup>5</sup> Sr

<sup>6</sup> Qc

<sup>7</sup> Gl

<sup>8</sup> Al

<sup>9</sup> Sc

Laboratory Control Sample (LCS)

(LCS) R3432503-1 07/18/19 08:38

Analyte	Spike Amount ug/l	LCS Result ug/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Aldrin	1.00	0.439	43.9	70.0-130	<u>J4</u>
Alpha BHC	1.00	0.474	47.4	70.0-130	<u>J4</u>
Beta BHC	1.00	0.718	71.8	70.0-130	
Delta BHC	1.00	0.809	80.9	70.0-130	
Gamma BHC	1.00	0.598	59.8	70.0-130	<u>J4</u>
4,4-DDD	1.00	0.941	94.1	70.0-130	
4,4-DDE	1.00	0.828	82.8	70.0-130	
4,4-DDT	1.00	0.925	92.5	70.0-130	
Dieldrin	1.00	0.888	88.8	70.0-130	
Endosulfan I	1.00	0.870	87.0	70.0-130	



Laboratory Control Sample (LCS)

(LCS) R3432503-1 07/18/19 08:38

Analyte	Spike Amount ug/l	LCS Result ug/l	LCS Rec. %	Rec. Limits %	<u>LCS Qualifier</u>
Endosulfan II	1.00	0.947	94.7	70.0-130	
Endosulfan sulfate	1.00	0.938	93.8	70.0-130	
Endrin	1.00	0.904	90.4	70.0-130	
Endrin aldehyde	1.00	0.968	96.8	70.0-130	
Endrin ketone	1.00	1.07	107	70.0-130	
Heptachlor	1.00	0.468	46.8	70.0-130	J4
Heptachlor epoxide	1.00	0.838	83.8	70.0-130	
Hexachlorobenzene	1.00	0.251	25.1	70.0-130	J4
Methoxychlor	1.00	0.968	96.8	70.0-130	
<i>(S) Decachlorobiphenyl</i>			93.0	10.0-128	
<i>(S) Tetrachloro-m-xylene</i>			17.5	10.0-127	

- 1 Cp
- 2 Tc
- 3 Ss
- 4 Cn
- 5 Sr
- 6 Qc
- 7 Gl
- 8 Al
- 9 Sc





Method Blank (MB)

(MB) R3430421-1 07/13/19 19:06

Analyte	MB Result	MB Qualifier	MB MDL	MB RDL
	ug/l		ug/l	ug/l
PCB 1260	U		0.120	0.500
PCB 1016	U		0.100	0.500
PCB 1221	U		0.0730	0.500
PCB 1232	U		0.0420	0.500
PCB 1242	U		0.0470	0.500
PCB 1248	U		0.0860	0.500
PCB 1254	U		0.0470	0.500
(S) Decachlorobiphenyl	94.7			10.0-128
(S) Tetrachloro-m-xylene	87.0			10.0-127

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

Laboratory Control Sample (LCS)

(LCS) R3430421-2 07/13/19 19:19

Analyte	Spike Amount	LCS Result	LCS Rec.	Rec. Limits	LCS Qualifier
	ug/l	ug/l	%	%	
PCB 1260	2.50	2.39	95.6	70.0-130	
PCB 1016	2.50	2.38	95.2	70.0-130	
(S) Decachlorobiphenyl			79.1	10.0-128	
(S) Tetrachloro-m-xylene			83.7	10.0-127	

L1117612-02 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1117612-02 07/13/19 22:01 • (MS) R3430421-3 07/13/19 22:14 • (MSD) R3430421-4 07/13/19 22:26

Analyte	Spike Amount	Original Result	MS Result	MSD Result	MS Rec.	MSD Rec.	Dilution	Rec. Limits	MS Qualifier	MSD Qualifier	RPD	RPD Limits
	ug/l	ug/l	ug/l	ug/l	%	%		%			%	%
PCB 1260	2.50	U	1.84	1.96	73.6	78.4	1	45.0-142			6.32	24
PCB 1016	2.50	U	1.60	1.83	64.0	73.2	1	41.0-134			13.4	23
(S) Decachlorobiphenyl					71.4	77.7		10.0-128				
(S) Tetrachloro-m-xylene					53.2	57.1		10.0-127				

Sample Narrative:

OS: Dilution due to matrix impact during extraction procedure



Polychlorinated Biphenyls (GC) by Method 8082 A

[L1117439-01,02,03,04,05,13](#)

Method Blank (MB)

(MB) R3431439-1 07/17/19 09:39

Analyte	MB Result	MB Qualifier	MB MDL	MB RDL
	ug/l		ug/l	ug/l
PCB 1260	U		0.120	0.500
PCB 1016	U		0.100	0.500
PCB 1221	U		0.0730	0.500
PCB 1232	U		0.0420	0.500
PCB 1242	U		0.0470	0.500
PCB 1248	U		0.0860	0.500
PCB 1254	U		0.0470	0.500
(S) Decachlorobiphenyl	63.6			10.0-128
(S) Tetrachloro-m-xylene	35.2			10.0-127

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

Laboratory Control Sample (LCS)

(LCS) R3431439-2 07/17/19 09:53

Analyte	Spike Amount	LCS Result	LCS Rec.	Rec. Limits	LCS Qualifier
	ug/l	ug/l	%	%	
PCB 1260	2.50	1.66	66.4	70.0-130	<u>J4</u>
PCB 1016	2.50	1.80	72.0	70.0-130	
(S) Decachlorobiphenyl			62.0	10.0-128	
(S) Tetrachloro-m-xylene			44.3	10.0-127	

L1118067-05 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1118067-05 07/17/19 11:48 • (MS) R3431439-3 07/17/19 12:03 • (MSD) R3431439-4 07/17/19 12:18

Analyte	Spike Amount	Original Result	MS Result	MSD Result	MS Rec.	MSD Rec.	Dilution	Rec. Limits	MS Qualifier	MSD Qualifier	RPD	RPD Limits
	ug/l	ug/l	ug/l	ug/l	%	%		%			%	%
PCB 1260	2.50	ND	2.20	1.89	88.0	75.6	1	45.0-142			15.2	24
PCB 1016	2.50	ND	4.15	4.70	166	188	1	41.0-134	<u>J5</u>	<u>J5</u>	12.4	23
(S) Decachlorobiphenyl					75.8	70.8		10.0-128				
(S) Tetrachloro-m-xylene					43.2	49.7		10.0-127				



Method Blank (MB)

(MB) R3432896-1 07/21/19 13:04

Analyte	MB Result	MB Qualifier	MB MDL	MB RDL
	ug/l		ug/l	ug/l
PCB 1260	U		0.120	0.500
PCB 1016	U		0.100	0.500
PCB 1221	U		0.0730	0.500
PCB 1232	U		0.0420	0.500
PCB 1242	U		0.0470	0.500
PCB 1248	U		0.0860	0.500
PCB 1254	U		0.0470	0.500
(S) Decachlorobiphenyl	91.0			10.0-128
(S) Tetrachloro-m-xylene	69.1			10.0-127

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

Laboratory Control Sample (LCS)

(LCS) R3432896-2 07/21/19 13:17

Analyte	Spike Amount	LCS Result	LCS Rec.	Rec. Limits	LCS Qualifier
	ug/l	ug/l	%	%	
PCB 1260	2.50	2.45	98.0	70.0-130	
PCB 1016	2.50	2.24	89.6	70.0-130	
(S) Decachlorobiphenyl			91.5	10.0-128	
(S) Tetrachloro-m-xylene			81.8	10.0-127	

7 Gl

8 Al

9 Sc

L1119452-02 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1119452-02 07/21/19 16:48 • (MS) R3432896-3 07/21/19 17:01 • (MSD) R3432896-4 07/21/19 17:13

Analyte	Spike Amount	Original Result	MS Result	MSD Result	MS Rec.	MSD Rec.	Dilution	Rec. Limits	MS Qualifier	MSD Qualifier	RPD	RPD Limits
	ug/l	ug/l	ug/l	ug/l	%	%		%			%	%
PCB 1260	2.50	ND	2.46	3.13	98.4	125	1	45.0-142			24.0	24
PCB 1016	2.50	ND	2.13	2.34	85.2	93.6	1	41.0-134			9.40	23
(S) Decachlorobiphenyl					122	126		10.0-128				
(S) Tetrachloro-m-xylene					86.8	91.5		10.0-127				



Method Blank (MB)

(MB) R3431393-2 07/16/19 21:13

Analyte	MB Result ug/l	MB Qualifier	MB MDL ug/l	MB RDL ug/l
Acenaphthene	U		0.316	1.00
Acenaphthylene	U		0.309	1.00
Anthracene	U		0.291	1.00
Benzo(a)anthracene	U		0.0975	1.00
Benzo(b)fluoranthene	U		0.0896	1.00
Benzo(k)fluoranthene	U		0.355	1.00
Benzo(g,h,i)perylene	U		0.161	1.00
Benzo(a)pyrene	U		0.340	1.00
Bis(2-chlorethoxy)methane	U		0.329	10.0
Bis(2-chloroethyl)ether	U		1.62	10.0
Bis(2-chloroisopropyl)ether	U		0.445	10.0
4-Bromophenyl-phenylether	U		0.335	10.0
Carbazole	U		0.162	10.0
2-Chloronaphthalene	U		0.330	1.00
4-Chlorophenyl-phenylether	U		0.303	10.0
Chrysene	U		0.332	1.00
Dibenz(a,h)anthracene	U		0.279	1.00
3,3-Dichlorobenzidine	U		2.02	10.0
2,4-Dinitrotoluene	U		1.65	10.0
2,6-Dinitrotoluene	U		0.279	10.0
Fluoranthene	U		0.310	1.00
Fluorene	U		0.323	1.00
Hexachlorobenzene	U		0.341	1.00
Hexachloro-1,3-butadiene	U		0.329	10.0
Hexachlorocyclopentadiene	U		2.33	10.0
Hexachloroethane	U		0.365	10.0
Indeno(1,2,3-cd)pyrene	U		0.279	1.00
Isophorone	U		0.272	10.0
Naphthalene	U		0.372	1.00
Nitrobenzene	U		0.367	10.0
n-Nitrosodiphenylamine	U		1.19	10.0
n-Nitrosodi-n-propylamine	U		0.403	10.0
Phenanthrene	U		0.366	1.00
Benzylbutyl phthalate	U		0.275	3.00
Bis(2-ethylhexyl)phthalate	U		0.709	3.00
Di-n-butyl phthalate	U		0.266	3.00
Diethyl phthalate	U		0.282	3.00
Dimethyl phthalate	U		0.283	3.00
Di-n-octyl phthalate	U		0.278	3.00
Pyrene	U		0.330	1.00

<sup>1</sup> Cp

<sup>2</sup> Tc

<sup>3</sup> Ss

<sup>4</sup> Cn

<sup>5</sup> Sr

<sup>6</sup> Qc

<sup>7</sup> Gl

<sup>8</sup> Al

<sup>9</sup> Sc



Method Blank (MB)

(MB) R3431393-2 07/16/19 21:13

Analyte	MB Result ug/l	MB Qualifier	MB MDL ug/l	MB RDL ug/l
4-Chloroaniline	U		0.382	10.0
4-Chloro-3-methylphenol	U		0.263	10.0
2-Chlorophenol	U		0.283	10.0
2-Nitrophenol	U		0.320	10.0
4-Nitrophenol	U		2.01	10.0
Pentachlorophenol	U		0.313	10.0
Phenol	U		0.334	10.0
2,4,6-Trichlorophenol	U		0.297	10.0
Dibenzofuran	U		0.338	10.0
2,4-Dichlorophenol	U		0.284	10.0
2,4-Dimethylphenol	U		0.624	10.0
4,6-Dinitro-2-methylphenol	U		2.62	10.0
2,4-Dinitrophenol	U		3.25	10.0
2-Methylnaphthalene	U		0.311	1.00
2-Methylphenol	U		0.312	10.0
3&4-Methyl Phenol	U		0.266	10.0
2-Nitroaniline	U		1.90	10.0
3-Nitroaniline	U		0.308	10.0
4-Nitroaniline	U		0.349	10.0
Acetophenone	U		2.71	10.0
1,2,4,5-Tetrachlorobenzene	U		2.41	10.0
2,4,5-Trichlorophenol	U		0.236	10.0
Biphenyl	U		0.206	10.0
Atrazine	U		1.53	10.0
Benzaldehyde	U		1.40	10.0
Caprolactam	U		0.583	10.0
(S) Nitrobenzene-d5	35.3			10.0-127
(S) 2-Fluorobiphenyl	26.8			10.0-130
(S) p-Terphenyl-d14	59.6			10.0-128
(S) Phenol-d5	0.000	<u>J2</u>		10.0-120
(S) 2-Fluorophenol	13.5			10.0-120
(S) 2,4,6-Tribromophenol	41.8			10.0-155

<sup>1</sup> Cp

<sup>2</sup> Tc

<sup>3</sup> Ss

<sup>4</sup> Cn

<sup>5</sup> Sr

<sup>6</sup> Qc

<sup>7</sup> Gl

<sup>8</sup> Al

<sup>9</sup> Sc



Laboratory Control Sample (LCS)

(LCS) R3431393-1 07/16/19 20:53

Analyte	Spike Amount ug/l	LCS Result ug/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Acenaphthene	50.0	20.9	41.8	70.0-130	J4
Acenaphthylene	50.0	16.6	33.2	70.0-130	J4
Anthracene	50.0	26.9	53.8	70.0-130	J4
Biphenyl	50.0	26.8	53.6	70.0-130	J4
Benzo(a)anthracene	50.0	30.9	61.8	70.0-130	J4
Benzo(b)fluoranthene	50.0	37.2	74.4	70.0-130	
Benzo(k)fluoranthene	50.0	35.3	70.6	70.0-130	
Benzo(g,h,i)perylene	50.0	35.2	70.4	70.0-130	
Benzo(a)pyrene	50.0	30.3	60.6	70.0-130	J4
Bis(2-chlorethoxy)methane	50.0	29.5	59.0	70.0-130	J4
Bis(2-chloroethyl)ether	50.0	31.4	62.8	70.0-130	J4
Bis(2-chloroisopropyl)ether	50.0	27.0	54.0	70.0-130	J4
4-Bromophenyl-phenylether	50.0	36.2	72.4	70.0-130	
Carbazole	50.0	23.6	47.2	70.0-130	J4
2-Chloronaphthalene	50.0	25.7	51.4	70.0-130	J4
4-Chlorophenyl-phenylether	50.0	33.2	66.4	70.0-130	J4
Chrysene	50.0	33.2	66.4	70.0-130	J4
Dibenz(a,h)anthracene	50.0	36.6	73.2	70.0-130	
3,3-Dichlorobenzidine	100	11.1	11.1	70.0-130	J4
2,4-Dinitrotoluene	50.0	39.1	78.2	70.0-130	
2,6-Dinitrotoluene	50.0	35.4	70.8	70.0-130	
Fluoranthene	50.0	34.6	69.2	70.0-130	J4
Fluorene	50.0	32.1	64.2	70.0-130	J4
Hexachlorobenzene	50.0	36.6	73.2	70.0-130	
Hexachloro-1,3-butadiene	50.0	14.8	29.6	70.0-130	J4
Hexachlorocyclopentadiene	50.0	18.0	36.0	70.0-130	J4
Hexachloroethane	50.0	13.6	27.2	70.0-130	J4
Indeno(1,2,3-cd)pyrene	50.0	37.0	74.0	70.0-130	
Isophorone	50.0	29.9	59.8	70.0-130	J4
Naphthalene	50.0	25.0	50.0	70.0-130	J4
Nitrobenzene	50.0	28.9	57.8	70.0-130	J4
n-Nitrosodiphenylamine	50.0	1.74	3.48	70.0-130	J4
n-Nitrosodi-n-propylamine	50.0	30.7	61.4	70.0-130	J4
Phenanthrene	50.0	31.3	62.6	70.0-130	J4
Benzylbutyl phthalate	50.0	37.9	75.8	70.0-130	
Bis(2-ethylhexyl)phthalate	50.0	37.7	75.4	70.0-130	
Di-n-butyl phthalate	50.0	39.0	78.0	70.0-130	
Diethyl phthalate	50.0	37.6	75.2	70.0-130	
Dimethyl phthalate	50.0	35.8	71.6	70.0-130	
Di-n-octyl phthalate	50.0	35.2	70.4	70.0-130	

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc



Laboratory Control Sample (LCS)

(LCS) R3431393-1 07/16/19 20:53

Analyte	Spike Amount ug/l	LCS Result ug/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Pyrene	50.0	31.1	62.2	70.0-130	J4
4-Chloroaniline	50.0	5.62	11.2	70.0-130	J4
4-Chloro-3-methylphenol	50.0	4.76	9.52	70.0-130	J4
2-Chlorophenol	50.0	16.2	32.4	70.0-130	J4
Dibenzofuran	50.0	30.5	61.0	70.0-130	J4
2,4-Dichlorophenol	50.0	25.3	50.6	70.0-130	J4
2,4-Dimethylphenol	50.0	8.95	17.9	70.0-130	J4
4,6-Dinitro-2-methylphenol	50.0	34.7	69.4	70.0-130	J4
2,4-Dinitrophenol	50.0	35.7	71.4	70.0-130	J4
2-Methylnaphthalene	50.0	20.6	41.2	70.0-130	J4
2-Methylphenol	50.0	11.1	22.2	70.0-130	J4
3&4-Methyl Phenol	50.0	12.9	25.8	70.0-130	J4
2-Nitroaniline	50.0	30.6	61.2	70.0-130	J4
3-Nitroaniline	50.0	7.40	14.8	70.0-130	J4
4-Nitroaniline	50.0	13.8	27.6	70.0-130	J4
2-Nitrophenol	50.0	29.9	59.8	70.0-130	J4
4-Nitrophenol	50.0	5.48	11.0	70.0-130	J4
Pentachlorophenol	50.0	31.7	63.4	70.0-130	J4
Phenol	50.0	5.39	10.8	70.0-130	J4
2,4,6-Trichlorophenol	50.0	36.5	73.0	70.0-130	J4
Acetophenone	50.0	28.4	56.8	70.0-130	J4
1,2,4,5-Tetrachlorobenzene	50.0	28.1	56.2	70.0-130	J4
2,4,5-Trichlorophenol	50.0	23.9	47.8	70.0-130	J4
Atrazine	50.0	35.3	70.6	70.0-130	J4
Benzaldehyde	50.0	32.6	65.2	70.0-130	J4
Caprolactam	50.0	10.9	21.8	70.0-130	J4
(S) Nitrobenzene-d5			49.5	10.0-127	
(S) 2-Fluorobiphenyl			50.3	10.0-130	
(S) p-Terphenyl-d14			72.5	10.0-128	
(S) Phenol-d5			16.8	10.0-120	
(S) 2-Fluorophenol			29.0	10.0-120	
(S) 2,4,6-Tribromophenol			73.5	10.0-155	

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc



L1118067-06 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1118067-06 07/16/19 23:34 • (MS) R3431502-1 07/16/19 23:55 • (MSD) R3431502-2 07/17/19 00:16

Analyte	Spike Amount ug/l	Original Result ug/l	MS Result ug/l	MSD Result ug/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Acenaphthene	50.0	ND	12.1	16.6	24.2	33.2	1	25.0-143	J6	J3	31.4	29
Acenaphthylene	50.0	ND	13.3	18.1	26.6	36.2	1	24.0-149		J3	30.6	29
Anthracene	50.0	ND	19.5	21.8	39.0	43.6	1	27.0-145			11.1	30
Benzo(a)anthracene	50.0	ND	22.2	22.9	44.4	45.8	1	30.0-138			3.10	26
Benzo(b)fluoranthene	50.0	ND	22.6	24.0	45.2	48.0	1	28.0-140			6.01	31
Benzo(k)fluoranthene	50.0	ND	21.5	22.9	43.0	45.8	1	28.0-140			6.31	31
Benzo(g,h,i)perylene	50.0	ND	22.9	22.3	45.8	44.6	1	26.0-149			2.65	27
Benzo(a)pyrene	50.0	ND	22.5	23.5	45.0	47.0	1	28.0-139			4.35	29
Bis(2-chloroethoxy)methane	50.0	ND	10.4	14.1	20.8	28.2	1	19.0-135		J3	30.2	30
Bis(2-chloroethyl)ether	50.0	ND	10.5	14.8	21.0	29.6	1	10.0-126			34.0	34
Bis(2-chloroisopropyl)ether	50.0	ND	10.4	14.5	20.8	29.0	1	18.0-128			32.9	35
4-Bromophenyl-phenylether	50.0	ND	18.5	21.9	37.0	43.8	1	28.0-146			16.8	30
2-Chloronaphthalene	50.0	ND	11.0	15.4	22.0	30.8	1	23.0-134	J6	J3	33.3	32
4-Chlorophenyl-phenylether	50.0	ND	16.5	21.6	33.0	43.2	1	32.0-142			26.8	29
Chrysene	50.0	ND	20.2	21.1	40.4	42.2	1	32.0-144			4.36	27
Dibenz(a,h)anthracene	50.0	ND	22.6	22.6	45.2	45.2	1	22.0-149			0.000	29
3,3-Dichlorobenzidine	100	ND	20.8	22.4	20.8	22.4	1	10.0-160			7.41	34
2,4-Dinitrotoluene	50.0	ND	19.6	24.1	39.2	48.2	1	30.0-156			20.6	29
2,6-Dinitrotoluene	50.0	ND	17.3	21.8	34.6	43.6	1	28.0-143			23.0	30
Fluoranthene	50.0	ND	23.0	24.2	46.0	48.4	1	31.0-146			5.08	30
Fluorene	50.0	ND	15.7	19.7	31.4	39.4	1	29.0-143			22.6	31
Hexachlorobenzene	50.0	ND	21.2	24.6	42.4	49.2	1	29.0-144			14.8	33
Hexachloro-1,3-butadiene	50.0	ND	6.75	9.82	13.5	19.6	1	18.0-122	J6	J3	37.1	35
Hexachlorocyclopentadiene	50.0	ND	7.73	8.57	15.5	17.1	1	10.0-146			10.3	34
Hexachloroethane	50.0	ND	4.31	6.41	8.62	12.8	1	12.0-120	J6	J3	39.2	36
Indeno(1,2,3-cd)pyrene	50.0	ND	23.7	23.7	47.4	47.4	1	24.0-151			0.000	28
Isophorone	50.0	ND	11.4	15.6	22.8	31.2	1	22.0-141		J3	31.1	29
Naphthalene	50.0	ND	9.14	13.0	18.3	26.0	1	19.0-125	J6	J3	34.9	32
Nitrobenzene	50.0	ND	10.1	14.1	20.2	28.2	1	14.0-134		J3	33.1	32
n-Nitrosodiphenylamine	50.0	ND	18.9	21.7	37.8	43.4	1	16.0-160			13.8	28
n-Nitrosodi-n-propylamine	50.0	ND	11.9	16.4	23.8	32.8	1	16.0-136		J3	31.8	30
Phenanthrene	50.0	ND	18.8	21.3	37.6	42.6	1	27.0-137			12.5	28
Benzylbutyl phthalate	50.0	ND	22.6	24.4	44.5	48.1	1	30.0-147			7.66	27
Acetophenone	50.0	ND	10.8	15.1	21.6	30.2	1	10.0-139			33.2	35
Bis(2-ethylhexyl)phthalate	50.0	ND	19.5	20.2	35.4	36.8	1	25.0-140			3.53	26
Di-n-butyl phthalate	50.0	ND	23.2	25.2	46.4	50.4	1	32.0-146			8.26	27
Diethyl phthalate	50.0	ND	20.4	24.3	37.3	45.1	1	34.0-149			17.4	26
Dimethyl phthalate	50.0	ND	16.8	21.4	33.6	42.8	1	29.0-147			24.1	27
Atrazine	50.0	ND	19.1	20.8	38.2	41.6	1	34.0-147			8.52	28
Di-n-octyl phthalate	50.0	ND	24.6	24.6	49.2	49.2	1	24.0-146			0.000	29

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc





L1118067-06 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1118067-06 07/16/19 23:34 • (MS) R3431502-1 07/16/19 23:55 • (MSD) R3431502-2 07/17/19 00:16

Analyte	Spike Amount ug/l	Original Result ug/l	MS Result ug/l	MSD Result ug/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Benzaldehyde	50.0	ND	11.8	16.3	23.6	32.6	1	10.0-120			32.0	40
Pyrene	50.0	ND	22.2	20.9	44.4	41.8	1	34.0-140			6.03	27
4-Chloro-3-methylphenol	50.0	ND	18.2	21.7	36.4	43.4	1	20.0-138			17.5	28
Biphenyl	50.0	ND	11.9	16.4	23.8	32.8	1	23.0-130		J3	31.8	27
2-Chlorophenol	50.0	ND	10.6	15.0	21.2	30.0	1	11.0-120		J3	34.4	33
2,4-Dichlorophenol	50.0	ND	14.0	18.9	28.0	37.8	1	19.0-135			29.8	32
2,4-Dimethylphenol	50.0	ND	12.0	16.2	24.0	32.4	1	18.0-127			29.8	31
4,6-Dinitro-2-methylphenol	50.0	ND	22.2	24.1	44.4	48.2	1	10.0-160			8.21	38
Caprolactam	50.0	ND	10.0	9.48	18.0	17.0	1	10.0-120			5.34	37
2,4-Dinitrophenol	50.0	ND	19.3	21.7	38.6	43.4	1	10.0-137			11.7	36
Carbazole	50.0	ND	21.6	22.5	43.2	45.0	1	23.0-158			4.08	26
4-Chloroaniline	50.0	ND	12.6	13.3	25.2	26.6	1	10.0-137			5.41	33
Dibenzofuran	50.0	ND	14.5	19.2	29.0	38.4	1	17.0-150		J3	27.9	27
2-Nitrophenol	50.0	ND	11.5	16.4	23.0	32.8	1	15.0-143		J3	35.1	33
4-Nitrophenol	50.0	ND	ND	ND	0.000	0.000	1	10.0-120	J6	J6	0.000	31
Pentachlorophenol	50.0	ND	18.1	20.5	36.2	41.0	1	10.0-160			12.4	40
Phenol	50.0	ND	7.60	9.83	13.4	17.9	1	10.0-120			25.6	34
2,4,6-Trichlorophenol	50.0	ND	16.4	21.2	32.8	42.4	1	10.0-153			25.5	29
2-Methylnaphthalene	50.0	ND	9.95	13.9	19.9	27.8	1	13.0-142		J3	33.1	29
2-Nitroaniline	50.0	ND	18.1	22.4	36.2	44.8	1	13.0-160			21.2	27
3-Nitroaniline	50.0	ND	19.3	20.1	38.6	40.2	1	10.0-160			4.06	26
4-Nitroaniline	50.0	ND	16.6	18.6	33.2	37.2	1	17.0-160			11.4	29
2-Methylphenol	50.0	ND	21.7	28.6	39.6	53.4	1	14.0-120			27.4	29
2,4,5-Trichlorophenol	50.0	ND	21.3	25.6	42.6	51.2	1	15.0-160			18.3	27
3&4-Methyl Phenol	50.0	ND	14.5	19.7	23.7	34.1	1	13.0-124		J3	30.4	26
1,2,4,5-Tetrachlorobenzene	50.0	ND	13.8	19.5	27.6	39.0	1	10.0-147		J3	34.2	34
(S) Nitrobenzene-d5					22.7	30.8		10.0-127				
(S) 2-Fluorobiphenyl					23.4	30.6		10.0-130				
(S) p-Terphenyl-d14					45.9	42.1		10.0-128				
(S) Phenol-d5					10.9	14.3		10.0-120				
(S) 2-Fluorophenol					15.4	21.3		10.0-120				
(S) 2,4,6-Tribromophenol					45.5	49.4		10.0-155				

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc



Method Blank (MB)

(MB) R3430963-2 07/16/19 00:35

Analyte	MB Result ug/l	MB Qualifier	MB MDL ug/l	MB RDL ug/l
Acenaphthene	U		0.316	1.00
Acenaphthylene	U		0.309	1.00
Anthracene	U		0.291	1.00
Benzo(a)anthracene	U		0.0975	1.00
Benzo(b)fluoranthene	U		0.0896	1.00
Benzo(k)fluoranthene	U		0.355	1.00
Benzo(g,h,i)perylene	U		0.161	1.00
Benzo(a)pyrene	U		0.340	1.00
Bis(2-chlorethoxy)methane	U		0.329	10.0
Bis(2-chloroethyl)ether	U		1.62	10.0
Bis(2-chloroisopropyl)ether	U		0.445	10.0
4-Bromophenyl-phenylether	U		0.335	10.0
2-Chloronaphthalene	U		0.330	1.00
4-Chlorophenyl-phenylether	U		0.303	10.0
Chrysene	U		0.332	1.00
Dibenz(a,h)anthracene	U		0.279	1.00
3,3-Dichlorobenzidine	U		2.02	10.0
2,4-Dinitrotoluene	U		1.65	10.0
2,6-Dinitrotoluene	U		0.279	10.0
Fluoranthene	U		0.310	1.00
Fluorene	U		0.323	1.00
Hexachlorobenzene	U		0.341	1.00
Hexachloro-1,3-butadiene	U		0.329	10.0
Hexachlorocyclopentadiene	U		2.33	10.0
Hexachloroethane	U		0.365	10.0
Indeno(1,2,3-cd)pyrene	U		0.279	1.00
Isophorone	U		0.272	10.0
Naphthalene	U		0.372	1.00
Nitrobenzene	U		0.367	10.0
n-Nitrosodiphenylamine	U		1.19	10.0
n-Nitrosodi-n-propylamine	U		0.403	10.0
Phenanthrene	U		0.366	1.00
Benzylbutyl phthalate	U		0.275	3.00
Bis(2-ethylhexyl)phthalate	U		0.709	3.00
Di-n-butyl phthalate	U		0.266	3.00
Diethyl phthalate	U		0.282	3.00
Dimethyl phthalate	U		0.283	3.00
Di-n-octyl phthalate	U		0.278	3.00
Pyrene	U		0.330	1.00
4-Chloroaniline	U		0.382	10.0

<sup>1</sup> Cp

<sup>2</sup> Tc

<sup>3</sup> Ss

<sup>4</sup> Cn

<sup>5</sup> Sr

<sup>6</sup> Qc

<sup>7</sup> Gl

<sup>8</sup> Al

<sup>9</sup> Sc



Method Blank (MB)

(MB) R3430963-2 07/16/19 00:35

Analyte	MB Result ug/l	MB Qualifier	MB MDL ug/l	MB RDL ug/l
4-Chloro-3-methylphenol	U		0.263	10.0
2-Chlorophenol	U		0.283	10.0
Dibenzofuran	U		0.338	10.0
2,4-Dichlorophenol	U		0.284	10.0
2,4-Dimethylphenol	U		0.624	10.0
4,6-Dinitro-2-methylphenol	U		2.62	10.0
2,4-Dinitrophenol	U		3.25	10.0
2-Methylnaphthalene	U		0.311	1.00
2-Methylphenol	U		0.312	10.0
3&4-Methyl Phenol	U		0.266	10.0
2-Nitroaniline	U		1.90	10.0
3-Nitroaniline	U		0.308	10.0
4-Nitroaniline	U		0.349	10.0
2-Nitrophenol	U		0.320	10.0
4-Nitrophenol	U		2.01	10.0
Pentachlorophenol	U		0.313	10.0
Phenol	U		0.334	10.0
2,4,5-Trichlorophenol	U		0.236	10.0
2,4,6-Trichlorophenol	U		0.297	10.0
Acetophenone	U		2.71	10.0
Atrazine	U		1.53	10.0
Benzaldehyde	U		1.40	10.0
Biphenyl	U		0.206	10.0
Caprolactam	0.901	J	0.583	10.0
Carbazole	U		0.162	10.0
1,2,4,5-Tetrachlorobenzene	U		2.41	10.0
(S) 2-Fluorophenol	9.05	J2		10.0-120
(S) Phenol-d5	5.20	J2		10.0-120
(S) Nitrobenzene-d5	26.4			10.0-127
(S) 2-Fluorobiphenyl	24.1			10.0-130
(S) 2,4,6-Tribromophenol	37.9			10.0-155
(S) p-Terphenyl-d14	47.8			10.0-128

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc



Laboratory Control Sample (LCS)

(LCS) R3430963-1 07/16/19 00:14

Analyte	Spike Amount ug/l	LCS Result ug/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Acenaphthene	50.0	18.7	37.4	70.0-130	J4
Acenaphthylene	50.0	19.8	39.6	70.0-130	J4
Anthracene	50.0	25.5	51.0	70.0-130	J4
Benzo(a)anthracene	50.0	32.2	64.4	70.0-130	J4
Benzo(b)fluoranthene	50.0	33.2	66.4	70.0-130	J4
Benzo(k)fluoranthene	50.0	32.5	65.0	70.0-130	J4
Benzo(g,h,i)perylene	50.0	34.7	69.4	70.0-130	J4
Benzo(a)pyrene	50.0	32.4	64.8	70.0-130	J4
Bis(2-chlorethoxy)methane	50.0	21.0	42.0	70.0-130	J4
Bis(2-chloroethyl)ether	50.0	20.7	41.4	70.0-130	J4
Bis(2-chloroisopropyl)ether	50.0	18.5	37.0	70.0-130	J4
4-Bromophenyl-phenylether	50.0	24.9	49.8	70.0-130	J4
2-Chloronaphthalene	50.0	17.8	35.6	70.0-130	J4
4-Chlorophenyl-phenylether	50.0	22.7	45.4	70.0-130	J4
Chrysene	50.0	32.5	65.0	70.0-130	J4
Dibenz(a,h)anthracene	50.0	34.4	68.8	70.0-130	J4
3,3-Dichlorobenzidine	100	53.1	53.1	70.0-130	J4
2,4-Dinitrotoluene	50.0	30.6	61.2	70.0-130	J4
2,6-Dinitrotoluene	50.0	26.5	53.0	70.0-130	J4
Fluoranthene	50.0	30.8	61.6	70.0-130	J4
Fluorene	50.0	21.6	43.2	70.0-130	J4
Hexachlorobenzene	50.0	26.8	53.6	70.0-130	J4
Hexachloro-1,3-butadiene	50.0	16.0	32.0	70.0-130	J4
Hexachlorocyclopentadiene	50.0	14.2	28.4	70.0-130	J4
Hexachloroethane	50.0	14.5	29.0	70.0-130	J4
Indeno(1,2,3-cd)pyrene	50.0	35.4	70.8	70.0-130	J4
Isophorone	50.0	20.4	40.8	70.0-130	J4
Naphthalene	50.0	15.6	31.2	70.0-130	J4
Nitrobenzene	50.0	18.7	37.4	70.0-130	J4
n-Nitrosodiphenylamine	50.0	23.7	47.4	70.0-130	J4
n-Nitrosodi-n-propylamine	50.0	21.9	43.8	70.0-130	J4
Phenanthrene	50.0	23.8	47.6	70.0-130	J4
Benzylbutyl phthalate	50.0	34.1	68.2	70.0-130	J4
Bis(2-ethylhexyl)phthalate	50.0	33.7	67.4	70.0-130	J4
Di-n-butyl phthalate	50.0	34.5	69.0	70.0-130	J4
Diethyl phthalate	50.0	31.2	62.4	70.0-130	J4
Dimethyl phthalate	50.0	28.5	57.0	70.0-130	J4
Di-n-octyl phthalate	50.0	32.4	64.8	70.0-130	J4
Pyrene	50.0	29.8	59.6	70.0-130	J4
4-Chloroaniline	50.0	3.15	6.30	70.0-130	J4

<sup>1</sup> Cp

<sup>2</sup> Tc

<sup>3</sup> Ss

<sup>4</sup> Cn

<sup>5</sup> Sr

<sup>6</sup> Qc

<sup>7</sup> Gl

<sup>8</sup> Al

<sup>9</sup> Sc



Laboratory Control Sample (LCS)

(LCS) R3430963-1 07/16/19 00:14

Analyte	Spike Amount ug/l	LCS Result ug/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
4-Chloro-3-methylphenol	50.0	18.2	36.4	70.0-130	J4
2-Chlorophenol	50.0	15.0	30.0	70.0-130	J4
Dibenzofuran	50.0	20.7	41.4	70.0-130	J4
2,4-Dichlorophenol	50.0	19.4	38.8	70.0-130	J4
2,4-Dimethylphenol	50.0	16.6	33.2	70.0-130	J4
4,6-Dinitro-2-methylphenol	50.0	27.4	54.8	70.0-130	J4
2,4-Dinitrophenol	50.0	13.3	26.6	70.0-130	J4
2-Methylnaphthalene	50.0	16.5	33.0	70.0-130	J4
2-Methylphenol	50.0	12.1	24.2	70.0-130	J4
3&4-Methyl Phenol	50.0	11.7	23.4	70.0-130	J4
2-Nitroaniline	50.0	25.2	50.4	70.0-130	J4
3-Nitroaniline	50.0	18.1	36.2	70.0-130	J4
4-Nitroaniline	50.0	21.0	42.0	70.0-130	J4
2-Nitrophenol	50.0	21.9	43.8	70.0-130	J4
4-Nitrophenol	50.0	9.49	19.0	70.0-130	J4
Pentachlorophenol	50.0	28.6	57.2	70.0-130	J4
Phenol	50.0	4.33	8.66	70.0-130	J4
2,4,5-Trichlorophenol	50.0	26.3	52.6	70.0-130	J4
2,4,6-Trichlorophenol	50.0	22.4	44.8	70.0-130	J4
Acetophenone	50.0	20.2	40.4	70.0-130	J4
Atrazine	50.0	29.7	59.4	70.0-130	J4
Benzaldehyde	50.0	20.4	40.8	70.0-130	J4
Biphenyl	50.0	18.7	37.4	70.0-130	J4
Caprolactam	50.0	10.9	21.8	70.0-130	J4
Carbazole	50.0	30.7	61.4	70.0-130	J4
1,2,4,5-Tetrachlorobenzene	50.0	19.2	38.4	70.0-130	J4
(S) 2-Fluorophenol			13.3	10.0-120	
(S) Phenol-d5			8.40	10.0-120	J2
(S) Nitrobenzene-d5			35.3	10.0-127	
(S) 2-Fluorobiphenyl			38.8	10.0-130	
(S) 2,4,6-Tribromophenol			62.5	10.0-155	
(S) p-Terphenyl-d14			64.9	10.0-128	

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc



L1117111-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1117111-01 07/16/19 00:37 • (MS) R3431076-1 07/16/19 00:57 • (MSD) R3431076-2 07/16/19 01:18

Analyte	Spike Amount ug/l	Original Result ug/l	MS Result ug/l	MSD Result ug/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Acenaphthene	50.0	U	5.43	21.2	10.9	42.4	1	25.0-143	J6	J3	118	29
Acenaphthylene	50.0	U	6.08	23.0	12.2	46.0	1	24.0-149	J6	J3	116	29
Benzo(g,h,i)perylene	50.0	U	18.6	31.5	37.2	63.0	1	26.0-149		J3	51.5	27
Anthracene	50.0	U	12.2	26.7	24.4	53.4	1	27.0-145	J6	J3	74.6	30
Benzo(a)anthracene	50.0	U	18.3	31.5	36.6	63.0	1	30.0-138		J3	53.0	26
Benzo(b)fluoranthene	50.0	U	18.8	32.6	37.6	65.2	1	28.0-140		J3	53.7	31
Benzo(k)fluoranthene	50.0	U	18.4	31.5	36.8	63.0	1	28.0-140		J3	52.5	31
Benzo(a)pyrene	50.0	U	17.7	31.2	35.4	62.4	1	28.0-139		J3	55.2	29
Bis(2-chloroethoxy)methane	50.0	U	7.48	19.1	15.0	38.2	1	19.0-135	J6	J3	87.4	30
Bis(2-chloroethyl)ether	50.0	U	8.13	23.1	16.3	46.2	1	10.0-126		J3	95.9	34
Bis(2-chloroisopropyl)ether	50.0	U	5.61	18.9	11.2	37.8	1	18.0-128	J6	J3	108	35
4-Bromophenyl-phenylether	50.0	U	8.60	24.1	17.2	48.2	1	28.0-146	J6	J3	94.8	30
2-Chloronaphthalene	50.0	U	4.79	20.3	9.58	40.6	1	23.0-134	J6	J3	124	32
4-Chlorophenyl-phenylether	50.0	U	6.84	23.1	13.7	46.2	1	32.0-142	J6	J3	109	29
Chrysene	50.0	U	17.4	29.6	34.8	59.2	1	32.0-144		J3	51.9	27
Dibenz(a,h)anthracene	50.0	U	18.4	32.0	36.8	64.0	1	22.0-149		J3	54.0	29
3,3-Dichlorobenzidine	100	U	21.3	36.7	21.3	36.7	1	10.0-160		J3	53.1	34
2,4-Dinitrotoluene	50.0	U	16.8	29.3	33.6	58.6	1	30.0-156		J3	54.2	29
2,6-Dinitrotoluene	50.0	U	12.3	26.0	24.6	52.0	1	28.0-143	J6	J3	71.5	30
Fluoranthene	50.0	U	16.9	30.1	33.8	60.2	1	31.0-146		J3	56.2	30
Fluorene	50.0	U	7.15	23.1	14.3	46.2	1	29.0-143	J6	J3	105	31
Hexachlorobenzene	50.0	U	11.0	27.2	22.0	54.4	1	29.0-144	J6	J3	84.8	33
Hexachloro-1,3-butadiene	50.0	U	3.76	16.7	7.52	33.4	1	18.0-122	J6	J3	126	35
Hexachlorocyclopentadiene	50.0	U	7.87	17.0	15.7	34.0	1	10.0-146		J3	73.4	34
Hexachloroethane	50.0	U	3.78	15.8	7.56	31.6	1	12.0-120	J6	J3	123	36
Indeno(1,2,3-cd)pyrene	50.0	U	18.7	32.2	37.4	64.4	1	24.0-151		J3	53.0	28
Isophorone	50.0	U	7.71	20.9	15.4	41.8	1	22.0-141	J6	J3	92.2	29
Naphthalene	50.0	U	4.73	18.8	9.46	37.6	1	19.0-125	J6	J3	120	32
Nitrobenzene	50.0	U	6.68	19.5	13.4	39.0	1	14.0-134	J6	J3	97.9	32
n-Nitrosodiphenylamine	50.0	U	12.7	26.3	25.4	52.6	1	16.0-160		J3	69.7	28
n-Nitrosodi-n-propylamine	50.0	U	7.72	21.7	15.4	43.4	1	16.0-136	J6	J3	95.0	30
Phenanthrene	50.0	U	11.7	26.0	23.4	52.0	1	27.0-137	J6	J3	75.9	28
Benzylbutyl phthalate	50.0	U	20.6	35.5	41.2	71.0	1	30.0-147		J3	53.1	27
Bis(2-ethylhexyl)phthalate	50.0	U	17.4	29.4	34.8	58.8	1	25.0-140		J3	51.3	26
Di-n-butyl phthalate	50.0	U	19.8	34.3	39.6	68.6	1	32.0-146		J3	53.6	27
Diethyl phthalate	50.0	U	15.3	27.7	30.6	55.4	1	34.0-149	J6	J3	57.7	26
Dimethyl phthalate	50.0	U	14.4	26.5	28.8	53.0	1	29.0-147	J6	J3	59.2	27
Di-n-octyl phthalate	50.0	U	21.1	36.6	42.2	73.2	1	24.0-146		J3	53.7	29
Pyrene	50.0	U	18.5	33.2	37.0	66.4	1	34.0-140		J3	56.9	27
4-Chloroaniline	50.0	U	8.83	19.1	17.7	38.2	1	10.0-137		J3	73.5	33

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc



L1117111-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1117111-01 07/16/19 00:37 • (MS) R3431076-1 07/16/19 00:57 • (MSD) R3431076-2 07/16/19 01:18

Analyte	Spike Amount ug/l	Original Result ug/l	MS Result ug/l	MSD Result ug/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
4-Chloro-3-methylphenol	50.0	U	10.6	22.9	21.2	45.8	1	20.0-138		J3	73.4	28
2-Chlorophenol	50.0	U	5.40	18.0	10.8	36.0	1	11.0-120	J6	J3	108	33
Dibenzofuran	50.0	U	6.28	22.7	12.6	45.4	1	17.0-150	J6	J3	113	27
2,4-Dichlorophenol	50.0	U	6.75	20.1	13.5	40.2	1	19.0-135	J6	J3	99.4	32
2,4-Dimethylphenol	50.0	U	6.38	18.2	12.8	36.4	1	18.0-127	J6	J3	96.2	31
3&4-Methyl Phenol	50.0	U	5.28	18.1	10.6	36.2	1	13.0-124	J6	J3	110	26
4,6-Dinitro-2-methylphenol	50.0	U	12.0	30.1	24.0	60.2	1	10.0-160		J3	86.0	38
2,4-Dinitrophenol	50.0	U	8.08	23.9	16.2	47.8	1	10.0-137		J3	98.9	36
2-Methylnaphthalene	50.0	U	4.44	18.5	8.88	37.0	1	13.0-142	J6	J3	123	29
2-Methylphenol	50.0	U	5.29	17.9	10.6	35.8	1	14.0-120	J6	J3	109	29
2-Nitroaniline	50.0	U	13.7	26.5	27.4	53.0	1	13.0-160		J3	63.7	27
3-Nitroaniline	50.0	U	15.1	25.0	30.2	50.0	1	10.0-160		J3	49.4	26
4-Nitroaniline	50.0	U	12.4	21.1	24.8	42.2	1	17.0-160		J3	51.9	29
2-Nitrophenol	50.0	U	7.15	20.8	14.3	41.6	1	15.0-143	J6	J3	97.7	33
4-Nitrophenol	50.0	U	ND	ND	0.000	0.000	1	10.0-120	J6	J6	0.000	31
Pentachlorophenol	50.0	U	5.20	20.6	10.4	41.2	1	10.0-160		J3	119	40
Phenol	50.0	U	2.60	10.4	5.20	20.8	1	10.0-120	J6	J3	120	34
2,4,5-Trichlorophenol	50.0	U	9.47	26.9	18.9	53.8	1	15.0-160		J3	95.8	27
2,4,6-Trichlorophenol	50.0	U	7.39	22.4	14.8	44.8	1	10.0-153		J3	101	29
Acetophenone	50.0	U	7.01	19.4	14.0	38.8	1	10.0-139		J3	93.8	35
Atrazine	50.0	U	15.7	25.5	31.4	51.0	1	34.0-147	J6	J3	47.6	28
Benzaldehyde	50.0	U	7.11	21.3	14.2	42.6	1	10.0-120		J3	99.9	40
Biphenyl	50.0	U	5.31	21.9	10.6	43.8	1	23.0-130	J6	J3	122	27
Caprolactam	50.0	U	7.09	11.9	14.2	23.8	1	10.0-120		J3	50.7	37
Carbazole	50.0	U	17.7	29.5	35.4	59.0	1	23.0-158		J3	50.0	26
1,2,4,5-Tetrachlorobenzene	50.0	U	5.30	22.1	10.6	44.2	1	10.0-147		J3	123	34
(S) 2-Fluorophenol					5.00	25.9		10.0-120	J2			
(S) Phenol-d5					3.56	17.3		10.0-120	J2			
(S) Nitrobenzene-d5					15.3	50.3		10.0-127				
(S) 2-Fluorobiphenyl					10.8	45.4		10.0-130				
(S) 2,4,6-Tribromophenol					20.5	56.5		10.0-155				
(S) p-Terphenyl-d14					38.0	69.5		10.0-128				

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

Sample Narrative:

OS: Duplicate analysis was performed.



Method Blank (MB)

(MB) R3431555-2 07/17/19 10:41

Analyte	MB Result ug/l	MB Qualifier	MB MDL ug/l	MB RDL ug/l
Acenaphthene	U		0.316	1.00
Acenaphthylene	U		0.309	1.00
Anthracene	U		0.291	1.00
Benzo(a)anthracene	U		0.0975	1.00
Benzo(b)fluoranthene	U		0.0896	1.00
Benzo(k)fluoranthene	U		0.355	1.00
Benzo(g,h,i)perylene	U		0.161	1.00
Benzo(a)pyrene	U		0.340	1.00
Bis(2-chlorethoxy)methane	U		0.329	10.0
Bis(2-chloroethyl)ether	U		1.62	10.0
Bis(2-chloroisopropyl)ether	U		0.445	10.0
4-Bromophenyl-phenylether	U		0.335	10.0
2-Chloronaphthalene	U		0.330	1.00
4-Chlorophenyl-phenylether	U		0.303	10.0
Chrysene	U		0.332	1.00
Dibenz(a,h)anthracene	U		0.279	1.00
3,3-Dichlorobenzidine	U		2.02	10.0
2,4-Dinitrotoluene	U		1.65	10.0
2,6-Dinitrotoluene	U		0.279	10.0
Fluoranthene	U		0.310	1.00
Fluorene	U		0.323	1.00
Hexachlorobenzene	U		0.341	1.00
Hexachloro-1,3-butadiene	U		0.329	10.0
Hexachlorocyclopentadiene	U		2.33	10.0
Hexachloroethane	U		0.365	10.0
Indeno(1,2,3-cd)pyrene	U		0.279	1.00
Isophorone	U		0.272	10.0
Naphthalene	U		0.372	1.00
Nitrobenzene	U		0.367	10.0
n-Nitrosodiphenylamine	U		1.19	10.0
n-Nitrosodi-n-propylamine	U		0.403	10.0
Phenanthrene	U		0.366	1.00
Benzylbutyl phthalate	U		0.275	3.00
Bis(2-ethylhexyl)phthalate	U		0.709	3.00
Di-n-butyl phthalate	U		0.266	3.00
Diethyl phthalate	U		0.282	3.00
Dimethyl phthalate	U		0.283	3.00
Di-n-octyl phthalate	U		0.278	3.00
Pyrene	U		0.330	1.00
4-Chloroaniline	U		0.382	10.0

<sup>1</sup> Cp

<sup>2</sup> Tc

<sup>3</sup> Ss

<sup>4</sup> Cn

<sup>5</sup> Sr

<sup>6</sup> Qc

<sup>7</sup> Gl

<sup>8</sup> Al

<sup>9</sup> Sc





Method Blank (MB)

(MB) R3431555-2 07/17/19 10:41

Analyte	MB Result	MB Qualifier	MB MDL	MB RDL
	ug/l		ug/l	ug/l
4-Chloro-3-methylphenol	U		0.263	10.0
2-Chlorophenol	U		0.283	10.0
Dibenzofuran	U		0.338	10.0
2,4-Dichlorophenol	U		0.284	10.0
2,4-Dimethylphenol	U		0.624	10.0
4,6-Dinitro-2-methylphenol	U		2.62	10.0
2,4-Dinitrophenol	U		3.25	10.0
2-Methylnaphthalene	U		0.311	1.00
2-Methylphenol	U		0.312	10.0
3&4-Methyl Phenol	U		0.266	10.0
2-Nitroaniline	U		1.90	10.0
3-Nitroaniline	U		0.308	10.0
4-Nitroaniline	U		0.349	10.0
2-Nitrophenol	U		0.320	10.0
4-Nitrophenol	U		2.01	10.0
Pentachlorophenol	U		0.313	10.0
Phenol	U		0.334	10.0
2,4,5-Trichlorophenol	U		0.236	10.0
2,4,6-Trichlorophenol	U		0.297	10.0
Acetophenone	U		2.71	10.0
Atrazine	U		1.53	10.0
Benzaldehyde	U		1.40	10.0
Biphenyl	U		0.206	10.0
Caprolactam	1.47	J	0.583	10.0
Carbazole	U		0.162	10.0
1,2,4,5-Tetrachlorobenzene	U		2.41	10.0
(S) 2-Fluorophenol	12.4			10.0-120
(S) Phenol-d5	8.15	J2		10.0-120
(S) Nitrobenzene-d5	33.8			10.0-127
(S) 2-Fluorobiphenyl	36.7			10.0-130
(S) 2,4,6-Tribromophenol	45.4			10.0-155
(S) p-Terphenyl-d14	79.5			10.0-128

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc



Laboratory Control Sample (LCS)

(LCS) R3431555-1 07/17/19 10:19

Analyte	Spike Amount ug/l	LCS Result ug/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Acenaphthene	50.0	18.1	36.2	70.0-130	J4
Acenaphthylene	50.0	18.0	36.0	70.0-130	J4
Anthracene	50.0	32.1	64.2	70.0-130	J4
Benzo(a)anthracene	50.0	39.0	78.0	70.0-130	
Benzo(b)fluoranthene	50.0	37.7	75.4	70.0-130	
Benzo(k)fluoranthene	50.0	38.1	76.2	70.0-130	
Benzo(g,h,i)perylene	50.0	40.0	80.0	70.0-130	
Benzo(a)pyrene	50.0	37.5	75.0	70.0-130	
Bis(2-chloroethoxy)methane	50.0	14.7	29.4	70.0-130	J4
Bis(2-chloroethyl)ether	50.0	12.9	25.8	70.0-130	J4
Bis(2-chloroisopropyl)ether	50.0	13.7	27.4	70.0-130	J4
4-Bromophenyl-phenylether	50.0	28.3	56.6	70.0-130	J4
2-Chloronaphthalene	50.0	14.6	29.2	70.0-130	J4
4-Chlorophenyl-phenylether	50.0	25.4	50.8	70.0-130	J4
Chrysene	50.0	38.2	76.4	70.0-130	
Dibenz(a,h)anthracene	50.0	39.3	78.6	70.0-130	
3,3-Dichlorobenzidine	100	68.4	68.4	70.0-130	J4
2,4-Dinitrotoluene	50.0	39.0	78.0	70.0-130	
2,6-Dinitrotoluene	50.0	31.5	63.0	70.0-130	J4
Fluoranthene	50.0	37.9	75.8	70.0-130	
Fluorene	50.0	25.2	50.4	70.0-130	J4
Hexachlorobenzene	50.0	30.8	61.6	70.0-130	J4
Hexachloro-1,3-butadiene	50.0	12.6	25.2	70.0-130	J4
Hexachlorocyclopentadiene	50.0	9.98	20.0	70.0-130	J4
Hexachloroethane	50.0	12.5	25.0	70.0-130	J4
Indeno(1,2,3-cd)pyrene	50.0	39.6	79.2	70.0-130	
Isophorone	50.0	17.6	35.2	70.0-130	J4
Naphthalene	50.0	13.5	27.0	70.0-130	J4
Nitrobenzene	50.0	12.8	25.6	70.0-130	J4
n-Nitrosodiphenylamine	50.0	27.7	55.4	70.0-130	J4
n-Nitrosodi-n-propylamine	50.0	16.7	33.4	70.0-130	J4
Phenanthrene	50.0	31.2	62.4	70.0-130	J4
Benzylbutyl phthalate	50.0	36.9	73.8	70.0-130	
Bis(2-ethylhexyl)phthalate	50.0	37.1	74.2	70.0-130	
Di-n-butyl phthalate	50.0	39.3	78.6	70.0-130	
Diethyl phthalate	50.0	37.1	74.2	70.0-130	
Dimethyl phthalate	50.0	32.4	64.8	70.0-130	J4
Di-n-octyl phthalate	50.0	34.8	69.6	70.0-130	J4
Pyrene	50.0	34.9	69.8	70.0-130	J4
4-Chloroaniline	50.0	24.4	48.8	70.0-130	J4

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc



Laboratory Control Sample (LCS)

(LCS) R3431555-1 07/17/19 10:19

Analyte	Spike Amount ug/l	LCS Result ug/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
4-Chloro-3-methylphenol	50.0	20.8	41.6	70.0-130	J4
2-Chlorophenol	50.0	8.79	17.6	70.0-130	J4
Dibenzofuran	50.0	21.3	42.6	70.0-130	J4
2,4-Dichlorophenol	50.0	13.2	26.4	70.0-130	J4
2,4-Dimethylphenol	50.0	12.8	25.6	70.0-130	J4
4,6-Dinitro-2-methylphenol	50.0	36.9	73.8	70.0-130	
2,4-Dinitrophenol	50.0	32.2	64.4	70.0-130	J4
2-Methylnaphthalene	50.0	13.9	27.8	70.0-130	J4
2-Methylphenol	50.0	8.87	17.7	70.0-130	J4
3&4-Methyl Phenol	50.0	10.5	21.0	70.0-130	J4
2-Nitroaniline	50.0	27.9	55.8	70.0-130	J4
3-Nitroaniline	50.0	37.0	74.0	70.0-130	
4-Nitroaniline	50.0	36.2	72.4	70.0-130	
2-Nitrophenol	50.0	14.5	29.0	70.0-130	J4
4-Nitrophenol	50.0	16.9	33.8	70.0-130	J4
Pentachlorophenol	50.0	32.3	64.6	70.0-130	J4
Phenol	50.0	3.33	6.66	70.0-130	J4
2,4,5-Trichlorophenol	50.0	23.6	47.2	70.0-130	J4
2,4,6-Trichlorophenol	50.0	21.2	42.4	70.0-130	J4
Acetophenone	50.0	15.4	30.8	70.0-130	J4
Atrazine	50.0	38.2	76.4	70.0-130	
Benzaldehyde	50.0	15.9	31.8	70.0-130	J4
Biphenyl	50.0	16.0	32.0	70.0-130	J4
Caprolactam	50.0	16.9	33.8	70.0-130	J4
Carbazole	50.0	37.8	75.6	70.0-130	
1,2,4,5-Tetrachlorobenzene	50.0	17.3	34.6	70.0-130	J4
(S) 2-Fluorophenol			9.40	10.0-120	J2
(S) Phenol-d5			6.35	10.0-120	J2
(S) Nitrobenzene-d5			17.5	10.0-127	
(S) 2-Fluorobiphenyl			28.4	10.0-130	
(S) 2,4,6-Tribromophenol			61.5	10.0-155	
(S) p-Terphenyl-d14			67.5	10.0-128	

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc



Method Blank (MB)

(MB) R3430592-3 07/15/19 02:24

Analyte	MB Result ug/l	MB Qualifier	MB MDL ug/l	MB RDL ug/l
Anthracene	U		0.00800	0.0500
Acenaphthene	U		0.0100	0.0500
Acenaphthylene	U		0.00700	0.0500
Benzo(a)anthracene	U		0.00830	0.0500
Benzo(a)pyrene	U		0.0158	0.0500
Benzo(b)fluoranthene	U		0.00212	0.0500
Benzo(g,h,i)perylene	U		0.00227	0.0500
Benzo(k)fluoranthene	U		0.0255	0.0500
Chrysene	U		0.0144	0.0500
Dibenz(a,h)anthracene	U		0.00454	0.0500
Fluoranthene	U		0.0165	0.0500
Fluorene	U		0.00898	0.0500
Indeno(1,2,3-cd)pyrene	U		0.00739	0.0500
Naphthalene	0.0226	J	0.0123	0.250
Phenanthrene	U		0.0184	0.0500
Pyrene	U		0.0155	0.0500
(S) Nitrobenzene-d5	75.5			11.0-135
(S) 2-Fluorobiphenyl	70.0			32.0-120
(S) p-Terphenyl-d14	76.0			23.0-122

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3430592-1 07/15/19 01:39 • (LCSD) R3430592-2 07/15/19 02:01

Analyte	Spike Amount ug/l	LCS Result ug/l	LCSD Result ug/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Anthracene	2.00	1.98	1.95	99.0	97.5	70.0-130			1.53	20
Acenaphthene	2.00	1.79	1.86	89.5	93.0	70.0-130			3.84	20
Acenaphthylene	2.00	1.95	2.10	97.5	105	70.0-130			7.41	20
Benzo(a)anthracene	2.00	1.69	1.65	84.5	82.5	70.0-130			2.40	20
Benzo(a)pyrene	2.00	1.69	1.65	84.5	82.5	70.0-130			2.40	20
Benzo(b)fluoranthene	2.00	1.74	1.63	87.0	81.5	70.0-130			6.53	20
Benzo(g,h,i)perylene	2.00	1.66	1.60	83.0	80.0	70.0-130			3.68	20
Benzo(k)fluoranthene	2.00	1.59	1.66	79.5	83.0	70.0-130			4.31	20
Chrysene	2.00	1.76	1.73	88.0	86.5	70.0-130			1.72	20
Dibenz(a,h)anthracene	2.00	1.70	1.62	85.0	81.0	70.0-130			4.82	20
Fluoranthene	2.00	2.06	2.05	103	103	70.0-130			0.487	20
Fluorene	2.00	1.64	1.66	82.0	83.0	70.0-130			1.21	20
Indeno(1,2,3-cd)pyrene	2.00	1.71	1.65	85.5	82.5	70.0-130			3.57	20
Naphthalene	2.00	1.52	1.59	76.0	79.5	70.0-130			4.50	20



Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3430592-1 07/15/19 01:39 • (LCSD) R3430592-2 07/15/19 02:01

Analyte	Spike Amount ug/l	LCS Result ug/l	LCSD Result ug/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	<u>LCS Qualifier</u>	<u>LCSD Qualifier</u>	RPD %	RPD Limits %
Phenanthrene	2.00	1.76	1.75	88.0	87.5	70.0-130			0.570	20
Pyrene	2.00	1.63	1.63	81.5	81.5	70.0-130			0.000	20
<i>(S) Nitrobenzene-d5</i>				81.0	86.0	11.0-135				
<i>(S) 2-Fluorobiphenyl</i>				74.0	81.0	32.0-120				
<i>(S) p-Terphenyl-d14</i>				86.5	85.5	23.0-122				

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

L1116594-12 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1116594-12 07/15/19 08:01 • (MS) R3430592-4 07/15/19 08:23 • (MSD) R3430592-5 07/15/19 08:46

Analyte	Spike Amount ug/l	Original Result ug/l	MS Result ug/l	MSD Result ug/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	<u>MS Qualifier</u>	<u>MSD Qualifier</u>	RPD %	RPD Limits %
Anthracene	2.00	U	1.97	1.98	98.5	99.0	1	51.0-120			0.506	20
Acenaphthene	2.00	U	1.68	1.70	84.0	85.0	1	50.0-120			1.18	20
Acenaphthylene	2.00	U	1.86	1.86	93.0	93.0	1	49.0-120			0.000	20
Benzo(a)anthracene	2.00	U	1.61	1.66	80.5	83.0	1	49.0-120			3.06	20
Benzo(a)pyrene	2.00	U	1.57	1.58	78.5	79.0	1	50.0-122			0.635	20
Benzo(b)fluoranthene	2.00	U	1.56	1.47	78.0	73.5	1	48.0-120			5.94	22
Benzo(g,h,i)perylene	2.00	U	0.922	0.962	46.1	48.1	1	38.0-126			4.25	22
Benzo(k)fluoranthene	2.00	U	1.61	1.64	80.5	82.0	1	48.0-120			1.85	22
Chrysene	2.00	U	1.67	1.71	83.5	85.5	1	51.0-120			2.37	20
Dibenz(a,h)anthracene	2.00	U	0.941	0.983	47.0	49.1	1	30.0-130			4.37	26
Fluoranthene	2.00	U	1.93	1.94	96.5	97.0	1	50.0-121			0.517	20
Fluorene	2.00	0.0100	1.51	1.51	75.0	75.0	1	48.0-120			0.000	20
Indeno(1,2,3-cd)pyrene	2.00	U	0.993	1.03	49.6	51.5	1	39.0-125			3.66	21
Naphthalene	2.00	0.0410	1.49	1.51	72.4	73.4	1	46.0-120			1.33	20
Phenanthrene	2.00	U	1.71	1.63	85.5	81.5	1	50.0-120			4.79	20
Pyrene	2.00	U	1.91	1.61	95.5	80.5	1	49.0-127			17.0	20
<i>(S) Nitrobenzene-d5</i>					83.5	85.0		11.0-135				
<i>(S) 2-Fluorobiphenyl</i>					66.5	67.5		32.0-120				
<i>(S) p-Terphenyl-d14</i>					95.0	81.5		23.0-122				

6 Qc

7 Gl

8 Al

9 Sc

L1116594-13 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1116594-13 07/15/19 09:08 • (MS) R3430592-6 07/15/19 09:31 • (MSD) R3430592-7 07/15/19 09:53

Analyte	Spike Amount ug/l	Original Result ug/l	MS Result ug/l	MSD Result ug/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	<u>MS Qualifier</u>	<u>MSD Qualifier</u>	RPD %	RPD Limits %
Anthracene	2.00	U	2.15	2.13	107	106	1	51.0-120			0.935	20
Acenaphthene	2.00	U	1.83	1.86	91.5	93.0	1	50.0-120			1.63	20
Acenaphthylene	2.00	U	2.01	2.03	100	102	1	49.0-120			0.990	20



L1116594-13 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1116594-13 07/15/19 09:08 • (MS) R3430592-6 07/15/19 09:31 • (MSD) R3430592-7 07/15/19 09:53

Analyte	Spike Amount ug/l	Original Result ug/l	MS Result ug/l	MSD Result ug/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Benzo(a)anthracene	2.00	U	1.64	1.61	82.0	80.5	1	49.0-120			1.85	20
Benzo(a)pyrene	2.00	U	1.50	1.37	75.0	68.5	1	50.0-122			9.06	20
Benzo(b)fluoranthene	2.00	0.00218	1.79	1.54	89.4	76.9	1	48.0-120			15.0	22
Benzo(g,h,i)perylene	2.00	U	0.464	0.343	23.2	17.1	1	38.0-126	J6	J3 J6	30.0	22
Benzo(k)fluoranthene	2.00	U	1.51	1.70	75.5	85.0	1	48.0-120			11.8	22
Chrysene	2.00	U	1.74	1.69	87.0	84.5	1	51.0-120			2.92	20
Dibenz(a,h)anthracene	2.00	U	0.439	0.324	21.9	16.2	1	30.0-130	J6	J3 J6	30.1	26
Fluoranthene	2.00	U	2.00	1.95	100	97.5	1	50.0-121			2.53	20
Fluorene	2.00	U	1.62	1.65	81.0	82.5	1	48.0-120			1.83	20
Indeno(1,2,3-cd)pyrene	2.00	U	0.495	0.371	24.7	18.5	1	39.0-125	J6	J3 J6	28.6	21
Naphthalene	2.00	0.0177	1.59	1.60	78.6	79.1	1	46.0-120			0.627	20
Phenanthrene	2.00	U	1.73	1.72	86.5	86.0	1	50.0-120			0.580	20
Pyrene	2.00	U	1.63	1.59	81.5	79.5	1	49.0-127			2.48	20
(S) Nitrobenzene-d5					89.0	91.0		11.0-135				
(S) 2-Fluorobiphenyl					72.0	74.5		32.0-120				
(S) p-Terphenyl-d14					80.0	78.0		23.0-122				

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc



Method Blank (MB)

(MB) R3430879-2 07/15/19 22:39

Analyte	MB Result ug/l	MB Qualifier	MB MDL ug/l	MB RDL ug/l
Anthracene	U		0.00800	0.0500
Acenaphthene	U		0.0100	0.0500
Acenaphthylene	U		0.00700	0.0500
Benzo(a)anthracene	U		0.00830	0.0500
Benzo(a)pyrene	U		0.0158	0.0500
Benzo(b)fluoranthene	U		0.00212	0.0500
Benzo(g,h,i)perylene	U		0.00227	0.0500
Benzo(k)fluoranthene	U		0.0255	0.0500
Chrysene	U		0.0144	0.0500
Dibenz(a,h)anthracene	U		0.00454	0.0500
Fluoranthene	U		0.0165	0.0500
Fluorene	U		0.00898	0.0500
Indeno(1,2,3-cd)pyrene	U		0.00739	0.0500
Naphthalene	U		0.0123	0.250
Phenanthrene	U		0.0184	0.0500
Pyrene	U		0.0155	0.0500
(S) Nitrobenzene-d5	107			11.0-135
(S) 2-Fluorobiphenyl	54.5			32.0-120
(S) p-Terphenyl-d14	79.0			23.0-122

<sup>1</sup> Cp

<sup>2</sup> Tc

<sup>3</sup> Ss

<sup>4</sup> Cn

<sup>5</sup> Sr

<sup>6</sup> Qc

<sup>7</sup> Gl

<sup>8</sup> Al

<sup>9</sup> Sc

Laboratory Control Sample (LCS)

(LCS) R3430879-1 07/15/19 22:17

Analyte	Spike Amount ug/l	LCS Result ug/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Anthracene	2.00	1.55	77.5	70.0-130	
Acenaphthene	2.00	1.19	59.5	70.0-130	<u>J4</u>
Acenaphthylene	2.00	1.30	65.0	70.0-130	<u>J4</u>
Benzo(a)anthracene	2.00	1.56	78.0	70.0-130	
Benzo(a)pyrene	2.00	1.58	79.0	70.0-130	
Benzo(b)fluoranthene	2.00	1.56	78.0	70.0-130	
Benzo(g,h,i)perylene	2.00	1.59	79.5	70.0-130	
Benzo(k)fluoranthene	2.00	1.65	82.5	70.0-130	
Chrysene	2.00	1.69	84.5	70.0-130	
Dibenz(a,h)anthracene	2.00	1.63	81.5	70.0-130	
Fluoranthene	2.00	1.74	87.0	70.0-130	
Fluorene	2.00	1.26	63.0	70.0-130	<u>J4</u>
Indeno(1,2,3-cd)pyrene	2.00	1.64	82.0	70.0-130	
Naphthalene	2.00	1.05	52.5	70.0-130	<u>J4</u>



Laboratory Control Sample (LCS)

(LCS) R3430879-1 07/15/19 22:17

Analyte	Spike Amount ug/l	LCS Result ug/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Phenanthrene	2.00	1.34	67.0	70.0-130	<u>J4</u>
Pyrene	2.00	1.53	76.5	70.0-130	
<i>(S) Nitrobenzene-d5</i>			114	11.0-135	
<i>(S) 2-Fluorobiphenyl</i>			55.0	32.0-120	
<i>(S) p-Terphenyl-d14</i>			79.0	23.0-122	

L1117590-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1117590-01 07/16/19 09:42 • (MS) R3431019-1 07/16/19 10:04 • (MSD) R3431019-2 07/16/19 10:26

Analyte	Spike Amount ug/l	Original Result ug/l	MS Result ug/l	MSD Result ug/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Anthracene	2.00	ND	0.760	1.58	38.0	79.0	1	51.0-120	<u>J6</u>	<u>J3</u>	70.1	20
Acenaphthene	2.00	ND	0.537	1.22	26.9	61.0	1	50.0-120	<u>J6</u>	<u>J3</u>	77.7	20
Acenaphthylene	2.00	ND	0.532	1.31	26.6	65.5	1	49.0-120	<u>J6</u>	<u>J3</u>	84.5	20
Benzo(a)anthracene	2.00	ND	0.949	1.65	47.4	82.5	1	49.0-120	<u>J6</u>	<u>J3</u>	53.9	20
Benzo(a)pyrene	2.00	ND	0.881	1.42	44.0	71.0	1	50.0-122	<u>J6</u>	<u>J3</u>	46.8	20
Benzo(b)fluoranthene	2.00	ND	0.828	1.44	41.4	72.0	1	48.0-120	<u>J6</u>	<u>J3</u>	54.0	22
Benzo(g,h,i)perylene	2.00	ND	0.474	0.743	23.7	37.1	1	38.0-126	<u>J6</u>	<u>J3 J6</u>	44.2	22
Benzo(k)fluoranthene	2.00	ND	0.873	1.46	43.6	73.0	1	48.0-120	<u>J6</u>	<u>J3</u>	50.3	22
Chrysene	2.00	ND	0.972	1.67	48.6	83.5	1	51.0-120	<u>J6</u>	<u>J3</u>	52.8	20
Dibenz(a,h)anthracene	2.00	ND	0.422	0.611	21.1	30.5	1	30.0-130	<u>J6</u>	<u>J3</u>	36.6	26
Fluoranthene	2.00	ND	1.02	1.80	51.0	90.0	1	50.0-121		<u>J3</u>	55.3	20
Fluorene	2.00	ND	0.574	1.28	28.7	64.0	1	48.0-120	<u>J6</u>	<u>J3</u>	76.2	20
Indeno(1,2,3-cd)pyrene	2.00	ND	0.488	0.752	24.4	37.6	1	39.0-125	<u>J6</u>	<u>J3 J6</u>	42.6	21
Naphthalene	2.00	ND	0.446	1.12	19.3	53.0	1	46.0-120	<u>J6</u>	<u>J3</u>	86.1	20
Phenanthrene	2.00	ND	0.685	1.34	34.2	67.0	1	50.0-120	<u>J6</u>	<u>J3</u>	64.7	20
Pyrene	2.00	ND	0.842	1.40	42.1	70.0	1	49.0-127	<u>J6</u>	<u>J3</u>	49.8	20
<i>(S) Nitrobenzene-d5</i>					41.8	110		11.0-135				
<i>(S) 2-Fluorobiphenyl</i>					22.1	58.0		32.0-120	<u>J2</u>			
<i>(S) p-Terphenyl-d14</i>					45.1	77.0		23.0-122				

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc





## Guide to Reading and Understanding Your Laboratory Report

The information below is designed to better explain the various terms used in your report of analytical results from the Laboratory. This is not intended as a comprehensive explanation, and if you have additional questions please contact your project representative.

Results Disclaimer - Information that may be provided by the customer, and contained within this report, include Permit Limits, Project Name, Sample ID, Sample Matrix, Sample Preservation, Field Blanks, Field Spikes, Field Duplicates, On-Site Data, Sampling Collection Dates/Times, and Sampling Location. Results relate to the accuracy of this information provided, and as the samples are received.

### Abbreviations and Definitions

MDL	Method Detection Limit.
ND	Not detected at the Reporting Limit (or MDL where applicable).
RDL	Reported Detection Limit.
Rec.	Recovery.
RPD	Relative Percent Difference.
SDG	Sample Delivery Group.
(S)	Surrogate (Surrogate Standard) - Analytes added to every blank, sample, Laboratory Control Sample/Duplicate and Matrix Spike/Duplicate; used to evaluate analytical efficiency by measuring recovery. Surrogates are not expected to be detected in all environmental media.
U	Not detected at the Reporting Limit (or MDL where applicable).
Analyte	The name of the particular compound or analysis performed. Some Analyses and Methods will have multiple analytes reported.
Dilution	If the sample matrix contains an interfering material, the sample preparation volume or weight values differ from the standard, or if concentrations of analytes in the sample are higher than the highest limit of concentration that the laboratory can accurately report, the sample may be diluted for analysis. If a value different than 1 is used in this field, the result reported has already been corrected for this factor.
Limits	These are the target % recovery ranges or % difference value that the laboratory has historically determined as normal for the method and analyte being reported. Successful QC Sample analysis will target all analytes recovered or duplicated within these ranges.
Original Sample	The non-spiked sample in the prep batch used to determine the Relative Percent Difference (RPD) from a quality control sample. The Original Sample may not be included within the reported SDG.
Qualifier	This column provides a letter and/or number designation that corresponds to additional information concerning the result reported. If a Qualifier is present, a definition per Qualifier is provided within the Glossary and Definitions page and potentially a discussion of possible implications of the Qualifier in the Case Narrative if applicable.
Result	The actual analytical final result (corrected for any sample specific characteristics) reported for your sample. If there was no measurable result returned for a specific analyte, the result in this column may state "ND" (Not Detected) or "BDL" (Below Detectable Levels). The information in the results column should always be accompanied by either an MDL (Method Detection Limit) or RDL (Reporting Detection Limit) that defines the lowest value that the laboratory could detect or report for this analyte.
Uncertainty (Radiochemistry)	Confidence level of 2 sigma.
Case Narrative (Cn)	A brief discussion about the included sample results, including a discussion of any non-conformances to protocol observed either at sample receipt by the laboratory from the field or during the analytical process. If present, there will be a section in the Case Narrative to discuss the meaning of any data qualifiers used in the report.
Quality Control Summary (Qc)	This section of the report includes the results of the laboratory quality control analyses required by procedure or analytical methods to assist in evaluating the validity of the results reported for your samples. These analyses are not being performed on your samples typically, but on laboratory generated material.
Sample Chain of Custody (Sc)	This is the document created in the field when your samples were initially collected. This is used to verify the time and date of collection, the person collecting the samples, and the analyses that the laboratory is requested to perform. This chain of custody also documents all persons (excluding commercial shippers) that have had control or possession of the samples from the time of collection until delivery to the laboratory for analysis.
Sample Results (Sr)	This section of your report will provide the results of all testing performed on your samples. These results are provided by sample ID and are separated by the analyses performed on each sample. The header line of each analysis section for each sample will provide the name and method number for the analysis reported.
Sample Summary (Ss)	This section of the Analytical Report defines the specific analyses performed for each sample ID, including the dates and times of preparation and/or analysis.



Qualifier	Description
B	The same analyte is found in the associated blank.
E	The analyte concentration exceeds the upper limit of the calibration range of the instrument established by the initial calibration (ICAL).
J	The identification of the analyte is acceptable; the reported value is an estimate.
J0	J0: The identification of the analyte is acceptable, but the reported concentration is an estimate. The calibration method criteria.
J1	Surrogate recovery limits have been exceeded; values are outside upper control limits.
J2	Surrogate recovery limits have been exceeded; values are outside lower control limits.
J3	The associated batch QC was outside the established quality control range for precision.
J4	The associated batch QC was outside the established quality control range for accuracy.
J5	The sample matrix interfered with the ability to make any accurate determination; spike value is high.
J6	The sample matrix interfered with the ability to make any accurate determination; spike value is low.



Qualifier	Description
O1	The analyte failed the method required serial dilution test and/or subsequent post-spike criteria. These failures indicate matrix interference.
P	RPD between the primary and confirmatory analysis exceeded 40%.
P1	RPD value not applicable for sample concentrations less than 5 times the reporting limit.
V	The sample concentration is too high to evaluate accurate spike recoveries.

<sup>1</sup> Cp

<sup>2</sup> Tc

<sup>3</sup> Ss

<sup>4</sup> Cn

<sup>5</sup> Sr

<sup>6</sup> Qc

<sup>7</sup> Gl

<sup>8</sup> Al

<sup>9</sup> Sc



Pace National is the only environmental laboratory accredited/certified to support your work nationwide from one location. One phone call, one point of contact, one laboratory. No other lab is as accessible or prepared to handle your needs throughout the country. Our capacity and capability from our single location laboratory is comparable to the collective totals of the network laboratories in our industry. The most significant benefit to our one location design is the design of our laboratory campus. The model is conducive to accelerated productivity, decreasing turn-around time, and preventing cross contamination, thus protecting sample integrity. Our focus on premium quality and prompt service allows us to be YOUR LAB OF CHOICE.

\* Not all certifications held by the laboratory are applicable to the results reported in the attached report.  
 \* Accreditation is only applicable to the test methods specified on each scope of accreditation held by Pace National.

## State Accreditations

Alabama	40660	Nebraska	NE-OS-15-05
Alaska	17-026	Nevada	TN-03-2002-34
Arizona	AZ0612	New Hampshire	2975
Arkansas	88-0469	New Jersey-NELAP	TN002
California	2932	New Mexico <sup>1</sup>	n/a
Colorado	TN00003	New York	11742
Connecticut	PH-0197	North Carolina	Env375
Florida	E87487	North Carolina <sup>1</sup>	DW21704
Georgia	NELAP	North Carolina <sup>3</sup>	41
Georgia <sup>1</sup>	923	North Dakota	R-140
Idaho	TN00003	Ohio-VAP	CL0069
Illinois	200008	Oklahoma	9915
Indiana	C-TN-01	Oregon	TN200002
Iowa	364	Pennsylvania	68-02979
Kansas	E-10277	Rhode Island	LA000356
Kentucky <sup>1,6</sup>	90010	South Carolina	84004
Kentucky <sup>2</sup>	16	South Dakota	n/a
Louisiana	AI30792	Tennessee <sup>1,4</sup>	2006
Louisiana <sup>1</sup>	LA180010	Texas	T104704245-18-15
Maine	TN0002	Texas <sup>5</sup>	LAB0152
Maryland	324	Utah	TN00003
Massachusetts	M-TN003	Vermont	VT2006
Michigan	9958	Virginia	460132
Minnesota	047-999-395	Washington	C847
Mississippi	TN00003	West Virginia	233
Missouri	340	Wisconsin	9980939910
Montana	CERT0086	Wyoming	A2LA

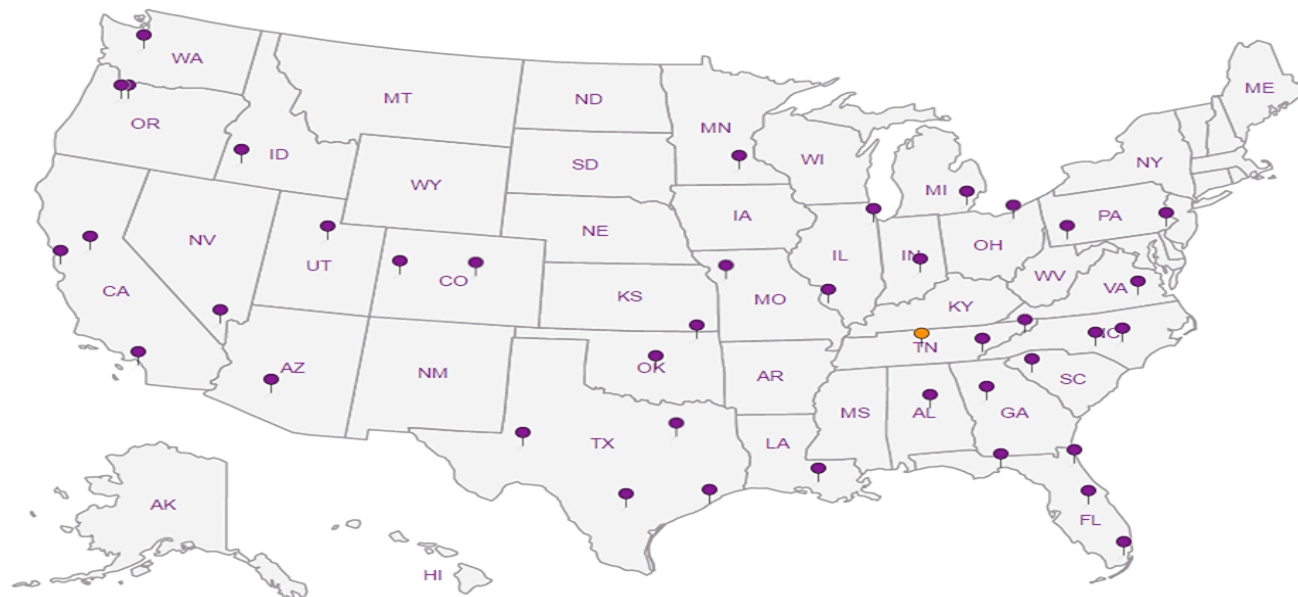
## Third Party Federal Accreditations

A2LA – ISO 17025	1461.01	AIHA-LAP,LLC EMLAP	100789
A2LA – ISO 17025 <sup>5</sup>	1461.02	DOD	1461.01
Canada	1461.01	USDA	P330-15-00234
EPA-Crypto	TN00003		

<sup>1</sup> Drinking Water <sup>2</sup> Underground Storage Tanks <sup>3</sup> Aquatic Toxicity <sup>4</sup> Chemical/Microbiological <sup>5</sup> Mold <sup>6</sup> Wastewater n/a Accreditation not applicable

## Our Locations

Pace National has sixty-four client support centers that provide sample pickup and/or the delivery of sampling supplies. If you would like assistance from one of our support offices, please contact our main office. Pace National performs all testing at our central laboratory.



1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

# S&ME Inc. - Spartanburg SC

301 Zima Park Drive  
Spartanburg, SC 29301

Report to:  
**Scott Dacus**

Project Description: **NEW SNOY**

Phone: **864-574-2360**  
Fax: **864-576-8730**

Client Project #  
**4213-18-087**

City/State Collected: **ROCK HILL, SC**

Lab Project #  
**SMESPAR-4213-18-087**

Collected by (print):  
**S. FORSTON  
K. MCINTYRE**

Site/Facility ID #  
**COLUMBIA**

P.O. #

Collected by (signature):

**Rush?** (Lab MUST Be Notified)

Quote #

Immediately  
Packed on Ice N    Y

Same Day  Five Day  
 Next Day  5 Day (Rad Only)  
 Two Day  10 Day (Rad Only)  
 Three Day

Date Results Needed

No. of  
Cntrs

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No. of Cntrs
GW-9	G-2AB	GW	42'	7.10.19	1540	11
GW-16		GW	15.7'	7.10.17	1430	11
GW-4B		GW	81.6'	7.10.19	1120	11
CM-DUP-GW-1		GW	-	7.10.19	1555	11
GW-4A		GW	52'	7.10.19	1025	11
GW-6		GW	21.8'	7.9.19	1545	11
R2-MW-5		GW	36.1'	7.9.19	1355	11
R2-MW-4		GW	26.4'	7.9.19	1140	11
R2-MW-3		GW	66.5'	7.9.19	1015	11
R2-MW-2		GW	65.5'	7.9.19	1632	11

\* Matrix:  
SS - Soil AIR - Air F - Filter  
GW - Groundwater B - Bioassay  
WW - WasteWater  
DW - Drinking Water  
OT - Other \_\_\_\_\_

Remarks:

Samples returned via:  
 UPS  FedEx  Courier \_\_\_\_\_

Tracking #

Relinquished by: (Signature)

Date: **7.10.19**

Time: **1702**

Received by: (Signature)

Trip Blank Received: **3** Yes / No  
HCL / MeOH  
TBR

Relinquished by: (Signature)

Date:

Time:

Received by: (Signature)

Temp: **71.6°C** Bottles Received: **154**

Relinquished by: (Signature)

Date:

Time:

Received for lab by: (Signature)

Date: **7/11/19** Time: **845**

Sample Receipt Checklist  
COC Seal Present/Intact:  Y  N  
COC Signed/Accurate:  Y  N  
Bottles arrive intact:  Y  N  
Correct bottles used:  Y  N  
Sufficient volume sent:  Y  N  
If Applicable  
VOA Zero Headspace:  Y  N  
Preservation Correct/Checked:  Y  N

**RAD SCREEN: <0.5 mR/hr**

If preservation required by Login: Date/Time

Hold: Condition: **NCF / OK**

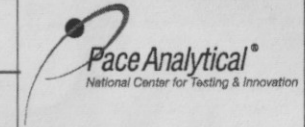
Billing Information:

Accounts Payable  
301 Zima Park Drive  
Spartanburg, SC 29301

Pres  
Chk

Analysis / Container / Preservative

Chain of Custody Page 1 of 2



12065 Lebanon Rd  
Mount Juliet, TN 37122  
Phone: 615-758-5858  
Phone: 800-767-5859  
Fax: 615-758-5859



L# **117439**

**F105**

Acctnum: **SMESPAR**

Template: **T150328**

Prelogin: **P716852**

TSR: **690 - Tom Mellette**

PB: **06-28-19 ES**

Shipped Via: **FedEX Ground**

Remarks Sample # (lab only)

01  
02  
03  
04  
05  
06  
07  
08  
09  
10



# S&ME Inc. - Spartanburg SC

301 Zima Park Drive  
Spartanburg, SC 29301

Billing Information:  
Accounts Payable  
301 Zima Park Drive  
Spartanburg, SC 29301

Pres  
Chk

Analysis / Container / Preservative

Chain of Custody Page 2 of 2



12065 Lebanon Rd  
Mount Juliet, TN 37122  
Phone: 615-758-5858  
Phone: 800-767-5859  
Fax: 615-758-5859



Report to:  
**Scott Dacus**

Email To: [sdacus@smeinc.com](mailto:sdacus@smeinc.com)

Project Description: **NEW INDU**

City/State Collected: **ROCK HILL, SC**

Phone: **864-574-2360**  
Fax: **864-576-8730**

Client Project #  
**4213-18-087**

Lab Project #  
**SMESPAR-4213-18-087**

Collected by (print): **K. MENTRE**  
**S. CORRETOY**

Site/Facility ID #  
**COLUMBIA**

P.O. #

Collected by (signature):

**Rush?** (Lab MUST Be Notified)  
 Same Day  Five Day  
 Next Day  5 Day (Rad Only)  
 Two Day  10 Day (Rad Only)  
 Three Day

Quote #

Date Results Needed

Immediately Packed on Ice N  Y

No. of  
Cntrs

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No. of Cntrs	8081/8082SC 100ml Amb NoPres	8270PAHSIMDSC 100ml Amb NoPres	8270TCLDSC 100ml Amb NoPres	CN 250mlHDPEAmb-NaOH	TAL Metals 250mlHDPE-HNO3	V8260TCLSC 40mlAmb-NoPres	V8260TCLSC- BLK 40mlAmb-NoPres-BLK	Remarks	Sample # (lab only)
GW-6B	GRAB	GW	107'	7.9.19	1618	11	X	X	X	X	X	X			11
GW-11		GW	34'	7.9.19	1650	11	X	X	X	X	X	X			12
GW-5		GW	24'	7.10.19	1600	11	X	X	X	X	X	X			13
GW-5B		GW	15'	7.10.19	1047	11	X	X	X	X	X	X			14
		GW				11	X	X	X	X	X	X			
		GW				11	X	X	X	X	X	X			
		GW				11	X	X	X	X	X	X			
		GW				11	X	X	X	X	X	X			
		GW				11	X	X	X	X	X	X			
		GW				11	X	X	X	X	X	X			

\* Matrix:  
 SS - Soil AIR - Air F - Filter  
 GW - Groundwater B - Bioassay  
 WW - WasteWater  
 DW - Drinking Water  
 OT - Other \_\_\_\_\_

Remarks:  
 Samples returned via:  
 UPS  FedEx  Courier \_\_\_\_\_  
 Tracking # \_\_\_\_\_  
 pH \_\_\_\_\_ Temp \_\_\_\_\_  
 Flow \_\_\_\_\_ Other \_\_\_\_\_

Sample Receipt Checklist  
 COC Seal Present/Intact:  NP Y  N  
 COC Signed/Accurate:  Y  N  
 Bottles arrive intact:  Y  N  
 Correct bottles used:  Y  N  
 Sufficient volume sent:  Y  N  
 If Applicable  
 VOA Zero Headspace:  Y  N  
 Preservation Correct/Checked:  Y  N

Relinquished by: (Signature) 	Date: 7.10.19	Time: 1702	Received by: (Signature)	Trip Blank Received: Yes/No HCL/MeOH TBR 3	Temp: °C 7.1.65	Bottles Received: 154	If preservation required by Login: Date/Time
Relinquished by: (Signature)	Date:	Time:	Received by: (Signature)	Date:	Time:	Hold:	
Relinquished by: (Signature)	Date:	Time:	Received for lab by: (Signature) 	Date: 7/11/19	Time: 845	Hold:	Condition: NCF / <input checked="" type="checkbox"/> OK

**RAD SCREEN: <0.5 mR/hr**

July 30, 2019

<sup>1</sup> Cp

<sup>2</sup> Tc

<sup>3</sup> Ss

<sup>4</sup> Cn

<sup>5</sup> Gl

<sup>6</sup> Al

<sup>7</sup> Sc

## S&ME Inc. - Spartanburg SC

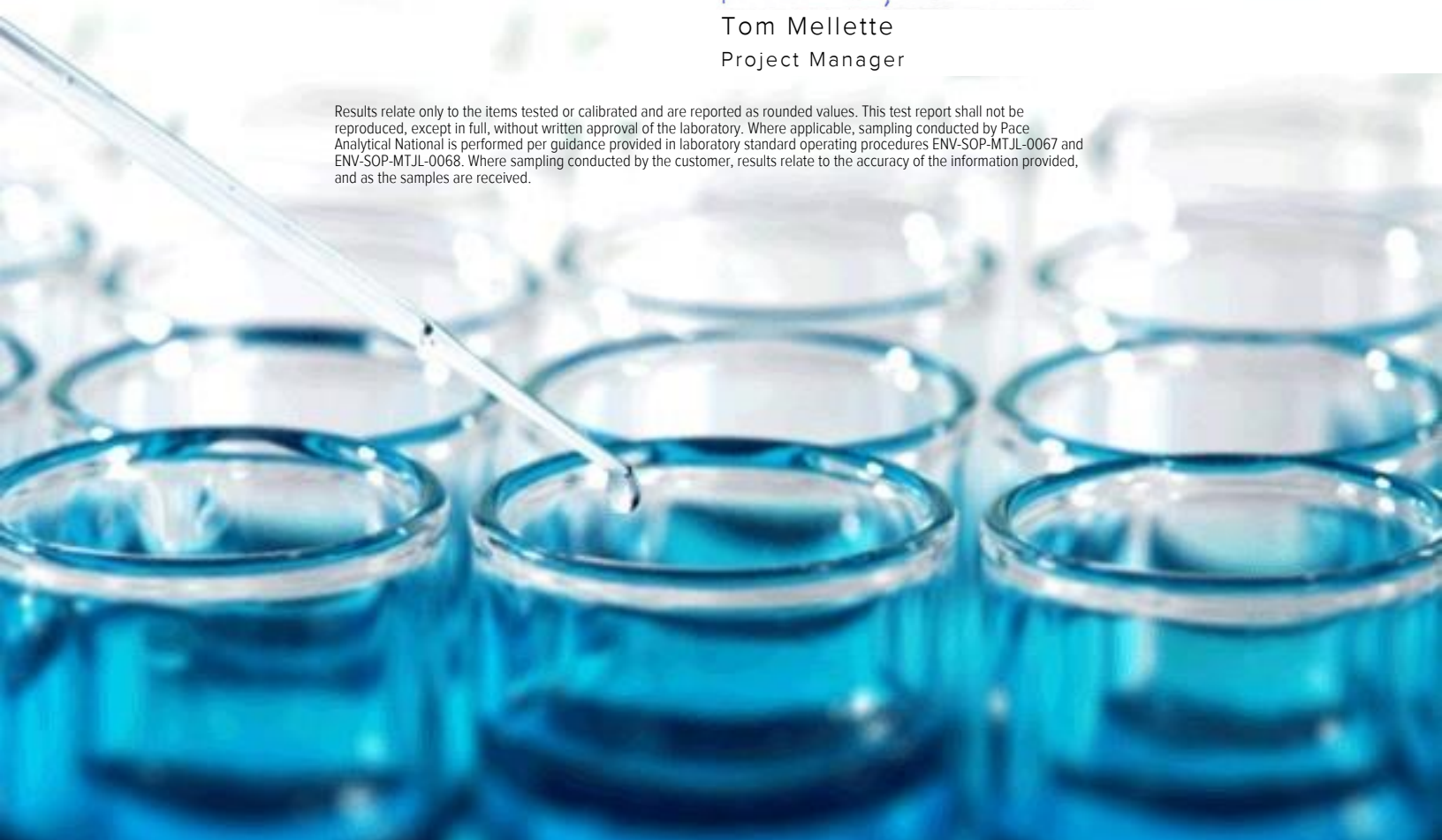
Sample Delivery Group: L1118277  
Samples Received: 07/13/2019  
Project Number: 4213-18-087  
Description: New Indy  
Site: COLUMBIA  
Report To: Scott Dacus  
301 Zima Park Drive  
Spartanburg, SC 29301

Entire Report Reviewed By:



Tom Mellette  
Project Manager

Results relate only to the items tested or calibrated and are reported as rounded values. This test report shall not be reproduced, except in full, without written approval of the laboratory. Where applicable, sampling conducted by Pace Analytical National is performed per guidance provided in laboratory standard operating procedures ENV-SOP-MTJL-0067 and ENV-SOP-MTJL-0068. Where sampling conducted by the customer, results relate to the accuracy of the information provided, and as the samples are received.





<b>Cp: Cover Page</b>	<b>1</b>	<b><sup>1</sup>Cp</b>
<b>Tc: Table of Contents</b>	<b>2</b>	
<b>Ss: Sample Summary</b>	<b>3</b>	<b><sup>2</sup>Tc</b>
<b>Cn: Case Narrative</b>	<b>5</b>	
<b>Gl: Glossary of Terms</b>	<b>6</b>	<b><sup>3</sup>Ss</b>
<b>Al: Accreditations &amp; Locations</b>	<b>7</b>	<b><sup>4</sup>Cn</b>
<b>Sc: Sample Chain of Custody</b>	<b>8</b>	<b><sup>5</sup>Gl</b>
		<b><sup>6</sup>Al</b>
		<b><sup>7</sup>Sc</b>

# SAMPLE SUMMARY

				Collected by	Collected date/time	Received date/time
<b>GW-15R L1118277-01 GW</b>				Kevin McIntyre	07/12/19 09:45	07/13/19 08:45
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Subcontracted Analyses	WG1311599	1	07/30/19 00:00	07/30/19 00:00	CBM	Minneapolis, MN 55414
				Collected by	Collected date/time	Received date/time
<b>GW-15BR L1118277-02 GW</b>				Kevin McIntyre	07/12/19 10:30	07/13/19 08:45
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Subcontracted Analyses	WG1311599	1	07/30/19 00:00	07/30/19 00:00	CBM	Minneapolis, MN 55414
				Collected by	Collected date/time	Received date/time
<b>GW-17 L1118277-03 GW</b>				Kevin McIntyre	07/11/19 15:30	07/13/19 08:45
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Subcontracted Analyses	WG1311599	1	07/30/19 00:00	07/30/19 00:00	CBM	Minneapolis, MN 55414
				Collected by	Collected date/time	Received date/time
<b>GW-18 L1118277-04 GW</b>				Kevin McIntyre	07/11/19 12:47	07/13/19 08:45
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Subcontracted Analyses	WG1311599	1	07/30/19 00:00	07/30/19 00:00	CBM	Minneapolis, MN 55414
				Collected by	Collected date/time	Received date/time
<b>R2-MW-1 L1118277-05 GW</b>				Kevin McIntyre	07/11/19 10:50	07/13/19 08:45
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Subcontracted Analyses	WG1311599	1	07/30/19 00:00	07/30/19 00:00	CBM	Minneapolis, MN 55414
				Collected by	Collected date/time	Received date/time
<b>R2-MW-6 L1118277-06 GW</b>				Kevin McIntyre	07/11/19 10:10	07/13/19 08:45
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Subcontracted Analyses	WG1311599	1	07/30/19 00:00	07/30/19 00:00	CBM	Minneapolis, MN 55414
				Collected by	Collected date/time	Received date/time
<b>GW-12 L1118277-07 GW</b>				Kevin McIntyre	07/11/19 13:43	07/13/19 08:45
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Subcontracted Analyses	WG1311599	1	07/30/19 00:00	07/30/19 00:00	CBM	Minneapolis, MN 55414
				Collected by	Collected date/time	Received date/time
<b>GW-14 L1118277-08 GW</b>				Kevin McIntyre	07/12/19 11:30	07/13/19 08:45
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Subcontracted Analyses	WG1311599	1	07/30/19 00:00	07/30/19 00:00	CBM	Minneapolis, MN 55414

1 Cp

2 Tc

3 Ss

4 Cn

5 Gl

6 Al

7 Sc



# SAMPLE SUMMARY



## CM-EB-GW-1 L118277-09 GW

Collected by: Kevin McIntyre  
 Collected date/time: 07/12/19 11:55  
 Received date/time: 07/13/19 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Subcontracted Analyses	WG1311599	1	07/30/19 00:00	07/30/19 00:00	CBM	Minneapolis, MN 55414

## CM-FB-GW-1 L118277-10 GW

Collected by: Kevin McIntyre  
 Collected date/time: 07/12/19 09:30  
 Received date/time: 07/13/19 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Subcontracted Analyses	WG1311599	1	07/30/19 00:00	07/30/19 00:00	CBM	Minneapolis, MN 55414

- <sup>1</sup> Cp
- <sup>2</sup> Tc
- <sup>3</sup> Ss
- <sup>4</sup> Cn
- <sup>5</sup> Gl
- <sup>6</sup> Al
- <sup>7</sup> Sc



All sample aliquots were received at the correct temperature, in the proper containers, with the appropriate preservatives, and within method specified holding times, unless qualified or notated within the report. Where applicable, all MDL (LOD) and RDL (LOQ) values reported for environmental samples have been corrected for the dilution factor used in the analysis. All Method and Batch Quality Control are within established criteria except where addressed in this case narrative, a non-conformance form or properly qualified within the sample results. By my digital signature below, I affirm to the best of my knowledge, all problems/anomalies observed by the laboratory as having the potential to affect the quality of the data have been identified by the laboratory, and no information or data have been knowingly withheld that would affect the quality of the data.

Tom Mellette  
Project Manager

- <sup>1</sup> Cp
- <sup>2</sup> Tc
- <sup>3</sup> Ss
- <sup>4</sup> Cn
- <sup>5</sup> Gl
- <sup>6</sup> Al
- <sup>7</sup> Sc

### Project Narrative

---

L1118277 -01, -02, -03, -04, -05, -06, -07, -08, -09, -10 contains subout data that is included after the chain of custody.



Guide to Reading and Understanding Your Laboratory Report

The information below is designed to better explain the various terms used in your report of analytical results from the Laboratory. This is not intended as a comprehensive explanation, and if you have additional questions please contact your project representative.

Results Disclaimer - Information that may be provided by the customer, and contained within this report, include Permit Limits, Project Name, Sample ID, Sample Matrix, Sample Preservation, Field Blanks, Field Spikes, Field Duplicates, On-Site Data, Sampling Collection Dates/Times, and Sampling Location. Results relate to the accuracy of this information provided, and as the samples are received.

Abbreviations and Definitions

SDG	Sample Delivery Group.
Uncertainty (Radiochemistry)	Confidence level of 2 sigma.
Case Narrative (Cn)	A brief discussion about the included sample results, including a discussion of any non-conformances to protocol observed either at sample receipt by the laboratory from the field or during the analytical process. If present, there will be a section in the Case Narrative to discuss the meaning of any data qualifiers used in the report.
Quality Control Summary (Qc)	This section of the report includes the results of the laboratory quality control analyses required by procedure or analytical methods to assist in evaluating the validity of the results reported for your samples. These analyses are not being performed on your samples typically, but on laboratory generated material.
Sample Chain of Custody (Sc)	This is the document created in the field when your samples were initially collected. This is used to verify the time and date of collection, the person collecting the samples, and the analyses that the laboratory is requested to perform. This chain of custody also documents all persons (excluding commercial shippers) that have had control or possession of the samples from the time of collection until delivery to the laboratory for analysis.
Sample Results (Sr)	This section of your report will provide the results of all testing performed on your samples. These results are provided by sample ID and are separated by the analyses performed on each sample. The header line of each analysis section for each sample will provide the name and method number for the analysis reported.
Sample Summary (Ss)	This section of the Analytical Report defines the specific analyses performed for each sample ID, including the dates and times of preparation and/or analysis.

- 1 Cp
- 2 Tc
- 3 Ss
- 4 Cn
- 5 Gl
- 6 Al
- 7 Sc

Qualifier Description

The remainder of this page intentionally left blank, there are no qualifiers applied to this SDG.



Pace National is the only environmental laboratory accredited/certified to support your work nationwide from one location. One phone call, one point of contact, one laboratory. No other lab is as accessible or prepared to handle your needs throughout the country. Our capacity and capability from our single location laboratory is comparable to the collective totals of the network laboratories in our industry. The most significant benefit to our one location design is the design of our laboratory campus. The model is conducive to accelerated productivity, decreasing turn-around time, and preventing cross contamination, thus protecting sample integrity. Our focus on premium quality and prompt service allows us to be YOUR LAB OF CHOICE.

\* Not all certifications held by the laboratory are applicable to the results reported in the attached report.  
 \* Accreditation is only applicable to the test methods specified on each scope of accreditation held by Pace National.

1 Cp

2 Tc

3 Ss

4 Cn

5 Gl

6 Al

7 Sc

## State Accreditations

Alabama	40660	Nebraska	NE-OS-15-05
Alaska	17-026	Nevada	TN-03-2002-34
Arizona	AZ0612	New Hampshire	2975
Arkansas	88-0469	New Jersey-NELAP	TN002
California	2932	New Mexico <sup>1</sup>	n/a
Colorado	TN00003	New York	11742
Connecticut	PH-0197	North Carolina	Env375
Florida	E87487	North Carolina <sup>1</sup>	DW21704
Georgia	NELAP	North Carolina <sup>3</sup>	41
Georgia <sup>1</sup>	923	North Dakota	R-140
Idaho	TN00003	Ohio-VAP	CL0069
Illinois	200008	Oklahoma	9915
Indiana	C-TN-01	Oregon	TN200002
Iowa	364	Pennsylvania	68-02979
Kansas	E-10277	Rhode Island	LA000356
Kentucky <sup>1,6</sup>	90010	South Carolina	84004
Kentucky <sup>2</sup>	16	South Dakota	n/a
Louisiana	AI30792	Tennessee <sup>1,4</sup>	2006
Louisiana <sup>1</sup>	LA180010	Texas	T104704245-18-15
Maine	TN0002	Texas <sup>5</sup>	LAB0152
Maryland	324	Utah	TN00003
Massachusetts	M-TN003	Vermont	VT2006
Michigan	9958	Virginia	460132
Minnesota	047-999-395	Washington	C847
Mississippi	TN00003	West Virginia	233
Missouri	340	Wisconsin	9980939910
Montana	CERT0086	Wyoming	A2LA

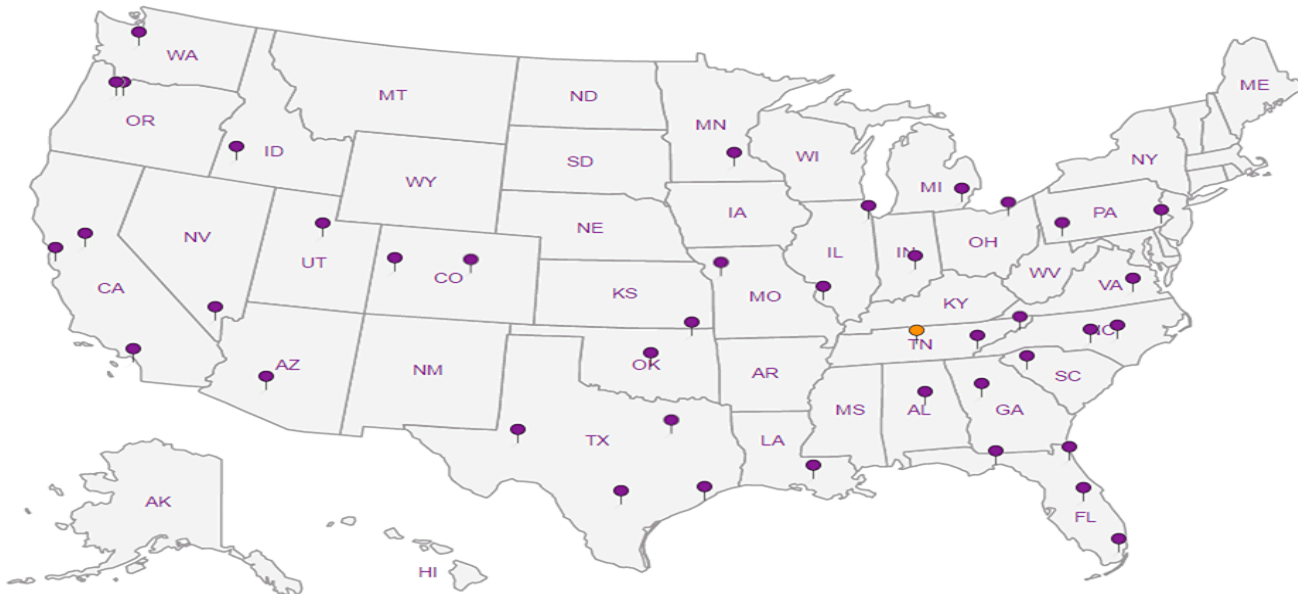
## Third Party Federal Accreditations

A2LA – ISO 17025	1461.01	AIHA-LAP,LLC EMLAP	100789
A2LA – ISO 17025 <sup>5</sup>	1461.02	DOD	1461.01
Canada	1461.01	USDA	P330-15-00234
EPA-Crypto	TN00003		

<sup>1</sup> Drinking Water <sup>2</sup> Underground Storage Tanks <sup>3</sup> Aquatic Toxicity <sup>4</sup> Chemical/Microbiological <sup>5</sup> Mold <sup>6</sup> Wastewater n/a Accreditation not applicable

## Our Locations

Pace National has sixty-four client support centers that provide sample pickup and/or the delivery of sampling supplies. If you would like assistance from one of our support offices, please contact our main office. Pace National performs all testing at our central laboratory.



**S&ME Inc. - Spartanburg SC**

301 Zima Park Drive  
Spartanburg, SC 29301

Report to:  
**Scott Dacus**

Project Description: **New Indy**

Phone: **864-574-2360**  
Fax: **864-576-8730**

Collected by (print):  
*Kevin M. Feltus*

Collected by (signature):  
*Kevin M. Feltus*

Immediately Packed on Ice N  Y

Billing Information:  
Accounts Payable  
301 Zima Park Drive  
Spartanburg, SC 29301

Email To: **sdacus@smeinc.com**

City/State Collected: **Rock Hill, SC**

Lab Project #  
**SMESPAR-4213-18-087**

P.O. #

Quote #

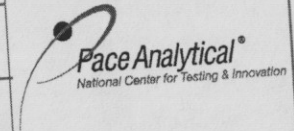
**Rush?** (Lab MUST Be Notified)

Same Day  Five Day  
 Next Day  5 Day (Rad Only)  
 Two Day  10 Day (Rad Only)  
 Three Day

Date Results Needed

Pres  
Chk

Analysis / Container / Preservative



1206S Lebanon Rd  
Mount Juliet, TN 37122  
Phone: 615-758-5858  
Phone: 800-767-5859  
Fax: 615-758-5859



L# **211827**  
**1215**

Acctnum: **SMESPAR**  
Template: **T137919**  
Prelogin: **P716850**  
TSR: **690 - Tom Mellette**  
PB:  
Shipped Via: **FedEX Ground**

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No. of Cntrs	SV8290 1L-Amb-NoPres	Remarks	Sample # (lab only)
GW-15R	G	GW	24	7-12-19	9:45	2	X		01
GW-15BR	G	GW	115	7-12-19	10:30	2	X		02
GW-17	G	GW	17	7-11-19	15:30	2	X		03
GW-18	G	GW	19.3	7-11-19	12:47	2	X		04
R2-MW-1	G	GW	41	7-11-19	10:50	2	X		05
R2-MW-6	G	GW	27'	7-11-19	10:10	2	X		06
GW-12	G	GW	44	7-11-19	13:43	2	X		07
GW-14	G	GW	19'	7-12-19	11:30	2	X		08
CM-EB-GW-1	G	GW		7-12-19	11:55	2	X		09
CM-FB-GW-1	G	GW		7-12-19	09:30	2	X		10

\* Matrix:  
SS - Soil AIR - Air F - Filter  
GW - Groundwater B - Bioassay  
WW - WasteWater  
DW - Drinking Water  
OT - Other

Remarks: **SHIPPED IN THREE COOLERS.**

Samples returned via:  
 UPS  FedEx  Courier

Tracking # **1082 5987 2837, 2859, 4757, 5674, 7624**

pH \_\_\_\_\_ Temp \_\_\_\_\_  
Flow \_\_\_\_\_ Other \_\_\_\_\_

Sample Receipt Checklist  
COC Seal Present/Intact:  NP  Y  N  
COC Signed/Accurate:  Y  N  
Bottles arrive intact:  Y  N  
Correct bottles used:  Y  N  
Sufficient volume sent:  Y  N  
If Applicable  
VOA Zero Headpace:  Y  N  
Preservation Correct/Checked:  Y  N

**RAD SCREEN: <0.5 mR/hr**

Relinquished by (Signature): *[Signature]*  
Date: **7.12.19** Time: **1440**

Relinquished by (Signature):  
Date: Time:

Relinquished by (Signature):  
Date: Time:

Received by (Signature): **DI**  
Temp: \_\_\_\_\_ °C  
Bottles Received: **20**

Received by (Signature):  
Date: **7/13/19** Time: **8:45**

Received for lab by (Signature): **CLW**  
Date: **7/13/19** Time: **8:45**

If preservation required by Login: Date/Time  
Hold:  
Condition: **NCF**  OK

**Report Prepared for:**

Benita Miller  
Pace Analytical National  
12065 Lebanon Road  
Mount Juliet TN 37122

**REPORT OF  
LABORATORY  
ANALYSIS FOR  
PCDD/PCDF**

**Report Information:**

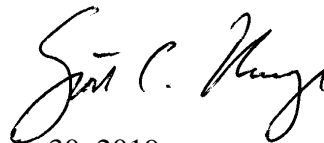
**Pace Project #: 10483208**  
**Sample Receipt Date: 07/16/2019**  
**Client Project #: L1118277: WG1311599**  
**Client Sub PO #: L1118277**  
**State Cert #: 74003**

**Invoicing & Reporting Options:**

The report provided has been invoiced as a Level 2 PCDD/PCDF Report. If an upgrade of this report package is requested, an additional charge may be applied.

Please review the attached invoice for accuracy and forward any questions to Nathan Boberg, your Pace Project Manager.

**This report has been reviewed by:**



July 30, 2019

Scott Unze, Project Manager  
(612) 607-6383  
(612) 607-6444 (fax)  
scott.unze@pacelabs.com

**Report Prepared Date:**

July 30, 2019



**Report of Laboratory Analysis**

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The results relate only to the samples included in this report.



## **DISCUSSION**

This report presents the results from the analyses performed on ten samples submitted by a representative of Pace Analytical National. The samples were analyzed for the presence or absence of polychlorodibenzo-p-dioxins (PCDDs) and polychlorodibenzofurans (PCDFs) using a modified version of USEPA Method 8290. Estimated Maximum Possible Concentration (EMPC) values were treated as positives in the toxic equivalence calculations. The reporting limits were set to correspond to the lowest calibration points and a nominal 1-Liter sample amount, and the sensitivity was verified by signal-to-noise measurements. The quantitation limits, adjusted for sample extraction amount, may be somewhat higher or lower than the reporting limits provided in this report.

The recoveries of the isotopically-labeled PCDD/PCDF internal standards in the sample extracts ranged from 48-102%. All of the labeled internal standard recoveries obtained for this project were within the 40-135% target range specified in Method 8290. Also, since the quantification of the native 2,3,7,8-substituted congeners was based on isotope dilution, the data were automatically corrected for recovery and accurate values were obtained.

A laboratory method blank was prepared and analyzed with each sample batch as part of our routine quality control procedures. The results show the blanks to be free of PCDDs and PCDFs at the reporting limits.

Laboratory spike samples were also prepared using clean reference matrix that had been fortified with native standard materials. The results show that the spiked native compounds were recovered at 97-135% with relative percent differences of 0.8-8.9%. The recovery values obtained for 1,2,3,6,7,8-HxCDD and 1,2,3,7,8,9-HxCDD in the laboratory spike samples prepared on 07/19/2019 were above the 70-130% target range, flagged "R" on the results tables, and may indicate high biases for these congeners in the associated field sample determinations. Matrix spikes were not prepared with the sample batches.

## **REPORT OF LABORATORY ANALYSIS**

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## Minnesota Laboratory Certifications

Authority	Certificate #	Authority	Certificate #
A2LA	2926.01	Minnesota - Pet	1240
Alabama	40770	Mississippi	MN00064
Alaska - DW	MN00064	Missouri - DW	10100
Alaska - UST	17-009	Montana	CERT0092
Arizona	AZ0014	Nebraska	NE-OS-18-06
Arkansas - DW	MN00064	Nevada	MN00064
Arkansas - WW	88-0680	New Hampshire	2081
CNMI Saipan	MP0003	New Jersey (NE)	MN002
California	2929	New York	11647
Colorado	MN00064	North Carolina	27700
Connecticut	PH-0256	North Carolina -	27700
EPA Region 8+	via MN 027-053	North Carolina -	530
Florida (NELAP)	E87605	North Dakota	R-036
Georgia	959	Ohio - DW	41244
Guam	17-001r	Ohio - VAP	CL101
Hawaii	MN00064	Oklahoma	9507
Idaho	MN00064	Oregon - Primar	MN300001
Illinois	200011	Oregon - Secon	MN200001
Indiana	C-MN-01	Pennsylvania	68-00563
Iowa	368	Puerto Rico	MN00064
Kansas	E-10167	South Carolina	74003
Kentucky - DW	90062	South Dakota	NA
Kentucky - WW	90062	Tennessee	TN02818
Louisiana - DE	03086	Texas	T104704192
Louisiana - DW	MN00064	Utah (NELAP)	MN00064
Maine	MN00064	Virginia	460163
Maryland	322	Washington	C486
Massachusetts	M-MN064	West Virginia -	382
Michigan	9909	West Virginia -	9952C
Minnesota	027-053-137	Wisconsin	999407970
Minnesota - De	via MN 027-053	Wyoming - UST	2926.01

## REPORT OF LABORATORY ANALYSIS

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Report No.....10483208



# **Appendix A**

## Sample Management

## Sub-Contract Chain of Custody

**Batch Date/Time:** 07/15/19 13:59  
**Sub-Contract Lab:** PACEMN  
**Address:** 1700 Elm Street Suite 200  
**City/State:** Minneapolis, MN 55414  
**Contact:**  
 Nathan.Boberg@pacelabs.com

**WO:** WG1311599  
**Results Due Date:** 07/30/19  
**ESC Purchase Order #:** L1118277  
**Send Reports to:** Benita Miller  
**Email:** SuboutTeam@esclabsciences.com



12065 Lebanon Rd.  
 Mt. Juliet, TN 37122  
 call: (615) 773-9756

Sample ID Container ID	Matrix	State	Collect Date	Sample Number Lab Use Only	Sample Comments Lab Use Only
GW-15R	GW	SC	07/12/19 09:45	1. L1118277-01	EPA 8290 001
GW-15BR	GW	SC	07/12/19 10:30	2. L1118277-02	EPA 8290 002
GW-17	GW	SC	07/11/19 15:30	3. L1118277-03	EPA 8290 003
GW-18	GW	SC	07/11/19 12:47	4. L1118277-04	EPA 8290 004
R2-MW-1	GW	SC	07/11/19 10:50	5. L1118277-05	EPA 8290 005
R2-MW-6	GW	SC	07/11/19 10:10	6. L1118277-06	EPA 8290 006
GW-12	GW	SC	07/11/19 13:43	7. L1118277-07	EPA 8290 007
GW-14	GW	SC	07/12/19 11:30	8. L1118277-08	EPA 8290 008
CM-EB-GW-1	GW	SC	07/12/19 11:55	9. L1118277-09	EPA 8290 009
CM-FB-GW-1	GW	SC	07/12/19 09:30	10. L1118277-10	EPA 8290 010

\*= Container used for multiple Samples and/or Analyses

Relinquished by: [Signature] Date: 7/15/19  
 Received by: [Signature] Date: 7/16/19 0850  
 Relinquished by: \_\_\_\_\_ Date: \_\_\_\_\_  
 Received by: \_\_\_\_\_ Date: \_\_\_\_\_

**WO# : 10483208**



**10483208**

T: 0.6, 0.8, 0.8

**Sample Condition Upon Receipt**      **Client Name:** Pace National MT Juliet      **Project #:** WO# : 10483208

**PM:** NB3      **Due Date:** 07/30/19  
**CLIENT:** ESC\_TN

**Courier:**  Fed Ex     UPS     USPS     Client  
 Pace     Speedee     Commercial    See Exception

**Tracking Number:** 1032 5990 4836/4847/4858   

**Custody Seal on Cooler/Box Present?**  Yes     No      **Seals Intact?**  Yes     No      **Biological Tissue Frozen?**  Yes     No     N/A

**Packing Material:**  Bubble Wrap     Bubble Bags     None     Other: \_\_\_\_\_      **Temp Blank?**  Yes     No

**Thermometer:**  T1(0461)     T2(1336)     T3(0459)  
 T4(0254)     T5(0489)      **Type of Ice:**  Wet     Blue     None     Dry     Melted

**Note: Each West Virginia Sample must have temp taken (no temp blanks)**

Temp should be above freezing to 6°C	<b>Cooler Temp Read w/temp blank:</b> <u>0.4, 0.6, 0.6</u> °C	<b>Average Corrected Temp (no temp blank only):</b> _____ °C	See Exceptions <input type="checkbox"/>
<b>Correction Factor:</b> <u>+0.2</u>	<b>Cooler Temp Corrected w/temp blank:</b> <u>0.6, 0.8, 0.8</u> °C		

**USDA Regulated Soil:** (  N/A, water sample/Other: \_\_\_\_\_ )      **Date/Initials of Person Examining Contents:** WD 7/16/19

Did samples originate in a quarantine zone within the United States: AL, AR, CA, FL, GA, ID, LA, MS, NC, NM, NY, OK, OR, SC, TN, TX or VA (check maps)?  Yes     No      Did samples originate from a foreign source (internationally/including Hawaii and Puerto Rico)?  Yes     No

**If Yes to either question, fill out a Regulated Soil Checklist (F-MN-Q-338) and include with SCUR/COC paperwork.**

	COMMENTS:
Chain of Custody Present and Filled Out? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	1.
Chain of Custody Relinquished? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	2.
Sampler Name and/or Signature on COC? <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	3.
Samples Arrived within Hold Time? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	4.
<b>Short Hold Time Analysis (&lt;72 hr)?</b> <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	5. <input type="checkbox"/> Fecal Coliform <input type="checkbox"/> HPC <input type="checkbox"/> Total Coliform/E coli <input type="checkbox"/> BOD/cBOD <input type="checkbox"/> Hex Chrome <input type="checkbox"/> Turbidity <input type="checkbox"/> Nitrate <input type="checkbox"/> Nitrite <input type="checkbox"/> Orthophos <input type="checkbox"/> Other
<b>Rush Turn Around Time Requested?</b> <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	6.
Sufficient Volume? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	7.
Correct Containers Used? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	8.
-Pace Containers Used? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	
Containers Intact? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	9.
Field Filtered Volume Received for Dissolved Tests? <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	10. Is sediment visible in the dissolved container? <input type="checkbox"/> Yes <input type="checkbox"/> No
Is sufficient information available to reconcile the samples to the COC? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	11. If no, write ID/ Date/Time on Container Below: _____ See Exception <input type="checkbox"/>
Matrix: <input checked="" type="checkbox"/> Water <input type="checkbox"/> Soil <input type="checkbox"/> Oil <input type="checkbox"/> Other	
All containers needing acid/base preservation have been checked? <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	12. Sample # _____ <input type="checkbox"/> NaOH <input type="checkbox"/> HNO <sub>3</sub> <input type="checkbox"/> H <sub>2</sub> SO <sub>4</sub> <input type="checkbox"/> Zinc Acetate
All containers needing preservation are found to be in compliance with EPA recommendation? <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A (HNO <sub>3</sub> , H <sub>2</sub> SO <sub>4</sub> , <2pH, NaOH >9 Sulfide, NaOH >12 Cyanide)	Positive for Res. <input type="checkbox"/> Yes <input type="checkbox"/> No      See Exception <input type="checkbox"/>
Exceptions: VOA, Coliform, TOC/DOC Oil and Grease, DRO/8015 (water) and Dioxin/PFAS <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	Chlorine? <input type="checkbox"/> No      pH Paper Lot# _____ <input type="checkbox"/>
	Res. Chlorine    0-6 Roll    0-6 Strip    0-14 Strip
Headspace in VOA Vials (greater than 6mm)? <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	13. _____ See Exception <input type="checkbox"/>
Trip Blank Present? <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	14. _____
Trip Blank Custody Seals Present? <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	Pace Trip Blank Lot # (if purchased): _____

**CLIENT NOTIFICATION/RESOLUTION**      **Field Data Required?**  Yes     No

Person Contacted: \_\_\_\_\_      Date/Time: \_\_\_\_\_

Comments/Resolution: \_\_\_\_\_

**Project Manager Review:** Walter P. ...      **Date:** 7/16/19

Note: Whenever there is a discrepancy affecting North Carolina compliance samples, a copy of this form will be sent to the North Carolina DEHNR Certification Office (i.e. out of hold, incorrect preservative, out of temp, incorrect containers).

Labeled by: WD

## Reporting Flags

- A = Reporting Limit based on signal to noise
- B = Less than 10x higher than method blank level
- C = Result obtained from confirmation analysis
- D = Result obtained from analysis of diluted sample
- E = Exceeds calibration range
- I = Interference present
- J = Estimated value
- L = Suppressive interference, analyte may be biased low
- Nn = Value obtained from additional analysis
- P = PCDE Interference
- R = Recovery outside target range
- S = Peak saturated
- U = Analyte not detected
- V = Result verified by confirmation analysis
- X = %D Exceeds limits
- Y = Calculated using average of daily RFs
- \* = See Discussion

### REPORT OF LABORATORY ANALYSIS

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Report No.....10483208

# **Appendix B**

## Sample Analysis Summary



### Method 8290 Sample Analysis Results

Client - Pace Analytical National

Client's Sample ID	GW-15R		
Lab Sample ID	10483208001		
Filename	U190723A_14		
Injected By	SMT		
Total Amount Extracted	1060 mL	Matrix	Water
% Moisture	NA	Dilution	NA
Dry Weight Extracted	NA	Collected	07/12/2019 09:45
ICAL ID	U190716	Received	07/16/2019 08:50
CCal Filename(s)	U190723A_04 & U190723A_20	Extracted	07/19/2019 12:00
Method Blank ID	BLANK-72076	Analyzed	07/23/2019 22:54

Native Isomers	Conc pg/L	EMPC pg/L	RL pg/L	Internal Standards	ng's Added	Percent Recovery
2,3,7,8-TCDF	ND	----	10	2,3,7,8-TCDF-13C	2.00	92
Total TCDF	ND	----	10	2,3,7,8-TCDD-13C	2.00	86
				1,2,3,7,8-PeCDF-13C	2.00	102
2,3,7,8-TCDD	ND	----	10	2,3,4,7,8-PeCDF-13C	2.00	85
Total TCDD	ND	----	10	1,2,3,7,8-PeCDD-13C	2.00	94
				1,2,3,4,7,8-HxCDF-13C	2.00	70
1,2,3,7,8-PeCDF	ND	----	50	1,2,3,6,7,8-HxCDF-13C	2.00	75
2,3,4,7,8-PeCDF	ND	----	50	2,3,4,6,7,8-HxCDF-13C	2.00	76
Total PeCDF	ND	----	50	1,2,3,7,8,9-HxCDF-13C	2.00	75
				1,2,3,4,7,8-HxCDD-13C	2.00	72
1,2,3,7,8-PeCDD	ND	----	50	1,2,3,6,7,8-HxCDD-13C	2.00	75
Total PeCDD	ND	----	50	1,2,3,4,6,7,8-HpCDF-13C	2.00	76
				1,2,3,4,7,8,9-HpCDF-13C	2.00	78
1,2,3,4,7,8-HxCDF	ND	----	50	1,2,3,4,6,7,8-HpCDD-13C	2.00	82
1,2,3,6,7,8-HxCDF	ND	----	50	OCDD-13C	4.00	58
2,3,4,6,7,8-HxCDF	ND	----	50			
1,2,3,7,8,9-HxCDF	ND	----	50	1,2,3,4-TCDD-13C	2.00	NA
Total HxCDF	ND	----	50	1,2,3,7,8,9-HxCDD-13C	2.00	NA
1,2,3,4,7,8-HxCDD	ND	----	50	2,3,7,8-TCDD-37Cl4	0.20	104
1,2,3,6,7,8-HxCDD	ND	----	50			
1,2,3,7,8,9-HxCDD	ND	----	50			
Total HxCDD	ND	----	50			
1,2,3,4,6,7,8-HpCDF	ND	----	50	Total 2,3,7,8-TCDD		
1,2,3,4,7,8,9-HpCDF	ND	----	50	Equivalence: 0.00 pg/L		
Total HpCDF	ND	----	50	(Lower-bound - Using ITE Factors)		
1,2,3,4,6,7,8-HpCDD	ND	----	50			
Total HpCDD	ND	----	50			
OCDF	ND	----	100			
OCDD	ND	----	100			

Conc = Concentration (Totals include 2,3,7,8-substituted isomers).  
EMPC = Estimated Maximum Possible Concentration  
RL = Reporting Limit

ND = Not Detected  
NA = Not Applicable  
NC = Not Calculated

## REPORT OF LABORATORY ANALYSIS

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### Method 8290 Sample Analysis Results

Client - Pace Analytical National

Client's Sample ID	GW-15BR		
Lab Sample ID	10483208002		
Filename	U190723A_15		
Injected By	SMT		
Total Amount Extracted	1050 mL	Matrix	Water
% Moisture	NA	Dilution	NA
Dry Weight Extracted	NA	Collected	07/12/2019 10:30
ICAL ID	U190716	Received	07/16/2019 08:50
CCal Filename(s)	U190723A_04 & U190723A_20	Extracted	07/19/2019 12:00
Method Blank ID	BLANK-72076	Analyzed	07/23/2019 23:40

Native Isomers	Conc pg/L	EMPC pg/L	RL pg/L	Internal Standards	ng's Added	Percent Recovery
2,3,7,8-TCDF	ND	----	10	2,3,7,8-TCDF-13C	2.00	72
Total TCDF	ND	----	10	2,3,7,8-TCDD-13C	2.00	76
				1,2,3,7,8-PeCDF-13C	2.00	72
2,3,7,8-TCDD	ND	----	10	2,3,4,7,8-PeCDF-13C	2.00	74
Total TCDD	ND	----	10	1,2,3,7,8-PeCDD-13C	2.00	82
				1,2,3,4,7,8-HxCDF-13C	2.00	58
1,2,3,7,8-PeCDF	ND	----	50	1,2,3,6,7,8-HxCDF-13C	2.00	67
2,3,4,7,8-PeCDF	ND	----	50	2,3,4,6,7,8-HxCDF-13C	2.00	63
Total PeCDF	ND	----	50	1,2,3,7,8,9-HxCDF-13C	2.00	62
				1,2,3,4,7,8-HxCDD-13C	2.00	57
1,2,3,7,8-PeCDD	ND	----	50	1,2,3,6,7,8-HxCDD-13C	2.00	64
Total PeCDD	ND	----	50	1,2,3,4,6,7,8-HpCDF-13C	2.00	61
				1,2,3,4,7,8,9-HpCDF-13C	2.00	64
1,2,3,4,7,8-HxCDF	ND	----	50	1,2,3,4,6,7,8-HpCDD-13C	2.00	69
1,2,3,6,7,8-HxCDF	ND	----	50	OCDD-13C	4.00	48
2,3,4,6,7,8-HxCDF	ND	----	50			
1,2,3,7,8,9-HxCDF	ND	----	50	1,2,3,4-TCDD-13C	2.00	NA
Total HxCDF	ND	----	50	1,2,3,7,8,9-HxCDD-13C	2.00	NA
1,2,3,4,7,8-HxCDD	ND	----	50	2,3,7,8-TCDD-37Cl4	0.20	104
1,2,3,6,7,8-HxCDD	ND	----	50			
1,2,3,7,8,9-HxCDD	ND	----	50			
Total HxCDD	ND	----	50			
1,2,3,4,6,7,8-HpCDF	ND	----	50	Total 2,3,7,8-TCDD		
1,2,3,4,7,8,9-HpCDF	ND	----	50	Equivalence: 0.00 pg/L		
Total HpCDF	ND	----	50	(Lower-bound - Using ITE Factors)		
1,2,3,4,6,7,8-HpCDD	ND	----	50			
Total HpCDD	ND	----	50			
OCDF	ND	----	100			
OCDD	ND	----	100			

Conc = Concentration (Totals include 2,3,7,8-substituted isomers).  
 EMPC = Estimated Maximum Possible Concentration  
 RL = Reporting Limit

ND = Not Detected  
 NA = Not Applicable  
 NC = Not Calculated

## REPORT OF LABORATORY ANALYSIS

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### Method 8290 Sample Analysis Results

Client - Pace Analytical National

Client's Sample ID	GW-17		
Lab Sample ID	10483208003		
Filename	U190723A_16		
Injected By	SMT		
Total Amount Extracted	1050 mL	Matrix	Water
% Moisture	NA	Dilution	NA
Dry Weight Extracted	NA	Collected	07/11/2019 15:30
ICAL ID	U190716	Received	07/16/2019 08:50
CCal Filename(s)	U190723A_04 & U190723A_20	Extracted	07/19/2019 12:00
Method Blank ID	BLANK-72076	Analyzed	07/24/2019 00:26

Native Isomers	Conc pg/L	EMPC pg/L	RL pg/L	Internal Standards	ng's Added	Percent Recovery
2,3,7,8-TCDF	ND	----	10	2,3,7,8-TCDF-13C	2.00	79
Total TCDF	ND	----	10	2,3,7,8-TCDD-13C	2.00	82
				1,2,3,7,8-PeCDF-13C	2.00	77
2,3,7,8-TCDD	ND	----	10	2,3,4,7,8-PeCDF-13C	2.00	77
Total TCDD	ND	----	10	1,2,3,7,8-PeCDD-13C	2.00	89
				1,2,3,4,7,8-HxCDF-13C	2.00	63
1,2,3,7,8-PeCDF	ND	----	50	1,2,3,6,7,8-HxCDF-13C	2.00	70
2,3,4,7,8-PeCDF	ND	----	50	2,3,4,6,7,8-HxCDF-13C	2.00	70
Total PeCDF	ND	----	50	1,2,3,7,8,9-HxCDF-13C	2.00	70
				1,2,3,4,7,8-HxCDD-13C	2.00	64
1,2,3,7,8-PeCDD	ND	----	50	1,2,3,6,7,8-HxCDD-13C	2.00	68
Total PeCDD	ND	----	50	1,2,3,4,6,7,8-HpCDF-13C	2.00	69
				1,2,3,4,7,8,9-HpCDF-13C	2.00	69
1,2,3,4,7,8-HxCDF	ND	----	50	1,2,3,4,6,7,8-HpCDD-13C	2.00	74
1,2,3,6,7,8-HxCDF	ND	----	50	OCDD-13C	4.00	53
2,3,4,6,7,8-HxCDF	ND	----	50			
1,2,3,7,8,9-HxCDF	ND	----	50	1,2,3,4-TCDD-13C	2.00	NA
Total HxCDF	ND	----	50	1,2,3,7,8,9-HxCDD-13C	2.00	NA
1,2,3,4,7,8-HxCDD	ND	----	50	2,3,7,8-TCDD-37Cl4	0.20	101
1,2,3,6,7,8-HxCDD	ND	----	50			
1,2,3,7,8,9-HxCDD	ND	----	50			
Total HxCDD	ND	----	50			
1,2,3,4,6,7,8-HpCDF	ND	----	50	Total 2,3,7,8-TCDD		
1,2,3,4,7,8,9-HpCDF	ND	----	50	Equivalence: 0.00 pg/L		
Total HpCDF	ND	----	50	(Lower-bound - Using ITE Factors)		
1,2,3,4,6,7,8-HpCDD	ND	----	50			
Total HpCDD	ND	----	50			
OCDF	ND	----	100			
OCDD	ND	----	100			

Conc = Concentration (Totals include 2,3,7,8-substituted isomers).  
 EMPC = Estimated Maximum Possible Concentration  
 RL = Reporting Limit

ND = Not Detected  
 NA = Not Applicable  
 NC = Not Calculated

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### Method 8290 Sample Analysis Results

Client - Pace Analytical National

Client's Sample ID	GW-18		
Lab Sample ID	10483208004		
Filename	U190723A_17		
Injected By	SMT		
Total Amount Extracted	1050 mL	Matrix	Water
% Moisture	NA	Dilution	NA
Dry Weight Extracted	NA	Collected	07/11/2019 12:47
ICAL ID	U190716	Received	07/16/2019 08:50
CCal Filename(s)	U190723A_04 & U190723A_20	Extracted	07/19/2019 12:00
Method Blank ID	BLANK-72076	Analyzed	07/24/2019 01:13

Native Isomers	Conc pg/L	EMPC pg/L	RL pg/L	Internal Standards	ng's Added	Percent Recovery
2,3,7,8-TCDF	ND	----	10	2,3,7,8-TCDF-13C	2.00	81
Total TCDF	ND	----	10	2,3,7,8-TCDD-13C	2.00	83
				1,2,3,7,8-PeCDF-13C	2.00	74
2,3,7,8-TCDD	ND	----	10	2,3,4,7,8-PeCDF-13C	2.00	78
Total TCDD	ND	----	10	1,2,3,7,8-PeCDD-13C	2.00	86
				1,2,3,4,7,8-HxCDF-13C	2.00	63
1,2,3,7,8-PeCDF	ND	----	50	1,2,3,6,7,8-HxCDF-13C	2.00	70
2,3,4,7,8-PeCDF	ND	----	50	2,3,4,6,7,8-HxCDF-13C	2.00	71
Total PeCDF	ND	----	50	1,2,3,7,8,9-HxCDF-13C	2.00	68
				1,2,3,4,7,8-HxCDD-13C	2.00	63
1,2,3,7,8-PeCDD	ND	----	50	1,2,3,6,7,8-HxCDD-13C	2.00	66
Total PeCDD	ND	----	50	1,2,3,4,6,7,8-HpCDF-13C	2.00	68
				1,2,3,4,7,8,9-HpCDF-13C	2.00	67
1,2,3,4,7,8-HxCDF	ND	----	50	1,2,3,4,6,7,8-HpCDD-13C	2.00	71
1,2,3,6,7,8-HxCDF	ND	----	50	OCDD-13C	4.00	48
2,3,4,6,7,8-HxCDF	ND	----	50			
1,2,3,7,8,9-HxCDF	ND	----	50	1,2,3,4-TCDD-13C	2.00	NA
Total HxCDF	ND	----	50	1,2,3,7,8,9-HxCDD-13C	2.00	NA
1,2,3,4,7,8-HxCDD	ND	----	50	2,3,7,8-TCDD-37Cl4	0.20	110
1,2,3,6,7,8-HxCDD	ND	----	50			
1,2,3,7,8,9-HxCDD	ND	----	50			
Total HxCDD	ND	----	50			
1,2,3,4,6,7,8-HpCDF	ND	----	50	Total 2,3,7,8-TCDD		
1,2,3,4,7,8,9-HpCDF	ND	----	50	Equivalence: 0.00 pg/L		
Total HpCDF	ND	----	50	(Lower-bound - Using ITE Factors)		
1,2,3,4,6,7,8-HpCDD	ND	----	50			
Total HpCDD	ND	----	50			
OCDF	ND	----	100			
OCDD	ND	----	100			

Conc = Concentration (Totals include 2,3,7,8-substituted isomers).  
 EMPC = Estimated Maximum Possible Concentration  
 RL = Reporting Limit

ND = Not Detected  
 NA = Not Applicable  
 NC = Not Calculated

## REPORT OF LABORATORY ANALYSIS

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### Method 8290 Sample Analysis Results

Client - Pace Analytical National

Client's Sample ID	R2-MW-1		
Lab Sample ID	10483208005		
Filename	Y190725B_10		
Injected By	SMT		
Total Amount Extracted	1040 mL	Matrix	Water
% Moisture	NA	Dilution	NA
Dry Weight Extracted	NA	Collected	07/11/2019 10:50
ICAL ID	Y190711	Received	07/16/2019 08:50
CCal Filename(s)	Y190725A_16 & Y190725B_17	Extracted	07/22/2019 11:20
Method Blank ID	BLANK-72104	Analyzed	07/25/2019 20:36

Native Isomers	Conc pg/L	EMPC pg/L	RL pg/L	Internal Standards	ng's Added	Percent Recovery
2,3,7,8-TCDF	ND	----	10	2,3,7,8-TCDF-13C	2.00	93
Total TCDF	ND	----	10	2,3,7,8-TCDD-13C	2.00	90
				1,2,3,7,8-PeCDF-13C	2.00	95
2,3,7,8-TCDD	ND	----	10	2,3,4,7,8-PeCDF-13C	2.00	90
Total TCDD	ND	----	10	1,2,3,7,8-PeCDD-13C	2.00	95
				1,2,3,4,7,8-HxCDF-13C	2.00	89
1,2,3,7,8-PeCDF	ND	----	50	1,2,3,6,7,8-HxCDF-13C	2.00	92
2,3,4,7,8-PeCDF	ND	----	50	2,3,4,6,7,8-HxCDF-13C	2.00	93
Total PeCDF	ND	----	50	1,2,3,7,8,9-HxCDF-13C	2.00	91
				1,2,3,4,7,8-HxCDD-13C	2.00	80
1,2,3,7,8-PeCDD	ND	----	50	1,2,3,6,7,8-HxCDD-13C	2.00	78
Total PeCDD	ND	----	50	1,2,3,4,6,7,8-HpCDF-13C	2.00	83
				1,2,3,4,7,8,9-HpCDF-13C	2.00	81
1,2,3,4,7,8-HxCDF	ND	----	50	1,2,3,4,6,7,8-HpCDD-13C	2.00	94
1,2,3,6,7,8-HxCDF	ND	----	50	OCDD-13C	4.00	77
2,3,4,6,7,8-HxCDF	ND	----	50			
1,2,3,7,8,9-HxCDF	ND	----	50	1,2,3,4-TCDD-13C	2.00	NA
Total HxCDF	ND	----	50	1,2,3,7,8,9-HxCDD-13C	2.00	NA
1,2,3,4,7,8-HxCDD	ND	----	50	2,3,7,8-TCDD-37Cl4	0.20	108
1,2,3,6,7,8-HxCDD	ND	----	50			
1,2,3,7,8,9-HxCDD	ND	----	50			
Total HxCDD	ND	----	50			
1,2,3,4,6,7,8-HpCDF	ND	----	50	Total 2,3,7,8-TCDD		
1,2,3,4,7,8,9-HpCDF	ND	----	50	Equivalence: 0.00 pg/L		
Total HpCDF	ND	----	50	(Lower-bound - Using ITE Factors)		
1,2,3,4,6,7,8-HpCDD	ND	----	50			
Total HpCDD	ND	----	50			
OCDF	ND	----	100			
OCDD	ND	----	100			

Conc = Concentration (Totals include 2,3,7,8-substituted isomers).  
 EMPC = Estimated Maximum Possible Concentration  
 RL = Reporting Limit

ND = Not Detected  
 NA = Not Applicable  
 NC = Not Calculated

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### Method 8290 Sample Analysis Results

Client - Pace Analytical National

Client's Sample ID	R2-MW-6		
Lab Sample ID	10483208006		
Filename	Y190725B_11		
Injected By	SMT		
Total Amount Extracted	1050 mL	Matrix	Water
% Moisture	NA	Dilution	NA
Dry Weight Extracted	NA	Collected	07/11/2019 10:10
ICAL ID	Y190711	Received	07/16/2019 08:50
CCal Filename(s)	Y190725A_16 & Y190725B_17	Extracted	07/22/2019 11:20
Method Blank ID	BLANK-72104	Analyzed	07/25/2019 21:20

Native Isomers	Conc pg/L	EMPC pg/L	RL pg/L	Internal Standards	ng's Added	Percent Recovery
2,3,7,8-TCDF	ND	----	10	2,3,7,8-TCDF-13C	2.00	84
Total TCDF	ND	----	10	2,3,7,8-TCDD-13C	2.00	79
				1,2,3,7,8-PeCDF-13C	2.00	83
2,3,7,8-TCDD	ND	----	10	2,3,4,7,8-PeCDF-13C	2.00	79
Total TCDD	ND	----	10	1,2,3,7,8-PeCDD-13C	2.00	84
				1,2,3,4,7,8-HxCDF-13C	2.00	79
1,2,3,7,8-PeCDF	ND	----	50	1,2,3,6,7,8-HxCDF-13C	2.00	81
2,3,4,7,8-PeCDF	ND	----	50	2,3,4,6,7,8-HxCDF-13C	2.00	81
Total PeCDF	ND	----	50	1,2,3,7,8,9-HxCDF-13C	2.00	79
				1,2,3,4,7,8-HxCDD-13C	2.00	69
1,2,3,7,8-PeCDD	ND	----	50	1,2,3,6,7,8-HxCDD-13C	2.00	68
Total PeCDD	ND	----	50	1,2,3,4,6,7,8-HpCDF-13C	2.00	69
				1,2,3,4,7,8,9-HpCDF-13C	2.00	71
1,2,3,4,7,8-HxCDF	ND	----	50	1,2,3,4,6,7,8-HpCDD-13C	2.00	82
1,2,3,6,7,8-HxCDF	ND	----	50	OCDD-13C	4.00	65
2,3,4,6,7,8-HxCDF	ND	----	50			
1,2,3,7,8,9-HxCDF	ND	----	50	1,2,3,4-TCDD-13C	2.00	NA
Total HxCDF	ND	----	50	1,2,3,7,8,9-HxCDD-13C	2.00	NA
1,2,3,4,7,8-HxCDD	ND	----	50	2,3,7,8-TCDD-37Cl4	0.20	102
1,2,3,6,7,8-HxCDD	ND	----	50			
1,2,3,7,8,9-HxCDD	ND	----	50			
Total HxCDD	ND	----	50			
1,2,3,4,6,7,8-HpCDF	ND	----	50	Total 2,3,7,8-TCDD		
1,2,3,4,7,8,9-HpCDF	ND	----	50	Equivalence: 0.00 pg/L		
Total HpCDF	ND	----	50	(Lower-bound - Using ITE Factors)		
1,2,3,4,6,7,8-HpCDD	ND	----	50			
Total HpCDD	ND	----	50			
OCDF	ND	----	100			
OCDD	ND	----	100			

Conc = Concentration (Totals include 2,3,7,8-substituted isomers).  
EMPC = Estimated Maximum Possible Concentration  
RL = Reporting Limit

ND = Not Detected  
NA = Not Applicable  
NC = Not Calculated

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### Method 8290 Sample Analysis Results

Client - Pace Analytical National

Client's Sample ID	GW-12		
Lab Sample ID	10483208007		
Filename	Y190725B_12		
Injected By	SMT		
Total Amount Extracted	1050 mL	Matrix	Water
% Moisture	NA	Dilution	NA
Dry Weight Extracted	NA	Collected	07/11/2019 13:43
ICAL ID	Y190711	Received	07/16/2019 08:50
CCal Filename(s)	Y190725A_16 & Y190725B_17	Extracted	07/22/2019 11:20
Method Blank ID	BLANK-72104	Analyzed	07/25/2019 22:05

Native Isomers	Conc pg/L	EMPC pg/L	RL pg/L	Internal Standards	ng's Added	Percent Recovery
2,3,7,8-TCDF	ND	----	10	2,3,7,8-TCDF-13C	2.00	77
Total TCDF	ND	----	10	2,3,7,8-TCDD-13C	2.00	74
				1,2,3,7,8-PeCDF-13C	2.00	82
2,3,7,8-TCDD	ND	----	10	2,3,4,7,8-PeCDF-13C	2.00	78
Total TCDD	ND	----	10	1,2,3,7,8-PeCDD-13C	2.00	82
				1,2,3,4,7,8-HxCDF-13C	2.00	77
1,2,3,7,8-PeCDF	ND	----	50	1,2,3,6,7,8-HxCDF-13C	2.00	75
2,3,4,7,8-PeCDF	ND	----	50	2,3,4,6,7,8-HxCDF-13C	2.00	71
Total PeCDF	ND	----	50	1,2,3,7,8,9-HxCDF-13C	2.00	72
				1,2,3,4,7,8-HxCDD-13C	2.00	63
1,2,3,7,8-PeCDD	ND	----	50	1,2,3,6,7,8-HxCDD-13C	2.00	63
Total PeCDD	ND	----	50	1,2,3,4,6,7,8-HpCDF-13C	2.00	62
				1,2,3,4,7,8,9-HpCDF-13C	2.00	63
1,2,3,4,7,8-HxCDF	ND	----	50	1,2,3,4,6,7,8-HpCDD-13C	2.00	74
1,2,3,6,7,8-HxCDF	ND	----	50	OCDD-13C	4.00	59
2,3,4,6,7,8-HxCDF	ND	----	50			
1,2,3,7,8,9-HxCDF	ND	----	50	1,2,3,4-TCDD-13C	2.00	NA
Total HxCDF	ND	----	50	1,2,3,7,8,9-HxCDD-13C	2.00	NA
1,2,3,4,7,8-HxCDD	ND	----	50	2,3,7,8-TCDD-37Cl4	0.20	102
1,2,3,6,7,8-HxCDD	ND	----	50			
1,2,3,7,8,9-HxCDD	ND	----	50			
Total HxCDD	ND	----	50			
1,2,3,4,6,7,8-HpCDF	ND	----	50	Total 2,3,7,8-TCDD		
1,2,3,4,7,8,9-HpCDF	ND	----	50	Equivalence: 0.00 pg/L		
Total HpCDF	ND	----	50	(Lower-bound - Using ITE Factors)		
1,2,3,4,6,7,8-HpCDD	ND	----	50			
Total HpCDD	ND	----	50			
OCDF	ND	----	100			
OCDD	ND	----	100			

Conc = Concentration (Totals include 2,3,7,8-substituted isomers).  
 EMPC = Estimated Maximum Possible Concentration  
 RL = Reporting Limit

ND = Not Detected  
 NA = Not Applicable  
 NC = Not Calculated

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### Method 8290 Sample Analysis Results

Client - Pace Analytical National

Client's Sample ID	GW-14		
Lab Sample ID	10483208008		
Filename	Y190725B_13		
Injected By	SMT		
Total Amount Extracted	1050 mL	Matrix	Water
% Moisture	NA	Dilution	NA
Dry Weight Extracted	NA	Collected	07/12/2019 11:30
ICAL ID	Y190711	Received	07/16/2019 08:50
CCal Filename(s)	Y190725A_16 & Y190725B_17	Extracted	07/22/2019 11:20
Method Blank ID	BLANK-72104	Analyzed	07/25/2019 22:49

Native Isomers	Conc pg/L	EMPC pg/L	RL pg/L	Internal Standards	ng's Added	Percent Recovery
2,3,7,8-TCDF	ND	----	10	2,3,7,8-TCDF-13C	2.00	86
Total TCDF	ND	----	10	2,3,7,8-TCDD-13C	2.00	80
				1,2,3,7,8-PeCDF-13C	2.00	88
2,3,7,8-TCDD	ND	----	10	2,3,4,7,8-PeCDF-13C	2.00	84
Total TCDD	ND	----	10	1,2,3,7,8-PeCDD-13C	2.00	90
				1,2,3,4,7,8-HxCDF-13C	2.00	79
1,2,3,7,8-PeCDF	ND	----	50	1,2,3,6,7,8-HxCDF-13C	2.00	82
2,3,4,7,8-PeCDF	ND	----	50	2,3,4,6,7,8-HxCDF-13C	2.00	76
Total PeCDF	ND	----	50	1,2,3,7,8,9-HxCDF-13C	2.00	81
				1,2,3,4,7,8-HxCDD-13C	2.00	63
1,2,3,7,8-PeCDD	ND	----	50	1,2,3,6,7,8-HxCDD-13C	2.00	70
Total PeCDD	ND	----	50	1,2,3,4,6,7,8-HpCDF-13C	2.00	68
				1,2,3,4,7,8,9-HpCDF-13C	2.00	68
1,2,3,4,7,8-HxCDF	ND	----	50	1,2,3,4,6,7,8-HpCDD-13C	2.00	81
1,2,3,6,7,8-HxCDF	ND	----	50	OCDD-13C	4.00	64
2,3,4,6,7,8-HxCDF	ND	----	50			
1,2,3,7,8,9-HxCDF	ND	----	50	1,2,3,4-TCDD-13C	2.00	NA
Total HxCDF	ND	----	50	1,2,3,7,8,9-HxCDD-13C	2.00	NA
1,2,3,4,7,8-HxCDD	ND	----	50	2,3,7,8-TCDD-37Cl4	0.20	100
1,2,3,6,7,8-HxCDD	ND	----	50			
1,2,3,7,8,9-HxCDD	ND	----	50			
Total HxCDD	ND	----	50			
1,2,3,4,6,7,8-HpCDF	ND	----	50	Total 2,3,7,8-TCDD		
1,2,3,4,7,8,9-HpCDF	ND	----	50	Equivalence: 0.00 pg/L		
Total HpCDF	ND	----	50	(Lower-bound - Using ITE Factors)		
1,2,3,4,6,7,8-HpCDD	ND	----	50			
Total HpCDD	ND	----	50			
OCDF	ND	----	100			
OCDD	ND	----	100			

Conc = Concentration (Totals include 2,3,7,8-substituted isomers).  
EMPC = Estimated Maximum Possible Concentration  
RL = Reporting Limit

ND = Not Detected  
NA = Not Applicable  
NC = Not Calculated

## REPORT OF LABORATORY ANALYSIS

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### Method 8290 Sample Analysis Results

Client - Pace Analytical National

Client's Sample ID	CM-EB-GW-1		
Lab Sample ID	10483208009		
Filename	Y190725B_14		
Injected By	SMT		
Total Amount Extracted	1050 mL	Matrix	Water
% Moisture	NA	Dilution	NA
Dry Weight Extracted	NA	Collected	07/12/2019 11:55
ICAL ID	Y190711	Received	07/16/2019 08:50
CCal Filename(s)	Y190725A_16 & Y190725B_17	Extracted	07/22/2019 11:20
Method Blank ID	BLANK-72104	Analyzed	07/25/2019 23:34

Native Isomers	Conc pg/L	EMPC pg/L	RL pg/L	Internal Standards	ng's Added	Percent Recovery
2,3,7,8-TCDF	ND	----	10	2,3,7,8-TCDF-13C	2.00	74
Total TCDF	ND	----	10	2,3,7,8-TCDD-13C	2.00	67
				1,2,3,7,8-PeCDF-13C	2.00	69
2,3,7,8-TCDD	ND	----	10	2,3,4,7,8-PeCDF-13C	2.00	68
Total TCDD	ND	----	10	1,2,3,7,8-PeCDD-13C	2.00	70
				1,2,3,4,7,8-HxCDF-13C	2.00	66
1,2,3,7,8-PeCDF	ND	----	50	1,2,3,6,7,8-HxCDF-13C	2.00	66
2,3,4,7,8-PeCDF	ND	----	50	2,3,4,6,7,8-HxCDF-13C	2.00	66
Total PeCDF	ND	----	50	1,2,3,7,8,9-HxCDF-13C	2.00	62
				1,2,3,4,7,8-HxCDD-13C	2.00	54
1,2,3,7,8-PeCDD	ND	----	50	1,2,3,6,7,8-HxCDD-13C	2.00	56
Total PeCDD	ND	----	50	1,2,3,4,6,7,8-HpCDF-13C	2.00	53
				1,2,3,4,7,8,9-HpCDF-13C	2.00	52
1,2,3,4,7,8-HxCDF	ND	----	50	1,2,3,4,6,7,8-HpCDD-13C	2.00	63
1,2,3,6,7,8-HxCDF	ND	----	50	OCDD-13C	4.00	49
2,3,4,6,7,8-HxCDF	ND	----	50			
1,2,3,7,8,9-HxCDF	ND	----	50	1,2,3,4-TCDD-13C	2.00	NA
Total HxCDF	ND	----	50	1,2,3,7,8,9-HxCDD-13C	2.00	NA
1,2,3,4,7,8-HxCDD	ND	----	50	2,3,7,8-TCDD-37Cl4	0.20	88
1,2,3,6,7,8-HxCDD	ND	----	50			
1,2,3,7,8,9-HxCDD	ND	----	50			
Total HxCDD	ND	----	50			
1,2,3,4,6,7,8-HpCDF	ND	----	50	Total 2,3,7,8-TCDD		
1,2,3,4,7,8,9-HpCDF	ND	----	50	Equivalence: 0.00 pg/L		
Total HpCDF	ND	----	50	(Lower-bound - Using ITE Factors)		
1,2,3,4,6,7,8-HpCDD	ND	----	50			
Total HpCDD	ND	----	50			
OCDF	ND	----	100			
OCDD	ND	----	100			

Conc = Concentration (Totals include 2,3,7,8-substituted isomers).  
EMPC = Estimated Maximum Possible Concentration  
RL = Reporting Limit

ND = Not Detected  
NA = Not Applicable  
NC = Not Calculated

## REPORT OF LABORATORY ANALYSIS

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### Method 8290 Sample Analysis Results

Client - Pace Analytical National

Client's Sample ID	CM-FB-GW-1		
Lab Sample ID	10483208010		
Filename	Y190725B_15		
Injected By	SMT		
Total Amount Extracted	1020 mL	Matrix	Water
% Moisture	NA	Dilution	NA
Dry Weight Extracted	NA	Collected	07/12/2019 09:30
ICAL ID	Y190711	Received	07/16/2019 08:50
CCal Filename(s)	Y190725A_16 & Y190725B_17	Extracted	07/22/2019 11:20
Method Blank ID	BLANK-72104	Analyzed	07/26/2019 00:18

Native Isomers	Conc pg/L	EMPC pg/L	RL pg/L	Internal Standards	ng's Added	Percent Recovery
2,3,7,8-TCDF	ND	----	10	2,3,7,8-TCDF-13C	2.00	71
Total TCDF	ND	----	10	2,3,7,8-TCDD-13C	2.00	68
				1,2,3,7,8-PeCDF-13C	2.00	73
2,3,7,8-TCDD	ND	----	10	2,3,4,7,8-PeCDF-13C	2.00	73
Total TCDD	ND	----	10	1,2,3,7,8-PeCDD-13C	2.00	77
				1,2,3,4,7,8-HxCDF-13C	2.00	72
1,2,3,7,8-PeCDF	ND	----	50	1,2,3,6,7,8-HxCDF-13C	2.00	72
2,3,4,7,8-PeCDF	ND	----	50	2,3,4,6,7,8-HxCDF-13C	2.00	66
Total PeCDF	ND	----	50	1,2,3,7,8,9-HxCDF-13C	2.00	68
				1,2,3,4,7,8-HxCDD-13C	2.00	56
1,2,3,7,8-PeCDD	ND	----	50	1,2,3,6,7,8-HxCDD-13C	2.00	59
Total PeCDD	ND	----	50	1,2,3,4,6,7,8-HpCDF-13C	2.00	58
				1,2,3,4,7,8,9-HpCDF-13C	2.00	57
1,2,3,4,7,8-HxCDF	ND	----	50	1,2,3,4,6,7,8-HpCDD-13C	2.00	68
1,2,3,6,7,8-HxCDF	ND	----	50	OCDD-13C	4.00	51
2,3,4,6,7,8-HxCDF	ND	----	50			
1,2,3,7,8,9-HxCDF	ND	----	50	1,2,3,4-TCDD-13C	2.00	NA
Total HxCDF	ND	----	50	1,2,3,7,8,9-HxCDD-13C	2.00	NA
1,2,3,4,7,8-HxCDD	ND	----	50	2,3,7,8-TCDD-37Cl4	0.20	83
1,2,3,6,7,8-HxCDD	ND	----	50			
1,2,3,7,8,9-HxCDD	ND	----	50			
Total HxCDD	ND	----	50			
1,2,3,4,6,7,8-HpCDF	ND	----	50	Total 2,3,7,8-TCDD		
1,2,3,4,7,8,9-HpCDF	ND	----	50	Equivalence: 0.00 pg/L		
Total HpCDF	ND	----	50	(Lower-bound - Using ITE Factors)		
1,2,3,4,6,7,8-HpCDD	ND	----	50			
Total HpCDD	ND	----	50			
OCDF	ND	----	100			
OCDD	ND	----	100			

Conc = Concentration (Totals include 2,3,7,8-substituted isomers).  
 EMPC = Estimated Maximum Possible Concentration  
 RL = Reporting Limit

ND = Not Detected  
 NA = Not Applicable  
 NC = Not Calculated

## REPORT OF LABORATORY ANALYSIS

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**Method 8290 Blank Analysis Results**

Lab Sample Name	DFBLKMP	Matrix	Water
Lab Sample ID	BLANK-72076	Dilution	NA
Filename	U190723A_02	Extracted	07/19/2019 12:00
Total Amount Extracted	1010 mL	Analyzed	07/23/2019 13:35
ICAL ID	U190716	Injected By	SMT
CCal Filename(s)	U190723A_01 & U190723A_04		

Native Isomers	Conc pg/L	EMPC pg/L	RL pg/L	Internal Standards	ng's Added	Percent Recovery
2,3,7,8-TCDF	ND	----	10	2,3,7,8-TCDF-13C	2.00	90
Total TCDF	ND	----	10	2,3,7,8-TCDD-13C	2.00	94
				1,2,3,7,8-PeCDF-13C	2.00	85
2,3,7,8-TCDD	ND	----	10	2,3,4,7,8-PeCDF-13C	2.00	87
Total TCDD	ND	----	10	1,2,3,7,8-PeCDD-13C	2.00	97
				1,2,3,4,7,8-HxCDF-13C	2.00	68
1,2,3,7,8-PeCDF	ND	----	50	1,2,3,6,7,8-HxCDF-13C	2.00	84
2,3,4,7,8-PeCDF	ND	----	50	2,3,4,6,7,8-HxCDF-13C	2.00	81
Total PeCDF	ND	----	50	1,2,3,7,8,9-HxCDF-13C	2.00	79
				1,2,3,4,7,8-HxCDD-13C	2.00	66
1,2,3,7,8-PeCDD	ND	----	50	1,2,3,6,7,8-HxCDD-13C	2.00	84
Total PeCDD	ND	----	50	1,2,3,4,6,7,8-HpCDF-13C	2.00	78
				1,2,3,4,7,8,9-HpCDF-13C	2.00	80
1,2,3,4,7,8-HxCDF	ND	----	50	1,2,3,4,6,7,8-HpCDD-13C	2.00	83
1,2,3,6,7,8-HxCDF	ND	----	50	OCDD-13C	4.00	71
2,3,4,6,7,8-HxCDF	ND	----	50			
1,2,3,7,8,9-HxCDF	ND	----	50	1,2,3,4-TCDD-13C	2.00	NA
Total HxCDF	ND	----	50	1,2,3,7,8,9-HxCDD-13C	2.00	NA
1,2,3,4,7,8-HxCDD	ND	----	50	2,3,7,8-TCDD-37Cl4	0.20	114
1,2,3,6,7,8-HxCDD	ND	----	50			
1,2,3,7,8,9-HxCDD	ND	----	50			
Total HxCDD	ND	----	50			
1,2,3,4,6,7,8-HpCDF	ND	----	50	Total 2,3,7,8-TCDD		
1,2,3,4,7,8,9-HpCDF	ND	----	50	Equivalence: 0.00 pg/L		
Total HpCDF	ND	----	50	(Lower-bound - Using ITE Factors)		
1,2,3,4,6,7,8-HpCDD	ND	----	50			
Total HpCDD	ND	----	50			
OCDF	ND	----	100			
OCDD	ND	----	100			

Conc = Concentration (Totals include 2,3,7,8-substituted isomers).  
EMPC = Estimated Maximum Possible Concentration  
RL = Reporting Limit

**REPORT OF LABORATORY ANALYSIS**

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### Method 8290 Blank Analysis Results

Lab Sample Name	DFBLKMV	Matrix	Water
Lab Sample ID	BLANK-72104	Dilution	NA
Filename	Y190726B_06	Extracted	07/22/2019 11:20
Total Amount Extracted	1010 mL	Analyzed	07/26/2019 20:37
ICAL ID	Y190711	Injected By	JRH
CCal Filename(s)	Y190726B_01 & Y190726B_17		

Native Isomers	Conc pg/L	EMPC pg/L	RL pg/L	Internal Standards	ng's Added	Percent Recovery
2,3,7,8-TCDF	ND	----	10	2,3,7,8-TCDF-13C	2.00	68
Total TCDF	ND	----	10	2,3,7,8-TCDD-13C	2.00	70
				1,2,3,7,8-PeCDF-13C	2.00	65
2,3,7,8-TCDD	ND	----	10	2,3,4,7,8-PeCDF-13C	2.00	61
Total TCDD	ND	----	10	1,2,3,7,8-PeCDD-13C	2.00	70
				1,2,3,4,7,8-HxCDF-13C	2.00	62
1,2,3,7,8-PeCDF	ND	----	50	1,2,3,6,7,8-HxCDF-13C	2.00	60
2,3,4,7,8-PeCDF	ND	----	50	2,3,4,6,7,8-HxCDF-13C	2.00	65
Total PeCDF	ND	----	50	1,2,3,7,8,9-HxCDF-13C	2.00	63
				1,2,3,4,7,8-HxCDD-13C	2.00	66
1,2,3,7,8-PeCDD	ND	----	50	1,2,3,6,7,8-HxCDD-13C	2.00	56
Total PeCDD	ND	----	50	1,2,3,4,6,7,8-HpCDF-13C	2.00	68
				1,2,3,4,7,8,9-HpCDF-13C	2.00	70
1,2,3,4,7,8-HxCDF	ND	----	50	1,2,3,4,6,7,8-HpCDD-13C	2.00	78
1,2,3,6,7,8-HxCDF	ND	----	50	OCDD-13C	4.00	69
2,3,4,6,7,8-HxCDF	ND	----	50			
1,2,3,7,8,9-HxCDF	ND	----	50	1,2,3,4-TCDD-13C	2.00	NA
Total HxCDF	ND	----	50	1,2,3,7,8,9-HxCDD-13C	2.00	NA
1,2,3,4,7,8-HxCDD	ND	----	50	2,3,7,8-TCDD-37Cl4	0.20	85
1,2,3,6,7,8-HxCDD	ND	----	50			
1,2,3,7,8,9-HxCDD	ND	----	50			
Total HxCDD	ND	----	50			
1,2,3,4,6,7,8-HpCDF	ND	----	50	Total 2,3,7,8-TCDD		
1,2,3,4,7,8,9-HpCDF	ND	----	50	Equivalence: 0.00 pg/L		
Total HpCDF	ND	----	50	(Lower-bound - Using ITE Factors)		
1,2,3,4,6,7,8-HpCDD	ND	----	50			
Total HpCDD	ND	----	50			
OCDF	ND	----	100			
OCDD	ND	----	100			

Conc = Concentration (Totals include 2,3,7,8-substituted isomers).  
 EMPC = Estimated Maximum Possible Concentration  
 RL = Reporting Limit

## REPORT OF LABORATORY ANALYSIS

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### Method 8290 Laboratory Control Spike Results

Lab Sample ID	LCS-72077	Matrix	Water
Filename	F190723A_05	Dilution	NA
Total Amount Extracted	1010 mL	Extracted	07/19/2019 12:00
ICAL ID	F190721	Analyzed	07/23/2019 15:45
CCal Filename(s)	F190723A_04 & F190723B_01	Injected By	SMT
Method Blank ID	BLANK-72076		

Native Isomers	Qs (ng)	Qm (ng)	% Rec.	Internal Standards	ng's Added	Percent Recovery
2,3,7,8-TCDF	0.20	0.24	121	2,3,7,8-TCDF-13C	2.0	68
Total TCDF				2,3,7,8-TCDD-13C	2.0	69
				1,2,3,7,8-PeCDF-13C	2.0	65
2,3,7,8-TCDD	0.20	0.24	118	2,3,4,7,8-PeCDF-13C	2.0	62
Total TCDD				1,2,3,7,8-PeCDD-13C	2.0	68
				1,2,3,4,7,8-HxCDF-13C	2.0	67
1,2,3,7,8-PeCDF	1.0	1.1	111	1,2,3,6,7,8-HxCDF-13C	2.0	68
2,3,4,7,8-PeCDF	1.0	1.2	120	2,3,4,6,7,8-HxCDF-13C	2.0	72
Total PeCDF				1,2,3,7,8,9-HxCDF-13C	2.0	73
				1,2,3,4,7,8-HxCDD-13C	2.0	65
1,2,3,7,8-PeCDD	1.0	1.1	108	1,2,3,6,7,8-HxCDD-13C	2.0	59
Total PeCDD				1,2,3,4,6,7,8-HpCDF-13C	2.0	54
				1,2,3,4,7,8,9-HpCDF-13C	2.0	62
1,2,3,4,7,8-HxCDF	1.0	1.2	122	1,2,3,4,6,7,8-HpCDD-13C	2.0	63
1,2,3,6,7,8-HxCDF	1.0	1.1	109	OCDD-13C	4.0	56
2,3,4,6,7,8-HxCDF	1.0	1.0	103			
1,2,3,7,8,9-HxCDF	1.0	1.0	101	1,2,3,4-TCDD-13C	2.0	NA
Total HxCDF				1,2,3,7,8,9-HxCDD-13C	2.0	NA
1,2,3,4,7,8-HxCDD	1.0	1.2	120	2,3,7,8-TCDD-37Cl4	0.20	95
1,2,3,6,7,8-HxCDD	1.0	1.3	132 R			
1,2,3,7,8,9-HxCDD	1.0	1.3	131 R			
Total HxCDD						
1,2,3,4,6,7,8-HpCDF	1.0	1.2	123			
1,2,3,4,7,8,9-HpCDF	1.0	1.1	107			
Total HpCDF						
1,2,3,4,6,7,8-HpCDD	1.0	1.2	119			
Total HpCDD						
OCDF	2.0	2.4	118			
OCDD	2.0	2.5	127			

Qs = Quantity Spiked  
 Qm = Quantity Measured  
 Rec. = Recovery (Expressed as Percent)  
 R = Recovery outside of target range

Y = RF averaging used in calculations  
 Nn = Value obtained from additional analysis  
 NA = Not Applicable  
 \* = See Discussion

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### Method 8290 Laboratory Control Spike Results

Lab Sample ID	LCS-72105	Matrix	Water
Filename	Y190726B_02	Dilution	NA
Total Amount Extracted	1040 mL	Extracted	07/22/2019 11:20
ICAL ID	Y190711	Analyzed	07/26/2019 17:39
CCal Filename(s)	Y190726B_01 & Y190726B_17	Injected By	JRH
Method Blank ID	BLANK-72104		

Native Isomers	Qs (ng)	Qm (ng)	% Rec.	Internal Standards	ng's Added	Percent Recovery
2,3,7,8-TCDF	0.20	0.20	102	2,3,7,8-TCDF-13C	2.0	77
Total TCDF				2,3,7,8-TCDD-13C	2.0	81
				1,2,3,7,8-PeCDF-13C	2.0	76
2,3,7,8-TCDD	0.20	0.23	114	2,3,4,7,8-PeCDF-13C	2.0	72
Total TCDD				1,2,3,7,8-PeCDD-13C	2.0	87
				1,2,3,4,7,8-HxCDF-13C	2.0	65
1,2,3,7,8-PeCDF	1.0	1.1	105	1,2,3,6,7,8-HxCDF-13C	2.0	65
2,3,4,7,8-PeCDF	1.0	1.1	108	2,3,4,6,7,8-HxCDF-13C	2.0	69
Total PeCDF				1,2,3,7,8,9-HxCDF-13C	2.0	71
				1,2,3,4,7,8-HxCDD-13C	2.0	74
1,2,3,7,8-PeCDD	1.0	0.97	97	1,2,3,6,7,8-HxCDD-13C	2.0	65
Total PeCDD				1,2,3,4,6,7,8-HpCDF-13C	2.0	78
				1,2,3,4,7,8,9-HpCDF-13C	2.0	86
1,2,3,4,7,8-HxCDF	1.0	1.1	112	1,2,3,4,6,7,8-HpCDD-13C	2.0	96
1,2,3,6,7,8-HxCDF	1.0	1.0	102	OCDD-13C	4.0	87
2,3,4,6,7,8-HxCDF	1.0	1.00	100			
1,2,3,7,8,9-HxCDF	1.0	1.0	100	1,2,3,4-TCDD-13C	2.0	NA
Total HxCDF				1,2,3,7,8,9-HxCDD-13C	2.0	NA
1,2,3,4,7,8-HxCDD	1.0	1.1	113	2,3,7,8-TCDD-37Cl4	0.20	99
1,2,3,6,7,8-HxCDD	1.0	1.1	115			
1,2,3,7,8,9-HxCDD	1.0	1.1	114			
Total HxCDD						
1,2,3,4,6,7,8-HpCDF	1.0	1.1	108			
1,2,3,4,7,8,9-HpCDF	1.0	1.0	105			
Total HpCDF						
1,2,3,4,6,7,8-HpCDD	1.0	1.1	106			
Total HpCDD						
OCDF	2.0	2.0	99			
OCDD	2.0	2.3	113			

Qs = Quantity Spiked  
 Qm = Quantity Measured  
 Rec. = Recovery (Expressed as Percent)  
 R = Recovery outside of target range

Y = RF averaging used in calculations  
 Nn = Value obtained from additional analysis  
 NA = Not Applicable  
 \* = See Discussion

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**Method 8290 Laboratory Control Spike Results**

Lab Sample ID	LCSD-72078	Matrix	Water
Filename	F190723A_06	Dilution	NA
Total Amount Extracted	1030 mL	Extracted	07/19/2019 12:00
ICAL ID	F190721	Analyzed	07/23/2019 16:31
CCal Filename(s)	F190723A_04 & F190723B_01	Injected By	SMT
Method Blank ID	BLANK-72076		

Native Isomers	Qs (ng)	Qm (ng)	% Rec.	Internal Standards	ng's Added	Percent Recovery
2,3,7,8-TCDF	0.20	0.24	118	2,3,7,8-TCDF-13C	2.0	69
Total TCDF				2,3,7,8-TCDD-13C	2.0	70
				1,2,3,7,8-PeCDF-13C	2.0	69
2,3,7,8-TCDD	0.20	0.26	129	2,3,4,7,8-PeCDF-13C	2.0	65
Total TCDD				1,2,3,7,8-PeCDD-13C	2.0	70
				1,2,3,4,7,8-HxCDF-13C	2.0	70
1,2,3,7,8-PeCDF	1.0	1.1	114	1,2,3,6,7,8-HxCDF-13C	2.0	71
2,3,4,7,8-PeCDF	1.0	1.2	121	2,3,4,6,7,8-HxCDF-13C	2.0	76
Total PeCDF				1,2,3,7,8,9-HxCDF-13C	2.0	78
				1,2,3,4,7,8-HxCDD-13C	2.0	67
1,2,3,7,8-PeCDD	1.0	1.1	112	1,2,3,6,7,8-HxCDD-13C	2.0	64
Total PeCDD				1,2,3,4,6,7,8-HpCDF-13C	2.0	60
				1,2,3,4,7,8,9-HpCDF-13C	2.0	64
1,2,3,4,7,8-HxCDF	1.0	1.2	124	1,2,3,4,6,7,8-HpCDD-13C	2.0	65
1,2,3,6,7,8-HxCDF	1.0	1.1	111	OCDD-13C	4.0	59
2,3,4,6,7,8-HxCDF	1.0	1.1	112			
1,2,3,7,8,9-HxCDF	1.0	1.1	106	1,2,3,4-TCDD-13C	2.0	NA
Total HxCDF				1,2,3,7,8,9-HxCDD-13C	2.0	NA
1,2,3,4,7,8-HxCDD	1.0	1.3	129	2,3,7,8-TCDD-37Cl4	0.20	94
1,2,3,6,7,8-HxCDD	1.0	1.4	135 R			
1,2,3,7,8,9-HxCDD	1.0	1.3	132 R			
Total HxCDD						
1,2,3,4,6,7,8-HpCDF	1.0	1.2	122			
1,2,3,4,7,8,9-HpCDF	1.0	1.1	113			
Total HpCDF						
1,2,3,4,6,7,8-HpCDD	1.0	1.2	121			
Total HpCDD						
OCDF	2.0	2.6	128			
OCDD	2.0	2.5	125			

Qs = Quantity Spiked  
Qm = Quantity Measured  
Rec. = Recovery (Expressed as Percent)  
R = Recovery outside of target range

Y = RF averaging used in calculations  
Nn = Value obtained from additional analysis  
NA = Not Applicable  
\* = See Discussion

**REPORT OF LABORATORY ANALYSIS**

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### Method 8290 Laboratory Control Spike Results

Lab Sample ID	LCSD-72106	Matrix	Water
Filename	Y190726B_03	Dilution	NA
Total Amount Extracted	1020 mL	Extracted	07/22/2019 11:20
ICAL ID	Y190711	Analyzed	07/26/2019 18:23
CCal Filename(s)	Y190726B_01 & Y190726B_17	Injected By	JRH
Method Blank ID	BLANK-72104		

Native Isomers	Qs (ng)	Qm (ng)	% Rec.	Internal Standards	ng's Added	Percent Recovery
2,3,7,8-TCDF	0.20	0.21	104	2,3,7,8-TCDF-13C	2.0	55
Total TCDF				2,3,7,8-TCDD-13C	2.0	57
				1,2,3,7,8-PeCDF-13C	2.0	54
2,3,7,8-TCDD	0.20	0.24	120	2,3,4,7,8-PeCDF-13C	2.0	52
Total TCDD				1,2,3,7,8-PeCDD-13C	2.0	62
				1,2,3,4,7,8-HxCDF-13C	2.0	51
1,2,3,7,8-PeCDF	1.0	1.1	109	1,2,3,6,7,8-HxCDF-13C	2.0	49
2,3,4,7,8-PeCDF	1.0	1.1	113	2,3,4,6,7,8-HxCDF-13C	2.0	53
Total PeCDF				1,2,3,7,8,9-HxCDF-13C	2.0	54
				1,2,3,4,7,8-HxCDD-13C	2.0	53
1,2,3,7,8-PeCDD	1.0	0.99	99	1,2,3,6,7,8-HxCDD-13C	2.0	47
Total PeCDD				1,2,3,4,6,7,8-HpCDF-13C	2.0	52
				1,2,3,4,7,8,9-HpCDF-13C	2.0	55
1,2,3,4,7,8-HxCDF	1.0	1.1	113	1,2,3,4,6,7,8-HpCDD-13C	2.0	63
1,2,3,6,7,8-HxCDF	1.0	1.1	108	OCDD-13C	4.0	56
2,3,4,6,7,8-HxCDF	1.0	1.0	104			
1,2,3,7,8,9-HxCDF	1.0	1.1	107	1,2,3,4-TCDD-13C	2.0	NA
Total HxCDF				1,2,3,7,8,9-HxCDD-13C	2.0	NA
1,2,3,4,7,8-HxCDD	1.0	1.2	118	2,3,7,8-TCDD-37Cl4	0.20	71
1,2,3,6,7,8-HxCDD	1.0	1.2	123			
1,2,3,7,8,9-HxCDD	1.0	1.2	121			
Total HxCDD						
1,2,3,4,6,7,8-HpCDF	1.0	1.1	113			
1,2,3,4,7,8,9-HpCDF	1.0	1.1	113			
Total HpCDF						
1,2,3,4,6,7,8-HpCDD	1.0	1.1	109			
Total HpCDD						
OCDF	2.0	2.1	103			
OCDD	2.0	2.2	112			

Qs = Quantity Spiked  
 Qm = Quantity Measured  
 Rec. = Recovery (Expressed as Percent)  
 R = Recovery outside of target range

Y = RF averaging used in calculations  
 Nn = Value obtained from additional analysis  
 NA = Not Applicable  
 \* = See Discussion

## REPORT OF LABORATORY ANALYSIS

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### Method 8290

### Spike Recovery Relative Percent Difference (RPD) Results

Client Pace Analytical National

Spike 1 ID LCS-72077  
Spike 1 Filename F190723A\_05

Spike 2 ID LCSD-72078  
Spike 2 Filename F190723A\_06

Compound	Spike 1 %REC	Spike 2 %REC	%RPD
2,3,7,8-TCDF	121	118	2.5
2,3,7,8-TCDD	118	129	8.9
1,2,3,7,8-PeCDF	111	114	2.7
2,3,4,7,8-PeCDF	120	121	0.8
1,2,3,7,8-PeCDD	108	112	3.6
1,2,3,4,7,8-HxCDF	122	124	1.6
1,2,3,6,7,8-HxCDF	109	111	1.8
2,3,4,6,7,8-HxCDF	103	112	8.4
1,2,3,7,8,9-HxCDF	101	106	4.8
1,2,3,4,7,8-HxCDD	120	129	7.2
1,2,3,6,7,8-HxCDD	132	135	2.2
1,2,3,7,8,9-HxCDD	131	132	0.8
1,2,3,4,6,7,8-HpCDF	123	122	0.8
1,2,3,4,7,8,9-HpCDF	107	113	5.5
1,2,3,4,6,7,8-HpCDD	119	121	1.7
OCDF	118	128	8.1
OCDD	127	125	1.6

%REC = Percent Recovered

RPD = The difference between the two values divided by the mean value

## REPORT OF LABORATORY ANALYSIS

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**Method 8290**

**Spike Recovery Relative Percent Difference (RPD) Results**

Client Pace Analytical National

Spike 1 ID LCS-72105  
 Spike 1 Filename Y190726B\_02

Spike 2 ID LCSD-72106  
 Spike 2 Filename Y190726B\_03

Compound	Spike 1 %REC	Spike 2 %REC	%RPD
2,3,7,8-TCDF	102	104	1.9
2,3,7,8-TCDD	114	120	5.1
1,2,3,7,8-PeCDF	105	109	3.7
2,3,4,7,8-PeCDF	108	113	4.5
1,2,3,7,8-PeCDD	97	99	2.0
1,2,3,4,7,8-HxCDF	112	113	0.9
1,2,3,6,7,8-HxCDF	102	108	5.7
2,3,4,6,7,8-HxCDF	100	104	3.9
1,2,3,7,8,9-HxCDF	100	107	6.8
1,2,3,4,7,8-HxCDD	113	118	4.3
1,2,3,6,7,8-HxCDD	115	123	6.7
1,2,3,7,8,9-HxCDD	114	121	6.0
1,2,3,4,6,7,8-HpCDF	108	113	4.5
1,2,3,4,7,8,9-HpCDF	105	113	7.3
1,2,3,4,6,7,8-HpCDD	106	109	2.8
OCDF	99	103	4.0
OCDD	113	112	0.9

%REC = Percent Recovered

RPD = The difference between the two values divided by the mean value

**REPORT OF LABORATORY ANALYSIS**

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## S&ME Inc. - Spartanburg SC

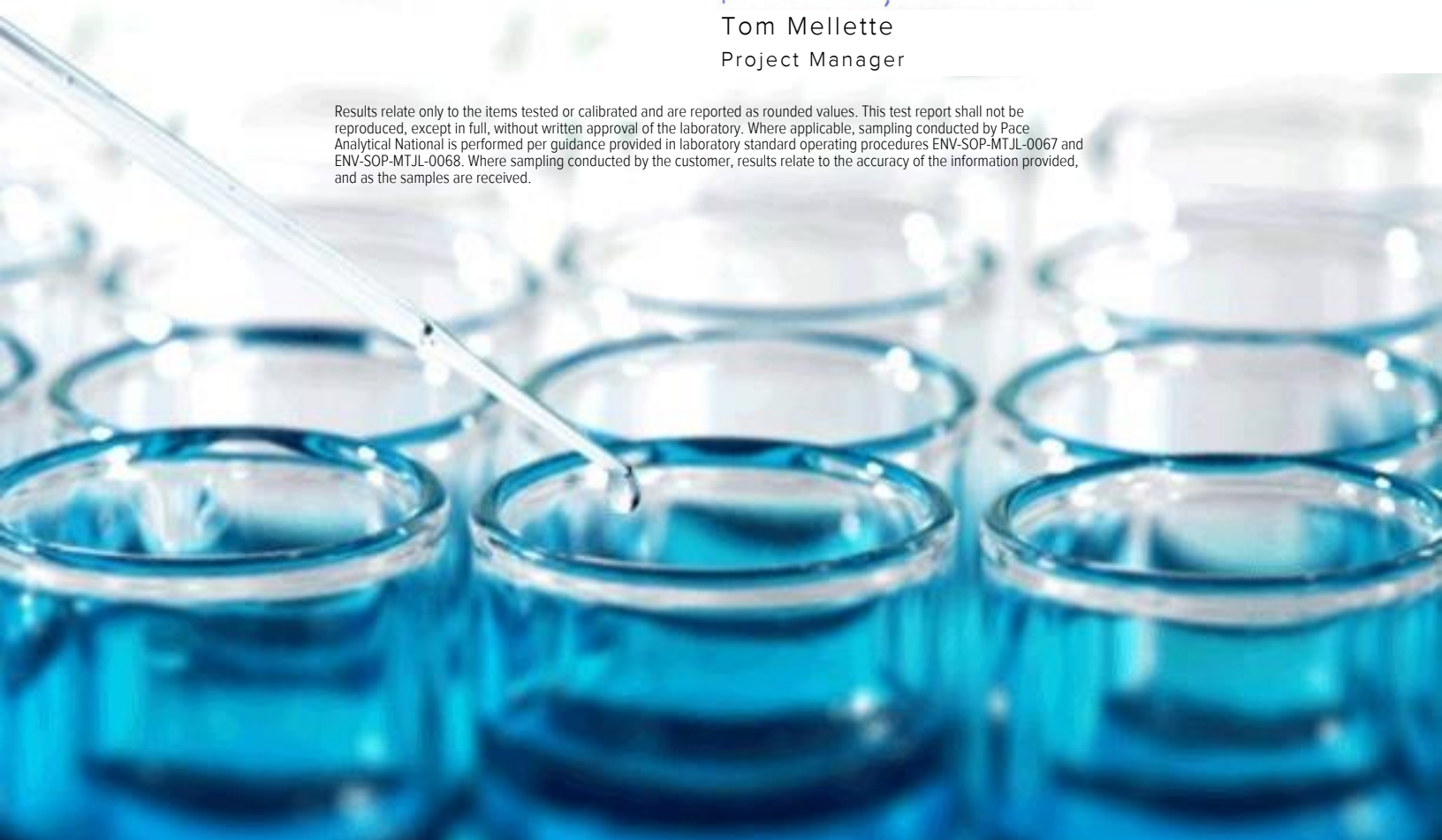
Sample Delivery Group: L1118284  
Samples Received: 07/13/2019  
Project Number: 4213-18-087  
Description: New Indy  
Site: COLUMBIA  
Report To: Scott Dacus  
301 Zima Park Drive  
Spartanburg, SC 29301

Entire Report Reviewed By:



Tom Mellette  
Project Manager

Results relate only to the items tested or calibrated and are reported as rounded values. This test report shall not be reproduced, except in full, without written approval of the laboratory. Where applicable, sampling conducted by Pace Analytical National is performed per guidance provided in laboratory standard operating procedures ENV-SOP-MTJL-0067 and ENV-SOP-MTJL-0068. Where sampling conducted by the customer, results relate to the accuracy of the information provided, and as the samples are received.







<b>Cp: Cover Page</b>	<b>1</b>
<b>Tc: Table of Contents</b>	<b>2</b>
<b>Ss: Sample Summary</b>	<b>3</b>
<b>Cn: Case Narrative</b>	<b>6</b>
<b>Sr: Sample Results</b>	<b>7</b>
GW-15R L1118284-01	7
GW-15BR L1118284-02	12
GW-17 L1118284-03	17
GW-18 L1118284-04	22
R2-MW-1 L1118284-05	27
R2-MW-6 L1118284-06	32
GW-12 L1118284-07	37
GW-14 L1118284-08	42
CM-EB-GW-1 L1118284-09	47
CM-FB-GW-1 L1118284-10	52
<b>Qc: Quality Control Summary</b>	<b>57</b>
Wet Chemistry by Method 4500CN E-2011	57
Mercury by Method 7470A	58
Metals (ICP) by Method 6010D	60
Volatile Organic Compounds (GC/MS) by Method 8260B	62
Pesticides (GC) by Method 8081B	65
Polychlorinated Biphenyls (GC) by Method 8082 A	70
Semi Volatile Organic Compounds (GC/MS) by Method 8270D	72
Semi Volatile Organic Compounds (GC/MS) by Method 8270E-SIM	79
<b>Gl: Glossary of Terms</b>	<b>83</b>
<b>Al: Accreditations &amp; Locations</b>	<b>84</b>
<b>Sc: Sample Chain of Custody</b>	<b>85</b>



# SAMPLE SUMMARY

## GW-15R L1118284-01 GW

Collected by Kevin McIntyre  
Collected date/time 07/12/19 09:45  
Received date/time 07/13/19 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Wet Chemistry by Method 4500CN E-2011	WG1314084	1	07/20/19 11:24	07/22/19 13:50	SDL	Mt. Juliet, TN
Mercury by Method 7470A	WG1311778	1	07/16/19 11:47	07/16/19 19:59	TCT	Mt. Juliet, TN
Metals (ICP) by Method 6010D	WG1310256	1	07/15/19 07:54	07/16/19 10:48	CCE	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1312100	1	07/16/19 12:37	07/16/19 12:37	JHH	Mt. Juliet, TN
Pesticides (GC) by Method 8081B	WG1312292	1	07/19/19 07:51	07/19/19 18:20	RP	Mt. Juliet, TN
Polychlorinated Biphenyls (GC) by Method 8082 A	WG1312292	1	07/19/19 07:51	07/19/19 19:45	RP	Mt. Juliet, TN
Semi Volatile Organic Compounds (GC/MS) by Method 8270D	WG1313654	1	07/19/19 13:42	07/22/19 03:24	AO	Mt. Juliet, TN
Semi Volatile Organic Compounds (GC/MS) by Method 8270D	WG1315403	1	07/22/19 16:41	07/23/19 23:10	AO	Mt. Juliet, TN
Semi Volatile Organic Compounds (GC/MS) by Method 8270E-SIM	WG1313197	1	07/18/19 06:12	07/18/19 13:37	AAT	Mt. Juliet, TN

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

## GW-15BR L1118284-02 GW

Collected by Kevin McIntyre  
Collected date/time 07/12/19 10:30  
Received date/time 07/13/19 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Wet Chemistry by Method 4500CN E-2011	WG1314084	1	07/20/19 11:24	07/22/19 13:52	SDL	Mt. Juliet, TN
Mercury by Method 7470A	WG1311778	1	07/16/19 11:47	07/16/19 20:02	TCT	Mt. Juliet, TN
Metals (ICP) by Method 6010D	WG1310256	1	07/15/19 07:54	07/16/19 10:51	CCE	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1312100	1	07/16/19 12:57	07/16/19 12:57	JHH	Mt. Juliet, TN
Pesticides (GC) by Method 8081B	WG1312292	1	07/19/19 07:51	07/19/19 18:33	RP	Mt. Juliet, TN
Polychlorinated Biphenyls (GC) by Method 8082 A	WG1312292	1	07/19/19 07:51	07/19/19 19:59	RP	Mt. Juliet, TN
Semi Volatile Organic Compounds (GC/MS) by Method 8270D	WG1313654	1	07/19/19 13:42	07/22/19 18:27	AO	Mt. Juliet, TN
Semi Volatile Organic Compounds (GC/MS) by Method 8270E-SIM	WG1313197	1	07/18/19 06:12	07/18/19 14:00	AAT	Mt. Juliet, TN

## GW-17 L1118284-03 GW

Collected by Kevin McIntyre  
Collected date/time 07/11/19 15:30  
Received date/time 07/13/19 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Wet Chemistry by Method 4500CN E-2011	WG1314084	1	07/20/19 11:24	07/22/19 13:53	SDL	Mt. Juliet, TN
Mercury by Method 7470A	WG1311778	1	07/16/19 11:47	07/16/19 20:09	TCT	Mt. Juliet, TN
Metals (ICP) by Method 6010D	WG1310256	1	07/15/19 07:54	07/16/19 10:54	CCE	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1312100	1	07/16/19 13:17	07/16/19 13:17	JHH	Mt. Juliet, TN
Pesticides (GC) by Method 8081B	WG1312998	1	07/18/19 18:04	07/19/19 09:57	ADF	Mt. Juliet, TN
Polychlorinated Biphenyls (GC) by Method 8082 A	WG1314363	1	07/20/19 17:34	07/21/19 14:06	RP	Mt. Juliet, TN
Semi Volatile Organic Compounds (GC/MS) by Method 8270D	WG1311664	1	07/18/19 14:35	07/20/19 07:44	JNJ	Mt. Juliet, TN
Semi Volatile Organic Compounds (GC/MS) by Method 8270E-SIM	WG1311224	1	07/15/19 16:12	07/16/19 03:01	AAT	Mt. Juliet, TN

## GW-18 L1118284-04 GW

Collected by Kevin McIntyre  
Collected date/time 07/11/19 12:47  
Received date/time 07/13/19 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Wet Chemistry by Method 4500CN E-2011	WG1314084	1	07/20/19 11:24	07/22/19 13:56	SDL	Mt. Juliet, TN
Mercury by Method 7470A	WG1311284	1	07/15/19 19:57	07/16/19 13:40	ABL	Mt. Juliet, TN
Metals (ICP) by Method 6010D	WG1310256	1	07/15/19 07:54	07/16/19 10:57	CCE	Mt. Juliet, TN
Metals (ICP) by Method 6010D	WG1310256	5	07/15/19 07:54	07/16/19 13:49	CCE	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1312100	1	07/16/19 13:37	07/16/19 13:37	JHH	Mt. Juliet, TN
Pesticides (GC) by Method 8081B	WG1312998	1	07/18/19 18:04	07/19/19 10:37	ADF	Mt. Juliet, TN
Polychlorinated Biphenyls (GC) by Method 8082 A	WG1314363	1	07/20/19 17:34	07/21/19 14:19	RP	Mt. Juliet, TN
Semi Volatile Organic Compounds (GC/MS) by Method 8270D	WG1311664	1	07/18/19 14:35	07/20/19 08:06	JNJ	Mt. Juliet, TN
Semi Volatile Organic Compounds (GC/MS) by Method 8270E-SIM	WG1311224	1	07/15/19 16:12	07/16/19 03:23	AAT	Mt. Juliet, TN

# SAMPLE SUMMARY



## R2-MW-1 L118284-05 GW

Collected by  
Kevin McIntyre

Collected date/time  
07/11/19 10:50

Received date/time  
07/13/19 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Wet Chemistry by Method 4500CN E-2011	WG1314084	1	07/20/19 11:24	07/22/19 13:57	SDL	Mt. Juliet, TN
Mercury by Method 7470A	WG1311284	1	07/15/19 19:57	07/16/19 13:43	ABL	Mt. Juliet, TN
Metals (ICP) by Method 6010D	WG1310256	1	07/15/19 07:54	07/16/19 11:00	CCE	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1312100	1	07/16/19 13:57	07/16/19 13:57	JHH	Mt. Juliet, TN
Pesticides (GC) by Method 8081B	WG1312998	1	07/18/19 18:04	07/19/19 10:52	ADF	Mt. Juliet, TN
Polychlorinated Biphenyls (GC) by Method 8082 A	WG1314363	1	07/20/19 17:34	07/21/19 14:31	RP	Mt. Juliet, TN
Semi Volatile Organic Compounds (GC/MS) by Method 8270D	WG1311664	1	07/18/19 14:35	07/20/19 08:28	JNJ	Mt. Juliet, TN
Semi Volatile Organic Compounds (GC/MS) by Method 8270E-SIM	WG1311224	1	07/15/19 16:12	07/16/19 03:45	AAT	Mt. Juliet, TN

1  
Cp

2  
Tc

3  
Ss

4  
Cn

5  
Sr

6  
Qc

7  
Gl

8  
Al

9  
Sc

## R2-MW-6 L118284-06 GW

Collected by  
Kevin McIntyre

Collected date/time  
07/11/19 10:10

Received date/time  
07/13/19 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Wet Chemistry by Method 4500CN E-2011	WG1314084	1	07/20/19 11:24	07/22/19 13:58	SDL	Mt. Juliet, TN
Mercury by Method 7470A	WG1311284	1	07/15/19 19:57	07/16/19 13:45	ABL	Mt. Juliet, TN
Metals (ICP) by Method 6010D	WG1310256	1	07/15/19 07:54	07/16/19 11:08	CCE	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1312100	1	07/16/19 14:17	07/16/19 14:17	JHH	Mt. Juliet, TN
Pesticides (GC) by Method 8081B	WG1312998	1	07/18/19 18:04	07/19/19 11:07	ADF	Mt. Juliet, TN
Polychlorinated Biphenyls (GC) by Method 8082 A	WG1314363	1	07/20/19 17:34	07/21/19 14:44	RP	Mt. Juliet, TN
Semi Volatile Organic Compounds (GC/MS) by Method 8270D	WG1311664	1	07/18/19 14:35	07/20/19 08:50	JNJ	Mt. Juliet, TN
Semi Volatile Organic Compounds (GC/MS) by Method 8270E-SIM	WG1313197	1	07/18/19 06:12	07/18/19 14:24	AAT	Mt. Juliet, TN

## GW-12 L118284-07 GW

Collected by  
Kevin McIntyre

Collected date/time  
07/11/19 13:43

Received date/time  
07/13/19 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Wet Chemistry by Method 4500CN E-2011	WG1314084	1	07/20/19 11:24	07/22/19 14:01	SDL	Mt. Juliet, TN
Mercury by Method 7470A	WG1311284	1	07/15/19 19:57	07/16/19 13:47	ABL	Mt. Juliet, TN
Metals (ICP) by Method 6010D	WG1310256	1	07/15/19 07:54	07/16/19 11:11	CCE	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1312100	1	07/16/19 14:37	07/16/19 14:37	JHH	Mt. Juliet, TN
Pesticides (GC) by Method 8081B	WG1312998	1.05	07/18/19 18:04	07/19/19 11:22	ADF	Mt. Juliet, TN
Polychlorinated Biphenyls (GC) by Method 8082 A	WG1314363	1	07/20/19 17:34	07/21/19 14:56	RP	Mt. Juliet, TN
Semi Volatile Organic Compounds (GC/MS) by Method 8270D	WG1311664	1.05	07/18/19 14:35	07/20/19 09:12	JNJ	Mt. Juliet, TN
Semi Volatile Organic Compounds (GC/MS) by Method 8270E-SIM	WG1313197	1	07/18/19 06:12	07/18/19 14:47	AAT	Mt. Juliet, TN

## GW-14 L118284-08 GW

Collected by  
Kevin McIntyre

Collected date/time  
07/12/19 11:30

Received date/time  
07/13/19 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Wet Chemistry by Method 4500CN E-2011	WG1314084	1	07/20/19 11:24	07/22/19 14:02	SDL	Mt. Juliet, TN
Mercury by Method 7470A	WG1311284	1	07/15/19 19:57	07/16/19 13:50	ABL	Mt. Juliet, TN
Metals (ICP) by Method 6010D	WG1310256	1	07/15/19 07:54	07/16/19 11:14	CCE	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1312100	1	07/16/19 14:58	07/16/19 14:58	JHH	Mt. Juliet, TN
Pesticides (GC) by Method 8081B	WG1312292	1	07/19/19 07:51	07/19/19 18:45	RP	Mt. Juliet, TN
Polychlorinated Biphenyls (GC) by Method 8082 A	WG1312292	1	07/19/19 07:51	07/19/19 20:14	RAH	Mt. Juliet, TN
Semi Volatile Organic Compounds (GC/MS) by Method 8270D	WG1313654	1	07/19/19 13:42	07/22/19 18:06	AO	Mt. Juliet, TN
Semi Volatile Organic Compounds (GC/MS) by Method 8270E-SIM	WG1313197	1	07/18/19 06:12	07/18/19 15:11	AAT	Mt. Juliet, TN

# SAMPLE SUMMARY

## CM-EB-GW-1 L118284-09 GW

Collected by: Kevin McIntyre  
 Collected date/time: 07/12/19 11:55  
 Received date/time: 07/13/19 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Wet Chemistry by Method 4500CN E-2011	WG1314084	1	07/20/19 11:24	07/22/19 14:03	SDL	Mt. Juliet, TN
Mercury by Method 7470A	WG1311284	1	07/15/19 19:57	07/16/19 13:52	ABL	Mt. Juliet, TN
Metals (ICP) by Method 6010D	WG1310256	1	07/15/19 07:54	07/16/19 11:17	CCE	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1312100	1	07/16/19 11:57	07/16/19 11:57	JHH	Mt. Juliet, TN
Pesticides (GC) by Method 8081B	WG1312292	1	07/19/19 07:51	07/19/19 18:57	RP	Mt. Juliet, TN
Polychlorinated Biphenyls (GC) by Method 8082 A	WG1312292	1	07/19/19 07:51	07/19/19 20:28	RAH	Mt. Juliet, TN
Semi Volatile Organic Compounds (GC/MS) by Method 8270D	WG1313654	1	07/19/19 13:42	07/22/19 03:46	AO	Mt. Juliet, TN
Semi Volatile Organic Compounds (GC/MS) by Method 8270E-SIM	WG1313197	1	07/18/19 06:12	07/18/19 15:34	AAT	Mt. Juliet, TN

1  
Cp

2  
Tc

3  
Ss

4  
Cn

5  
Sr

## CM-FB-GW-1 L118284-10 GW

Collected by: Kevin McIntyre  
 Collected date/time: 07/12/19 09:30  
 Received date/time: 07/13/19 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Wet Chemistry by Method 4500CN E-2011	WG1314084	1	07/20/19 11:24	07/22/19 14:04	SDL	Mt. Juliet, TN
Mercury by Method 7470A	WG1311284	1	07/15/19 19:57	07/16/19 13:55	ABL	Mt. Juliet, TN
Metals (ICP) by Method 6010D	WG1310256	1	07/15/19 07:54	07/16/19 11:20	CCE	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1312100	1	07/16/19 12:17	07/16/19 12:17	JHH	Mt. Juliet, TN
Pesticides (GC) by Method 8081B	WG1312292	1	07/19/19 07:51	07/19/19 19:10	RP	Mt. Juliet, TN
Polychlorinated Biphenyls (GC) by Method 8082 A	WG1312292	1	07/19/19 07:51	07/19/19 20:42	RAH	Mt. Juliet, TN
Semi Volatile Organic Compounds (GC/MS) by Method 8270D	WG1313654	1	07/19/19 13:42	07/22/19 17:44	AO	Mt. Juliet, TN
Semi Volatile Organic Compounds (GC/MS) by Method 8270E-SIM	WG1313197	1	07/18/19 06:12	07/18/19 15:57	AAT	Mt. Juliet, TN

6  
Qc

7  
Gl

8  
Al

9  
Sc



All sample aliquots were received at the correct temperature, in the proper containers, with the appropriate preservatives, and within method specified holding times, unless qualified or notated within the report. Where applicable, all MDL (LOD) and RDL (LOQ) values reported for environmental samples have been corrected for the dilution factor used in the analysis. All Method and Batch Quality Control are within established criteria except where addressed in this case narrative, a non-conformance form or properly qualified within the sample results. By my digital signature below, I affirm to the best of my knowledge, all problems/anomalies observed by the laboratory as having the potential to affect the quality of the data have been identified by the laboratory, and no information or data have been knowingly withheld that would affect the quality of the data.

Tom Mellette  
Project Manager

<sup>1</sup> Cp

<sup>2</sup> Tc

<sup>3</sup> Ss

<sup>4</sup> Cn

<sup>5</sup> Sr

<sup>6</sup> Qc

<sup>7</sup> Gl

<sup>8</sup> Al

<sup>9</sup> Sc



Wet Chemistry by Method 4500CN E-2011

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	ug/l		ug/l		date / time	
Cyanide	ND		5.00	1	07/22/2019 13:50	<a href="#">WG1314084</a>

1 Cp

2 Tc

Mercury by Method 7470A

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	ug/l		ug/l		date / time	
Mercury	ND		0.200	1	07/16/2019 19:59	<a href="#">WG1311778</a>

3 Ss

4 Cn

Metals (ICP) by Method 6010D

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	ug/l		ug/l		date / time	
Aluminum	ND		200	1	07/16/2019 10:48	<a href="#">WG1310256</a>
Antimony	ND		10.0	1	07/16/2019 10:48	<a href="#">WG1310256</a>
Arsenic	ND		10.0	1	07/16/2019 10:48	<a href="#">WG1310256</a>
Barium	84.5		5.00	1	07/16/2019 10:48	<a href="#">WG1310256</a>
Beryllium	ND		2.00	1	07/16/2019 10:48	<a href="#">WG1310256</a>
Cadmium	ND		2.00	1	07/16/2019 10:48	<a href="#">WG1310256</a>
Calcium	17200		1000	1	07/16/2019 10:48	<a href="#">WG1310256</a>
Chromium	ND		10.0	1	07/16/2019 10:48	<a href="#">WG1310256</a>
Cobalt	31.4		10.0	1	07/16/2019 10:48	<a href="#">WG1310256</a>
Copper	ND		10.0	1	07/16/2019 10:48	<a href="#">WG1310256</a>
Iron	ND		100	1	07/16/2019 10:48	<a href="#">WG1310256</a>
Lead	ND		5.00	1	07/16/2019 10:48	<a href="#">WG1310256</a>
Magnesium	1170		1000	1	07/16/2019 10:48	<a href="#">WG1310256</a>
Manganese	523		10.0	1	07/16/2019 10:48	<a href="#">WG1310256</a>
Nickel	ND		10.0	1	07/16/2019 10:48	<a href="#">WG1310256</a>
Potassium	1410		1000	1	07/16/2019 10:48	<a href="#">WG1310256</a>
Selenium	ND		10.0	1	07/16/2019 10:48	<a href="#">WG1310256</a>
Silver	ND		5.00	1	07/16/2019 10:48	<a href="#">WG1310256</a>
Sodium	143000		1000	1	07/16/2019 10:48	<a href="#">WG1310256</a>
Thallium	ND		10.0	1	07/16/2019 10:48	<a href="#">WG1310256</a>
Vanadium	ND		20.0	1	07/16/2019 10:48	<a href="#">WG1310256</a>
Zinc	ND		50.0	1	07/16/2019 10:48	<a href="#">WG1310256</a>

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	ug/l		ug/l		date / time	
Acetone	ND		50.0	1	07/16/2019 12:37	<a href="#">WG1312100</a>
Benzene	ND		1.00	1	07/16/2019 12:37	<a href="#">WG1312100</a>
Bromochloromethane	ND		1.00	1	07/16/2019 12:37	<a href="#">WG1312100</a>
Bromodichloromethane	ND		1.00	1	07/16/2019 12:37	<a href="#">WG1312100</a>
Bromoform	ND		1.00	1	07/16/2019 12:37	<a href="#">WG1312100</a>
Bromomethane	ND		5.00	1	07/16/2019 12:37	<a href="#">WG1312100</a>
Carbon disulfide	ND		1.00	1	07/16/2019 12:37	<a href="#">WG1312100</a>
Carbon tetrachloride	ND		1.00	1	07/16/2019 12:37	<a href="#">WG1312100</a>
Chlorobenzene	ND		1.00	1	07/16/2019 12:37	<a href="#">WG1312100</a>
Chlorodibromomethane	ND		1.00	1	07/16/2019 12:37	<a href="#">WG1312100</a>
Chloroethane	ND		5.00	1	07/16/2019 12:37	<a href="#">WG1312100</a>
Chloroform	ND		5.00	1	07/16/2019 12:37	<a href="#">WG1312100</a>
Chloromethane	ND		2.50	1	07/16/2019 12:37	<a href="#">WG1312100</a>
Cyclohexane	ND		1.00	1	07/16/2019 12:37	<a href="#">WG1312100</a>
1,2-Dibromo-3-Chloropropane	ND		5.00	1	07/16/2019 12:37	<a href="#">WG1312100</a>
1,2-Dibromoethane	ND		1.00	1	07/16/2019 12:37	<a href="#">WG1312100</a>
1,2-Dichlorobenzene	ND		1.00	1	07/16/2019 12:37	<a href="#">WG1312100</a>
1,3-Dichlorobenzene	ND		1.00	1	07/16/2019 12:37	<a href="#">WG1312100</a>



Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	ug/l		ug/l		date / time	
1,4-Dichlorobenzene	ND		1.00	1	07/16/2019 12:37	WG1312100
Dichlorodifluoromethane	ND		5.00	1	07/16/2019 12:37	WG1312100
1,1-Dichloroethane	ND		1.00	1	07/16/2019 12:37	WG1312100
1,2-Dichloroethane	ND		1.00	1	07/16/2019 12:37	WG1312100
1,1-Dichloroethene	ND		1.00	1	07/16/2019 12:37	WG1312100
cis-1,2-Dichloroethene	ND		1.00	1	07/16/2019 12:37	WG1312100
trans-1,2-Dichloroethene	ND		1.00	1	07/16/2019 12:37	WG1312100
1,2-Dichloropropane	ND		1.00	1	07/16/2019 12:37	WG1312100
cis-1,3-Dichloropropene	ND		1.00	1	07/16/2019 12:37	WG1312100
trans-1,3-Dichloropropene	ND		1.00	1	07/16/2019 12:37	WG1312100
Ethylbenzene	ND		1.00	1	07/16/2019 12:37	WG1312100
2-Hexanone	ND		10.0	1	07/16/2019 12:37	WG1312100
Isopropylbenzene	ND		1.00	1	07/16/2019 12:37	WG1312100
2-Butanone (MEK)	ND		10.0	1	07/16/2019 12:37	WG1312100
Methyl Acetate	ND		20.0	1	07/16/2019 12:37	WG1312100
Methyl Cyclohexane	ND		1.00	1	07/16/2019 12:37	WG1312100
Methylene Chloride	ND		5.00	1	07/16/2019 12:37	WG1312100
4-Methyl-2-pentanone (MIBK)	ND		10.0	1	07/16/2019 12:37	WG1312100
Methyl tert-butyl ether	ND		1.00	1	07/16/2019 12:37	WG1312100
Styrene	ND		1.00	1	07/16/2019 12:37	WG1312100
1,1,2,2-Tetrachloroethane	ND		1.00	1	07/16/2019 12:37	WG1312100
Tetrachloroethene	ND		1.00	1	07/16/2019 12:37	WG1312100
Toluene	ND		1.00	1	07/16/2019 12:37	WG1312100
1,2,3-Trichlorobenzene	ND		1.00	1	07/16/2019 12:37	WG1312100
1,2,4-Trichlorobenzene	ND		1.00	1	07/16/2019 12:37	WG1312100
1,1,1-Trichloroethane	ND		1.00	1	07/16/2019 12:37	WG1312100
1,1,2-Trichloroethane	ND		1.00	1	07/16/2019 12:37	WG1312100
Trichloroethene	ND		1.00	1	07/16/2019 12:37	WG1312100
Trichlorofluoromethane	ND		5.00	1	07/16/2019 12:37	WG1312100
1,1,2-Trichlorotrifluoroethane	ND		1.00	1	07/16/2019 12:37	WG1312100
Vinyl chloride	ND		1.00	1	07/16/2019 12:37	WG1312100
Xylenes, Total	ND		3.00	1	07/16/2019 12:37	WG1312100
(S) Toluene-d8	101		80.0-120		07/16/2019 12:37	WG1312100
(S) 4-Bromofluorobenzene	97.2		77.0-126		07/16/2019 12:37	WG1312100
(S) 1,2-Dichloroethane-d4	117		70.0-130		07/16/2019 12:37	WG1312100

- 1 Cp
- 2 Tc
- 3 Ss
- 4 Cn
- 5 Sr
- 6 Qc
- 7 Gl
- 8 Al
- 9 Sc

Pesticides (GC) by Method 8081B

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	ug/l		ug/l		date / time	
Aldrin	ND		0.0500	1	07/19/2019 18:20	WG1312292
Alpha BHC	ND		0.0500	1	07/19/2019 18:20	WG1312292
Beta BHC	ND		0.0500	1	07/19/2019 18:20	WG1312292
Delta BHC	ND		0.0500	1	07/19/2019 18:20	WG1312292
Gamma BHC	ND		0.0500	1	07/19/2019 18:20	WG1312292
Chlordane	ND		5.00	1	07/19/2019 18:20	WG1312292
4,4-DDD	ND		0.0500	1	07/19/2019 18:20	WG1312292
4,4-DDE	ND		0.0500	1	07/19/2019 18:20	WG1312292
4,4-DDT	ND		0.0500	1	07/19/2019 18:20	WG1312292
Dieldrin	ND		0.0500	1	07/19/2019 18:20	WG1312292
Endosulfan I	ND		0.0500	1	07/19/2019 18:20	WG1312292
Endosulfan II	ND		0.0500	1	07/19/2019 18:20	WG1312292
Endosulfan sulfate	ND		0.0500	1	07/19/2019 18:20	WG1312292
Endrin	ND		0.0500	1	07/19/2019 18:20	WG1312292
Endrin aldehyde	ND		0.0500	1	07/19/2019 18:20	WG1312292
Endrin ketone	ND		0.0500	1	07/19/2019 18:20	WG1312292
Heptachlor	ND		0.0500	1	07/19/2019 18:20	WG1312292



Collected date/time: 07/12/19 09:45

L1118284

Pesticides (GC) by Method 8081B

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	ug/l		ug/l		date / time	
Heptachlor epoxide	ND		0.0500	1	07/19/2019 18:20	<a href="#">WG1312292</a>
Hexachlorobenzene	ND		0.0500	1	07/19/2019 18:20	<a href="#">WG1312292</a>
Methoxychlor	ND		0.0500	1	07/19/2019 18:20	<a href="#">WG1312292</a>
Toxaphene	ND		0.500	1	07/19/2019 18:20	<a href="#">WG1312292</a>
(S) Decachlorobiphenyl	86.0		10.0-128		07/19/2019 18:20	<a href="#">WG1312292</a>
(S) Tetrachloro-m-xylene	95.3		10.0-127		07/19/2019 18:20	<a href="#">WG1312292</a>

- 1 Cp
- 2 Tc
- 3 Ss
- 4 Cn
- 5 Sr
- 6 Qc
- 7 Gl
- 8 Al
- 9 Sc

Polychlorinated Biphenyls (GC) by Method 8082 A

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	ug/l		ug/l		date / time	
PCB 1016	ND		0.500	1	07/19/2019 19:45	<a href="#">WG1312292</a>
PCB 1221	ND		0.500	1	07/19/2019 19:45	<a href="#">WG1312292</a>
PCB 1232	ND		0.500	1	07/19/2019 19:45	<a href="#">WG1312292</a>
PCB 1242	ND		0.500	1	07/19/2019 19:45	<a href="#">WG1312292</a>
PCB 1248	ND		0.500	1	07/19/2019 19:45	<a href="#">WG1312292</a>
PCB 1254	ND		0.500	1	07/19/2019 19:45	<a href="#">WG1312292</a>
PCB 1260	ND		0.500	1	07/19/2019 19:45	<a href="#">WG1312292</a>
(S) Decachlorobiphenyl	105		10.0-128		07/19/2019 19:45	<a href="#">WG1312292</a>
(S) Tetrachloro-m-xylene	73.3		10.0-127		07/19/2019 19:45	<a href="#">WG1312292</a>

Semi Volatile Organic Compounds (GC/MS) by Method 8270D

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	ug/l		ug/l		date / time	
Acenaphthene	ND	J4	1.00	1	07/22/2019 03:24	<a href="#">WG1313654</a>
Acenaphthylene	ND	J4	1.00	1	07/22/2019 03:24	<a href="#">WG1313654</a>
Acetophenone	ND	J4	10.0	1	07/22/2019 03:24	<a href="#">WG1313654</a>
Anthracene	ND	J4	1.00	1	07/22/2019 03:24	<a href="#">WG1313654</a>
Atrazine	ND	J4	10.0	1	07/22/2019 03:24	<a href="#">WG1313654</a>
Benzaldehyde	ND	J4	10.0	1	07/22/2019 03:24	<a href="#">WG1313654</a>
Benzo(a)anthracene	ND	J4	1.00	1	07/22/2019 03:24	<a href="#">WG1313654</a>
Benzo(b)fluoranthene	ND	J4	1.00	1	07/22/2019 03:24	<a href="#">WG1313654</a>
Benzo(k)fluoranthene	ND	J4	1.00	1	07/22/2019 03:24	<a href="#">WG1313654</a>
Benzo(g,h,i)perylene	ND	J4	1.00	1	07/22/2019 03:24	<a href="#">WG1313654</a>
Benzo(a)pyrene	ND	J4	1.00	1	07/22/2019 03:24	<a href="#">WG1313654</a>
Biphenyl	ND	J4	10.0	1	07/22/2019 03:24	<a href="#">WG1313654</a>
Bis(2-chloroethoxy)methane	ND	J4	10.0	1	07/22/2019 03:24	<a href="#">WG1313654</a>
Bis(2-chloroethyl)ether	ND	J4	10.0	1	07/22/2019 03:24	<a href="#">WG1313654</a>
Bis(2-chloroisopropyl)ether	ND	J4	10.0	1	07/22/2019 03:24	<a href="#">WG1313654</a>
4-Bromophenyl-phenylether	ND	J4	10.0	1	07/22/2019 03:24	<a href="#">WG1313654</a>
Caprolactam	ND	J4	10.0	1	07/22/2019 03:24	<a href="#">WG1313654</a>
Carbazole	ND	J4	10.0	1	07/22/2019 03:24	<a href="#">WG1313654</a>
4-Chloroaniline	ND	J4	10.0	1	07/22/2019 03:24	<a href="#">WG1313654</a>
2-Chloronaphthalene	ND	J4	1.00	1	07/22/2019 03:24	<a href="#">WG1313654</a>
4-Chlorophenyl-phenylether	ND	J4	10.0	1	07/22/2019 03:24	<a href="#">WG1313654</a>
Chrysene	ND	J4	1.00	1	07/22/2019 03:24	<a href="#">WG1313654</a>
Dibenz(a,h)anthracene	ND	J4	1.00	1	07/22/2019 03:24	<a href="#">WG1313654</a>
Dibenzofuran	ND	J4	10.0	1	07/22/2019 03:24	<a href="#">WG1313654</a>
3,3-Dichlorobenzidine	ND	J4	10.0	1	07/22/2019 03:24	<a href="#">WG1313654</a>
2,4-Dinitrotoluene	ND	J4	10.0	1	07/22/2019 03:24	<a href="#">WG1313654</a>
2,6-Dinitrotoluene	ND	J4	10.0	1	07/22/2019 03:24	<a href="#">WG1313654</a>
Fluoranthene	ND	J4	1.00	1	07/22/2019 03:24	<a href="#">WG1313654</a>
Fluorene	ND	J4	1.00	1	07/22/2019 03:24	<a href="#">WG1313654</a>
Hexachlorobenzene	ND	J4	1.00	1	07/22/2019 03:24	<a href="#">WG1313654</a>
Hexachloro-1,3-butadiene	ND	J4	10.0	1	07/22/2019 03:24	<a href="#">WG1313654</a>
Hexachlorocyclopentadiene	ND	J4	10.0	1	07/22/2019 03:24	<a href="#">WG1313654</a>





Collected date/time: 07/12/19 09:45

L1118284

Semi Volatile Organic Compounds (GC/MS) by Method 8270D

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Hexachloroethane	ND	J4	10.0	1	07/22/2019 03:24	WG1313654
Indeno(1,2,3-cd)pyrene	ND	J4	1.00	1	07/22/2019 03:24	WG1313654
Isophorone	ND	J4	10.0	1	07/22/2019 03:24	WG1313654
2-Methylnaphthalene	ND	J4	1.00	1	07/22/2019 03:24	WG1313654
Naphthalene	ND	J4 Q	1.00	1	07/23/2019 23:10	WG1315403
2-Nitroaniline	ND	J4	10.0	1	07/22/2019 03:24	WG1313654
3-Nitroaniline	ND	J4	10.0	1	07/22/2019 03:24	WG1313654
4-Nitroaniline	ND	J4	10.0	1	07/22/2019 03:24	WG1313654
Nitrobenzene	ND	J4	10.0	1	07/22/2019 03:24	WG1313654
n-Nitrosodiphenylamine	ND	J4	10.0	1	07/22/2019 03:24	WG1313654
n-Nitrosodi-n-propylamine	ND	J4	10.0	1	07/22/2019 03:24	WG1313654
Phenanthrene	ND	J4	1.00	1	07/22/2019 03:24	WG1313654
Benzylbutyl phthalate	ND	J4	3.00	1	07/22/2019 03:24	WG1313654
Bis(2-ethylhexyl)phthalate	ND	J4	3.00	1	07/22/2019 03:24	WG1313654
Di-n-butyl phthalate	ND	J4	3.00	1	07/22/2019 03:24	WG1313654
Diethyl phthalate	ND	J4	3.00	1	07/22/2019 03:24	WG1313654
Dimethyl phthalate	ND	J4	3.00	1	07/22/2019 03:24	WG1313654
Di-n-octyl phthalate	ND	J4	3.00	1	07/22/2019 03:24	WG1313654
Pyrene	ND	J4	1.00	1	07/22/2019 03:24	WG1313654
1,2,4,5-Tetrachlorobenzene	ND	J4	10.0	1	07/22/2019 03:24	WG1313654
4-Chloro-3-methylphenol	ND	J4	10.0	1	07/22/2019 03:24	WG1313654
2-Chlorophenol	ND	J4	10.0	1	07/22/2019 03:24	WG1313654
2-Methylphenol	ND	J4	10.0	1	07/22/2019 03:24	WG1313654
3&4-Methyl Phenol	ND	J4	10.0	1	07/22/2019 03:24	WG1313654
2,4-Dichlorophenol	ND	J4	10.0	1	07/22/2019 03:24	WG1313654
2,4-Dimethylphenol	ND	J4	10.0	1	07/22/2019 03:24	WG1313654
4,6-Dinitro-2-methylphenol	ND	J4	10.0	1	07/22/2019 03:24	WG1313654
2,4-Dinitrophenol	ND	J4	10.0	1	07/22/2019 03:24	WG1313654
2-Nitrophenol	ND	J4	10.0	1	07/22/2019 03:24	WG1313654
4-Nitrophenol	ND	J4	10.0	1	07/22/2019 03:24	WG1313654
Pentachlorophenol	ND	J4	10.0	1	07/22/2019 03:24	WG1313654
Phenol	ND	J4	10.0	1	07/22/2019 03:24	WG1313654
2,4,5-Trichlorophenol	ND	J4	10.0	1	07/22/2019 03:24	WG1313654
2,4,6-Trichlorophenol	ND	J4	10.0	1	07/22/2019 03:24	WG1313654
(S) Nitrobenzene-d5	44.5		10.0-127		07/22/2019 03:24	WG1313654
(S) Nitrobenzene-d5	44.3		10.0-127		07/23/2019 23:10	WG1315403
(S) 2-Fluorobiphenyl	47.8		10.0-130		07/22/2019 03:24	WG1313654
(S) 2-Fluorobiphenyl	58.1		10.0-130		07/23/2019 23:10	WG1315403
(S) p-Terphenyl-d14	67.2		10.0-128		07/22/2019 03:24	WG1313654
(S) p-Terphenyl-d14	84.8		10.0-128		07/23/2019 23:10	WG1315403
(S) Phenol-d5	18.0		10.0-120		07/22/2019 03:24	WG1313654
(S) Phenol-d5	20.3		10.0-120		07/23/2019 23:10	WG1315403
(S) 2-Fluorophenol	27.6		10.0-120		07/22/2019 03:24	WG1313654
(S) 2-Fluorophenol	32.8		10.0-120		07/23/2019 23:10	WG1315403
(S) 2,4,6-Tribromophenol	50.9		10.0-155		07/22/2019 03:24	WG1313654
(S) 2,4,6-Tribromophenol	60.5		10.0-155		07/23/2019 23:10	WG1315403

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

Sample Narrative:

L1118284-01 WG1313654: Duplicate analysis was performed.



Collected date/time: 07/12/19 09:45

L1118284

Semi Volatile Organic Compounds (GC/MS) by Method 8270E-SIM

Analyte	Result ug/l	Qualifier	RDL ug/l	Dilution	Analysis date / time	Batch
Anthracene	ND		0.0500	1	07/18/2019 13:37	<a href="#">WG1313197</a>
Acenaphthene	ND		0.0500	1	07/18/2019 13:37	<a href="#">WG1313197</a>
Acenaphthylene	ND		0.0500	1	07/18/2019 13:37	<a href="#">WG1313197</a>
Benzo(a)anthracene	ND		0.0500	1	07/18/2019 13:37	<a href="#">WG1313197</a>
Benzo(a)pyrene	ND		0.0500	1	07/18/2019 13:37	<a href="#">WG1313197</a>
Benzo(b)fluoranthene	ND		0.0500	1	07/18/2019 13:37	<a href="#">WG1313197</a>
Benzo(g,h,i)perylene	ND		0.0500	1	07/18/2019 13:37	<a href="#">WG1313197</a>
Benzo(k)fluoranthene	ND		0.0500	1	07/18/2019 13:37	<a href="#">WG1313197</a>
Chrysene	ND		0.0500	1	07/18/2019 13:37	<a href="#">WG1313197</a>
Dibenz(a,h)anthracene	ND		0.0500	1	07/18/2019 13:37	<a href="#">WG1313197</a>
Fluoranthene	ND		0.0500	1	07/18/2019 13:37	<a href="#">WG1313197</a>
Fluorene	ND		0.0500	1	07/18/2019 13:37	<a href="#">WG1313197</a>
Indeno(1,2,3-cd)pyrene	ND		0.0500	1	07/18/2019 13:37	<a href="#">WG1313197</a>
Naphthalene	ND	<u>J4</u>	0.250	1	07/18/2019 13:37	<a href="#">WG1313197</a>
Phenanthrene	ND		0.0500	1	07/18/2019 13:37	<a href="#">WG1313197</a>
Pyrene	ND		0.0500	1	07/18/2019 13:37	<a href="#">WG1313197</a>
(S) Nitrobenzene-d5	56.3		11.0-135		07/18/2019 13:37	<a href="#">WG1313197</a>
(S) 2-Fluorobiphenyl	63.7		32.0-120		07/18/2019 13:37	<a href="#">WG1313197</a>
(S) p-Terphenyl-d14	98.4		23.0-122		07/18/2019 13:37	<a href="#">WG1313197</a>

- 1 Cp
- 2 Tc
- 3 Ss
- 4 Cn
- 5 Sr
- 6 Qc
- 7 Gl
- 8 Al
- 9 Sc



Wet Chemistry by Method 4500CN E-2011

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	ug/l		ug/l		date / time	
Cyanide	ND		5.00	1	07/22/2019 13:52	<a href="#">WG1314084</a>

1 Cp

2 Tc

Mercury by Method 7470A

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	ug/l		ug/l		date / time	
Mercury	ND		0.200	1	07/16/2019 20:02	<a href="#">WG1311778</a>

3 Ss

4 Cn

Metals (ICP) by Method 6010D

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	ug/l		ug/l		date / time	
Aluminum	ND		200	1	07/16/2019 10:51	<a href="#">WG1310256</a>
Antimony	ND		10.0	1	07/16/2019 10:51	<a href="#">WG1310256</a>
Arsenic	ND		10.0	1	07/16/2019 10:51	<a href="#">WG1310256</a>
Barium	129		5.00	1	07/16/2019 10:51	<a href="#">WG1310256</a>
Beryllium	ND		2.00	1	07/16/2019 10:51	<a href="#">WG1310256</a>
Cadmium	ND		2.00	1	07/16/2019 10:51	<a href="#">WG1310256</a>
Calcium	169000		1000	1	07/16/2019 10:51	<a href="#">WG1310256</a>
Chromium	ND		10.0	1	07/16/2019 10:51	<a href="#">WG1310256</a>
Cobalt	ND		10.0	1	07/16/2019 10:51	<a href="#">WG1310256</a>
Copper	ND		10.0	1	07/16/2019 10:51	<a href="#">WG1310256</a>
Iron	ND		100	1	07/16/2019 10:51	<a href="#">WG1310256</a>
Lead	ND		5.00	1	07/16/2019 10:51	<a href="#">WG1310256</a>
Magnesium	79700		1000	1	07/16/2019 10:51	<a href="#">WG1310256</a>
Manganese	277		10.0	1	07/16/2019 10:51	<a href="#">WG1310256</a>
Nickel	ND		10.0	1	07/16/2019 10:51	<a href="#">WG1310256</a>
Potassium	8410		1000	1	07/16/2019 10:51	<a href="#">WG1310256</a>
Selenium	ND		10.0	1	07/16/2019 10:51	<a href="#">WG1310256</a>
Silver	ND		5.00	1	07/16/2019 10:51	<a href="#">WG1310256</a>
Sodium	107000		1000	1	07/16/2019 10:51	<a href="#">WG1310256</a>
Thallium	ND		10.0	1	07/16/2019 10:51	<a href="#">WG1310256</a>
Vanadium	ND		20.0	1	07/16/2019 10:51	<a href="#">WG1310256</a>
Zinc	ND		50.0	1	07/16/2019 10:51	<a href="#">WG1310256</a>

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	ug/l		ug/l		date / time	
Acetone	ND		50.0	1	07/16/2019 12:57	<a href="#">WG1312100</a>
Benzene	ND		1.00	1	07/16/2019 12:57	<a href="#">WG1312100</a>
Bromochloromethane	ND		1.00	1	07/16/2019 12:57	<a href="#">WG1312100</a>
Bromodichloromethane	ND		1.00	1	07/16/2019 12:57	<a href="#">WG1312100</a>
Bromoform	ND		1.00	1	07/16/2019 12:57	<a href="#">WG1312100</a>
Bromomethane	ND		5.00	1	07/16/2019 12:57	<a href="#">WG1312100</a>
Carbon disulfide	ND		1.00	1	07/16/2019 12:57	<a href="#">WG1312100</a>
Carbon tetrachloride	ND		1.00	1	07/16/2019 12:57	<a href="#">WG1312100</a>
Chlorobenzene	ND		1.00	1	07/16/2019 12:57	<a href="#">WG1312100</a>
Chlorodibromomethane	ND		1.00	1	07/16/2019 12:57	<a href="#">WG1312100</a>
Chloroethane	ND		5.00	1	07/16/2019 12:57	<a href="#">WG1312100</a>
Chloroform	ND		5.00	1	07/16/2019 12:57	<a href="#">WG1312100</a>
Chloromethane	ND		2.50	1	07/16/2019 12:57	<a href="#">WG1312100</a>
Cyclohexane	ND		1.00	1	07/16/2019 12:57	<a href="#">WG1312100</a>
1,2-Dibromo-3-Chloropropane	ND		5.00	1	07/16/2019 12:57	<a href="#">WG1312100</a>
1,2-Dibromoethane	ND		1.00	1	07/16/2019 12:57	<a href="#">WG1312100</a>
1,2-Dichlorobenzene	ND		1.00	1	07/16/2019 12:57	<a href="#">WG1312100</a>
1,3-Dichlorobenzene	ND		1.00	1	07/16/2019 12:57	<a href="#">WG1312100</a>



Collected date/time: 07/12/19 10:30

L1118284

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result ug/l	Qualifier	RDL ug/l	Dilution	Analysis date / time	Batch
1,4-Dichlorobenzene	ND		1.00	1	07/16/2019 12:57	WG1312100
Dichlorodifluoromethane	ND		5.00	1	07/16/2019 12:57	WG1312100
1,1-Dichloroethane	ND		1.00	1	07/16/2019 12:57	WG1312100
1,2-Dichloroethane	ND		1.00	1	07/16/2019 12:57	WG1312100
1,1-Dichloroethene	ND		1.00	1	07/16/2019 12:57	WG1312100
cis-1,2-Dichloroethene	ND		1.00	1	07/16/2019 12:57	WG1312100
trans-1,2-Dichloroethene	ND		1.00	1	07/16/2019 12:57	WG1312100
1,2-Dichloropropane	ND		1.00	1	07/16/2019 12:57	WG1312100
cis-1,3-Dichloropropene	ND		1.00	1	07/16/2019 12:57	WG1312100
trans-1,3-Dichloropropene	ND		1.00	1	07/16/2019 12:57	WG1312100
Ethylbenzene	ND		1.00	1	07/16/2019 12:57	WG1312100
2-Hexanone	ND		10.0	1	07/16/2019 12:57	WG1312100
Isopropylbenzene	ND		1.00	1	07/16/2019 12:57	WG1312100
2-Butanone (MEK)	ND		10.0	1	07/16/2019 12:57	WG1312100
Methyl Acetate	ND		20.0	1	07/16/2019 12:57	WG1312100
Methyl Cyclohexane	ND		1.00	1	07/16/2019 12:57	WG1312100
Methylene Chloride	ND		5.00	1	07/16/2019 12:57	WG1312100
4-Methyl-2-pentanone (MIBK)	ND		10.0	1	07/16/2019 12:57	WG1312100
Methyl tert-butyl ether	ND		1.00	1	07/16/2019 12:57	WG1312100
Styrene	ND		1.00	1	07/16/2019 12:57	WG1312100
1,1,2,2-Tetrachloroethane	ND		1.00	1	07/16/2019 12:57	WG1312100
Tetrachloroethene	ND		1.00	1	07/16/2019 12:57	WG1312100
Toluene	ND		1.00	1	07/16/2019 12:57	WG1312100
1,2,3-Trichlorobenzene	ND		1.00	1	07/16/2019 12:57	WG1312100
1,2,4-Trichlorobenzene	ND		1.00	1	07/16/2019 12:57	WG1312100
1,1,1-Trichloroethane	ND		1.00	1	07/16/2019 12:57	WG1312100
1,1,2-Trichloroethane	ND		1.00	1	07/16/2019 12:57	WG1312100
Trichloroethene	ND		1.00	1	07/16/2019 12:57	WG1312100
Trichlorofluoromethane	ND		5.00	1	07/16/2019 12:57	WG1312100
1,1,2-Trichlorotrifluoroethane	ND		1.00	1	07/16/2019 12:57	WG1312100
Vinyl chloride	ND		1.00	1	07/16/2019 12:57	WG1312100
Xylenes, Total	ND		3.00	1	07/16/2019 12:57	WG1312100
(S) Toluene-d8	96.5		80.0-120		07/16/2019 12:57	WG1312100
(S) 4-Bromofluorobenzene	91.9		77.0-126		07/16/2019 12:57	WG1312100
(S) 1,2-Dichloroethane-d4	107		70.0-130		07/16/2019 12:57	WG1312100

- 1 Cp
- 2 Tc
- 3 Ss
- 4 Cn
- 5 Sr
- 6 Qc
- 7 Gl
- 8 Al
- 9 Sc

Pesticides (GC) by Method 8081B

Analyte	Result ug/l	Qualifier	RDL ug/l	Dilution	Analysis date / time	Batch
Aldrin	ND		0.0500	1	07/19/2019 18:33	WG1312292
Alpha BHC	ND		0.0500	1	07/19/2019 18:33	WG1312292
Beta BHC	ND		0.0500	1	07/19/2019 18:33	WG1312292
Delta BHC	ND		0.0500	1	07/19/2019 18:33	WG1312292
Gamma BHC	ND		0.0500	1	07/19/2019 18:33	WG1312292
Chlordane	ND		5.00	1	07/19/2019 18:33	WG1312292
4,4-DDD	ND		0.0500	1	07/19/2019 18:33	WG1312292
4,4-DDE	ND		0.0500	1	07/19/2019 18:33	WG1312292
4,4-DDT	ND		0.0500	1	07/19/2019 18:33	WG1312292
Dieldrin	ND		0.0500	1	07/19/2019 18:33	WG1312292
Endosulfan I	ND		0.0500	1	07/19/2019 18:33	WG1312292
Endosulfan II	ND		0.0500	1	07/19/2019 18:33	WG1312292
Endosulfan sulfate	ND		0.0500	1	07/19/2019 18:33	WG1312292
Endrin	ND		0.0500	1	07/19/2019 18:33	WG1312292
Endrin aldehyde	ND		0.0500	1	07/19/2019 18:33	WG1312292
Endrin ketone	ND		0.0500	1	07/19/2019 18:33	WG1312292
Heptachlor	ND		0.0500	1	07/19/2019 18:33	WG1312292



Collected date/time: 07/12/19 10:30

L1118284

Pesticides (GC) by Method 8081B

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	ug/l		ug/l		date / time	
Heptachlor epoxide	ND		0.0500	1	07/19/2019 18:33	<a href="#">WG1312292</a>
Hexachlorobenzene	ND		0.0500	1	07/19/2019 18:33	<a href="#">WG1312292</a>
Methoxychlor	ND		0.0500	1	07/19/2019 18:33	<a href="#">WG1312292</a>
Toxaphene	ND		0.500	1	07/19/2019 18:33	<a href="#">WG1312292</a>
(S) Decachlorobiphenyl	81.3		10.0-128		07/19/2019 18:33	<a href="#">WG1312292</a>
(S) Tetrachloro-m-xylene	96.5		10.0-127		07/19/2019 18:33	<a href="#">WG1312292</a>

- 1 Cp
- 2 Tc
- 3 Ss
- 4 Cn
- 5 Sr
- 6 Qc
- 7 Gl
- 8 Al
- 9 Sc

Polychlorinated Biphenyls (GC) by Method 8082 A

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	ug/l		ug/l		date / time	
PCB 1016	ND		0.500	1	07/19/2019 19:59	<a href="#">WG1312292</a>
PCB 1221	ND		0.500	1	07/19/2019 19:59	<a href="#">WG1312292</a>
PCB 1232	ND		0.500	1	07/19/2019 19:59	<a href="#">WG1312292</a>
PCB 1242	ND		0.500	1	07/19/2019 19:59	<a href="#">WG1312292</a>
PCB 1248	ND		0.500	1	07/19/2019 19:59	<a href="#">WG1312292</a>
PCB 1254	ND		0.500	1	07/19/2019 19:59	<a href="#">WG1312292</a>
PCB 1260	ND		0.500	1	07/19/2019 19:59	<a href="#">WG1312292</a>
(S) Decachlorobiphenyl	104		10.0-128		07/19/2019 19:59	<a href="#">WG1312292</a>
(S) Tetrachloro-m-xylene	89.0		10.0-127		07/19/2019 19:59	<a href="#">WG1312292</a>

Semi Volatile Organic Compounds (GC/MS) by Method 8270D

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	ug/l		ug/l		date / time	
Acenaphthene	ND	J4	1.00	1	07/22/2019 18:27	<a href="#">WG1313654</a>
Acenaphthylene	ND	J4	1.00	1	07/22/2019 18:27	<a href="#">WG1313654</a>
Acetophenone	ND	J4	10.0	1	07/22/2019 18:27	<a href="#">WG1313654</a>
Anthracene	ND	J4	1.00	1	07/22/2019 18:27	<a href="#">WG1313654</a>
Atrazine	ND	J4	10.0	1	07/22/2019 18:27	<a href="#">WG1313654</a>
Benzaldehyde	ND	J4	10.0	1	07/22/2019 18:27	<a href="#">WG1313654</a>
Benzo(a)anthracene	ND	J4	1.00	1	07/22/2019 18:27	<a href="#">WG1313654</a>
Benzo(b)fluoranthene	ND	J4	1.00	1	07/22/2019 18:27	<a href="#">WG1313654</a>
Benzo(k)fluoranthene	ND	J4	1.00	1	07/22/2019 18:27	<a href="#">WG1313654</a>
Benzo(g,h,i)perylene	ND	J4	1.00	1	07/22/2019 18:27	<a href="#">WG1313654</a>
Benzo(a)pyrene	ND	J4	1.00	1	07/22/2019 18:27	<a href="#">WG1313654</a>
Biphenyl	ND	J4	10.0	1	07/22/2019 18:27	<a href="#">WG1313654</a>
Bis(2-chlorethoxy)methane	ND	J4	10.0	1	07/22/2019 18:27	<a href="#">WG1313654</a>
Bis(2-chloroethyl)ether	ND	J4	10.0	1	07/22/2019 18:27	<a href="#">WG1313654</a>
Bis(2-chloroisopropyl)ether	ND	J4	10.0	1	07/22/2019 18:27	<a href="#">WG1313654</a>
4-Bromophenyl-phenylether	ND	J4	10.0	1	07/22/2019 18:27	<a href="#">WG1313654</a>
Caprolactam	ND	J4	10.0	1	07/22/2019 18:27	<a href="#">WG1313654</a>
Carbazole	ND	J4	10.0	1	07/22/2019 18:27	<a href="#">WG1313654</a>
4-Chloroaniline	ND	J4	10.0	1	07/22/2019 18:27	<a href="#">WG1313654</a>
2-Chloronaphthalene	ND	J4	1.00	1	07/22/2019 18:27	<a href="#">WG1313654</a>
4-Chlorophenyl-phenylether	ND	J4	10.0	1	07/22/2019 18:27	<a href="#">WG1313654</a>
Chrysene	ND	J4	1.00	1	07/22/2019 18:27	<a href="#">WG1313654</a>
Dibenz(a,h)anthracene	ND	J4	1.00	1	07/22/2019 18:27	<a href="#">WG1313654</a>
Dibenzofuran	ND	J4	10.0	1	07/22/2019 18:27	<a href="#">WG1313654</a>
3,3-Dichlorobenzidine	ND	J4	10.0	1	07/22/2019 18:27	<a href="#">WG1313654</a>
2,4-Dinitrotoluene	ND	J4	10.0	1	07/22/2019 18:27	<a href="#">WG1313654</a>
2,6-Dinitrotoluene	ND	J4	10.0	1	07/22/2019 18:27	<a href="#">WG1313654</a>
Fluoranthene	ND	J4	1.00	1	07/22/2019 18:27	<a href="#">WG1313654</a>
Fluorene	ND	J4	1.00	1	07/22/2019 18:27	<a href="#">WG1313654</a>
Hexachlorobenzene	ND	J4	1.00	1	07/22/2019 18:27	<a href="#">WG1313654</a>
Hexachloro-1,3-butadiene	ND	J4	10.0	1	07/22/2019 18:27	<a href="#">WG1313654</a>
Hexachlorocyclopentadiene	ND	J4	10.0	1	07/22/2019 18:27	<a href="#">WG1313654</a>



Semi Volatile Organic Compounds (GC/MS) by Method 8270D

Analyte	Result ug/l	Qualifier	RDL ug/l	Dilution	Analysis date / time	Batch
Hexachloroethane	ND	J4	10.0	1	07/22/2019 18:27	WG1313654
Indeno(1,2,3-cd)pyrene	ND	J4	1.00	1	07/22/2019 18:27	WG1313654
Isophorone	ND	J4	10.0	1	07/22/2019 18:27	WG1313654
2-Methylnaphthalene	ND	J4	1.00	1	07/22/2019 18:27	WG1313654
Naphthalene	ND	J4	1.00	1	07/22/2019 18:27	WG1313654
2-Nitroaniline	ND	J4	10.0	1	07/22/2019 18:27	WG1313654
3-Nitroaniline	ND	J4	10.0	1	07/22/2019 18:27	WG1313654
4-Nitroaniline	ND	J4	10.0	1	07/22/2019 18:27	WG1313654
Nitrobenzene	ND	J4	10.0	1	07/22/2019 18:27	WG1313654
n-Nitrosodiphenylamine	ND	J4	10.0	1	07/22/2019 18:27	WG1313654
n-Nitrosodi-n-propylamine	ND	J4	10.0	1	07/22/2019 18:27	WG1313654
Phenanthrene	ND	J4	1.00	1	07/22/2019 18:27	WG1313654
Benzylbutyl phthalate	ND	J4	3.00	1	07/22/2019 18:27	WG1313654
Bis(2-ethylhexyl)phthalate	ND	J4	3.00	1	07/22/2019 18:27	WG1313654
Di-n-butyl phthalate	ND	J4	3.00	1	07/22/2019 18:27	WG1313654
Diethyl phthalate	ND	J4	3.00	1	07/22/2019 18:27	WG1313654
Dimethyl phthalate	ND	J4	3.00	1	07/22/2019 18:27	WG1313654
Di-n-octyl phthalate	ND	J4	3.00	1	07/22/2019 18:27	WG1313654
Pyrene	ND	J4	1.00	1	07/22/2019 18:27	WG1313654
1,2,4,5-Tetrachlorobenzene	ND	J4	10.0	1	07/22/2019 18:27	WG1313654
4-Chloro-3-methylphenol	ND	J4	10.0	1	07/22/2019 18:27	WG1313654
2-Chlorophenol	ND	J4	10.0	1	07/22/2019 18:27	WG1313654
2-Methylphenol	ND	J4	10.0	1	07/22/2019 18:27	WG1313654
3&4-Methyl Phenol	ND	J4	10.0	1	07/22/2019 18:27	WG1313654
2,4-Dichlorophenol	ND	J4	10.0	1	07/22/2019 18:27	WG1313654
2,4-Dimethylphenol	ND	J4	10.0	1	07/22/2019 18:27	WG1313654
4,6-Dinitro-2-methylphenol	ND	J4	10.0	1	07/22/2019 18:27	WG1313654
2,4-Dinitrophenol	ND	J4	10.0	1	07/22/2019 18:27	WG1313654
2-Nitrophenol	ND	J4	10.0	1	07/22/2019 18:27	WG1313654
4-Nitrophenol	ND	J4	10.0	1	07/22/2019 18:27	WG1313654
Pentachlorophenol	ND	J4	10.0	1	07/22/2019 18:27	WG1313654
Phenol	ND	J4	10.0	1	07/22/2019 18:27	WG1313654
2,4,5-Trichlorophenol	ND	J4	10.0	1	07/22/2019 18:27	WG1313654
2,4,6-Trichlorophenol	ND	J4	10.0	1	07/22/2019 18:27	WG1313654
(S) Nitrobenzene-d5	50.3		10.0-127		07/22/2019 18:27	WG1313654
(S) 2-Fluorobiphenyl	51.0		10.0-130		07/22/2019 18:27	WG1313654
(S) p-Terphenyl-d14	62.3		10.0-128		07/22/2019 18:27	WG1313654
(S) Phenol-d5	22.3		10.0-120		07/22/2019 18:27	WG1313654
(S) 2-Fluorophenol	35.9		10.0-120		07/22/2019 18:27	WG1313654
(S) 2,4,6-Tribromophenol	64.5		10.0-155		07/22/2019 18:27	WG1313654

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

Sample Narrative:

L1118284-02 WG1313654: Duplicate analysis was performed.

Semi Volatile Organic Compounds (GC/MS) by Method 8270E-SIM

Analyte	Result ug/l	Qualifier	RDL ug/l	Dilution	Analysis date / time	Batch
Anthracene	ND		0.0500	1	07/18/2019 14:00	WG1313197
Acenaphthene	ND		0.0500	1	07/18/2019 14:00	WG1313197
Acenaphthylene	ND		0.0500	1	07/18/2019 14:00	WG1313197
Benzo(a)anthracene	ND		0.0500	1	07/18/2019 14:00	WG1313197
Benzo(a)pyrene	ND		0.0500	1	07/18/2019 14:00	WG1313197
Benzo(b)fluoranthene	ND		0.0500	1	07/18/2019 14:00	WG1313197
Benzo(g,h,i)perylene	ND		0.0500	1	07/18/2019 14:00	WG1313197
Benzo(k)fluoranthene	ND		0.0500	1	07/18/2019 14:00	WG1313197
Chrysene	ND		0.0500	1	07/18/2019 14:00	WG1313197



Semi Volatile Organic Compounds (GC/MS) by Method 8270E-SIM

Analyte	Result ug/l	Qualifier	RDL ug/l	Dilution	Analysis date / time	Batch
Dibenz(a,h)anthracene	ND		0.0500	1	07/18/2019 14:00	<a href="#">WG1313197</a>
Fluoranthene	ND		0.0500	1	07/18/2019 14:00	<a href="#">WG1313197</a>
Fluorene	ND		0.0500	1	07/18/2019 14:00	<a href="#">WG1313197</a>
Indeno(1,2,3-cd)pyrene	ND		0.0500	1	07/18/2019 14:00	<a href="#">WG1313197</a>
Naphthalene	ND	J4	0.250	1	07/18/2019 14:00	<a href="#">WG1313197</a>
Phenanthrene	ND		0.0500	1	07/18/2019 14:00	<a href="#">WG1313197</a>
Pyrene	ND		0.0500	1	07/18/2019 14:00	<a href="#">WG1313197</a>
(S) Nitrobenzene-d5	62.5		11.0-135		07/18/2019 14:00	<a href="#">WG1313197</a>
(S) 2-Fluorobiphenyl	71.5		32.0-120		07/18/2019 14:00	<a href="#">WG1313197</a>
(S) p-Terphenyl-d14	97.0		23.0-122		07/18/2019 14:00	<a href="#">WG1313197</a>

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc



Wet Chemistry by Method 4500CN E-2011

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	ug/l		ug/l		date / time	
Cyanide	ND		5.00	1	07/22/2019 13:53	<a href="#">WG1314084</a>

1 Cp

2 Tc

Mercury by Method 7470A

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	ug/l		ug/l		date / time	
Mercury	ND		0.200	1	07/16/2019 20:09	<a href="#">WG1311778</a>

3 Ss

4 Cn

Metals (ICP) by Method 6010D

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	ug/l		ug/l		date / time	
Aluminum	ND		200	1	07/16/2019 10:54	<a href="#">WG1310256</a>
Antimony	ND		10.0	1	07/16/2019 10:54	<a href="#">WG1310256</a>
Arsenic	ND		10.0	1	07/16/2019 10:54	<a href="#">WG1310256</a>
Barium	45.3		5.00	1	07/16/2019 10:54	<a href="#">WG1310256</a>
Beryllium	ND		2.00	1	07/16/2019 10:54	<a href="#">WG1310256</a>
Cadmium	ND		2.00	1	07/16/2019 10:54	<a href="#">WG1310256</a>
Calcium	11900		1000	1	07/16/2019 10:54	<a href="#">WG1310256</a>
Chromium	ND		10.0	1	07/16/2019 10:54	<a href="#">WG1310256</a>
Cobalt	ND		10.0	1	07/16/2019 10:54	<a href="#">WG1310256</a>
Copper	ND		10.0	1	07/16/2019 10:54	<a href="#">WG1310256</a>
Iron	6850		100	1	07/16/2019 10:54	<a href="#">WG1310256</a>
Lead	ND		5.00	1	07/16/2019 10:54	<a href="#">WG1310256</a>
Magnesium	14000		1000	1	07/16/2019 10:54	<a href="#">WG1310256</a>
Manganese	716		10.0	1	07/16/2019 10:54	<a href="#">WG1310256</a>
Nickel	ND		10.0	1	07/16/2019 10:54	<a href="#">WG1310256</a>
Potassium	ND		1000	1	07/16/2019 10:54	<a href="#">WG1310256</a>
Selenium	ND		10.0	1	07/16/2019 10:54	<a href="#">WG1310256</a>
Silver	ND		5.00	1	07/16/2019 10:54	<a href="#">WG1310256</a>
Sodium	118000		1000	1	07/16/2019 10:54	<a href="#">WG1310256</a>
Thallium	ND		10.0	1	07/16/2019 10:54	<a href="#">WG1310256</a>
Vanadium	ND		20.0	1	07/16/2019 10:54	<a href="#">WG1310256</a>
Zinc	ND		50.0	1	07/16/2019 10:54	<a href="#">WG1310256</a>

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	ug/l		ug/l		date / time	
Acetone	ND		50.0	1	07/16/2019 13:17	<a href="#">WG1312100</a>
Benzene	ND		1.00	1	07/16/2019 13:17	<a href="#">WG1312100</a>
Bromochloromethane	ND		1.00	1	07/16/2019 13:17	<a href="#">WG1312100</a>
Bromodichloromethane	ND		1.00	1	07/16/2019 13:17	<a href="#">WG1312100</a>
Bromoform	ND		1.00	1	07/16/2019 13:17	<a href="#">WG1312100</a>
Bromomethane	ND		5.00	1	07/16/2019 13:17	<a href="#">WG1312100</a>
Carbon disulfide	ND		1.00	1	07/16/2019 13:17	<a href="#">WG1312100</a>
Carbon tetrachloride	ND		1.00	1	07/16/2019 13:17	<a href="#">WG1312100</a>
Chlorobenzene	ND		1.00	1	07/16/2019 13:17	<a href="#">WG1312100</a>
Chlorodibromomethane	ND		1.00	1	07/16/2019 13:17	<a href="#">WG1312100</a>
Chloroethane	ND		5.00	1	07/16/2019 13:17	<a href="#">WG1312100</a>
Chloroform	ND		5.00	1	07/16/2019 13:17	<a href="#">WG1312100</a>
Chloromethane	ND		2.50	1	07/16/2019 13:17	<a href="#">WG1312100</a>
Cyclohexane	ND		1.00	1	07/16/2019 13:17	<a href="#">WG1312100</a>
1,2-Dibromo-3-Chloropropane	ND		5.00	1	07/16/2019 13:17	<a href="#">WG1312100</a>
1,2-Dibromoethane	ND		1.00	1	07/16/2019 13:17	<a href="#">WG1312100</a>
1,2-Dichlorobenzene	ND		1.00	1	07/16/2019 13:17	<a href="#">WG1312100</a>
1,3-Dichlorobenzene	ND		1.00	1	07/16/2019 13:17	<a href="#">WG1312100</a>





Collected date/time: 07/11/19 15:30

L1118284

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	ug/l		ug/l		date / time	
1,4-Dichlorobenzene	ND		1.00	1	07/16/2019 13:17	WG1312100
Dichlorodifluoromethane	ND		5.00	1	07/16/2019 13:17	WG1312100
1,1-Dichloroethane	ND		1.00	1	07/16/2019 13:17	WG1312100
1,2-Dichloroethane	ND		1.00	1	07/16/2019 13:17	WG1312100
1,1-Dichloroethene	ND		1.00	1	07/16/2019 13:17	WG1312100
cis-1,2-Dichloroethene	ND		1.00	1	07/16/2019 13:17	WG1312100
trans-1,2-Dichloroethene	ND		1.00	1	07/16/2019 13:17	WG1312100
1,2-Dichloropropane	ND		1.00	1	07/16/2019 13:17	WG1312100
cis-1,3-Dichloropropene	ND		1.00	1	07/16/2019 13:17	WG1312100
trans-1,3-Dichloropropene	ND		1.00	1	07/16/2019 13:17	WG1312100
Ethylbenzene	ND		1.00	1	07/16/2019 13:17	WG1312100
2-Hexanone	ND		10.0	1	07/16/2019 13:17	WG1312100
Isopropylbenzene	ND		1.00	1	07/16/2019 13:17	WG1312100
2-Butanone (MEK)	ND		10.0	1	07/16/2019 13:17	WG1312100
Methyl Acetate	ND		20.0	1	07/16/2019 13:17	WG1312100
Methyl Cyclohexane	ND		1.00	1	07/16/2019 13:17	WG1312100
Methylene Chloride	ND		5.00	1	07/16/2019 13:17	WG1312100
4-Methyl-2-pentanone (MIBK)	ND		10.0	1	07/16/2019 13:17	WG1312100
Methyl tert-butyl ether	ND		1.00	1	07/16/2019 13:17	WG1312100
Styrene	ND		1.00	1	07/16/2019 13:17	WG1312100
1,1,2,2-Tetrachloroethane	ND		1.00	1	07/16/2019 13:17	WG1312100
Tetrachloroethene	ND		1.00	1	07/16/2019 13:17	WG1312100
Toluene	ND		1.00	1	07/16/2019 13:17	WG1312100
1,2,3-Trichlorobenzene	ND		1.00	1	07/16/2019 13:17	WG1312100
1,2,4-Trichlorobenzene	ND		1.00	1	07/16/2019 13:17	WG1312100
1,1,1-Trichloroethane	ND		1.00	1	07/16/2019 13:17	WG1312100
1,1,2-Trichloroethane	ND		1.00	1	07/16/2019 13:17	WG1312100
Trichloroethene	ND		1.00	1	07/16/2019 13:17	WG1312100
Trichlorofluoromethane	ND		5.00	1	07/16/2019 13:17	WG1312100
1,1,2-Trichlorotrifluoroethane	ND		1.00	1	07/16/2019 13:17	WG1312100
Vinyl chloride	ND		1.00	1	07/16/2019 13:17	WG1312100
Xylenes, Total	ND		3.00	1	07/16/2019 13:17	WG1312100
(S) Toluene-d8	100		80.0-120		07/16/2019 13:17	WG1312100
(S) 4-Bromofluorobenzene	94.8		77.0-126		07/16/2019 13:17	WG1312100
(S) 1,2-Dichloroethane-d4	108		70.0-130		07/16/2019 13:17	WG1312100

- 1 Cp
- 2 Tc
- 3 Ss
- 4 Cn
- 5 Sr
- 6 Qc
- 7 Gl
- 8 Al
- 9 Sc

Pesticides (GC) by Method 8081B

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	ug/l		ug/l		date / time	
Aldrin	ND	J4	0.0500	1	07/19/2019 09:57	WG1312998
Alpha BHC	ND	J4	0.0500	1	07/19/2019 09:57	WG1312998
Beta BHC	ND	J4	0.0500	1	07/19/2019 09:57	WG1312998
Delta BHC	ND		0.0500	1	07/19/2019 09:57	WG1312998
Gamma BHC	ND	J4	0.0500	1	07/19/2019 09:57	WG1312998
Chlordane	ND		5.00	1	07/19/2019 09:57	WG1312998
4,4-DDD	ND		0.0500	1	07/19/2019 09:57	WG1312998
4,4-DDE	ND		0.0500	1	07/19/2019 09:57	WG1312998
4,4-DDT	ND		0.0500	1	07/19/2019 09:57	WG1312998
Dieldrin	ND		0.0500	1	07/19/2019 09:57	WG1312998
Endosulfan I	ND	J4	0.0500	1	07/19/2019 09:57	WG1312998
Endosulfan II	ND		0.0500	1	07/19/2019 09:57	WG1312998
Endosulfan sulfate	ND		0.0500	1	07/19/2019 09:57	WG1312998
Endrin	ND		0.0500	1	07/19/2019 09:57	WG1312998
Endrin aldehyde	ND		0.0500	1	07/19/2019 09:57	WG1312998
Endrin ketone	ND		0.0500	1	07/19/2019 09:57	WG1312998
Heptachlor	ND	J4	0.0500	1	07/19/2019 09:57	WG1312998



Collected date/time: 07/11/19 15:30

L1118284

Pesticides (GC) by Method 8081B

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	ug/l		ug/l		date / time	
Heptachlor epoxide	ND	J4	0.0500	1	07/19/2019 09:57	WG1312998
Hexachlorobenzene	ND	J4	0.0500	1	07/19/2019 09:57	WG1312998
Methoxychlor	ND		0.0500	1	07/19/2019 09:57	WG1312998
Toxaphene	ND		0.500	1	07/19/2019 09:57	WG1312998
(S) Decachlorobiphenyl	94.2		10.0-128		07/19/2019 09:57	WG1312998
(S) Tetrachloro-m-xylene	69.7		10.0-127		07/19/2019 09:57	WG1312998

Sample Narrative:

L1118284-03 WG1312998: Duplicate analysis was performed.

Polychlorinated Biphenyls (GC) by Method 8082 A

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	ug/l		ug/l		date / time	
PCB 1016	ND		0.500	1	07/21/2019 14:06	WG1314363
PCB 1221	ND		0.500	1	07/21/2019 14:06	WG1314363
PCB 1232	ND		0.500	1	07/21/2019 14:06	WG1314363
PCB 1242	ND		0.500	1	07/21/2019 14:06	WG1314363
PCB 1248	ND		0.500	1	07/21/2019 14:06	WG1314363
PCB 1254	ND		0.500	1	07/21/2019 14:06	WG1314363
PCB 1260	ND		0.500	1	07/21/2019 14:06	WG1314363
(S) Decachlorobiphenyl	96.7		10.0-128		07/21/2019 14:06	WG1314363
(S) Tetrachloro-m-xylene	83.9		10.0-127		07/21/2019 14:06	WG1314363

Semi Volatile Organic Compounds (GC/MS) by Method 8270D

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	ug/l		ug/l		date / time	
Acenaphthene	ND	J4	1.00	1	07/20/2019 07:44	WG1311664
Acenaphthylene	ND	J4	1.00	1	07/20/2019 07:44	WG1311664
Acetophenone	ND	J4	10.0	1	07/20/2019 07:44	WG1311664
Anthracene	ND	J4	1.00	1	07/20/2019 07:44	WG1311664
Atrazine	ND	J4	10.0	1	07/20/2019 07:44	WG1311664
Benzaldehyde	ND	J4	10.0	1	07/20/2019 07:44	WG1311664
Benzo(a)anthracene	ND		1.00	1	07/20/2019 07:44	WG1311664
Benzo(b)fluoranthene	ND		1.00	1	07/20/2019 07:44	WG1311664
Benzo(k)fluoranthene	ND		1.00	1	07/20/2019 07:44	WG1311664
Benzo(g,h,i)perylene	ND		1.00	1	07/20/2019 07:44	WG1311664
Benzo(a)pyrene	ND		1.00	1	07/20/2019 07:44	WG1311664
Biphenyl	ND	J4	10.0	1	07/20/2019 07:44	WG1311664
Bis(2-chloroethoxy)methane	ND	J4	10.0	1	07/20/2019 07:44	WG1311664
Bis(2-chloroethyl)ether	ND	J4	10.0	1	07/20/2019 07:44	WG1311664
Bis(2-chloroisopropyl)ether	ND	J4	10.0	1	07/20/2019 07:44	WG1311664
4-Bromophenyl-phenylether	ND	J4	10.0	1	07/20/2019 07:44	WG1311664
Caprolactam	ND	J4	10.0	1	07/20/2019 07:44	WG1311664
Carbazole	ND	J4	10.0	1	07/20/2019 07:44	WG1311664
4-Chloroaniline	ND	J4	10.0	1	07/20/2019 07:44	WG1311664
2-Chloronaphthalene	ND	J4	1.00	1	07/20/2019 07:44	WG1311664
4-Chlorophenyl-phenylether	ND	J4	10.0	1	07/20/2019 07:44	WG1311664
Chrysene	ND		1.00	1	07/20/2019 07:44	WG1311664
Dibenz(a,h)anthracene	ND		1.00	1	07/20/2019 07:44	WG1311664
Dibenzofuran	ND	J4	10.0	1	07/20/2019 07:44	WG1311664
3,3-Dichlorobenzidine	ND	J4	10.0	1	07/20/2019 07:44	WG1311664
2,4-Dinitrotoluene	ND	J4	10.0	1	07/20/2019 07:44	WG1311664
2,6-Dinitrotoluene	ND	J4	10.0	1	07/20/2019 07:44	WG1311664
Fluoranthene	ND	J4	1.00	1	07/20/2019 07:44	WG1311664
Fluorene	ND	J4	1.00	1	07/20/2019 07:44	WG1311664

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc



Collected date/time: 07/11/19 15:30

L1118284

Semi Volatile Organic Compounds (GC/MS) by Method 8270D

Analyte	Result ug/l	Qualifier	RDL ug/l	Dilution	Analysis date / time	Batch
Hexachlorobenzene	ND	J4	1.00	1	07/20/2019 07:44	WG1311664
Hexachloro-1,3-butadiene	ND	J4	10.0	1	07/20/2019 07:44	WG1311664
Hexachlorocyclopentadiene	ND	J4	10.0	1	07/20/2019 07:44	WG1311664
Hexachloroethane	ND	J4	10.0	1	07/20/2019 07:44	WG1311664
Indeno(1,2,3-cd)pyrene	ND	J4	1.00	1	07/20/2019 07:44	WG1311664
Isophorone	ND	J4	10.0	1	07/20/2019 07:44	WG1311664
2-Methylnaphthalene	ND	J4	1.00	1	07/20/2019 07:44	WG1311664
Naphthalene	ND	J4	1.00	1	07/20/2019 07:44	WG1311664
2-Nitroaniline	ND	J4	10.0	1	07/20/2019 07:44	WG1311664
3-Nitroaniline	ND	J4	10.0	1	07/20/2019 07:44	WG1311664
4-Nitroaniline	ND	J4	10.0	1	07/20/2019 07:44	WG1311664
Nitrobenzene	ND	J4	10.0	1	07/20/2019 07:44	WG1311664
n-Nitrosodiphenylamine	ND	J4	10.0	1	07/20/2019 07:44	WG1311664
n-Nitrosodi-n-propylamine	ND	J4	10.0	1	07/20/2019 07:44	WG1311664
Phenanthrene	ND	J4	1.00	1	07/20/2019 07:44	WG1311664
Benzylbutyl phthalate	ND	J4	3.00	1	07/20/2019 07:44	WG1311664
Bis(2-ethylhexyl)phthalate	ND	J4	3.00	1	07/20/2019 07:44	WG1311664
Di-n-butyl phthalate	ND	J4	3.00	1	07/20/2019 07:44	WG1311664
Diethyl phthalate	ND	J4	3.00	1	07/20/2019 07:44	WG1311664
Dimethyl phthalate	ND	J4	3.00	1	07/20/2019 07:44	WG1311664
Di-n-octyl phthalate	ND	J4	3.00	1	07/20/2019 07:44	WG1311664
Pyrene	ND	J4	1.00	1	07/20/2019 07:44	WG1311664
1,2,4,5-Tetrachlorobenzene	ND	J4	10.0	1	07/20/2019 07:44	WG1311664
4-Chloro-3-methylphenol	ND	J4	10.0	1	07/20/2019 07:44	WG1311664
2-Chlorophenol	ND	J4	10.0	1	07/20/2019 07:44	WG1311664
2-Methylphenol	ND	J4	10.0	1	07/20/2019 07:44	WG1311664
3&4-Methyl Phenol	ND	J4	10.0	1	07/20/2019 07:44	WG1311664
2,4-Dichlorophenol	ND	J4	10.0	1	07/20/2019 07:44	WG1311664
2,4-Dimethylphenol	ND	J4	10.0	1	07/20/2019 07:44	WG1311664
4,6-Dinitro-2-methylphenol	ND	J4	10.0	1	07/20/2019 07:44	WG1311664
2,4-Dinitrophenol	ND	J4	10.0	1	07/20/2019 07:44	WG1311664
2-Nitrophenol	ND	J4	10.0	1	07/20/2019 07:44	WG1311664
4-Nitrophenol	ND	J4	10.0	1	07/20/2019 07:44	WG1311664
Pentachlorophenol	ND	J4	10.0	1	07/20/2019 07:44	WG1311664
Phenol	ND	J4	10.0	1	07/20/2019 07:44	WG1311664
2,4,5-Trichlorophenol	ND	J4	10.0	1	07/20/2019 07:44	WG1311664
2,4,6-Trichlorophenol	ND	J4	10.0	1	07/20/2019 07:44	WG1311664
(S) Nitrobenzene-d5	32.0		10.0-127		07/20/2019 07:44	WG1311664
(S) 2-Fluorobiphenyl	38.7		10.0-130		07/20/2019 07:44	WG1311664
(S) p-Terphenyl-d14	69.6		10.0-128		07/20/2019 07:44	WG1311664
(S) Phenol-d5	13.4		10.0-120		07/20/2019 07:44	WG1311664
(S) 2-Fluorophenol	22.5		10.0-120		07/20/2019 07:44	WG1311664
(S) 2,4,6-Tribromophenol	48.2		10.0-155		07/20/2019 07:44	WG1311664

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

Semi Volatile Organic Compounds (GC/MS) by Method 8270E-SIM

Analyte	Result ug/l	Qualifier	RDL ug/l	Dilution	Analysis date / time	Batch
Anthracene	ND		0.0500	1	07/16/2019 03:01	WG1311224
Acenaphthene	ND	J4	0.0500	1	07/16/2019 03:01	WG1311224
Acenaphthylene	ND	J4	0.0500	1	07/16/2019 03:01	WG1311224
Benzo(a)anthracene	ND		0.0500	1	07/16/2019 03:01	WG1311224
Benzo(a)pyrene	ND		0.0500	1	07/16/2019 03:01	WG1311224
Benzo(b)fluoranthene	ND		0.0500	1	07/16/2019 03:01	WG1311224
Benzo(g,h,i)perylene	ND		0.0500	1	07/16/2019 03:01	WG1311224
Benzo(k)fluoranthene	ND		0.0500	1	07/16/2019 03:01	WG1311224
Chrysene	ND		0.0500	1	07/16/2019 03:01	WG1311224



Collected date/time: 07/11/19 15:30

L1118284

Semi Volatile Organic Compounds (GC/MS) by Method 8270E-SIM

Analyte	Result ug/l	Qualifier	RDL ug/l	Dilution	Analysis date / time	Batch
Dibenz(a,h)anthracene	ND		0.0500	1	07/16/2019 03:01	<a href="#">WG1311224</a>
Fluoranthene	ND		0.0500	1	07/16/2019 03:01	<a href="#">WG1311224</a>
Fluorene	ND	J4	0.0500	1	07/16/2019 03:01	<a href="#">WG1311224</a>
Indeno(1,2,3-cd)pyrene	ND		0.0500	1	07/16/2019 03:01	<a href="#">WG1311224</a>
Naphthalene	ND	J4	0.250	1	07/16/2019 03:01	<a href="#">WG1311224</a>
Phenanthrene	ND	J4	0.0500	1	07/16/2019 03:01	<a href="#">WG1311224</a>
Pyrene	ND		0.0500	1	07/16/2019 03:01	<a href="#">WG1311224</a>
(S) Nitrobenzene-d5	94.8		11.0-135		07/16/2019 03:01	<a href="#">WG1311224</a>
(S) 2-Fluorobiphenyl	44.7		32.0-120		07/16/2019 03:01	<a href="#">WG1311224</a>
(S) p-Terphenyl-d14	76.3		23.0-122		07/16/2019 03:01	<a href="#">WG1311224</a>

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc



Wet Chemistry by Method 4500CN E-2011

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	ug/l		ug/l		date / time	
Cyanide	ND		5.00	1	07/22/2019 13:56	<a href="#">WG1314084</a>

Mercury by Method 7470A

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	ug/l		ug/l		date / time	
Mercury	ND		0.200	1	07/16/2019 13:40	<a href="#">WG1311284</a>

Metals (ICP) by Method 6010D

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	ug/l		ug/l		date / time	
Aluminum	ND		200	1	07/16/2019 10:57	<a href="#">WG1310256</a>
Antimony	ND		10.0	1	07/16/2019 10:57	<a href="#">WG1310256</a>
Arsenic	ND		10.0	1	07/16/2019 10:57	<a href="#">WG1310256</a>
Barium	382		5.00	1	07/16/2019 10:57	<a href="#">WG1310256</a>
Beryllium	ND		2.00	1	07/16/2019 10:57	<a href="#">WG1310256</a>
Cadmium	ND		2.00	1	07/16/2019 10:57	<a href="#">WG1310256</a>
Calcium	67600		1000	1	07/16/2019 10:57	<a href="#">WG1310256</a>
Chromium	ND		10.0	1	07/16/2019 10:57	<a href="#">WG1310256</a>
Cobalt	11.5		10.0	1	07/16/2019 10:57	<a href="#">WG1310256</a>
Copper	ND		10.0	1	07/16/2019 10:57	<a href="#">WG1310256</a>
Iron	20200		100	1	07/16/2019 10:57	<a href="#">WG1310256</a>
Lead	ND		5.00	1	07/16/2019 10:57	<a href="#">WG1310256</a>
Magnesium	44900		1000	1	07/16/2019 10:57	<a href="#">WG1310256</a>
Manganese	15500		50.0	5	07/16/2019 13:49	<a href="#">WG1310256</a>
Nickel	27.6		10.0	1	07/16/2019 10:57	<a href="#">WG1310256</a>
Potassium	1450		1000	1	07/16/2019 10:57	<a href="#">WG1310256</a>
Selenium	ND		10.0	1	07/16/2019 10:57	<a href="#">WG1310256</a>
Silver	ND		5.00	1	07/16/2019 10:57	<a href="#">WG1310256</a>
Sodium	103000		1000	1	07/16/2019 10:57	<a href="#">WG1310256</a>
Thallium	ND		10.0	1	07/16/2019 10:57	<a href="#">WG1310256</a>
Vanadium	ND		20.0	1	07/16/2019 10:57	<a href="#">WG1310256</a>
Zinc	ND		50.0	1	07/16/2019 10:57	<a href="#">WG1310256</a>

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	ug/l		ug/l		date / time	
Acetone	ND		50.0	1	07/16/2019 13:37	<a href="#">WG1312100</a>
Benzene	ND		1.00	1	07/16/2019 13:37	<a href="#">WG1312100</a>
Bromochloromethane	ND		1.00	1	07/16/2019 13:37	<a href="#">WG1312100</a>
Bromodichloromethane	ND		1.00	1	07/16/2019 13:37	<a href="#">WG1312100</a>
Bromoform	ND		1.00	1	07/16/2019 13:37	<a href="#">WG1312100</a>
Bromomethane	ND		5.00	1	07/16/2019 13:37	<a href="#">WG1312100</a>
Carbon disulfide	ND		1.00	1	07/16/2019 13:37	<a href="#">WG1312100</a>
Carbon tetrachloride	ND		1.00	1	07/16/2019 13:37	<a href="#">WG1312100</a>
Chlorobenzene	ND		1.00	1	07/16/2019 13:37	<a href="#">WG1312100</a>
Chlorodibromomethane	ND		1.00	1	07/16/2019 13:37	<a href="#">WG1312100</a>
Chloroethane	ND		5.00	1	07/16/2019 13:37	<a href="#">WG1312100</a>
Chloroform	ND		5.00	1	07/16/2019 13:37	<a href="#">WG1312100</a>
Chloromethane	ND		2.50	1	07/16/2019 13:37	<a href="#">WG1312100</a>
Cyclohexane	ND		1.00	1	07/16/2019 13:37	<a href="#">WG1312100</a>
1,2-Dibromo-3-Chloropropane	ND		5.00	1	07/16/2019 13:37	<a href="#">WG1312100</a>
1,2-Dibromoethane	ND		1.00	1	07/16/2019 13:37	<a href="#">WG1312100</a>
1,2-Dichlorobenzene	ND		1.00	1	07/16/2019 13:37	<a href="#">WG1312100</a>
1,3-Dichlorobenzene	ND		1.00	1	07/16/2019 13:37	<a href="#">WG1312100</a>

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc



Collected date/time: 07/11/19 12:47

L1118284

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result ug/l	Qualifier	RDL ug/l	Dilution	Analysis date / time	Batch
1,4-Dichlorobenzene	ND		1.00	1	07/16/2019 13:37	WG1312100
Dichlorodifluoromethane	ND		5.00	1	07/16/2019 13:37	WG1312100
1,1-Dichloroethane	ND		1.00	1	07/16/2019 13:37	WG1312100
1,2-Dichloroethane	ND		1.00	1	07/16/2019 13:37	WG1312100
1,1-Dichloroethene	ND		1.00	1	07/16/2019 13:37	WG1312100
cis-1,2-Dichloroethene	ND		1.00	1	07/16/2019 13:37	WG1312100
trans-1,2-Dichloroethene	ND		1.00	1	07/16/2019 13:37	WG1312100
1,2-Dichloropropane	ND		1.00	1	07/16/2019 13:37	WG1312100
cis-1,3-Dichloropropene	ND		1.00	1	07/16/2019 13:37	WG1312100
trans-1,3-Dichloropropene	ND		1.00	1	07/16/2019 13:37	WG1312100
Ethylbenzene	ND		1.00	1	07/16/2019 13:37	WG1312100
2-Hexanone	ND		10.0	1	07/16/2019 13:37	WG1312100
Isopropylbenzene	ND		1.00	1	07/16/2019 13:37	WG1312100
2-Butanone (MEK)	ND		10.0	1	07/16/2019 13:37	WG1312100
Methyl Acetate	ND		20.0	1	07/16/2019 13:37	WG1312100
Methyl Cyclohexane	ND		1.00	1	07/16/2019 13:37	WG1312100
Methylene Chloride	ND		5.00	1	07/16/2019 13:37	WG1312100
4-Methyl-2-pentanone (MIBK)	ND		10.0	1	07/16/2019 13:37	WG1312100
Methyl tert-butyl ether	ND		1.00	1	07/16/2019 13:37	WG1312100
Styrene	ND		1.00	1	07/16/2019 13:37	WG1312100
1,1,2,2-Tetrachloroethane	ND		1.00	1	07/16/2019 13:37	WG1312100
Tetrachloroethene	ND		1.00	1	07/16/2019 13:37	WG1312100
Toluene	ND		1.00	1	07/16/2019 13:37	WG1312100
1,2,3-Trichlorobenzene	ND		1.00	1	07/16/2019 13:37	WG1312100
1,2,4-Trichlorobenzene	ND		1.00	1	07/16/2019 13:37	WG1312100
1,1,1-Trichloroethane	ND		1.00	1	07/16/2019 13:37	WG1312100
1,1,2-Trichloroethane	ND		1.00	1	07/16/2019 13:37	WG1312100
Trichloroethene	ND		1.00	1	07/16/2019 13:37	WG1312100
Trichlorofluoromethane	ND		5.00	1	07/16/2019 13:37	WG1312100
1,1,2-Trichlorotrifluoroethane	ND		1.00	1	07/16/2019 13:37	WG1312100
Vinyl chloride	ND		1.00	1	07/16/2019 13:37	WG1312100
Xylenes, Total	ND		3.00	1	07/16/2019 13:37	WG1312100
(S) Toluene-d8	95.1		80.0-120		07/16/2019 13:37	WG1312100
(S) 4-Bromofluorobenzene	90.4		77.0-126		07/16/2019 13:37	WG1312100
(S) 1,2-Dichloroethane-d4	108		70.0-130		07/16/2019 13:37	WG1312100

- 1 Cp
- 2 Tc
- 3 Ss
- 4 Cn
- 5 Sr
- 6 Qc
- 7 Gl
- 8 Al
- 9 Sc

Pesticides (GC) by Method 8081B

Analyte	Result ug/l	Qualifier	RDL ug/l	Dilution	Analysis date / time	Batch
Aldrin	ND	J4	0.0500	1	07/19/2019 10:37	WG1312998
Alpha BHC	ND	J4	0.0500	1	07/19/2019 10:37	WG1312998
Beta BHC	ND	J4	0.0500	1	07/19/2019 10:37	WG1312998
Delta BHC	ND		0.0500	1	07/19/2019 10:37	WG1312998
Gamma BHC	ND	J4	0.0500	1	07/19/2019 10:37	WG1312998
Chlordane	ND		5.00	1	07/19/2019 10:37	WG1312998
4,4-DDD	ND		0.0500	1	07/19/2019 10:37	WG1312998
4,4-DDE	ND		0.0500	1	07/19/2019 10:37	WG1312998
4,4-DDT	ND		0.0500	1	07/19/2019 10:37	WG1312998
Dieldrin	ND		0.0500	1	07/19/2019 10:37	WG1312998
Endosulfan I	ND	J4	0.0500	1	07/19/2019 10:37	WG1312998
Endosulfan II	ND		0.0500	1	07/19/2019 10:37	WG1312998
Endosulfan sulfate	ND		0.0500	1	07/19/2019 10:37	WG1312998
Endrin	ND		0.0500	1	07/19/2019 10:37	WG1312998
Endrin aldehyde	ND		0.0500	1	07/19/2019 10:37	WG1312998
Endrin ketone	ND		0.0500	1	07/19/2019 10:37	WG1312998
Heptachlor	ND	J4	0.0500	1	07/19/2019 10:37	WG1312998



Collected date/time: 07/11/19 12:47

L1118284

Pesticides (GC) by Method 8081B

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	ug/l		ug/l		date / time	
Heptachlor epoxide	ND	J4	0.0500	1	07/19/2019 10:37	WG1312998
Hexachlorobenzene	ND	J4	0.0500	1	07/19/2019 10:37	WG1312998
Methoxychlor	ND		0.0500	1	07/19/2019 10:37	WG1312998
Toxaphene	ND		0.500	1	07/19/2019 10:37	WG1312998
(S) Decachlorobiphenyl	105		10.0-128		07/19/2019 10:37	WG1312998
(S) Tetrachloro-m-xylene	64.4		10.0-127		07/19/2019 10:37	WG1312998

Sample Narrative:

L1118284-04 WG1312998: Duplicate analysis was performed.

Polychlorinated Biphenyls (GC) by Method 8082 A

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	ug/l		ug/l		date / time	
PCB 1016	ND		0.500	1	07/21/2019 14:19	WG1314363
PCB 1221	ND		0.500	1	07/21/2019 14:19	WG1314363
PCB 1232	ND		0.500	1	07/21/2019 14:19	WG1314363
PCB 1242	ND		0.500	1	07/21/2019 14:19	WG1314363
PCB 1248	ND		0.500	1	07/21/2019 14:19	WG1314363
PCB 1254	ND		0.500	1	07/21/2019 14:19	WG1314363
PCB 1260	ND		0.500	1	07/21/2019 14:19	WG1314363
(S) Decachlorobiphenyl	102		10.0-128		07/21/2019 14:19	WG1314363
(S) Tetrachloro-m-xylene	85.2		10.0-127		07/21/2019 14:19	WG1314363

Semi Volatile Organic Compounds (GC/MS) by Method 8270D

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	ug/l		ug/l		date / time	
Acenaphthene	ND	J4	1.00	1	07/20/2019 08:06	WG1311664
Acenaphthylene	ND	J4	1.00	1	07/20/2019 08:06	WG1311664
Acetophenone	ND	J4	10.0	1	07/20/2019 08:06	WG1311664
Anthracene	ND	J4	1.00	1	07/20/2019 08:06	WG1311664
Atrazine	ND	J4	10.0	1	07/20/2019 08:06	WG1311664
Benzaldehyde	ND	J4	10.0	1	07/20/2019 08:06	WG1311664
Benzo(a)anthracene	ND		1.00	1	07/20/2019 08:06	WG1311664
Benzo(b)fluoranthene	ND		1.00	1	07/20/2019 08:06	WG1311664
Benzo(k)fluoranthene	ND		1.00	1	07/20/2019 08:06	WG1311664
Benzo(g,h,i)perylene	ND		1.00	1	07/20/2019 08:06	WG1311664
Benzo(a)pyrene	ND		1.00	1	07/20/2019 08:06	WG1311664
Biphenyl	ND	J4	10.0	1	07/20/2019 08:06	WG1311664
Bis(2-chloroethoxy)methane	ND	J4	10.0	1	07/20/2019 08:06	WG1311664
Bis(2-chloroethyl)ether	ND	J4	10.0	1	07/20/2019 08:06	WG1311664
Bis(2-chloroisopropyl)ether	ND	J4	10.0	1	07/20/2019 08:06	WG1311664
4-Bromophenyl-phenylether	ND	J4	10.0	1	07/20/2019 08:06	WG1311664
Caprolactam	ND	J4	10.0	1	07/20/2019 08:06	WG1311664
Carbazole	ND	J4	10.0	1	07/20/2019 08:06	WG1311664
4-Chloroaniline	ND	J4	10.0	1	07/20/2019 08:06	WG1311664
2-Chloronaphthalene	ND	J4	1.00	1	07/20/2019 08:06	WG1311664
4-Chlorophenyl-phenylether	ND	J4	10.0	1	07/20/2019 08:06	WG1311664
Chrysene	ND		1.00	1	07/20/2019 08:06	WG1311664
Dibenz(a,h)anthracene	ND		1.00	1	07/20/2019 08:06	WG1311664
Dibenzofuran	ND	J4	10.0	1	07/20/2019 08:06	WG1311664
3,3-Dichlorobenzidine	ND	J4	10.0	1	07/20/2019 08:06	WG1311664
2,4-Dinitrotoluene	ND	J4	10.0	1	07/20/2019 08:06	WG1311664
2,6-Dinitrotoluene	ND	J4	10.0	1	07/20/2019 08:06	WG1311664
Fluoranthene	ND	J4	1.00	1	07/20/2019 08:06	WG1311664
Fluorene	ND	J4	1.00	1	07/20/2019 08:06	WG1311664

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc



Collected date/time: 07/11/19 12:47

L1118284

Semi Volatile Organic Compounds (GC/MS) by Method 8270D

Analyte	Result ug/l	Qualifier	RDL ug/l	Dilution	Analysis date / time	Batch
Hexachlorobenzene	ND	J4	1.00	1	07/20/2019 08:06	WG1311664
Hexachloro-1,3-butadiene	ND	J4	10.0	1	07/20/2019 08:06	WG1311664
Hexachlorocyclopentadiene	ND	J4	10.0	1	07/20/2019 08:06	WG1311664
Hexachloroethane	ND	J4	10.0	1	07/20/2019 08:06	WG1311664
Indeno(1,2,3-cd)pyrene	ND	J4	1.00	1	07/20/2019 08:06	WG1311664
Isophorone	ND	J4	10.0	1	07/20/2019 08:06	WG1311664
2-Methylnaphthalene	ND	J4	1.00	1	07/20/2019 08:06	WG1311664
Naphthalene	ND	J4	1.00	1	07/20/2019 08:06	WG1311664
2-Nitroaniline	ND	J4	10.0	1	07/20/2019 08:06	WG1311664
3-Nitroaniline	ND	J4	10.0	1	07/20/2019 08:06	WG1311664
4-Nitroaniline	ND	J4	10.0	1	07/20/2019 08:06	WG1311664
Nitrobenzene	ND	J4	10.0	1	07/20/2019 08:06	WG1311664
n-Nitrosodiphenylamine	ND	J4	10.0	1	07/20/2019 08:06	WG1311664
n-Nitrosodi-n-propylamine	ND	J4	10.0	1	07/20/2019 08:06	WG1311664
Phenanthrene	ND	J4	1.00	1	07/20/2019 08:06	WG1311664
Benzylbutyl phthalate	ND	J4	3.00	1	07/20/2019 08:06	WG1311664
Bis(2-ethylhexyl)phthalate	ND	J4	3.00	1	07/20/2019 08:06	WG1311664
Di-n-butyl phthalate	ND	J4	3.00	1	07/20/2019 08:06	WG1311664
Diethyl phthalate	ND	J4	3.00	1	07/20/2019 08:06	WG1311664
Dimethyl phthalate	ND	J4	3.00	1	07/20/2019 08:06	WG1311664
Di-n-octyl phthalate	ND	J4	3.00	1	07/20/2019 08:06	WG1311664
Pyrene	ND	J4	1.00	1	07/20/2019 08:06	WG1311664
1,2,4,5-Tetrachlorobenzene	ND	J4	10.0	1	07/20/2019 08:06	WG1311664
4-Chloro-3-methylphenol	ND	J4	10.0	1	07/20/2019 08:06	WG1311664
2-Chlorophenol	ND	J4	10.0	1	07/20/2019 08:06	WG1311664
2-Methylphenol	ND	J4	10.0	1	07/20/2019 08:06	WG1311664
3&4-Methyl Phenol	ND	J4	10.0	1	07/20/2019 08:06	WG1311664
2,4-Dichlorophenol	ND	J4	10.0	1	07/20/2019 08:06	WG1311664
2,4-Dimethylphenol	ND	J4	10.0	1	07/20/2019 08:06	WG1311664
4,6-Dinitro-2-methylphenol	ND	J4	10.0	1	07/20/2019 08:06	WG1311664
2,4-Dinitrophenol	ND	J4	10.0	1	07/20/2019 08:06	WG1311664
2-Nitrophenol	ND	J4	10.0	1	07/20/2019 08:06	WG1311664
4-Nitrophenol	ND	J4	10.0	1	07/20/2019 08:06	WG1311664
Pentachlorophenol	ND	J4	10.0	1	07/20/2019 08:06	WG1311664
Phenol	ND	J4	10.0	1	07/20/2019 08:06	WG1311664
2,4,5-Trichlorophenol	ND	J4	10.0	1	07/20/2019 08:06	WG1311664
2,4,6-Trichlorophenol	ND	J4	10.0	1	07/20/2019 08:06	WG1311664
(S) Nitrobenzene-d5	42.7		10.0-127		07/20/2019 08:06	WG1311664
(S) 2-Fluorobiphenyl	49.2		10.0-130		07/20/2019 08:06	WG1311664
(S) p-Terphenyl-d14	71.5		10.0-128		07/20/2019 08:06	WG1311664
(S) Phenol-d5	17.9		10.0-120		07/20/2019 08:06	WG1311664
(S) 2-Fluorophenol	30.2		10.0-120		07/20/2019 08:06	WG1311664
(S) 2,4,6-Tribromophenol	60.0		10.0-155		07/20/2019 08:06	WG1311664

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

Semi Volatile Organic Compounds (GC/MS) by Method 8270E-SIM

Analyte	Result ug/l	Qualifier	RDL ug/l	Dilution	Analysis date / time	Batch
Anthracene	ND		0.0500	1	07/16/2019 03:23	WG1311224
Acenaphthene	ND	J4	0.0500	1	07/16/2019 03:23	WG1311224
Acenaphthylene	ND	J4	0.0500	1	07/16/2019 03:23	WG1311224
Benzo(a)anthracene	ND		0.0500	1	07/16/2019 03:23	WG1311224
Benzo(a)pyrene	ND		0.0500	1	07/16/2019 03:23	WG1311224
Benzo(b)fluoranthene	ND		0.0500	1	07/16/2019 03:23	WG1311224
Benzo(g,h,i)perylene	ND		0.0500	1	07/16/2019 03:23	WG1311224
Benzo(k)fluoranthene	ND		0.0500	1	07/16/2019 03:23	WG1311224
Chrysene	ND		0.0500	1	07/16/2019 03:23	WG1311224





Collected date/time: 07/11/19 12:47

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Semi Volatile Organic Compounds (GC/MS) by Method 8270E-SIM

Analyte	Result ug/l	Qualifier	RDL ug/l	Dilution	Analysis date / time	Batch
Dibenz(a,h)anthracene	ND		0.0500	1	07/16/2019 03:23	<a href="#">WG1311224</a>
Fluoranthene	ND		0.0500	1	07/16/2019 03:23	<a href="#">WG1311224</a>
Fluorene	ND	J4	0.0500	1	07/16/2019 03:23	<a href="#">WG1311224</a>
Indeno(1,2,3-cd)pyrene	ND		0.0500	1	07/16/2019 03:23	<a href="#">WG1311224</a>
Naphthalene	ND	J4	0.250	1	07/16/2019 03:23	<a href="#">WG1311224</a>
Phenanthrene	ND	J4	0.0500	1	07/16/2019 03:23	<a href="#">WG1311224</a>
Pyrene	ND		0.0500	1	07/16/2019 03:23	<a href="#">WG1311224</a>
(S) Nitrobenzene-d5	90.3		11.0-135		07/16/2019 03:23	<a href="#">WG1311224</a>
(S) 2-Fluorobiphenyl	42.8		32.0-120		07/16/2019 03:23	<a href="#">WG1311224</a>
(S) p-Terphenyl-d14	71.4		23.0-122		07/16/2019 03:23	<a href="#">WG1311224</a>

- 1 Cp
- 2 Tc
- 3 Ss
- 4 Cn
- 5 Sr
- 6 Qc
- 7 Gl
- 8 Al
- 9 Sc



## Wet Chemistry by Method 4500CN E-2011

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	ug/l		ug/l		date / time	
Cyanide	ND		5.00	1	07/22/2019 13:57	<a href="#">WG1314084</a>

## Mercury by Method 7470A

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	ug/l		ug/l		date / time	
Mercury	ND		0.200	1	07/16/2019 13:43	<a href="#">WG1311284</a>

## Metals (ICP) by Method 6010D

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	ug/l		ug/l		date / time	
Aluminum	ND		200	1	07/16/2019 11:00	<a href="#">WG1310256</a>
Antimony	ND		10.0	1	07/16/2019 11:00	<a href="#">WG1310256</a>
Arsenic	ND		10.0	1	07/16/2019 11:00	<a href="#">WG1310256</a>
Barium	257		5.00	1	07/16/2019 11:00	<a href="#">WG1310256</a>
Beryllium	ND		2.00	1	07/16/2019 11:00	<a href="#">WG1310256</a>
Cadmium	ND		2.00	1	07/16/2019 11:00	<a href="#">WG1310256</a>
Calcium	120000		1000	1	07/16/2019 11:00	<a href="#">WG1310256</a>
Chromium	ND		10.0	1	07/16/2019 11:00	<a href="#">WG1310256</a>
Cobalt	39.1		10.0	1	07/16/2019 11:00	<a href="#">WG1310256</a>
Copper	ND		10.0	1	07/16/2019 11:00	<a href="#">WG1310256</a>
Iron	520		100	1	07/16/2019 11:00	<a href="#">WG1310256</a>
Lead	ND		5.00	1	07/16/2019 11:00	<a href="#">WG1310256</a>
Magnesium	84000		1000	1	07/16/2019 11:00	<a href="#">WG1310256</a>
Manganese	4900		10.0	1	07/16/2019 11:00	<a href="#">WG1310256</a>
Nickel	67.2		10.0	1	07/16/2019 11:00	<a href="#">WG1310256</a>
Potassium	3020		1000	1	07/16/2019 11:00	<a href="#">WG1310256</a>
Selenium	ND		10.0	1	07/16/2019 11:00	<a href="#">WG1310256</a>
Silver	ND		5.00	1	07/16/2019 11:00	<a href="#">WG1310256</a>
Sodium	326000		1000	1	07/16/2019 11:00	<a href="#">WG1310256</a>
Thallium	ND		10.0	1	07/16/2019 11:00	<a href="#">WG1310256</a>
Vanadium	ND		20.0	1	07/16/2019 11:00	<a href="#">WG1310256</a>
Zinc	ND		50.0	1	07/16/2019 11:00	<a href="#">WG1310256</a>

## Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	ug/l		ug/l		date / time	
Acetone	ND		50.0	1	07/16/2019 13:57	<a href="#">WG1312100</a>
Benzene	ND		1.00	1	07/16/2019 13:57	<a href="#">WG1312100</a>
Bromochloromethane	ND		1.00	1	07/16/2019 13:57	<a href="#">WG1312100</a>
Bromodichloromethane	ND		1.00	1	07/16/2019 13:57	<a href="#">WG1312100</a>
Bromoform	ND		1.00	1	07/16/2019 13:57	<a href="#">WG1312100</a>
Bromomethane	ND		5.00	1	07/16/2019 13:57	<a href="#">WG1312100</a>
Carbon disulfide	ND		1.00	1	07/16/2019 13:57	<a href="#">WG1312100</a>
Carbon tetrachloride	ND		1.00	1	07/16/2019 13:57	<a href="#">WG1312100</a>
Chlorobenzene	ND		1.00	1	07/16/2019 13:57	<a href="#">WG1312100</a>
Chlorodibromomethane	ND		1.00	1	07/16/2019 13:57	<a href="#">WG1312100</a>
Chloroethane	ND		5.00	1	07/16/2019 13:57	<a href="#">WG1312100</a>
Chloroform	ND		5.00	1	07/16/2019 13:57	<a href="#">WG1312100</a>
Chloromethane	ND		2.50	1	07/16/2019 13:57	<a href="#">WG1312100</a>
Cyclohexane	ND		1.00	1	07/16/2019 13:57	<a href="#">WG1312100</a>
1,2-Dibromo-3-Chloropropane	ND		5.00	1	07/16/2019 13:57	<a href="#">WG1312100</a>
1,2-Dibromoethane	ND		1.00	1	07/16/2019 13:57	<a href="#">WG1312100</a>
1,2-Dichlorobenzene	ND		1.00	1	07/16/2019 13:57	<a href="#">WG1312100</a>
1,3-Dichlorobenzene	ND		1.00	1	07/16/2019 13:57	<a href="#">WG1312100</a>

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc



Collected date/time: 07/11/19 10:50

L1118284

## Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result ug/l	Qualifier	RDL ug/l	Dilution	Analysis date / time	Batch
1,4-Dichlorobenzene	ND		1.00	1	07/16/2019 13:57	<a href="#">WG1312100</a>
Dichlorodifluoromethane	ND		5.00	1	07/16/2019 13:57	<a href="#">WG1312100</a>
1,1-Dichloroethane	ND		1.00	1	07/16/2019 13:57	<a href="#">WG1312100</a>
1,2-Dichloroethane	ND		1.00	1	07/16/2019 13:57	<a href="#">WG1312100</a>
1,1-Dichloroethene	ND		1.00	1	07/16/2019 13:57	<a href="#">WG1312100</a>
cis-1,2-Dichloroethene	ND		1.00	1	07/16/2019 13:57	<a href="#">WG1312100</a>
trans-1,2-Dichloroethene	ND		1.00	1	07/16/2019 13:57	<a href="#">WG1312100</a>
1,2-Dichloropropane	ND		1.00	1	07/16/2019 13:57	<a href="#">WG1312100</a>
cis-1,3-Dichloropropene	ND		1.00	1	07/16/2019 13:57	<a href="#">WG1312100</a>
trans-1,3-Dichloropropene	ND		1.00	1	07/16/2019 13:57	<a href="#">WG1312100</a>
Ethylbenzene	ND		1.00	1	07/16/2019 13:57	<a href="#">WG1312100</a>
2-Hexanone	ND		10.0	1	07/16/2019 13:57	<a href="#">WG1312100</a>
Isopropylbenzene	ND		1.00	1	07/16/2019 13:57	<a href="#">WG1312100</a>
2-Butanone (MEK)	ND		10.0	1	07/16/2019 13:57	<a href="#">WG1312100</a>
Methyl Acetate	ND		20.0	1	07/16/2019 13:57	<a href="#">WG1312100</a>
Methyl Cyclohexane	ND		1.00	1	07/16/2019 13:57	<a href="#">WG1312100</a>
Methylene Chloride	ND		5.00	1	07/16/2019 13:57	<a href="#">WG1312100</a>
4-Methyl-2-pentanone (MIBK)	ND		10.0	1	07/16/2019 13:57	<a href="#">WG1312100</a>
Methyl tert-butyl ether	ND		1.00	1	07/16/2019 13:57	<a href="#">WG1312100</a>
Styrene	ND		1.00	1	07/16/2019 13:57	<a href="#">WG1312100</a>
1,1,2,2-Tetrachloroethane	ND		1.00	1	07/16/2019 13:57	<a href="#">WG1312100</a>
Tetrachloroethene	ND		1.00	1	07/16/2019 13:57	<a href="#">WG1312100</a>
Toluene	3.60		1.00	1	07/16/2019 13:57	<a href="#">WG1312100</a>
1,2,3-Trichlorobenzene	ND		1.00	1	07/16/2019 13:57	<a href="#">WG1312100</a>
1,2,4-Trichlorobenzene	ND		1.00	1	07/16/2019 13:57	<a href="#">WG1312100</a>
1,1,1-Trichloroethane	ND		1.00	1	07/16/2019 13:57	<a href="#">WG1312100</a>
1,1,2-Trichloroethane	ND		1.00	1	07/16/2019 13:57	<a href="#">WG1312100</a>
Trichloroethene	ND		1.00	1	07/16/2019 13:57	<a href="#">WG1312100</a>
Trichlorofluoromethane	ND		5.00	1	07/16/2019 13:57	<a href="#">WG1312100</a>
1,1,2-Trichlorotrifluoroethane	ND		1.00	1	07/16/2019 13:57	<a href="#">WG1312100</a>
Vinyl chloride	ND		1.00	1	07/16/2019 13:57	<a href="#">WG1312100</a>
Xylenes, Total	4.20		3.00	1	07/16/2019 13:57	<a href="#">WG1312100</a>
(S) Toluene-d8	95.1		80.0-120		07/16/2019 13:57	<a href="#">WG1312100</a>
(S) 4-Bromofluorobenzene	92.4		77.0-126		07/16/2019 13:57	<a href="#">WG1312100</a>
(S) 1,2-Dichloroethane-d4	109		70.0-130		07/16/2019 13:57	<a href="#">WG1312100</a>

- 1 Cp
- 2 Tc
- 3 Ss
- 4 Cn
- 5 Sr
- 6 Qc
- 7 Gl
- 8 Al
- 9 Sc

## Pesticides (GC) by Method 8081B

Analyte	Result ug/l	Qualifier	RDL ug/l	Dilution	Analysis date / time	Batch
Aldrin	ND	J4	0.0500	1	07/19/2019 10:52	<a href="#">WG1312998</a>
Alpha BHC	ND	J4	0.0500	1	07/19/2019 10:52	<a href="#">WG1312998</a>
Beta BHC	ND	J4	0.0500	1	07/19/2019 10:52	<a href="#">WG1312998</a>
Delta BHC	ND		0.0500	1	07/19/2019 10:52	<a href="#">WG1312998</a>
Gamma BHC	ND	J4	0.0500	1	07/19/2019 10:52	<a href="#">WG1312998</a>
Chlordane	ND		5.00	1	07/19/2019 10:52	<a href="#">WG1312998</a>
4,4-DDD	ND		0.0500	1	07/19/2019 10:52	<a href="#">WG1312998</a>
4,4-DDE	ND		0.0500	1	07/19/2019 10:52	<a href="#">WG1312998</a>
4,4-DDT	ND		0.0500	1	07/19/2019 10:52	<a href="#">WG1312998</a>
Dieldrin	ND		0.0500	1	07/19/2019 10:52	<a href="#">WG1312998</a>
Endosulfan I	ND	J4	0.0500	1	07/19/2019 10:52	<a href="#">WG1312998</a>
Endosulfan II	ND		0.0500	1	07/19/2019 10:52	<a href="#">WG1312998</a>
Endosulfan sulfate	ND		0.0500	1	07/19/2019 10:52	<a href="#">WG1312998</a>
Endrin	ND		0.0500	1	07/19/2019 10:52	<a href="#">WG1312998</a>
Endrin aldehyde	ND		0.0500	1	07/19/2019 10:52	<a href="#">WG1312998</a>
Endrin ketone	ND		0.0500	1	07/19/2019 10:52	<a href="#">WG1312998</a>
Heptachlor	ND	J4	0.0500	1	07/19/2019 10:52	<a href="#">WG1312998</a>



Collected date/time: 07/11/19 10:50

L1118284

## Pesticides (GC) by Method 8081B

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	ug/l		ug/l		date / time	
Heptachlor epoxide	ND	J4	0.0500	1	07/19/2019 10:52	WG1312998
Hexachlorobenzene	ND	J4	0.0500	1	07/19/2019 10:52	WG1312998
Methoxychlor	ND		0.0500	1	07/19/2019 10:52	WG1312998
Toxaphene	ND		0.500	1	07/19/2019 10:52	WG1312998
(S) Decachlorobiphenyl	94.2		10.0-128		07/19/2019 10:52	WG1312998
(S) Tetrachloro-m-xylene	60.0		10.0-127		07/19/2019 10:52	WG1312998

## Sample Narrative:

L1118284-05 WG1312998: Duplicate analysis was performed.

## Polychlorinated Biphenyls (GC) by Method 8082 A

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	ug/l		ug/l		date / time	
PCB 1016	ND		0.500	1	07/21/2019 14:31	WG1314363
PCB 1221	ND		0.500	1	07/21/2019 14:31	WG1314363
PCB 1232	ND		0.500	1	07/21/2019 14:31	WG1314363
PCB 1242	ND		0.500	1	07/21/2019 14:31	WG1314363
PCB 1248	ND		0.500	1	07/21/2019 14:31	WG1314363
PCB 1254	ND		0.500	1	07/21/2019 14:31	WG1314363
PCB 1260	ND		0.500	1	07/21/2019 14:31	WG1314363
(S) Decachlorobiphenyl	105		10.0-128		07/21/2019 14:31	WG1314363
(S) Tetrachloro-m-xylene	65.5		10.0-127		07/21/2019 14:31	WG1314363

## Semi Volatile Organic Compounds (GC/MS) by Method 8270D

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	ug/l		ug/l		date / time	
Acenaphthene	ND	J4	1.00	1	07/20/2019 08:28	WG1311664
Acenaphthylene	ND	J4	1.00	1	07/20/2019 08:28	WG1311664
Acetophenone	ND	J4	10.0	1	07/20/2019 08:28	WG1311664
Anthracene	ND	J4	1.00	1	07/20/2019 08:28	WG1311664
Atrazine	ND	J4	10.0	1	07/20/2019 08:28	WG1311664
Benzaldehyde	ND	J4	10.0	1	07/20/2019 08:28	WG1311664
Benzo(a)anthracene	ND		1.00	1	07/20/2019 08:28	WG1311664
Benzo(b)fluoranthene	ND		1.00	1	07/20/2019 08:28	WG1311664
Benzo(k)fluoranthene	ND		1.00	1	07/20/2019 08:28	WG1311664
Benzo(g,h,i)perylene	ND		1.00	1	07/20/2019 08:28	WG1311664
Benzo(a)pyrene	ND		1.00	1	07/20/2019 08:28	WG1311664
Biphenyl	ND	J4	10.0	1	07/20/2019 08:28	WG1311664
Bis(2-chloroethoxy)methane	ND	J4	10.0	1	07/20/2019 08:28	WG1311664
Bis(2-chloroethyl)ether	ND	J4	10.0	1	07/20/2019 08:28	WG1311664
Bis(2-chloroisopropyl)ether	ND	J4	10.0	1	07/20/2019 08:28	WG1311664
4-Bromophenyl-phenylether	ND	J4	10.0	1	07/20/2019 08:28	WG1311664
Caprolactam	ND	J4	10.0	1	07/20/2019 08:28	WG1311664
Carbazole	ND	J4	10.0	1	07/20/2019 08:28	WG1311664
4-Chloroaniline	ND	J4	10.0	1	07/20/2019 08:28	WG1311664
2-Chloronaphthalene	ND	J4	1.00	1	07/20/2019 08:28	WG1311664
4-Chlorophenyl-phenylether	ND	J4	10.0	1	07/20/2019 08:28	WG1311664
Chrysene	ND		1.00	1	07/20/2019 08:28	WG1311664
Dibenz(a,h)anthracene	ND		1.00	1	07/20/2019 08:28	WG1311664
Dibenzofuran	ND	J4	10.0	1	07/20/2019 08:28	WG1311664
3,3-Dichlorobenzidine	ND	J4	10.0	1	07/20/2019 08:28	WG1311664
2,4-Dinitrotoluene	ND	J4	10.0	1	07/20/2019 08:28	WG1311664
2,6-Dinitrotoluene	ND	J4	10.0	1	07/20/2019 08:28	WG1311664
Fluoranthene	ND	J4	1.00	1	07/20/2019 08:28	WG1311664
Fluorene	ND	J4	1.00	1	07/20/2019 08:28	WG1311664

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

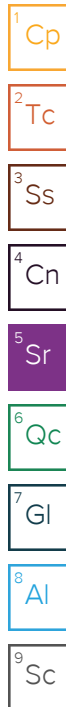


Collected date/time: 07/11/19 10:50

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## Semi Volatile Organic Compounds (GC/MS) by Method 8270D

Analyte	Result ug/l	Qualifier	RDL ug/l	Dilution	Analysis date / time	Batch
Hexachlorobenzene	ND	J4	1.00	1	07/20/2019 08:28	WG1311664
Hexachloro-1,3-butadiene	ND	J4	10.0	1	07/20/2019 08:28	WG1311664
Hexachlorocyclopentadiene	ND	J4	10.0	1	07/20/2019 08:28	WG1311664
Hexachloroethane	ND	J4	10.0	1	07/20/2019 08:28	WG1311664
Indeno(1,2,3-cd)pyrene	ND	J4	1.00	1	07/20/2019 08:28	WG1311664
Isophorone	ND	J4	10.0	1	07/20/2019 08:28	WG1311664
2-Methylnaphthalene	ND	J4	1.00	1	07/20/2019 08:28	WG1311664
Naphthalene	ND	J4	1.00	1	07/20/2019 08:28	WG1311664
2-Nitroaniline	ND	J4	10.0	1	07/20/2019 08:28	WG1311664
3-Nitroaniline	ND	J4	10.0	1	07/20/2019 08:28	WG1311664
4-Nitroaniline	ND	J4	10.0	1	07/20/2019 08:28	WG1311664
Nitrobenzene	ND	J4	10.0	1	07/20/2019 08:28	WG1311664
n-Nitrosodiphenylamine	ND	J4	10.0	1	07/20/2019 08:28	WG1311664
n-Nitrosodi-n-propylamine	ND	J4	10.0	1	07/20/2019 08:28	WG1311664
Phenanthrene	ND	J4	1.00	1	07/20/2019 08:28	WG1311664
Benzylbutyl phthalate	ND	J4	3.00	1	07/20/2019 08:28	WG1311664
Bis(2-ethylhexyl)phthalate	ND	J4	3.00	1	07/20/2019 08:28	WG1311664
Di-n-butyl phthalate	ND	J4	3.00	1	07/20/2019 08:28	WG1311664
Diethyl phthalate	ND	J4	3.00	1	07/20/2019 08:28	WG1311664
Dimethyl phthalate	ND	J4	3.00	1	07/20/2019 08:28	WG1311664
Di-n-octyl phthalate	ND	J4	3.00	1	07/20/2019 08:28	WG1311664
Pyrene	ND	J4	1.00	1	07/20/2019 08:28	WG1311664
1,2,4,5-Tetrachlorobenzene	ND	J4	10.0	1	07/20/2019 08:28	WG1311664
4-Chloro-3-methylphenol	ND	J4	10.0	1	07/20/2019 08:28	WG1311664
2-Chlorophenol	ND	J4	10.0	1	07/20/2019 08:28	WG1311664
2-Methylphenol	ND	J4	10.0	1	07/20/2019 08:28	WG1311664
3&4-Methyl Phenol	ND	J4	10.0	1	07/20/2019 08:28	WG1311664
2,4-Dichlorophenol	ND	J4	10.0	1	07/20/2019 08:28	WG1311664
2,4-Dimethylphenol	ND	J4	10.0	1	07/20/2019 08:28	WG1311664
4,6-Dinitro-2-methylphenol	ND	J4	10.0	1	07/20/2019 08:28	WG1311664
2,4-Dinitrophenol	ND	J4	10.0	1	07/20/2019 08:28	WG1311664
2-Nitrophenol	ND	J4	10.0	1	07/20/2019 08:28	WG1311664
4-Nitrophenol	ND	J4	10.0	1	07/20/2019 08:28	WG1311664
Pentachlorophenol	ND	J4	10.0	1	07/20/2019 08:28	WG1311664
Phenol	ND	J4	10.0	1	07/20/2019 08:28	WG1311664
2,4,5-Trichlorophenol	ND	J4	10.0	1	07/20/2019 08:28	WG1311664
2,4,6-Trichlorophenol	ND	J4	10.0	1	07/20/2019 08:28	WG1311664
(S) Nitrobenzene-d5	49.2		10.0-127		07/20/2019 08:28	WG1311664
(S) 2-Fluorobiphenyl	55.5		10.0-130		07/20/2019 08:28	WG1311664
(S) p-Terphenyl-d14	69.6		10.0-128		07/20/2019 08:28	WG1311664
(S) Phenol-d5	21.2		10.0-120		07/20/2019 08:28	WG1311664
(S) 2-Fluorophenol	34.7		10.0-120		07/20/2019 08:28	WG1311664
(S) 2,4,6-Tribromophenol	68.0		10.0-155		07/20/2019 08:28	WG1311664



## Semi Volatile Organic Compounds (GC/MS) by Method 8270E-SIM

Analyte	Result ug/l	Qualifier	RDL ug/l	Dilution	Analysis date / time	Batch
Anthracene	ND		0.0500	1	07/16/2019 03:45	WG1311224
Acenaphthene	ND	J4	0.0500	1	07/16/2019 03:45	WG1311224
Acenaphthylene	ND	J4	0.0500	1	07/16/2019 03:45	WG1311224
Benzo(a)anthracene	ND		0.0500	1	07/16/2019 03:45	WG1311224
Benzo(a)pyrene	ND		0.0500	1	07/16/2019 03:45	WG1311224
Benzo(b)fluoranthene	ND		0.0500	1	07/16/2019 03:45	WG1311224
Benzo(g,h,i)perylene	ND		0.0500	1	07/16/2019 03:45	WG1311224
Benzo(k)fluoranthene	ND		0.0500	1	07/16/2019 03:45	WG1311224
Chrysene	ND		0.0500	1	07/16/2019 03:45	WG1311224



Semi Volatile Organic Compounds (GC/MS) by Method 8270E-SIM

Analyte	Result ug/l	Qualifier	RDL ug/l	Dilution	Analysis date / time	Batch
Dibenz(a,h)anthracene	ND		0.0500	1	07/16/2019 03:45	<a href="#">WG1311224</a>
Fluoranthene	ND		0.0500	1	07/16/2019 03:45	<a href="#">WG1311224</a>
Fluorene	ND	<u>J4</u>	0.0500	1	07/16/2019 03:45	<a href="#">WG1311224</a>
Indeno(1,2,3-cd)pyrene	ND		0.0500	1	07/16/2019 03:45	<a href="#">WG1311224</a>
Naphthalene	ND	<u>J4</u>	0.250	1	07/16/2019 03:45	<a href="#">WG1311224</a>
Phenanthrene	ND	<u>J4</u>	0.0500	1	07/16/2019 03:45	<a href="#">WG1311224</a>
Pyrene	ND		0.0500	1	07/16/2019 03:45	<a href="#">WG1311224</a>
<i>(S)</i> Nitrobenzene-d5	144	<u>J1</u>	11.0-135		07/16/2019 03:45	<a href="#">WG1311224</a>
<i>(S)</i> 2-Fluorobiphenyl	62.6		32.0-120		07/16/2019 03:45	<a href="#">WG1311224</a>
<i>(S)</i> p-Terphenyl-d14	82.9		23.0-122		07/16/2019 03:45	<a href="#">WG1311224</a>

- 1 Cp
- 2 Tc
- 3 Ss
- 4 Cn
- 5 Sr
- 6 Qc
- 7 Gl
- 8 Al
- 9 Sc



## Wet Chemistry by Method 4500CN E-2011

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	ug/l		ug/l		date / time	
Cyanide	ND		5.00	1	07/22/2019 13:58	<a href="#">WG1314084</a>

## Mercury by Method 7470A

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	ug/l		ug/l		date / time	
Mercury	ND		0.200	1	07/16/2019 13:45	<a href="#">WG1311284</a>

## Metals (ICP) by Method 6010D

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	ug/l		ug/l		date / time	
Aluminum	ND		200	1	07/16/2019 11:08	<a href="#">WG1310256</a>
Antimony	ND		10.0	1	07/16/2019 11:08	<a href="#">WG1310256</a>
Arsenic	ND		10.0	1	07/16/2019 11:08	<a href="#">WG1310256</a>
Barium	125		5.00	1	07/16/2019 11:08	<a href="#">WG1310256</a>
Beryllium	ND		2.00	1	07/16/2019 11:08	<a href="#">WG1310256</a>
Cadmium	ND		2.00	1	07/16/2019 11:08	<a href="#">WG1310256</a>
Calcium	39100		1000	1	07/16/2019 11:08	<a href="#">WG1310256</a>
Chromium	ND		10.0	1	07/16/2019 11:08	<a href="#">WG1310256</a>
Cobalt	14.4		10.0	1	07/16/2019 11:08	<a href="#">WG1310256</a>
Copper	ND		10.0	1	07/16/2019 11:08	<a href="#">WG1310256</a>
Iron	8620		100	1	07/16/2019 11:08	<a href="#">WG1310256</a>
Lead	ND		5.00	1	07/16/2019 11:08	<a href="#">WG1310256</a>
Magnesium	16400		1000	1	07/16/2019 11:08	<a href="#">WG1310256</a>
Manganese	4390		10.0	1	07/16/2019 11:08	<a href="#">WG1310256</a>
Nickel	ND		10.0	1	07/16/2019 11:08	<a href="#">WG1310256</a>
Potassium	3890		1000	1	07/16/2019 11:08	<a href="#">WG1310256</a>
Selenium	ND		10.0	1	07/16/2019 11:08	<a href="#">WG1310256</a>
Silver	ND		5.00	1	07/16/2019 11:08	<a href="#">WG1310256</a>
Sodium	91500		1000	1	07/16/2019 11:08	<a href="#">WG1310256</a>
Thallium	ND		10.0	1	07/16/2019 11:08	<a href="#">WG1310256</a>
Vanadium	ND		20.0	1	07/16/2019 11:08	<a href="#">WG1310256</a>
Zinc	ND		50.0	1	07/16/2019 11:08	<a href="#">WG1310256</a>

## Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	ug/l		ug/l		date / time	
Acetone	ND		50.0	1	07/16/2019 14:17	<a href="#">WG1312100</a>
Benzene	ND		1.00	1	07/16/2019 14:17	<a href="#">WG1312100</a>
Bromochloromethane	ND		1.00	1	07/16/2019 14:17	<a href="#">WG1312100</a>
Bromodichloromethane	ND		1.00	1	07/16/2019 14:17	<a href="#">WG1312100</a>
Bromoform	ND		1.00	1	07/16/2019 14:17	<a href="#">WG1312100</a>
Bromomethane	ND		5.00	1	07/16/2019 14:17	<a href="#">WG1312100</a>
Carbon disulfide	ND		1.00	1	07/16/2019 14:17	<a href="#">WG1312100</a>
Carbon tetrachloride	ND		1.00	1	07/16/2019 14:17	<a href="#">WG1312100</a>
Chlorobenzene	ND		1.00	1	07/16/2019 14:17	<a href="#">WG1312100</a>
Chlorodibromomethane	ND		1.00	1	07/16/2019 14:17	<a href="#">WG1312100</a>
Chloroethane	ND		5.00	1	07/16/2019 14:17	<a href="#">WG1312100</a>
Chloroform	ND		5.00	1	07/16/2019 14:17	<a href="#">WG1312100</a>
Chloromethane	ND		2.50	1	07/16/2019 14:17	<a href="#">WG1312100</a>
Cyclohexane	ND		1.00	1	07/16/2019 14:17	<a href="#">WG1312100</a>
1,2-Dibromo-3-Chloropropane	ND		5.00	1	07/16/2019 14:17	<a href="#">WG1312100</a>
1,2-Dibromoethane	ND		1.00	1	07/16/2019 14:17	<a href="#">WG1312100</a>
1,2-Dichlorobenzene	ND		1.00	1	07/16/2019 14:17	<a href="#">WG1312100</a>
1,3-Dichlorobenzene	ND		1.00	1	07/16/2019 14:17	<a href="#">WG1312100</a>

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

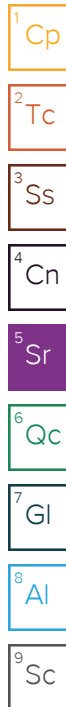


Collected date/time: 07/11/19 10:10

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## Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result ug/l	Qualifier	RDL ug/l	Dilution	Analysis date / time	Batch
1,4-Dichlorobenzene	ND		1.00	1	07/16/2019 14:17	WG1312100
Dichlorodifluoromethane	ND		5.00	1	07/16/2019 14:17	WG1312100
1,1-Dichloroethane	ND		1.00	1	07/16/2019 14:17	WG1312100
1,2-Dichloroethane	ND		1.00	1	07/16/2019 14:17	WG1312100
1,1-Dichloroethene	ND		1.00	1	07/16/2019 14:17	WG1312100
cis-1,2-Dichloroethene	ND		1.00	1	07/16/2019 14:17	WG1312100
trans-1,2-Dichloroethene	ND		1.00	1	07/16/2019 14:17	WG1312100
1,2-Dichloropropane	ND		1.00	1	07/16/2019 14:17	WG1312100
cis-1,3-Dichloropropene	ND		1.00	1	07/16/2019 14:17	WG1312100
trans-1,3-Dichloropropene	ND		1.00	1	07/16/2019 14:17	WG1312100
Ethylbenzene	ND		1.00	1	07/16/2019 14:17	WG1312100
2-Hexanone	ND		10.0	1	07/16/2019 14:17	WG1312100
Isopropylbenzene	ND		1.00	1	07/16/2019 14:17	WG1312100
2-Butanone (MEK)	ND		10.0	1	07/16/2019 14:17	WG1312100
Methyl Acetate	ND		20.0	1	07/16/2019 14:17	WG1312100
Methyl Cyclohexane	ND		1.00	1	07/16/2019 14:17	WG1312100
Methylene Chloride	ND		5.00	1	07/16/2019 14:17	WG1312100
4-Methyl-2-pentanone (MIBK)	ND		10.0	1	07/16/2019 14:17	WG1312100
Methyl tert-butyl ether	ND		1.00	1	07/16/2019 14:17	WG1312100
Styrene	ND		1.00	1	07/16/2019 14:17	WG1312100
1,1,2,2-Tetrachloroethane	ND		1.00	1	07/16/2019 14:17	WG1312100
Tetrachloroethene	ND		1.00	1	07/16/2019 14:17	WG1312100
Toluene	ND		1.00	1	07/16/2019 14:17	WG1312100
1,2,3-Trichlorobenzene	ND		1.00	1	07/16/2019 14:17	WG1312100
1,2,4-Trichlorobenzene	ND		1.00	1	07/16/2019 14:17	WG1312100
1,1,1-Trichloroethane	ND		1.00	1	07/16/2019 14:17	WG1312100
1,1,2-Trichloroethane	ND		1.00	1	07/16/2019 14:17	WG1312100
Trichloroethene	ND		1.00	1	07/16/2019 14:17	WG1312100
Trichlorofluoromethane	ND		5.00	1	07/16/2019 14:17	WG1312100
1,1,2-Trichlorotrifluoroethane	ND		1.00	1	07/16/2019 14:17	WG1312100
Vinyl chloride	ND		1.00	1	07/16/2019 14:17	WG1312100
Xylenes, Total	ND		3.00	1	07/16/2019 14:17	WG1312100
(S) Toluene-d8	101		80.0-120		07/16/2019 14:17	WG1312100
(S) 4-Bromofluorobenzene	90.9		77.0-126		07/16/2019 14:17	WG1312100
(S) 1,2-Dichloroethane-d4	111		70.0-130		07/16/2019 14:17	WG1312100



## Pesticides (GC) by Method 8081B

Analyte	Result ug/l	Qualifier	RDL ug/l	Dilution	Analysis date / time	Batch
Aldrin	ND	J4	0.0500	1	07/19/2019 11:07	WG1312998
Alpha BHC	ND	J4	0.0500	1	07/19/2019 11:07	WG1312998
Beta BHC	ND	J4	0.0500	1	07/19/2019 11:07	WG1312998
Delta BHC	ND		0.0500	1	07/19/2019 11:07	WG1312998
Gamma BHC	ND	J4	0.0500	1	07/19/2019 11:07	WG1312998
Chlordane	ND		5.00	1	07/19/2019 11:07	WG1312998
4,4-DDD	ND		0.0500	1	07/19/2019 11:07	WG1312998
4,4-DDE	ND		0.0500	1	07/19/2019 11:07	WG1312998
4,4-DDT	ND		0.0500	1	07/19/2019 11:07	WG1312998
Dieldrin	ND		0.0500	1	07/19/2019 11:07	WG1312998
Endosulfan I	ND	J4	0.0500	1	07/19/2019 11:07	WG1312998
Endosulfan II	ND		0.0500	1	07/19/2019 11:07	WG1312998
Endosulfan sulfate	ND		0.0500	1	07/19/2019 11:07	WG1312998
Endrin	ND		0.0500	1	07/19/2019 11:07	WG1312998
Endrin aldehyde	ND		0.0500	1	07/19/2019 11:07	WG1312998
Endrin ketone	ND		0.0500	1	07/19/2019 11:07	WG1312998
Heptachlor	ND	J4	0.0500	1	07/19/2019 11:07	WG1312998





Collected date/time: 07/11/19 10:10

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## Pesticides (GC) by Method 8081B

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	ug/l		ug/l		date / time	
Heptachlor epoxide	ND	J4	0.0500	1	07/19/2019 11:07	WG1312998
Hexachlorobenzene	ND	J4	0.0500	1	07/19/2019 11:07	WG1312998
Methoxychlor	ND		0.0500	1	07/19/2019 11:07	WG1312998
Toxaphene	ND		0.500	1	07/19/2019 11:07	WG1312998
(S) Decachlorobiphenyl	105		10.0-128		07/19/2019 11:07	WG1312998
(S) Tetrachloro-m-xylene	82.3		10.0-127		07/19/2019 11:07	WG1312998

## Sample Narrative:

L1118284-06 WG1312998: Duplicate analysis was performed.

## Polychlorinated Biphenyls (GC) by Method 8082 A

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	ug/l		ug/l		date / time	
PCB 1016	ND		0.500	1	07/21/2019 14:44	WG1314363
PCB 1221	ND		0.500	1	07/21/2019 14:44	WG1314363
PCB 1232	ND		0.500	1	07/21/2019 14:44	WG1314363
PCB 1242	ND		0.500	1	07/21/2019 14:44	WG1314363
PCB 1248	ND		0.500	1	07/21/2019 14:44	WG1314363
PCB 1254	ND		0.500	1	07/21/2019 14:44	WG1314363
PCB 1260	ND		0.500	1	07/21/2019 14:44	WG1314363
(S) Decachlorobiphenyl	99.0		10.0-128		07/21/2019 14:44	WG1314363
(S) Tetrachloro-m-xylene	82.5		10.0-127		07/21/2019 14:44	WG1314363

## Semi Volatile Organic Compounds (GC/MS) by Method 8270D

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	ug/l		ug/l		date / time	
Acenaphthene	ND	J4	1.00	1	07/20/2019 08:50	WG1311664
Acenaphthylene	ND	J4	1.00	1	07/20/2019 08:50	WG1311664
Acetophenone	ND	J4	10.0	1	07/20/2019 08:50	WG1311664
Anthracene	ND	J4	1.00	1	07/20/2019 08:50	WG1311664
Atrazine	ND	J4	10.0	1	07/20/2019 08:50	WG1311664
Benzaldehyde	ND	J4	10.0	1	07/20/2019 08:50	WG1311664
Benzo(a)anthracene	ND		1.00	1	07/20/2019 08:50	WG1311664
Benzo(b)fluoranthene	ND		1.00	1	07/20/2019 08:50	WG1311664
Benzo(k)fluoranthene	ND		1.00	1	07/20/2019 08:50	WG1311664
Benzo(g,h,i)perylene	ND		1.00	1	07/20/2019 08:50	WG1311664
Benzo(a)pyrene	ND		1.00	1	07/20/2019 08:50	WG1311664
Biphenyl	ND	J4	10.0	1	07/20/2019 08:50	WG1311664
Bis(2-chloroethoxy)methane	ND	J4	10.0	1	07/20/2019 08:50	WG1311664
Bis(2-chloroethyl)ether	ND	J4	10.0	1	07/20/2019 08:50	WG1311664
Bis(2-chloroisopropyl)ether	ND	J4	10.0	1	07/20/2019 08:50	WG1311664
4-Bromophenyl-phenylether	ND	J4	10.0	1	07/20/2019 08:50	WG1311664
Caprolactam	ND	J4	10.0	1	07/20/2019 08:50	WG1311664
Carbazole	ND	J4	10.0	1	07/20/2019 08:50	WG1311664
4-Chloroaniline	ND	J4	10.0	1	07/20/2019 08:50	WG1311664
2-Chloronaphthalene	ND	J4	1.00	1	07/20/2019 08:50	WG1311664
4-Chlorophenyl-phenylether	ND	J4	10.0	1	07/20/2019 08:50	WG1311664
Chrysene	ND		1.00	1	07/20/2019 08:50	WG1311664
Dibenz(a,h)anthracene	ND		1.00	1	07/20/2019 08:50	WG1311664
Dibenzofuran	ND	J4	10.0	1	07/20/2019 08:50	WG1311664
3,3-Dichlorobenzidine	ND	J4	10.0	1	07/20/2019 08:50	WG1311664
2,4-Dinitrotoluene	ND	J4	10.0	1	07/20/2019 08:50	WG1311664
2,6-Dinitrotoluene	ND	J4	10.0	1	07/20/2019 08:50	WG1311664
Fluoranthene	ND	J4	1.00	1	07/20/2019 08:50	WG1311664
Fluorene	ND	J4	1.00	1	07/20/2019 08:50	WG1311664

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc



Collected date/time: 07/11/19 10:10

L1118284

Semi Volatile Organic Compounds (GC/MS) by Method 8270D

Analyte	Result ug/l	Qualifier	RDL ug/l	Dilution	Analysis date / time	Batch
Hexachlorobenzene	ND	J4	1.00	1	07/20/2019 08:50	WG1311664
Hexachloro-1,3-butadiene	ND	J4	10.0	1	07/20/2019 08:50	WG1311664
Hexachlorocyclopentadiene	ND	J4	10.0	1	07/20/2019 08:50	WG1311664
Hexachloroethane	ND	J4	10.0	1	07/20/2019 08:50	WG1311664
Indeno(1,2,3-cd)pyrene	ND	J4	1.00	1	07/20/2019 08:50	WG1311664
Isophorone	ND	J4	10.0	1	07/20/2019 08:50	WG1311664
2-Methylnaphthalene	ND	J4	1.00	1	07/20/2019 08:50	WG1311664
Naphthalene	ND	J4	1.00	1	07/20/2019 08:50	WG1311664
2-Nitroaniline	ND	J4	10.0	1	07/20/2019 08:50	WG1311664
3-Nitroaniline	ND	J4	10.0	1	07/20/2019 08:50	WG1311664
4-Nitroaniline	ND	J4	10.0	1	07/20/2019 08:50	WG1311664
Nitrobenzene	ND	J4	10.0	1	07/20/2019 08:50	WG1311664
n-Nitrosodiphenylamine	ND	J4	10.0	1	07/20/2019 08:50	WG1311664
n-Nitrosodi-n-propylamine	ND	J4	10.0	1	07/20/2019 08:50	WG1311664
Phenanthrene	ND	J4	1.00	1	07/20/2019 08:50	WG1311664
Benzylbutyl phthalate	ND	J4	3.00	1	07/20/2019 08:50	WG1311664
Bis(2-ethylhexyl)phthalate	ND	J4	3.00	1	07/20/2019 08:50	WG1311664
Di-n-butyl phthalate	ND	J4	3.00	1	07/20/2019 08:50	WG1311664
Diethyl phthalate	ND	J4	3.00	1	07/20/2019 08:50	WG1311664
Dimethyl phthalate	ND	J4	3.00	1	07/20/2019 08:50	WG1311664
Di-n-octyl phthalate	ND	J4	3.00	1	07/20/2019 08:50	WG1311664
Pyrene	ND	J4	1.00	1	07/20/2019 08:50	WG1311664
1,2,4,5-Tetrachlorobenzene	ND	J4	10.0	1	07/20/2019 08:50	WG1311664
4-Chloro-3-methylphenol	ND	J4	10.0	1	07/20/2019 08:50	WG1311664
2-Chlorophenol	ND	J4	10.0	1	07/20/2019 08:50	WG1311664
2-Methylphenol	ND	J4	10.0	1	07/20/2019 08:50	WG1311664
3&4-Methyl Phenol	ND	J4	10.0	1	07/20/2019 08:50	WG1311664
2,4-Dichlorophenol	ND	J4	10.0	1	07/20/2019 08:50	WG1311664
2,4-Dimethylphenol	ND	J4	10.0	1	07/20/2019 08:50	WG1311664
4,6-Dinitro-2-methylphenol	ND	J4	10.0	1	07/20/2019 08:50	WG1311664
2,4-Dinitrophenol	ND	J4	10.0	1	07/20/2019 08:50	WG1311664
2-Nitrophenol	ND	J4	10.0	1	07/20/2019 08:50	WG1311664
4-Nitrophenol	ND	J4	10.0	1	07/20/2019 08:50	WG1311664
Pentachlorophenol	ND	J4	10.0	1	07/20/2019 08:50	WG1311664
Phenol	ND	J4	10.0	1	07/20/2019 08:50	WG1311664
2,4,5-Trichlorophenol	ND	J4	10.0	1	07/20/2019 08:50	WG1311664
2,4,6-Trichlorophenol	ND	J4	10.0	1	07/20/2019 08:50	WG1311664
(S) Nitrobenzene-d5	41.8		10.0-127		07/20/2019 08:50	WG1311664
(S) 2-Fluorobiphenyl	47.9		10.0-130		07/20/2019 08:50	WG1311664
(S) p-Terphenyl-d14	68.1		10.0-128		07/20/2019 08:50	WG1311664
(S) Phenol-d5	20.9		10.0-120		07/20/2019 08:50	WG1311664
(S) 2-Fluorophenol	32.8		10.0-120		07/20/2019 08:50	WG1311664
(S) 2,4,6-Tribromophenol	66.5		10.0-155		07/20/2019 08:50	WG1311664

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

Semi Volatile Organic Compounds (GC/MS) by Method 8270E-SIM

Analyte	Result ug/l	Qualifier	RDL ug/l	Dilution	Analysis date / time	Batch
Anthracene	ND		0.0500	1	07/18/2019 14:24	WG1313197
Acenaphthene	ND		0.0500	1	07/18/2019 14:24	WG1313197
Acenaphthylene	ND		0.0500	1	07/18/2019 14:24	WG1313197
Benzo(a)anthracene	ND		0.0500	1	07/18/2019 14:24	WG1313197
Benzo(a)pyrene	ND		0.0500	1	07/18/2019 14:24	WG1313197
Benzo(b)fluoranthene	ND		0.0500	1	07/18/2019 14:24	WG1313197
Benzo(g,h,i)perylene	ND		0.0500	1	07/18/2019 14:24	WG1313197
Benzo(k)fluoranthene	ND		0.0500	1	07/18/2019 14:24	WG1313197
Chrysene	ND		0.0500	1	07/18/2019 14:24	WG1313197



Semi Volatile Organic Compounds (GC/MS) by Method 8270E-SIM

Analyte	Result ug/l	Qualifier	RDL ug/l	Dilution	Analysis date / time	Batch
Dibenz(a,h)anthracene	ND		0.0500	1	07/18/2019 14:24	<a href="#">WG1313197</a>
Fluoranthene	ND		0.0500	1	07/18/2019 14:24	<a href="#">WG1313197</a>
Fluorene	ND		0.0500	1	07/18/2019 14:24	<a href="#">WG1313197</a>
Indeno(1,2,3-cd)pyrene	ND		0.0500	1	07/18/2019 14:24	<a href="#">WG1313197</a>
Naphthalene	ND	J4	0.250	1	07/18/2019 14:24	<a href="#">WG1313197</a>
Phenanthrene	ND		0.0500	1	07/18/2019 14:24	<a href="#">WG1313197</a>
Pyrene	ND		0.0500	1	07/18/2019 14:24	<a href="#">WG1313197</a>
(S) Nitrobenzene-d5	40.3		11.0-135		07/18/2019 14:24	<a href="#">WG1313197</a>
(S) 2-Fluorobiphenyl	52.0		32.0-120		07/18/2019 14:24	<a href="#">WG1313197</a>
(S) p-Terphenyl-d14	87.5		23.0-122		07/18/2019 14:24	<a href="#">WG1313197</a>

- 1 Cp
- 2 Tc
- 3 Ss
- 4 Cn
- 5 Sr
- 6 Qc
- 7 Gl
- 8 Al
- 9 Sc



Wet Chemistry by Method 4500CN E-2011

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	ug/l		ug/l		date / time	
Cyanide	ND		5.00	1	07/22/2019 14:01	<a href="#">WG1314084</a>

1 Cp

2 Tc

Mercury by Method 7470A

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	ug/l		ug/l		date / time	
Mercury	ND		0.200	1	07/16/2019 13:47	<a href="#">WG1311284</a>

3 Ss

4 Cn

Metals (ICP) by Method 6010D

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	ug/l		ug/l		date / time	
Aluminum	ND		200	1	07/16/2019 11:11	<a href="#">WG1310256</a>
Antimony	ND		10.0	1	07/16/2019 11:11	<a href="#">WG1310256</a>
Arsenic	ND		10.0	1	07/16/2019 11:11	<a href="#">WG1310256</a>
Barium	25.0		5.00	1	07/16/2019 11:11	<a href="#">WG1310256</a>
Beryllium	ND		2.00	1	07/16/2019 11:11	<a href="#">WG1310256</a>
Cadmium	ND		2.00	1	07/16/2019 11:11	<a href="#">WG1310256</a>
Calcium	6020		1000	1	07/16/2019 11:11	<a href="#">WG1310256</a>
Chromium	ND		10.0	1	07/16/2019 11:11	<a href="#">WG1310256</a>
Cobalt	ND		10.0	1	07/16/2019 11:11	<a href="#">WG1310256</a>
Copper	ND		10.0	1	07/16/2019 11:11	<a href="#">WG1310256</a>
Iron	ND		100	1	07/16/2019 11:11	<a href="#">WG1310256</a>
Lead	ND		5.00	1	07/16/2019 11:11	<a href="#">WG1310256</a>
Magnesium	ND		1000	1	07/16/2019 11:11	<a href="#">WG1310256</a>
Manganese	ND		10.0	1	07/16/2019 11:11	<a href="#">WG1310256</a>
Nickel	ND		10.0	1	07/16/2019 11:11	<a href="#">WG1310256</a>
Potassium	ND		1000	1	07/16/2019 11:11	<a href="#">WG1310256</a>
Selenium	ND		10.0	1	07/16/2019 11:11	<a href="#">WG1310256</a>
Silver	ND		5.00	1	07/16/2019 11:11	<a href="#">WG1310256</a>
Sodium	4470		1000	1	07/16/2019 11:11	<a href="#">WG1310256</a>
Thallium	ND		10.0	1	07/16/2019 11:11	<a href="#">WG1310256</a>
Vanadium	ND		20.0	1	07/16/2019 11:11	<a href="#">WG1310256</a>
Zinc	ND		50.0	1	07/16/2019 11:11	<a href="#">WG1310256</a>

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	ug/l		ug/l		date / time	
Acetone	ND		50.0	1	07/16/2019 14:37	<a href="#">WG1312100</a>
Benzene	ND		1.00	1	07/16/2019 14:37	<a href="#">WG1312100</a>
Bromochloromethane	ND		1.00	1	07/16/2019 14:37	<a href="#">WG1312100</a>
Bromodichloromethane	ND		1.00	1	07/16/2019 14:37	<a href="#">WG1312100</a>
Bromoform	ND		1.00	1	07/16/2019 14:37	<a href="#">WG1312100</a>
Bromomethane	ND		5.00	1	07/16/2019 14:37	<a href="#">WG1312100</a>
Carbon disulfide	ND		1.00	1	07/16/2019 14:37	<a href="#">WG1312100</a>
Carbon tetrachloride	ND		1.00	1	07/16/2019 14:37	<a href="#">WG1312100</a>
Chlorobenzene	ND		1.00	1	07/16/2019 14:37	<a href="#">WG1312100</a>
Chlorodibromomethane	ND		1.00	1	07/16/2019 14:37	<a href="#">WG1312100</a>
Chloroethane	ND		5.00	1	07/16/2019 14:37	<a href="#">WG1312100</a>
Chloroform	ND		5.00	1	07/16/2019 14:37	<a href="#">WG1312100</a>
Chloromethane	ND		2.50	1	07/16/2019 14:37	<a href="#">WG1312100</a>
Cyclohexane	ND		1.00	1	07/16/2019 14:37	<a href="#">WG1312100</a>
1,2-Dibromo-3-Chloropropane	ND		5.00	1	07/16/2019 14:37	<a href="#">WG1312100</a>
1,2-Dibromoethane	ND		1.00	1	07/16/2019 14:37	<a href="#">WG1312100</a>
1,2-Dichlorobenzene	ND		1.00	1	07/16/2019 14:37	<a href="#">WG1312100</a>
1,3-Dichlorobenzene	ND		1.00	1	07/16/2019 14:37	<a href="#">WG1312100</a>



Collected date/time: 07/11/19 13:43

L1118284

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	ug/l		ug/l		date / time	
1,4-Dichlorobenzene	ND		1.00	1	07/16/2019 14:37	WG1312100
Dichlorodifluoromethane	ND		5.00	1	07/16/2019 14:37	WG1312100
1,1-Dichloroethane	ND		1.00	1	07/16/2019 14:37	WG1312100
1,2-Dichloroethane	ND		1.00	1	07/16/2019 14:37	WG1312100
1,1-Dichloroethene	ND		1.00	1	07/16/2019 14:37	WG1312100
cis-1,2-Dichloroethene	ND		1.00	1	07/16/2019 14:37	WG1312100
trans-1,2-Dichloroethene	ND		1.00	1	07/16/2019 14:37	WG1312100
1,2-Dichloropropane	ND		1.00	1	07/16/2019 14:37	WG1312100
cis-1,3-Dichloropropene	ND		1.00	1	07/16/2019 14:37	WG1312100
trans-1,3-Dichloropropene	ND		1.00	1	07/16/2019 14:37	WG1312100
Ethylbenzene	ND		1.00	1	07/16/2019 14:37	WG1312100
2-Hexanone	ND		10.0	1	07/16/2019 14:37	WG1312100
Isopropylbenzene	ND		1.00	1	07/16/2019 14:37	WG1312100
2-Butanone (MEK)	ND		10.0	1	07/16/2019 14:37	WG1312100
Methyl Acetate	ND		20.0	1	07/16/2019 14:37	WG1312100
Methyl Cyclohexane	ND		1.00	1	07/16/2019 14:37	WG1312100
Methylene Chloride	ND		5.00	1	07/16/2019 14:37	WG1312100
4-Methyl-2-pentanone (MIBK)	ND		10.0	1	07/16/2019 14:37	WG1312100
Methyl tert-butyl ether	ND		1.00	1	07/16/2019 14:37	WG1312100
Styrene	ND		1.00	1	07/16/2019 14:37	WG1312100
1,1,2,2-Tetrachloroethane	ND		1.00	1	07/16/2019 14:37	WG1312100
Tetrachloroethene	ND		1.00	1	07/16/2019 14:37	WG1312100
Toluene	ND		1.00	1	07/16/2019 14:37	WG1312100
1,2,3-Trichlorobenzene	ND		1.00	1	07/16/2019 14:37	WG1312100
1,2,4-Trichlorobenzene	ND		1.00	1	07/16/2019 14:37	WG1312100
1,1,1-Trichloroethane	ND		1.00	1	07/16/2019 14:37	WG1312100
1,1,2-Trichloroethane	ND		1.00	1	07/16/2019 14:37	WG1312100
Trichloroethene	ND		1.00	1	07/16/2019 14:37	WG1312100
Trichlorofluoromethane	ND		5.00	1	07/16/2019 14:37	WG1312100
1,1,2-Trichlorotrifluoroethane	ND		1.00	1	07/16/2019 14:37	WG1312100
Vinyl chloride	ND		1.00	1	07/16/2019 14:37	WG1312100
Xylenes, Total	ND		3.00	1	07/16/2019 14:37	WG1312100
(S) Toluene-d8	98.0		80.0-120		07/16/2019 14:37	WG1312100
(S) 4-Bromofluorobenzene	90.1		77.0-126		07/16/2019 14:37	WG1312100
(S) 1,2-Dichloroethane-d4	110		70.0-130		07/16/2019 14:37	WG1312100

- 1 Cp
- 2 Tc
- 3 Ss
- 4 Cn
- 5 Sr
- 6 Qc
- 7 Gl
- 8 Al
- 9 Sc

Pesticides (GC) by Method 8081B

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	ug/l		ug/l		date / time	
Aldrin	ND	J4	0.0525	1.05	07/19/2019 11:22	WG1312998
Alpha BHC	ND	J4	0.0525	1.05	07/19/2019 11:22	WG1312998
Beta BHC	ND	J4	0.0525	1.05	07/19/2019 11:22	WG1312998
Delta BHC	ND		0.0525	1.05	07/19/2019 11:22	WG1312998
Gamma BHC	ND	J4	0.0525	1.05	07/19/2019 11:22	WG1312998
Chlordane	ND		5.25	1.05	07/19/2019 11:22	WG1312998
4,4-DDD	ND		0.0525	1.05	07/19/2019 11:22	WG1312998
4,4-DDE	ND		0.0525	1.05	07/19/2019 11:22	WG1312998
4,4-DDT	ND		0.0525	1.05	07/19/2019 11:22	WG1312998
Dieldrin	ND		0.0525	1.05	07/19/2019 11:22	WG1312998
Endosulfan I	ND	J4	0.0525	1.05	07/19/2019 11:22	WG1312998
Endosulfan II	ND		0.0525	1.05	07/19/2019 11:22	WG1312998
Endosulfan sulfate	ND		0.0525	1.05	07/19/2019 11:22	WG1312998
Endrin	ND		0.0525	1.05	07/19/2019 11:22	WG1312998
Endrin aldehyde	ND		0.0525	1.05	07/19/2019 11:22	WG1312998
Endrin ketone	ND		0.0525	1.05	07/19/2019 11:22	WG1312998
Heptachlor	ND	J4	0.0525	1.05	07/19/2019 11:22	WG1312998



Collected date/time: 07/11/19 13:43

L1118284

Pesticides (GC) by Method 8081B

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Heptachlor epoxide	ND	J4	0.0525	1.05	07/19/2019 11:22	WG1312998
Hexachlorobenzene	ND	J4	0.0525	1.05	07/19/2019 11:22	WG1312998
Methoxychlor	ND		0.0525	1.05	07/19/2019 11:22	WG1312998
Toxaphene	ND		0.525	1.05	07/19/2019 11:22	WG1312998
(S) Decachlorobiphenyl	103		10.0-128		07/19/2019 11:22	WG1312998
(S) Tetrachloro-m-xylene	76.2		10.0-127		07/19/2019 11:22	WG1312998

Sample Narrative:

L1118284-07 WG1312998: Duplicate analysis was performed.

Polychlorinated Biphenyls (GC) by Method 8082 A

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
PCB 1016	ND		0.500	1	07/21/2019 14:56	WG1314363
PCB 1221	ND		0.500	1	07/21/2019 14:56	WG1314363
PCB 1232	ND		0.500	1	07/21/2019 14:56	WG1314363
PCB 1242	ND		0.500	1	07/21/2019 14:56	WG1314363
PCB 1248	ND		0.500	1	07/21/2019 14:56	WG1314363
PCB 1254	ND		0.500	1	07/21/2019 14:56	WG1314363
PCB 1260	ND		0.500	1	07/21/2019 14:56	WG1314363
(S) Decachlorobiphenyl	96.5		10.0-128		07/21/2019 14:56	WG1314363
(S) Tetrachloro-m-xylene	82.2		10.0-127		07/21/2019 14:56	WG1314363

Semi Volatile Organic Compounds (GC/MS) by Method 8270D

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Acenaphthene	ND	J4	1.05	1.05	07/20/2019 09:12	WG1311664
Acenaphthylene	ND	J4	1.05	1.05	07/20/2019 09:12	WG1311664
Acetophenone	ND	J4	10.5	1.05	07/20/2019 09:12	WG1311664
Anthracene	ND	J4	1.05	1.05	07/20/2019 09:12	WG1311664
Atrazine	ND	J4	10.5	1.05	07/20/2019 09:12	WG1311664
Benzaldehyde	ND	J4	10.5	1.05	07/20/2019 09:12	WG1311664
Benzo(a)anthracene	ND		1.05	1.05	07/20/2019 09:12	WG1311664
Benzo(b)fluoranthene	ND		1.05	1.05	07/20/2019 09:12	WG1311664
Benzo(k)fluoranthene	ND		1.05	1.05	07/20/2019 09:12	WG1311664
Benzo(g,h,i)perylene	ND		1.05	1.05	07/20/2019 09:12	WG1311664
Benzo(a)pyrene	ND		1.05	1.05	07/20/2019 09:12	WG1311664
Biphenyl	ND	J4	10.5	1.05	07/20/2019 09:12	WG1311664
Bis(2-chloroethoxy)methane	ND	J4	10.5	1.05	07/20/2019 09:12	WG1311664
Bis(2-chloroethyl)ether	ND	J4	10.5	1.05	07/20/2019 09:12	WG1311664
Bis(2-chloroisopropyl)ether	ND	J4	10.5	1.05	07/20/2019 09:12	WG1311664
4-Bromophenyl-phenylether	ND	J4	10.5	1.05	07/20/2019 09:12	WG1311664
Caprolactam	ND	J4	10.5	1.05	07/20/2019 09:12	WG1311664
Carbazole	ND	J4	10.5	1.05	07/20/2019 09:12	WG1311664
4-Chloroaniline	ND	J4	10.5	1.05	07/20/2019 09:12	WG1311664
2-Chloronaphthalene	ND	J4	1.05	1.05	07/20/2019 09:12	WG1311664
4-Chlorophenyl-phenylether	ND	J4	10.5	1.05	07/20/2019 09:12	WG1311664
Chrysene	ND		1.05	1.05	07/20/2019 09:12	WG1311664
Dibenz(a,h)anthracene	ND		1.05	1.05	07/20/2019 09:12	WG1311664
Dibenzofuran	ND	J4	10.5	1.05	07/20/2019 09:12	WG1311664
3,3-Dichlorobenzidine	ND	J4	10.5	1.05	07/20/2019 09:12	WG1311664
2,4-Dinitrotoluene	ND	J4	10.5	1.05	07/20/2019 09:12	WG1311664
2,6-Dinitrotoluene	ND	J4	10.5	1.05	07/20/2019 09:12	WG1311664
Fluoranthene	ND	J4	1.05	1.05	07/20/2019 09:12	WG1311664
Fluorene	ND	J4	1.05	1.05	07/20/2019 09:12	WG1311664

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc



Collected date/time: 07/11/19 13:43

L1118284

Semi Volatile Organic Compounds (GC/MS) by Method 8270D

Analyte	Result ug/l	Qualifier	RDL ug/l	Dilution	Analysis date / time	Batch
Hexachlorobenzene	ND	J4	1.05	1.05	07/20/2019 09:12	WG1311664
Hexachloro-1,3-butadiene	ND	J4	10.5	1.05	07/20/2019 09:12	WG1311664
Hexachlorocyclopentadiene	ND	J4	10.5	1.05	07/20/2019 09:12	WG1311664
Hexachloroethane	ND	J4	10.5	1.05	07/20/2019 09:12	WG1311664
Indeno(1,2,3-cd)pyrene	ND	J4	1.05	1.05	07/20/2019 09:12	WG1311664
Isophorone	ND	J4	10.5	1.05	07/20/2019 09:12	WG1311664
2-Methylnaphthalene	ND	J4	1.05	1.05	07/20/2019 09:12	WG1311664
Naphthalene	ND	J4	1.05	1.05	07/20/2019 09:12	WG1311664
2-Nitroaniline	ND	J4	10.5	1.05	07/20/2019 09:12	WG1311664
3-Nitroaniline	ND	J4	10.5	1.05	07/20/2019 09:12	WG1311664
4-Nitroaniline	ND	J4	10.5	1.05	07/20/2019 09:12	WG1311664
Nitrobenzene	ND	J4	10.5	1.05	07/20/2019 09:12	WG1311664
n-Nitrosodiphenylamine	ND	J4	10.5	1.05	07/20/2019 09:12	WG1311664
n-Nitrosodi-n-propylamine	ND	J4	10.5	1.05	07/20/2019 09:12	WG1311664
Phenanthrene	ND	J4	1.05	1.05	07/20/2019 09:12	WG1311664
Benzylbutyl phthalate	ND	J4	3.15	1.05	07/20/2019 09:12	WG1311664
Bis(2-ethylhexyl)phthalate	ND	J4	3.15	1.05	07/20/2019 09:12	WG1311664
Di-n-butyl phthalate	ND	J4	3.15	1.05	07/20/2019 09:12	WG1311664
Diethyl phthalate	ND	J4	3.15	1.05	07/20/2019 09:12	WG1311664
Dimethyl phthalate	ND	J4	3.15	1.05	07/20/2019 09:12	WG1311664
Di-n-octyl phthalate	ND	J4	3.15	1.05	07/20/2019 09:12	WG1311664
Pyrene	ND	J4	1.05	1.05	07/20/2019 09:12	WG1311664
1,2,4,5-Tetrachlorobenzene	ND	J4	10.5	1.05	07/20/2019 09:12	WG1311664
4-Chloro-3-methylphenol	ND	J4	10.5	1.05	07/20/2019 09:12	WG1311664
2-Chlorophenol	ND	J4	10.5	1.05	07/20/2019 09:12	WG1311664
2-Methylphenol	ND	J4	10.5	1.05	07/20/2019 09:12	WG1311664
3&4-Methyl Phenol	ND	J4	10.5	1.05	07/20/2019 09:12	WG1311664
2,4-Dichlorophenol	ND	J4	10.5	1.05	07/20/2019 09:12	WG1311664
2,4-Dimethylphenol	ND	J4	10.5	1.05	07/20/2019 09:12	WG1311664
4,6-Dinitro-2-methylphenol	ND	J4	10.5	1.05	07/20/2019 09:12	WG1311664
2,4-Dinitrophenol	ND	J4	10.5	1.05	07/20/2019 09:12	WG1311664
2-Nitrophenol	ND	J4	10.5	1.05	07/20/2019 09:12	WG1311664
4-Nitrophenol	ND	J4	10.5	1.05	07/20/2019 09:12	WG1311664
Pentachlorophenol	ND	J4	10.5	1.05	07/20/2019 09:12	WG1311664
Phenol	ND	J4	10.5	1.05	07/20/2019 09:12	WG1311664
2,4,5-Trichlorophenol	ND	J4	10.5	1.05	07/20/2019 09:12	WG1311664
2,4,6-Trichlorophenol	ND	J4	10.5	1.05	07/20/2019 09:12	WG1311664
(S) Nitrobenzene-d5	27.4		10.0-127		07/20/2019 09:12	WG1311664
(S) 2-Fluorobiphenyl	35.4		10.0-130		07/20/2019 09:12	WG1311664
(S) p-Terphenyl-d14	68.4		10.0-128		07/20/2019 09:12	WG1311664
(S) Phenol-d5	13.1		10.0-120		07/20/2019 09:12	WG1311664
(S) 2-Fluorophenol	21.0		10.0-120		07/20/2019 09:12	WG1311664
(S) 2,4,6-Tribromophenol	51.9		10.0-155		07/20/2019 09:12	WG1311664

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

Semi Volatile Organic Compounds (GC/MS) by Method 8270E-SIM

Analyte	Result ug/l	Qualifier	RDL ug/l	Dilution	Analysis date / time	Batch
Anthracene	ND		0.0500	1	07/18/2019 14:47	WG1313197
Acenaphthene	ND		0.0500	1	07/18/2019 14:47	WG1313197
Acenaphthylene	ND		0.0500	1	07/18/2019 14:47	WG1313197
Benzo(a)anthracene	ND		0.0500	1	07/18/2019 14:47	WG1313197
Benzo(a)pyrene	ND		0.0500	1	07/18/2019 14:47	WG1313197
Benzo(b)fluoranthene	ND		0.0500	1	07/18/2019 14:47	WG1313197
Benzo(g,h,i)perylene	ND		0.0500	1	07/18/2019 14:47	WG1313197
Benzo(k)fluoranthene	ND		0.0500	1	07/18/2019 14:47	WG1313197
Chrysene	ND		0.0500	1	07/18/2019 14:47	WG1313197



Semi Volatile Organic Compounds (GC/MS) by Method 8270E-SIM

Analyte	Result ug/l	Qualifier	RDL ug/l	Dilution	Analysis date / time	Batch
Dibenz(a,h)anthracene	ND		0.0500	1	07/18/2019 14:47	<a href="#">WG1313197</a>
Fluoranthene	ND		0.0500	1	07/18/2019 14:47	<a href="#">WG1313197</a>
Fluorene	ND		0.0500	1	07/18/2019 14:47	<a href="#">WG1313197</a>
Indeno(1,2,3-cd)pyrene	ND		0.0500	1	07/18/2019 14:47	<a href="#">WG1313197</a>
Naphthalene	ND	J4	0.250	1	07/18/2019 14:47	<a href="#">WG1313197</a>
Phenanthrene	ND		0.0500	1	07/18/2019 14:47	<a href="#">WG1313197</a>
Pyrene	ND		0.0500	1	07/18/2019 14:47	<a href="#">WG1313197</a>
(S) Nitrobenzene-d5	47.6		11.0-135		07/18/2019 14:47	<a href="#">WG1313197</a>
(S) 2-Fluorobiphenyl	58.5		32.0-120		07/18/2019 14:47	<a href="#">WG1313197</a>
(S) p-Terphenyl-d14	88.0		23.0-122		07/18/2019 14:47	<a href="#">WG1313197</a>

- 1 Cp
- 2 Tc
- 3 Ss
- 4 Cn
- 5 Sr
- 6 Qc
- 7 Gl
- 8 Al
- 9 Sc





Wet Chemistry by Method 4500CN E-2011

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	ug/l		ug/l		date / time	
Cyanide	ND		5.00	1	07/22/2019 14:02	<a href="#">WG1314084</a>

Mercury by Method 7470A

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	ug/l		ug/l		date / time	
Mercury	ND		0.200	1	07/16/2019 13:50	<a href="#">WG1311284</a>

Metals (ICP) by Method 6010D

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	ug/l		ug/l		date / time	
Aluminum	506		200	1	07/16/2019 11:14	<a href="#">WG1310256</a>
Antimony	ND		10.0	1	07/16/2019 11:14	<a href="#">WG1310256</a>
Arsenic	ND		10.0	1	07/16/2019 11:14	<a href="#">WG1310256</a>
Barium	866		5.00	1	07/16/2019 11:14	<a href="#">WG1310256</a>
Beryllium	3.04		2.00	1	07/16/2019 11:14	<a href="#">WG1310256</a>
Cadmium	ND		2.00	1	07/16/2019 11:14	<a href="#">WG1310256</a>
Calcium	24900		1000	1	07/16/2019 11:14	<a href="#">WG1310256</a>
Chromium	ND		10.0	1	07/16/2019 11:14	<a href="#">WG1310256</a>
Cobalt	128		10.0	1	07/16/2019 11:14	<a href="#">WG1310256</a>
Copper	ND		10.0	1	07/16/2019 11:14	<a href="#">WG1310256</a>
Iron	570		100	1	07/16/2019 11:14	<a href="#">WG1310256</a>
Lead	ND		5.00	1	07/16/2019 11:14	<a href="#">WG1310256</a>
Magnesium	38400		1000	1	07/16/2019 11:14	<a href="#">WG1310256</a>
Manganese	1320		10.0	1	07/16/2019 11:14	<a href="#">WG1310256</a>
Nickel	27.4		10.0	1	07/16/2019 11:14	<a href="#">WG1310256</a>
Potassium	1120		1000	1	07/16/2019 11:14	<a href="#">WG1310256</a>
Selenium	ND		10.0	1	07/16/2019 11:14	<a href="#">WG1310256</a>
Silver	ND		5.00	1	07/16/2019 11:14	<a href="#">WG1310256</a>
Sodium	74700		1000	1	07/16/2019 11:14	<a href="#">WG1310256</a>
Thallium	ND		10.0	1	07/16/2019 11:14	<a href="#">WG1310256</a>
Vanadium	ND		20.0	1	07/16/2019 11:14	<a href="#">WG1310256</a>
Zinc	144		50.0	1	07/16/2019 11:14	<a href="#">WG1310256</a>

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	ug/l		ug/l		date / time	
Acetone	ND		50.0	1	07/16/2019 14:58	<a href="#">WG1312100</a>
Benzene	ND		1.00	1	07/16/2019 14:58	<a href="#">WG1312100</a>
Bromochloromethane	ND		1.00	1	07/16/2019 14:58	<a href="#">WG1312100</a>
Bromodichloromethane	ND		1.00	1	07/16/2019 14:58	<a href="#">WG1312100</a>
Bromoform	ND		1.00	1	07/16/2019 14:58	<a href="#">WG1312100</a>
Bromomethane	ND		5.00	1	07/16/2019 14:58	<a href="#">WG1312100</a>
Carbon disulfide	ND		1.00	1	07/16/2019 14:58	<a href="#">WG1312100</a>
Carbon tetrachloride	ND		1.00	1	07/16/2019 14:58	<a href="#">WG1312100</a>
Chlorobenzene	ND		1.00	1	07/16/2019 14:58	<a href="#">WG1312100</a>
Chlorodibromomethane	ND		1.00	1	07/16/2019 14:58	<a href="#">WG1312100</a>
Chloroethane	ND		5.00	1	07/16/2019 14:58	<a href="#">WG1312100</a>
Chloroform	ND		5.00	1	07/16/2019 14:58	<a href="#">WG1312100</a>
Chloromethane	ND		2.50	1	07/16/2019 14:58	<a href="#">WG1312100</a>
Cyclohexane	ND		1.00	1	07/16/2019 14:58	<a href="#">WG1312100</a>
1,2-Dibromo-3-Chloropropane	ND		5.00	1	07/16/2019 14:58	<a href="#">WG1312100</a>
1,2-Dibromoethane	ND		1.00	1	07/16/2019 14:58	<a href="#">WG1312100</a>
1,2-Dichlorobenzene	ND		1.00	1	07/16/2019 14:58	<a href="#">WG1312100</a>
1,3-Dichlorobenzene	ND		1.00	1	07/16/2019 14:58	<a href="#">WG1312100</a>

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc



Collected date/time: 07/12/19 11:30

L1118284

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result ug/l	Qualifier	RDL ug/l	Dilution	Analysis date / time	Batch
1,4-Dichlorobenzene	ND		1.00	1	07/16/2019 14:58	WG1312100
Dichlorodifluoromethane	ND		5.00	1	07/16/2019 14:58	WG1312100
1,1-Dichloroethane	ND		1.00	1	07/16/2019 14:58	WG1312100
1,2-Dichloroethane	ND		1.00	1	07/16/2019 14:58	WG1312100
1,1-Dichloroethene	ND		1.00	1	07/16/2019 14:58	WG1312100
cis-1,2-Dichloroethene	ND		1.00	1	07/16/2019 14:58	WG1312100
trans-1,2-Dichloroethene	ND		1.00	1	07/16/2019 14:58	WG1312100
1,2-Dichloropropane	ND		1.00	1	07/16/2019 14:58	WG1312100
cis-1,3-Dichloropropene	ND		1.00	1	07/16/2019 14:58	WG1312100
trans-1,3-Dichloropropene	ND		1.00	1	07/16/2019 14:58	WG1312100
Ethylbenzene	ND		1.00	1	07/16/2019 14:58	WG1312100
2-Hexanone	ND		10.0	1	07/16/2019 14:58	WG1312100
Isopropylbenzene	ND		1.00	1	07/16/2019 14:58	WG1312100
2-Butanone (MEK)	ND		10.0	1	07/16/2019 14:58	WG1312100
Methyl Acetate	ND		20.0	1	07/16/2019 14:58	WG1312100
Methyl Cyclohexane	ND		1.00	1	07/16/2019 14:58	WG1312100
Methylene Chloride	ND		5.00	1	07/16/2019 14:58	WG1312100
4-Methyl-2-pentanone (MIBK)	ND		10.0	1	07/16/2019 14:58	WG1312100
Methyl tert-butyl ether	ND		1.00	1	07/16/2019 14:58	WG1312100
Styrene	ND		1.00	1	07/16/2019 14:58	WG1312100
1,1,2,2-Tetrachloroethane	ND		1.00	1	07/16/2019 14:58	WG1312100
Tetrachloroethene	ND		1.00	1	07/16/2019 14:58	WG1312100
Toluene	ND		1.00	1	07/16/2019 14:58	WG1312100
1,2,3-Trichlorobenzene	ND		1.00	1	07/16/2019 14:58	WG1312100
1,2,4-Trichlorobenzene	ND		1.00	1	07/16/2019 14:58	WG1312100
1,1,1-Trichloroethane	ND		1.00	1	07/16/2019 14:58	WG1312100
1,1,2-Trichloroethane	ND		1.00	1	07/16/2019 14:58	WG1312100
Trichloroethene	ND		1.00	1	07/16/2019 14:58	WG1312100
Trichlorofluoromethane	ND		5.00	1	07/16/2019 14:58	WG1312100
1,1,2-Trichlorotrifluoroethane	ND		1.00	1	07/16/2019 14:58	WG1312100
Vinyl chloride	ND		1.00	1	07/16/2019 14:58	WG1312100
Xylenes, Total	ND		3.00	1	07/16/2019 14:58	WG1312100
(S) Toluene-d8	99.7		80.0-120		07/16/2019 14:58	WG1312100
(S) 4-Bromofluorobenzene	93.1		77.0-126		07/16/2019 14:58	WG1312100
(S) 1,2-Dichloroethane-d4	109		70.0-130		07/16/2019 14:58	WG1312100

- 1 Cp
- 2 Tc
- 3 Ss
- 4 Cn
- 5 Sr
- 6 Qc
- 7 Gl
- 8 Al
- 9 Sc

Pesticides (GC) by Method 8081B

Analyte	Result ug/l	Qualifier	RDL ug/l	Dilution	Analysis date / time	Batch
Aldrin	ND		0.0500	1	07/19/2019 18:45	WG1312292
Alpha BHC	ND		0.0500	1	07/19/2019 18:45	WG1312292
Beta BHC	ND		0.0500	1	07/19/2019 18:45	WG1312292
Delta BHC	ND		0.0500	1	07/19/2019 18:45	WG1312292
Gamma BHC	ND		0.0500	1	07/19/2019 18:45	WG1312292
Chlordane	ND		5.00	1	07/19/2019 18:45	WG1312292
4,4-DDD	ND		0.0500	1	07/19/2019 18:45	WG1312292
4,4-DDE	ND		0.0500	1	07/19/2019 18:45	WG1312292
4,4-DDT	ND		0.0500	1	07/19/2019 18:45	WG1312292
Dieldrin	ND		0.0500	1	07/19/2019 18:45	WG1312292
Endosulfan I	ND		0.0500	1	07/19/2019 18:45	WG1312292
Endosulfan II	ND		0.0500	1	07/19/2019 18:45	WG1312292
Endosulfan sulfate	ND		0.0500	1	07/19/2019 18:45	WG1312292
Endrin	ND		0.0500	1	07/19/2019 18:45	WG1312292
Endrin aldehyde	ND		0.0500	1	07/19/2019 18:45	WG1312292
Endrin ketone	ND		0.0500	1	07/19/2019 18:45	WG1312292
Heptachlor	ND		0.0500	1	07/19/2019 18:45	WG1312292



Collected date/time: 07/12/19 11:30

L1118284

Pesticides (GC) by Method 8081B

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	ug/l		ug/l		date / time	
Heptachlor epoxide	ND		0.0500	1	07/19/2019 18:45	<a href="#">WG1312292</a>
Hexachlorobenzene	ND		0.0500	1	07/19/2019 18:45	<a href="#">WG1312292</a>
Methoxychlor	ND		0.0500	1	07/19/2019 18:45	<a href="#">WG1312292</a>
Toxaphene	ND		0.500	1	07/19/2019 18:45	<a href="#">WG1312292</a>
(S) Decachlorobiphenyl	76.3		10.0-128		07/19/2019 18:45	<a href="#">WG1312292</a>
(S) Tetrachloro-m-xylene	100		10.0-127		07/19/2019 18:45	<a href="#">WG1312292</a>

- 1 Cp
- 2 Tc
- 3 Ss
- 4 Cn
- 5 Sr
- 6 Qc
- 7 Gl
- 8 Al
- 9 Sc

Polychlorinated Biphenyls (GC) by Method 8082 A

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	ug/l		ug/l		date / time	
PCB 1016	ND		0.500	1	07/19/2019 20:14	<a href="#">WG1312292</a>
PCB 1221	ND		0.500	1	07/19/2019 20:14	<a href="#">WG1312292</a>
PCB 1232	ND		0.500	1	07/19/2019 20:14	<a href="#">WG1312292</a>
PCB 1242	ND		0.500	1	07/19/2019 20:14	<a href="#">WG1312292</a>
PCB 1248	ND		0.500	1	07/19/2019 20:14	<a href="#">WG1312292</a>
PCB 1254	ND		0.500	1	07/19/2019 20:14	<a href="#">WG1312292</a>
PCB 1260	ND		0.500	1	07/19/2019 20:14	<a href="#">WG1312292</a>
(S) Decachlorobiphenyl	94.5		10.0-128		07/19/2019 20:14	<a href="#">WG1312292</a>
(S) Tetrachloro-m-xylene	79.4		10.0-127		07/19/2019 20:14	<a href="#">WG1312292</a>

Semi Volatile Organic Compounds (GC/MS) by Method 8270D

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	ug/l		ug/l		date / time	
Acenaphthene	ND	J4	1.00	1	07/22/2019 18:06	<a href="#">WG1313654</a>
Acenaphthylene	ND	J4	1.00	1	07/22/2019 18:06	<a href="#">WG1313654</a>
Acetophenone	ND	J4	10.0	1	07/22/2019 18:06	<a href="#">WG1313654</a>
Anthracene	ND	J4	1.00	1	07/22/2019 18:06	<a href="#">WG1313654</a>
Atrazine	ND	J4	10.0	1	07/22/2019 18:06	<a href="#">WG1313654</a>
Benzaldehyde	ND	J4	10.0	1	07/22/2019 18:06	<a href="#">WG1313654</a>
Benzo(a)anthracene	ND	J4	1.00	1	07/22/2019 18:06	<a href="#">WG1313654</a>
Benzo(b)fluoranthene	ND	J4	1.00	1	07/22/2019 18:06	<a href="#">WG1313654</a>
Benzo(k)fluoranthene	ND	J4	1.00	1	07/22/2019 18:06	<a href="#">WG1313654</a>
Benzo(g,h,i)perylene	ND	J4	1.00	1	07/22/2019 18:06	<a href="#">WG1313654</a>
Benzo(a)pyrene	ND	J4	1.00	1	07/22/2019 18:06	<a href="#">WG1313654</a>
Biphenyl	ND	J4	10.0	1	07/22/2019 18:06	<a href="#">WG1313654</a>
Bis(2-chlorethoxy)methane	ND	J4	10.0	1	07/22/2019 18:06	<a href="#">WG1313654</a>
Bis(2-chloroethyl)ether	ND	J4	10.0	1	07/22/2019 18:06	<a href="#">WG1313654</a>
Bis(2-chloroisopropyl)ether	ND	J4	10.0	1	07/22/2019 18:06	<a href="#">WG1313654</a>
4-Bromophenyl-phenylether	ND	J4	10.0	1	07/22/2019 18:06	<a href="#">WG1313654</a>
Caprolactam	ND	J4	10.0	1	07/22/2019 18:06	<a href="#">WG1313654</a>
Carbazole	ND	J4	10.0	1	07/22/2019 18:06	<a href="#">WG1313654</a>
4-Chloroaniline	ND	J4	10.0	1	07/22/2019 18:06	<a href="#">WG1313654</a>
2-Chloronaphthalene	ND	J4	1.00	1	07/22/2019 18:06	<a href="#">WG1313654</a>
4-Chlorophenyl-phenylether	ND	J4	10.0	1	07/22/2019 18:06	<a href="#">WG1313654</a>
Chrysene	ND	J4	1.00	1	07/22/2019 18:06	<a href="#">WG1313654</a>
Dibenz(a,h)anthracene	ND	J4	1.00	1	07/22/2019 18:06	<a href="#">WG1313654</a>
Dibenzofuran	ND	J4	10.0	1	07/22/2019 18:06	<a href="#">WG1313654</a>
3,3-Dichlorobenzidine	ND	J4	10.0	1	07/22/2019 18:06	<a href="#">WG1313654</a>
2,4-Dinitrotoluene	ND	J4	10.0	1	07/22/2019 18:06	<a href="#">WG1313654</a>
2,6-Dinitrotoluene	ND	J4	10.0	1	07/22/2019 18:06	<a href="#">WG1313654</a>
Fluoranthene	ND	J4	1.00	1	07/22/2019 18:06	<a href="#">WG1313654</a>
Fluorene	ND	J4	1.00	1	07/22/2019 18:06	<a href="#">WG1313654</a>
Hexachlorobenzene	ND	J4	1.00	1	07/22/2019 18:06	<a href="#">WG1313654</a>
Hexachloro-1,3-butadiene	ND	J4	10.0	1	07/22/2019 18:06	<a href="#">WG1313654</a>
Hexachlorocyclopentadiene	ND	J4	10.0	1	07/22/2019 18:06	<a href="#">WG1313654</a>



Collected date/time: 07/12/19 11:30

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Semi Volatile Organic Compounds (GC/MS) by Method 8270D

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	ug/l		ug/l		date / time	
Hexachloroethane	ND	J4	10.0	1	07/22/2019 18:06	WG1313654
Indeno(1,2,3-cd)pyrene	ND	J4	1.00	1	07/22/2019 18:06	WG1313654
Isophorone	ND	J4	10.0	1	07/22/2019 18:06	WG1313654
2-Methylnaphthalene	ND	J4	1.00	1	07/22/2019 18:06	WG1313654
Naphthalene	ND	J4	1.00	1	07/22/2019 18:06	WG1313654
2-Nitroaniline	ND	J4	10.0	1	07/22/2019 18:06	WG1313654
3-Nitroaniline	ND	J4	10.0	1	07/22/2019 18:06	WG1313654
4-Nitroaniline	ND	J4	10.0	1	07/22/2019 18:06	WG1313654
Nitrobenzene	ND	J4	10.0	1	07/22/2019 18:06	WG1313654
n-Nitrosodiphenylamine	ND	J4	10.0	1	07/22/2019 18:06	WG1313654
n-Nitrosodi-n-propylamine	ND	J4	10.0	1	07/22/2019 18:06	WG1313654
Phenanthrene	ND	J4	1.00	1	07/22/2019 18:06	WG1313654
Benzylbutyl phthalate	ND	J4	3.00	1	07/22/2019 18:06	WG1313654
Bis(2-ethylhexyl)phthalate	ND	J4	3.00	1	07/22/2019 18:06	WG1313654
Di-n-butyl phthalate	ND	J4	3.00	1	07/22/2019 18:06	WG1313654
Diethyl phthalate	ND	J4	3.00	1	07/22/2019 18:06	WG1313654
Dimethyl phthalate	ND	J4	3.00	1	07/22/2019 18:06	WG1313654
Di-n-octyl phthalate	ND	J4	3.00	1	07/22/2019 18:06	WG1313654
Pyrene	ND	J4	1.00	1	07/22/2019 18:06	WG1313654
1,2,4,5-Tetrachlorobenzene	ND	J4	10.0	1	07/22/2019 18:06	WG1313654
4-Chloro-3-methylphenol	ND	J4	10.0	1	07/22/2019 18:06	WG1313654
2-Chlorophenol	ND	J4	10.0	1	07/22/2019 18:06	WG1313654
2-Methylphenol	ND	J4	10.0	1	07/22/2019 18:06	WG1313654
3&4-Methyl Phenol	ND	J4	10.0	1	07/22/2019 18:06	WG1313654
2,4-Dichlorophenol	ND	J4	10.0	1	07/22/2019 18:06	WG1313654
2,4-Dimethylphenol	ND	J4	10.0	1	07/22/2019 18:06	WG1313654
4,6-Dinitro-2-methylphenol	ND	J4	10.0	1	07/22/2019 18:06	WG1313654
2,4-Dinitrophenol	ND	J4	10.0	1	07/22/2019 18:06	WG1313654
2-Nitrophenol	ND	J4	10.0	1	07/22/2019 18:06	WG1313654
4-Nitrophenol	ND	J4	10.0	1	07/22/2019 18:06	WG1313654
Pentachlorophenol	ND	J4	10.0	1	07/22/2019 18:06	WG1313654
Phenol	ND	J4	10.0	1	07/22/2019 18:06	WG1313654
2,4,5-Trichlorophenol	ND	J4	10.0	1	07/22/2019 18:06	WG1313654
2,4,6-Trichlorophenol	ND	J4	10.0	1	07/22/2019 18:06	WG1313654
(S) Nitrobenzene-d5	39.5		10.0-127		07/22/2019 18:06	WG1313654
(S) 2-Fluorobiphenyl	36.3		10.0-130		07/22/2019 18:06	WG1313654
(S) p-Terphenyl-d14	56.5		10.0-128		07/22/2019 18:06	WG1313654
(S) Phenol-d5	17.7		10.0-120		07/22/2019 18:06	WG1313654
(S) 2-Fluorophenol	26.9		10.0-120		07/22/2019 18:06	WG1313654
(S) 2,4,6-Tribromophenol	54.0		10.0-155		07/22/2019 18:06	WG1313654

- 1 Cp
- 2 Tc
- 3 Ss
- 4 Cn
- 5 Sr
- 6 Qc
- 7 Gl
- 8 Al
- 9 Sc

Sample Narrative:

L1118284-08 WG1313654: Duplicate analysis was performed.

Semi Volatile Organic Compounds (GC/MS) by Method 8270E-SIM

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	ug/l		ug/l		date / time	
Anthracene	ND		0.0500	1	07/18/2019 15:11	WG1313197
Acenaphthene	ND		0.0500	1	07/18/2019 15:11	WG1313197
Acenaphthylene	ND		0.0500	1	07/18/2019 15:11	WG1313197
Benzo(a)anthracene	ND		0.0500	1	07/18/2019 15:11	WG1313197
Benzo(a)pyrene	ND		0.0500	1	07/18/2019 15:11	WG1313197
Benzo(b)fluoranthene	ND		0.0500	1	07/18/2019 15:11	WG1313197
Benzo(g,h,i)perylene	ND		0.0500	1	07/18/2019 15:11	WG1313197
Benzo(k)fluoranthene	ND		0.0500	1	07/18/2019 15:11	WG1313197
Chrysene	ND		0.0500	1	07/18/2019 15:11	WG1313197



Collected date/time: 07/12/19 11:30

L1118284

Semi Volatile Organic Compounds (GC/MS) by Method 8270E-SIM

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Dibenz(a,h)anthracene	ND		0.0500	1	07/18/2019 15:11	<a href="#">WG1313197</a>
Fluoranthene	ND		0.0500	1	07/18/2019 15:11	<a href="#">WG1313197</a>
Fluorene	ND		0.0500	1	07/18/2019 15:11	<a href="#">WG1313197</a>
Indeno(1,2,3-cd)pyrene	ND		0.0500	1	07/18/2019 15:11	<a href="#">WG1313197</a>
Naphthalene	ND	J4	0.250	1	07/18/2019 15:11	<a href="#">WG1313197</a>
Phenanthrene	ND		0.0500	1	07/18/2019 15:11	<a href="#">WG1313197</a>
Pyrene	ND		0.0500	1	07/18/2019 15:11	<a href="#">WG1313197</a>
(S) Nitrobenzene-d5	41.7		11.0-135		07/18/2019 15:11	<a href="#">WG1313197</a>
(S) 2-Fluorobiphenyl	54.0		32.0-120		07/18/2019 15:11	<a href="#">WG1313197</a>
(S) p-Terphenyl-d14	92.5		23.0-122		07/18/2019 15:11	<a href="#">WG1313197</a>

- 1 Cp
- 2 Tc
- 3 Ss
- 4 Cn
- 5 Sr
- 6 Qc
- 7 Gl
- 8 Al
- 9 Sc



Wet Chemistry by Method 4500CN E-2011

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	ug/l		ug/l		date / time	
Cyanide	ND		5.00	1	07/22/2019 14:03	<a href="#">WG1314084</a>

Mercury by Method 7470A

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	ug/l		ug/l		date / time	
Mercury	ND		0.200	1	07/16/2019 13:52	<a href="#">WG1311284</a>

Metals (ICP) by Method 6010D

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	ug/l		ug/l		date / time	
Aluminum	ND		200	1	07/16/2019 11:17	<a href="#">WG1310256</a>
Antimony	ND		10.0	1	07/16/2019 11:17	<a href="#">WG1310256</a>
Arsenic	ND		10.0	1	07/16/2019 11:17	<a href="#">WG1310256</a>
Barium	ND		5.00	1	07/16/2019 11:17	<a href="#">WG1310256</a>
Beryllium	ND		2.00	1	07/16/2019 11:17	<a href="#">WG1310256</a>
Cadmium	ND		2.00	1	07/16/2019 11:17	<a href="#">WG1310256</a>
Calcium	ND		1000	1	07/16/2019 11:17	<a href="#">WG1310256</a>
Chromium	ND		10.0	1	07/16/2019 11:17	<a href="#">WG1310256</a>
Cobalt	ND		10.0	1	07/16/2019 11:17	<a href="#">WG1310256</a>
Copper	ND		10.0	1	07/16/2019 11:17	<a href="#">WG1310256</a>
Iron	ND		100	1	07/16/2019 11:17	<a href="#">WG1310256</a>
Lead	ND		5.00	1	07/16/2019 11:17	<a href="#">WG1310256</a>
Magnesium	ND		1000	1	07/16/2019 11:17	<a href="#">WG1310256</a>
Manganese	ND		10.0	1	07/16/2019 11:17	<a href="#">WG1310256</a>
Nickel	ND		10.0	1	07/16/2019 11:17	<a href="#">WG1310256</a>
Potassium	ND		1000	1	07/16/2019 11:17	<a href="#">WG1310256</a>
Selenium	ND		10.0	1	07/16/2019 11:17	<a href="#">WG1310256</a>
Silver	ND		5.00	1	07/16/2019 11:17	<a href="#">WG1310256</a>
Sodium	ND		1000	1	07/16/2019 11:17	<a href="#">WG1310256</a>
Thallium	ND		10.0	1	07/16/2019 11:17	<a href="#">WG1310256</a>
Vanadium	ND		20.0	1	07/16/2019 11:17	<a href="#">WG1310256</a>
Zinc	ND		50.0	1	07/16/2019 11:17	<a href="#">WG1310256</a>

- 1 Cp
- 2 Tc
- 3 Ss
- 4 Cn
- 5 Sr
- 6 Qc
- 7 Gl
- 8 Al
- 9 Sc

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	ug/l		ug/l		date / time	
Acetone	ND		50.0	1	07/16/2019 11:57	<a href="#">WG1312100</a>
Benzene	ND		1.00	1	07/16/2019 11:57	<a href="#">WG1312100</a>
Bromochloromethane	ND		1.00	1	07/16/2019 11:57	<a href="#">WG1312100</a>
Bromodichloromethane	ND		1.00	1	07/16/2019 11:57	<a href="#">WG1312100</a>
Bromoform	ND		1.00	1	07/16/2019 11:57	<a href="#">WG1312100</a>
Bromomethane	ND		5.00	1	07/16/2019 11:57	<a href="#">WG1312100</a>
Carbon disulfide	ND		1.00	1	07/16/2019 11:57	<a href="#">WG1312100</a>
Carbon tetrachloride	ND		1.00	1	07/16/2019 11:57	<a href="#">WG1312100</a>
Chlorobenzene	ND		1.00	1	07/16/2019 11:57	<a href="#">WG1312100</a>
Chlorodibromomethane	ND		1.00	1	07/16/2019 11:57	<a href="#">WG1312100</a>
Chloroethane	ND		5.00	1	07/16/2019 11:57	<a href="#">WG1312100</a>
Chloroform	ND		5.00	1	07/16/2019 11:57	<a href="#">WG1312100</a>
Chloromethane	ND		2.50	1	07/16/2019 11:57	<a href="#">WG1312100</a>
Cyclohexane	ND		1.00	1	07/16/2019 11:57	<a href="#">WG1312100</a>
1,2-Dibromo-3-Chloropropane	ND		5.00	1	07/16/2019 11:57	<a href="#">WG1312100</a>
1,2-Dibromoethane	ND		1.00	1	07/16/2019 11:57	<a href="#">WG1312100</a>
1,2-Dichlorobenzene	ND		1.00	1	07/16/2019 11:57	<a href="#">WG1312100</a>
1,3-Dichlorobenzene	ND		1.00	1	07/16/2019 11:57	<a href="#">WG1312100</a>



Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	ug/l		ug/l		date / time	
1,4-Dichlorobenzene	ND		1.00	1	07/16/2019 11:57	WG1312100
Dichlorodifluoromethane	ND		5.00	1	07/16/2019 11:57	WG1312100
1,1-Dichloroethane	ND		1.00	1	07/16/2019 11:57	WG1312100
1,2-Dichloroethane	ND		1.00	1	07/16/2019 11:57	WG1312100
1,1-Dichloroethene	ND		1.00	1	07/16/2019 11:57	WG1312100
cis-1,2-Dichloroethene	ND		1.00	1	07/16/2019 11:57	WG1312100
trans-1,2-Dichloroethene	ND		1.00	1	07/16/2019 11:57	WG1312100
1,2-Dichloropropane	ND		1.00	1	07/16/2019 11:57	WG1312100
cis-1,3-Dichloropropene	ND		1.00	1	07/16/2019 11:57	WG1312100
trans-1,3-Dichloropropene	ND		1.00	1	07/16/2019 11:57	WG1312100
Ethylbenzene	ND		1.00	1	07/16/2019 11:57	WG1312100
2-Hexanone	ND		10.0	1	07/16/2019 11:57	WG1312100
Isopropylbenzene	ND		1.00	1	07/16/2019 11:57	WG1312100
2-Butanone (MEK)	ND		10.0	1	07/16/2019 11:57	WG1312100
Methyl Acetate	ND		20.0	1	07/16/2019 11:57	WG1312100
Methyl Cyclohexane	ND		1.00	1	07/16/2019 11:57	WG1312100
Methylene Chloride	ND		5.00	1	07/16/2019 11:57	WG1312100
4-Methyl-2-pentanone (MIBK)	ND		10.0	1	07/16/2019 11:57	WG1312100
Methyl tert-butyl ether	ND		1.00	1	07/16/2019 11:57	WG1312100
Styrene	ND		1.00	1	07/16/2019 11:57	WG1312100
1,1,2,2-Tetrachloroethane	ND		1.00	1	07/16/2019 11:57	WG1312100
Tetrachloroethene	ND		1.00	1	07/16/2019 11:57	WG1312100
Toluene	ND		1.00	1	07/16/2019 11:57	WG1312100
1,2,3-Trichlorobenzene	ND		1.00	1	07/16/2019 11:57	WG1312100
1,2,4-Trichlorobenzene	ND		1.00	1	07/16/2019 11:57	WG1312100
1,1,1-Trichloroethane	ND		1.00	1	07/16/2019 11:57	WG1312100
1,1,2-Trichloroethane	ND		1.00	1	07/16/2019 11:57	WG1312100
Trichloroethene	ND		1.00	1	07/16/2019 11:57	WG1312100
Trichlorofluoromethane	ND		5.00	1	07/16/2019 11:57	WG1312100
1,1,2-Trichlorotrifluoroethane	ND		1.00	1	07/16/2019 11:57	WG1312100
Vinyl chloride	ND		1.00	1	07/16/2019 11:57	WG1312100
Xylenes, Total	ND		3.00	1	07/16/2019 11:57	WG1312100
(S) Toluene-d8	97.8		80.0-120		07/16/2019 11:57	WG1312100
(S) 4-Bromofluorobenzene	93.1		77.0-126		07/16/2019 11:57	WG1312100
(S) 1,2-Dichloroethane-d4	108		70.0-130		07/16/2019 11:57	WG1312100

- 1 Cp
- 2 Tc
- 3 Ss
- 4 Cn
- 5 Sr
- 6 Qc
- 7 Gl
- 8 Al
- 9 Sc

Pesticides (GC) by Method 8081B

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	ug/l		ug/l		date / time	
Aldrin	ND		0.0500	1	07/19/2019 18:57	WG1312292
Alpha BHC	ND		0.0500	1	07/19/2019 18:57	WG1312292
Beta BHC	ND		0.0500	1	07/19/2019 18:57	WG1312292
Delta BHC	ND		0.0500	1	07/19/2019 18:57	WG1312292
Gamma BHC	ND		0.0500	1	07/19/2019 18:57	WG1312292
Chlordane	ND		5.00	1	07/19/2019 18:57	WG1312292
4,4-DDD	ND		0.0500	1	07/19/2019 18:57	WG1312292
4,4-DDE	ND		0.0500	1	07/19/2019 18:57	WG1312292
4,4-DDT	ND		0.0500	1	07/19/2019 18:57	WG1312292
Dieldrin	ND		0.0500	1	07/19/2019 18:57	WG1312292
Endosulfan I	ND		0.0500	1	07/19/2019 18:57	WG1312292
Endosulfan II	ND		0.0500	1	07/19/2019 18:57	WG1312292
Endosulfan sulfate	ND		0.0500	1	07/19/2019 18:57	WG1312292
Endrin	ND		0.0500	1	07/19/2019 18:57	WG1312292
Endrin aldehyde	ND		0.0500	1	07/19/2019 18:57	WG1312292
Endrin ketone	ND		0.0500	1	07/19/2019 18:57	WG1312292
Heptachlor	ND		0.0500	1	07/19/2019 18:57	WG1312292



Pesticides (GC) by Method 8081B

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	ug/l		ug/l		date / time	
Heptachlor epoxide	ND		0.0500	1	07/19/2019 18:57	<a href="#">WG1312292</a>
Hexachlorobenzene	ND		0.0500	1	07/19/2019 18:57	<a href="#">WG1312292</a>
Methoxychlor	ND		0.0500	1	07/19/2019 18:57	<a href="#">WG1312292</a>
Toxaphene	ND		0.500	1	07/19/2019 18:57	<a href="#">WG1312292</a>
(S) Decachlorobiphenyl	59.8		10.0-128		07/19/2019 18:57	<a href="#">WG1312292</a>
(S) Tetrachloro-m-xylene	92.8		10.0-127		07/19/2019 18:57	<a href="#">WG1312292</a>

- 1 Cp
- 2 Tc
- 3 Ss
- 4 Cn
- 5 Sr
- 6 Qc
- 7 Gl
- 8 Al
- 9 Sc

Polychlorinated Biphenyls (GC) by Method 8082 A

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	ug/l		ug/l		date / time	
PCB 1016	ND		0.500	1	07/19/2019 20:28	<a href="#">WG1312292</a>
PCB 1221	ND		0.500	1	07/19/2019 20:28	<a href="#">WG1312292</a>
PCB 1232	ND		0.500	1	07/19/2019 20:28	<a href="#">WG1312292</a>
PCB 1242	ND		0.500	1	07/19/2019 20:28	<a href="#">WG1312292</a>
PCB 1248	ND		0.500	1	07/19/2019 20:28	<a href="#">WG1312292</a>
PCB 1254	ND		0.500	1	07/19/2019 20:28	<a href="#">WG1312292</a>
PCB 1260	ND		0.500	1	07/19/2019 20:28	<a href="#">WG1312292</a>
(S) Decachlorobiphenyl	57.7		10.0-128		07/19/2019 20:28	<a href="#">WG1312292</a>
(S) Tetrachloro-m-xylene	72.3		10.0-127		07/19/2019 20:28	<a href="#">WG1312292</a>

Semi Volatile Organic Compounds (GC/MS) by Method 8270D

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	ug/l		ug/l		date / time	
Acenaphthene	ND	J4	1.00	1	07/22/2019 03:46	<a href="#">WG1313654</a>
Acenaphthylene	ND	J4	1.00	1	07/22/2019 03:46	<a href="#">WG1313654</a>
Acetophenone	ND	J4	10.0	1	07/22/2019 03:46	<a href="#">WG1313654</a>
Anthracene	ND	J4	1.00	1	07/22/2019 03:46	<a href="#">WG1313654</a>
Atrazine	ND	J4	10.0	1	07/22/2019 03:46	<a href="#">WG1313654</a>
Benzaldehyde	ND	J4	10.0	1	07/22/2019 03:46	<a href="#">WG1313654</a>
Benzo(a)anthracene	ND	J4	1.00	1	07/22/2019 03:46	<a href="#">WG1313654</a>
Benzo(b)fluoranthene	ND	J4	1.00	1	07/22/2019 03:46	<a href="#">WG1313654</a>
Benzo(k)fluoranthene	ND	J4	1.00	1	07/22/2019 03:46	<a href="#">WG1313654</a>
Benzo(g,h,i)perylene	ND	J4	1.00	1	07/22/2019 03:46	<a href="#">WG1313654</a>
Benzo(a)pyrene	ND	J4	1.00	1	07/22/2019 03:46	<a href="#">WG1313654</a>
Biphenyl	ND	J4	10.0	1	07/22/2019 03:46	<a href="#">WG1313654</a>
Bis(2-chloroethoxy)methane	ND	J4	10.0	1	07/22/2019 03:46	<a href="#">WG1313654</a>
Bis(2-chloroethyl)ether	ND	J4	10.0	1	07/22/2019 03:46	<a href="#">WG1313654</a>
Bis(2-chloroisopropyl)ether	ND	J4	10.0	1	07/22/2019 03:46	<a href="#">WG1313654</a>
4-Bromophenyl-phenylether	ND	J4	10.0	1	07/22/2019 03:46	<a href="#">WG1313654</a>
Caprolactam	ND	J4	10.0	1	07/22/2019 03:46	<a href="#">WG1313654</a>
Carbazole	ND	J4	10.0	1	07/22/2019 03:46	<a href="#">WG1313654</a>
4-Chloroaniline	ND	J4	10.0	1	07/22/2019 03:46	<a href="#">WG1313654</a>
2-Chloronaphthalene	ND	J4	1.00	1	07/22/2019 03:46	<a href="#">WG1313654</a>
4-Chlorophenyl-phenylether	ND	J4	10.0	1	07/22/2019 03:46	<a href="#">WG1313654</a>
Chrysene	ND	J4	1.00	1	07/22/2019 03:46	<a href="#">WG1313654</a>
Dibenz(a,h)anthracene	ND	J4	1.00	1	07/22/2019 03:46	<a href="#">WG1313654</a>
Dibenzofuran	ND	J4	10.0	1	07/22/2019 03:46	<a href="#">WG1313654</a>
3,3-Dichlorobenzidine	ND	J4	10.0	1	07/22/2019 03:46	<a href="#">WG1313654</a>
2,4-Dinitrotoluene	ND	J4	10.0	1	07/22/2019 03:46	<a href="#">WG1313654</a>
2,6-Dinitrotoluene	ND	J4	10.0	1	07/22/2019 03:46	<a href="#">WG1313654</a>
Fluoranthene	ND	J4	1.00	1	07/22/2019 03:46	<a href="#">WG1313654</a>
Fluorene	ND	J4	1.00	1	07/22/2019 03:46	<a href="#">WG1313654</a>
Hexachlorobenzene	ND	J4	1.00	1	07/22/2019 03:46	<a href="#">WG1313654</a>
Hexachloro-1,3-butadiene	ND	J4	10.0	1	07/22/2019 03:46	<a href="#">WG1313654</a>
Hexachlorocyclopentadiene	ND	J4	10.0	1	07/22/2019 03:46	<a href="#">WG1313654</a>





Semi Volatile Organic Compounds (GC/MS) by Method 8270D

Analyte	Result ug/l	Qualifier	RDL ug/l	Dilution	Analysis date / time	Batch
Hexachloroethane	ND	J4	10.0	1	07/22/2019 03:46	WG1313654
Indeno(1,2,3-cd)pyrene	ND	J4	1.00	1	07/22/2019 03:46	WG1313654
Isophorone	ND	J4	10.0	1	07/22/2019 03:46	WG1313654
2-Methylnaphthalene	ND	J4	1.00	1	07/22/2019 03:46	WG1313654
Naphthalene	ND	J4	1.00	1	07/22/2019 03:46	WG1313654
2-Nitroaniline	ND	J4	10.0	1	07/22/2019 03:46	WG1313654
3-Nitroaniline	ND	J4	10.0	1	07/22/2019 03:46	WG1313654
4-Nitroaniline	ND	J4	10.0	1	07/22/2019 03:46	WG1313654
Nitrobenzene	ND	J4	10.0	1	07/22/2019 03:46	WG1313654
n-Nitrosodiphenylamine	ND	J4	10.0	1	07/22/2019 03:46	WG1313654
n-Nitrosodi-n-propylamine	ND	J4	10.0	1	07/22/2019 03:46	WG1313654
Phenanthrene	ND	J4	1.00	1	07/22/2019 03:46	WG1313654
Benzylbutyl phthalate	ND	J4	3.00	1	07/22/2019 03:46	WG1313654
Bis(2-ethylhexyl)phthalate	ND	J4	3.00	1	07/22/2019 03:46	WG1313654
Di-n-butyl phthalate	ND	J4	3.00	1	07/22/2019 03:46	WG1313654
Diethyl phthalate	ND	J4	3.00	1	07/22/2019 03:46	WG1313654
Dimethyl phthalate	ND	J4	3.00	1	07/22/2019 03:46	WG1313654
Di-n-octyl phthalate	ND	J4	3.00	1	07/22/2019 03:46	WG1313654
Pyrene	ND	J4	1.00	1	07/22/2019 03:46	WG1313654
1,2,4,5-Tetrachlorobenzene	ND	J4	10.0	1	07/22/2019 03:46	WG1313654
4-Chloro-3-methylphenol	ND	J4	10.0	1	07/22/2019 03:46	WG1313654
2-Chlorophenol	ND	J4	10.0	1	07/22/2019 03:46	WG1313654
2-Methylphenol	ND	J4	10.0	1	07/22/2019 03:46	WG1313654
3&4-Methyl Phenol	ND	J4	10.0	1	07/22/2019 03:46	WG1313654
2,4-Dichlorophenol	ND	J4	10.0	1	07/22/2019 03:46	WG1313654
2,4-Dimethylphenol	ND	J4	10.0	1	07/22/2019 03:46	WG1313654
4,6-Dinitro-2-methylphenol	ND	J4	10.0	1	07/22/2019 03:46	WG1313654
2,4-Dinitrophenol	ND	J4	10.0	1	07/22/2019 03:46	WG1313654
2-Nitrophenol	ND	J4	10.0	1	07/22/2019 03:46	WG1313654
4-Nitrophenol	ND	J4	10.0	1	07/22/2019 03:46	WG1313654
Pentachlorophenol	ND	J4	10.0	1	07/22/2019 03:46	WG1313654
Phenol	ND	J4	10.0	1	07/22/2019 03:46	WG1313654
2,4,5-Trichlorophenol	ND	J4	10.0	1	07/22/2019 03:46	WG1313654
2,4,6-Trichlorophenol	ND	J4	10.0	1	07/22/2019 03:46	WG1313654
(S) Nitrobenzene-d5	40.7		10.0-127		07/22/2019 03:46	WG1313654
(S) 2-Fluorobiphenyl	44.0		10.0-130		07/22/2019 03:46	WG1313654
(S) p-Terphenyl-d14	60.0		10.0-128		07/22/2019 03:46	WG1313654
(S) Phenol-d5	18.9		10.0-120		07/22/2019 03:46	WG1313654
(S) 2-Fluorophenol	29.5		10.0-120		07/22/2019 03:46	WG1313654
(S) 2,4,6-Tribromophenol	51.0		10.0-155		07/22/2019 03:46	WG1313654

1  
Cp

2  
Tc

3  
Ss

4  
Cn

5  
Sr

6  
Qc

7  
Gl

8  
Al

9  
Sc

Sample Narrative:

L1118284-09 WG1313654: Duplicate analysis was performed.

Semi Volatile Organic Compounds (GC/MS) by Method 8270E-SIM

Analyte	Result ug/l	Qualifier	RDL ug/l	Dilution	Analysis date / time	Batch
Anthracene	ND		0.0500	1	07/18/2019 15:34	WG1313197
Acenaphthene	ND		0.0500	1	07/18/2019 15:34	WG1313197
Acenaphthylene	ND		0.0500	1	07/18/2019 15:34	WG1313197
Benzo(a)anthracene	ND		0.0500	1	07/18/2019 15:34	WG1313197
Benzo(a)pyrene	ND		0.0500	1	07/18/2019 15:34	WG1313197
Benzo(b)fluoranthene	ND		0.0500	1	07/18/2019 15:34	WG1313197
Benzo(g,h,i)perylene	ND		0.0500	1	07/18/2019 15:34	WG1313197
Benzo(k)fluoranthene	ND		0.0500	1	07/18/2019 15:34	WG1313197
Chrysene	ND		0.0500	1	07/18/2019 15:34	WG1313197



Semi Volatile Organic Compounds (GC/MS) by Method 8270E-SIM

Analyte	Result ug/l	Qualifier	RDL ug/l	Dilution	Analysis date / time	Batch
Dibenz(a,h)anthracene	ND		0.0500	1	07/18/2019 15:34	<a href="#">WG1313197</a>
Fluoranthene	ND		0.0500	1	07/18/2019 15:34	<a href="#">WG1313197</a>
Fluorene	ND		0.0500	1	07/18/2019 15:34	<a href="#">WG1313197</a>
Indeno(1,2,3-cd)pyrene	ND		0.0500	1	07/18/2019 15:34	<a href="#">WG1313197</a>
Naphthalene	ND	<u>J4</u>	0.250	1	07/18/2019 15:34	<a href="#">WG1313197</a>
Phenanthrene	ND		0.0500	1	07/18/2019 15:34	<a href="#">WG1313197</a>
Pyrene	ND		0.0500	1	07/18/2019 15:34	<a href="#">WG1313197</a>
<i>(S) Nitrobenzene-d5</i>	51.5		11.0-135		07/18/2019 15:34	<a href="#">WG1313197</a>
<i>(S) 2-Fluorobiphenyl</i>	62.0		32.0-120		07/18/2019 15:34	<a href="#">WG1313197</a>
<i>(S) p-Terphenyl-d14</i>	100		23.0-122		07/18/2019 15:34	<a href="#">WG1313197</a>

- 1 Cp
- 2 Tc
- 3 Ss
- 4 Cn
- 5 Sr
- 6 Qc
- 7 Gl
- 8 Al
- 9 Sc



Wet Chemistry by Method 4500CN E-2011

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Cyanide	ND		5.00	1	07/22/2019 14:04	<a href="#">WG1314084</a>

1 Cp

2 Tc

Mercury by Method 7470A

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Mercury	ND		0.200	1	07/16/2019 13:55	<a href="#">WG1311284</a>

3 Ss

4 Cn

Metals (ICP) by Method 6010D

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Aluminum	ND		200	1	07/16/2019 11:20	<a href="#">WG1310256</a>
Antimony	ND		10.0	1	07/16/2019 11:20	<a href="#">WG1310256</a>
Arsenic	ND		10.0	1	07/16/2019 11:20	<a href="#">WG1310256</a>
Barium	ND		5.00	1	07/16/2019 11:20	<a href="#">WG1310256</a>
Beryllium	ND		2.00	1	07/16/2019 11:20	<a href="#">WG1310256</a>
Cadmium	ND		2.00	1	07/16/2019 11:20	<a href="#">WG1310256</a>
Calcium	ND		1000	1	07/16/2019 11:20	<a href="#">WG1310256</a>
Chromium	ND		10.0	1	07/16/2019 11:20	<a href="#">WG1310256</a>
Cobalt	ND		10.0	1	07/16/2019 11:20	<a href="#">WG1310256</a>
Copper	ND		10.0	1	07/16/2019 11:20	<a href="#">WG1310256</a>
Iron	ND		100	1	07/16/2019 11:20	<a href="#">WG1310256</a>
Lead	ND		5.00	1	07/16/2019 11:20	<a href="#">WG1310256</a>
Magnesium	ND		1000	1	07/16/2019 11:20	<a href="#">WG1310256</a>
Manganese	ND		10.0	1	07/16/2019 11:20	<a href="#">WG1310256</a>
Nickel	ND		10.0	1	07/16/2019 11:20	<a href="#">WG1310256</a>
Potassium	ND		1000	1	07/16/2019 11:20	<a href="#">WG1310256</a>
Selenium	ND		10.0	1	07/16/2019 11:20	<a href="#">WG1310256</a>
Silver	ND		5.00	1	07/16/2019 11:20	<a href="#">WG1310256</a>
Sodium	ND		1000	1	07/16/2019 11:20	<a href="#">WG1310256</a>
Thallium	ND		10.0	1	07/16/2019 11:20	<a href="#">WG1310256</a>
Vanadium	ND		20.0	1	07/16/2019 11:20	<a href="#">WG1310256</a>
Zinc	ND		50.0	1	07/16/2019 11:20	<a href="#">WG1310256</a>

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Acetone	ND		50.0	1	07/16/2019 12:17	<a href="#">WG1312100</a>
Benzene	ND		1.00	1	07/16/2019 12:17	<a href="#">WG1312100</a>
Bromochloromethane	ND		1.00	1	07/16/2019 12:17	<a href="#">WG1312100</a>
Bromodichloromethane	ND		1.00	1	07/16/2019 12:17	<a href="#">WG1312100</a>
Bromoform	ND		1.00	1	07/16/2019 12:17	<a href="#">WG1312100</a>
Bromomethane	ND		5.00	1	07/16/2019 12:17	<a href="#">WG1312100</a>
Carbon disulfide	ND		1.00	1	07/16/2019 12:17	<a href="#">WG1312100</a>
Carbon tetrachloride	ND		1.00	1	07/16/2019 12:17	<a href="#">WG1312100</a>
Chlorobenzene	ND		1.00	1	07/16/2019 12:17	<a href="#">WG1312100</a>
Chlorodibromomethane	ND		1.00	1	07/16/2019 12:17	<a href="#">WG1312100</a>
Chloroethane	ND		5.00	1	07/16/2019 12:17	<a href="#">WG1312100</a>
Chloroform	ND		5.00	1	07/16/2019 12:17	<a href="#">WG1312100</a>
Chloromethane	ND		2.50	1	07/16/2019 12:17	<a href="#">WG1312100</a>
Cyclohexane	ND		1.00	1	07/16/2019 12:17	<a href="#">WG1312100</a>
1,2-Dibromo-3-Chloropropane	ND		5.00	1	07/16/2019 12:17	<a href="#">WG1312100</a>
1,2-Dibromoethane	ND		1.00	1	07/16/2019 12:17	<a href="#">WG1312100</a>
1,2-Dichlorobenzene	ND		1.00	1	07/16/2019 12:17	<a href="#">WG1312100</a>
1,3-Dichlorobenzene	ND		1.00	1	07/16/2019 12:17	<a href="#">WG1312100</a>



Collected date/time: 07/12/19 09:30

L1118284

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result ug/l	Qualifier	RDL ug/l	Dilution	Analysis date / time	Batch
1,4-Dichlorobenzene	ND		1.00	1	07/16/2019 12:17	WG1312100
Dichlorodifluoromethane	ND		5.00	1	07/16/2019 12:17	WG1312100
1,1-Dichloroethane	ND		1.00	1	07/16/2019 12:17	WG1312100
1,2-Dichloroethane	ND		1.00	1	07/16/2019 12:17	WG1312100
1,1-Dichloroethene	ND		1.00	1	07/16/2019 12:17	WG1312100
cis-1,2-Dichloroethene	ND		1.00	1	07/16/2019 12:17	WG1312100
trans-1,2-Dichloroethene	ND		1.00	1	07/16/2019 12:17	WG1312100
1,2-Dichloropropane	ND		1.00	1	07/16/2019 12:17	WG1312100
cis-1,3-Dichloropropene	ND		1.00	1	07/16/2019 12:17	WG1312100
trans-1,3-Dichloropropene	ND		1.00	1	07/16/2019 12:17	WG1312100
Ethylbenzene	ND		1.00	1	07/16/2019 12:17	WG1312100
2-Hexanone	ND		10.0	1	07/16/2019 12:17	WG1312100
Isopropylbenzene	ND		1.00	1	07/16/2019 12:17	WG1312100
2-Butanone (MEK)	ND		10.0	1	07/16/2019 12:17	WG1312100
Methyl Acetate	ND		20.0	1	07/16/2019 12:17	WG1312100
Methyl Cyclohexane	ND		1.00	1	07/16/2019 12:17	WG1312100
Methylene Chloride	ND		5.00	1	07/16/2019 12:17	WG1312100
4-Methyl-2-pentanone (MIBK)	ND		10.0	1	07/16/2019 12:17	WG1312100
Methyl tert-butyl ether	ND		1.00	1	07/16/2019 12:17	WG1312100
Styrene	ND		1.00	1	07/16/2019 12:17	WG1312100
1,1,2,2-Tetrachloroethane	ND		1.00	1	07/16/2019 12:17	WG1312100
Tetrachloroethene	ND		1.00	1	07/16/2019 12:17	WG1312100
Toluene	ND		1.00	1	07/16/2019 12:17	WG1312100
1,2,3-Trichlorobenzene	ND		1.00	1	07/16/2019 12:17	WG1312100
1,2,4-Trichlorobenzene	ND		1.00	1	07/16/2019 12:17	WG1312100
1,1,1-Trichloroethane	ND		1.00	1	07/16/2019 12:17	WG1312100
1,1,2-Trichloroethane	ND		1.00	1	07/16/2019 12:17	WG1312100
Trichloroethene	ND		1.00	1	07/16/2019 12:17	WG1312100
Trichlorofluoromethane	ND		5.00	1	07/16/2019 12:17	WG1312100
1,1,2-Trichlorotrifluoroethane	ND		1.00	1	07/16/2019 12:17	WG1312100
Vinyl chloride	ND		1.00	1	07/16/2019 12:17	WG1312100
Xylenes, Total	ND		3.00	1	07/16/2019 12:17	WG1312100
(S) Toluene-d8	95.6		80.0-120		07/16/2019 12:17	WG1312100
(S) 4-Bromofluorobenzene	89.6		77.0-126		07/16/2019 12:17	WG1312100
(S) 1,2-Dichloroethane-d4	107		70.0-130		07/16/2019 12:17	WG1312100

- 1 Cp
- 2 Tc
- 3 Ss
- 4 Cn
- 5 Sr
- 6 Qc
- 7 Gl
- 8 Al
- 9 Sc

Pesticides (GC) by Method 8081B

Analyte	Result ug/l	Qualifier	RDL ug/l	Dilution	Analysis date / time	Batch
Aldrin	ND		0.0500	1	07/19/2019 19:10	WG1312292
Alpha BHC	ND		0.0500	1	07/19/2019 19:10	WG1312292
Beta BHC	ND		0.0500	1	07/19/2019 19:10	WG1312292
Delta BHC	ND		0.0500	1	07/19/2019 19:10	WG1312292
Gamma BHC	ND		0.0500	1	07/19/2019 19:10	WG1312292
Chlordane	ND		5.00	1	07/19/2019 19:10	WG1312292
4,4-DDD	ND		0.0500	1	07/19/2019 19:10	WG1312292
4,4-DDE	ND		0.0500	1	07/19/2019 19:10	WG1312292
4,4-DDT	ND		0.0500	1	07/19/2019 19:10	WG1312292
Dieldrin	ND		0.0500	1	07/19/2019 19:10	WG1312292
Endosulfan I	ND		0.0500	1	07/19/2019 19:10	WG1312292
Endosulfan II	ND		0.0500	1	07/19/2019 19:10	WG1312292
Endosulfan sulfate	ND		0.0500	1	07/19/2019 19:10	WG1312292
Endrin	ND		0.0500	1	07/19/2019 19:10	WG1312292
Endrin aldehyde	ND		0.0500	1	07/19/2019 19:10	WG1312292
Endrin ketone	ND		0.0500	1	07/19/2019 19:10	WG1312292
Heptachlor	ND		0.0500	1	07/19/2019 19:10	WG1312292



Collected date/time: 07/12/19 09:30

L1118284

Pesticides (GC) by Method 8081B

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	ug/l		ug/l		date / time	
Heptachlor epoxide	ND		0.0500	1	07/19/2019 19:10	<a href="#">WG1312292</a>
Hexachlorobenzene	ND		0.0500	1	07/19/2019 19:10	<a href="#">WG1312292</a>
Methoxychlor	ND		0.0500	1	07/19/2019 19:10	<a href="#">WG1312292</a>
Toxaphene	ND		0.500	1	07/19/2019 19:10	<a href="#">WG1312292</a>
(S) Decachlorobiphenyl	45.9		10.0-128		07/19/2019 19:10	<a href="#">WG1312292</a>
(S) Tetrachloro-m-xylene	92.4		10.0-127		07/19/2019 19:10	<a href="#">WG1312292</a>

- 1 Cp
- 2 Tc
- 3 Ss
- 4 Cn
- 5 Sr
- 6 Qc
- 7 Gl
- 8 Al
- 9 Sc

Polychlorinated Biphenyls (GC) by Method 8082 A

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	ug/l		ug/l		date / time	
PCB 1016	ND		0.500	1	07/19/2019 20:42	<a href="#">WG1312292</a>
PCB 1221	ND		0.500	1	07/19/2019 20:42	<a href="#">WG1312292</a>
PCB 1232	ND		0.500	1	07/19/2019 20:42	<a href="#">WG1312292</a>
PCB 1242	ND		0.500	1	07/19/2019 20:42	<a href="#">WG1312292</a>
PCB 1248	ND		0.500	1	07/19/2019 20:42	<a href="#">WG1312292</a>
PCB 1254	ND		0.500	1	07/19/2019 20:42	<a href="#">WG1312292</a>
PCB 1260	ND		0.500	1	07/19/2019 20:42	<a href="#">WG1312292</a>
(S) Decachlorobiphenyl	42.8		10.0-128		07/19/2019 20:42	<a href="#">WG1312292</a>
(S) Tetrachloro-m-xylene	71.5		10.0-127		07/19/2019 20:42	<a href="#">WG1312292</a>

Semi Volatile Organic Compounds (GC/MS) by Method 8270D

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	ug/l		ug/l		date / time	
Acenaphthene	ND	J4	1.00	1	07/22/2019 17:44	<a href="#">WG1313654</a>
Acenaphthylene	ND	J4	1.00	1	07/22/2019 17:44	<a href="#">WG1313654</a>
Acetophenone	ND	J4	10.0	1	07/22/2019 17:44	<a href="#">WG1313654</a>
Anthracene	ND	J4	1.00	1	07/22/2019 17:44	<a href="#">WG1313654</a>
Atrazine	ND	J4	10.0	1	07/22/2019 17:44	<a href="#">WG1313654</a>
Benzaldehyde	ND	J4	10.0	1	07/22/2019 17:44	<a href="#">WG1313654</a>
Benzo(a)anthracene	ND	J4	1.00	1	07/22/2019 17:44	<a href="#">WG1313654</a>
Benzo(b)fluoranthene	ND	J4	1.00	1	07/22/2019 17:44	<a href="#">WG1313654</a>
Benzo(k)fluoranthene	ND	J4	1.00	1	07/22/2019 17:44	<a href="#">WG1313654</a>
Benzo(g,h,i)perylene	ND	J4	1.00	1	07/22/2019 17:44	<a href="#">WG1313654</a>
Benzo(a)pyrene	ND	J4	1.00	1	07/22/2019 17:44	<a href="#">WG1313654</a>
Biphenyl	ND	J4	10.0	1	07/22/2019 17:44	<a href="#">WG1313654</a>
Bis(2-chloroethoxy)methane	ND	J4	10.0	1	07/22/2019 17:44	<a href="#">WG1313654</a>
Bis(2-chloroethyl)ether	ND	J4	10.0	1	07/22/2019 17:44	<a href="#">WG1313654</a>
Bis(2-chloroisopropyl)ether	ND	J4	10.0	1	07/22/2019 17:44	<a href="#">WG1313654</a>
4-Bromophenyl-phenylether	ND	J4	10.0	1	07/22/2019 17:44	<a href="#">WG1313654</a>
Caprolactam	ND	J4	10.0	1	07/22/2019 17:44	<a href="#">WG1313654</a>
Carbazole	ND	J4	10.0	1	07/22/2019 17:44	<a href="#">WG1313654</a>
4-Chloroaniline	ND	J4	10.0	1	07/22/2019 17:44	<a href="#">WG1313654</a>
2-Chloronaphthalene	ND	J4	1.00	1	07/22/2019 17:44	<a href="#">WG1313654</a>
4-Chlorophenyl-phenylether	ND	J4	10.0	1	07/22/2019 17:44	<a href="#">WG1313654</a>
Chrysene	ND	J4	1.00	1	07/22/2019 17:44	<a href="#">WG1313654</a>
Dibenz(a,h)anthracene	ND	J4	1.00	1	07/22/2019 17:44	<a href="#">WG1313654</a>
Dibenzofuran	ND	J4	10.0	1	07/22/2019 17:44	<a href="#">WG1313654</a>
3,3-Dichlorobenzidine	ND	J4	10.0	1	07/22/2019 17:44	<a href="#">WG1313654</a>
2,4-Dinitrotoluene	ND	J4	10.0	1	07/22/2019 17:44	<a href="#">WG1313654</a>
2,6-Dinitrotoluene	ND	J4	10.0	1	07/22/2019 17:44	<a href="#">WG1313654</a>
Fluoranthene	ND	J4	1.00	1	07/22/2019 17:44	<a href="#">WG1313654</a>
Fluorene	ND	J4	1.00	1	07/22/2019 17:44	<a href="#">WG1313654</a>
Hexachlorobenzene	ND	J4	1.00	1	07/22/2019 17:44	<a href="#">WG1313654</a>
Hexachloro-1,3-butadiene	ND	J4	10.0	1	07/22/2019 17:44	<a href="#">WG1313654</a>
Hexachlorocyclopentadiene	ND	J4	10.0	1	07/22/2019 17:44	<a href="#">WG1313654</a>



Collected date/time: 07/12/19 09:30

L1118284

Semi Volatile Organic Compounds (GC/MS) by Method 8270D

Analyte	Result ug/l	Qualifier	RDL ug/l	Dilution	Analysis date / time	Batch
Hexachloroethane	ND	J4	10.0	1	07/22/2019 17:44	WG1313654
Indeno(1,2,3-cd)pyrene	ND	J4	1.00	1	07/22/2019 17:44	WG1313654
Isophorone	ND	J4	10.0	1	07/22/2019 17:44	WG1313654
2-Methylnaphthalene	ND	J4	1.00	1	07/22/2019 17:44	WG1313654
Naphthalene	ND	J4	1.00	1	07/22/2019 17:44	WG1313654
2-Nitroaniline	ND	J4	10.0	1	07/22/2019 17:44	WG1313654
3-Nitroaniline	ND	J4	10.0	1	07/22/2019 17:44	WG1313654
4-Nitroaniline	ND	J4	10.0	1	07/22/2019 17:44	WG1313654
Nitrobenzene	ND	J4	10.0	1	07/22/2019 17:44	WG1313654
n-Nitrosodiphenylamine	ND	J4	10.0	1	07/22/2019 17:44	WG1313654
n-Nitrosodi-n-propylamine	ND	J4	10.0	1	07/22/2019 17:44	WG1313654
Phenanthrene	ND	J4	1.00	1	07/22/2019 17:44	WG1313654
Benzylbutyl phthalate	ND	J4	3.00	1	07/22/2019 17:44	WG1313654
Bis(2-ethylhexyl)phthalate	ND	J4	3.00	1	07/22/2019 17:44	WG1313654
Di-n-butyl phthalate	ND	J4	3.00	1	07/22/2019 17:44	WG1313654
Diethyl phthalate	ND	J4	3.00	1	07/22/2019 17:44	WG1313654
Dimethyl phthalate	ND	J4	3.00	1	07/22/2019 17:44	WG1313654
Di-n-octyl phthalate	ND	J4	3.00	1	07/22/2019 17:44	WG1313654
Pyrene	ND	J4	1.00	1	07/22/2019 17:44	WG1313654
1,2,4,5-Tetrachlorobenzene	ND	J4	10.0	1	07/22/2019 17:44	WG1313654
4-Chloro-3-methylphenol	ND	J4	10.0	1	07/22/2019 17:44	WG1313654
2-Chlorophenol	ND	J4	10.0	1	07/22/2019 17:44	WG1313654
2-Methylphenol	ND	J4	10.0	1	07/22/2019 17:44	WG1313654
3&4-Methyl Phenol	ND	J4	10.0	1	07/22/2019 17:44	WG1313654
2,4-Dichlorophenol	ND	J4	10.0	1	07/22/2019 17:44	WG1313654
2,4-Dimethylphenol	ND	J4	10.0	1	07/22/2019 17:44	WG1313654
4,6-Dinitro-2-methylphenol	ND	J4	10.0	1	07/22/2019 17:44	WG1313654
2,4-Dinitrophenol	ND	J4	10.0	1	07/22/2019 17:44	WG1313654
2-Nitrophenol	ND	J4	10.0	1	07/22/2019 17:44	WG1313654
4-Nitrophenol	ND	J4	10.0	1	07/22/2019 17:44	WG1313654
Pentachlorophenol	ND	J4	10.0	1	07/22/2019 17:44	WG1313654
Phenol	ND	J4	10.0	1	07/22/2019 17:44	WG1313654
2,4,5-Trichlorophenol	ND	J4	10.0	1	07/22/2019 17:44	WG1313654
2,4,6-Trichlorophenol	ND	J4	10.0	1	07/22/2019 17:44	WG1313654
(S) Nitrobenzene-d5	49.2		10.0-127		07/22/2019 17:44	WG1313654
(S) 2-Fluorobiphenyl	50.5		10.0-130		07/22/2019 17:44	WG1313654
(S) p-Terphenyl-d14	57.3		10.0-128		07/22/2019 17:44	WG1313654
(S) Phenol-d5	23.8		10.0-120		07/22/2019 17:44	WG1313654
(S) 2-Fluorophenol	38.6		10.0-120		07/22/2019 17:44	WG1313654
(S) 2,4,6-Tribromophenol	58.5		10.0-155		07/22/2019 17:44	WG1313654

- 1 Cp
- 2 Tc
- 3 Ss
- 4 Cn
- 5 Sr
- 6 Qc
- 7 Gl
- 8 Al
- 9 Sc

Sample Narrative:

L1118284-10 WG1313654: Duplicate analysis was performed.

Semi Volatile Organic Compounds (GC/MS) by Method 8270E-SIM

Analyte	Result ug/l	Qualifier	RDL ug/l	Dilution	Analysis date / time	Batch
Anthracene	ND		0.0500	1	07/18/2019 15:57	WG1313197
Acenaphthene	ND		0.0500	1	07/18/2019 15:57	WG1313197
Acenaphthylene	ND		0.0500	1	07/18/2019 15:57	WG1313197
Benzo(a)anthracene	ND		0.0500	1	07/18/2019 15:57	WG1313197
Benzo(a)pyrene	ND		0.0500	1	07/18/2019 15:57	WG1313197
Benzo(b)fluoranthene	ND		0.0500	1	07/18/2019 15:57	WG1313197
Benzo(g,h,i)perylene	ND		0.0500	1	07/18/2019 15:57	WG1313197
Benzo(k)fluoranthene	ND		0.0500	1	07/18/2019 15:57	WG1313197
Chrysene	ND		0.0500	1	07/18/2019 15:57	WG1313197



Semi Volatile Organic Compounds (GC/MS) by Method 8270E-SIM

Analyte	Result ug/l	Qualifier	RDL ug/l	Dilution	Analysis date / time	Batch
Dibenz(a,h)anthracene	ND		0.0500	1	07/18/2019 15:57	<a href="#">WG1313197</a>
Fluoranthene	ND		0.0500	1	07/18/2019 15:57	<a href="#">WG1313197</a>
Fluorene	ND		0.0500	1	07/18/2019 15:57	<a href="#">WG1313197</a>
Indeno(1,2,3-cd)pyrene	ND		0.0500	1	07/18/2019 15:57	<a href="#">WG1313197</a>
Naphthalene	ND	J4	0.250	1	07/18/2019 15:57	<a href="#">WG1313197</a>
Phenanthrene	ND		0.0500	1	07/18/2019 15:57	<a href="#">WG1313197</a>
Pyrene	ND		0.0500	1	07/18/2019 15:57	<a href="#">WG1313197</a>
(S) Nitrobenzene-d5	52.5		11.0-135		07/18/2019 15:57	<a href="#">WG1313197</a>
(S) 2-Fluorobiphenyl	64.0		32.0-120		07/18/2019 15:57	<a href="#">WG1313197</a>
(S) p-Terphenyl-d14	86.5		23.0-122		07/18/2019 15:57	<a href="#">WG1313197</a>

- 1 Cp
- 2 Tc
- 3 Ss
- 4 Cn
- 5 Sr
- 6 Qc
- 7 Gl
- 8 Al
- 9 Sc



Method Blank (MB)

(MB) R3432961-1 07/22/19 13:44

Analyte	MB Result	MB Qualifier	MB MDL	MB RDL
Cyanide	U		1.80	5.00

<sup>1</sup>Cp

<sup>2</sup>Tc

<sup>3</sup>Ss

<sup>4</sup>Cn

<sup>5</sup>Sr

<sup>6</sup>Qc

<sup>7</sup>Gl

<sup>8</sup>Al

<sup>9</sup>Sc

L118284-01 Original Sample (OS) • Duplicate (DUP)

(OS) L118284-01 07/22/19 13:50 • (DUP) R3432961-3 07/22/19 13:51

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
Cyanide	ND	0.000	1	0.000		20

L118284-10 Original Sample (OS) • Duplicate (DUP)

(OS) L118284-10 07/22/19 14:04 • (DUP) R3432961-6 07/22/19 14:05

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
Cyanide	ND	0.000	1	0.000		20

Laboratory Control Sample (LCS)

(LCS) R3432961-2 07/22/19 13:45

Analyte	Spike Amount	LCS Result	LCS Rec.	Rec. Limits	LCS Qualifier
Cyanide	100	95.7	95.7	85.0-115	

L118284-06 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L118284-06 07/22/19 13:58 • (MS) R3432961-4 07/22/19 13:59 • (MSD) R3432961-5 07/22/19 14:00

Analyte	Spike Amount	Original Result	MS Result	MSD Result	MS Rec.	MSD Rec.	Dilution	Rec. Limits	MS Qualifier	MSD Qualifier	RPD	RPD Limits
Cyanide	100	ND	83.3	82.8	83.3	82.8	1	75.0-125			0.602	20

L119043-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L119043-01 07/22/19 14:16 • (MS) R3432961-7 07/22/19 14:17 • (MSD) R3432961-8 07/22/19 14:18

Analyte	Spike Amount	Original Result	MS Result	MSD Result	MS Rec.	MSD Rec.	Dilution	Rec. Limits	MS Qualifier	MSD Qualifier	RPD	RPD Limits
Cyanide	100	ND	44.5	32.5	44.5	32.5	1	75.0-125	J6	J3 J6	31.2	20





Method Blank (MB)

(MB) R3431122-1 07/16/19 13:21

Analyte	MB Result ug/l	MB Qualifier	MB MDL ug/l	MB RDL ug/l
Mercury	U		0.0490	0.200

<sup>1</sup> Cp

<sup>2</sup> Tc

<sup>3</sup> Ss

<sup>4</sup> Cn

<sup>5</sup> Sr

<sup>6</sup> Qc

<sup>7</sup> Gl

<sup>8</sup> Al

<sup>9</sup> Sc

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3431122-2 07/16/19 13:23 • (LCSD) R3431122-3 07/16/19 13:26

Analyte	Spike Amount ug/l	LCS Result ug/l	LCSD Result ug/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Mercury	3.00	3.31	3.22	110	107	80.0-120			2.74	20

L1118418-03 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1118418-03 07/16/19 13:28 • (MS) R3431122-4 07/16/19 13:31 • (MSD) R3431122-5 07/16/19 13:33

Analyte	Spike Amount ug/l	Original Result ug/l	MS Result ug/l	MSD Result ug/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Mercury	3.00	U	3.03	2.96	101	98.7	1	75.0-125			2.40	20



Method Blank (MB)

(MB) R3431246-1 07/16/19 19:19

Analyte	MB Result ug/l	MB Qualifier	MB MDL ug/l	MB RDL ug/l
Mercury	U		0.0490	0.200

<sup>1</sup> Cp

<sup>2</sup> Tc

<sup>3</sup> Ss

<sup>4</sup> Cn

<sup>5</sup> Sr

<sup>6</sup> Qc

<sup>7</sup> Gl

<sup>8</sup> Al

<sup>9</sup> Sc

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3431246-2 07/16/19 19:21 • (LCSD) R3431246-3 07/16/19 19:23

Analyte	Spike Amount ug/l	LCS Result ug/l	LCSD Result ug/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Mercury	3.00	2.61	2.65	87.1	88.3	80.0-120			1.45	20

L1117742-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1117742-01 07/16/19 19:26 • (MS) R3431246-4 07/16/19 19:28 • (MSD) R3431246-5 07/16/19 19:31

Analyte	Spike Amount ug/l	Original Result ug/l	MS Result ug/l	MSD Result ug/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Mercury	3.00	ND	2.74	2.93	91.2	97.8	1	75.0-125			6.99	20



Method Blank (MB)

(MB) R3431104-1 07/16/19 10:00

Analyte	MB Result ug/l	MB Qualifier	MB MDL ug/l	MB RDL ug/l
Aluminum	U		35.0	200
Antimony	U		7.50	10.0
Arsenic	U		6.50	10.0
Barium	U		1.70	5.00
Beryllium	U		0.700	2.00
Cadmium	U		0.700	2.00
Calcium	50.9	J	46.3	1000
Chromium	U		1.40	10.0
Cobalt	U		2.30	10.0
Copper	U		5.30	10.0
Iron	U		14.1	100
Lead	U		1.90	5.00
Magnesium	U		11.1	1000
Manganese	U		1.20	10.0
Nickel	U		4.90	10.0
Potassium	U		102	1000
Selenium	U		7.40	10.0
Silver	U		2.80	5.00
Sodium	U		98.5	1000
Thallium	U		6.50	10.0
Vanadium	U		2.40	20.0
Zinc	U		5.90	50.0

<sup>1</sup> Cp

<sup>2</sup> Tc

<sup>3</sup> Ss

<sup>4</sup> Cn

<sup>5</sup> Sr

<sup>6</sup> Qc

<sup>7</sup> Gl

<sup>8</sup> Al

<sup>9</sup> Sc

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3431104-2 07/16/19 10:03 • (LCSD) R3431104-3 07/16/19 10:05

Analyte	Spike Amount ug/l	LCS Result ug/l	LCSD Result ug/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Aluminum	10000	10300	10100	103	101	80.0-120			2.06	20
Antimony	1000	997	984	99.7	98.4	80.0-120			1.32	20
Arsenic	1000	976	956	97.6	95.6	80.0-120			2.13	20
Barium	1000	1050	1030	105	103	80.0-120			2.25	20
Beryllium	1000	1010	994	101	99.4	80.0-120			1.57	20
Cadmium	1000	1010	990	101	99.0	80.0-120			2.29	20
Calcium	10000	10300	10100	103	101	80.0-120			2.09	20
Chromium	1000	997	961	99.7	96.1	80.0-120			3.59	20
Cobalt	1000	1020	996	102	99.6	80.0-120			2.50	20
Copper	1000	967	937	96.7	93.7	80.0-120			3.16	20
Iron	10000	10200	9970	102	99.7	80.0-120			2.23	20



Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3431104-2 07/16/19 10:03 • (LCSD) R3431104-3 07/16/19 10:05

Analyte	Spike Amount ug/l	LCS Result ug/l	LCSD Result ug/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	<u>LCS Qualifier</u>	<u>LCSD Qualifier</u>	RPD %	RPD Limits %
Lead	1000	989	966	98.9	96.6	80.0-120			2.41	20
Magnesium	10000	10400	10100	104	101	80.0-120			2.90	20
Manganese	1000	978	944	97.8	94.4	80.0-120			3.49	20
Nickel	1000	1010	990	101	99.0	80.0-120			2.17	20
Potassium	10000	9870	9710	98.7	97.1	80.0-120			1.61	20
Selenium	1000	983	960	98.3	96.0	80.0-120			2.41	20
Silver	200	191	185	95.3	92.5	80.0-120			3.00	20
Sodium	10000	10300	10100	103	101	80.0-120			1.91	20
Thallium	1000	1010	983	101	98.3	80.0-120			2.68	20
Vanadium	1000	1020	1010	102	101	80.0-120			0.425	20
Zinc	1000	993	970	99.3	97.0	80.0-120			2.30	20

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

L1117462-14 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1117462-14 07/16/19 10:08 • (MS) R3431104-5 07/16/19 10:14 • (MSD) R3431104-6 07/16/19 10:17

Analyte	Spike Amount ug/l	Original Result ug/l	MS Result ug/l	MSD Result ug/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	<u>MS Qualifier</u>	<u>MSD Qualifier</u>	RPD %	RPD Limits %
Aluminum	10000	2420	12600	12500	102	101	1	75.0-125			0.997	20
Antimony	1000	U	1000	978	100	97.8	1	75.0-125			2.48	20
Arsenic	1000	U	986	952	98.6	95.2	1	75.0-125			3.42	20
Barium	1000	138	1190	1160	105	102	1	75.0-125			2.03	20
Beryllium	1000	0.883	1020	986	102	98.5	1	75.0-125			3.22	20
Cadmium	1000	U	1020	991	102	99.1	1	75.0-125			2.59	20
Calcium	10000	13000	24000	23700	110	108	1	75.0-125			0.998	20
Chromium	1000	14.9	1010	980	99.3	96.6	1	75.0-125			2.75	20
Cobalt	1000	56.7	1080	1060	103	99.9	1	75.0-125			2.48	20
Copper	1000	14.6	980	953	96.5	93.8	1	75.0-125			2.76	20
Iron	10000	9590	19400	19300	97.7	97.3	1	75.0-125			0.207	20
Lead	1000	8.04	996	977	98.8	96.9	1	75.0-125			1.93	20
Magnesium	10000	1480	11800	11500	103	100	1	75.0-125			2.43	20
Manganese	1000	3970	4790	4780	81.7	81.2	1	75.0-125			0.102	20
Nickel	1000	5.47	1020	995	102	98.9	1	75.0-125			2.60	20
Potassium	10000	6840	16300	16100	94.5	92.5	1	75.0-125			1.21	20
Selenium	1000	U	995	968	99.5	96.8	1	75.0-125			2.67	20
Silver	200	U	190	183	94.8	91.3	1	75.0-125			3.74	20
Sodium	10000	9530	19300	19100	98.0	95.9	1	75.0-125			1.10	20
Thallium	1000	U	1040	971	104	97.1	1	75.0-125			7.16	20
Vanadium	1000	17.0	1050	1020	103	100	1	75.0-125			3.29	20
Zinc	1000	21.2	1010	981	99.0	96.0	1	75.0-125			2.97	20



Method Blank (MB)

(MB) R3431899-2 07/16/19 10:30

Analyte	MB Result ug/l	MB Qualifier	MB MDL ug/l	MB RDL ug/l
Acetone	U		10.0	50.0
Benzene	U		0.331	1.00
Bromochloromethane	U		0.520	1.00
Bromodichloromethane	U		0.380	1.00
Bromoform	U		0.469	1.00
Bromomethane	U		0.866	5.00
Carbon disulfide	U		0.275	1.00
Carbon tetrachloride	U		0.379	1.00
Chlorobenzene	U		0.348	1.00
Chlorodibromomethane	U		0.327	1.00
Chloroethane	U		0.453	5.00
Cyclohexane	U		0.390	1.00
Chloroform	U		0.324	5.00
Chloromethane	U		0.276	2.50
1,2-Dibromo-3-Chloropropane	U		1.33	5.00
1,2-Dibromoethane	U		0.381	1.00
1,2-Dichlorobenzene	U		0.349	1.00
1,3-Dichlorobenzene	U		0.220	1.00
1,4-Dichlorobenzene	U		0.274	1.00
Dichlorodifluoromethane	U		0.551	5.00
1,1-Dichloroethane	U		0.259	1.00
1,2-Dichloroethane	U		0.361	1.00
1,1-Dichloroethene	U		0.398	1.00
cis-1,2-Dichloroethene	U		0.260	1.00
trans-1,2-Dichloroethene	U		0.396	1.00
1,2-Dichloropropane	U		0.306	1.00
cis-1,3-Dichloropropene	U		0.418	1.00
trans-1,3-Dichloropropene	U		0.419	1.00
Ethylbenzene	U		0.384	1.00
2-Hexanone	U		3.82	10.0
Isopropylbenzene	U		0.326	1.00
Methyl Acetate	U		4.30	20.0
Methyl Cyclohexane	U		0.380	1.00
2-Butanone (MEK)	U		3.93	10.0
Methyl tert-butyl ether	U		0.367	1.00
Methylene Chloride	U		1.00	5.00
4-Methyl-2-pentanone (MIBK)	U		2.14	10.0
Styrene	U		0.307	1.00
1,1,2,2-Tetrachloroethane	U		0.130	1.00
Tetrachloroethene	U		0.372	1.00

<sup>1</sup> Cp

<sup>2</sup> Tc

<sup>3</sup> Ss

<sup>4</sup> Cn

<sup>5</sup> Sr

<sup>6</sup> Qc

<sup>7</sup> Gl

<sup>8</sup> Al

<sup>9</sup> Sc



Method Blank (MB)

(MB) R3431899-2 07/16/19 10:30

Analyte	MB Result ug/l	MB Qualifier	MB MDL ug/l	MB RDL ug/l
Toluene	U		0.412	1.00
1,1,2-Trichlorotrifluoroethane	U		0.303	1.00
1,2,3-Trichlorobenzene	U		0.230	1.00
1,2,4-Trichlorobenzene	U		0.355	1.00
1,1,1-Trichloroethane	U		0.319	1.00
1,1,2-Trichloroethane	U		0.383	1.00
Trichloroethene	U		0.398	1.00
Trichlorofluoromethane	U		1.20	5.00
Xylenes, Total	U		1.06	3.00
Vinyl chloride	U		0.259	1.00
(S) Toluene-d8	95.9			80.0-120
(S) 4-Bromofluorobenzene	91.8			77.0-126
(S) 1,2-Dichloroethane-d4	110			70.0-130

Laboratory Control Sample (LCS)

(LCS) R3431899-1 07/16/19 09:10

Analyte	Spike Amount ug/l	LCS Result ug/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Benzene	25.0	24.8	99.3	70.0-130	
Bromochloromethane	25.0	27.2	109	70.0-130	
Carbon disulfide	25.0	25.0	100	70.0-130	
Acetone	125	145	116	70.0-130	
Bromodichloromethane	25.0	23.8	95.3	70.0-130	
Bromoform	25.0	21.0	84.0	70.0-130	
Bromomethane	25.0	29.0	116	70.0-130	
Carbon tetrachloride	25.0	23.1	92.4	70.0-130	
Chlorobenzene	25.0	22.4	89.5	70.0-130	
Chlorodibromomethane	25.0	19.6	78.5	70.0-130	
Chloroethane	25.0	26.6	106	70.0-130	
Chloroform	25.0	24.4	97.7	70.0-130	
Chloromethane	25.0	28.4	114	70.0-130	
1,2-Dibromo-3-Chloropropane	25.0	24.6	98.3	70.0-130	
1,2-Dibromoethane	25.0	23.0	91.8	70.0-130	
1,2-Dichlorobenzene	25.0	23.6	94.2	70.0-130	
1,3-Dichlorobenzene	25.0	25.1	100	70.0-130	
1,4-Dichlorobenzene	25.0	23.3	93.2	70.0-130	
Dichlorodifluoromethane	25.0	28.6	114	70.0-130	
1,1-Dichloroethane	25.0	26.1	105	70.0-130	

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc



Laboratory Control Sample (LCS)

(LCS) R3431899-1 07/16/19 09:10

Analyte	Spike Amount ug/l	LCS Result ug/l	LCS Rec. %	Rec. Limits %	<u>LCS Qualifier</u>
Ethylbenzene	25.0	22.2	88.8	70.0-130	
1,2-Dichloroethane	25.0	27.1	108	70.0-130	
1,1-Dichloroethene	25.0	23.3	93.1	70.0-130	
2-Hexanone	125	141	113	70.0-130	
cis-1,2-Dichloroethene	25.0	22.8	91.1	70.0-130	
trans-1,2-Dichloroethene	25.0	23.2	92.9	70.0-130	
1,2-Dichloropropane	25.0	27.0	108	70.0-130	
cis-1,3-Dichloropropene	25.0	23.8	95.1	70.0-130	
trans-1,3-Dichloropropene	25.0	23.0	92.2	70.0-130	
Methyl tert-butyl ether	25.0	24.1	96.5	70.0-130	
Isopropylbenzene	25.0	22.6	90.5	70.0-130	
2-Butanone (MEK)	125	143	115	70.0-130	
Toluene	25.0	21.4	85.4	70.0-130	
Methylene Chloride	25.0	24.8	99.2	70.0-130	
4-Methyl-2-pentanone (MIBK)	125	124	99.5	70.0-130	
Styrene	25.0	23.5	94.1	70.0-130	
1,1,2,2-Tetrachloroethane	25.0	27.0	108	70.0-130	
Tetrachloroethene	25.0	22.4	89.7	70.0-130	
Xylenes, Total	75.0	67.1	89.5	70.0-130	
1,1,2-Trichlorotrifluoroethane	25.0	24.4	97.7	70.0-130	
1,2,3-Trichlorobenzene	25.0	24.9	99.6	70.0-130	
1,2,4-Trichlorobenzene	25.0	22.2	88.7	70.0-130	
1,1,1-Trichloroethane	25.0	24.8	99.1	70.0-130	
1,1,2-Trichloroethane	25.0	20.9	83.8	70.0-130	
Trichloroethene	25.0	24.7	98.7	70.0-130	
Trichlorofluoromethane	25.0	26.9	108	70.0-130	
Vinyl chloride	25.0	27.5	110	70.0-130	
(S) Toluene-d8			88.6	80.0-120	
(S) 4-Bromofluorobenzene			92.1	77.0-126	
(S) 1,2-Dichloroethane-d4			121	70.0-130	

<sup>1</sup> Cp

<sup>2</sup> Tc

<sup>3</sup> Ss

<sup>4</sup> Cn

<sup>5</sup> Sr

<sup>6</sup> Qc

<sup>7</sup> Gl

<sup>8</sup> Al

<sup>9</sup> Sc



Method Blank (MB)

(MB) R3432508-1 07/19/19 17:18

Analyte	MB Result ug/l	MB Qualifier	MB MDL ug/l	MB RDL ug/l
Aldrin	U		0.00813	0.0500
Alpha BHC	U		0.0166	0.0500
Beta BHC	U		0.0184	0.0500
Delta BHC	U		0.0197	0.0500
Gamma BHC	U		0.0176	0.0500
4,4-DDD	U		0.0170	0.0500
4,4-DDE	U		0.0164	0.0500
4,4-DDT	U		0.0177	0.0500
Dieldrin	U		0.00751	0.0500
Endosulfan I	U		0.0179	0.0500
Endosulfan II	U		0.0176	0.0500
Endosulfan sulfate	U		0.0196	0.0500
Endrin	U		0.0189	0.0500
Endrin aldehyde	U		0.0142	0.0500
Endrin ketone	U		0.0170	0.0500
Heptachlor	U		0.0108	0.0500
Heptachlor epoxide	U		0.0175	0.0500
Hexachlorobenzene	U		0.0134	0.0500
Methoxychlor	U		0.0193	0.0500
Chlordane	U		0.0977	5.00
Toxaphene	U		0.168	0.500
(S) Decachlorobiphenyl	87.1			10.0-128
(S) Tetrachloro-m-xylene	121			10.0-127

<sup>1</sup> Cp

<sup>2</sup> Tc

<sup>3</sup> Ss

<sup>4</sup> Cn

<sup>5</sup> Sr

<sup>6</sup> Qc

<sup>7</sup> Gl

<sup>8</sup> Al

<sup>9</sup> Sc

Laboratory Control Sample (LCS)

(LCS) R3432508-2 07/19/19 17:31

Analyte	Spike Amount ug/l	LCS Result ug/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Aldrin	1.00	0.973	97.3	70.0-130	
Alpha BHC	1.00	0.943	94.3	70.0-130	
Beta BHC	1.00	0.952	95.2	70.0-130	
Delta BHC	1.00	1.00	100	70.0-130	
Gamma BHC	1.00	0.967	96.7	70.0-130	
4,4-DDD	1.00	0.962	96.2	70.0-130	
4,4-DDE	1.00	0.964	96.4	70.0-130	
4,4-DDT	1.00	0.980	98.0	70.0-130	
Dieldrin	1.00	1.03	103	70.0-130	
Endosulfan I	1.00	1.05	105	70.0-130	





Laboratory Control Sample (LCS)

(LCS) R3432508-2 07/19/19 17:31

Analyte	Spike Amount ug/l	LCS Result ug/l	LCS Rec. %	Rec. Limits %	<u>LCS Qualifier</u>
Endosulfan II	1.00	1.02	102	70.0-130	
Endosulfan sulfate	1.00	1.04	104	70.0-130	
Endrin	1.00	1.02	102	70.0-130	
Endrin aldehyde	1.00	1.05	105	70.0-130	
Endrin ketone	1.00	1.10	110	70.0-130	
Heptachlor	1.00	0.953	95.3	70.0-130	
Heptachlor epoxide	1.00	1.01	101	70.0-130	
Hexachlorobenzene	1.00	0.813	81.3	70.0-130	
Methoxychlor	1.00	1.02	102	70.0-130	
<i>(S) Decachlorobiphenyl</i>			77.6	10.0-128	
<i>(S) Tetrachloro-m-xylene</i>			106	10.0-127	

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

L1118355-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1118355-01 07/19/19 17:43 • (MS) R3432508-3 07/19/19 17:55 • (MSD) R3432508-4 07/19/19 18:08

Analyte	Spike Amount ug/l	Original Result ug/l	MS Result ug/l	MSD Result ug/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	<u>MS Qualifier</u>	<u>MSD Qualifier</u>	RPD %	RPD Limits %
Aldrin	1.00	ND	0.939	0.991	93.9	99.1	1	35.0-126			5.39	24
Alpha BHC	1.00	ND	0.974	1.01	97.4	101	1	55.0-133			3.63	20
Beta BHC	1.00	ND	0.924	0.964	92.4	96.4	1	59.0-131			4.24	20
Delta BHC	1.00	ND	0.991	1.03	99.1	103	1	61.0-134			3.86	20
Gamma BHC	1.00	ND	0.941	0.984	94.1	98.4	1	56.0-133			4.47	20
4,4-DDD	1.00	ND	0.945	0.993	94.5	99.3	1	59.0-138			4.95	20
4,4-DDE	1.00	ND	0.892	0.925	89.2	92.5	1	58.0-131			3.63	20
4,4-DDT	1.00	ND	0.910	0.944	91.0	94.4	1	43.0-147			3.67	20
Dieldrin	1.00	ND	1.01	1.05	101	105	1	62.0-136			3.88	20
Endosulfan I	1.00	ND	1.08	1.13	108	113	1	62.0-137			4.52	20
Endosulfan II	1.00	ND	1.04	1.08	104	108	1	62.0-136			3.77	20
Endosulfan sulfate	1.00	ND	1.05	1.09	105	109	1	60.0-139			3.74	20
Endrin	1.00	ND	0.987	1.02	98.7	102	1	58.0-135			3.29	20
Endrin aldehyde	1.00	ND	1.04	1.08	104	108	1	56.0-128			3.77	20
Endrin ketone	1.00	ND	1.15	1.21	115	121	1	54.0-142			5.08	20
Heptachlor	1.00	ND	0.925	0.967	92.5	96.7	1	37.0-134			4.44	24
Heptachlor epoxide	1.00	ND	0.979	1.02	97.9	102	1	60.0-132			4.10	20
Hexachlorobenzene	1.00	ND	0.785	0.823	78.5	82.3	1	35.0-120			4.73	25
Methoxychlor	1.00	ND	1.01	1.04	101	104	1	44.0-160			2.93	22
<i>(S) Decachlorobiphenyl</i>					85.7	90.8		10.0-128				
<i>(S) Tetrachloro-m-xylene</i>					95.7	101		10.0-127				



Method Blank (MB)

(MB) R3432336-1 07/19/19 07:29

Analyte	MB Result ug/l	MB Qualifier	MB MDL ug/l	MB RDL ug/l
Aldrin	U		0.00813	0.0500
Alpha BHC	U		0.0166	0.0500
Beta BHC	U		0.0184	0.0500
Delta BHC	U		0.0197	0.0500
Gamma BHC	U		0.0176	0.0500
4,4-DDD	U		0.0170	0.0500
4,4-DDE	U		0.0164	0.0500
4,4-DDT	U		0.0177	0.0500
Dieldrin	U		0.00751	0.0500
Endosulfan I	U		0.0179	0.0500
Endosulfan II	U		0.0176	0.0500
Endosulfan sulfate	U		0.0196	0.0500
Endrin	U		0.0189	0.0500
Endrin aldehyde	U		0.0142	0.0500
Endrin ketone	U		0.0170	0.0500
Heptachlor	U		0.0108	0.0500
Heptachlor epoxide	U		0.0175	0.0500
Hexachlorobenzene	U		0.0134	0.0500
Methoxychlor	U		0.0193	0.0500
Chlordane	U		0.0977	5.00
Toxaphene	U		0.168	0.500
(S) Decachlorobiphenyl	95.9			10.0-128
(S) Tetrachloro-m-xylene	49.7			10.0-127

<sup>1</sup> Cp

<sup>2</sup> Tc

<sup>3</sup> Ss

<sup>4</sup> Cn

<sup>5</sup> Sr

<sup>6</sup> Qc

<sup>7</sup> Gl

<sup>8</sup> Al

<sup>9</sup> Sc

Laboratory Control Sample (LCS)

(LCS) R3432336-2 07/19/19 07:44

Analyte	Spike Amount ug/l	LCS Result ug/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Aldrin	1.00	0.478	47.8	70.0-130	<u>J4</u>
Alpha BHC	1.00	0.492	49.2	70.0-130	<u>J4</u>
Beta BHC	1.00	0.644	64.4	70.0-130	<u>J4</u>
Delta BHC	1.00	0.718	71.8	70.0-130	
Gamma BHC	1.00	0.514	51.4	70.0-130	<u>J4</u>
4,4-DDD	1.00	0.849	84.9	70.0-130	
4,4-DDE	1.00	0.744	74.4	70.0-130	
4,4-DDT	1.00	0.885	88.5	70.0-130	
Dieldrin	1.00	0.762	76.2	70.0-130	
Endosulfan I	1.00	0.691	69.1	70.0-130	<u>J4</u>



Laboratory Control Sample (LCS)

(LCS) R3432336-2 07/19/19 07:44

Analyte	Spike Amount ug/l	LCS Result ug/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Endosulfan II	1.00	0.887	88.7	70.0-130	
Endosulfan sulfate	1.00	0.889	88.9	70.0-130	
Endrin	1.00	0.776	77.6	70.0-130	
Endrin aldehyde	1.00	0.870	87.0	70.0-130	
Endrin ketone	1.00	0.905	90.5	70.0-130	
Heptachlor	1.00	0.497	49.7	70.0-130	<u>J4</u>
Heptachlor epoxide	1.00	0.698	69.8	70.0-130	<u>J4</u>
Hexachlorobenzene	1.00	0.429	42.9	70.0-130	<u>J4</u>
Methoxychlor	1.00	0.893	89.3	70.0-130	
<i>(S) Decachlorobiphenyl</i>			91.3	10.0-128	
<i>(S) Tetrachloro-m-xylene</i>			40.9	10.0-127	

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

Laboratory Control Sample (LCS)

(LCS) R3432509-1 07/19/19 10:21

Analyte	Spike Amount ug/l	LCS Result ug/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Aldrin	1.00	0.505	50.5	70.0-130	<u>J4</u>
Alpha BHC	1.00	0.500	50.0	70.0-130	<u>J4</u>
Beta BHC	1.00	0.635	63.5	70.0-130	<u>J4</u>
Delta BHC	1.00	0.727	72.7	70.0-130	
Gamma BHC	1.00	0.524	52.4	70.0-130	<u>J4</u>
4,4-DDD	1.00	0.819	81.9	70.0-130	
4,4-DDE	1.00	0.725	72.5	70.0-130	
4,4-DDT	1.00	0.863	86.3	70.0-130	
Dieldrin	1.00	0.763	76.3	70.0-130	
Endosulfan I	1.00	0.714	71.4	70.0-130	
Endosulfan II	1.00	0.923	92.3	70.0-130	
Endosulfan sulfate	1.00	0.939	93.9	70.0-130	
Endrin	1.00	0.744	74.4	70.0-130	
Endrin aldehyde	1.00	0.933	93.3	70.0-130	
Endrin ketone	1.00	0.976	97.6	70.0-130	
Heptachlor	1.00	0.506	50.6	70.0-130	<u>J4</u>
Heptachlor epoxide	1.00	0.690	69.0	70.0-130	<u>J4</u>
Hexachlorobenzene	1.00	0.416	41.6	70.0-130	<u>J4</u>
Methoxychlor	1.00	0.910	91.0	70.0-130	
<i>(S) Decachlorobiphenyl</i>			92.8	10.0-128	
<i>(S) Tetrachloro-m-xylene</i>			45.9	10.0-127	



L1117353-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1117353-01 07/19/19 08:28 • (MS) R3432336-3 07/19/19 08:43 • (MSD) R3432336-4 07/19/19 08:58

Analyte	Spike Amount ug/l	Original Result ug/l	MS Result ug/l	MSD Result ug/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Aldrin	1.00	ND	0.495	0.487	49.5	48.7	1	35.0-126			1.63	24
Alpha BHC	1.00	ND	0.499	0.500	49.9	50.0	1	55.0-133	J6	J6	0.200	20
Beta BHC	1.00	ND	0.805	0.733	80.5	73.3	1	59.0-131			9.36	20
Delta BHC	1.00	ND	0.829	0.825	82.9	82.5	1	61.0-134			0.484	20
Gamma BHC	1.00	ND	0.569	0.560	56.9	56.0	1	56.0-133			1.59	20
4,4-DDD	1.00	ND	0.877	0.895	87.7	89.5	1	59.0-138			2.03	20
4,4-DDE	1.00	ND	0.827	0.834	82.7	83.4	1	58.0-131			0.843	20
4,4-DDT	1.00	ND	0.919	0.929	91.9	92.9	1	43.0-147			1.08	20
Dieldrin	1.00	ND	0.819	0.818	81.9	81.8	1	62.0-136			0.122	20
Endosulfan I	1.00	ND	0.762	0.750	76.2	75.0	1	62.0-137			1.59	20
Endosulfan II	1.00	ND	0.906	0.912	90.6	91.2	1	62.0-136			0.660	20
Endosulfan sulfate	1.00	ND	0.949	0.942	94.9	94.2	1	60.0-139			0.740	20
Endrin	1.00	ND	0.844	0.846	84.4	84.6	1	58.0-135			0.237	20
Endrin aldehyde	1.00	ND	0.855	0.856	85.5	85.6	1	56.0-128			0.117	20
Endrin ketone	1.00	ND	0.965	0.959	96.5	95.9	1	54.0-142			0.624	20
Heptachlor	1.00	ND	0.510	0.509	51.0	50.9	1	37.0-134			0.196	24
Heptachlor epoxide	1.00	ND	0.797	0.782	79.7	78.2	1	60.0-132			1.90	20
Hexachlorobenzene	1.00	ND	0.373	0.391	37.3	39.1	1	35.0-120			4.71	25
Methoxychlor	1.00	ND	0.971	0.957	97.1	95.7	1	44.0-160			1.45	22
(S) Decachlorobiphenyl					92.9	90.6		10.0-128				
(S) Tetrachloro-m-xylene					31.9	32.0		10.0-127				

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc



Method Blank (MB)

(MB) R3432488-1 07/19/19 16:10

Analyte	MB Result	MB Qualifier	MB MDL	MB RDL
	ug/l		ug/l	ug/l
PCB 1260	U		0.120	0.500
PCB 1016	U		0.100	0.500
PCB 1221	U		0.0730	0.500
PCB 1232	U		0.0420	0.500
PCB 1242	U		0.0470	0.500
PCB 1248	U		0.0860	0.500
PCB 1254	U		0.0470	0.500
(S) Decachlorobiphenyl	73.5			10.0-128
(S) Tetrachloro-m-xylene	66.3			10.0-127

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

Laboratory Control Sample (LCS)

(LCS) R3432488-2 07/19/19 16:24

Analyte	Spike Amount	LCS Result	LCS Rec.	Rec. Limits	LCS Qualifier
	ug/l	ug/l	%	%	
PCB 1260	2.50	1.86	74.4	70.0-130	
PCB 1016	2.50	2.12	84.8	70.0-130	
(S) Decachlorobiphenyl			66.5	10.0-128	
(S) Tetrachloro-m-xylene			75.3	10.0-127	

7 Gl

8 Al

9 Sc

L1118355-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1118355-01 07/19/19 16:53 • (MS) R3432488-3 07/19/19 17:08 • (MSD) R3432488-4 07/19/19 17:22

Analyte	Spike Amount	Original Result	MS Result	MSD Result	MS Rec.	MSD Rec.	Dilution	Rec. Limits	MS Qualifier	MSD Qualifier	RPD	RPD Limits
	ug/l	ug/l	ug/l	ug/l	%	%		%			%	%
PCB 1260	2.50	ND	1.71	1.78	68.4	71.2	1	45.0-142			4.01	24
PCB 1016	2.50	ND	2.02	2.11	80.8	84.4	1	41.0-134			4.36	23
(S) Decachlorobiphenyl					70.3	72.1		10.0-128				
(S) Tetrachloro-m-xylene					63.5	68.2		10.0-127				



Method Blank (MB)

(MB) R3432896-1 07/21/19 13:04

Analyte	MB Result	MB Qualifier	MB MDL	MB RDL
	ug/l		ug/l	ug/l
PCB 1260	U		0.120	0.500
PCB 1016	U		0.100	0.500
PCB 1221	U		0.0730	0.500
PCB 1232	U		0.0420	0.500
PCB 1242	U		0.0470	0.500
PCB 1248	U		0.0860	0.500
PCB 1254	U		0.0470	0.500
(S) Decachlorobiphenyl	91.0			10.0-128
(S) Tetrachloro-m-xylene	69.1			10.0-127

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

Laboratory Control Sample (LCS)

(LCS) R3432896-2 07/21/19 13:17

Analyte	Spike Amount	LCS Result	LCS Rec.	Rec. Limits	LCS Qualifier
	ug/l	ug/l	%	%	
PCB 1260	2.50	2.45	98.0	70.0-130	
PCB 1016	2.50	2.24	89.6	70.0-130	
(S) Decachlorobiphenyl			91.5	10.0-128	
(S) Tetrachloro-m-xylene			81.8	10.0-127	

7 Gl

8 Al

9 Sc

L1119452-02 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1119452-02 07/21/19 16:48 • (MS) R3432896-3 07/21/19 17:01 • (MSD) R3432896-4 07/21/19 17:13

Analyte	Spike Amount	Original Result	MS Result	MSD Result	MS Rec.	MSD Rec.	Dilution	Rec. Limits	MS Qualifier	MSD Qualifier	RPD	RPD Limits
	ug/l	ug/l	ug/l	ug/l	%	%		%			%	%
PCB 1260	2.50	ND	2.46	3.13	98.4	125	1	45.0-142			24.0	24
PCB 1016	2.50	ND	2.13	2.34	85.2	93.6	1	41.0-134			9.40	23
(S) Decachlorobiphenyl					122	126		10.0-128				
(S) Tetrachloro-m-xylene					86.8	91.5		10.0-127				



Method Blank (MB)

(MB) R3432436-3 07/19/19 01:38

Analyte	MB Result ug/l	MB Qualifier	MB MDL ug/l	MB RDL ug/l
Acenaphthene	U		0.316	1.00
Acenaphthylene	U		0.309	1.00
Anthracene	U		0.291	1.00
Benzo(a)anthracene	U		0.0975	1.00
Benzo(b)fluoranthene	U		0.0896	1.00
Benzo(k)fluoranthene	U		0.355	1.00
Benzo(g,h,i)perylene	U		0.161	1.00
Benzo(a)pyrene	U		0.340	1.00
Bis(2-chlorethoxy)methane	U		0.329	10.0
Bis(2-chloroethyl)ether	U		1.62	10.0
Bis(2-chloroisopropyl)ether	U		0.445	10.0
4-Bromophenyl-phenylether	U		0.335	10.0
Carbazole	U		0.162	10.0
2-Chloronaphthalene	U		0.330	1.00
4-Chlorophenyl-phenylether	U		0.303	10.0
Chrysene	U		0.332	1.00
Dibenz(a,h)anthracene	U		0.279	1.00
3,3-Dichlorobenzidine	U		2.02	10.0
2,4-Dinitrotoluene	U		1.65	10.0
2,6-Dinitrotoluene	U		0.279	10.0
Fluoranthene	U		0.310	1.00
Fluorene	U		0.323	1.00
Hexachlorobenzene	U		0.341	1.00
Hexachloro-1,3-butadiene	U		0.329	10.0
Hexachlorocyclopentadiene	U		2.33	10.0
Hexachloroethane	U		0.365	10.0
Indeno(1,2,3-cd)pyrene	U		0.279	1.00
Isophorone	U		0.272	10.0
Naphthalene	U		0.372	1.00
Nitrobenzene	U		0.367	10.0
n-Nitrosodiphenylamine	U		1.19	10.0
n-Nitrosodi-n-propylamine	U		0.403	10.0
Phenanthrene	U		0.366	1.00
Benzylbutyl phthalate	U		0.275	3.00
Bis(2-ethylhexyl)phthalate	U		0.709	3.00
Di-n-butyl phthalate	U		0.266	3.00
Diethyl phthalate	U		0.282	3.00
Dimethyl phthalate	U		0.283	3.00
Di-n-octyl phthalate	U		0.278	3.00
Pyrene	U		0.330	1.00

<sup>1</sup> Cp

<sup>2</sup> Tc

<sup>3</sup> Ss

<sup>4</sup> Cn

<sup>5</sup> Sr

<sup>6</sup> Qc

<sup>7</sup> Gl

<sup>8</sup> Al

<sup>9</sup> Sc



Method Blank (MB)

(MB) R3432436-3 07/19/19 01:38

Analyte	MB Result ug/l	MB Qualifier	MB MDL ug/l	MB RDL ug/l
4-Chloroaniline	U		0.382	10.0
4-Chloro-3-methylphenol	U		0.263	10.0
2-Chlorophenol	U		0.283	10.0
2-Nitrophenol	U		0.320	10.0
4-Nitrophenol	U		2.01	10.0
Pentachlorophenol	U		0.313	10.0
Phenol	U		0.334	10.0
2,4,6-Trichlorophenol	U		0.297	10.0
Dibenzofuran	U		0.338	10.0
2,4-Dichlorophenol	U		0.284	10.0
2,4-Dimethylphenol	U		0.624	10.0
4,6-Dinitro-2-methylphenol	U		2.62	10.0
2,4-Dinitrophenol	U		3.25	10.0
2-Methylnaphthalene	U		0.311	1.00
2-Methylphenol	U		0.312	10.0
3&4-Methyl Phenol	U		0.266	10.0
2-Nitroaniline	U		1.90	10.0
3-Nitroaniline	U		0.308	10.0
4-Nitroaniline	U		0.349	10.0
Acetophenone	U		2.71	10.0
1,2,4,5-Tetrachlorobenzene	U		2.41	10.0
2,4,5-Trichlorophenol	U		0.236	10.0
Biphenyl	U		0.206	10.0
Atrazine	U		1.53	10.0
Benzaldehyde	U		1.40	10.0
Caprolactam	U		0.583	10.0
(S) Nitrobenzene-d5	23.5			10.0-127
(S) 2-Fluorobiphenyl	28.3			10.0-130
(S) p-Terphenyl-d14	76.6			10.0-128
(S) Phenol-d5	11.8			10.0-120
(S) 2-Fluorophenol	19.4			10.0-120
(S) 2,4,6-Tribromophenol	41.2			10.0-155

<sup>1</sup> Cp

<sup>2</sup> Tc

<sup>3</sup> Ss

<sup>4</sup> Cn

<sup>5</sup> Sr

<sup>6</sup> Qc

<sup>7</sup> Gl

<sup>8</sup> Al

<sup>9</sup> Sc





Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3432436-1 07/19/19 00:55 • (LCSD) R3432436-2 07/19/19 01:17

Analyte	Spike Amount ug/l	LCS Result ug/l	LCSD Result ug/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Acenaphthene	50.0	21.5	24.3	43.0	48.6	70.0-130	J4	J4	12.2	20
Acenaphthylene	50.0	21.2	24.2	42.4	48.4	70.0-130	J4	J4	13.2	20
Anthracene	50.0	32.2	34.2	64.4	68.4	70.0-130	J4	J4	6.02	20
Biphenyl	50.0	19.2	21.8	38.4	43.6	70.0-130	J4	J4	12.7	20
Benzo(a)anthracene	50.0	37.5	39.1	75.0	78.2	70.0-130			4.18	20
Benzo(b)fluoranthene	50.0	36.5	37.7	73.0	75.4	70.0-130			3.23	20
Benzo(k)fluoranthene	50.0	37.4	37.9	74.8	75.8	70.0-130			1.33	20
Benzo(g,h,i)perylene	50.0	36.4	38.2	72.8	76.4	70.0-130			4.83	20
Benzo(a)pyrene	50.0	35.1	36.2	70.2	72.4	70.0-130			3.09	20
Bis(2-chloroethoxy)methane	50.0	16.0	17.8	32.0	35.6	70.0-130	J4	J4	10.7	20
Bis(2-chloroethyl)ether	50.0	12.5	14.6	25.0	29.2	70.0-130	J4	J4	15.5	20
Bis(2-chloroisopropyl)ether	50.0	13.0	15.1	26.0	30.2	70.0-130	J4	J4	14.9	20
4-Bromophenyl-phenylether	50.0	32.6	35.6	65.2	71.2	70.0-130	J4		8.80	20
Carbazole	50.0	34.2	35.9	68.4	71.8	70.0-130	J4		4.85	20
2-Chloronaphthalene	50.0	17.6	20.3	35.2	40.6	70.0-130	J4	J4	14.2	20
4-Chlorophenyl-phenylether	50.0	28.0	30.5	56.0	61.0	70.0-130	J4	J4	8.55	20
Chrysene	50.0	36.8	37.6	73.6	75.2	70.0-130			2.15	20
Dibenz(a,h)anthracene	50.0	35.2	37.3	70.4	74.6	70.0-130			5.79	20
3,3-Dichlorobenzidine	100	43.3	47.6	43.3	47.6	70.0-130	J4	J4	9.46	20
2,4-Dinitrotoluene	50.0	33.9	35.6	67.8	71.2	70.0-130	J4		4.89	20
2,6-Dinitrotoluene	50.0	30.2	31.6	60.4	63.2	70.0-130	J4	J4	4.53	20
Fluoranthene	50.0	34.4	35.8	68.8	71.6	70.0-130	J4		3.99	20
Fluorene	50.0	27.1	29.6	54.2	59.2	70.0-130	J4	J4	8.82	20
Hexachlorobenzene	50.0	34.1	36.4	68.2	72.8	70.0-130	J4		6.52	20
Hexachloro-1,3-butadiene	50.0	9.44	10.5	18.9	21.0	70.0-130	J4	J4	10.6	20
Hexachlorocyclopentadiene	50.0	11.9	14.4	23.8	28.8	70.0-130	J4	J4	19.0	20
Hexachloroethane	50.0	8.13	8.93	16.3	17.9	70.0-130	J4	J4	9.38	20
Indeno(1,2,3-cd)pyrene	50.0	34.9	37.3	69.8	74.6	70.0-130	J4		6.65	20
Isophorone	50.0	17.0	19.4	34.0	38.8	70.0-130	J4	J4	13.2	20
Naphthalene	50.0	12.2	13.9	24.4	27.8	70.0-130	J4	J4	13.0	20
Nitrobenzene	50.0	13.0	15.3	26.0	30.6	70.0-130	J4	J4	16.3	20
n-Nitrosodiphenylamine	50.0	23.8	25.1	47.6	50.2	70.0-130	J4	J4	5.32	20
n-Nitrosodi-n-propylamine	50.0	16.1	18.1	32.2	36.2	70.0-130	J4	J4	11.7	20
Phenanthrene	50.0	32.0	33.2	64.0	66.4	70.0-130	J4	J4	3.68	20
Benzylbutyl phthalate	50.0	34.2	35.0	68.4	70.0	70.0-130	J4		2.31	20
Bis(2-ethylhexyl)phthalate	50.0	34.4	35.1	68.8	70.2	70.0-130	J4		2.01	20
Di-n-butyl phthalate	50.0	34.3	35.0	68.6	70.0	70.0-130	J4		2.02	20
Diethyl phthalate	50.0	31.7	32.2	63.4	64.4	70.0-130	J4	J4	1.56	20
Dimethyl phthalate	50.0	30.7	31.6	61.4	63.2	70.0-130	J4	J4	2.89	20
Di-n-octyl phthalate	50.0	30.0	31.0	60.0	62.0	70.0-130	J4	J4	3.28	20

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc



Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3432436-1 07/19/19 00:55 • (LCSD) R3432436-2 07/19/19 01:17

Analyte	Spike Amount ug/l	LCS Result ug/l	LCSD Result ug/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Pyrene	50.0	35.4	36.8	70.8	73.6	70.0-130			3.88	20
4-Chloroaniline	50.0	22.9	23.5	45.8	47.0	70.0-130	J4	J4	2.59	20
4-Chloro-3-methylphenol	50.0	21.3	23.9	42.6	47.8	70.0-130	J4	J4	11.5	20
2-Chlorophenol	50.0	12.5	15.1	25.0	30.2	70.0-130	J4	J4	18.8	20
Dibenzofuran	50.0	24.3	27.0	48.6	54.0	70.0-130	J4	J4	10.5	20
2,4-Dichlorophenol	50.0	15.4	18.1	30.8	36.2	70.0-130	J4	J4	16.1	20
2,4-Dimethylphenol	50.0	15.1	17.5	30.2	35.0	70.0-130	J4	J4	14.7	20
4,6-Dinitro-2-methylphenol	50.0	33.1	37.5	66.2	75.0	70.0-130	J4	J4	12.5	20
2,4-Dinitrophenol	50.0	29.6	28.9	59.2	57.8	70.0-130	J4	J4	2.39	20
2-Methylnaphthalene	50.0	13.5	15.3	27.0	30.6	70.0-130	J4	J4	12.5	20
2-Methylphenol	50.0	12.8	14.8	25.6	29.6	70.0-130	J4	J4	14.5	20
3&4-Methyl Phenol	50.0	14.6	17.3	29.2	34.6	70.0-130	J4	J4	16.9	20
2-Nitroaniline	50.0	29.7	31.7	59.4	63.4	70.0-130	J4	J4	6.51	20
3-Nitroaniline	50.0	31.6	32.2	63.2	64.4	70.0-130	J4	J4	1.88	20
4-Nitroaniline	50.0	30.6	31.6	61.2	63.2	70.0-130	J4	J4	3.22	20
2-Nitrophenol	50.0	15.2	18.0	30.4	36.0	70.0-130	J4	J4	16.9	20
4-Nitrophenol	50.0	13.3	15.4	26.6	30.8	70.0-130	J4	J4	14.6	20
Pentachlorophenol	50.0	29.6	34.3	59.2	68.6	70.0-130	J4	J4	14.7	20
Phenol	50.0	5.95	7.04	11.9	14.1	70.0-130	J4	J4	16.8	20
2,4,6-Trichlorophenol	50.0	24.6	28.1	49.2	56.2	70.0-130	J4	J4	13.3	20
Acetophenone	50.0	14.7	16.8	29.4	33.6	70.0-130	J4	J4	13.3	20
1,2,4,5-Tetrachlorobenzene	50.0	17.0	19.5	34.0	39.0	70.0-130	J4	J4	13.7	20
2,4,5-Trichlorophenol	50.0	25.2	29.2	50.4	58.4	70.0-130	J4	J4	14.7	20
Atrazine	50.0	31.2	31.6	62.4	63.2	70.0-130	J4	J4	1.27	20
Benzaldehyde	50.0	15.0	18.1	30.0	36.2	70.0-130	J4	J4	18.7	20
Caprolactam	50.0	11.8	11.7	23.6	23.4	70.0-130	J4	J4	0.851	20
<i>(S) Nitrobenzene-d5</i>				21.8	26.0	10.0-127				
<i>(S) 2-Fluorobiphenyl</i>				37.1	44.3	10.0-130				
<i>(S) p-Terphenyl-d14</i>				68.6	71.4	10.0-128				
<i>(S) Phenol-d5</i>				11.1	13.2	10.0-120				
<i>(S) 2-Fluorophenol</i>				16.9	20.8	10.0-120				
<i>(S) 2,4,6-Tribromophenol</i>				63.0	73.0	10.0-155				

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc



Method Blank (MB)

(MB) R3432983-2 07/21/19 18:15

Analyte	MB Result ug/l	MB Qualifier	MB MDL ug/l	MB RDL ug/l
Acenaphthene	U		0.316	1.00
Acenaphthylene	U		0.309	1.00
Anthracene	U		0.291	1.00
Benzo(a)anthracene	U		0.0975	1.00
Benzo(b)fluoranthene	U		0.0896	1.00
Benzo(k)fluoranthene	U		0.355	1.00
Benzo(g,h,i)perylene	U		0.161	1.00
Benzo(a)pyrene	U		0.340	1.00
Bis(2-chlorethoxy)methane	U		0.329	10.0
Bis(2-chloroethyl)ether	U		1.62	10.0
Bis(2-chloroisopropyl)ether	U		0.445	10.0
4-Bromophenyl-phenylether	U		0.335	10.0
Carbazole	U		0.162	10.0
2-Chloronaphthalene	U		0.330	1.00
4-Chlorophenyl-phenylether	U		0.303	10.0
Chrysene	U		0.332	1.00
Dibenz(a,h)anthracene	U		0.279	1.00
3,3-Dichlorobenzidine	U		2.02	10.0
2,4-Dinitrotoluene	U		1.65	10.0
2,6-Dinitrotoluene	U		0.279	10.0
Fluoranthene	U		0.310	1.00
Fluorene	U		0.323	1.00
Hexachlorobenzene	U		0.341	1.00
Hexachloro-1,3-butadiene	U		0.329	10.0
Hexachlorocyclopentadiene	U		2.33	10.0
Hexachloroethane	U		0.365	10.0
Indeno(1,2,3-cd)pyrene	U		0.279	1.00
Isophorone	U		0.272	10.0
Naphthalene	U		0.372	1.00
Nitrobenzene	U		0.367	10.0
n-Nitrosodiphenylamine	U		1.19	10.0
n-Nitrosodi-n-propylamine	U		0.403	10.0
Phenanthrene	U		0.366	1.00
Benzylbutyl phthalate	U		0.275	3.00
Bis(2-ethylhexyl)phthalate	U		0.709	3.00
Di-n-butyl phthalate	U		0.266	3.00
Diethyl phthalate	U		0.282	3.00
Dimethyl phthalate	U		0.283	3.00
Di-n-octyl phthalate	U		0.278	3.00
Pyrene	U		0.330	1.00

<sup>1</sup> Cp

<sup>2</sup> Tc

<sup>3</sup> Ss

<sup>4</sup> Cn

<sup>5</sup> Sr

<sup>6</sup> Qc

<sup>7</sup> Gl

<sup>8</sup> Al

<sup>9</sup> Sc



Method Blank (MB)

(MB) R3432983-2 07/21/19 18:15

Analyte	MB Result ug/l	MB Qualifier	MB MDL ug/l	MB RDL ug/l
4-Chloroaniline	U		0.382	10.0
4-Chloro-3-methylphenol	U		0.263	10.0
2-Chlorophenol	U		0.283	10.0
2-Nitrophenol	U		0.320	10.0
4-Nitrophenol	U		2.01	10.0
Pentachlorophenol	U		0.313	10.0
Phenol	U		0.334	10.0
2,4,6-Trichlorophenol	U		0.297	10.0
Dibenzofuran	U		0.338	10.0
2,4-Dichlorophenol	U		0.284	10.0
2,4-Dimethylphenol	U		0.624	10.0
4,6-Dinitro-2-methylphenol	U		2.62	10.0
2,4-Dinitrophenol	U		3.25	10.0
2-Methylnaphthalene	U		0.311	1.00
2-Methylphenol	U		0.312	10.0
3&4-Methyl Phenol	U		0.266	10.0
2-Nitroaniline	U		1.90	10.0
3-Nitroaniline	U		0.308	10.0
4-Nitroaniline	U		0.349	10.0
Acetophenone	U		2.71	10.0
1,2,4,5-Tetrachlorobenzene	U		2.41	10.0
2,4,5-Trichlorophenol	U		0.236	10.0
Biphenyl	U		0.206	10.0
Atrazine	U		1.53	10.0
Benzaldehyde	U		1.40	10.0
Caprolactam	U		0.583	10.0
(S) Nitrobenzene-d5	26.4			10.0-127
(S) 2-Fluorobiphenyl	28.4			10.0-130
(S) p-Terphenyl-d14	59.5			10.0-128
(S) Phenol-d5	13.9			10.0-120
(S) 2-Fluorophenol	21.9			10.0-120
(S) 2,4,6-Tribromophenol	42.2			10.0-155

<sup>1</sup> Cp

<sup>2</sup> Tc

<sup>3</sup> Ss

<sup>4</sup> Cn

<sup>5</sup> Sr

<sup>6</sup> Qc

<sup>7</sup> Gl

<sup>8</sup> Al

<sup>9</sup> Sc



Method Blank (MB)

(MB) R3433395-3 07/23/19 13:09

Analyte	MB Result ug/l	MB Qualifier	MB MDL ug/l	MB RDL ug/l
Naphthalene	U		0.372	1.00
(S) 2-Fluorophenol	34.3			10.0-120
(S) Phenol-d5	20.3			10.0-120
(S) Nitrobenzene-d5	43.6			10.0-127
(S) 2-Fluorobiphenyl	55.1			10.0-130
(S) 2,4,6-Tribromophenol	54.5			10.0-155
(S) p-Terphenyl-d14	80.6			10.0-128

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3433395-1 07/23/19 12:25 • (LCSD) R3433395-2 07/23/19 12:47

Analyte	Spike Amount ug/l	LCS Result ug/l	LCSD Result ug/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Naphthalene	50.0	26.7	23.3	53.4	46.6	70.0-130	<u>J4</u>	<u>J4</u>	13.6	20
(S) 2-Fluorophenol				32.3	29.5	10.0-120				
(S) Phenol-d5				22.7	19.8	10.0-120				
(S) Nitrobenzene-d5				38.6	34.1	10.0-127				
(S) 2-Fluorobiphenyl				63.5	54.1	10.0-130				
(S) 2,4,6-Tribromophenol				84.5	58.5	10.0-155				
(S) p-Terphenyl-d14				81.6	70.2	10.0-128				



Method Blank (MB)

(MB) R3430879-2 07/15/19 22:39

Analyte	MB Result ug/l	MB Qualifier	MB MDL ug/l	MB RDL ug/l
Anthracene	U		0.00800	0.0500
Acenaphthene	U		0.0100	0.0500
Acenaphthylene	U		0.00700	0.0500
Benzo(a)anthracene	U		0.00830	0.0500
Benzo(a)pyrene	U		0.0158	0.0500
Benzo(b)fluoranthene	U		0.00212	0.0500
Benzo(g,h,i)perylene	U		0.00227	0.0500
Benzo(k)fluoranthene	U		0.0255	0.0500
Chrysene	U		0.0144	0.0500
Dibenz(a,h)anthracene	U		0.00454	0.0500
Fluoranthene	U		0.0165	0.0500
Fluorene	U		0.00898	0.0500
Indeno(1,2,3-cd)pyrene	U		0.00739	0.0500
Naphthalene	U		0.0123	0.250
Phenanthrene	U		0.0184	0.0500
Pyrene	U		0.0155	0.0500
<i>(S) Nitrobenzene-d5</i>	107			11.0-135
<i>(S) 2-Fluorobiphenyl</i>	54.5			32.0-120
<i>(S) p-Terphenyl-d14</i>	79.0			23.0-122

<sup>1</sup> Cp

<sup>2</sup> Tc

<sup>3</sup> Ss

<sup>4</sup> Cn

<sup>5</sup> Sr

<sup>6</sup> Qc

<sup>7</sup> Gl

<sup>8</sup> Al

<sup>9</sup> Sc

Laboratory Control Sample (LCS)

(LCS) R3430879-1 07/15/19 22:17

Analyte	Spike Amount ug/l	LCS Result ug/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Anthracene	2.00	1.55	77.5	70.0-130	
Acenaphthene	2.00	1.19	59.5	70.0-130	<u>J4</u>
Acenaphthylene	2.00	1.30	65.0	70.0-130	<u>J4</u>
Benzo(a)anthracene	2.00	1.56	78.0	70.0-130	
Benzo(a)pyrene	2.00	1.58	79.0	70.0-130	
Benzo(b)fluoranthene	2.00	1.56	78.0	70.0-130	
Benzo(g,h,i)perylene	2.00	1.59	79.5	70.0-130	
Benzo(k)fluoranthene	2.00	1.65	82.5	70.0-130	
Chrysene	2.00	1.69	84.5	70.0-130	
Dibenz(a,h)anthracene	2.00	1.63	81.5	70.0-130	
Fluoranthene	2.00	1.74	87.0	70.0-130	
Fluorene	2.00	1.26	63.0	70.0-130	<u>J4</u>
Indeno(1,2,3-cd)pyrene	2.00	1.64	82.0	70.0-130	
Naphthalene	2.00	1.05	52.5	70.0-130	<u>J4</u>



Laboratory Control Sample (LCS)

(LCS) R3430879-1 07/15/19 22:17

Analyte	Spike Amount ug/l	LCS Result ug/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Phenanthrene	2.00	1.34	67.0	70.0-130	<u>J4</u>
Pyrene	2.00	1.53	76.5	70.0-130	
<i>(S) Nitrobenzene-d5</i>			114	11.0-135	
<i>(S) 2-Fluorobiphenyl</i>			55.0	32.0-120	
<i>(S) p-Terphenyl-d14</i>			79.0	23.0-122	

L1117590-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1117590-01 07/16/19 09:42 • (MS) R3431019-1 07/16/19 10:04 • (MSD) R3431019-2 07/16/19 10:26

Analyte	Spike Amount ug/l	Original Result ug/l	MS Result ug/l	MSD Result ug/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Anthracene	2.00	ND	0.760	1.58	38.0	79.0	1	51.0-120	<u>J6</u>	<u>J3</u>	70.1	20
Acenaphthene	2.00	ND	0.537	1.22	26.9	61.0	1	50.0-120	<u>J6</u>	<u>J3</u>	77.7	20
Acenaphthylene	2.00	ND	0.532	1.31	26.6	65.5	1	49.0-120	<u>J6</u>	<u>J3</u>	84.5	20
Benzo(a)anthracene	2.00	ND	0.949	1.65	47.4	82.5	1	49.0-120	<u>J6</u>	<u>J3</u>	53.9	20
Benzo(a)pyrene	2.00	ND	0.881	1.42	44.0	71.0	1	50.0-122	<u>J6</u>	<u>J3</u>	46.8	20
Benzo(b)fluoranthene	2.00	ND	0.828	1.44	41.4	72.0	1	48.0-120	<u>J6</u>	<u>J3</u>	54.0	22
Benzo(g,h,i)perylene	2.00	ND	0.474	0.743	23.7	37.1	1	38.0-126	<u>J6</u>	<u>J3 J6</u>	44.2	22
Benzo(k)fluoranthene	2.00	ND	0.873	1.46	43.6	73.0	1	48.0-120	<u>J6</u>	<u>J3</u>	50.3	22
Chrysene	2.00	ND	0.972	1.67	48.6	83.5	1	51.0-120	<u>J6</u>	<u>J3</u>	52.8	20
Dibenz(a,h)anthracene	2.00	ND	0.422	0.611	21.1	30.5	1	30.0-130	<u>J6</u>	<u>J3</u>	36.6	26
Fluoranthene	2.00	ND	1.02	1.80	51.0	90.0	1	50.0-121		<u>J3</u>	55.3	20
Fluorene	2.00	ND	0.574	1.28	28.7	64.0	1	48.0-120	<u>J6</u>	<u>J3</u>	76.2	20
Indeno(1,2,3-cd)pyrene	2.00	ND	0.488	0.752	24.4	37.6	1	39.0-125	<u>J6</u>	<u>J3 J6</u>	42.6	21
Naphthalene	2.00	ND	0.446	1.12	19.3	53.0	1	46.0-120	<u>J6</u>	<u>J3</u>	86.1	20
Phenanthrene	2.00	ND	0.685	1.34	34.2	67.0	1	50.0-120	<u>J6</u>	<u>J3</u>	64.7	20
Pyrene	2.00	ND	0.842	1.40	42.1	70.0	1	49.0-127	<u>J6</u>	<u>J3</u>	49.8	20
<i>(S) Nitrobenzene-d5</i>					41.8	110		11.0-135				
<i>(S) 2-Fluorobiphenyl</i>					22.1	58.0		32.0-120	<u>J2</u>			
<i>(S) p-Terphenyl-d14</i>					45.1	77.0		23.0-122				

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc



Method Blank (MB)

(MB) R3432313-3 07/18/19 13:14

Analyte	MB Result ug/l	MB Qualifier	MB MDL ug/l	MB RDL ug/l
Anthracene	U		0.00800	0.0500
Acenaphthene	U		0.0100	0.0500
Acenaphthylene	U		0.00700	0.0500
Benzo(a)anthracene	U		0.00830	0.0500
Benzo(a)pyrene	U		0.0158	0.0500
Benzo(b)fluoranthene	U		0.00212	0.0500
Benzo(g,h,i)perylene	U		0.00227	0.0500
Benzo(k)fluoranthene	U		0.0255	0.0500
Chrysene	U		0.0144	0.0500
Dibenz(a,h)anthracene	U		0.00454	0.0500
Fluoranthene	U		0.0165	0.0500
Fluorene	U		0.00898	0.0500
Indeno(1,2,3-cd)pyrene	U		0.00739	0.0500
Naphthalene	0.0137	<u>J</u>	0.0123	0.250
Phenanthrene	U		0.0184	0.0500
Pyrene	U		0.0155	0.0500
<i>(S) Nitrobenzene-d5</i>	55.0			11.0-135
<i>(S) 2-Fluorobiphenyl</i>	64.0			32.0-120
<i>(S) p-Terphenyl-d14</i>	97.5			23.0-122

<sup>1</sup> Cp

<sup>2</sup> Tc

<sup>3</sup> Ss

<sup>4</sup> Cn

<sup>5</sup> Sr

<sup>6</sup> Qc

<sup>7</sup> Gl

<sup>8</sup> Al

<sup>9</sup> Sc

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3432313-1 07/18/19 12:27 • (LCSD) R3432313-2 07/18/19 12:50

Analyte	Spike Amount ug/l	LCS Result ug/l	LCSD Result ug/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Anthracene	2.00	1.79	1.90	89.5	95.0	70.0-130			5.96	20
Acenaphthene	2.00	1.46	1.49	73.0	74.5	70.0-130			2.03	20
Acenaphthylene	2.00	1.46	1.48	73.0	74.0	70.0-130			1.36	20
Benzo(a)anthracene	2.00	1.66	1.78	83.0	89.0	70.0-130			6.98	20
Benzo(a)pyrene	2.00	1.68	1.81	84.0	90.5	70.0-130			7.45	20
Benzo(b)fluoranthene	2.00	1.64	1.79	82.0	89.5	70.0-130			8.75	20
Benzo(g,h,i)perylene	2.00	1.83	2.01	91.5	100	70.0-130			9.37	20
Benzo(k)fluoranthene	2.00	1.69	1.90	84.5	95.0	70.0-130			11.7	20
Chrysene	2.00	1.67	1.85	83.5	92.5	70.0-130			10.2	20
Dibenz(a,h)anthracene	2.00	1.90	2.06	95.0	103	70.0-130			8.08	20
Fluoranthene	2.00	1.98	2.08	99.0	104	70.0-130			4.93	20
Fluorene	2.00	1.53	1.56	76.5	78.0	70.0-130			1.94	20
Indeno(1,2,3-cd)pyrene	2.00	1.82	1.99	91.0	99.5	70.0-130			8.92	20
Naphthalene	2.00	1.31	1.32	65.5	66.0	70.0-130	<u>J4</u>	<u>J4</u>	0.760	20





Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3432313-1 07/18/19 12:27 • (LCSD) R3432313-2 07/18/19 12:50

Analyte	Spike Amount ug/l	LCS Result ug/l	LCSD Result ug/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	<u>LCS Qualifier</u>	<u>LCSD Qualifier</u>	RPD %	RPD Limits %
Phenanthrene	2.00	1.67	1.70	83.5	85.0	70.0-130			1.78	20
Pyrene	2.00	1.54	1.65	77.0	82.5	70.0-130			6.90	20
<i>(S) Nitrobenzene-d5</i>				66.5	68.0	11.0-135				
<i>(S) 2-Fluorobiphenyl</i>				78.5	81.0	32.0-120				
<i>(S) p-Terphenyl-d14</i>				97.5	106	23.0-122				

- 1 Cp
- 2 Tc
- 3 Ss
- 4 Cn
- 5 Sr
- 6 Qc
- 7 Gl
- 8 Al
- 9 Sc



## Guide to Reading and Understanding Your Laboratory Report

The information below is designed to better explain the various terms used in your report of analytical results from the Laboratory. This is not intended as a comprehensive explanation, and if you have additional questions please contact your project representative.

Results Disclaimer - Information that may be provided by the customer, and contained within this report, include Permit Limits, Project Name, Sample ID, Sample Matrix, Sample Preservation, Field Blanks, Field Spikes, Field Duplicates, On-Site Data, Sampling Collection Dates/Times, and Sampling Location. Results relate to the accuracy of this information provided, and as the samples are received.

## Abbreviations and Definitions

MDL	Method Detection Limit.
ND	Not detected at the Reporting Limit (or MDL where applicable).
RDL	Reported Detection Limit.
Rec.	Recovery.
RPD	Relative Percent Difference.
SDG	Sample Delivery Group.
(S)	Surrogate (Surrogate Standard) - Analytes added to every blank, sample, Laboratory Control Sample/Duplicate and Matrix Spike/Duplicate; used to evaluate analytical efficiency by measuring recovery. Surrogates are not expected to be detected in all environmental media.
U	Not detected at the Reporting Limit (or MDL where applicable).
Analyte	The name of the particular compound or analysis performed. Some Analyses and Methods will have multiple analytes reported.
Dilution	If the sample matrix contains an interfering material, the sample preparation volume or weight values differ from the standard, or if concentrations of analytes in the sample are higher than the highest limit of concentration that the laboratory can accurately report, the sample may be diluted for analysis. If a value different than 1 is used in this field, the result reported has already been corrected for this factor.
Limits	These are the target % recovery ranges or % difference value that the laboratory has historically determined as normal for the method and analyte being reported. Successful QC Sample analysis will target all analytes recovered or duplicated within these ranges.
Original Sample	The non-spiked sample in the prep batch used to determine the Relative Percent Difference (RPD) from a quality control sample. The Original Sample may not be included within the reported SDG.
Qualifier	This column provides a letter and/or number designation that corresponds to additional information concerning the result reported. If a Qualifier is present, a definition per Qualifier is provided within the Glossary and Definitions page and potentially a discussion of possible implications of the Qualifier in the Case Narrative if applicable.
Result	The actual analytical final result (corrected for any sample specific characteristics) reported for your sample. If there was no measurable result returned for a specific analyte, the result in this column may state "ND" (Not Detected) or "BDL" (Below Detectable Levels). The information in the results column should always be accompanied by either an MDL (Method Detection Limit) or RDL (Reporting Detection Limit) that defines the lowest value that the laboratory could detect or report for this analyte.
Uncertainty (Radiochemistry)	Confidence level of 2 sigma.
Case Narrative (Cn)	A brief discussion about the included sample results, including a discussion of any non-conformances to protocol observed either at sample receipt by the laboratory from the field or during the analytical process. If present, there will be a section in the Case Narrative to discuss the meaning of any data qualifiers used in the report.
Quality Control Summary (Qc)	This section of the report includes the results of the laboratory quality control analyses required by procedure or analytical methods to assist in evaluating the validity of the results reported for your samples. These analyses are not being performed on your samples typically, but on laboratory generated material.
Sample Chain of Custody (Sc)	This is the document created in the field when your samples were initially collected. This is used to verify the time and date of collection, the person collecting the samples, and the analyses that the laboratory is requested to perform. This chain of custody also documents all persons (excluding commercial shippers) that have had control or possession of the samples from the time of collection until delivery to the laboratory for analysis.
Sample Results (Sr)	This section of your report will provide the results of all testing performed on your samples. These results are provided by sample ID and are separated by the analyses performed on each sample. The header line of each analysis section for each sample will provide the name and method number for the analysis reported.
Sample Summary (Ss)	This section of the Analytical Report defines the specific analyses performed for each sample ID, including the dates and times of preparation and/or analysis.

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

## Qualifier Description

J	The identification of the analyte is acceptable; the reported value is an estimate.
J1	Surrogate recovery limits have been exceeded; values are outside upper control limits.
J2	Surrogate recovery limits have been exceeded; values are outside lower control limits.
J3	The associated batch QC was outside the established quality control range for precision.
J4	The associated batch QC was outside the established quality control range for accuracy.
J6	The sample matrix interfered with the ability to make any accurate determination; spike value is low.
Q	Sample was prepared and/or analyzed past holding time as defined in the method. Concentrations should be considered minimum values.



Pace National is the only environmental laboratory accredited/certified to support your work nationwide from one location. One phone call, one point of contact, one laboratory. No other lab is as accessible or prepared to handle your needs throughout the country. Our capacity and capability from our single location laboratory is comparable to the collective totals of the network laboratories in our industry. The most significant benefit to our one location design is the design of our laboratory campus. The model is conducive to accelerated productivity, decreasing turn-around time, and preventing cross contamination, thus protecting sample integrity. Our focus on premium quality and prompt service allows us to be YOUR LAB OF CHOICE.

\* Not all certifications held by the laboratory are applicable to the results reported in the attached report.  
 \* Accreditation is only applicable to the test methods specified on each scope of accreditation held by Pace National.

## State Accreditations

Alabama	40660	Nebraska	NE-OS-15-05
Alaska	17-026	Nevada	TN-03-2002-34
Arizona	AZ0612	New Hampshire	2975
Arkansas	88-0469	New Jersey-NELAP	TN002
California	2932	New Mexico <sup>1</sup>	n/a
Colorado	TN00003	New York	11742
Connecticut	PH-0197	North Carolina	Env375
Florida	E87487	North Carolina <sup>1</sup>	DW21704
Georgia	NELAP	North Carolina <sup>3</sup>	41
Georgia <sup>1</sup>	923	North Dakota	R-140
Idaho	TN00003	Ohio-VAP	CL0069
Illinois	200008	Oklahoma	9915
Indiana	C-TN-01	Oregon	TN200002
Iowa	364	Pennsylvania	68-02979
Kansas	E-10277	Rhode Island	LA000356
Kentucky <sup>1,6</sup>	90010	South Carolina	84004
Kentucky <sup>2</sup>	16	South Dakota	n/a
Louisiana	AI30792	Tennessee <sup>1,4</sup>	2006
Louisiana <sup>1</sup>	LA180010	Texas	T104704245-18-15
Maine	TN0002	Texas <sup>5</sup>	LAB0152
Maryland	324	Utah	TN00003
Massachusetts	M-TN003	Vermont	VT2006
Michigan	9958	Virginia	460132
Minnesota	047-999-395	Washington	C847
Mississippi	TN00003	West Virginia	233
Missouri	340	Wisconsin	9980939910
Montana	CERT0086	Wyoming	A2LA

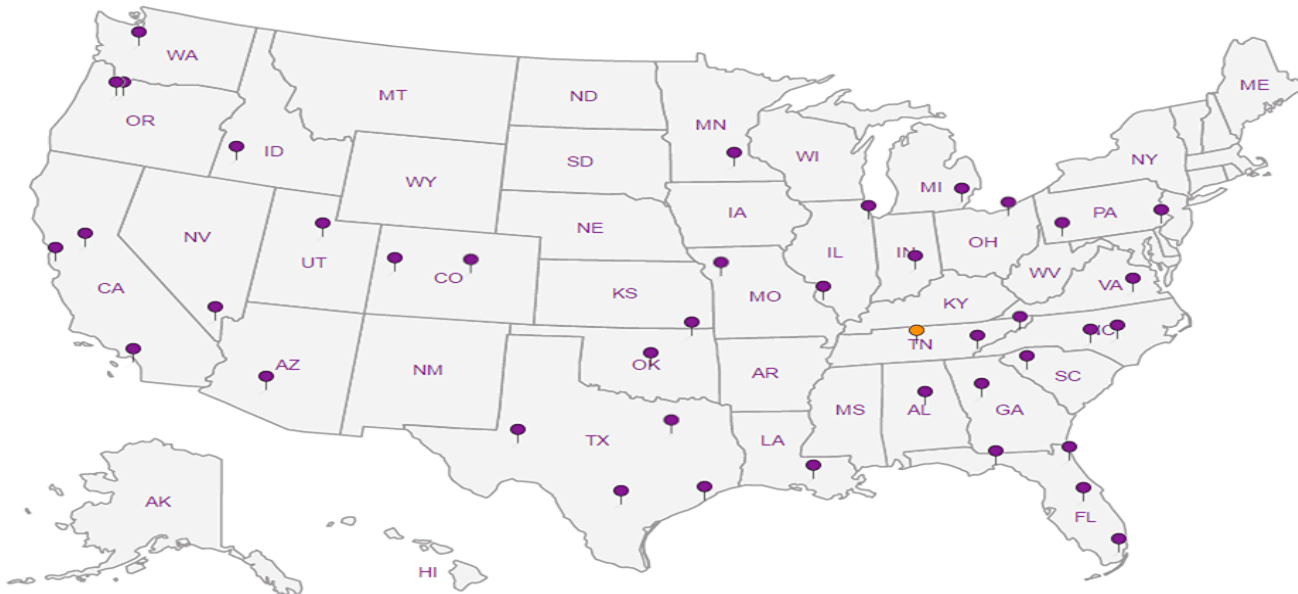
## Third Party Federal Accreditations

A2LA – ISO 17025	1461.01	AIHA-LAP,LLC EMLAP	100789
A2LA – ISO 17025 <sup>5</sup>	1461.02	DOD	1461.01
Canada	1461.01	USDA	P330-15-00234
EPA-Crypto	TN00003		

<sup>1</sup> Drinking Water <sup>2</sup> Underground Storage Tanks <sup>3</sup> Aquatic Toxicity <sup>4</sup> Chemical/Microbiological <sup>5</sup> Mold <sup>6</sup> Wastewater n/a Accreditation not applicable

## Our Locations

Pace National has sixty-four client support centers that provide sample pickup and/or the delivery of sampling supplies. If you would like assistance from one of our support offices, please contact our main office. Pace National performs all testing at our central laboratory.



1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

**S&ME Inc. - Spartanburg SC**

301 Zima Park Drive  
Spartanburg, SC 29301

Billing Information:  
Accounts Payable  
301 Zima Park Drive  
Spartanburg, SC 29301

Pres  
Chk

Analysis / Container / Preservative

Chain of Custody Page 1 of 1



12065 Lebanon Rd  
Mount Juliet, TN 37122  
Phone: 615-758-5858  
Phone: 800-767-5859  
Fax: 615-758-5859



Report to:  
**Scott Dacus**

Email To: sdacus@smeinc.com

Project Description: **NewIndy**

City/State Collected: **Rock Hill, SC**

Phone: 864-574-2360  
Fax: 864-576-8730

Client Project #  
**4213-18-087**

Lab Project #  
**SMESPAR-4213-18-087**

Collected by (print):  
*Kevin McIntyre*

Site/Facility ID #  
**COLUMBIA**

P.O. #

Collected by (signature):  
*Kevin*

**Rush?** (Lab MUST Be Notified)  
 Same Day  Five Day  
 Next Day  5 Day (Rad Only)  
 Two Day  10 Day (Rad Only)  
 Three Day

Quote #

Date Results Needed

No. of  
Cntrs

Immediately Packed on Ice N  Y

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No. of Cntrs	8081/80825C 100ml Amb NoPres	8270PAHSIMDSC 100ml Amb NoPres	8270TCLDSC 100ml Amb NoPres	CN 250mlHDPEAmb-NaOH > 1Z	TAL Metals 250mlHDPE-HNO3 2Z	V8260TCLSC 40mlAmb-NoPres	V8260TCLSC- BLK 40mlAmb-NoPres-Blk	Remarks	Sample # (lab only)
GW-15R	G	GW	24	7-12-19	9:45	11	X	X	X	X	X	X			-01
GW-15BR	G	GW	115	7-12-19	10:30	11	X	X	X	X	X	X			-02
GW-17	G	GW	17	7-11-19	15:30	11	X	X	X	X	X	X			-03
GW-18	G	GW	19.3	7-11-19	12:47	11	X	X	X	X	X	X			-04
R2-MW-1	G	GW	41	7-11-19	10:50	11	X	X	X	X	X	X			-05
R2-MW-6	G	GW	27	7-11-19	10:10	11	X	X	X	X	X	X			-06
GW-12	G	GW	44	7-11-19	13:43	11	X	X	X	X	X	X			-07
GW-14	G	GW	19'	7-12-19	11:30	11	X	X	X	X	X	X			-08
CM-EB-GW-1	G	GW		7-12-19	11:55	11	X	X	X	X	X	X			-09
CM-FB-GW-1	G	GW		7-12-19	09:30	11	X	X	X	X	X	X			-10

\* Matrix:  
SS - Soil AIR - Air F - Filter  
GW - Groundwater B - Bioassay  
WW - WasteWater  
DW - Drinking Water  
OT - Other

Remarks:

**2 COULURS**

Samples returned via:  
 UPS  FedEx  Courier

Tracking #

pH \_\_\_\_\_ Temp \_\_\_\_\_  
Flow \_\_\_\_\_ Other \_\_\_\_\_

Sample Receipt Checklist  
 COC Seal Present/Intact:  NP  N  
 COC Signed/Accurate:  Y  N  
 Bottles arrive intact:  Y  N  
 Correct bottles used:  Y  N  
 Sufficient volume sent:  Y  N  
 If Applicable  
 VOA Zero Headspace:  Y  N  
 Preservation Correct/Checked:  Y  N  
**RAD SCREEN: <0.5 mP/hr**

Relinquished by: (Signature)  
*[Signature]*  
Date: **7.12.19**  
Time: **1440**

Date: \_\_\_\_\_ Time: \_\_\_\_\_  
Received by: (Signature)

Date: \_\_\_\_\_ Time: \_\_\_\_\_  
Received by: (Signature)

Trip Blank Received: Yes/No  
 HCL/MeOH  TBR  
Temp: **4.6** °C Bottles Received: **110+2TB**  
Date: **7/13** Time: **8:45**

If preservation required by Login: Date/Time  
Hold: \_\_\_\_\_ Condition: **NCF / OK**

## S&ME Inc. - Spartanburg SC

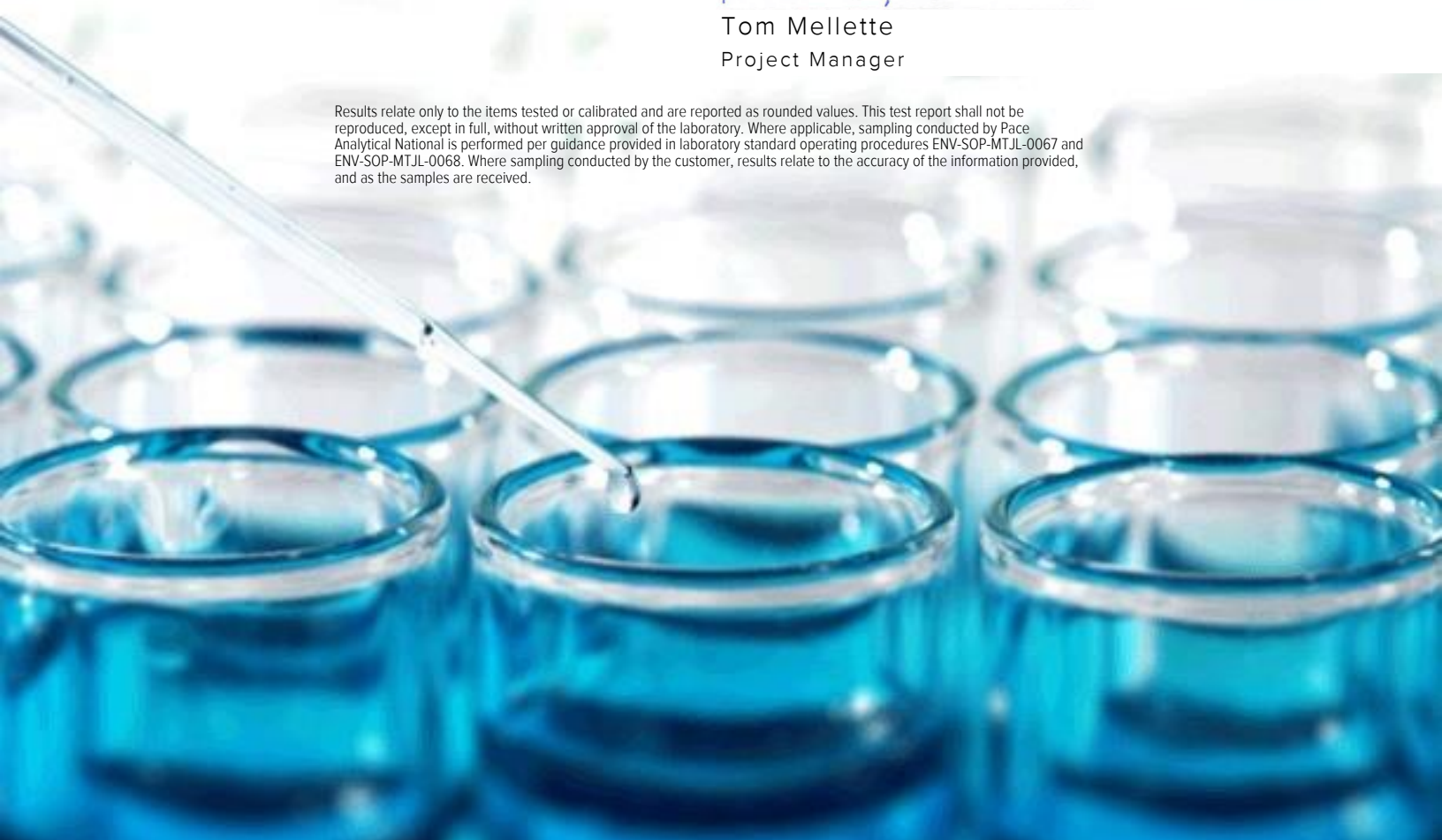
Sample Delivery Group: L1119437  
Samples Received: 07/17/2019  
Project Number: 4213-18-087  
Description: Project Columbia  
Site: COLUMBIA  
Report To: Scott Dacus  
301 Zima Park Drive  
Spartanburg, SC 29301

Entire Report Reviewed By:



Tom Mellette  
Project Manager

Results relate only to the items tested or calibrated and are reported as rounded values. This test report shall not be reproduced, except in full, without written approval of the laboratory. Where applicable, sampling conducted by Pace Analytical National is performed per guidance provided in laboratory standard operating procedures ENV-SOP-MTJL-0067 and ENV-SOP-MTJL-0068. Where sampling conducted by the customer, results relate to the accuracy of the information provided, and as the samples are received.





<b>Cp: Cover Page</b>	<b>1</b>	<b><sup>1</sup>Cp</b>
<b>Tc: Table of Contents</b>	<b>2</b>	
<b>Ss: Sample Summary</b>	<b>3</b>	<b><sup>2</sup>Tc</b>
<b>Cn: Case Narrative</b>	<b>4</b>	
<b>Gl: Glossary of Terms</b>	<b>5</b>	<b><sup>3</sup>Ss</b>
<b>Al: Accreditations &amp; Locations</b>	<b>6</b>	<b><sup>4</sup>Cn</b>
<b>Sc: Sample Chain of Custody</b>	<b>7</b>	<b><sup>5</sup>Gl</b>
		<b><sup>6</sup>Al</b>
		<b><sup>7</sup>Sc</b>



# SAMPLE SUMMARY



## R43-MW-3 L1119437-01 GW

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Subcontracted Analyses	WG1313599	1	08/02/19 00:00	08/02/19 00:00	CBM	Minneapolis, MN 55414

Collected by Kevin McIntyre  
 Collected date/time 07/16/19 13:10  
 Received date/time 07/17/19 08:45

- 1 Cp
- 2 Tc
- 3 Ss
- 4 Cn
- 5 Gl
- 6 Al
- 7 Sc

## R43-MW-2 L1119437-02 GW

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Subcontracted Analyses	WG1313599	1	08/02/19 00:00	08/02/19 00:00	CBM	Minneapolis, MN 55414

Collected by Kevin McIntyre  
 Collected date/time 07/16/19 10:57  
 Received date/time 07/17/19 08:45

## R43-MW-1 L1119437-03 GW

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Subcontracted Analyses	WG1313599	1	08/02/19 00:00	08/02/19 00:00	CBM	Minneapolis, MN 55414

Collected by Kevin McIntyre  
 Collected date/time 07/16/19 15:30  
 Received date/time 07/17/19 08:45

## GW-13 L1119437-04 GW

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Subcontracted Analyses	WG1313599	1	08/02/19 00:00	08/02/19 00:00	CBM	Minneapolis, MN 55414

Collected by Kevin McIntyre  
 Collected date/time 07/16/19 11:38  
 Received date/time 07/17/19 08:45

## GW-10 L1119437-05 GW

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Subcontracted Analyses	WG1313599	1	08/02/19 00:00	08/02/19 00:00	CBM	Minneapolis, MN 55414

Collected by Kevin McIntyre  
 Collected date/time 07/16/19 13:25  
 Received date/time 07/17/19 08:45

## CM-DUP-GW-2 L1119437-06 GW

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Subcontracted Analyses	WG1313599	1	08/02/19 00:00	08/02/19 00:00	CBM	Minneapolis, MN 55414

Collected by Kevin McIntyre  
 Collected date/time 07/16/19 00:00  
 Received date/time 07/17/19 08:45



All sample aliquots were received at the correct temperature, in the proper containers, with the appropriate preservatives, and within method specified holding times, unless qualified or notated within the report. Where applicable, all MDL (LOD) and RDL (LOQ) values reported for environmental samples have been corrected for the dilution factor used in the analysis. All Method and Batch Quality Control are within established criteria except where addressed in this case narrative, a non-conformance form or properly qualified within the sample results. By my digital signature below, I affirm to the best of my knowledge, all problems/anomalies observed by the laboratory as having the potential to affect the quality of the data have been identified by the laboratory, and no information or data have been knowingly withheld that would affect the quality of the data.

Tom Mellette  
Project Manager

- <sup>1</sup> Cp
- <sup>2</sup> Tc
- <sup>3</sup> Ss
- <sup>4</sup> Cn
- <sup>5</sup> Gl
- <sup>6</sup> Al
- <sup>7</sup> Sc

### Project Narrative

---

L1119437 -01, -02, -03, -04, -05, -06 contains subout data that is included after the chain of custody.





Guide to Reading and Understanding Your Laboratory Report

The information below is designed to better explain the various terms used in your report of analytical results from the Laboratory. This is not intended as a comprehensive explanation, and if you have additional questions please contact your project representative.

Results Disclaimer - Information that may be provided by the customer, and contained within this report, include Permit Limits, Project Name, Sample ID, Sample Matrix, Sample Preservation, Field Blanks, Field Spikes, Field Duplicates, On-Site Data, Sampling Collection Dates/Times, and Sampling Location. Results relate to the accuracy of this information provided, and as the samples are received.

Abbreviations and Definitions

SDG	Sample Delivery Group.
Uncertainty (Radiochemistry)	Confidence level of 2 sigma.
Case Narrative (Cn)	A brief discussion about the included sample results, including a discussion of any non-conformances to protocol observed either at sample receipt by the laboratory from the field or during the analytical process. If present, there will be a section in the Case Narrative to discuss the meaning of any data qualifiers used in the report.
Quality Control Summary (Qc)	This section of the report includes the results of the laboratory quality control analyses required by procedure or analytical methods to assist in evaluating the validity of the results reported for your samples. These analyses are not being performed on your samples typically, but on laboratory generated material.
Sample Chain of Custody (Sc)	This is the document created in the field when your samples were initially collected. This is used to verify the time and date of collection, the person collecting the samples, and the analyses that the laboratory is requested to perform. This chain of custody also documents all persons (excluding commercial shippers) that have had control or possession of the samples from the time of collection until delivery to the laboratory for analysis.
Sample Results (Sr)	This section of your report will provide the results of all testing performed on your samples. These results are provided by sample ID and are separated by the analyses performed on each sample. The header line of each analysis section for each sample will provide the name and method number for the analysis reported.
Sample Summary (Ss)	This section of the Analytical Report defines the specific analyses performed for each sample ID, including the dates and times of preparation and/or analysis.

- 1 Cp
- 2 Tc
- 3 Ss
- 4 Cn
- 5 Gl
- 6 Al
- 7 Sc

Qualifier Description

The remainder of this page intentionally left blank, there are no qualifiers applied to this SDG.



Pace National is the only environmental laboratory accredited/certified to support your work nationwide from one location. One phone call, one point of contact, one laboratory. No other lab is as accessible or prepared to handle your needs throughout the country. Our capacity and capability from our single location laboratory is comparable to the collective totals of the network laboratories in our industry. The most significant benefit to our one location design is the design of our laboratory campus. The model is conducive to accelerated productivity, decreasing turn-around time, and preventing cross contamination, thus protecting sample integrity. Our focus on premium quality and prompt service allows us to be YOUR LAB OF CHOICE.

\* Not all certifications held by the laboratory are applicable to the results reported in the attached report.  
 \* Accreditation is only applicable to the test methods specified on each scope of accreditation held by Pace National.

## State Accreditations

Alabama	40660	Nebraska	NE-OS-15-05
Alaska	17-026	Nevada	TN-03-2002-34
Arizona	AZ0612	New Hampshire	2975
Arkansas	88-0469	New Jersey-NELAP	TN002
California	2932	New Mexico <sup>1</sup>	n/a
Colorado	TN00003	New York	11742
Connecticut	PH-0197	North Carolina	Env375
Florida	E87487	North Carolina <sup>1</sup>	DW21704
Georgia	NELAP	North Carolina <sup>3</sup>	41
Georgia <sup>1</sup>	923	North Dakota	R-140
Idaho	TN00003	Ohio-VAP	CL0069
Illinois	200008	Oklahoma	9915
Indiana	C-TN-01	Oregon	TN200002
Iowa	364	Pennsylvania	68-02979
Kansas	E-10277	Rhode Island	LA000356
Kentucky <sup>1,6</sup>	90010	South Carolina	84004
Kentucky <sup>2</sup>	16	South Dakota	n/a
Louisiana	AI30792	Tennessee <sup>1,4</sup>	2006
Louisiana <sup>1</sup>	LA180010	Texas	T104704245-18-15
Maine	TN0002	Texas <sup>5</sup>	LAB0152
Maryland	324	Utah	TN00003
Massachusetts	M-TN003	Vermont	VT2006
Michigan	9958	Virginia	460132
Minnesota	047-999-395	Washington	C847
Mississippi	TN00003	West Virginia	233
Missouri	340	Wisconsin	9980939910
Montana	CERT0086	Wyoming	A2LA

1 Cp

2 Tc

3 Ss

4 Cn

5 Gl

6 Al

7 Sc

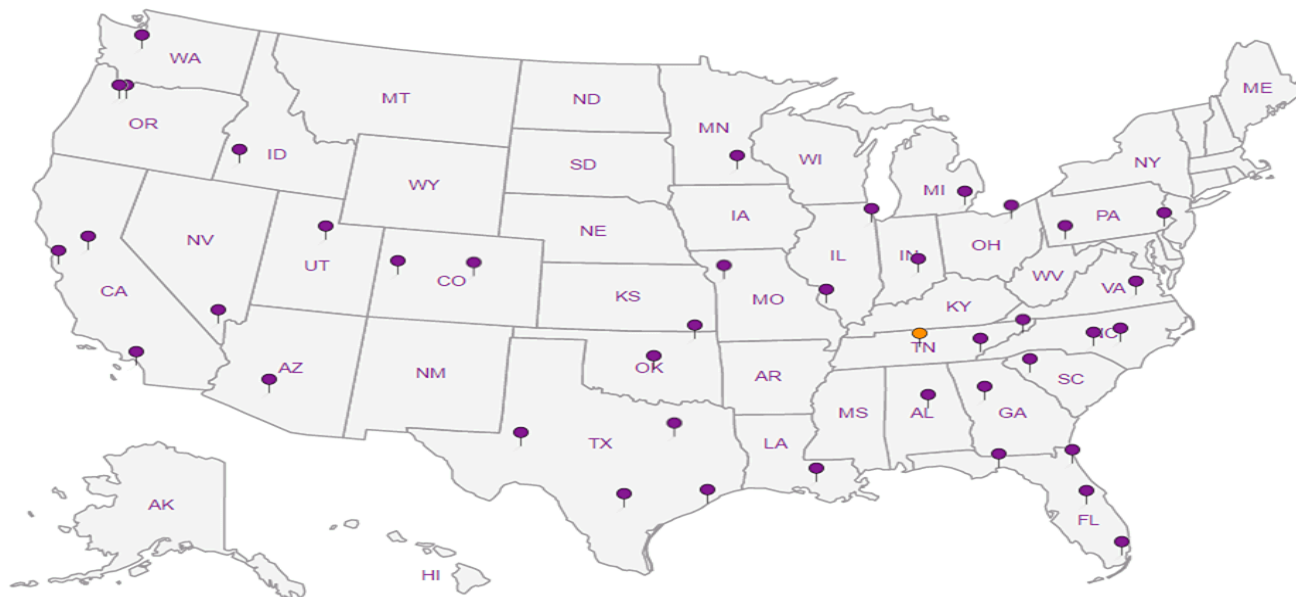
## Third Party Federal Accreditations

A2LA – ISO 17025	1461.01	AIHA-LAP,LLC EMLAP	100789
A2LA – ISO 17025 <sup>5</sup>	1461.02	DOD	1461.01
Canada	1461.01	USDA	P330-15-00234
EPA-Crypto	TN00003		

<sup>1</sup> Drinking Water <sup>2</sup> Underground Storage Tanks <sup>3</sup> Aquatic Toxicity <sup>4</sup> Chemical/Microbiological <sup>5</sup> Mold <sup>6</sup> Wastewater n/a Accreditation not applicable

## Our Locations


Pace National has sixty-four client support centers that provide sample pickup and/or the delivery of sampling supplies. If you would like assistance from one of our support offices, please contact our main office. Pace National performs all testing at our central laboratory.



Company Name/Address:  
**S&ME Inc. - Spartanburg SC**  
 301 Zima Park Drive  
 Spartanburg, SC 29301

Alternate billing information:

Analysis/Container/Preservative

Chain of Custody  
 Page 2 of 2  
 Prepared by:  
 **ENVIRONMENTAL SCIENCE CORP.**  
 12065 Lebanon Road  
 Mt. Juliet, TN 37122  
 Phone (615) 758-5858  
 Phone (800) 767-5859  
 FAX (615) 758-5859  
 1119437

Report to: *SCOTT DACUS*

Email to: *sdacus@smeinccom*

Project Description: *PROJECT COLUMBIA*

City/State Collected: *SC*

Phone: (864) 574-2360  
 FAX: (864) 576-8730

Client Project #: *4213-18-087*

ESC Key: *SMESPAR-4213-18-087*

Collected by: *Kevin McIntyre*

Site/Facility ID#:

P.O.#: *4213-18-087*

Collected by (signature): *[Signature]*  
 Immediately Packed on Ice N  Y

**Rush?** ( Lab MUST Be Notified )  
 Same Day.....200%  
 Next Day.....100%  
 Two Day.....50%  
 Three Day.....25%

Date Results Needed:  
 Email?  No  Yes  
 FAX?  No  Yes

SV8290 IL-Amb-No Pres

Sample ID	Comp/Grab	Matrix*	Depth	Date	Time	No. of Cntrs												
R43-MW-3	G	GW	24.7	7-16-19	13:10	2	X											
R43-MW-2			23.4	7-16-19	10:57	2	X											
R43-MW-1			31	7-15-19	11:38	2	X											
GW-B			38	7-15-19	11:38	2	X											
GW-10			32.5	7-15-19	13:25	2	X											
CM-DUP-GW-2				7-16-19		2	X											

CoCode: **SMESPAR** (lab use only)  
*T137919*  
 Template/Prelogin *P716850*  
*T6 6-28-19*  
 Shipped Via: *FedEx Ground*

Sample ID	Comp/Grab	Matrix*	Depth	Date	Time	No. of Cntrs												
R43-MW-3	G	GW	24.7	7-16-19	13:10	2	X											
R43-MW-2			23.4	7-16-19	10:57	2	X											
R43-MW-1			31	7-15-19	11:38	2	X											
GW-B			38	7-15-19	11:38	2	X											
GW-10			32.5	7-15-19	13:25	2	X											
CM-DUP-GW-2				7-16-19		2	X											


Remarks/Contaminant	Sample # (lab only)
	-01
	02
	03
	04
	05
	06

\*Matrix: **SS** - Soil/Solid **GW** - Groundwater **WW** - WasteWater **DW** - Drinking Water **OT** - Other *15:30*  
 Remarks: \_\_\_\_\_ pH \_\_\_\_\_ Temp \_\_\_\_\_  
 Flow \_\_\_\_\_ Other \_\_\_\_\_

Relinquished by: (Signature) <i>[Signature]</i>	Date: <i>7-16-19</i>	Time: <i>1800</i>	Received by: (Signature) <i>[Signature]</i>	Samples returned via: <input checked="" type="checkbox"/> UPS <input checked="" type="checkbox"/> FedEx <input type="checkbox"/> Courier <input type="checkbox"/> _____	Condition: (lab use only)
Relinquished by: (Signature) <i>[Signature]</i>	Date:	Time:	Received by: (Signature) <i>[Signature]</i>	Temp: <i>2.4 to 3.0</i>	Bottles Received: <i>78</i>
Relinquished by: (Signature) <i>[Signature]</i>	Date:	Time:	Received for lab by: (Signature) <i>[Signature]</i>	Date: <i>7-17-19</i>	Time: <i>8:45</i>
				pH Checked:	NCF: <i>[Signature]</i>



## Pace Analytical National Center for Testing & Innovation Cooler Receipt Form

Client:	SDG#:	1119437	
Cooler Received/Opened On: 7/17/19	Temperature:	3.0	
Received By: Lexxi Romero			
Signature: 			
Receipt Check List			
	NP	Yes	No
COC Seal Present / Intact?			
COC Signed / Accurate?			
Bottles arrive intact?			
Correct bottles used?			
Sufficient volume sent?			
If Applicable			
VOA Zero headspace?			
Preservation Correct / Checked?			

**Pace Analytical National Center for Testing & Innovation  
Cooler Receipt Form**

Client:	<i>SMEPAR</i>	SDG#:	<i>1119437</i>
Cooler Received/Opened On:	<i>7/17/19</i>	Temperature:	<i>3.0</i>
Received By:	Lexxi Romero		
Signature:	<i>[Signature]</i>		
Receipt Check List			
	NP	Yes	No
COC Seal Present / Intact?	<input checked="" type="checkbox"/>		
COC Signed / Accurate?	<input checked="" type="checkbox"/>		
Bottles arrive intact?	<input checked="" type="checkbox"/>		
Correct bottles used?	<input checked="" type="checkbox"/>		
Sufficient volume sent?	<input checked="" type="checkbox"/>		
If Applicable			
VOA Zero headspace?			
Preservation Correct / Checked?			

**Report Prepared for:**

Benita Miller  
Pace Analytical National  
12065 Lebanon Road  
Mount Juliet TN 37122

**REPORT OF  
LABORATORY  
ANALYSIS FOR  
PCDD/PCDF**

**Report Prepared Date:**

August 1, 2019

**Report Information:**

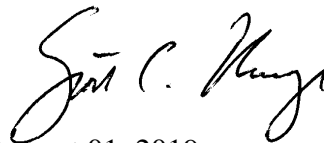
**Pace Project #: 10483824**  
**Sample Receipt Date: 07/19/2019**  
**Client Project #: L1119437: WG1313599**  
**Client Sub PO #: L1119437**  
**State Cert #: 74003**

**Invoicing & Reporting Options:**

The report provided has been invoiced as a Level 2 PCDD/PCDF Report. If an upgrade of this report package is requested, an additional charge may be applied.

Please review the attached invoice for accuracy and forward any questions to Nathan Boberg, your Pace Project Manager.

**This report has been reviewed by:**



August 01, 2019

Scott Unze, Project Manager  
(612) 607-6383  
(612) 607-6444 (fax)  
scott.unze@pacelabs.com



**Report of Laboratory Analysis**

This report should not be reproduced, except in full, without the written consent of Pace Analytical Services, Inc.

The results relate only to the samples included in this report.



## **DISCUSSION**

This report presents the results from the analyses performed on six samples submitted by a representative of Pace Analytical National. The samples were analyzed for the presence or absence of polychlorodibenzo-p-dioxins (PCDDs) and polychlorodibenzofurans (PCDFs) using a modified version of USEPA Method 8290. Estimated Maximum Possible Concentration (EMPC) values were treated as positives in the toxic equivalence calculations. The reporting limits were set to correspond to the lowest calibration points and a nominal 1-Liter sample amount, and the sensitivity was verified by signal-to-noise measurements. The quantitation limits, adjusted for sample extraction amount, may be somewhat higher or lower than the reporting limits provided in this report.

The recoveries of the isotopically-labeled PCDD/PCDF internal standards in the sample extracts ranged from 50-101%. All of the labeled internal standard recoveries obtained for this project were within the 40-135% target range specified in Method 8290. Also, since the quantification of the native 2,3,7,8-substituted congeners was based on isotope dilution, the data were automatically corrected for recovery and accurate values were obtained.

A laboratory method blank was prepared and analyzed with the sample batch as part of our routine quality control procedures. The results show the blank to be free of PCDDs and PCDFs at the reporting limits.

Laboratory spike samples were also prepared using clean reference matrix that had been fortified with native standard materials. The results show that the spiked native compounds were recovered at 91-121% with relative percent differences of 1.0-9.2%. These results were within the target ranges for the method. Matrix spikes were not prepared with the sample batch.

The response obtained for the labeled OCDD in calibration standard analysis F190729B\_15 was outside the target range. As specified in our procedures for this method, the average of the daily response factors for this compound was used in the calculations for the samples from this runshift. The affected values were flagged "Y" on the results tables. It should be noted that the accuracy of the native congener determinations was not impacted by this deviation.

## **REPORT OF LABORATORY ANALYSIS**

This report shall not be reproduced, except in full,  
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## Minnesota Laboratory Certifications

Authority	Certificate #	Authority	Certificate #
A2LA	2926.01	Minnesota - Pet	1240
Alabama	40770	Mississippi	MN00064
Alaska - DW	MN00064	Missouri - DW	10100
Alaska - UST	17-009	Montana	CERT0092
Arizona	AZ0014	Nebraska	NE-OS-18-06
Arkansas - DW	MN00064	Nevada	MN00064
Arkansas - WW	88-0680	New Hampshire	2081
CNMI Saipan	MP0003	New Jersey (NE)	MN002
California	2929	New York	11647
Colorado	MN00064	North Carolina	27700
Connecticut	PH-0256	North Carolina -	27700
EPA Region 8+	via MN 027-053	North Carolina -	530
Florida (NELAP)	E87605	North Dakota	R-036
Georgia	959	Ohio - DW	41244
Guam	17-001r	Ohio - VAP	CL101
Hawaii	MN00064	Oklahoma	9507
Idaho	MN00064	Oregon - Primar	MN300001
Illinois	200011	Oregon - Secon	MN200001
Indiana	C-MN-01	Pennsylvania	68-00563
Iowa	368	Puerto Rico	MN00064
Kansas	E-10167	South Carolina	74003
Kentucky - DW	90062	South Dakota	NA
Kentucky - WW	90062	Tennessee	TN02818
Louisiana - DE	03086	Texas	T104704192
Louisiana - DW	MN00064	Utah (NELAP)	MN00064
Maine	MN00064	Virginia	460163
Maryland	322	Washington	C486
Massachusetts	M-MN064	West Virginia -	382
Michigan	9909	West Virginia -	9952C
Minnesota	027-053-137	Wisconsin	999407970
Minnesota - De	via MN 027-053	Wyoming - UST	2926.01

## REPORT OF LABORATORY ANALYSIS

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Report No.....10483824



# **Appendix A**

## Sample Management

# CHAIN-OF-CUSTODY / Analytical Request Document

The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed accurately.

<b>Section A</b> Required Client Information: Company: Pace Analytical National Address: 12065 Lebanon Road Mount Juliet, TN 37122 Email: SuboutTeam@pacenational.com Phone: (615)773-9756   Fax: (615)758-5659 Requested Due Date: 1-Aug	<b>Section B</b> Required Project Information: Report To: Pace Analytical National Subout Team Copy To: Purchase Order #: L1119437 Project Name: Project Columbia Project #: 4213-18-087
<b>Section C</b> Invoice Information: Attention: Scott Dacus Company Name: Address: Pace Quote: Pace Project Manager: Nathan Boberg Pace Profile #: 38078	
Regulatory Agency: State / Location: SC	

ITEM #	MATRIX	MATRIX CODE	COLLECTED		DATE	TIME	DATE	TIME	SAMPLER TYPE (G-GRAB C-COMP)	MATRIX CODE (see valid codes to left)	SAMPLER TYPE AT COLLECTION	# OF CONTAINERS	Unpreserv'd	H2SO4	HNO3	HCl	NaOH	Na2S2O3	Methanol	Other	Analyses Test	Y/N	Requested Analysis: Filtered (Y/N)	Resi		
			START	END																						
1	R43-MW-3	WT	16-Jul	13:10	16-Jul	13:10	2	2	WT																001	
2	R43-MW-2	WT	16-Jul	10:57	16-Jul	10:57	2	2	WT																	002
3	R43-MW-1	WT	16-Jul	15:30	16-Jul	15:30	2	2	WT																	003
4	GW-13	WT	16-Jul	11:38	16-Jul	11:38	2	2	WT																	004
5	GW-10	WT	16-Jul	13:25	16-Jul	13:25	2	2	WT																	005
6	CM-DUP-GW-2	WT	16-Jul	0:01	16-Jul	0:01	2	2	WT																	006
12																										

WO#: 10483824

RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS
<i>DM</i> Benita Miller	18-Jul	12:02	<i>enter Pace</i>	7/19/19	8:50	Y Y Y Y Y

Pace Analytical National Batch: WG1313699 Pace Analytical National SDGs: L1119437 Location: Minneapolis, MN 55414	Received on TEMP in C Samples Intact (Y/N) Sealed Cooler (Y/N) Custody (Y/N)
ADDITIONAL COMMENTS: Pace Analytical National Subout Team	
SIGNATURE OF SAMPLER: DATE SIGNED:	

**Sample Condition Upon Receipt**      **Client Name:** Pace Analytical National      **Project #:** **WO#: 10483824**

**Courier:**  Fed Ex     UPS     USPS     Client  
 Pace     Speedee     Commercial    See Exception

**Tracking Number:** 1082 59 92 0340

**Custody Seal on Cooler/Box Present?**  Yes     No      **Seals Intact?**  Yes     No      **Biological Tissue Frozen?**  Yes     No     N/A

**Packing Material:**  Bubble Wrap     Bubble Bags     None     Other: \_\_\_\_\_      **Temp Blank?**  Yes     No

**Thermometer:**  T1(0461)     T2(1336)     T3(0459)  
 T4(0254)     T5(0489)      **Type of Ice:**  Wet     Blue     None     Dry     Melted

**Note: Each West Virginia Sample must have temp taken (no temp blanks)**

Temp should be above freezing to 6°C	<b>Cooler Temp Read w/temp blank:</b> <u>1.6, 1.5</u> °C	<b>Average Corrected Temp (no temp blank only):</b> _____ °C	See Exceptions <input type="checkbox"/>
<b>Correction Factor:</b> <u>10.2</u>	<b>Cooler Temp Corrected w/temp blank:</b> <u>1.8, 1.7</u> °C		

**USDA Regulated Soil:**  N/A, water sample/Other: \_\_\_\_\_      **Date/Initials of Person Examining Contents:** MXZ 7-14-19

Did samples originate in a quarantine zone within the United States: AL, AR, CA, FL, GA, ID, LA, MS, NC, NM, NY, OK, OR, SC, TN, TX or VA (check maps)?  Yes     No      Did samples originate from a foreign source (internationally, including Hawaii and Puerto Rico)?  Yes     No

**If Yes to either question, fill out a Regulated Soil Checklist (F-MN-Q-338) and include with SCUR/COC paperwork.**

		COMMENTS:
Chain of Custody Present and Filled Out?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	1.
Chain of Custody Relinquished?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	2.
Sampler Name and/or Signature on COC?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	3.
Samples Arrived within Hold Time?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	4.
<b>Short Hold Time Analysis (&lt;72 hr)?</b>	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	5. <input type="checkbox"/> Fecal Coliform <input type="checkbox"/> HPC <input type="checkbox"/> Total Coliform/E coli <input type="checkbox"/> BOD/cBOD <input type="checkbox"/> Hex Chrome <input type="checkbox"/> Turbidity <input type="checkbox"/> Nitrate <input type="checkbox"/> Nitrite <input type="checkbox"/> Orthophos <input type="checkbox"/> Other
<b>Rush Turn Around Time Requested?</b>	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	6.
Sufficient Volume?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	7.
Correct Containers Used?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	8.
-Pace Containers Used?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
Containers Intact?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	9.
Field Filtered Volume Received for Dissolved Tests?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	10. Is sediment visible in the dissolved container? <input type="checkbox"/> Yes <input type="checkbox"/> No
Is sufficient information available to reconcile the samples to the COC?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	11. If no, write ID/ Date/Time on Container Below: <input type="checkbox"/> See Exception
Matrix: <input checked="" type="checkbox"/> Water <input type="checkbox"/> Soil <input type="checkbox"/> Oil <input type="checkbox"/> Other		
All containers needing acid/base preservation have been checked?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	12. Sample #
All containers needing preservation are found to be in compliance with EPA recommendation? (HNO <sub>3</sub> , H <sub>2</sub> SO <sub>4</sub> , <2pH, NaOH >9 Sulfide, NaOH >12 Cyanide)	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	<input type="checkbox"/> NaOH <input type="checkbox"/> HNO <sub>3</sub> <input type="checkbox"/> H <sub>2</sub> SO <sub>4</sub> <input type="checkbox"/> Zinc Acetate
Exceptions: VOA, Coliform, TOC/DOC Oil and Grease, DRO/8015 (water) and Dioxin/PFAS	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	Positive for Res. Chlorine? <input type="checkbox"/> Yes <input type="checkbox"/> No      See Exception
		pH Paper Lot# <input type="checkbox"/>
		Res. Chlorine    0-6 Roll    0-6 Strip    0-14 Strip
Headspace in VOA Vials (greater than 6mm)?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	13. <input type="checkbox"/> See Exception
Trip Blank Present?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	14.
Trip Blank Custody Seals Present?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	Pace Trip Blank Lot # (if purchased):

**CLIENT NOTIFICATION/RESOLUTION**      **Field Data Required?**  Yes     No

Person Contacted: \_\_\_\_\_      Date/Time: \_\_\_\_\_

Comments/Resolution: \_\_\_\_\_

**Project Manager Review:** Walter Boberg      **Date:** 7/19/19

Note: Whenever there is a discrepancy affecting North Carolina compliance samples, a copy of this form will be sent to the North Carolina DEHNR Certification Office (i.e. out of hold, incorrect preservative, out of temp, incorrect containers).

Labeled by: CEG (4)

## Reporting Flags

- A = Reporting Limit based on signal to noise
- B = Less than 10x higher than method blank level
- C = Result obtained from confirmation analysis
- D = Result obtained from analysis of diluted sample
- E = Exceeds calibration range
- I = Interference present
- J = Estimated value
- L = Suppressive interference, analyte may be biased low
- Nn = Value obtained from additional analysis
- P = PCDE Interference
- R = Recovery outside target range
- S = Peak saturated
- U = Analyte not detected
- V = Result verified by confirmation analysis
- X = %D Exceeds limits
- Y = Calculated using average of daily RFs
- \* = See Discussion

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Report No.....10483824

# **Appendix B**

## **Sample Analysis Summary**



### Method 8290 Sample Analysis Results

Client - Pace Analytical National

Client's Sample ID	R43-MW-3		
Lab Sample ID	10483824001		
Filename	F190729A_08		
Injected By	SMT		
Total Amount Extracted	1060 mL	Matrix	Water
% Moisture	NA	Dilution	NA
Dry Weight Extracted	NA	Collected	07/16/2019 13:10
ICAL ID	F190721	Received	07/19/2019 08:50
CCal Filename(s)	F190729A_05 & F190729A_18	Extracted	07/24/2019 12:55
Method Blank ID	BLANK-72186	Analyzed	07/29/2019 17:13

Native Isomers	Conc pg/L	EMPC pg/L	RL pg/L	Internal Standards	ng's Added	Percent Recovery
2,3,7,8-TCDF	ND	----	10	2,3,7,8-TCDF-13C	2.00	78
Total TCDF	ND	----	10	2,3,7,8-TCDD-13C	2.00	86
				1,2,3,7,8-PeCDF-13C	2.00	78
2,3,7,8-TCDD	ND	----	10	2,3,4,7,8-PeCDF-13C	2.00	79
Total TCDD	ND	----	10	1,2,3,7,8-PeCDD-13C	2.00	92
				1,2,3,4,7,8-HxCDF-13C	2.00	60
1,2,3,7,8-PeCDF	ND	----	50	1,2,3,6,7,8-HxCDF-13C	2.00	62
2,3,4,7,8-PeCDF	ND	----	50	2,3,4,6,7,8-HxCDF-13C	2.00	69
Total PeCDF	ND	----	50	1,2,3,7,8,9-HxCDF-13C	2.00	73
				1,2,3,4,7,8-HxCDD-13C	2.00	68
1,2,3,7,8-PeCDD	ND	----	50	1,2,3,6,7,8-HxCDD-13C	2.00	68
Total PeCDD	ND	----	50	1,2,3,4,6,7,8-HpCDF-13C	2.00	74
				1,2,3,4,7,8,9-HpCDF-13C	2.00	80
1,2,3,4,7,8-HxCDF	ND	----	50	1,2,3,4,6,7,8-HpCDD-13C	2.00	89
1,2,3,6,7,8-HxCDF	ND	----	50	OCDD-13C	4.00	82
2,3,4,6,7,8-HxCDF	ND	----	50			
1,2,3,7,8,9-HxCDF	ND	----	50	1,2,3,4-TCDD-13C	2.00	NA
Total HxCDF	ND	----	50	1,2,3,7,8,9-HxCDD-13C	2.00	NA
1,2,3,4,7,8-HxCDD	ND	----	50	2,3,7,8-TCDD-37Cl4	0.20	108
1,2,3,6,7,8-HxCDD	ND	----	50			
1,2,3,7,8,9-HxCDD	ND	----	50			
Total HxCDD	ND	----	50			
1,2,3,4,6,7,8-HpCDF	ND	----	50	Total 2,3,7,8-TCDD		
1,2,3,4,7,8,9-HpCDF	ND	----	50	Equivalence: 0.00 pg/L		
Total HpCDF	ND	----	50	(Lower-bound - Using ITE Factors)		
1,2,3,4,6,7,8-HpCDD	ND	----	50			
Total HpCDD	ND	----	50			
OCDF	ND	----	100			
OCDD	ND	----	100			

Conc = Concentration (Totals include 2,3,7,8-substituted isomers).  
EMPC = Estimated Maximum Possible Concentration  
RL = Reporting Limit

ND = Not Detected  
NA = Not Applicable  
NC = Not Calculated

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### Method 8290 Sample Analysis Results

Client - Pace Analytical National

Client's Sample ID	R43-MW-2		
Lab Sample ID	10483824002		
Filename	F190729A_09		
Injected By	SMT		
Total Amount Extracted	1060 mL	Matrix	Water
% Moisture	NA	Dilution	NA
Dry Weight Extracted	NA	Collected	07/16/2019 10:57
ICAL ID	F190721	Received	07/19/2019 08:50
CCal Filename(s)	F190729A_05 & F190729A_18	Extracted	07/24/2019 12:55
Method Blank ID	BLANK-72186	Analyzed	07/29/2019 17:59

Native Isomers	Conc pg/L	EMPC pg/L	RL pg/L	Internal Standards	ng's Added	Percent Recovery
2,3,7,8-TCDF	ND	----	10	2,3,7,8-TCDF-13C	2.00	73
Total TCDF	ND	----	10	2,3,7,8-TCDD-13C	2.00	79
				1,2,3,7,8-PeCDF-13C	2.00	72
2,3,7,8-TCDD	ND	----	10	2,3,4,7,8-PeCDF-13C	2.00	71
Total TCDD	ND	----	10	1,2,3,7,8-PeCDD-13C	2.00	86
				1,2,3,4,7,8-HxCDF-13C	2.00	58
1,2,3,7,8-PeCDF	ND	----	50	1,2,3,6,7,8-HxCDF-13C	2.00	63
2,3,4,7,8-PeCDF	ND	----	50	2,3,4,6,7,8-HxCDF-13C	2.00	68
Total PeCDF	ND	----	50	1,2,3,7,8,9-HxCDF-13C	2.00	72
				1,2,3,4,7,8-HxCDD-13C	2.00	66
1,2,3,7,8-PeCDD	ND	----	50	1,2,3,6,7,8-HxCDD-13C	2.00	66
Total PeCDD	ND	----	50	1,2,3,4,6,7,8-HpCDF-13C	2.00	71
				1,2,3,4,7,8,9-HpCDF-13C	2.00	77
1,2,3,4,7,8-HxCDF	ND	----	50	1,2,3,4,6,7,8-HpCDD-13C	2.00	86
1,2,3,6,7,8-HxCDF	ND	----	50	OCDD-13C	4.00	85
2,3,4,6,7,8-HxCDF	ND	----	50			
1,2,3,7,8,9-HxCDF	ND	----	50	1,2,3,4-TCDD-13C	2.00	NA
Total HxCDF	ND	----	50	1,2,3,7,8,9-HxCDD-13C	2.00	NA
1,2,3,4,7,8-HxCDD	ND	----	50	2,3,7,8-TCDD-37Cl4	0.20	102
1,2,3,6,7,8-HxCDD	ND	----	50			
1,2,3,7,8,9-HxCDD	ND	----	50			
Total HxCDD	ND	----	50			
1,2,3,4,6,7,8-HpCDF	ND	----	50	Total 2,3,7,8-TCDD		
1,2,3,4,7,8,9-HpCDF	ND	----	50	Equivalence: 0.00 pg/L		
Total HpCDF	ND	----	50	(Lower-bound - Using ITE Factors)		
1,2,3,4,6,7,8-HpCDD	ND	----	50			
Total HpCDD	ND	----	50			
OCDF	ND	----	100			
OCDD	ND	----	100			

Conc = Concentration (Totals include 2,3,7,8-substituted isomers).  
EMPC = Estimated Maximum Possible Concentration  
RL = Reporting Limit

ND = Not Detected  
NA = Not Applicable  
NC = Not Calculated

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### Method 8290 Sample Analysis Results

Client - Pace Analytical National

Client's Sample ID	R43-MW-1		
Lab Sample ID	10483824003		
Filename	F190729A_10		
Injected By	SMT		
Total Amount Extracted	1060 mL	Matrix	Water
% Moisture	NA	Dilution	NA
Dry Weight Extracted	NA	Collected	07/16/2019 15:30
ICAL ID	F190721	Received	07/19/2019 08:50
CCal Filename(s)	F190729A_05 & F190729A_18	Extracted	07/24/2019 12:55
Method Blank ID	BLANK-72186	Analyzed	07/29/2019 18:46

Native Isomers	Conc pg/L	EMPC pg/L	RL pg/L	Internal Standards	ng's Added	Percent Recovery
2,3,7,8-TCDF	ND	----	10	2,3,7,8-TCDF-13C	2.00	81
Total TCDF	ND	----	10	2,3,7,8-TCDD-13C	2.00	89
				1,2,3,7,8-PeCDF-13C	2.00	81
2,3,7,8-TCDD	ND	----	10	2,3,4,7,8-PeCDF-13C	2.00	81
Total TCDD	ND	----	10	1,2,3,7,8-PeCDD-13C	2.00	95
				1,2,3,4,7,8-HxCDF-13C	2.00	67
1,2,3,7,8-PeCDF	ND	----	50	1,2,3,6,7,8-HxCDF-13C	2.00	71
2,3,4,7,8-PeCDF	ND	----	50	2,3,4,6,7,8-HxCDF-13C	2.00	76
Total PeCDF	ND	----	50	1,2,3,7,8,9-HxCDF-13C	2.00	81
				1,2,3,4,7,8-HxCDD-13C	2.00	77
1,2,3,7,8-PeCDD	ND	----	50	1,2,3,6,7,8-HxCDD-13C	2.00	72
Total PeCDD	ND	----	50	1,2,3,4,6,7,8-HpCDF-13C	2.00	86
				1,2,3,4,7,8,9-HpCDF-13C	2.00	93
1,2,3,4,7,8-HxCDF	ND	----	50	1,2,3,4,6,7,8-HpCDD-13C	2.00	101
1,2,3,6,7,8-HxCDF	ND	----	50	OCDD-13C	4.00	100
2,3,4,6,7,8-HxCDF	ND	----	50			
1,2,3,7,8,9-HxCDF	ND	----	50	1,2,3,4-TCDD-13C	2.00	NA
Total HxCDF	ND	----	50	1,2,3,7,8,9-HxCDD-13C	2.00	NA
1,2,3,4,7,8-HxCDD	ND	----	50	2,3,7,8-TCDD-37Cl4	0.20	108
1,2,3,6,7,8-HxCDD	ND	----	50			
1,2,3,7,8,9-HxCDD	ND	----	50			
Total HxCDD	ND	----	50			
1,2,3,4,6,7,8-HpCDF	ND	----	50	Total 2,3,7,8-TCDD		
1,2,3,4,7,8,9-HpCDF	ND	----	50	Equivalence: 0.00 pg/L		
Total HpCDF	ND	----	50	(Lower-bound - Using ITE Factors)		
1,2,3,4,6,7,8-HpCDD	ND	----	50			
Total HpCDD	ND	----	50			
OCDF	ND	----	100			
OCDD	ND	----	100			

Conc = Concentration (Totals include 2,3,7,8-substituted isomers).  
 EMPC = Estimated Maximum Possible Concentration  
 RL = Reporting Limit

ND = Not Detected  
 NA = Not Applicable  
 NC = Not Calculated

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### Method 8290 Sample Analysis Results

Client - Pace Analytical National

Client's Sample ID	GW-13		
Lab Sample ID	10483824004		
Filename	F190729A_11		
Injected By	SMT		
Total Amount Extracted	1050 mL	Matrix	Water
% Moisture	NA	Dilution	NA
Dry Weight Extracted	NA	Collected	07/16/2019 11:38
ICAL ID	F190721	Received	07/19/2019 08:50
CCal Filename(s)	F190729A_05 & F190729A_18	Extracted	07/24/2019 12:55
Method Blank ID	BLANK-72186	Analyzed	07/29/2019 19:33

Native Isomers	Conc pg/L	EMPC pg/L	RL pg/L	Internal Standards	ng's Added	Percent Recovery
2,3,7,8-TCDF	ND	----	10	2,3,7,8-TCDF-13C	2.00	80
Total TCDF	ND	----	10	2,3,7,8-TCDD-13C	2.00	85
				1,2,3,7,8-PeCDF-13C	2.00	83
2,3,7,8-TCDD	ND	----	10	2,3,4,7,8-PeCDF-13C	2.00	79
Total TCDD	ND	----	10	1,2,3,7,8-PeCDD-13C	2.00	94
				1,2,3,4,7,8-HxCDF-13C	2.00	65
1,2,3,7,8-PeCDF	ND	----	50	1,2,3,6,7,8-HxCDF-13C	2.00	70
2,3,4,7,8-PeCDF	ND	----	50	2,3,4,6,7,8-HxCDF-13C	2.00	76
Total PeCDF	ND	----	50	1,2,3,7,8,9-HxCDF-13C	2.00	80
				1,2,3,4,7,8-HxCDD-13C	2.00	75
1,2,3,7,8-PeCDD	ND	----	50	1,2,3,6,7,8-HxCDD-13C	2.00	72
Total PeCDD	ND	----	50	1,2,3,4,6,7,8-HpCDF-13C	2.00	81
				1,2,3,4,7,8,9-HpCDF-13C	2.00	88
1,2,3,4,7,8-HxCDF	ND	----	50	1,2,3,4,6,7,8-HpCDD-13C	2.00	99
1,2,3,6,7,8-HxCDF	ND	----	50	OCDD-13C	4.00	97
2,3,4,6,7,8-HxCDF	ND	----	50			
1,2,3,7,8,9-HxCDF	ND	----	50	1,2,3,4-TCDD-13C	2.00	NA
Total HxCDF	ND	----	50	1,2,3,7,8,9-HxCDD-13C	2.00	NA
1,2,3,4,7,8-HxCDD	ND	----	50	2,3,7,8-TCDD-37Cl4	0.20	98
1,2,3,6,7,8-HxCDD	ND	----	50			
1,2,3,7,8,9-HxCDD	ND	----	50			
Total HxCDD	ND	----	50			
1,2,3,4,6,7,8-HpCDF	ND	----	50	Total 2,3,7,8-TCDD		
1,2,3,4,7,8,9-HpCDF	ND	----	50	Equivalence: 0.00 pg/L		
Total HpCDF	ND	----	50	(Lower-bound - Using ITE Factors)		
1,2,3,4,6,7,8-HpCDD	ND	----	50			
Total HpCDD	ND	----	50			
OCDF	ND	----	100			
OCDD	ND	----	100			

Conc = Concentration (Totals include 2,3,7,8-substituted isomers).  
EMPC = Estimated Maximum Possible Concentration  
RL = Reporting Limit

ND = Not Detected  
NA = Not Applicable  
NC = Not Calculated

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### Method 8290 Sample Analysis Results

Client - Pace Analytical National

Client's Sample ID	GW-10		
Lab Sample ID	10483824005		
Filename	F190729A_12		
Injected By	SMT		
Total Amount Extracted	1040 mL	Matrix	Water
% Moisture	NA	Dilution	NA
Dry Weight Extracted	NA	Collected	07/16/2019 13:25
ICAL ID	F190721	Received	07/19/2019 08:50
CCal Filename(s)	F190729A_05 & F190729A_18	Extracted	07/24/2019 12:55
Method Blank ID	BLANK-72186	Analyzed	07/29/2019 20:19

Native Isomers	Conc pg/L	EMPC pg/L	RL pg/L	Internal Standards	ng's Added	Percent Recovery
2,3,7,8-TCDF	ND	----	10	2,3,7,8-TCDF-13C	2.00	76
Total TCDF	ND	----	10	2,3,7,8-TCDD-13C	2.00	82
				1,2,3,7,8-PeCDF-13C	2.00	82
2,3,7,8-TCDD	ND	----	10	2,3,4,7,8-PeCDF-13C	2.00	82
Total TCDD	ND	----	10	1,2,3,7,8-PeCDD-13C	2.00	93
				1,2,3,4,7,8-HxCDF-13C	2.00	59
1,2,3,7,8-PeCDF	ND	----	50	1,2,3,6,7,8-HxCDF-13C	2.00	64
2,3,4,7,8-PeCDF	ND	----	50	2,3,4,6,7,8-HxCDF-13C	2.00	68
Total PeCDF	ND	----	50	1,2,3,7,8,9-HxCDF-13C	2.00	72
				1,2,3,4,7,8-HxCDD-13C	2.00	67
1,2,3,7,8-PeCDD	ND	----	50	1,2,3,6,7,8-HxCDD-13C	2.00	65
Total PeCDD	ND	----	50	1,2,3,4,6,7,8-HpCDF-13C	2.00	74
				1,2,3,4,7,8,9-HpCDF-13C	2.00	84
1,2,3,4,7,8-HxCDF	ND	----	50	1,2,3,4,6,7,8-HpCDD-13C	2.00	89
1,2,3,6,7,8-HxCDF	ND	----	50	OCDD-13C	4.00	91
2,3,4,6,7,8-HxCDF	ND	----	50			
1,2,3,7,8,9-HxCDF	ND	----	50	1,2,3,4-TCDD-13C	2.00	NA
Total HxCDF	ND	----	50	1,2,3,7,8,9-HxCDD-13C	2.00	NA
1,2,3,4,7,8-HxCDD	ND	----	50	2,3,7,8-TCDD-37Cl4	0.20	99
1,2,3,6,7,8-HxCDD	ND	----	50			
1,2,3,7,8,9-HxCDD	ND	----	50			
Total HxCDD	ND	----	50			
1,2,3,4,6,7,8-HpCDF	ND	----	50	Total 2,3,7,8-TCDD		
1,2,3,4,7,8,9-HpCDF	ND	----	50	Equivalence: 0.00 pg/L		
Total HpCDF	ND	----	50	(Lower-bound - Using ITE Factors)		
1,2,3,4,6,7,8-HpCDD	ND	----	50			
Total HpCDD	ND	----	50			
OCDF	ND	----	100			
OCDD	ND	----	100			

Conc = Concentration (Totals include 2,3,7,8-substituted isomers).  
EMPC = Estimated Maximum Possible Concentration  
RL = Reporting Limit

ND = Not Detected  
NA = Not Applicable  
NC = Not Calculated

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### Method 8290 Sample Analysis Results

Client - Pace Analytical National

Client's Sample ID	CM-DUP-GW-2		
Lab Sample ID	10483824006		
Filename	F190729A_13		
Injected By	SMT		
Total Amount Extracted	1050 mL	Matrix	Water
% Moisture	NA	Dilution	NA
Dry Weight Extracted	NA	Collected	07/16/2019 00:01
ICAL ID	F190721	Received	07/19/2019 08:50
CCal Filename(s)	F190729A_05 & F190729A_18	Extracted	07/24/2019 12:55
Method Blank ID	BLANK-72186	Analyzed	07/29/2019 21:06

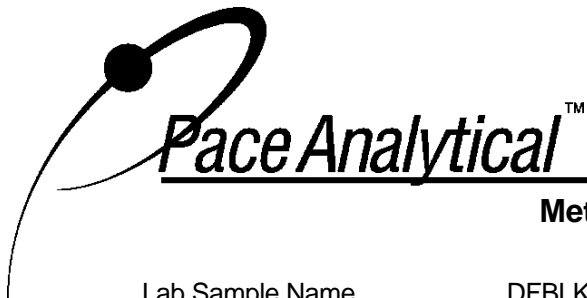
Native Isomers	Conc pg/L	EMPC pg/L	RL pg/L	Internal Standards	ng's Added	Percent Recovery
2,3,7,8-TCDF	ND	----	10	2,3,7,8-TCDF-13C	2.00	60
Total TCDF	ND	----	10	2,3,7,8-TCDD-13C	2.00	63
				1,2,3,7,8-PeCDF-13C	2.00	64
2,3,7,8-TCDD	ND	----	10	2,3,4,7,8-PeCDF-13C	2.00	65
Total TCDD	ND	----	10	1,2,3,7,8-PeCDD-13C	2.00	77
				1,2,3,4,7,8-HxCDF-13C	2.00	50
1,2,3,7,8-PeCDF	ND	----	50	1,2,3,6,7,8-HxCDF-13C	2.00	53
2,3,4,7,8-PeCDF	ND	----	50	2,3,4,6,7,8-HxCDF-13C	2.00	56
Total PeCDF	ND	----	50	1,2,3,7,8,9-HxCDF-13C	2.00	58
				1,2,3,4,7,8-HxCDD-13C	2.00	54
1,2,3,7,8-PeCDD	ND	----	50	1,2,3,6,7,8-HxCDD-13C	2.00	52
Total PeCDD	ND	----	50	1,2,3,4,6,7,8-HpCDF-13C	2.00	57
				1,2,3,4,7,8,9-HpCDF-13C	2.00	67
1,2,3,4,7,8-HxCDF	ND	----	50	1,2,3,4,6,7,8-HpCDD-13C	2.00	74
1,2,3,6,7,8-HxCDF	ND	----	50	OCDD-13C	4.00	69
2,3,4,6,7,8-HxCDF	ND	----	50			
1,2,3,7,8,9-HxCDF	ND	----	50	1,2,3,4-TCDD-13C	2.00	NA
Total HxCDF	ND	----	50	1,2,3,7,8,9-HxCDD-13C	2.00	NA
1,2,3,4,7,8-HxCDD	ND	----	50	2,3,7,8-TCDD-37Cl4	0.20	99
1,2,3,6,7,8-HxCDD	ND	----	50			
1,2,3,7,8,9-HxCDD	ND	----	50			
Total HxCDD	ND	----	50			
1,2,3,4,6,7,8-HpCDF	ND	----	50	Total 2,3,7,8-TCDD		
1,2,3,4,7,8,9-HpCDF	ND	----	50	Equivalence: 0.00 pg/L		
Total HpCDF	ND	----	50	(Lower-bound - Using ITE Factors)		
1,2,3,4,6,7,8-HpCDD	ND	----	50			
Total HpCDD	ND	----	50			
OCDF	ND	----	100			
OCDD	ND	----	100			

Conc = Concentration (Totals include 2,3,7,8-substituted isomers).  
 EMPC = Estimated Maximum Possible Concentration  
 RL = Reporting Limit

ND = Not Detected  
 NA = Not Applicable  
 NC = Not Calculated

## REPORT OF LABORATORY ANALYSIS

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### Method 8290 Blank Analysis Results

Lab Sample Name	DFBLKNV	Matrix	Water
Lab Sample ID	BLANK-72186	Dilution	NA
Filename	F190729B_04	Extracted	07/24/2019 12:55
Total Amount Extracted	1030 mL	Analyzed	07/30/2019 04:05
ICAL ID	F190721	Injected By	SMT
CCal Filename(s)	F190729A_18 & F190729B_15		

Native Isomers	Conc pg/L	EMPC pg/L	RL pg/L	Internal Standards	ng's Added	Percent Recovery
2,3,7,8-TCDF	ND	----	10	2,3,7,8-TCDF-13C	2.00	73
Total TCDF	ND	----	10	2,3,7,8-TCDD-13C	2.00	75
				1,2,3,7,8-PeCDF-13C	2.00	75
2,3,7,8-TCDD	ND	----	10	2,3,4,7,8-PeCDF-13C	2.00	78
Total TCDD	ND	----	10	1,2,3,7,8-PeCDD-13C	2.00	89
				1,2,3,4,7,8-HxCDF-13C	2.00	60
1,2,3,7,8-PeCDF	ND	----	50	1,2,3,6,7,8-HxCDF-13C	2.00	63
2,3,4,7,8-PeCDF	ND	----	50	2,3,4,6,7,8-HxCDF-13C	2.00	70
Total PeCDF	ND	----	50	1,2,3,7,8,9-HxCDF-13C	2.00	79
				1,2,3,4,7,8-HxCDD-13C	2.00	62
1,2,3,7,8-PeCDD	ND	----	50	1,2,3,6,7,8-HxCDD-13C	2.00	66
Total PeCDD	ND	----	50	1,2,3,4,6,7,8-HpCDF-13C	2.00	80
				1,2,3,4,7,8,9-HpCDF-13C	2.00	92
1,2,3,4,7,8-HxCDF	ND	----	50	1,2,3,4,6,7,8-HpCDD-13C	2.00	90
1,2,3,6,7,8-HxCDF	ND	----	50	OCDD-13C	4.00	76 Y
2,3,4,6,7,8-HxCDF	ND	----	50			
1,2,3,7,8,9-HxCDF	ND	----	50	1,2,3,4-TCDD-13C	2.00	NA
Total HxCDF	ND	----	50	1,2,3,7,8,9-HxCDD-13C	2.00	NA
1,2,3,4,7,8-HxCDD	ND	----	50	2,3,7,8-TCDD-37Cl4	0.20	95
1,2,3,6,7,8-HxCDD	ND	----	50			
1,2,3,7,8,9-HxCDD	ND	----	50			
Total HxCDD	ND	----	50			
1,2,3,4,6,7,8-HpCDF	ND	----	50	Total 2,3,7,8-TCDD		
1,2,3,4,7,8,9-HpCDF	ND	----	50	Equivalence: 0.00 pg/L		
Total HpCDF	ND	----	50	(Lower-bound - Using ITE Factors)		
1,2,3,4,6,7,8-HpCDD	ND	----	50			
Total HpCDD	ND	----	50			
OCDF	ND	----	100			
OCDD	ND	----	100			

Conc = Concentration (Totals include 2,3,7,8-substituted isomers).

EMPC = Estimated Maximum Possible Concentration

RL = Reporting Limit

Y = Calculated using average of daily RFs

## REPORT OF LABORATORY ANALYSIS

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**Method 8290 Laboratory Control Spike Results**

Lab Sample ID	LCS-72187	Matrix	Water
Filename	F190729B_01	Dilution	NA
Total Amount Extracted	1030 mL	Extracted	07/24/2019 12:55
ICAL ID	F190721	Analyzed	07/30/2019 01:45
CCal Filename(s)	F190729A_18 & F190729B_15	Injected By	SMT
Method Blank ID	BLANK-72186		

Native Isomers	Qs (ng)	Qm (ng)	% Rec.	Internal Standards	ng's Added	Percent Recovery
2,3,7,8-TCDF	0.20	0.19	96	2,3,7,8-TCDF-13C	2.0	80
Total TCDF				2,3,7,8-TCDD-13C	2.0	84
				1,2,3,7,8-PeCDF-13C	2.0	86
2,3,7,8-TCDD	0.20	0.22	109	2,3,4,7,8-PeCDF-13C	2.0	84
Total TCDD				1,2,3,7,8-PeCDD-13C	2.0	97
				1,2,3,4,7,8-HxCDF-13C	2.0	62
1,2,3,7,8-PeCDF	1.0	0.96	96	1,2,3,6,7,8-HxCDF-13C	2.0	69
2,3,4,7,8-PeCDF	1.0	1.0	103	2,3,4,6,7,8-HxCDF-13C	2.0	71
Total PeCDF				1,2,3,7,8,9-HxCDF-13C	2.0	78
				1,2,3,4,7,8-HxCDD-13C	2.0	69
1,2,3,7,8-PeCDD	1.0	0.91	91	1,2,3,6,7,8-HxCDD-13C	2.0	71
Total PeCDD				1,2,3,4,6,7,8-HpCDF-13C	2.0	81
				1,2,3,4,7,8,9-HpCDF-13C	2.0	94
1,2,3,4,7,8-HxCDF	1.0	1.1	115	1,2,3,4,6,7,8-HpCDD-13C	2.0	98
1,2,3,6,7,8-HxCDF	1.0	1.0	103	OCDD-13C	4.0	82 Y
2,3,4,6,7,8-HxCDF	1.0	1.1	105			
1,2,3,7,8,9-HxCDF	1.0	1.0	104	1,2,3,4-TCDD-13C	2.0	NA
Total HxCDF				1,2,3,7,8,9-HxCDD-13C	2.0	NA
1,2,3,4,7,8-HxCDD	1.0	1.1	106	2,3,7,8-TCDD-37Cl4	0.20	106
1,2,3,6,7,8-HxCDD	1.0	1.1	106			
1,2,3,7,8,9-HxCDD	1.0	1.1	114			
Total HxCDD						
1,2,3,4,6,7,8-HpCDF	1.0	1.0	102			
1,2,3,4,7,8,9-HpCDF	1.0	1.00	100			
Total HpCDF						
1,2,3,4,6,7,8-HpCDD	1.0	1.0	103			
Total HpCDD						
OCDF	2.0	2.0	100			
OCDD	2.0	2.1	104			

Qs = Quantity Spiked  
Qm = Quantity Measured  
Rec. = Recovery (Expressed as Percent)  
R = Recovery outside of target range

Y = RF averaging used in calculations  
Nn = Value obtained from additional analysis  
NA = Not Applicable  
\* = See Discussion

**REPORT OF LABORATORY ANALYSIS**

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**Method 8290 Laboratory Control Spike Results**

Lab Sample ID	LCSD-72188	Matrix	Water
Filename	F190729B_02	Dilution	NA
Total Amount Extracted	1040 mL	Extracted	07/24/2019 12:55
ICAL ID	F190721	Analyzed	07/30/2019 02:32
CCal Filename(s)	F190729A_18 & F190729B_15	Injected By	SMT
Method Blank ID	BLANK-72186		

Native Isomers	Qs (ng)	Qm (ng)	% Rec.	Internal Standards	ng's Added	Percent Recovery
2,3,7,8-TCDF	0.20	0.19	97	2,3,7,8-TCDF-13C	2.0	83
Total TCDF				2,3,7,8-TCDD-13C	2.0	86
				1,2,3,7,8-PeCDF-13C	2.0	88
2,3,7,8-TCDD	0.20	0.23	113	2,3,4,7,8-PeCDF-13C	2.0	88
Total TCDD				1,2,3,7,8-PeCDD-13C	2.0	102
				1,2,3,4,7,8-HxCDF-13C	2.0	64
1,2,3,7,8-PeCDF	1.0	1.0	101	1,2,3,6,7,8-HxCDF-13C	2.0	68
2,3,4,7,8-PeCDF	1.0	1.1	106	2,3,4,6,7,8-HxCDF-13C	2.0	75
Total PeCDF				1,2,3,7,8,9-HxCDF-13C	2.0	84
				1,2,3,4,7,8-HxCDD-13C	2.0	69
1,2,3,7,8-PeCDD	1.0	0.94	94	1,2,3,6,7,8-HxCDD-13C	2.0	70
Total PeCDD				1,2,3,4,6,7,8-HpCDF-13C	2.0	80
				1,2,3,4,7,8,9-HpCDF-13C	2.0	93
1,2,3,4,7,8-HxCDF	1.0	1.1	113	1,2,3,4,6,7,8-HpCDD-13C	2.0	100
1,2,3,6,7,8-HxCDF	1.0	1.1	108	OCDD-13C	4.0	78 Y
2,3,4,6,7,8-HxCDF	1.0	1.00	100			
1,2,3,7,8,9-HxCDF	1.0	0.99	99	1,2,3,4-TCDD-13C	2.0	NA
Total HxCDF				1,2,3,7,8,9-HxCDD-13C	2.0	NA
1,2,3,4,7,8-HxCDD	1.0	1.1	111	2,3,7,8-TCDD-37Cl4	0.20	110
1,2,3,6,7,8-HxCDD	1.0	1.1	113			
1,2,3,7,8,9-HxCDD	1.0	1.2	121			
Total HxCDD						
1,2,3,4,6,7,8-HpCDF	1.0	1.1	106			
1,2,3,4,7,8,9-HpCDF	1.0	1.1	105			
Total HpCDF						
1,2,3,4,6,7,8-HpCDD	1.0	0.97	97			
Total HpCDD						
OCDF	2.0	2.2	109			
OCDD	2.0	2.3	114			

Qs = Quantity Spiked  
Qm = Quantity Measured  
Rec. = Recovery (Expressed as Percent)  
R = Recovery outside of target range

Y = RF averaging used in calculations  
Nn = Value obtained from additional analysis  
NA = Not Applicable  
\* = See Discussion

**REPORT OF LABORATORY ANALYSIS**

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**Method 8290**

**Spike Recovery Relative Percent Difference (RPD) Results**

Client Pace Analytical National

Spike 1 ID LCS-72187  
 Spike 1 Filename F190729B\_01

Spike 2 ID LCSD-72188  
 Spike 2 Filename F190729B\_02

Compound	Spike 1 %REC	Spike 2 %REC	%RPD
2,3,7,8-TCDF	96	97	1.0
2,3,7,8-TCDD	109	113	3.6
1,2,3,7,8-PeCDF	96	101	5.1
2,3,4,7,8-PeCDF	103	106	2.9
1,2,3,7,8-PeCDD	91	94	3.2
1,2,3,4,7,8-HxCDF	115	113	1.8
1,2,3,6,7,8-HxCDF	103	108	4.7
2,3,4,6,7,8-HxCDF	105	100	4.9
1,2,3,7,8,9-HxCDF	104	99	4.9
1,2,3,4,7,8-HxCDD	106	111	4.6
1,2,3,6,7,8-HxCDD	106	113	6.4
1,2,3,7,8,9-HxCDD	114	121	6.0
1,2,3,4,6,7,8-HpCDF	102	106	3.8
1,2,3,4,7,8,9-HpCDF	100	105	4.9
1,2,3,4,6,7,8-HpCDD	103	97	6.0
OCDF	100	109	8.6
OCDD	104	114	9.2

%REC = Percent Recovered

RPD = The difference between the two values divided by the mean value

**REPORT OF LABORATORY ANALYSIS**

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July 26, 2019

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

## S&ME Inc. - Spartanburg SC

Sample Delivery Group: L119444  
Samples Received: 07/17/2019  
Project Number: 4213-18-087  
Description: Project Columbia

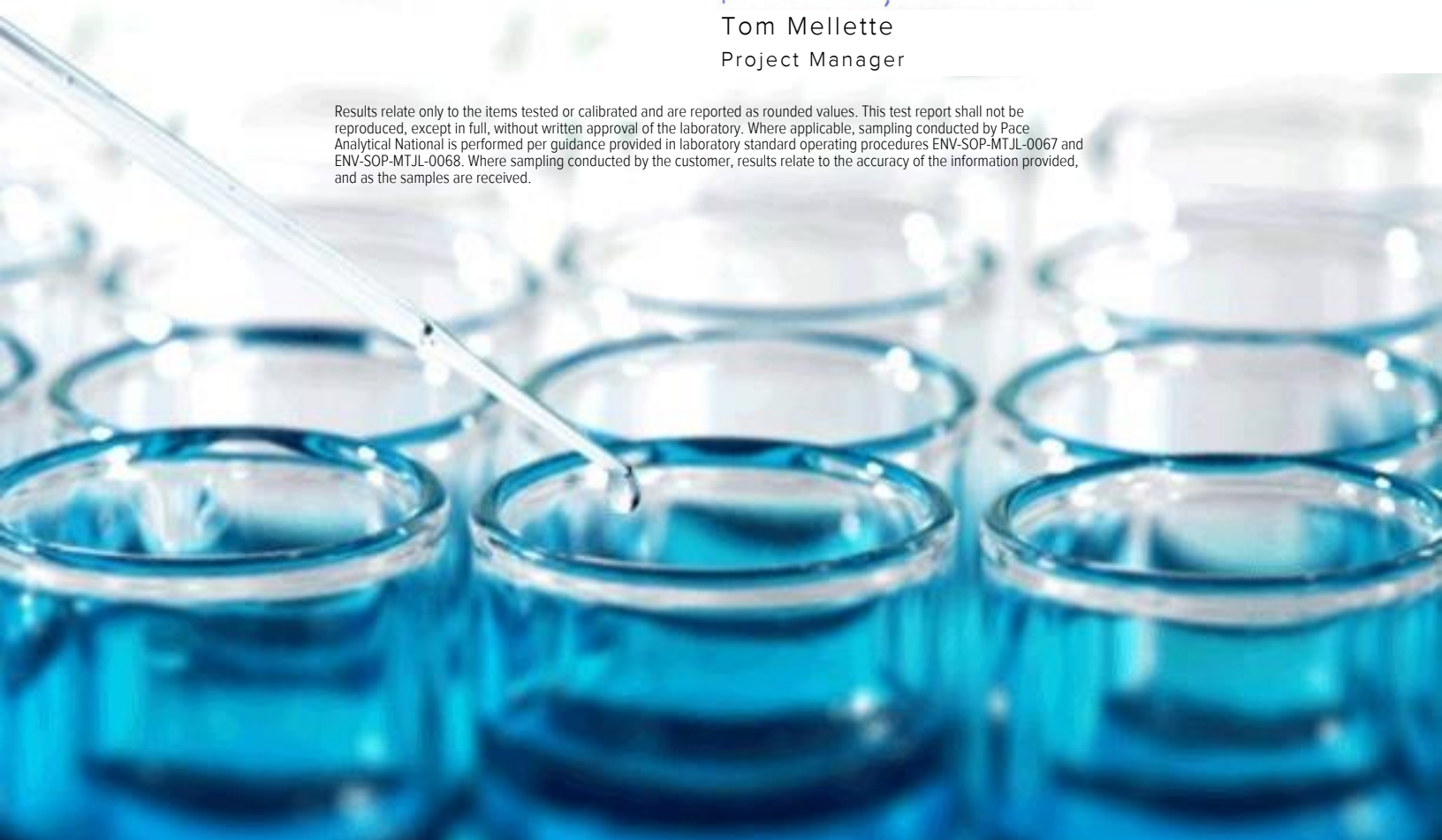
Report To: Scott Dacus  
301 Zima Park Drive  
Spartanburg, SC 29301

Entire Report Reviewed By:



Tom Mellette  
Project Manager

Results relate only to the items tested or calibrated and are reported as rounded values. This test report shall not be reproduced, except in full, without written approval of the laboratory. Where applicable, sampling conducted by Pace Analytical National is performed per guidance provided in laboratory standard operating procedures ENV-SOP-MTJL-0067 and ENV-SOP-MTJL-0068. Where sampling conducted by the customer, results relate to the accuracy of the information provided, and as the samples are received.







<b>Cp: Cover Page</b>	<b>1</b>
<b>Tc: Table of Contents</b>	<b>2</b>
<b>Ss: Sample Summary</b>	<b>3</b>
<b>Cn: Case Narrative</b>	<b>5</b>
<b>Sr: Sample Results</b>	<b>6</b>
R43-MW-3 L1119444-01	6
R43-MW-2 L1119444-02	11
R43-MW-1 L1119444-03	16
GW-13 L1119444-04	21
GW-10 L1119444-05	26
CM-DUP-GW-2 L1119444-06	31
<b>Qc: Quality Control Summary</b>	<b>36</b>
Wet Chemistry by Method 4500CN E-2011	36
Mercury by Method 7470A	37
Metals (ICP) by Method 6010D	38
Volatile Organic Compounds (GC/MS) by Method 8260B	40
Pesticides (GC) by Method 8081B	44
Polychlorinated Biphenyls (GC) by Method 8082 A	48
Semi Volatile Organic Compounds (GC/MS) by Method 8270D	50
Semi Volatile Organic Compounds (GC/MS) by Method 8270E-SIM	64
<b>Gl: Glossary of Terms</b>	<b>68</b>
<b>Al: Accreditations &amp; Locations</b>	<b>69</b>
<b>Sc: Sample Chain of Custody</b>	<b>70</b>



# SAMPLE SUMMARY

## R43-MW-3 L1119444-01 GW

Collected by: Kevin McIntyre  
 Collected date/time: 07/16/19 13:10  
 Received date/time: 07/17/19 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Wet Chemistry by Method 4500CN E-2011	WG1316173	1	07/24/19 11:12	07/25/19 10:51	SDL	Mt. Juliet, TN
Mercury by Method 7470A	WG1313039	1	07/18/19 09:09	07/18/19 13:17	ABL	Mt. Juliet, TN
Metals (ICP) by Method 6010D	WG1313224	1	07/18/19 12:31	07/19/19 02:28	CCE	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1313669	1	07/18/19 19:27	07/18/19 19:27	ACG	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1315040	1	07/22/19 17:58	07/22/19 17:58	BMB	Mt. Juliet, TN
Pesticides (GC) by Method 8081B	WG1315474	1	07/23/19 17:08	07/24/19 08:49	LEL	Mt. Juliet, TN
Polychlorinated Biphenyls (GC) by Method 8082 A	WG1315474	1	07/23/19 17:08	07/24/19 16:52	MTJ	Mt. Juliet, TN
Semi Volatile Organic Compounds (GC/MS) by Method 8270D	WG1315491	1	07/23/19 09:40	07/23/19 23:05	AO	Mt. Juliet, TN
Semi Volatile Organic Compounds (GC/MS) by Method 8270E-SIM	WG1315100	1	07/22/19 16:50	07/23/19 11:46	DMG	Mt. Juliet, TN

1  
Cp

2  
Tc

3  
Ss

4  
Cn

5  
Sr

6  
Qc

7  
Gl

8  
Al

9  
Sc

## R43-MW-2 L1119444-02 GW

Collected by: Kevin McIntyre  
 Collected date/time: 07/16/19 10:57  
 Received date/time: 07/17/19 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Wet Chemistry by Method 4500CN E-2011	WG1316173	1	07/24/19 11:12	07/25/19 10:52	SDL	Mt. Juliet, TN
Mercury by Method 7470A	WG1313039	1	07/18/19 09:09	07/18/19 13:20	ABL	Mt. Juliet, TN
Metals (ICP) by Method 6010D	WG1313224	1	07/18/19 12:31	07/19/19 02:31	CCE	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1313669	1	07/18/19 19:48	07/18/19 19:48	ACG	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1315040	1	07/22/19 17:36	07/22/19 17:36	BMB	Mt. Juliet, TN
Pesticides (GC) by Method 8081B	WG1315474	1	07/23/19 17:08	07/24/19 09:01	LEL	Mt. Juliet, TN
Polychlorinated Biphenyls (GC) by Method 8082 A	WG1315474	1	07/23/19 17:08	07/24/19 17:06	MTJ	Mt. Juliet, TN
Semi Volatile Organic Compounds (GC/MS) by Method 8270D	WG1315491	1	07/23/19 09:40	07/23/19 23:26	AO	Mt. Juliet, TN
Semi Volatile Organic Compounds (GC/MS) by Method 8270E-SIM	WG1315100	1	07/22/19 16:50	07/23/19 12:08	DMG	Mt. Juliet, TN

## R43-MW-1 L1119444-03 GW

Collected by: Kevin McIntyre  
 Collected date/time: 07/15/19 15:30  
 Received date/time: 07/17/19 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Wet Chemistry by Method 4500CN E-2011	WG1316173	1	07/24/19 11:12	07/25/19 10:53	SDL	Mt. Juliet, TN
Mercury by Method 7470A	WG1313039	1	07/18/19 09:09	07/18/19 13:34	ABL	Mt. Juliet, TN
Metals (ICP) by Method 6010D	WG1313224	1	07/18/19 12:31	07/19/19 02:34	CCE	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1313669	1	07/18/19 20:08	07/18/19 20:08	ACG	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1315040	1	07/22/19 17:15	07/22/19 17:15	BMB	Mt. Juliet, TN
Pesticides (GC) by Method 8081B	WG1314363	1	07/20/19 17:34	07/21/19 11:16	LEL	Mt. Juliet, TN
Polychlorinated Biphenyls (GC) by Method 8082 A	WG1314363	1	07/20/19 17:34	07/21/19 16:11	RP	Mt. Juliet, TN
Semi Volatile Organic Compounds (GC/MS) by Method 8270D	WG1315094	1	07/22/19 06:22	07/23/19 06:06	JNJ	Mt. Juliet, TN
Semi Volatile Organic Compounds (GC/MS) by Method 8270E-SIM	WG1313991	1	07/19/19 08:39	07/19/19 23:54	AAT	Mt. Juliet, TN

## GW-13 L1119444-04 GW

Collected by: Kevin McIntyre  
 Collected date/time: 07/15/19 11:38  
 Received date/time: 07/17/19 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Wet Chemistry by Method 4500CN E-2011	WG1316173	1	07/24/19 11:12	07/25/19 10:54	SDL	Mt. Juliet, TN
Mercury by Method 7470A	WG1313039	1	07/18/19 09:09	07/18/19 13:36	ABL	Mt. Juliet, TN
Metals (ICP) by Method 6010D	WG1313224	1	07/18/19 12:31	07/19/19 02:43	CCE	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1313669	1	07/18/19 20:28	07/18/19 20:28	ACG	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1315040	1	07/22/19 16:53	07/22/19 16:53	BMB	Mt. Juliet, TN
Pesticides (GC) by Method 8081B	WG1314363	1	07/20/19 17:34	07/21/19 11:30	LEL	Mt. Juliet, TN
Polychlorinated Biphenyls (GC) by Method 8082 A	WG1314363	1	07/20/19 17:34	07/21/19 16:24	RP	Mt. Juliet, TN
Semi Volatile Organic Compounds (GC/MS) by Method 8270D	WG1315094	1	07/22/19 06:22	07/23/19 06:28	JNJ	Mt. Juliet, TN
Semi Volatile Organic Compounds (GC/MS) by Method 8270E-SIM	WG1313991	1	07/19/19 08:39	07/20/19 00:17	AAT	Mt. Juliet, TN

# SAMPLE SUMMARY

## GW-10 L1119444-05 GW

Collected by Kevin McIntyre  
 Collected date/time 07/15/19 13:25  
 Received date/time 07/17/19 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Wet Chemistry by Method 4500CN E-2011	WG1316173	1	07/24/19 11:12	07/25/19 10:55	SDL	Mt. Juliet, TN
Mercury by Method 7470A	WG1313039	1	07/18/19 09:09	07/18/19 13:38	ABL	Mt. Juliet, TN
Metals (ICP) by Method 6010D	WG1313224	1	07/18/19 12:31	07/19/19 02:46	CCE	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1313669	1	07/18/19 20:48	07/18/19 20:48	ACG	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1315040	1	07/22/19 16:32	07/22/19 16:32	BMB	Mt. Juliet, TN
Pesticides (GC) by Method 8081B	WG1314363	1	07/20/19 17:34	07/21/19 11:45	LEL	Mt. Juliet, TN
Polychlorinated Biphenyls (GC) by Method 8082 A	WG1314363	1	07/20/19 17:34	07/21/19 16:36	RP	Mt. Juliet, TN
Semi Volatile Organic Compounds (GC/MS) by Method 8270D	WG1315094	1	07/22/19 06:22	07/23/19 06:50	JNJ	Mt. Juliet, TN
Semi Volatile Organic Compounds (GC/MS) by Method 8270E-SIM	WG1313991	1	07/19/19 08:39	07/20/19 00:41	AAT	Mt. Juliet, TN

1  
Cp

2  
Tc

3  
Ss

4  
Cn

5  
Sr

6  
Qc

7  
Gl

8  
Al

9  
Sc

## CM-DUP-GW-2 L1119444-06 GW

Collected by Kevin McIntyre  
 Collected date/time 07/16/19 00:00  
 Received date/time 07/17/19 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Wet Chemistry by Method 4500CN E-2011	WG1316173	1	07/24/19 11:12	07/25/19 10:56	SDL	Mt. Juliet, TN
Mercury by Method 7470A	WG1313039	1	07/18/19 09:09	07/18/19 13:41	ABL	Mt. Juliet, TN
Metals (ICP) by Method 6010D	WG1313224	1	07/18/19 12:31	07/19/19 02:49	CCE	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1313669	1	07/18/19 21:08	07/18/19 21:08	ACG	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1315040	1	07/22/19 16:10	07/22/19 16:10	BMB	Mt. Juliet, TN
Pesticides (GC) by Method 8081B	WG1315474	1	07/23/19 17:08	07/24/19 09:14	LEL	Mt. Juliet, TN
Polychlorinated Biphenyls (GC) by Method 8082 A	WG1315474	1	07/23/19 17:08	07/24/19 17:20	MTJ	Mt. Juliet, TN
Semi Volatile Organic Compounds (GC/MS) by Method 8270D	WG1315491	1	07/23/19 09:40	07/24/19 02:27	AO	Mt. Juliet, TN
Semi Volatile Organic Compounds (GC/MS) by Method 8270E-SIM	WG1315100	1	07/22/19 16:50	07/23/19 12:29	DMG	Mt. Juliet, TN



All sample aliquots were received at the correct temperature, in the proper containers, with the appropriate preservatives, and within method specified holding times, unless qualified or notated within the report. Where applicable, all MDL (LOD) and RDL (LOQ) values reported for environmental samples have been corrected for the dilution factor used in the analysis. All Method and Batch Quality Control are within established criteria except where addressed in this case narrative, a non-conformance form or properly qualified within the sample results. By my digital signature below, I affirm to the best of my knowledge, all problems/anomalies observed by the laboratory as having the potential to affect the quality of the data have been identified by the laboratory, and no information or data have been knowingly withheld that would affect the quality of the data.

Tom Mellette  
Project Manager

- <sup>1</sup> Cp
- <sup>2</sup> Tc
- <sup>3</sup> Ss
- <sup>4</sup> Cn
- <sup>5</sup> Sr
- <sup>6</sup> Qc
- <sup>7</sup> Gl
- <sup>8</sup> Al
- <sup>9</sup> Sc



## Wet Chemistry by Method 4500CN E-2011

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	ug/l		ug/l		date / time	
Cyanide	ND		5.00	1	07/25/2019 10:51	<a href="#">WG1316173</a>

## Mercury by Method 7470A

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	ug/l		ug/l		date / time	
Mercury	ND		0.200	1	07/18/2019 13:17	<a href="#">WG1313039</a>

## Metals (ICP) by Method 6010D

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	ug/l		ug/l		date / time	
Aluminum	ND		200	1	07/19/2019 02:28	<a href="#">WG1313224</a>
Antimony	ND		10.0	1	07/19/2019 02:28	<a href="#">WG1313224</a>
Arsenic	ND		10.0	1	07/19/2019 02:28	<a href="#">WG1313224</a>
Barium	28.1		5.00	1	07/19/2019 02:28	<a href="#">WG1313224</a>
Beryllium	ND		2.00	1	07/19/2019 02:28	<a href="#">WG1313224</a>
Cadmium	ND		2.00	1	07/19/2019 02:28	<a href="#">WG1313224</a>
Calcium	1420		1000	1	07/19/2019 02:28	<a href="#">WG1313224</a>
Chromium	ND		10.0	1	07/19/2019 02:28	<a href="#">WG1313224</a>
Cobalt	ND		10.0	1	07/19/2019 02:28	<a href="#">WG1313224</a>
Copper	ND		10.0	1	07/19/2019 02:28	<a href="#">WG1313224</a>
Iron	ND		100	1	07/19/2019 02:28	<a href="#">WG1313224</a>
Lead	ND		5.00	1	07/19/2019 02:28	<a href="#">WG1313224</a>
Magnesium	ND		1000	1	07/19/2019 02:28	<a href="#">WG1313224</a>
Manganese	653		10.0	1	07/19/2019 02:28	<a href="#">WG1313224</a>
Nickel	ND		10.0	1	07/19/2019 02:28	<a href="#">WG1313224</a>
Potassium	3770		1000	1	07/19/2019 02:28	<a href="#">WG1313224</a>
Selenium	ND		10.0	1	07/19/2019 02:28	<a href="#">WG1313224</a>
Silver	ND		5.00	1	07/19/2019 02:28	<a href="#">WG1313224</a>
Sodium	534000		1000	1	07/19/2019 02:28	<a href="#">WG1313224</a>
Thallium	ND		10.0	1	07/19/2019 02:28	<a href="#">WG1313224</a>
Vanadium	ND		20.0	1	07/19/2019 02:28	<a href="#">WG1313224</a>
Zinc	ND		50.0	1	07/19/2019 02:28	<a href="#">WG1313224</a>

## Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	ug/l		ug/l		date / time	
Acetone	ND		50.0	1	07/22/2019 17:58	<a href="#">WG1315040</a>
Benzene	ND		1.00	1	07/18/2019 19:27	<a href="#">WG1313669</a>
Bromochloromethane	ND		1.00	1	07/18/2019 19:27	<a href="#">WG1313669</a>
Bromodichloromethane	ND		1.00	1	07/18/2019 19:27	<a href="#">WG1313669</a>
Bromoform	ND		1.00	1	07/18/2019 19:27	<a href="#">WG1313669</a>
Bromomethane	ND		5.00	1	07/18/2019 19:27	<a href="#">WG1313669</a>
Carbon disulfide	ND		1.00	1	07/18/2019 19:27	<a href="#">WG1313669</a>
Carbon tetrachloride	ND		1.00	1	07/18/2019 19:27	<a href="#">WG1313669</a>
Chlorobenzene	ND		1.00	1	07/18/2019 19:27	<a href="#">WG1313669</a>
Chlorodibromomethane	ND		1.00	1	07/18/2019 19:27	<a href="#">WG1313669</a>
Chloroethane	ND		5.00	1	07/18/2019 19:27	<a href="#">WG1313669</a>
Chloroform	ND		5.00	1	07/18/2019 19:27	<a href="#">WG1313669</a>
Chloromethane	ND		2.50	1	07/18/2019 19:27	<a href="#">WG1313669</a>
Cyclohexane	ND		1.00	1	07/18/2019 19:27	<a href="#">WG1313669</a>
1,2-Dibromo-3-Chloropropane	ND		5.00	1	07/18/2019 19:27	<a href="#">WG1313669</a>
1,2-Dibromoethane	ND		1.00	1	07/18/2019 19:27	<a href="#">WG1313669</a>
1,2-Dichlorobenzene	ND		1.00	1	07/18/2019 19:27	<a href="#">WG1313669</a>
1,3-Dichlorobenzene	ND		1.00	1	07/18/2019 19:27	<a href="#">WG1313669</a>

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc



Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result ug/l	Qualifier	RDL ug/l	Dilution	Analysis date / time	Batch
1,4-Dichlorobenzene	ND		1.00	1	07/18/2019 19:27	WG1313669
Dichlorodifluoromethane	ND	J4	5.00	1	07/18/2019 19:27	WG1313669
1,1-Dichloroethane	ND		1.00	1	07/18/2019 19:27	WG1313669
1,2-Dichloroethane	ND		1.00	1	07/18/2019 19:27	WG1313669
1,1-Dichloroethene	ND		1.00	1	07/18/2019 19:27	WG1313669
cis-1,2-Dichloroethene	ND		1.00	1	07/18/2019 19:27	WG1313669
trans-1,2-Dichloroethene	ND		1.00	1	07/18/2019 19:27	WG1313669
1,2-Dichloropropane	ND		1.00	1	07/18/2019 19:27	WG1313669
cis-1,3-Dichloropropene	ND		1.00	1	07/18/2019 19:27	WG1313669
trans-1,3-Dichloropropene	ND		1.00	1	07/18/2019 19:27	WG1313669
Ethylbenzene	ND		1.00	1	07/18/2019 19:27	WG1313669
2-Hexanone	ND		10.0	1	07/18/2019 19:27	WG1313669
Isopropylbenzene	ND		1.00	1	07/18/2019 19:27	WG1313669
2-Butanone (MEK)	ND		10.0	1	07/18/2019 19:27	WG1313669
Methyl Acetate	ND		20.0	1	07/18/2019 19:27	WG1313669
Methyl Cyclohexane	ND		1.00	1	07/18/2019 19:27	WG1313669
Methylene Chloride	ND		5.00	1	07/18/2019 19:27	WG1313669
4-Methyl-2-pentanone (MIBK)	ND		10.0	1	07/18/2019 19:27	WG1313669
Methyl tert-butyl ether	ND		1.00	1	07/18/2019 19:27	WG1313669
Styrene	ND		1.00	1	07/18/2019 19:27	WG1313669
1,1,2,2-Tetrachloroethane	ND		1.00	1	07/18/2019 19:27	WG1313669
Tetrachloroethene	ND		1.00	1	07/18/2019 19:27	WG1313669
Toluene	ND		1.00	1	07/18/2019 19:27	WG1313669
1,2,3-Trichlorobenzene	ND		1.00	1	07/18/2019 19:27	WG1313669
1,2,4-Trichlorobenzene	ND		1.00	1	07/18/2019 19:27	WG1313669
1,1,1-Trichloroethane	ND		1.00	1	07/18/2019 19:27	WG1313669
1,1,2-Trichloroethane	ND		1.00	1	07/18/2019 19:27	WG1313669
Trichloroethene	ND		1.00	1	07/18/2019 19:27	WG1313669
Trichlorofluoromethane	ND		5.00	1	07/18/2019 19:27	WG1313669
1,1,2-Trichlorotrifluoroethane	ND		1.00	1	07/18/2019 19:27	WG1313669
Vinyl chloride	ND		1.00	1	07/18/2019 19:27	WG1313669
Xylenes, Total	ND		3.00	1	07/18/2019 19:27	WG1313669
(S) Toluene-d8	101		80.0-120		07/18/2019 19:27	WG1313669
(S) Toluene-d8	108		80.0-120		07/22/2019 17:58	WG1315040
(S) 4-Bromofluorobenzene	111		77.0-126		07/18/2019 19:27	WG1313669
(S) 4-Bromofluorobenzene	103		77.0-126		07/22/2019 17:58	WG1315040
(S) 1,2-Dichloroethane-d4	103		70.0-130		07/18/2019 19:27	WG1313669
(S) 1,2-Dichloroethane-d4	105		70.0-130		07/22/2019 17:58	WG1315040

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

Pesticides (GC) by Method 8081B

Analyte	Result ug/l	Qualifier	RDL ug/l	Dilution	Analysis date / time	Batch
Aldrin	ND		0.0500	1	07/24/2019 08:49	WG1315474
Alpha BHC	ND		0.0500	1	07/24/2019 08:49	WG1315474
Beta BHC	ND		0.0500	1	07/24/2019 08:49	WG1315474
Delta BHC	ND		0.0500	1	07/24/2019 08:49	WG1315474
Gamma BHC	ND		0.0500	1	07/24/2019 08:49	WG1315474
Chlordane	ND		5.00	1	07/24/2019 08:49	WG1315474
4,4-DDD	ND		0.0500	1	07/24/2019 08:49	WG1315474
4,4-DDE	ND		0.0500	1	07/24/2019 08:49	WG1315474
4,4-DDT	ND		0.0500	1	07/24/2019 08:49	WG1315474
Dieldrin	ND		0.0500	1	07/24/2019 08:49	WG1315474
Endosulfan I	ND		0.0500	1	07/24/2019 08:49	WG1315474
Endosulfan II	ND		0.0500	1	07/24/2019 08:49	WG1315474
Endosulfan sulfate	ND		0.0500	1	07/24/2019 08:49	WG1315474
Endrin	ND		0.0500	1	07/24/2019 08:49	WG1315474



Pesticides (GC) by Method 8081B

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	ug/l		ug/l		date / time	
Endrin aldehyde	ND		0.0500	1	07/24/2019 08:49	<a href="#">WG1315474</a>
Endrin ketone	ND		0.0500	1	07/24/2019 08:49	<a href="#">WG1315474</a>
Heptachlor	ND		0.0500	1	07/24/2019 08:49	<a href="#">WG1315474</a>
Heptachlor epoxide	ND		0.0500	1	07/24/2019 08:49	<a href="#">WG1315474</a>
Hexachlorobenzene	ND		0.0500	1	07/24/2019 08:49	<a href="#">WG1315474</a>
Methoxychlor	ND		0.0500	1	07/24/2019 08:49	<a href="#">WG1315474</a>
Toxaphene	ND		0.500	1	07/24/2019 08:49	<a href="#">WG1315474</a>
(S) Decachlorobiphenyl	89.3		10.0-128		07/24/2019 08:49	<a href="#">WG1315474</a>
(S) Tetrachloro-m-xylene	101		10.0-127		07/24/2019 08:49	<a href="#">WG1315474</a>

- 1 Cp
- 2 Tc
- 3 Ss
- 4 Cn
- 5 Sr

Polychlorinated Biphenyls (GC) by Method 8082 A

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	ug/l		ug/l		date / time	
PCB 1016	ND		0.500	1	07/24/2019 16:52	<a href="#">WG1315474</a>
PCB 1221	ND		0.500	1	07/24/2019 16:52	<a href="#">WG1315474</a>
PCB 1232	ND		0.500	1	07/24/2019 16:52	<a href="#">WG1315474</a>
PCB 1242	ND		0.500	1	07/24/2019 16:52	<a href="#">WG1315474</a>
PCB 1248	ND		0.500	1	07/24/2019 16:52	<a href="#">WG1315474</a>
PCB 1254	ND		0.500	1	07/24/2019 16:52	<a href="#">WG1315474</a>
PCB 1260	ND		0.500	1	07/24/2019 16:52	<a href="#">WG1315474</a>
(S) Decachlorobiphenyl	67.3		10.0-128		07/24/2019 16:52	<a href="#">WG1315474</a>
(S) Tetrachloro-m-xylene	83.9		10.0-127		07/24/2019 16:52	<a href="#">WG1315474</a>

- 6 Qc
- 7 Gl
- 8 Al
- 9 Sc

Semi Volatile Organic Compounds (GC/MS) by Method 8270D

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	ug/l		ug/l		date / time	
Acenaphthene	ND	J4	1.00	1	07/23/2019 23:05	<a href="#">WG1315491</a>
Acenaphthylene	ND		1.00	1	07/23/2019 23:05	<a href="#">WG1315491</a>
Acetophenone	ND	J4	10.0	1	07/23/2019 23:05	<a href="#">WG1315491</a>
Anthracene	ND		1.00	1	07/23/2019 23:05	<a href="#">WG1315491</a>
Atrazine	ND		10.0	1	07/23/2019 23:05	<a href="#">WG1315491</a>
Benzaldehyde	ND	J4	10.0	1	07/23/2019 23:05	<a href="#">WG1315491</a>
Benzo(a)anthracene	ND		1.00	1	07/23/2019 23:05	<a href="#">WG1315491</a>
Benzo(b)fluoranthene	ND		1.00	1	07/23/2019 23:05	<a href="#">WG1315491</a>
Benzo(k)fluoranthene	ND		1.00	1	07/23/2019 23:05	<a href="#">WG1315491</a>
Benzo(g,h,i)perylene	ND		1.00	1	07/23/2019 23:05	<a href="#">WG1315491</a>
Benzo(a)pyrene	ND		1.00	1	07/23/2019 23:05	<a href="#">WG1315491</a>
Biphenyl	ND	J4	10.0	1	07/23/2019 23:05	<a href="#">WG1315491</a>
Bis(2-chloroethoxy)methane	ND	J4	10.0	1	07/23/2019 23:05	<a href="#">WG1315491</a>
Bis(2-chloroethyl)ether	ND	J4	10.0	1	07/23/2019 23:05	<a href="#">WG1315491</a>
Bis(2-chloroisopropyl)ether	ND	J4	10.0	1	07/23/2019 23:05	<a href="#">WG1315491</a>
4-Bromophenyl-phenylether	ND		10.0	1	07/23/2019 23:05	<a href="#">WG1315491</a>
Caprolactam	ND	J4	10.0	1	07/23/2019 23:05	<a href="#">WG1315491</a>
Carbazole	ND		10.0	1	07/23/2019 23:05	<a href="#">WG1315491</a>
4-Chloroaniline	ND	J4	10.0	1	07/23/2019 23:05	<a href="#">WG1315491</a>
2-Chloronaphthalene	ND	J4	1.00	1	07/23/2019 23:05	<a href="#">WG1315491</a>
4-Chlorophenyl-phenylether	ND		10.0	1	07/23/2019 23:05	<a href="#">WG1315491</a>
Chrysene	ND		1.00	1	07/23/2019 23:05	<a href="#">WG1315491</a>
Dibenz(a,h)anthracene	ND		1.00	1	07/23/2019 23:05	<a href="#">WG1315491</a>
Dibenzofuran	ND		10.0	1	07/23/2019 23:05	<a href="#">WG1315491</a>
3,3-Dichlorobenzidine	ND	J4	10.0	1	07/23/2019 23:05	<a href="#">WG1315491</a>
2,4-Dinitrotoluene	ND		10.0	1	07/23/2019 23:05	<a href="#">WG1315491</a>
2,6-Dinitrotoluene	ND		10.0	1	07/23/2019 23:05	<a href="#">WG1315491</a>
Fluoranthene	ND		1.00	1	07/23/2019 23:05	<a href="#">WG1315491</a>
Fluorene	ND		1.00	1	07/23/2019 23:05	<a href="#">WG1315491</a>



Semi Volatile Organic Compounds (GC/MS) by Method 8270D

Analyte	Result ug/l	Qualifier	RDL ug/l	Dilution	Analysis date / time	Batch
Hexachlorobenzene	ND		1.00	1	07/23/2019 23:05	WG1315491
Hexachloro-1,3-butadiene	ND	J4	10.0	1	07/23/2019 23:05	WG1315491
Hexachlorocyclopentadiene	ND	J4	10.0	1	07/23/2019 23:05	WG1315491
Hexachloroethane	ND	J4	10.0	1	07/23/2019 23:05	WG1315491
Indeno(1,2,3-cd)pyrene	ND		1.00	1	07/23/2019 23:05	WG1315491
Isophorone	ND	J4	10.0	1	07/23/2019 23:05	WG1315491
2-Methylnaphthalene	ND	J4	1.00	1	07/23/2019 23:05	WG1315491
Naphthalene	ND	J4	1.00	1	07/23/2019 23:05	WG1315491
2-Nitroaniline	ND		10.0	1	07/23/2019 23:05	WG1315491
3-Nitroaniline	ND	J4	10.0	1	07/23/2019 23:05	WG1315491
4-Nitroaniline	ND	J4	10.0	1	07/23/2019 23:05	WG1315491
Nitrobenzene	ND	J4	10.0	1	07/23/2019 23:05	WG1315491
n-Nitrosodiphenylamine	ND	J4	10.0	1	07/23/2019 23:05	WG1315491
n-Nitrosodi-n-propylamine	ND		10.0	1	07/23/2019 23:05	WG1315491
Phenanthrene	ND		1.00	1	07/23/2019 23:05	WG1315491
Benzylbutyl phthalate	ND		3.00	1	07/23/2019 23:05	WG1315491
Bis(2-ethylhexyl)phthalate	ND		3.00	1	07/23/2019 23:05	WG1315491
Di-n-butyl phthalate	ND		3.00	1	07/23/2019 23:05	WG1315491
Diethyl phthalate	ND		3.00	1	07/23/2019 23:05	WG1315491
Dimethyl phthalate	ND		3.00	1	07/23/2019 23:05	WG1315491
Di-n-octyl phthalate	ND		3.00	1	07/23/2019 23:05	WG1315491
Pyrene	ND		1.00	1	07/23/2019 23:05	WG1315491
1,2,4,5-Tetrachlorobenzene	ND	J4	10.0	1	07/23/2019 23:05	WG1315491
4-Chloro-3-methylphenol	ND	J4	10.0	1	07/23/2019 23:05	WG1315491
2-Chlorophenol	ND	J4	10.0	1	07/23/2019 23:05	WG1315491
2-Methylphenol	ND	J4	10.0	1	07/23/2019 23:05	WG1315491
3&4-Methyl Phenol	ND	J4	10.0	1	07/23/2019 23:05	WG1315491
2,4-Dichlorophenol	ND	J4	10.0	1	07/23/2019 23:05	WG1315491
2,4-Dimethylphenol	ND	J4	10.0	1	07/23/2019 23:05	WG1315491
4,6-Dinitro-2-methylphenol	ND		10.0	1	07/23/2019 23:05	WG1315491
2,4-Dinitrophenol	ND		10.0	1	07/23/2019 23:05	WG1315491
2-Nitrophenol	ND	J4	10.0	1	07/23/2019 23:05	WG1315491
4-Nitrophenol	ND	J4	10.0	1	07/23/2019 23:05	WG1315491
Pentachlorophenol	ND		10.0	1	07/23/2019 23:05	WG1315491
Phenol	ND	J4	10.0	1	07/23/2019 23:05	WG1315491
2,4,5-Trichlorophenol	ND		10.0	1	07/23/2019 23:05	WG1315491
2,4,6-Trichlorophenol	ND		10.0	1	07/23/2019 23:05	WG1315491
(S) Nitrobenzene-d5	31.4		10.0-127		07/23/2019 23:05	WG1315491
(S) 2-Fluorobiphenyl	26.2		10.0-130		07/23/2019 23:05	WG1315491
(S) p-Terphenyl-d14	54.2		10.0-128		07/23/2019 23:05	WG1315491
(S) Phenol-d5	10.4		10.0-120		07/23/2019 23:05	WG1315491
(S) 2-Fluorophenol	18.7		10.0-120		07/23/2019 23:05	WG1315491
(S) 2,4,6-Tribromophenol	42.4		10.0-155		07/23/2019 23:05	WG1315491

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

Semi Volatile Organic Compounds (GC/MS) by Method 8270E-SIM

Analyte	Result ug/l	Qualifier	RDL ug/l	Dilution	Analysis date / time	Batch
Anthracene	ND		0.0500	1	07/23/2019 11:46	WG1315100
Acenaphthene	ND		0.0500	1	07/23/2019 11:46	WG1315100
Acenaphthylene	ND		0.0500	1	07/23/2019 11:46	WG1315100
Benzo(a)anthracene	ND		0.0500	1	07/23/2019 11:46	WG1315100
Benzo(a)pyrene	ND		0.0500	1	07/23/2019 11:46	WG1315100
Benzo(b)fluoranthene	ND		0.0500	1	07/23/2019 11:46	WG1315100
Benzo(g,h,i)perylene	ND		0.0500	1	07/23/2019 11:46	WG1315100
Benzo(k)fluoranthene	ND		0.0500	1	07/23/2019 11:46	WG1315100
Chrysene	ND		0.0500	1	07/23/2019 11:46	WG1315100





Collected date/time: 07/16/19 13:10

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Semi Volatile Organic Compounds (GC/MS) by Method 8270E-SIM

Analyte	Result ug/l	Qualifier	RDL ug/l	Dilution	Analysis date / time	Batch
Dibenz(a,h)anthracene	ND		0.0500	1	07/23/2019 11:46	<a href="#">WG1315100</a>
Fluoranthene	ND		0.0500	1	07/23/2019 11:46	<a href="#">WG1315100</a>
Fluorene	ND		0.0500	1	07/23/2019 11:46	<a href="#">WG1315100</a>
Indeno(1,2,3-cd)pyrene	ND		0.0500	1	07/23/2019 11:46	<a href="#">WG1315100</a>
Naphthalene	ND	J4	0.250	1	07/23/2019 11:46	<a href="#">WG1315100</a>
Phenanthrene	ND		0.0500	1	07/23/2019 11:46	<a href="#">WG1315100</a>
Pyrene	ND		0.0500	1	07/23/2019 11:46	<a href="#">WG1315100</a>
(S) Nitrobenzene-d5	64.7		11.0-135		07/23/2019 11:46	<a href="#">WG1315100</a>
(S) 2-Fluorobiphenyl	71.1		32.0-120		07/23/2019 11:46	<a href="#">WG1315100</a>
(S) p-Terphenyl-d14	77.9		23.0-122		07/23/2019 11:46	<a href="#">WG1315100</a>

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc



## Wet Chemistry by Method 4500CN E-2011

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	ug/l		ug/l		date / time	
Cyanide	ND		5.00	1	07/25/2019 10:52	<a href="#">WG1316173</a>

## Mercury by Method 7470A

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	ug/l		ug/l		date / time	
Mercury	ND		0.200	1	07/18/2019 13:20	<a href="#">WG1313039</a>

## Metals (ICP) by Method 6010D

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	ug/l		ug/l		date / time	
Aluminum	ND		200	1	07/19/2019 02:31	<a href="#">WG1313224</a>
Antimony	ND		10.0	1	07/19/2019 02:31	<a href="#">WG1313224</a>
Arsenic	ND		10.0	1	07/19/2019 02:31	<a href="#">WG1313224</a>
Barium	22.2		5.00	1	07/19/2019 02:31	<a href="#">WG1313224</a>
Beryllium	ND		2.00	1	07/19/2019 02:31	<a href="#">WG1313224</a>
Cadmium	ND		2.00	1	07/19/2019 02:31	<a href="#">WG1313224</a>
Calcium	ND		1000	1	07/19/2019 02:31	<a href="#">WG1313224</a>
Chromium	ND		10.0	1	07/19/2019 02:31	<a href="#">WG1313224</a>
Cobalt	ND		10.0	1	07/19/2019 02:31	<a href="#">WG1313224</a>
Copper	ND		10.0	1	07/19/2019 02:31	<a href="#">WG1313224</a>
Iron	393		100	1	07/19/2019 02:31	<a href="#">WG1313224</a>
Lead	ND		5.00	1	07/19/2019 02:31	<a href="#">WG1313224</a>
Magnesium	ND		1000	1	07/19/2019 02:31	<a href="#">WG1313224</a>
Manganese	269		10.0	1	07/19/2019 02:31	<a href="#">WG1313224</a>
Nickel	ND		10.0	1	07/19/2019 02:31	<a href="#">WG1313224</a>
Potassium	1130		1000	1	07/19/2019 02:31	<a href="#">WG1313224</a>
Selenium	ND		10.0	1	07/19/2019 02:31	<a href="#">WG1313224</a>
Silver	ND		5.00	1	07/19/2019 02:31	<a href="#">WG1313224</a>
Sodium	298000		1000	1	07/19/2019 02:31	<a href="#">WG1313224</a>
Thallium	ND		10.0	1	07/19/2019 02:31	<a href="#">WG1313224</a>
Vanadium	ND		20.0	1	07/19/2019 02:31	<a href="#">WG1313224</a>
Zinc	ND		50.0	1	07/19/2019 02:31	<a href="#">WG1313224</a>

## Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	ug/l		ug/l		date / time	
Acetone	ND		50.0	1	07/22/2019 17:36	<a href="#">WG1315040</a>
Benzene	ND		1.00	1	07/18/2019 19:48	<a href="#">WG1313669</a>
Bromochloromethane	ND		1.00	1	07/18/2019 19:48	<a href="#">WG1313669</a>
Bromodichloromethane	ND		1.00	1	07/18/2019 19:48	<a href="#">WG1313669</a>
Bromoform	ND		1.00	1	07/18/2019 19:48	<a href="#">WG1313669</a>
Bromomethane	ND		5.00	1	07/18/2019 19:48	<a href="#">WG1313669</a>
Carbon disulfide	ND		1.00	1	07/18/2019 19:48	<a href="#">WG1313669</a>
Carbon tetrachloride	ND		1.00	1	07/18/2019 19:48	<a href="#">WG1313669</a>
Chlorobenzene	ND		1.00	1	07/18/2019 19:48	<a href="#">WG1313669</a>
Chlorodibromomethane	ND		1.00	1	07/18/2019 19:48	<a href="#">WG1313669</a>
Chloroethane	ND		5.00	1	07/18/2019 19:48	<a href="#">WG1313669</a>
Chloroform	ND		5.00	1	07/18/2019 19:48	<a href="#">WG1313669</a>
Chloromethane	ND		2.50	1	07/18/2019 19:48	<a href="#">WG1313669</a>
Cyclohexane	ND		1.00	1	07/18/2019 19:48	<a href="#">WG1313669</a>
1,2-Dibromo-3-Chloropropane	ND		5.00	1	07/18/2019 19:48	<a href="#">WG1313669</a>
1,2-Dibromoethane	ND		1.00	1	07/18/2019 19:48	<a href="#">WG1313669</a>
1,2-Dichlorobenzene	ND		1.00	1	07/18/2019 19:48	<a href="#">WG1313669</a>
1,3-Dichlorobenzene	ND		1.00	1	07/18/2019 19:48	<a href="#">WG1313669</a>

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc



Collected date/time: 07/16/19 10:57

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## Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result ug/l	Qualifier	RDL ug/l	Dilution	Analysis date / time	Batch
1,4-Dichlorobenzene	ND		1.00	1	07/18/2019 19:48	<a href="#">WG1313669</a>
Dichlorodifluoromethane	ND	J4	5.00	1	07/18/2019 19:48	<a href="#">WG1313669</a>
1,1-Dichloroethane	ND		1.00	1	07/18/2019 19:48	<a href="#">WG1313669</a>
1,2-Dichloroethane	ND		1.00	1	07/18/2019 19:48	<a href="#">WG1313669</a>
1,1-Dichloroethene	ND		1.00	1	07/18/2019 19:48	<a href="#">WG1313669</a>
cis-1,2-Dichloroethene	ND		1.00	1	07/18/2019 19:48	<a href="#">WG1313669</a>
trans-1,2-Dichloroethene	ND		1.00	1	07/18/2019 19:48	<a href="#">WG1313669</a>
1,2-Dichloropropane	ND		1.00	1	07/18/2019 19:48	<a href="#">WG1313669</a>
cis-1,3-Dichloropropene	ND		1.00	1	07/18/2019 19:48	<a href="#">WG1313669</a>
trans-1,3-Dichloropropene	ND		1.00	1	07/18/2019 19:48	<a href="#">WG1313669</a>
Ethylbenzene	ND		1.00	1	07/18/2019 19:48	<a href="#">WG1313669</a>
2-Hexanone	ND		10.0	1	07/18/2019 19:48	<a href="#">WG1313669</a>
Isopropylbenzene	ND		1.00	1	07/18/2019 19:48	<a href="#">WG1313669</a>
2-Butanone (MEK)	ND		10.0	1	07/18/2019 19:48	<a href="#">WG1313669</a>
Methyl Acetate	ND		20.0	1	07/18/2019 19:48	<a href="#">WG1313669</a>
Methyl Cyclohexane	ND		1.00	1	07/18/2019 19:48	<a href="#">WG1313669</a>
Methylene Chloride	ND		5.00	1	07/18/2019 19:48	<a href="#">WG1313669</a>
4-Methyl-2-pentanone (MIBK)	ND		10.0	1	07/18/2019 19:48	<a href="#">WG1313669</a>
Methyl tert-butyl ether	ND		1.00	1	07/18/2019 19:48	<a href="#">WG1313669</a>
Styrene	ND		1.00	1	07/18/2019 19:48	<a href="#">WG1313669</a>
1,1,2,2-Tetrachloroethane	ND		1.00	1	07/18/2019 19:48	<a href="#">WG1313669</a>
Tetrachloroethene	ND		1.00	1	07/18/2019 19:48	<a href="#">WG1313669</a>
Toluene	ND		1.00	1	07/18/2019 19:48	<a href="#">WG1313669</a>
1,2,3-Trichlorobenzene	ND		1.00	1	07/18/2019 19:48	<a href="#">WG1313669</a>
1,2,4-Trichlorobenzene	ND		1.00	1	07/18/2019 19:48	<a href="#">WG1313669</a>
1,1,1-Trichloroethane	ND		1.00	1	07/18/2019 19:48	<a href="#">WG1313669</a>
1,1,2-Trichloroethane	ND		1.00	1	07/18/2019 19:48	<a href="#">WG1313669</a>
Trichloroethene	ND		1.00	1	07/18/2019 19:48	<a href="#">WG1313669</a>
Trichlorofluoromethane	ND		5.00	1	07/18/2019 19:48	<a href="#">WG1313669</a>
1,1,2-Trichlorotrifluoroethane	ND		1.00	1	07/18/2019 19:48	<a href="#">WG1313669</a>
Vinyl chloride	ND		1.00	1	07/18/2019 19:48	<a href="#">WG1313669</a>
Xylenes, Total	ND		3.00	1	07/18/2019 19:48	<a href="#">WG1313669</a>
(S) Toluene-d8	103		80.0-120		07/18/2019 19:48	<a href="#">WG1313669</a>
(S) Toluene-d8	108		80.0-120		07/22/2019 17:36	<a href="#">WG1315040</a>
(S) 4-Bromofluorobenzene	111		77.0-126		07/18/2019 19:48	<a href="#">WG1313669</a>
(S) 4-Bromofluorobenzene	104		77.0-126		07/22/2019 17:36	<a href="#">WG1315040</a>
(S) 1,2-Dichloroethane-d4	103		70.0-130		07/18/2019 19:48	<a href="#">WG1313669</a>
(S) 1,2-Dichloroethane-d4	106		70.0-130		07/22/2019 17:36	<a href="#">WG1315040</a>

- 1 Cp
- 2 Tc
- 3 Ss
- 4 Cn
- 5 Sr
- 6 Qc
- 7 Gl
- 8 Al
- 9 Sc

## Pesticides (GC) by Method 8081B

Analyte	Result ug/l	Qualifier	RDL ug/l	Dilution	Analysis date / time	Batch
Aldrin	ND		0.0500	1	07/24/2019 09:01	<a href="#">WG1315474</a>
Alpha BHC	ND		0.0500	1	07/24/2019 09:01	<a href="#">WG1315474</a>
Beta BHC	ND		0.0500	1	07/24/2019 09:01	<a href="#">WG1315474</a>
Delta BHC	ND		0.0500	1	07/24/2019 09:01	<a href="#">WG1315474</a>
Gamma BHC	ND		0.0500	1	07/24/2019 09:01	<a href="#">WG1315474</a>
Chlordane	ND		5.00	1	07/24/2019 09:01	<a href="#">WG1315474</a>
4,4-DDD	ND		0.0500	1	07/24/2019 09:01	<a href="#">WG1315474</a>
4,4-DDE	ND		0.0500	1	07/24/2019 09:01	<a href="#">WG1315474</a>
4,4-DDT	ND		0.0500	1	07/24/2019 09:01	<a href="#">WG1315474</a>
Dieldrin	ND		0.0500	1	07/24/2019 09:01	<a href="#">WG1315474</a>
Endosulfan I	ND		0.0500	1	07/24/2019 09:01	<a href="#">WG1315474</a>
Endosulfan II	ND		0.0500	1	07/24/2019 09:01	<a href="#">WG1315474</a>
Endosulfan sulfate	ND		0.0500	1	07/24/2019 09:01	<a href="#">WG1315474</a>
Endrin	ND		0.0500	1	07/24/2019 09:01	<a href="#">WG1315474</a>



Pesticides (GC) by Method 8081B

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	ug/l		ug/l		date / time	
Endrin aldehyde	ND		0.0500	1	07/24/2019 09:01	<a href="#">WG1315474</a>
Endrin ketone	ND		0.0500	1	07/24/2019 09:01	<a href="#">WG1315474</a>
Heptachlor	ND		0.0500	1	07/24/2019 09:01	<a href="#">WG1315474</a>
Heptachlor epoxide	ND		0.0500	1	07/24/2019 09:01	<a href="#">WG1315474</a>
Hexachlorobenzene	ND		0.0500	1	07/24/2019 09:01	<a href="#">WG1315474</a>
Methoxychlor	ND		0.0500	1	07/24/2019 09:01	<a href="#">WG1315474</a>
Toxaphene	ND		0.500	1	07/24/2019 09:01	<a href="#">WG1315474</a>
(S) Decachlorobiphenyl	101		10.0-128		07/24/2019 09:01	<a href="#">WG1315474</a>
(S) Tetrachloro-m-xylene	97.1		10.0-127		07/24/2019 09:01	<a href="#">WG1315474</a>

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

Polychlorinated Biphenyls (GC) by Method 8082 A

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	ug/l		ug/l		date / time	
PCB 1016	ND		0.500	1	07/24/2019 17:06	<a href="#">WG1315474</a>
PCB 1221	ND		0.500	1	07/24/2019 17:06	<a href="#">WG1315474</a>
PCB 1232	ND		0.500	1	07/24/2019 17:06	<a href="#">WG1315474</a>
PCB 1242	ND		0.500	1	07/24/2019 17:06	<a href="#">WG1315474</a>
PCB 1248	ND		0.500	1	07/24/2019 17:06	<a href="#">WG1315474</a>
PCB 1254	ND		0.500	1	07/24/2019 17:06	<a href="#">WG1315474</a>
PCB 1260	ND		0.500	1	07/24/2019 17:06	<a href="#">WG1315474</a>
(S) Decachlorobiphenyl	75.2		10.0-128		07/24/2019 17:06	<a href="#">WG1315474</a>
(S) Tetrachloro-m-xylene	75.3		10.0-127		07/24/2019 17:06	<a href="#">WG1315474</a>

6 Qc

7 Gl

8 Al

9 Sc

Semi Volatile Organic Compounds (GC/MS) by Method 8270D

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	ug/l		ug/l		date / time	
Acenaphthene	ND	J4	1.00	1	07/23/2019 23:26	<a href="#">WG1315491</a>
Acenaphthylene	ND		1.00	1	07/23/2019 23:26	<a href="#">WG1315491</a>
Acetophenone	ND	J4	10.0	1	07/23/2019 23:26	<a href="#">WG1315491</a>
Anthracene	ND		1.00	1	07/23/2019 23:26	<a href="#">WG1315491</a>
Atrazine	ND		10.0	1	07/23/2019 23:26	<a href="#">WG1315491</a>
Benzaldehyde	ND	J4	10.0	1	07/23/2019 23:26	<a href="#">WG1315491</a>
Benzo(a)anthracene	ND		1.00	1	07/23/2019 23:26	<a href="#">WG1315491</a>
Benzo(b)fluoranthene	ND		1.00	1	07/23/2019 23:26	<a href="#">WG1315491</a>
Benzo(k)fluoranthene	ND		1.00	1	07/23/2019 23:26	<a href="#">WG1315491</a>
Benzo(g,h,i)perylene	ND		1.00	1	07/23/2019 23:26	<a href="#">WG1315491</a>
Benzo(a)pyrene	ND		1.00	1	07/23/2019 23:26	<a href="#">WG1315491</a>
Biphenyl	ND	J4	10.0	1	07/23/2019 23:26	<a href="#">WG1315491</a>
Bis(2-chloroethoxy)methane	ND	J4	10.0	1	07/23/2019 23:26	<a href="#">WG1315491</a>
Bis(2-chloroethyl)ether	ND	J4	10.0	1	07/23/2019 23:26	<a href="#">WG1315491</a>
Bis(2-chloroisopropyl)ether	ND	J4	10.0	1	07/23/2019 23:26	<a href="#">WG1315491</a>
4-Bromophenyl-phenylether	ND		10.0	1	07/23/2019 23:26	<a href="#">WG1315491</a>
Caprolactam	ND	J4	10.0	1	07/23/2019 23:26	<a href="#">WG1315491</a>
Carbazole	ND		10.0	1	07/23/2019 23:26	<a href="#">WG1315491</a>
4-Chloroaniline	ND	J4	10.0	1	07/23/2019 23:26	<a href="#">WG1315491</a>
2-Chloronaphthalene	ND	J4	1.00	1	07/23/2019 23:26	<a href="#">WG1315491</a>
4-Chlorophenyl-phenylether	ND		10.0	1	07/23/2019 23:26	<a href="#">WG1315491</a>
Chrysene	ND		1.00	1	07/23/2019 23:26	<a href="#">WG1315491</a>
Dibenz(a,h)anthracene	ND		1.00	1	07/23/2019 23:26	<a href="#">WG1315491</a>
Dibenzofuran	ND		10.0	1	07/23/2019 23:26	<a href="#">WG1315491</a>
3,3-Dichlorobenzidine	ND	J4	10.0	1	07/23/2019 23:26	<a href="#">WG1315491</a>
2,4-Dinitrotoluene	ND		10.0	1	07/23/2019 23:26	<a href="#">WG1315491</a>
2,6-Dinitrotoluene	ND		10.0	1	07/23/2019 23:26	<a href="#">WG1315491</a>
Fluoranthene	ND		1.00	1	07/23/2019 23:26	<a href="#">WG1315491</a>
Fluorene	ND		1.00	1	07/23/2019 23:26	<a href="#">WG1315491</a>



Collected date/time: 07/16/19 10:57

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Semi Volatile Organic Compounds (GC/MS) by Method 8270D

Analyte	Result ug/l	Qualifier	RDL ug/l	Dilution	Analysis date / time	Batch
Hexachlorobenzene	ND		1.00	1	07/23/2019 23:26	WG1315491
Hexachloro-1,3-butadiene	ND	J4	10.0	1	07/23/2019 23:26	WG1315491
Hexachlorocyclopentadiene	ND	J4	10.0	1	07/23/2019 23:26	WG1315491
Hexachloroethane	ND	J4	10.0	1	07/23/2019 23:26	WG1315491
Indeno(1,2,3-cd)pyrene	ND		1.00	1	07/23/2019 23:26	WG1315491
Isophorone	ND	J4	10.0	1	07/23/2019 23:26	WG1315491
2-Methylnaphthalene	ND	J4	1.00	1	07/23/2019 23:26	WG1315491
Naphthalene	ND	J4	1.00	1	07/23/2019 23:26	WG1315491
2-Nitroaniline	ND		10.0	1	07/23/2019 23:26	WG1315491
3-Nitroaniline	ND	J4	10.0	1	07/23/2019 23:26	WG1315491
4-Nitroaniline	ND	J4	10.0	1	07/23/2019 23:26	WG1315491
Nitrobenzene	ND	J4	10.0	1	07/23/2019 23:26	WG1315491
n-Nitrosodiphenylamine	ND	J4	10.0	1	07/23/2019 23:26	WG1315491
n-Nitrosodi-n-propylamine	ND		10.0	1	07/23/2019 23:26	WG1315491
Phenanthrene	ND		1.00	1	07/23/2019 23:26	WG1315491
Benzylbutyl phthalate	ND		3.00	1	07/23/2019 23:26	WG1315491
Bis(2-ethylhexyl)phthalate	ND		3.00	1	07/23/2019 23:26	WG1315491
Di-n-butyl phthalate	ND		3.00	1	07/23/2019 23:26	WG1315491
Diethyl phthalate	ND		3.00	1	07/23/2019 23:26	WG1315491
Dimethyl phthalate	ND		3.00	1	07/23/2019 23:26	WG1315491
Di-n-octyl phthalate	ND		3.00	1	07/23/2019 23:26	WG1315491
Pyrene	ND		1.00	1	07/23/2019 23:26	WG1315491
1,2,4,5-Tetrachlorobenzene	ND	J4	10.0	1	07/23/2019 23:26	WG1315491
4-Chloro-3-methylphenol	ND	J4	10.0	1	07/23/2019 23:26	WG1315491
2-Chlorophenol	ND	J4	10.0	1	07/23/2019 23:26	WG1315491
2-Methylphenol	ND	J4	10.0	1	07/23/2019 23:26	WG1315491
3&4-Methyl Phenol	ND	J4	10.0	1	07/23/2019 23:26	WG1315491
2,4-Dichlorophenol	ND	J4	10.0	1	07/23/2019 23:26	WG1315491
2,4-Dimethylphenol	ND	J4	10.0	1	07/23/2019 23:26	WG1315491
4,6-Dinitro-2-methylphenol	ND		10.0	1	07/23/2019 23:26	WG1315491
2,4-Dinitrophenol	ND		10.0	1	07/23/2019 23:26	WG1315491
2-Nitrophenol	ND	J4	10.0	1	07/23/2019 23:26	WG1315491
4-Nitrophenol	ND	J4	10.0	1	07/23/2019 23:26	WG1315491
Pentachlorophenol	ND		10.0	1	07/23/2019 23:26	WG1315491
Phenol	ND	J4	10.0	1	07/23/2019 23:26	WG1315491
2,4,5-Trichlorophenol	ND		10.0	1	07/23/2019 23:26	WG1315491
2,4,6-Trichlorophenol	ND		10.0	1	07/23/2019 23:26	WG1315491
(S) Nitrobenzene-d5	34.9		10.0-127		07/23/2019 23:26	WG1315491
(S) 2-Fluorobiphenyl	28.7		10.0-130		07/23/2019 23:26	WG1315491
(S) p-Terphenyl-d14	60.7		10.0-128		07/23/2019 23:26	WG1315491
(S) Phenol-d5	12.8		10.0-120		07/23/2019 23:26	WG1315491
(S) 2-Fluorophenol	21.5		10.0-120		07/23/2019 23:26	WG1315491
(S) 2,4,6-Tribromophenol	44.1		10.0-155		07/23/2019 23:26	WG1315491

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

Semi Volatile Organic Compounds (GC/MS) by Method 8270E-SIM

Analyte	Result ug/l	Qualifier	RDL ug/l	Dilution	Analysis date / time	Batch
Anthracene	ND		0.0500	1	07/23/2019 12:08	WG1315100
Acenaphthene	ND		0.0500	1	07/23/2019 12:08	WG1315100
Acenaphthylene	ND		0.0500	1	07/23/2019 12:08	WG1315100
Benzo(a)anthracene	ND		0.0500	1	07/23/2019 12:08	WG1315100
Benzo(a)pyrene	ND		0.0500	1	07/23/2019 12:08	WG1315100
Benzo(b)fluoranthene	ND		0.0500	1	07/23/2019 12:08	WG1315100
Benzo(g,h,i)perylene	ND		0.0500	1	07/23/2019 12:08	WG1315100
Benzo(k)fluoranthene	ND		0.0500	1	07/23/2019 12:08	WG1315100
Chrysene	ND		0.0500	1	07/23/2019 12:08	WG1315100



Collected date/time: 07/16/19 10:57

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Semi Volatile Organic Compounds (GC/MS) by Method 8270E-SIM

Analyte	Result ug/l	Qualifier	RDL ug/l	Dilution	Analysis date / time	Batch
Dibenz(a,h)anthracene	ND		0.0500	1	07/23/2019 12:08	<a href="#">WG1315100</a>
Fluoranthene	ND		0.0500	1	07/23/2019 12:08	<a href="#">WG1315100</a>
Fluorene	0.0611		0.0500	1	07/23/2019 12:08	<a href="#">WG1315100</a>
Indeno(1,2,3-cd)pyrene	ND		0.0500	1	07/23/2019 12:08	<a href="#">WG1315100</a>
Naphthalene	ND	J4	0.250	1	07/23/2019 12:08	<a href="#">WG1315100</a>
Phenanthrene	ND		0.0500	1	07/23/2019 12:08	<a href="#">WG1315100</a>
Pyrene	ND		0.0500	1	07/23/2019 12:08	<a href="#">WG1315100</a>
(S) Nitrobenzene-d5	63.0		11.0-135		07/23/2019 12:08	<a href="#">WG1315100</a>
(S) 2-Fluorobiphenyl	69.0		32.0-120		07/23/2019 12:08	<a href="#">WG1315100</a>
(S) p-Terphenyl-d14	75.0		23.0-122		07/23/2019 12:08	<a href="#">WG1315100</a>

- 1 Cp
- 2 Tc
- 3 Ss
- 4 Cn
- 5 Sr
- 6 Qc
- 7 Gl
- 8 Al
- 9 Sc



## Wet Chemistry by Method 4500CN E-2011

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	ug/l		ug/l		date / time	
Cyanide	ND		5.00	1	07/25/2019 10:53	<a href="#">WG1316173</a>

## Mercury by Method 7470A

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	ug/l		ug/l		date / time	
Mercury	ND		0.200	1	07/18/2019 13:34	<a href="#">WG1313039</a>

## Metals (ICP) by Method 6010D

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	ug/l		ug/l		date / time	
Aluminum	1060		200	1	07/19/2019 02:34	<a href="#">WG1313224</a>
Antimony	ND		10.0	1	07/19/2019 02:34	<a href="#">WG1313224</a>
Arsenic	ND		10.0	1	07/19/2019 02:34	<a href="#">WG1313224</a>
Barium	50.4		5.00	1	07/19/2019 02:34	<a href="#">WG1313224</a>
Beryllium	ND		2.00	1	07/19/2019 02:34	<a href="#">WG1313224</a>
Cadmium	ND		2.00	1	07/19/2019 02:34	<a href="#">WG1313224</a>
Calcium	9950		1000	1	07/19/2019 02:34	<a href="#">WG1313224</a>
Chromium	ND		10.0	1	07/19/2019 02:34	<a href="#">WG1313224</a>
Cobalt	ND		10.0	1	07/19/2019 02:34	<a href="#">WG1313224</a>
Copper	ND		10.0	1	07/19/2019 02:34	<a href="#">WG1313224</a>
Iron	1620		100	1	07/19/2019 02:34	<a href="#">WG1313224</a>
Lead	ND		5.00	1	07/19/2019 02:34	<a href="#">WG1313224</a>
Magnesium	2130		1000	1	07/19/2019 02:34	<a href="#">WG1313224</a>
Manganese	860		10.0	1	07/19/2019 02:34	<a href="#">WG1313224</a>
Nickel	ND		10.0	1	07/19/2019 02:34	<a href="#">WG1313224</a>
Potassium	3760		1000	1	07/19/2019 02:34	<a href="#">WG1313224</a>
Selenium	ND		10.0	1	07/19/2019 02:34	<a href="#">WG1313224</a>
Silver	ND		5.00	1	07/19/2019 02:34	<a href="#">WG1313224</a>
Sodium	362000		1000	1	07/19/2019 02:34	<a href="#">WG1313224</a>
Thallium	ND		10.0	1	07/19/2019 02:34	<a href="#">WG1313224</a>
Vanadium	ND		20.0	1	07/19/2019 02:34	<a href="#">WG1313224</a>
Zinc	ND		50.0	1	07/19/2019 02:34	<a href="#">WG1313224</a>

## Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	ug/l		ug/l		date / time	
Acetone	ND		50.0	1	07/22/2019 17:15	<a href="#">WG1315040</a>
Benzene	ND		1.00	1	07/18/2019 20:08	<a href="#">WG1313669</a>
Bromochloromethane	ND		1.00	1	07/18/2019 20:08	<a href="#">WG1313669</a>
Bromodichloromethane	ND		1.00	1	07/18/2019 20:08	<a href="#">WG1313669</a>
Bromoform	ND		1.00	1	07/18/2019 20:08	<a href="#">WG1313669</a>
Bromomethane	ND		5.00	1	07/18/2019 20:08	<a href="#">WG1313669</a>
Carbon disulfide	ND		1.00	1	07/18/2019 20:08	<a href="#">WG1313669</a>
Carbon tetrachloride	ND		1.00	1	07/18/2019 20:08	<a href="#">WG1313669</a>
Chlorobenzene	ND		1.00	1	07/18/2019 20:08	<a href="#">WG1313669</a>
Chlorodibromomethane	ND		1.00	1	07/18/2019 20:08	<a href="#">WG1313669</a>
Chloroethane	ND		5.00	1	07/18/2019 20:08	<a href="#">WG1313669</a>
Chloroform	ND		5.00	1	07/18/2019 20:08	<a href="#">WG1313669</a>
Chloromethane	ND		2.50	1	07/18/2019 20:08	<a href="#">WG1313669</a>
Cyclohexane	ND		1.00	1	07/18/2019 20:08	<a href="#">WG1313669</a>
1,2-Dibromo-3-Chloropropane	ND		5.00	1	07/18/2019 20:08	<a href="#">WG1313669</a>
1,2-Dibromoethane	ND		1.00	1	07/18/2019 20:08	<a href="#">WG1313669</a>
1,2-Dichlorobenzene	ND		1.00	1	07/18/2019 20:08	<a href="#">WG1313669</a>
1,3-Dichlorobenzene	ND		1.00	1	07/18/2019 20:08	<a href="#">WG1313669</a>

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc



Collected date/time: 07/15/19 15:30

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## Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result ug/l	Qualifier	RDL ug/l	Dilution	Analysis date / time	Batch
1,4-Dichlorobenzene	ND		1.00	1	07/18/2019 20:08	<a href="#">WG1313669</a>
Dichlorodifluoromethane	ND	J4	5.00	1	07/18/2019 20:08	<a href="#">WG1313669</a>
1,1-Dichloroethane	ND		1.00	1	07/18/2019 20:08	<a href="#">WG1313669</a>
1,2-Dichloroethane	ND		1.00	1	07/18/2019 20:08	<a href="#">WG1313669</a>
1,1-Dichloroethene	ND		1.00	1	07/18/2019 20:08	<a href="#">WG1313669</a>
cis-1,2-Dichloroethene	ND		1.00	1	07/18/2019 20:08	<a href="#">WG1313669</a>
trans-1,2-Dichloroethene	ND		1.00	1	07/18/2019 20:08	<a href="#">WG1313669</a>
1,2-Dichloropropane	ND		1.00	1	07/18/2019 20:08	<a href="#">WG1313669</a>
cis-1,3-Dichloropropene	ND		1.00	1	07/18/2019 20:08	<a href="#">WG1313669</a>
trans-1,3-Dichloropropene	ND		1.00	1	07/18/2019 20:08	<a href="#">WG1313669</a>
Ethylbenzene	ND		1.00	1	07/18/2019 20:08	<a href="#">WG1313669</a>
2-Hexanone	ND		10.0	1	07/18/2019 20:08	<a href="#">WG1313669</a>
Isopropylbenzene	ND		1.00	1	07/18/2019 20:08	<a href="#">WG1313669</a>
2-Butanone (MEK)	ND		10.0	1	07/18/2019 20:08	<a href="#">WG1313669</a>
Methyl Acetate	ND		20.0	1	07/18/2019 20:08	<a href="#">WG1313669</a>
Methyl Cyclohexane	ND		1.00	1	07/18/2019 20:08	<a href="#">WG1313669</a>
Methylene Chloride	ND		5.00	1	07/18/2019 20:08	<a href="#">WG1313669</a>
4-Methyl-2-pentanone (MIBK)	ND		10.0	1	07/18/2019 20:08	<a href="#">WG1313669</a>
Methyl tert-butyl ether	ND		1.00	1	07/18/2019 20:08	<a href="#">WG1313669</a>
Styrene	ND		1.00	1	07/18/2019 20:08	<a href="#">WG1313669</a>
1,1,2,2-Tetrachloroethane	ND		1.00	1	07/18/2019 20:08	<a href="#">WG1313669</a>
Tetrachloroethene	ND		1.00	1	07/18/2019 20:08	<a href="#">WG1313669</a>
Toluene	ND		1.00	1	07/18/2019 20:08	<a href="#">WG1313669</a>
1,2,3-Trichlorobenzene	ND		1.00	1	07/18/2019 20:08	<a href="#">WG1313669</a>
1,2,4-Trichlorobenzene	ND		1.00	1	07/18/2019 20:08	<a href="#">WG1313669</a>
1,1,1-Trichloroethane	ND		1.00	1	07/18/2019 20:08	<a href="#">WG1313669</a>
1,1,2-Trichloroethane	ND		1.00	1	07/18/2019 20:08	<a href="#">WG1313669</a>
Trichloroethene	ND		1.00	1	07/18/2019 20:08	<a href="#">WG1313669</a>
Trichlorofluoromethane	ND		5.00	1	07/18/2019 20:08	<a href="#">WG1313669</a>
1,1,2-Trichlorotrifluoroethane	ND		1.00	1	07/18/2019 20:08	<a href="#">WG1313669</a>
Vinyl chloride	ND		1.00	1	07/18/2019 20:08	<a href="#">WG1313669</a>
Xylenes, Total	ND		3.00	1	07/18/2019 20:08	<a href="#">WG1313669</a>
(S) Toluene-d8	105		80.0-120		07/18/2019 20:08	<a href="#">WG1313669</a>
(S) Toluene-d8	107		80.0-120		07/22/2019 17:15	<a href="#">WG1315040</a>
(S) 4-Bromofluorobenzene	109		77.0-126		07/18/2019 20:08	<a href="#">WG1313669</a>
(S) 4-Bromofluorobenzene	105		77.0-126		07/22/2019 17:15	<a href="#">WG1315040</a>
(S) 1,2-Dichloroethane-d4	103		70.0-130		07/18/2019 20:08	<a href="#">WG1313669</a>
(S) 1,2-Dichloroethane-d4	104		70.0-130		07/22/2019 17:15	<a href="#">WG1315040</a>

- 1 Cp
- 2 Tc
- 3 Ss
- 4 Cn
- 5 Sr
- 6 Qc
- 7 Gl
- 8 Al
- 9 Sc

## Pesticides (GC) by Method 8081B

Analyte	Result ug/l	Qualifier	RDL ug/l	Dilution	Analysis date / time	Batch
Aldrin	ND	J4	0.0500	1	07/21/2019 11:16	<a href="#">WG1314363</a>
Alpha BHC	ND		0.0500	1	07/21/2019 11:16	<a href="#">WG1314363</a>
Beta BHC	ND		0.0500	1	07/21/2019 11:16	<a href="#">WG1314363</a>
Delta BHC	ND		0.0500	1	07/21/2019 11:16	<a href="#">WG1314363</a>
Gamma BHC	ND		0.0500	1	07/21/2019 11:16	<a href="#">WG1314363</a>
Chlordane	ND		5.00	1	07/21/2019 11:16	<a href="#">WG1314363</a>
4,4-DDD	ND		0.0500	1	07/21/2019 11:16	<a href="#">WG1314363</a>
4,4-DDE	ND		0.0500	1	07/21/2019 11:16	<a href="#">WG1314363</a>
4,4-DDT	ND		0.0500	1	07/21/2019 11:16	<a href="#">WG1314363</a>
Dieldrin	ND		0.0500	1	07/21/2019 11:16	<a href="#">WG1314363</a>
Endosulfan I	ND		0.0500	1	07/21/2019 11:16	<a href="#">WG1314363</a>
Endosulfan II	ND		0.0500	1	07/21/2019 11:16	<a href="#">WG1314363</a>
Endosulfan sulfate	ND		0.0500	1	07/21/2019 11:16	<a href="#">WG1314363</a>
Endrin	ND		0.0500	1	07/21/2019 11:16	<a href="#">WG1314363</a>





Collected date/time: 07/15/19 15:30

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## Pesticides (GC) by Method 8081B

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	ug/l		ug/l		date / time	
Endrin aldehyde	ND		0.0500	1	07/21/2019 11:16	<a href="#">WG1314363</a>
Endrin ketone	ND		0.0500	1	07/21/2019 11:16	<a href="#">WG1314363</a>
Heptachlor	ND		0.0500	1	07/21/2019 11:16	<a href="#">WG1314363</a>
Heptachlor epoxide	ND		0.0500	1	07/21/2019 11:16	<a href="#">WG1314363</a>
Hexachlorobenzene	ND	J4	0.0500	1	07/21/2019 11:16	<a href="#">WG1314363</a>
Methoxychlor	ND		0.0500	1	07/21/2019 11:16	<a href="#">WG1314363</a>
Toxaphene	ND		0.500	1	07/21/2019 11:16	<a href="#">WG1314363</a>
(S) Decachlorobiphenyl	90.2		10.0-128		07/21/2019 11:16	<a href="#">WG1314363</a>
(S) Tetrachloro-m-xylene	80.5		10.0-127		07/21/2019 11:16	<a href="#">WG1314363</a>

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

## Polychlorinated Biphenyls (GC) by Method 8082 A

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	ug/l		ug/l		date / time	
PCB 1016	ND		0.500	1	07/21/2019 16:11	<a href="#">WG1314363</a>
PCB 1221	ND		0.500	1	07/21/2019 16:11	<a href="#">WG1314363</a>
PCB 1232	ND		0.500	1	07/21/2019 16:11	<a href="#">WG1314363</a>
PCB 1242	ND		0.500	1	07/21/2019 16:11	<a href="#">WG1314363</a>
PCB 1248	ND		0.500	1	07/21/2019 16:11	<a href="#">WG1314363</a>
PCB 1254	ND		0.500	1	07/21/2019 16:11	<a href="#">WG1314363</a>
PCB 1260	ND		0.500	1	07/21/2019 16:11	<a href="#">WG1314363</a>
(S) Decachlorobiphenyl	113		10.0-128		07/21/2019 16:11	<a href="#">WG1314363</a>
(S) Tetrachloro-m-xylene	98.1		10.0-127		07/21/2019 16:11	<a href="#">WG1314363</a>

6 Qc

7 Gl

8 Al

9 Sc

## Semi Volatile Organic Compounds (GC/MS) by Method 8270D

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	ug/l		ug/l		date / time	
Acenaphthene	ND	J4	1.00	1	07/23/2019 06:06	<a href="#">WG1315094</a>
Acenaphthylene	ND	J4	1.00	1	07/23/2019 06:06	<a href="#">WG1315094</a>
Acetophenone	ND	J4	10.0	1	07/23/2019 06:06	<a href="#">WG1315094</a>
Anthracene	ND	J4	1.00	1	07/23/2019 06:06	<a href="#">WG1315094</a>
Atrazine	ND	J4	10.0	1	07/23/2019 06:06	<a href="#">WG1315094</a>
Benzaldehyde	ND	J4	10.0	1	07/23/2019 06:06	<a href="#">WG1315094</a>
Benzo(a)anthracene	ND		1.00	1	07/23/2019 06:06	<a href="#">WG1315094</a>
Benzo(b)fluoranthene	ND	J4	1.00	1	07/23/2019 06:06	<a href="#">WG1315094</a>
Benzo(k)fluoranthene	ND	J4	1.00	1	07/23/2019 06:06	<a href="#">WG1315094</a>
Benzo(g,h,i)perylene	ND	J4	1.00	1	07/23/2019 06:06	<a href="#">WG1315094</a>
Benzo(a)pyrene	ND	J4	1.00	1	07/23/2019 06:06	<a href="#">WG1315094</a>
Biphenyl	ND	J4	10.0	1	07/23/2019 06:06	<a href="#">WG1315094</a>
Bis(2-chloroethoxy)methane	ND	J4	10.0	1	07/23/2019 06:06	<a href="#">WG1315094</a>
Bis(2-chloroethyl)ether	ND	J4	10.0	1	07/23/2019 06:06	<a href="#">WG1315094</a>
Bis(2-chloroisopropyl)ether	ND	J4	10.0	1	07/23/2019 06:06	<a href="#">WG1315094</a>
4-Bromophenyl-phenylether	ND	J4	10.0	1	07/23/2019 06:06	<a href="#">WG1315094</a>
Caprolactam	ND	J4	10.0	1	07/23/2019 06:06	<a href="#">WG1315094</a>
Carbazole	ND	J4	10.0	1	07/23/2019 06:06	<a href="#">WG1315094</a>
4-Chloroaniline	ND	J4	10.0	1	07/23/2019 06:06	<a href="#">WG1315094</a>
2-Chloronaphthalene	ND	J4	1.00	1	07/23/2019 06:06	<a href="#">WG1315094</a>
4-Chlorophenyl-phenylether	ND	J4	10.0	1	07/23/2019 06:06	<a href="#">WG1315094</a>
Chrysene	ND		1.00	1	07/23/2019 06:06	<a href="#">WG1315094</a>
Dibenz(a,h)anthracene	ND	J4	1.00	1	07/23/2019 06:06	<a href="#">WG1315094</a>
Dibenzofuran	ND	J4	10.0	1	07/23/2019 06:06	<a href="#">WG1315094</a>
3,3-Dichlorobenzidine	ND	J4	10.0	1	07/23/2019 06:06	<a href="#">WG1315094</a>
2,4-Dinitrotoluene	ND	J4	10.0	1	07/23/2019 06:06	<a href="#">WG1315094</a>
2,6-Dinitrotoluene	ND	J4	10.0	1	07/23/2019 06:06	<a href="#">WG1315094</a>
Fluoranthene	ND	J4	1.00	1	07/23/2019 06:06	<a href="#">WG1315094</a>
Fluorene	ND	J4	1.00	1	07/23/2019 06:06	<a href="#">WG1315094</a>



Collected date/time: 07/15/19 15:30

L1119444

Semi Volatile Organic Compounds (GC/MS) by Method 8270D

Analyte	Result ug/l	Qualifier	RDL ug/l	Dilution	Analysis date / time	Batch
Hexachlorobenzene	ND	J4	1.00	1	07/23/2019 06:06	WG1315094
Hexachloro-1,3-butadiene	ND	J4	10.0	1	07/23/2019 06:06	WG1315094
Hexachlorocyclopentadiene	ND	J4	10.0	1	07/23/2019 06:06	WG1315094
Hexachloroethane	ND	J4	10.0	1	07/23/2019 06:06	WG1315094
Indeno(1,2,3-cd)pyrene	ND	J4	1.00	1	07/23/2019 06:06	WG1315094
Isophorone	ND	J4	10.0	1	07/23/2019 06:06	WG1315094
2-Methylnaphthalene	ND	J4	1.00	1	07/23/2019 06:06	WG1315094
Naphthalene	ND	J4	1.00	1	07/23/2019 06:06	WG1315094
2-Nitroaniline	ND	J4	10.0	1	07/23/2019 06:06	WG1315094
3-Nitroaniline	ND	J4	10.0	1	07/23/2019 06:06	WG1315094
4-Nitroaniline	ND	J4	10.0	1	07/23/2019 06:06	WG1315094
Nitrobenzene	ND	J4	10.0	1	07/23/2019 06:06	WG1315094
n-Nitrosodiphenylamine	ND	J4	10.0	1	07/23/2019 06:06	WG1315094
n-Nitrosodi-n-propylamine	ND	J4	10.0	1	07/23/2019 06:06	WG1315094
Phenanthrene	ND	J4	1.00	1	07/23/2019 06:06	WG1315094
Benzylbutyl phthalate	ND	J4	3.00	1	07/23/2019 06:06	WG1315094
Bis(2-ethylhexyl)phthalate	ND		3.00	1	07/23/2019 06:06	WG1315094
Di-n-butyl phthalate	ND		3.00	1	07/23/2019 06:06	WG1315094
Diethyl phthalate	ND	J4	3.00	1	07/23/2019 06:06	WG1315094
Dimethyl phthalate	ND	J4	3.00	1	07/23/2019 06:06	WG1315094
Di-n-octyl phthalate	ND	J4	3.00	1	07/23/2019 06:06	WG1315094
Pyrene	ND	J4	1.00	1	07/23/2019 06:06	WG1315094
1,2,4,5-Tetrachlorobenzene	ND	J4	10.0	1	07/23/2019 06:06	WG1315094
4-Chloro-3-methylphenol	ND	J4	10.0	1	07/23/2019 06:06	WG1315094
2-Chlorophenol	ND	J4	10.0	1	07/23/2019 06:06	WG1315094
2-Methylphenol	ND	J4	10.0	1	07/23/2019 06:06	WG1315094
3&4-Methyl Phenol	ND	J4	10.0	1	07/23/2019 06:06	WG1315094
2,4-Dichlorophenol	ND	J4	10.0	1	07/23/2019 06:06	WG1315094
2,4-Dimethylphenol	ND	J4	10.0	1	07/23/2019 06:06	WG1315094
4,6-Dinitro-2-methylphenol	ND		10.0	1	07/23/2019 06:06	WG1315094
2,4-Dinitrophenol	ND	J4	10.0	1	07/23/2019 06:06	WG1315094
2-Nitrophenol	ND	J4	10.0	1	07/23/2019 06:06	WG1315094
4-Nitrophenol	ND	J4	10.0	1	07/23/2019 06:06	WG1315094
Pentachlorophenol	ND	J4	10.0	1	07/23/2019 06:06	WG1315094
Phenol	ND	J4	10.0	1	07/23/2019 06:06	WG1315094
2,4,5-Trichlorophenol	ND	J4	10.0	1	07/23/2019 06:06	WG1315094
2,4,6-Trichlorophenol	ND	J4	10.0	1	07/23/2019 06:06	WG1315094
(S) Nitrobenzene-d5	59.0		10.0-127		07/23/2019 06:06	WG1315094
(S) 2-Fluorobiphenyl	66.5		10.0-130		07/23/2019 06:06	WG1315094
(S) p-Terphenyl-d14	88.0		10.0-128		07/23/2019 06:06	WG1315094
(S) Phenol-d5	28.0		10.0-120		07/23/2019 06:06	WG1315094
(S) 2-Fluorophenol	47.5		10.0-120		07/23/2019 06:06	WG1315094
(S) 2,4,6-Tribromophenol	91.0		10.0-155		07/23/2019 06:06	WG1315094

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

Semi Volatile Organic Compounds (GC/MS) by Method 8270E-SIM

Analyte	Result ug/l	Qualifier	RDL ug/l	Dilution	Analysis date / time	Batch
Anthracene	ND		0.0500	1	07/19/2019 23:54	WG1313991
Acenaphthene	ND		0.0500	1	07/19/2019 23:54	WG1313991
Acenaphthylene	ND		0.0500	1	07/19/2019 23:54	WG1313991
Benzo(a)anthracene	ND		0.0500	1	07/19/2019 23:54	WG1313991
Benzo(a)pyrene	ND		0.0500	1	07/19/2019 23:54	WG1313991
Benzo(b)fluoranthene	ND		0.0500	1	07/19/2019 23:54	WG1313991
Benzo(g,h,i)perylene	ND		0.0500	1	07/19/2019 23:54	WG1313991
Benzo(k)fluoranthene	ND		0.0500	1	07/19/2019 23:54	WG1313991
Chrysene	ND		0.0500	1	07/19/2019 23:54	WG1313991



Collected date/time: 07/15/19 15:30

L1119444

Semi Volatile Organic Compounds (GC/MS) by Method 8270E-SIM

Analyte	Result ug/l	Qualifier	RDL ug/l	Dilution	Analysis date / time	Batch
Dibenz(a,h)anthracene	ND		0.0500	1	07/19/2019 23:54	<a href="#">WG1313991</a>
Fluoranthene	ND		0.0500	1	07/19/2019 23:54	<a href="#">WG1313991</a>
Fluorene	ND		0.0500	1	07/19/2019 23:54	<a href="#">WG1313991</a>
Indeno(1,2,3-cd)pyrene	ND		0.0500	1	07/19/2019 23:54	<a href="#">WG1313991</a>
Naphthalene	ND	J4	0.250	1	07/19/2019 23:54	<a href="#">WG1313991</a>
Phenanthrene	ND		0.0500	1	07/19/2019 23:54	<a href="#">WG1313991</a>
Pyrene	ND		0.0500	1	07/19/2019 23:54	<a href="#">WG1313991</a>
(S) Nitrobenzene-d5	50.0		11.0-135		07/19/2019 23:54	<a href="#">WG1313991</a>
(S) 2-Fluorobiphenyl	53.0		32.0-120		07/19/2019 23:54	<a href="#">WG1313991</a>
(S) p-Terphenyl-d14	63.0		23.0-122		07/19/2019 23:54	<a href="#">WG1313991</a>

- 1 Cp
- 2 Tc
- 3 Ss
- 4 Cn
- 5 Sr
- 6 Qc
- 7 Gl
- 8 Al
- 9 Sc



Wet Chemistry by Method 4500CN E-2011

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	ug/l		ug/l		date / time	
Cyanide	ND		5.00	1	07/25/2019 10:54	<a href="#">WG1316173</a>

1 Cp

2 Tc

Mercury by Method 7470A

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	ug/l		ug/l		date / time	
Mercury	ND		0.200	1	07/18/2019 13:36	<a href="#">WG1313039</a>

3 Ss

4 Cn

Metals (ICP) by Method 6010D

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	ug/l		ug/l		date / time	
Aluminum	ND		200	1	07/19/2019 02:43	<a href="#">WG1313224</a>
Antimony	ND		10.0	1	07/19/2019 02:43	<a href="#">WG1313224</a>
Arsenic	ND		10.0	1	07/19/2019 02:43	<a href="#">WG1313224</a>
Barium	79.8		5.00	1	07/19/2019 02:43	<a href="#">WG1313224</a>
Beryllium	ND		2.00	1	07/19/2019 02:43	<a href="#">WG1313224</a>
Cadmium	ND		2.00	1	07/19/2019 02:43	<a href="#">WG1313224</a>
Calcium	138000		1000	1	07/19/2019 02:43	<a href="#">WG1313224</a>
Chromium	ND		10.0	1	07/19/2019 02:43	<a href="#">WG1313224</a>
Cobalt	ND		10.0	1	07/19/2019 02:43	<a href="#">WG1313224</a>
Copper	ND		10.0	1	07/19/2019 02:43	<a href="#">WG1313224</a>
Iron	3150		100	1	07/19/2019 02:43	<a href="#">WG1313224</a>
Lead	ND		5.00	1	07/19/2019 02:43	<a href="#">WG1313224</a>
Magnesium	68900		1000	1	07/19/2019 02:43	<a href="#">WG1313224</a>
Manganese	9440		10.0	1	07/19/2019 02:43	<a href="#">WG1313224</a>
Nickel	20.8		10.0	1	07/19/2019 02:43	<a href="#">WG1313224</a>
Potassium	4050		1000	1	07/19/2019 02:43	<a href="#">WG1313224</a>
Selenium	ND		10.0	1	07/19/2019 02:43	<a href="#">WG1313224</a>
Silver	ND		5.00	1	07/19/2019 02:43	<a href="#">WG1313224</a>
Sodium	130000		1000	1	07/19/2019 02:43	<a href="#">WG1313224</a>
Thallium	ND		10.0	1	07/19/2019 02:43	<a href="#">WG1313224</a>
Vanadium	ND		20.0	1	07/19/2019 02:43	<a href="#">WG1313224</a>
Zinc	ND		50.0	1	07/19/2019 02:43	<a href="#">WG1313224</a>

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	ug/l		ug/l		date / time	
Acetone	ND		50.0	1	07/22/2019 16:53	<a href="#">WG1315040</a>
Benzene	ND		1.00	1	07/18/2019 20:28	<a href="#">WG1313669</a>
Bromochloromethane	ND		1.00	1	07/18/2019 20:28	<a href="#">WG1313669</a>
Bromodichloromethane	ND		1.00	1	07/18/2019 20:28	<a href="#">WG1313669</a>
Bromoform	ND		1.00	1	07/18/2019 20:28	<a href="#">WG1313669</a>
Bromomethane	ND		5.00	1	07/18/2019 20:28	<a href="#">WG1313669</a>
Carbon disulfide	ND		1.00	1	07/18/2019 20:28	<a href="#">WG1313669</a>
Carbon tetrachloride	ND		1.00	1	07/18/2019 20:28	<a href="#">WG1313669</a>
Chlorobenzene	ND		1.00	1	07/18/2019 20:28	<a href="#">WG1313669</a>
Chlorodibromomethane	ND		1.00	1	07/18/2019 20:28	<a href="#">WG1313669</a>
Chloroethane	ND		5.00	1	07/18/2019 20:28	<a href="#">WG1313669</a>
Chloroform	ND		5.00	1	07/18/2019 20:28	<a href="#">WG1313669</a>
Chloromethane	ND		2.50	1	07/18/2019 20:28	<a href="#">WG1313669</a>
Cyclohexane	ND		1.00	1	07/18/2019 20:28	<a href="#">WG1313669</a>
1,2-Dibromo-3-Chloropropane	ND		5.00	1	07/18/2019 20:28	<a href="#">WG1313669</a>
1,2-Dibromoethane	ND		1.00	1	07/18/2019 20:28	<a href="#">WG1313669</a>
1,2-Dichlorobenzene	ND		1.00	1	07/18/2019 20:28	<a href="#">WG1313669</a>
1,3-Dichlorobenzene	ND		1.00	1	07/18/2019 20:28	<a href="#">WG1313669</a>



Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	ug/l		ug/l		date / time	
1,4-Dichlorobenzene	ND		1.00	1	07/18/2019 20:28	<a href="#">WG1313669</a>
Dichlorodifluoromethane	ND	J4	5.00	1	07/18/2019 20:28	<a href="#">WG1313669</a>
1,1-Dichloroethane	ND		1.00	1	07/18/2019 20:28	<a href="#">WG1313669</a>
1,2-Dichloroethane	ND		1.00	1	07/18/2019 20:28	<a href="#">WG1313669</a>
1,1-Dichloroethene	ND		1.00	1	07/18/2019 20:28	<a href="#">WG1313669</a>
cis-1,2-Dichloroethene	ND		1.00	1	07/18/2019 20:28	<a href="#">WG1313669</a>
trans-1,2-Dichloroethene	ND		1.00	1	07/18/2019 20:28	<a href="#">WG1313669</a>
1,2-Dichloropropane	ND		1.00	1	07/18/2019 20:28	<a href="#">WG1313669</a>
cis-1,3-Dichloropropene	ND		1.00	1	07/18/2019 20:28	<a href="#">WG1313669</a>
trans-1,3-Dichloropropene	ND		1.00	1	07/18/2019 20:28	<a href="#">WG1313669</a>
Ethylbenzene	ND		1.00	1	07/18/2019 20:28	<a href="#">WG1313669</a>
2-Hexanone	ND		10.0	1	07/18/2019 20:28	<a href="#">WG1313669</a>
Isopropylbenzene	ND		1.00	1	07/18/2019 20:28	<a href="#">WG1313669</a>
2-Butanone (MEK)	ND		10.0	1	07/18/2019 20:28	<a href="#">WG1313669</a>
Methyl Acetate	ND		20.0	1	07/18/2019 20:28	<a href="#">WG1313669</a>
Methyl Cyclohexane	ND		1.00	1	07/18/2019 20:28	<a href="#">WG1313669</a>
Methylene Chloride	ND		5.00	1	07/18/2019 20:28	<a href="#">WG1313669</a>
4-Methyl-2-pentanone (MIBK)	ND		10.0	1	07/18/2019 20:28	<a href="#">WG1313669</a>
Methyl tert-butyl ether	ND		1.00	1	07/18/2019 20:28	<a href="#">WG1313669</a>
Styrene	ND		1.00	1	07/18/2019 20:28	<a href="#">WG1313669</a>
1,1,2,2-Tetrachloroethane	ND		1.00	1	07/18/2019 20:28	<a href="#">WG1313669</a>
Tetrachloroethene	ND		1.00	1	07/18/2019 20:28	<a href="#">WG1313669</a>
Toluene	ND		1.00	1	07/18/2019 20:28	<a href="#">WG1313669</a>
1,2,3-Trichlorobenzene	ND		1.00	1	07/18/2019 20:28	<a href="#">WG1313669</a>
1,2,4-Trichlorobenzene	ND		1.00	1	07/18/2019 20:28	<a href="#">WG1313669</a>
1,1,1-Trichloroethane	ND		1.00	1	07/18/2019 20:28	<a href="#">WG1313669</a>
1,1,2-Trichloroethane	ND		1.00	1	07/18/2019 20:28	<a href="#">WG1313669</a>
Trichloroethene	ND		1.00	1	07/18/2019 20:28	<a href="#">WG1313669</a>
Trichlorofluoromethane	ND		5.00	1	07/18/2019 20:28	<a href="#">WG1313669</a>
1,1,2-Trichlorotrifluoroethane	ND		1.00	1	07/18/2019 20:28	<a href="#">WG1313669</a>
Vinyl chloride	ND		1.00	1	07/18/2019 20:28	<a href="#">WG1313669</a>
Xylenes, Total	ND		3.00	1	07/18/2019 20:28	<a href="#">WG1313669</a>
(S) Toluene-d8	104		80.0-120		07/18/2019 20:28	<a href="#">WG1313669</a>
(S) Toluene-d8	109		80.0-120		07/22/2019 16:53	<a href="#">WG1315040</a>
(S) 4-Bromofluorobenzene	111		77.0-126		07/18/2019 20:28	<a href="#">WG1313669</a>
(S) 4-Bromofluorobenzene	103		77.0-126		07/22/2019 16:53	<a href="#">WG1315040</a>
(S) 1,2-Dichloroethane-d4	102		70.0-130		07/18/2019 20:28	<a href="#">WG1313669</a>
(S) 1,2-Dichloroethane-d4	107		70.0-130		07/22/2019 16:53	<a href="#">WG1315040</a>

- 1 Cp
- 2 Tc
- 3 Ss
- 4 Cn
- 5 Sr
- 6 Qc
- 7 Gl
- 8 Al
- 9 Sc

Pesticides (GC) by Method 8081B

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	ug/l		ug/l		date / time	
Aldrin	ND	J4	0.0500	1	07/21/2019 11:30	<a href="#">WG1314363</a>
Alpha BHC	ND		0.0500	1	07/21/2019 11:30	<a href="#">WG1314363</a>
Beta BHC	ND		0.0500	1	07/21/2019 11:30	<a href="#">WG1314363</a>
Delta BHC	ND		0.0500	1	07/21/2019 11:30	<a href="#">WG1314363</a>
Gamma BHC	ND		0.0500	1	07/21/2019 11:30	<a href="#">WG1314363</a>
Chlordane	ND		5.00	1	07/21/2019 11:30	<a href="#">WG1314363</a>
4,4-DDD	ND		0.0500	1	07/21/2019 11:30	<a href="#">WG1314363</a>
4,4-DDE	ND		0.0500	1	07/21/2019 11:30	<a href="#">WG1314363</a>
4,4-DDT	ND		0.0500	1	07/21/2019 11:30	<a href="#">WG1314363</a>
Dieldrin	ND		0.0500	1	07/21/2019 11:30	<a href="#">WG1314363</a>
Endosulfan I	ND		0.0500	1	07/21/2019 11:30	<a href="#">WG1314363</a>
Endosulfan II	ND		0.0500	1	07/21/2019 11:30	<a href="#">WG1314363</a>
Endosulfan sulfate	ND		0.0500	1	07/21/2019 11:30	<a href="#">WG1314363</a>
Endrin	ND		0.0500	1	07/21/2019 11:30	<a href="#">WG1314363</a>



Pesticides (GC) by Method 8081B

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	ug/l		ug/l		date / time	
Endrin aldehyde	ND		0.0500	1	07/21/2019 11:30	<a href="#">WG1314363</a>
Endrin ketone	ND		0.0500	1	07/21/2019 11:30	<a href="#">WG1314363</a>
Heptachlor	ND		0.0500	1	07/21/2019 11:30	<a href="#">WG1314363</a>
Heptachlor epoxide	ND		0.0500	1	07/21/2019 11:30	<a href="#">WG1314363</a>
Hexachlorobenzene	ND	J4	0.0500	1	07/21/2019 11:30	<a href="#">WG1314363</a>
Methoxychlor	ND		0.0500	1	07/21/2019 11:30	<a href="#">WG1314363</a>
Toxaphene	ND		0.500	1	07/21/2019 11:30	<a href="#">WG1314363</a>
(S) Decachlorobiphenyl	89.8		10.0-128		07/21/2019 11:30	<a href="#">WG1314363</a>
(S) Tetrachloro-m-xylene	85.6		10.0-127		07/21/2019 11:30	<a href="#">WG1314363</a>

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

Polychlorinated Biphenyls (GC) by Method 8082 A

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	ug/l		ug/l		date / time	
PCB 1016	ND		0.500	1	07/21/2019 16:24	<a href="#">WG1314363</a>
PCB 1221	ND		0.500	1	07/21/2019 16:24	<a href="#">WG1314363</a>
PCB 1232	ND		0.500	1	07/21/2019 16:24	<a href="#">WG1314363</a>
PCB 1242	ND		0.500	1	07/21/2019 16:24	<a href="#">WG1314363</a>
PCB 1248	ND		0.500	1	07/21/2019 16:24	<a href="#">WG1314363</a>
PCB 1254	ND		0.500	1	07/21/2019 16:24	<a href="#">WG1314363</a>
PCB 1260	ND		0.500	1	07/21/2019 16:24	<a href="#">WG1314363</a>
(S) Decachlorobiphenyl	108		10.0-128		07/21/2019 16:24	<a href="#">WG1314363</a>
(S) Tetrachloro-m-xylene	81.1		10.0-127		07/21/2019 16:24	<a href="#">WG1314363</a>

6 Qc

7 Gl

8 Al

9 Sc

Semi Volatile Organic Compounds (GC/MS) by Method 8270D

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	ug/l		ug/l		date / time	
Acenaphthene	ND	J4	1.00	1	07/23/2019 06:28	<a href="#">WG1315094</a>
Acenaphthylene	ND	J4	1.00	1	07/23/2019 06:28	<a href="#">WG1315094</a>
Acetophenone	ND	J4	10.0	1	07/23/2019 06:28	<a href="#">WG1315094</a>
Anthracene	ND	J4	1.00	1	07/23/2019 06:28	<a href="#">WG1315094</a>
Atrazine	ND	J4	10.0	1	07/23/2019 06:28	<a href="#">WG1315094</a>
Benzaldehyde	ND	J4	10.0	1	07/23/2019 06:28	<a href="#">WG1315094</a>
Benzo(a)anthracene	ND		1.00	1	07/23/2019 06:28	<a href="#">WG1315094</a>
Benzo(b)fluoranthene	ND	J4	1.00	1	07/23/2019 06:28	<a href="#">WG1315094</a>
Benzo(k)fluoranthene	ND	J4	1.00	1	07/23/2019 06:28	<a href="#">WG1315094</a>
Benzo(g,h,i)perylene	ND	J4	1.00	1	07/23/2019 06:28	<a href="#">WG1315094</a>
Benzo(a)pyrene	ND	J4	1.00	1	07/23/2019 06:28	<a href="#">WG1315094</a>
Biphenyl	ND	J4	10.0	1	07/23/2019 06:28	<a href="#">WG1315094</a>
Bis(2-chloroethoxy)methane	ND	J4	10.0	1	07/23/2019 06:28	<a href="#">WG1315094</a>
Bis(2-chloroethyl)ether	ND	J4	10.0	1	07/23/2019 06:28	<a href="#">WG1315094</a>
Bis(2-chloroisopropyl)ether	ND	J4	10.0	1	07/23/2019 06:28	<a href="#">WG1315094</a>
4-Bromophenyl-phenylether	ND	J4	10.0	1	07/23/2019 06:28	<a href="#">WG1315094</a>
Caprolactam	ND	J4	10.0	1	07/23/2019 06:28	<a href="#">WG1315094</a>
Carbazole	ND	J4	10.0	1	07/23/2019 06:28	<a href="#">WG1315094</a>
4-Chloroaniline	ND	J4	10.0	1	07/23/2019 06:28	<a href="#">WG1315094</a>
2-Chloronaphthalene	ND	J4	1.00	1	07/23/2019 06:28	<a href="#">WG1315094</a>
4-Chlorophenyl-phenylether	ND	J4	10.0	1	07/23/2019 06:28	<a href="#">WG1315094</a>
Chrysene	ND		1.00	1	07/23/2019 06:28	<a href="#">WG1315094</a>
Dibenz(a,h)anthracene	ND	J4	1.00	1	07/23/2019 06:28	<a href="#">WG1315094</a>
Dibenzofuran	ND	J4	10.0	1	07/23/2019 06:28	<a href="#">WG1315094</a>
3,3-Dichlorobenzidine	ND	J4	10.0	1	07/23/2019 06:28	<a href="#">WG1315094</a>
2,4-Dinitrotoluene	ND	J4	10.0	1	07/23/2019 06:28	<a href="#">WG1315094</a>
2,6-Dinitrotoluene	ND	J4	10.0	1	07/23/2019 06:28	<a href="#">WG1315094</a>
Fluoranthene	ND	J4	1.00	1	07/23/2019 06:28	<a href="#">WG1315094</a>
Fluorene	ND	J4	1.00	1	07/23/2019 06:28	<a href="#">WG1315094</a>



Collected date/time: 07/15/19 11:38

L1119444

Semi Volatile Organic Compounds (GC/MS) by Method 8270D

Analyte	Result ug/l	Qualifier	RDL ug/l	Dilution	Analysis date / time	Batch
Hexachlorobenzene	ND	J4	1.00	1	07/23/2019 06:28	WG1315094
Hexachloro-1,3-butadiene	ND	J4	10.0	1	07/23/2019 06:28	WG1315094
Hexachlorocyclopentadiene	ND	J4	10.0	1	07/23/2019 06:28	WG1315094
Hexachloroethane	ND	J4	10.0	1	07/23/2019 06:28	WG1315094
Indeno(1,2,3-cd)pyrene	ND	J4	1.00	1	07/23/2019 06:28	WG1315094
Isophorone	ND	J4	10.0	1	07/23/2019 06:28	WG1315094
2-Methylnaphthalene	ND	J4	1.00	1	07/23/2019 06:28	WG1315094
Naphthalene	ND	J4	1.00	1	07/23/2019 06:28	WG1315094
2-Nitroaniline	ND	J4	10.0	1	07/23/2019 06:28	WG1315094
3-Nitroaniline	ND	J4	10.0	1	07/23/2019 06:28	WG1315094
4-Nitroaniline	ND	J4	10.0	1	07/23/2019 06:28	WG1315094
Nitrobenzene	ND	J4	10.0	1	07/23/2019 06:28	WG1315094
n-Nitrosodiphenylamine	ND	J4	10.0	1	07/23/2019 06:28	WG1315094
n-Nitrosodi-n-propylamine	ND	J4	10.0	1	07/23/2019 06:28	WG1315094
Phenanthrene	ND	J4	1.00	1	07/23/2019 06:28	WG1315094
Benzylbutyl phthalate	ND	J4	3.00	1	07/23/2019 06:28	WG1315094
Bis(2-ethylhexyl)phthalate	ND		3.00	1	07/23/2019 06:28	WG1315094
Di-n-butyl phthalate	ND		3.00	1	07/23/2019 06:28	WG1315094
Diethyl phthalate	ND	J4	3.00	1	07/23/2019 06:28	WG1315094
Dimethyl phthalate	ND	J4	3.00	1	07/23/2019 06:28	WG1315094
Di-n-octyl phthalate	ND	J4	3.00	1	07/23/2019 06:28	WG1315094
Pyrene	ND	J4	1.00	1	07/23/2019 06:28	WG1315094
1,2,4,5-Tetrachlorobenzene	ND	J4	10.0	1	07/23/2019 06:28	WG1315094
4-Chloro-3-methylphenol	ND	J4	10.0	1	07/23/2019 06:28	WG1315094
2-Chlorophenol	ND	J4	10.0	1	07/23/2019 06:28	WG1315094
2-Methylphenol	ND	J4	10.0	1	07/23/2019 06:28	WG1315094
3&4-Methyl Phenol	ND	J4	10.0	1	07/23/2019 06:28	WG1315094
2,4-Dichlorophenol	ND	J4	10.0	1	07/23/2019 06:28	WG1315094
2,4-Dimethylphenol	ND	J4	10.0	1	07/23/2019 06:28	WG1315094
4,6-Dinitro-2-methylphenol	ND		10.0	1	07/23/2019 06:28	WG1315094
2,4-Dinitrophenol	ND	J4	10.0	1	07/23/2019 06:28	WG1315094
2-Nitrophenol	ND	J4	10.0	1	07/23/2019 06:28	WG1315094
4-Nitrophenol	ND	J4	10.0	1	07/23/2019 06:28	WG1315094
Pentachlorophenol	ND	J4	10.0	1	07/23/2019 06:28	WG1315094
Phenol	ND	J4	10.0	1	07/23/2019 06:28	WG1315094
2,4,5-Trichlorophenol	ND	J4	10.0	1	07/23/2019 06:28	WG1315094
2,4,6-Trichlorophenol	ND	J4	10.0	1	07/23/2019 06:28	WG1315094
(S) Nitrobenzene-d5	34.0		10.0-127		07/23/2019 06:28	WG1315094
(S) 2-Fluorobiphenyl	36.3		10.0-130		07/23/2019 06:28	WG1315094
(S) p-Terphenyl-d14	54.7		10.0-128		07/23/2019 06:28	WG1315094
(S) Phenol-d5	15.0		10.0-120		07/23/2019 06:28	WG1315094
(S) 2-Fluorophenol	25.4		10.0-120		07/23/2019 06:28	WG1315094
(S) 2,4,6-Tribromophenol	51.7		10.0-155		07/23/2019 06:28	WG1315094

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

Semi Volatile Organic Compounds (GC/MS) by Method 8270E-SIM

Analyte	Result ug/l	Qualifier	RDL ug/l	Dilution	Analysis date / time	Batch
Anthracene	ND		0.0500	1	07/20/2019 00:17	WG1313991
Acenaphthene	ND		0.0500	1	07/20/2019 00:17	WG1313991
Acenaphthylene	ND		0.0500	1	07/20/2019 00:17	WG1313991
Benzo(a)anthracene	ND		0.0500	1	07/20/2019 00:17	WG1313991
Benzo(a)pyrene	ND		0.0500	1	07/20/2019 00:17	WG1313991
Benzo(b)fluoranthene	ND		0.0500	1	07/20/2019 00:17	WG1313991
Benzo(g,h,i)perylene	ND		0.0500	1	07/20/2019 00:17	WG1313991
Benzo(k)fluoranthene	ND		0.0500	1	07/20/2019 00:17	WG1313991
Chrysene	ND		0.0500	1	07/20/2019 00:17	WG1313991



Collected date/time: 07/15/19 11:38

L1119444

Semi Volatile Organic Compounds (GC/MS) by Method 8270E-SIM

Analyte	Result ug/l	Qualifier	RDL ug/l	Dilution	Analysis date / time	Batch
Dibenz(a,h)anthracene	ND		0.0500	1	07/20/2019 00:17	<a href="#">WG1313991</a>
Fluoranthene	ND		0.0500	1	07/20/2019 00:17	<a href="#">WG1313991</a>
Fluorene	ND		0.0500	1	07/20/2019 00:17	<a href="#">WG1313991</a>
Indeno(1,2,3-cd)pyrene	ND		0.0500	1	07/20/2019 00:17	<a href="#">WG1313991</a>
Naphthalene	0.280	J4	0.250	1	07/20/2019 00:17	<a href="#">WG1313991</a>
Phenanthrene	ND		0.0500	1	07/20/2019 00:17	<a href="#">WG1313991</a>
Pyrene	ND		0.0500	1	07/20/2019 00:17	<a href="#">WG1313991</a>
(S) Nitrobenzene-d5	82.5		11.0-135		07/20/2019 00:17	<a href="#">WG1313991</a>
(S) 2-Fluorobiphenyl	84.0		32.0-120		07/20/2019 00:17	<a href="#">WG1313991</a>
(S) p-Terphenyl-d14	105		23.0-122		07/20/2019 00:17	<a href="#">WG1313991</a>

- 1 Cp
- 2 Tc
- 3 Ss
- 4 Cn
- 5 Sr
- 6 Qc
- 7 Gl
- 8 Al
- 9 Sc





Wet Chemistry by Method 4500CN E-2011

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	ug/l		ug/l		date / time	
Cyanide	ND		5.00	1	07/25/2019 10:55	<a href="#">WG1316173</a>

Mercury by Method 7470A

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	ug/l		ug/l		date / time	
Mercury	ND		0.200	1	07/18/2019 13:38	<a href="#">WG1313039</a>

Metals (ICP) by Method 6010D

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	ug/l		ug/l		date / time	
Aluminum	255		200	1	07/19/2019 02:46	<a href="#">WG1313224</a>
Antimony	ND		10.0	1	07/19/2019 02:46	<a href="#">WG1313224</a>
Arsenic	ND		10.0	1	07/19/2019 02:46	<a href="#">WG1313224</a>
Barium	417		5.00	1	07/19/2019 02:46	<a href="#">WG1313224</a>
Beryllium	ND		2.00	1	07/19/2019 02:46	<a href="#">WG1313224</a>
Cadmium	ND		2.00	1	07/19/2019 02:46	<a href="#">WG1313224</a>
Calcium	1310		1000	1	07/19/2019 02:46	<a href="#">WG1313224</a>
Chromium	ND		10.0	1	07/19/2019 02:46	<a href="#">WG1313224</a>
Cobalt	42.2		10.0	1	07/19/2019 02:46	<a href="#">WG1313224</a>
Copper	ND		10.0	1	07/19/2019 02:46	<a href="#">WG1313224</a>
Iron	ND		100	1	07/19/2019 02:46	<a href="#">WG1313224</a>
Lead	ND		5.00	1	07/19/2019 02:46	<a href="#">WG1313224</a>
Magnesium	1050		1000	1	07/19/2019 02:46	<a href="#">WG1313224</a>
Manganese	1350		10.0	1	07/19/2019 02:46	<a href="#">WG1313224</a>
Nickel	ND		10.0	1	07/19/2019 02:46	<a href="#">WG1313224</a>
Potassium	2270		1000	1	07/19/2019 02:46	<a href="#">WG1313224</a>
Selenium	ND		10.0	1	07/19/2019 02:46	<a href="#">WG1313224</a>
Silver	ND		5.00	1	07/19/2019 02:46	<a href="#">WG1313224</a>
Sodium	160000		1000	1	07/19/2019 02:46	<a href="#">WG1313224</a>
Thallium	ND		10.0	1	07/19/2019 02:46	<a href="#">WG1313224</a>
Vanadium	ND		20.0	1	07/19/2019 02:46	<a href="#">WG1313224</a>
Zinc	ND		50.0	1	07/19/2019 02:46	<a href="#">WG1313224</a>

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	ug/l		ug/l		date / time	
Acetone	ND		50.0	1	07/22/2019 16:32	<a href="#">WG1315040</a>
Benzene	ND		1.00	1	07/18/2019 20:48	<a href="#">WG1313669</a>
Bromochloromethane	ND		1.00	1	07/18/2019 20:48	<a href="#">WG1313669</a>
Bromodichloromethane	ND		1.00	1	07/18/2019 20:48	<a href="#">WG1313669</a>
Bromoform	ND		1.00	1	07/18/2019 20:48	<a href="#">WG1313669</a>
Bromomethane	ND		5.00	1	07/18/2019 20:48	<a href="#">WG1313669</a>
Carbon disulfide	ND		1.00	1	07/18/2019 20:48	<a href="#">WG1313669</a>
Carbon tetrachloride	ND		1.00	1	07/18/2019 20:48	<a href="#">WG1313669</a>
Chlorobenzene	ND		1.00	1	07/18/2019 20:48	<a href="#">WG1313669</a>
Chlorodibromomethane	ND		1.00	1	07/18/2019 20:48	<a href="#">WG1313669</a>
Chloroethane	ND		5.00	1	07/18/2019 20:48	<a href="#">WG1313669</a>
Chloroform	ND		5.00	1	07/18/2019 20:48	<a href="#">WG1313669</a>
Chloromethane	ND		2.50	1	07/18/2019 20:48	<a href="#">WG1313669</a>
Cyclohexane	ND		1.00	1	07/18/2019 20:48	<a href="#">WG1313669</a>
1,2-Dibromo-3-Chloropropane	ND		5.00	1	07/18/2019 20:48	<a href="#">WG1313669</a>
1,2-Dibromoethane	ND		1.00	1	07/18/2019 20:48	<a href="#">WG1313669</a>
1,2-Dichlorobenzene	ND		1.00	1	07/18/2019 20:48	<a href="#">WG1313669</a>
1,3-Dichlorobenzene	ND		1.00	1	07/18/2019 20:48	<a href="#">WG1313669</a>

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc



Collected date/time: 07/15/19 13:25

L1119444

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	ug/l		ug/l		date / time	
1,4-Dichlorobenzene	ND		1.00	1	07/18/2019 20:48	WG1313669
Dichlorodifluoromethane	ND	J4	5.00	1	07/18/2019 20:48	WG1313669
1,1-Dichloroethane	ND		1.00	1	07/18/2019 20:48	WG1313669
1,2-Dichloroethane	ND		1.00	1	07/18/2019 20:48	WG1313669
1,1-Dichloroethene	ND		1.00	1	07/18/2019 20:48	WG1313669
cis-1,2-Dichloroethene	ND		1.00	1	07/18/2019 20:48	WG1313669
trans-1,2-Dichloroethene	ND		1.00	1	07/18/2019 20:48	WG1313669
1,2-Dichloropropane	ND		1.00	1	07/18/2019 20:48	WG1313669
cis-1,3-Dichloropropene	ND		1.00	1	07/18/2019 20:48	WG1313669
trans-1,3-Dichloropropene	ND		1.00	1	07/18/2019 20:48	WG1313669
Ethylbenzene	ND		1.00	1	07/18/2019 20:48	WG1313669
2-Hexanone	ND		10.0	1	07/18/2019 20:48	WG1313669
Isopropylbenzene	ND		1.00	1	07/18/2019 20:48	WG1313669
2-Butanone (MEK)	ND		10.0	1	07/18/2019 20:48	WG1313669
Methyl Acetate	ND		20.0	1	07/18/2019 20:48	WG1313669
Methyl Cyclohexane	ND		1.00	1	07/18/2019 20:48	WG1313669
Methylene Chloride	ND		5.00	1	07/18/2019 20:48	WG1313669
4-Methyl-2-pentanone (MIBK)	ND		10.0	1	07/18/2019 20:48	WG1313669
Methyl tert-butyl ether	ND		1.00	1	07/18/2019 20:48	WG1313669
Styrene	ND		1.00	1	07/18/2019 20:48	WG1313669
1,1,2,2-Tetrachloroethane	ND		1.00	1	07/18/2019 20:48	WG1313669
Tetrachloroethene	ND		1.00	1	07/18/2019 20:48	WG1313669
Toluene	ND		1.00	1	07/18/2019 20:48	WG1313669
1,2,3-Trichlorobenzene	ND		1.00	1	07/18/2019 20:48	WG1313669
1,2,4-Trichlorobenzene	ND		1.00	1	07/18/2019 20:48	WG1313669
1,1,1-Trichloroethane	ND		1.00	1	07/18/2019 20:48	WG1313669
1,1,2-Trichloroethane	ND		1.00	1	07/18/2019 20:48	WG1313669
Trichloroethene	ND		1.00	1	07/18/2019 20:48	WG1313669
Trichlorofluoromethane	ND		5.00	1	07/18/2019 20:48	WG1313669
1,1,2-Trichlorotrifluoroethane	ND		1.00	1	07/18/2019 20:48	WG1313669
Vinyl chloride	ND		1.00	1	07/18/2019 20:48	WG1313669
Xylenes, Total	ND		3.00	1	07/18/2019 20:48	WG1313669
(S) Toluene-d8	103		80.0-120		07/18/2019 20:48	WG1313669
(S) Toluene-d8	108		80.0-120		07/22/2019 16:32	WG1315040
(S) 4-Bromofluorobenzene	110		77.0-126		07/18/2019 20:48	WG1313669
(S) 4-Bromofluorobenzene	103		77.0-126		07/22/2019 16:32	WG1315040
(S) 1,2-Dichloroethane-d4	99.8		70.0-130		07/18/2019 20:48	WG1313669
(S) 1,2-Dichloroethane-d4	106		70.0-130		07/22/2019 16:32	WG1315040

- 1 Cp
- 2 Tc
- 3 Ss
- 4 Cn
- 5 Sr
- 6 Qc
- 7 Gl
- 8 Al
- 9 Sc

Pesticides (GC) by Method 8081B

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	ug/l		ug/l		date / time	
Aldrin	ND	J4	0.0500	1	07/21/2019 11:45	WG1314363
Alpha BHC	ND		0.0500	1	07/21/2019 11:45	WG1314363
Beta BHC	ND		0.0500	1	07/21/2019 11:45	WG1314363
Delta BHC	ND		0.0500	1	07/21/2019 11:45	WG1314363
Gamma BHC	ND		0.0500	1	07/21/2019 11:45	WG1314363
Chlordane	ND		5.00	1	07/21/2019 11:45	WG1314363
4,4-DDD	ND		0.0500	1	07/21/2019 11:45	WG1314363
4,4-DDE	ND		0.0500	1	07/21/2019 11:45	WG1314363
4,4-DDT	ND		0.0500	1	07/21/2019 11:45	WG1314363
Dieldrin	ND		0.0500	1	07/21/2019 11:45	WG1314363
Endosulfan I	ND		0.0500	1	07/21/2019 11:45	WG1314363
Endosulfan II	ND		0.0500	1	07/21/2019 11:45	WG1314363
Endosulfan sulfate	ND		0.0500	1	07/21/2019 11:45	WG1314363
Endrin	ND		0.0500	1	07/21/2019 11:45	WG1314363



Collected date/time: 07/15/19 13:25

L1119444

Pesticides (GC) by Method 8081B

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	ug/l		ug/l		date / time	
Endrin aldehyde	ND		0.0500	1	07/21/2019 11:45	<a href="#">WG1314363</a>
Endrin ketone	ND		0.0500	1	07/21/2019 11:45	<a href="#">WG1314363</a>
Heptachlor	ND		0.0500	1	07/21/2019 11:45	<a href="#">WG1314363</a>
Heptachlor epoxide	ND		0.0500	1	07/21/2019 11:45	<a href="#">WG1314363</a>
Hexachlorobenzene	ND	J4	0.0500	1	07/21/2019 11:45	<a href="#">WG1314363</a>
Methoxychlor	ND		0.0500	1	07/21/2019 11:45	<a href="#">WG1314363</a>
Toxaphene	ND		0.500	1	07/21/2019 11:45	<a href="#">WG1314363</a>
(S) Decachlorobiphenyl	79.7		10.0-128		07/21/2019 11:45	<a href="#">WG1314363</a>
(S) Tetrachloro-m-xylene	82.3		10.0-127		07/21/2019 11:45	<a href="#">WG1314363</a>

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

Polychlorinated Biphenyls (GC) by Method 8082 A

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	ug/l		ug/l		date / time	
PCB 1016	ND		0.500	1	07/21/2019 16:36	<a href="#">WG1314363</a>
PCB 1221	ND		0.500	1	07/21/2019 16:36	<a href="#">WG1314363</a>
PCB 1232	ND		0.500	1	07/21/2019 16:36	<a href="#">WG1314363</a>
PCB 1242	ND		0.500	1	07/21/2019 16:36	<a href="#">WG1314363</a>
PCB 1248	ND		0.500	1	07/21/2019 16:36	<a href="#">WG1314363</a>
PCB 1254	ND		0.500	1	07/21/2019 16:36	<a href="#">WG1314363</a>
PCB 1260	ND		0.500	1	07/21/2019 16:36	<a href="#">WG1314363</a>
(S) Decachlorobiphenyl	111		10.0-128		07/21/2019 16:36	<a href="#">WG1314363</a>
(S) Tetrachloro-m-xylene	83.7		10.0-127		07/21/2019 16:36	<a href="#">WG1314363</a>

6 Qc

7 Gl

8 Al

9 Sc

Semi Volatile Organic Compounds (GC/MS) by Method 8270D

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	ug/l		ug/l		date / time	
Acenaphthene	ND	J4	1.00	1	07/23/2019 06:50	<a href="#">WG1315094</a>
Acenaphthylene	ND	J4	1.00	1	07/23/2019 06:50	<a href="#">WG1315094</a>
Acetophenone	ND	J4	10.0	1	07/23/2019 06:50	<a href="#">WG1315094</a>
Anthracene	ND	J4	1.00	1	07/23/2019 06:50	<a href="#">WG1315094</a>
Atrazine	ND	J4	10.0	1	07/23/2019 06:50	<a href="#">WG1315094</a>
Benzaldehyde	ND	J4	10.0	1	07/23/2019 06:50	<a href="#">WG1315094</a>
Benzo(a)anthracene	ND		1.00	1	07/23/2019 06:50	<a href="#">WG1315094</a>
Benzo(b)fluoranthene	ND	J4	1.00	1	07/23/2019 06:50	<a href="#">WG1315094</a>
Benzo(k)fluoranthene	ND	J4	1.00	1	07/23/2019 06:50	<a href="#">WG1315094</a>
Benzo(g,h,i)perylene	ND	J4	1.00	1	07/23/2019 06:50	<a href="#">WG1315094</a>
Benzo(a)pyrene	ND	J4	1.00	1	07/23/2019 06:50	<a href="#">WG1315094</a>
Biphenyl	ND	J4	10.0	1	07/23/2019 06:50	<a href="#">WG1315094</a>
Bis(2-chloroethoxy)methane	ND	J4	10.0	1	07/23/2019 06:50	<a href="#">WG1315094</a>
Bis(2-chloroethyl)ether	ND	J4	10.0	1	07/23/2019 06:50	<a href="#">WG1315094</a>
Bis(2-chloroisopropyl)ether	ND	J4	10.0	1	07/23/2019 06:50	<a href="#">WG1315094</a>
4-Bromophenyl-phenylether	ND	J4	10.0	1	07/23/2019 06:50	<a href="#">WG1315094</a>
Caprolactam	ND	J4	10.0	1	07/23/2019 06:50	<a href="#">WG1315094</a>
Carbazole	ND	J4	10.0	1	07/23/2019 06:50	<a href="#">WG1315094</a>
4-Chloroaniline	ND	J4	10.0	1	07/23/2019 06:50	<a href="#">WG1315094</a>
2-Chloronaphthalene	ND	J4	1.00	1	07/23/2019 06:50	<a href="#">WG1315094</a>
4-Chlorophenyl-phenylether	ND	J4	10.0	1	07/23/2019 06:50	<a href="#">WG1315094</a>
Chrysene	ND		1.00	1	07/23/2019 06:50	<a href="#">WG1315094</a>
Dibenz(a,h)anthracene	ND	J4	1.00	1	07/23/2019 06:50	<a href="#">WG1315094</a>
Dibenzofuran	ND	J4	10.0	1	07/23/2019 06:50	<a href="#">WG1315094</a>
3,3-Dichlorobenzidine	ND	J4	10.0	1	07/23/2019 06:50	<a href="#">WG1315094</a>
2,4-Dinitrotoluene	ND	J4	10.0	1	07/23/2019 06:50	<a href="#">WG1315094</a>
2,6-Dinitrotoluene	ND	J4	10.0	1	07/23/2019 06:50	<a href="#">WG1315094</a>
Fluoranthene	ND	J4	1.00	1	07/23/2019 06:50	<a href="#">WG1315094</a>
Fluorene	ND	J4	1.00	1	07/23/2019 06:50	<a href="#">WG1315094</a>



Collected date/time: 07/15/19 13:25

L1119444

Semi Volatile Organic Compounds (GC/MS) by Method 8270D

Analyte	Result ug/l	Qualifier	RDL ug/l	Dilution	Analysis date / time	Batch
Hexachlorobenzene	ND	J4	1.00	1	07/23/2019 06:50	WG1315094
Hexachloro-1,3-butadiene	ND	J4	10.0	1	07/23/2019 06:50	WG1315094
Hexachlorocyclopentadiene	ND	J4	10.0	1	07/23/2019 06:50	WG1315094
Hexachloroethane	ND	J4	10.0	1	07/23/2019 06:50	WG1315094
Indeno(1,2,3-cd)pyrene	ND	J4	1.00	1	07/23/2019 06:50	WG1315094
Isophorone	ND	J4	10.0	1	07/23/2019 06:50	WG1315094
2-Methylnaphthalene	ND	J4	1.00	1	07/23/2019 06:50	WG1315094
Naphthalene	ND	J4	1.00	1	07/23/2019 06:50	WG1315094
2-Nitroaniline	ND	J4	10.0	1	07/23/2019 06:50	WG1315094
3-Nitroaniline	ND	J4	10.0	1	07/23/2019 06:50	WG1315094
4-Nitroaniline	ND	J4	10.0	1	07/23/2019 06:50	WG1315094
Nitrobenzene	ND	J4	10.0	1	07/23/2019 06:50	WG1315094
n-Nitrosodiphenylamine	ND	J4	10.0	1	07/23/2019 06:50	WG1315094
n-Nitrosodi-n-propylamine	ND	J4	10.0	1	07/23/2019 06:50	WG1315094
Phenanthrene	ND	J4	1.00	1	07/23/2019 06:50	WG1315094
Benzylbutyl phthalate	ND	J4	3.00	1	07/23/2019 06:50	WG1315094
Bis(2-ethylhexyl)phthalate	ND		3.00	1	07/23/2019 06:50	WG1315094
Di-n-butyl phthalate	ND		3.00	1	07/23/2019 06:50	WG1315094
Diethyl phthalate	ND	J4	3.00	1	07/23/2019 06:50	WG1315094
Dimethyl phthalate	ND	J4	3.00	1	07/23/2019 06:50	WG1315094
Di-n-octyl phthalate	ND	J4	3.00	1	07/23/2019 06:50	WG1315094
Pyrene	ND	J4	1.00	1	07/23/2019 06:50	WG1315094
1,2,4,5-Tetrachlorobenzene	ND	J4	10.0	1	07/23/2019 06:50	WG1315094
4-Chloro-3-methylphenol	ND	J4	10.0	1	07/23/2019 06:50	WG1315094
2-Chlorophenol	ND	J4	10.0	1	07/23/2019 06:50	WG1315094
2-Methylphenol	ND	J4	10.0	1	07/23/2019 06:50	WG1315094
3&4-Methyl Phenol	ND	J4	10.0	1	07/23/2019 06:50	WG1315094
2,4-Dichlorophenol	ND	J4	10.0	1	07/23/2019 06:50	WG1315094
2,4-Dimethylphenol	ND	J4	10.0	1	07/23/2019 06:50	WG1315094
4,6-Dinitro-2-methylphenol	ND		10.0	1	07/23/2019 06:50	WG1315094
2,4-Dinitrophenol	ND	J4	10.0	1	07/23/2019 06:50	WG1315094
2-Nitrophenol	ND	J4	10.0	1	07/23/2019 06:50	WG1315094
4-Nitrophenol	ND	J4	10.0	1	07/23/2019 06:50	WG1315094
Pentachlorophenol	ND	J4	10.0	1	07/23/2019 06:50	WG1315094
Phenol	ND	J4	10.0	1	07/23/2019 06:50	WG1315094
2,4,5-Trichlorophenol	ND	J4	10.0	1	07/23/2019 06:50	WG1315094
2,4,6-Trichlorophenol	ND	J4	10.0	1	07/23/2019 06:50	WG1315094
(S) Nitrobenzene-d5	38.2		10.0-127		07/23/2019 06:50	WG1315094
(S) 2-Fluorobiphenyl	43.4		10.0-130		07/23/2019 06:50	WG1315094
(S) p-Terphenyl-d14	64.3		10.0-128		07/23/2019 06:50	WG1315094
(S) Phenol-d5	18.1		10.0-120		07/23/2019 06:50	WG1315094
(S) 2-Fluorophenol	29.7		10.0-120		07/23/2019 06:50	WG1315094
(S) 2,4,6-Tribromophenol	64.2		10.0-155		07/23/2019 06:50	WG1315094

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

Semi Volatile Organic Compounds (GC/MS) by Method 8270E-SIM

Analyte	Result ug/l	Qualifier	RDL ug/l	Dilution	Analysis date / time	Batch
Anthracene	ND		0.0500	1	07/20/2019 00:41	WG1313991
Acenaphthene	ND		0.0500	1	07/20/2019 00:41	WG1313991
Acenaphthylene	ND		0.0500	1	07/20/2019 00:41	WG1313991
Benzo(a)anthracene	ND		0.0500	1	07/20/2019 00:41	WG1313991
Benzo(a)pyrene	ND		0.0500	1	07/20/2019 00:41	WG1313991
Benzo(b)fluoranthene	ND		0.0500	1	07/20/2019 00:41	WG1313991
Benzo(g,h,i)perylene	ND		0.0500	1	07/20/2019 00:41	WG1313991
Benzo(k)fluoranthene	ND		0.0500	1	07/20/2019 00:41	WG1313991
Chrysene	ND		0.0500	1	07/20/2019 00:41	WG1313991



Collected date/time: 07/15/19 13:25

L1119444

Semi Volatile Organic Compounds (GC/MS) by Method 8270E-SIM

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Dibenz(a,h)anthracene	ND		0.0500	1	07/20/2019 00:41	<a href="#">WG1313991</a>
Fluoranthene	ND		0.0500	1	07/20/2019 00:41	<a href="#">WG1313991</a>
Fluorene	ND		0.0500	1	07/20/2019 00:41	<a href="#">WG1313991</a>
Indeno(1,2,3-cd)pyrene	ND		0.0500	1	07/20/2019 00:41	<a href="#">WG1313991</a>
Naphthalene	ND	J4	0.250	1	07/20/2019 00:41	<a href="#">WG1313991</a>
Phenanthrene	ND		0.0500	1	07/20/2019 00:41	<a href="#">WG1313991</a>
Pyrene	ND		0.0500	1	07/20/2019 00:41	<a href="#">WG1313991</a>
(S) Nitrobenzene-d5	79.5		11.0-135		07/20/2019 00:41	<a href="#">WG1313991</a>
(S) 2-Fluorobiphenyl	82.5		32.0-120		07/20/2019 00:41	<a href="#">WG1313991</a>
(S) p-Terphenyl-d14	93.5		23.0-122		07/20/2019 00:41	<a href="#">WG1313991</a>

- 1 Cp
- 2 Tc
- 3 Ss
- 4 Cn
- 5 Sr
- 6 Qc
- 7 Gl
- 8 Al
- 9 Sc



Wet Chemistry by Method 4500CN E-2011

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	ug/l		ug/l		date / time	
Cyanide	ND		5.00	1	07/25/2019 10:56	<a href="#">WG1316173</a>

1 Cp

2 Tc

Mercury by Method 7470A

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	ug/l		ug/l		date / time	
Mercury	ND		0.200	1	07/18/2019 13:41	<a href="#">WG1313039</a>

3 Ss

4 Cn

Metals (ICP) by Method 6010D

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	ug/l		ug/l		date / time	
Aluminum	229		200	1	07/19/2019 02:49	<a href="#">WG1313224</a>
Antimony	ND		10.0	1	07/19/2019 02:49	<a href="#">WG1313224</a>
Arsenic	ND		10.0	1	07/19/2019 02:49	<a href="#">WG1313224</a>
Barium	423		5.00	1	07/19/2019 02:49	<a href="#">WG1313224</a>
Beryllium	ND		2.00	1	07/19/2019 02:49	<a href="#">WG1313224</a>
Cadmium	ND		2.00	1	07/19/2019 02:49	<a href="#">WG1313224</a>
Calcium	1290		1000	1	07/19/2019 02:49	<a href="#">WG1313224</a>
Chromium	ND		10.0	1	07/19/2019 02:49	<a href="#">WG1313224</a>
Cobalt	42.2		10.0	1	07/19/2019 02:49	<a href="#">WG1313224</a>
Copper	ND		10.0	1	07/19/2019 02:49	<a href="#">WG1313224</a>
Iron	ND		100	1	07/19/2019 02:49	<a href="#">WG1313224</a>
Lead	ND		5.00	1	07/19/2019 02:49	<a href="#">WG1313224</a>
Magnesium	1090		1000	1	07/19/2019 02:49	<a href="#">WG1313224</a>
Manganese	1370		10.0	1	07/19/2019 02:49	<a href="#">WG1313224</a>
Nickel	ND		10.0	1	07/19/2019 02:49	<a href="#">WG1313224</a>
Potassium	2290		1000	1	07/19/2019 02:49	<a href="#">WG1313224</a>
Selenium	ND		10.0	1	07/19/2019 02:49	<a href="#">WG1313224</a>
Silver	ND		5.00	1	07/19/2019 02:49	<a href="#">WG1313224</a>
Sodium	162000		1000	1	07/19/2019 02:49	<a href="#">WG1313224</a>
Thallium	ND		10.0	1	07/19/2019 02:49	<a href="#">WG1313224</a>
Vanadium	ND		20.0	1	07/19/2019 02:49	<a href="#">WG1313224</a>
Zinc	ND		50.0	1	07/19/2019 02:49	<a href="#">WG1313224</a>

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	ug/l		ug/l		date / time	
Acetone	ND		50.0	1	07/22/2019 16:10	<a href="#">WG1315040</a>
Benzene	ND		1.00	1	07/18/2019 21:08	<a href="#">WG1313669</a>
Bromochloromethane	ND		1.00	1	07/18/2019 21:08	<a href="#">WG1313669</a>
Bromodichloromethane	ND		1.00	1	07/18/2019 21:08	<a href="#">WG1313669</a>
Bromoform	ND		1.00	1	07/18/2019 21:08	<a href="#">WG1313669</a>
Bromomethane	ND		5.00	1	07/18/2019 21:08	<a href="#">WG1313669</a>
Carbon disulfide	ND		1.00	1	07/18/2019 21:08	<a href="#">WG1313669</a>
Carbon tetrachloride	ND		1.00	1	07/18/2019 21:08	<a href="#">WG1313669</a>
Chlorobenzene	ND		1.00	1	07/18/2019 21:08	<a href="#">WG1313669</a>
Chlorodibromomethane	ND		1.00	1	07/18/2019 21:08	<a href="#">WG1313669</a>
Chloroethane	ND		5.00	1	07/18/2019 21:08	<a href="#">WG1313669</a>
Chloroform	ND		5.00	1	07/18/2019 21:08	<a href="#">WG1313669</a>
Chloromethane	ND		2.50	1	07/18/2019 21:08	<a href="#">WG1313669</a>
Cyclohexane	ND		1.00	1	07/18/2019 21:08	<a href="#">WG1313669</a>
1,2-Dibromo-3-Chloropropane	ND		5.00	1	07/18/2019 21:08	<a href="#">WG1313669</a>
1,2-Dibromoethane	ND		1.00	1	07/18/2019 21:08	<a href="#">WG1313669</a>
1,2-Dichlorobenzene	ND		1.00	1	07/18/2019 21:08	<a href="#">WG1313669</a>
1,3-Dichlorobenzene	ND		1.00	1	07/18/2019 21:08	<a href="#">WG1313669</a>



Collected date/time: 07/16/19 00:00

L1119444

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result ug/l	Qualifier	RDL ug/l	Dilution	Analysis date / time	Batch
1,4-Dichlorobenzene	ND		1.00	1	07/18/2019 21:08	<a href="#">WG1313669</a>
Dichlorodifluoromethane	ND	J4	5.00	1	07/18/2019 21:08	<a href="#">WG1313669</a>
1,1-Dichloroethane	ND		1.00	1	07/18/2019 21:08	<a href="#">WG1313669</a>
1,2-Dichloroethane	ND		1.00	1	07/18/2019 21:08	<a href="#">WG1313669</a>
1,1-Dichloroethene	ND		1.00	1	07/18/2019 21:08	<a href="#">WG1313669</a>
cis-1,2-Dichloroethene	ND		1.00	1	07/18/2019 21:08	<a href="#">WG1313669</a>
trans-1,2-Dichloroethene	ND		1.00	1	07/18/2019 21:08	<a href="#">WG1313669</a>
1,2-Dichloropropane	ND		1.00	1	07/18/2019 21:08	<a href="#">WG1313669</a>
cis-1,3-Dichloropropene	ND		1.00	1	07/18/2019 21:08	<a href="#">WG1313669</a>
trans-1,3-Dichloropropene	ND		1.00	1	07/18/2019 21:08	<a href="#">WG1313669</a>
Ethylbenzene	ND		1.00	1	07/18/2019 21:08	<a href="#">WG1313669</a>
2-Hexanone	ND		10.0	1	07/18/2019 21:08	<a href="#">WG1313669</a>
Isopropylbenzene	ND		1.00	1	07/18/2019 21:08	<a href="#">WG1313669</a>
2-Butanone (MEK)	ND		10.0	1	07/18/2019 21:08	<a href="#">WG1313669</a>
Methyl Acetate	ND		20.0	1	07/18/2019 21:08	<a href="#">WG1313669</a>
Methyl Cyclohexane	ND		1.00	1	07/18/2019 21:08	<a href="#">WG1313669</a>
Methylene Chloride	ND		5.00	1	07/18/2019 21:08	<a href="#">WG1313669</a>
4-Methyl-2-pentanone (MIBK)	ND		10.0	1	07/18/2019 21:08	<a href="#">WG1313669</a>
Methyl tert-butyl ether	ND		1.00	1	07/18/2019 21:08	<a href="#">WG1313669</a>
Styrene	ND		1.00	1	07/18/2019 21:08	<a href="#">WG1313669</a>
1,1,2,2-Tetrachloroethane	ND		1.00	1	07/18/2019 21:08	<a href="#">WG1313669</a>
Tetrachloroethene	ND		1.00	1	07/18/2019 21:08	<a href="#">WG1313669</a>
Toluene	ND		1.00	1	07/18/2019 21:08	<a href="#">WG1313669</a>
1,2,3-Trichlorobenzene	ND		1.00	1	07/18/2019 21:08	<a href="#">WG1313669</a>
1,2,4-Trichlorobenzene	ND		1.00	1	07/18/2019 21:08	<a href="#">WG1313669</a>
1,1,1-Trichloroethane	ND		1.00	1	07/18/2019 21:08	<a href="#">WG1313669</a>
1,1,2-Trichloroethane	ND		1.00	1	07/18/2019 21:08	<a href="#">WG1313669</a>
Trichloroethene	ND		1.00	1	07/18/2019 21:08	<a href="#">WG1313669</a>
Trichlorofluoromethane	ND		5.00	1	07/18/2019 21:08	<a href="#">WG1313669</a>
1,1,2-Trichlorotrifluoroethane	ND		1.00	1	07/18/2019 21:08	<a href="#">WG1313669</a>
Vinyl chloride	ND		1.00	1	07/18/2019 21:08	<a href="#">WG1313669</a>
Xylenes, Total	ND		3.00	1	07/18/2019 21:08	<a href="#">WG1313669</a>
(S) Toluene-d8	98.8		80.0-120		07/18/2019 21:08	<a href="#">WG1313669</a>
(S) Toluene-d8	106		80.0-120		07/22/2019 16:10	<a href="#">WG1315040</a>
(S) 4-Bromofluorobenzene	106		77.0-126		07/18/2019 21:08	<a href="#">WG1313669</a>
(S) 4-Bromofluorobenzene	105		77.0-126		07/22/2019 16:10	<a href="#">WG1315040</a>
(S) 1,2-Dichloroethane-d4	103		70.0-130		07/18/2019 21:08	<a href="#">WG1313669</a>
(S) 1,2-Dichloroethane-d4	104		70.0-130		07/22/2019 16:10	<a href="#">WG1315040</a>

- 1 Cp
- 2 Tc
- 3 Ss
- 4 Cn
- 5 Sr
- 6 Qc
- 7 Gl
- 8 Al
- 9 Sc

Pesticides (GC) by Method 8081B

Analyte	Result ug/l	Qualifier	RDL ug/l	Dilution	Analysis date / time	Batch
Aldrin	ND		0.0500	1	07/24/2019 09:14	<a href="#">WG1315474</a>
Alpha BHC	ND		0.0500	1	07/24/2019 09:14	<a href="#">WG1315474</a>
Beta BHC	ND		0.0500	1	07/24/2019 09:14	<a href="#">WG1315474</a>
Delta BHC	ND		0.0500	1	07/24/2019 09:14	<a href="#">WG1315474</a>
Gamma BHC	ND		0.0500	1	07/24/2019 09:14	<a href="#">WG1315474</a>
Chlordane	ND		5.00	1	07/24/2019 09:14	<a href="#">WG1315474</a>
4,4-DDD	ND		0.0500	1	07/24/2019 09:14	<a href="#">WG1315474</a>
4,4-DDE	ND		0.0500	1	07/24/2019 09:14	<a href="#">WG1315474</a>
4,4-DDT	ND		0.0500	1	07/24/2019 09:14	<a href="#">WG1315474</a>
Dieldrin	ND		0.0500	1	07/24/2019 09:14	<a href="#">WG1315474</a>
Endosulfan I	ND		0.0500	1	07/24/2019 09:14	<a href="#">WG1315474</a>
Endosulfan II	ND		0.0500	1	07/24/2019 09:14	<a href="#">WG1315474</a>
Endosulfan sulfate	ND		0.0500	1	07/24/2019 09:14	<a href="#">WG1315474</a>
Endrin	ND		0.0500	1	07/24/2019 09:14	<a href="#">WG1315474</a>



Collected date/time: 07/16/19 00:00

L1119444

Pesticides (GC) by Method 8081B

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	ug/l		ug/l		date / time	
Endrin aldehyde	ND		0.0500	1	07/24/2019 09:14	<a href="#">WG1315474</a>
Endrin ketone	ND		0.0500	1	07/24/2019 09:14	<a href="#">WG1315474</a>
Heptachlor	ND		0.0500	1	07/24/2019 09:14	<a href="#">WG1315474</a>
Heptachlor epoxide	ND		0.0500	1	07/24/2019 09:14	<a href="#">WG1315474</a>
Hexachlorobenzene	ND		0.0500	1	07/24/2019 09:14	<a href="#">WG1315474</a>
Methoxychlor	ND		0.0500	1	07/24/2019 09:14	<a href="#">WG1315474</a>
Toxaphene	ND		0.500	1	07/24/2019 09:14	<a href="#">WG1315474</a>
(S) Decachlorobiphenyl	75.6		10.0-128		07/24/2019 09:14	<a href="#">WG1315474</a>
(S) Tetrachloro-m-xylene	76.1		10.0-127		07/24/2019 09:14	<a href="#">WG1315474</a>

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

Polychlorinated Biphenyls (GC) by Method 8082 A

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	ug/l		ug/l		date / time	
PCB 1016	ND		0.500	1	07/24/2019 17:20	<a href="#">WG1315474</a>
PCB 1221	ND		0.500	1	07/24/2019 17:20	<a href="#">WG1315474</a>
PCB 1232	ND		0.500	1	07/24/2019 17:20	<a href="#">WG1315474</a>
PCB 1242	ND		0.500	1	07/24/2019 17:20	<a href="#">WG1315474</a>
PCB 1248	ND		0.500	1	07/24/2019 17:20	<a href="#">WG1315474</a>
PCB 1254	ND		0.500	1	07/24/2019 17:20	<a href="#">WG1315474</a>
PCB 1260	ND		0.500	1	07/24/2019 17:20	<a href="#">WG1315474</a>
(S) Decachlorobiphenyl	68.8		10.0-128		07/24/2019 17:20	<a href="#">WG1315474</a>
(S) Tetrachloro-m-xylene	81.6		10.0-127		07/24/2019 17:20	<a href="#">WG1315474</a>

6 Qc

7 Gl

8 Al

9 Sc

Semi Volatile Organic Compounds (GC/MS) by Method 8270D

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	ug/l		ug/l		date / time	
Acenaphthene	ND	J4	1.00	1	07/24/2019 02:27	<a href="#">WG1315491</a>
Acenaphthylene	ND		1.00	1	07/24/2019 02:27	<a href="#">WG1315491</a>
Acetophenone	ND	J4	10.0	1	07/24/2019 02:27	<a href="#">WG1315491</a>
Anthracene	ND		1.00	1	07/24/2019 02:27	<a href="#">WG1315491</a>
Atrazine	ND		10.0	1	07/24/2019 02:27	<a href="#">WG1315491</a>
Benzaldehyde	ND	J4	10.0	1	07/24/2019 02:27	<a href="#">WG1315491</a>
Benzo(a)anthracene	ND		1.00	1	07/24/2019 02:27	<a href="#">WG1315491</a>
Benzo(b)fluoranthene	ND		1.00	1	07/24/2019 02:27	<a href="#">WG1315491</a>
Benzo(k)fluoranthene	ND		1.00	1	07/24/2019 02:27	<a href="#">WG1315491</a>
Benzo(g,h,i)perylene	ND		1.00	1	07/24/2019 02:27	<a href="#">WG1315491</a>
Benzo(a)pyrene	ND		1.00	1	07/24/2019 02:27	<a href="#">WG1315491</a>
Biphenyl	ND	J4	10.0	1	07/24/2019 02:27	<a href="#">WG1315491</a>
Bis(2-chloroethoxy)methane	ND	J4	10.0	1	07/24/2019 02:27	<a href="#">WG1315491</a>
Bis(2-chloroethyl)ether	ND	J4	10.0	1	07/24/2019 02:27	<a href="#">WG1315491</a>
Bis(2-chloroisopropyl)ether	ND	J4	10.0	1	07/24/2019 02:27	<a href="#">WG1315491</a>
4-Bromophenyl-phenylether	ND		10.0	1	07/24/2019 02:27	<a href="#">WG1315491</a>
Caprolactam	ND	J4	10.0	1	07/24/2019 02:27	<a href="#">WG1315491</a>
Carbazole	ND		10.0	1	07/24/2019 02:27	<a href="#">WG1315491</a>
4-Chloroaniline	ND	J4	10.0	1	07/24/2019 02:27	<a href="#">WG1315491</a>
2-Chloronaphthalene	ND	J4	1.00	1	07/24/2019 02:27	<a href="#">WG1315491</a>
4-Chlorophenyl-phenylether	ND		10.0	1	07/24/2019 02:27	<a href="#">WG1315491</a>
Chrysene	ND		1.00	1	07/24/2019 02:27	<a href="#">WG1315491</a>
Dibenz(a,h)anthracene	ND		1.00	1	07/24/2019 02:27	<a href="#">WG1315491</a>
Dibenzofuran	ND		10.0	1	07/24/2019 02:27	<a href="#">WG1315491</a>
3,3-Dichlorobenzidine	ND	J4	10.0	1	07/24/2019 02:27	<a href="#">WG1315491</a>
2,4-Dinitrotoluene	ND		10.0	1	07/24/2019 02:27	<a href="#">WG1315491</a>
2,6-Dinitrotoluene	ND		10.0	1	07/24/2019 02:27	<a href="#">WG1315491</a>
Fluoranthene	ND		1.00	1	07/24/2019 02:27	<a href="#">WG1315491</a>
Fluorene	ND		1.00	1	07/24/2019 02:27	<a href="#">WG1315491</a>





Collected date/time: 07/16/19 00:00

L1119444

Semi Volatile Organic Compounds (GC/MS) by Method 8270D

Analyte	Result ug/l	Qualifier	RDL ug/l	Dilution	Analysis date / time	Batch
Hexachlorobenzene	ND		1.00	1	07/24/2019 02:27	WG1315491
Hexachloro-1,3-butadiene	ND	J4	10.0	1	07/24/2019 02:27	WG1315491
Hexachlorocyclopentadiene	ND	J4	10.0	1	07/24/2019 02:27	WG1315491
Hexachloroethane	ND	J4	10.0	1	07/24/2019 02:27	WG1315491
Indeno(1,2,3-cd)pyrene	ND		1.00	1	07/24/2019 02:27	WG1315491
Isophorone	ND	J4	10.0	1	07/24/2019 02:27	WG1315491
2-Methylnaphthalene	ND	J4	1.00	1	07/24/2019 02:27	WG1315491
Naphthalene	ND	J4	1.00	1	07/24/2019 02:27	WG1315491
2-Nitroaniline	ND		10.0	1	07/24/2019 02:27	WG1315491
3-Nitroaniline	ND	J4	10.0	1	07/24/2019 02:27	WG1315491
4-Nitroaniline	ND	J4	10.0	1	07/24/2019 02:27	WG1315491
Nitrobenzene	ND	J4	10.0	1	07/24/2019 02:27	WG1315491
n-Nitrosodiphenylamine	ND	J4	10.0	1	07/24/2019 02:27	WG1315491
n-Nitrosodi-n-propylamine	ND		10.0	1	07/24/2019 02:27	WG1315491
Phenanthrene	ND		1.00	1	07/24/2019 02:27	WG1315491
Benzylbutyl phthalate	ND		3.00	1	07/24/2019 02:27	WG1315491
Bis(2-ethylhexyl)phthalate	ND		3.00	1	07/24/2019 02:27	WG1315491
Di-n-butyl phthalate	ND		3.00	1	07/24/2019 02:27	WG1315491
Diethyl phthalate	ND		3.00	1	07/24/2019 02:27	WG1315491
Dimethyl phthalate	ND		3.00	1	07/24/2019 02:27	WG1315491
Di-n-octyl phthalate	ND		3.00	1	07/24/2019 02:27	WG1315491
Pyrene	ND		1.00	1	07/24/2019 02:27	WG1315491
1,2,4,5-Tetrachlorobenzene	ND	J4	10.0	1	07/24/2019 02:27	WG1315491
4-Chloro-3-methylphenol	ND	J4	10.0	1	07/24/2019 02:27	WG1315491
2-Chlorophenol	ND	J4	10.0	1	07/24/2019 02:27	WG1315491
2-Methylphenol	ND	J4	10.0	1	07/24/2019 02:27	WG1315491
3&4-Methyl Phenol	ND	J4	10.0	1	07/24/2019 02:27	WG1315491
2,4-Dichlorophenol	ND	J4	10.0	1	07/24/2019 02:27	WG1315491
2,4-Dimethylphenol	ND	J4	10.0	1	07/24/2019 02:27	WG1315491
4,6-Dinitro-2-methylphenol	ND		10.0	1	07/24/2019 02:27	WG1315491
2,4-Dinitrophenol	ND		10.0	1	07/24/2019 02:27	WG1315491
2-Nitrophenol	ND	J4	10.0	1	07/24/2019 02:27	WG1315491
4-Nitrophenol	ND	J4	10.0	1	07/24/2019 02:27	WG1315491
Pentachlorophenol	ND		10.0	1	07/24/2019 02:27	WG1315491
Phenol	ND	J4	10.0	1	07/24/2019 02:27	WG1315491
2,4,5-Trichlorophenol	ND		10.0	1	07/24/2019 02:27	WG1315491
2,4,6-Trichlorophenol	ND		10.0	1	07/24/2019 02:27	WG1315491
(S) Nitrobenzene-d5	42.0		10.0-127		07/24/2019 02:27	WG1315491
(S) 2-Fluorobiphenyl	34.5		10.0-130		07/24/2019 02:27	WG1315491
(S) p-Terphenyl-d14	72.9		10.0-128		07/24/2019 02:27	WG1315491
(S) Phenol-d5	11.3		10.0-120		07/24/2019 02:27	WG1315491
(S) 2-Fluorophenol	20.7		10.0-120		07/24/2019 02:27	WG1315491
(S) 2,4,6-Tribromophenol	41.0		10.0-155		07/24/2019 02:27	WG1315491

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

Semi Volatile Organic Compounds (GC/MS) by Method 8270E-SIM

Analyte	Result ug/l	Qualifier	RDL ug/l	Dilution	Analysis date / time	Batch
Anthracene	ND		0.0500	1	07/23/2019 12:29	WG1315100
Acenaphthene	ND		0.0500	1	07/23/2019 12:29	WG1315100
Acenaphthylene	ND		0.0500	1	07/23/2019 12:29	WG1315100
Benzo(a)anthracene	ND		0.0500	1	07/23/2019 12:29	WG1315100
Benzo(a)pyrene	ND		0.0500	1	07/23/2019 12:29	WG1315100
Benzo(b)fluoranthene	ND		0.0500	1	07/23/2019 12:29	WG1315100
Benzo(g,h,i)perylene	ND		0.0500	1	07/23/2019 12:29	WG1315100
Benzo(k)fluoranthene	ND		0.0500	1	07/23/2019 12:29	WG1315100
Chrysene	ND		0.0500	1	07/23/2019 12:29	WG1315100



Collected date/time: 07/16/19 00:00

L1119444

Semi Volatile Organic Compounds (GC/MS) by Method 8270E-SIM

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Dibenz(a,h)anthracene	ND		0.0500	1	07/23/2019 12:29	<a href="#">WG1315100</a>
Fluoranthene	ND		0.0500	1	07/23/2019 12:29	<a href="#">WG1315100</a>
Fluorene	ND		0.0500	1	07/23/2019 12:29	<a href="#">WG1315100</a>
Indeno(1,2,3-cd)pyrene	ND		0.0500	1	07/23/2019 12:29	<a href="#">WG1315100</a>
Naphthalene	ND	J4	0.250	1	07/23/2019 12:29	<a href="#">WG1315100</a>
Phenanthrene	ND		0.0500	1	07/23/2019 12:29	<a href="#">WG1315100</a>
Pyrene	ND		0.0500	1	07/23/2019 12:29	<a href="#">WG1315100</a>
(S) Nitrobenzene-d5	66.0		11.0-135		07/23/2019 12:29	<a href="#">WG1315100</a>
(S) 2-Fluorobiphenyl	70.5		32.0-120		07/23/2019 12:29	<a href="#">WG1315100</a>
(S) p-Terphenyl-d14	73.5		23.0-122		07/23/2019 12:29	<a href="#">WG1315100</a>

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc



Method Blank (MB)

(MB) R3434124-1 07/25/19 10:36

Analyte	MB Result	MB Qualifier	MB MDL	MB RDL
Cyanide	U		1.80	5.00

<sup>1</sup>Cp

<sup>2</sup>Tc

<sup>3</sup>Ss

<sup>4</sup>Cn

<sup>5</sup>Sr

<sup>6</sup>Qc

<sup>7</sup>Gl

<sup>8</sup>Al

<sup>9</sup>Sc

L1119374-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1119374-01 07/25/19 10:40 • (DUP) R3434124-3 07/25/19 10:41

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
Cyanide	5.60	7.78	1	32.6	P1	20

Original Sample (OS) • Duplicate (DUP)

(OS) • (DUP) R3434124-6 07/25/19 10:58

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
Cyanide		0.000	1	0.000		20

Laboratory Control Sample (LCS)

(LCS) R3434124-2 07/25/19 10:37

Analyte	Spike Amount	LCS Result	LCS Rec.	Rec. Limits	LCS Qualifier
Cyanide	100	97.8	97.8	85.0-115	

L1119387-02 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1119387-02 07/25/19 10:42 • (MS) R3434124-4 07/25/19 10:43 • (MSD) R3434124-5 07/25/19 10:44

Analyte	Spike Amount	Original Result	MS Result	MSD Result	MS Rec.	MSD Rec.	Dilution	Rec. Limits	MS Qualifier	MSD Qualifier	RPD	RPD Limits
Cyanide	100	ND	103	90.7	98.8	86.5	1	75.0-125			12.7	20

Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) • (MS) R3434124-7 07/25/19 11:02 • (MSD) R3434124-8 07/25/19 11:03

Analyte	Spike Amount	Original Result	MS Result	MSD Result	MS Rec.	MSD Rec.	Dilution	Rec. Limits	MS Qualifier	MSD Qualifier	RPD	RPD Limits
Cyanide	100		96.8	97.1	92.7	93.0	1	75.0-125			0.309	20



Method Blank (MB)

(MB) R3431959-1 07/18/19 12:29

Analyte	MB Result ug/l	MB Qualifier	MB MDL ug/l	MB RDL ug/l
Mercury	U		0.0490	0.200

<sup>1</sup>Cp

<sup>2</sup>Tc

<sup>3</sup>Ss

<sup>4</sup>Cn

<sup>5</sup>Sr

<sup>6</sup>Qc

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3431959-2 07/18/19 12:32 • (LCSD) R3431959-5 07/18/19 14:23

Analyte	Spike Amount ug/l	LCS Result ug/l	LCSD Result ug/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Mercury	3.00	3.24	3.15	108	105	80.0-120			2.88	20

<sup>7</sup>Gl

<sup>8</sup>Al

L1119314-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1119314-01 07/18/19 12:36 • (MS) R3431959-3 07/18/19 12:39 • (MSD) R3431959-4 07/18/19 12:41

Analyte	Spike Amount ug/l	Original Result ug/l	MS Result ug/l	MSD Result ug/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Mercury	3.00	ND	3.21	3.22	107	107	1	75.0-125			0.241	20

<sup>9</sup>Sc



Method Blank (MB)

(MB) R3432152-1 07/19/19 02:09

Analyte	MB Result	MB Qualifier	MB MDL	MB RDL
	ug/l		ug/l	ug/l
Aluminum	U		35.0	200
Antimony	U		7.50	10.0
Arsenic	U		6.50	10.0
Barium	U		1.70	5.00
Beryllium	U		0.700	2.00
Cadmium	U		0.700	2.00
Calcium	U		46.3	1000
Chromium	U		1.40	10.0
Cobalt	U		2.30	10.0
Copper	U		5.30	10.0
Iron	U		14.1	100
Lead	U		1.90	5.00
Magnesium	U		11.1	1000
Manganese	U		1.20	10.0
Nickel	U		4.90	10.0
Potassium	U		102	1000
Selenium	U		7.40	10.0
Silver	U		2.80	5.00
Sodium	136	J	98.5	1000
Thallium	U		6.50	10.0
Vanadium	U		2.40	20.0
Zinc	U		5.90	50.0

<sup>1</sup> Cp

<sup>2</sup> Tc

<sup>3</sup> Ss

<sup>4</sup> Cn

<sup>5</sup> Sr

<sup>6</sup> Qc

<sup>7</sup> Gl

<sup>8</sup> Al

<sup>9</sup> Sc

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3432152-2 07/19/19 02:11 • (LCSD) R3432152-3 07/19/19 02:14

Analyte	Spike Amount	LCS Result	LCSD Result	LCS Rec.	LCSD Rec.	Rec. Limits	LCS Qualifier	LCSD Qualifier	RPD	RPD Limits
	ug/l	ug/l	ug/l	%	%	%			%	%
Aluminum	10000	10000	10000	100	100	80.0-120			0.144	20
Antimony	1000	995	995	99.5	99.2	80.0-120			0.290	20
Arsenic	1000	962	959	96.2	95.9	80.0-120			0.282	20
Barium	1000	1040	1040	104	104	80.0-120			0.0858	20
Beryllium	1000	989	986	98.9	98.6	80.0-120			0.251	20
Cadmium	1000	996	995	99.6	99.5	80.0-120			0.0445	20
Calcium	10000	10000	10000	100	100	80.0-120			0.0268	20
Chromium	1000	996	991	99.6	99.1	80.0-120			0.487	20
Cobalt	1000	1010	1010	101	101	80.0-120			0.00857	20
Copper	1000	967	967	96.7	96.7	80.0-120			0.0528	20
Iron	10000	9920	9930	99.2	99.3	80.0-120			0.0512	20



[L1119444-01,02,03,04,05,06](#)

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3432152-2 07/19/19 02:11 • (LCSD) R3432152-3 07/19/19 02:14

Analyte	Spike Amount ug/l	LCS Result ug/l	LCSD Result ug/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	<u>LCS Qualifier</u>	<u>LCSD Qualifier</u>	RPD %	RPD Limits %
Lead	1000	985	984	98.5	98.4	80.0-120			0.0741	20
Magnesium	10000	10100	10200	101	102	80.0-120			0.136	20
Manganese	1000	973	968	97.3	96.8	80.0-120			0.573	20
Nickel	1000	1010	1010	101	101	80.0-120			0.0120	20
Potassium	10000	9550	9580	95.5	95.8	80.0-120			0.305	20
Selenium	1000	951	952	95.1	95.2	80.0-120			0.0676	20
Silver	200	192	192	95.8	95.8	80.0-120			0.0696	20
Sodium	10000	10000	9980	100	99.8	80.0-120			0.226	20
Thallium	1000	1000	993	100	99.3	80.0-120			0.703	20
Vanadium	1000	1010	1010	101	101	80.0-120			0.626	20
Zinc	1000	974	973	97.4	97.3	80.0-120			0.0344	20

<sup>1</sup> Cp

<sup>2</sup> Tc

<sup>3</sup> Ss

<sup>4</sup> Cn

<sup>5</sup> Sr

<sup>6</sup> Qc

<sup>7</sup> Gl

<sup>8</sup> Al

<sup>9</sup> Sc

L1119398-06 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1119398-06 07/19/19 02:17 • (MS) R3432152-5 07/19/19 02:22 • (MSD) R3432152-6 07/19/19 02:25

Analyte	Spike Amount ug/l	Original Result ug/l	MS Result ug/l	MSD Result ug/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	<u>MS Qualifier</u>	<u>MSD Qualifier</u>	RPD %	RPD Limits %
Aluminum	10000	U	10200	10100	102	101	1	75.0-125			0.830	20
Antimony	1000	U	992	1000	99.2	100	1	75.0-125			0.963	20
Arsenic	1000	U	961	963	96.1	96.3	1	75.0-125			0.293	20
Barium	1000	U	1040	1040	104	104	1	75.0-125			0.300	20
Beryllium	1000	U	997	1000	99.7	100	1	75.0-125			0.456	20
Cadmium	1000	U	1000	996	100	99.6	1	75.0-125			0.405	20
Calcium	10000	U	10100	10000	101	100	1	75.0-125			0.907	20
Chromium	1000	U	995	997	99.5	99.7	1	75.0-125			0.185	20
Cobalt	1000	U	1020	1020	102	102	1	75.0-125			0.440	20
Copper	1000	U	975	970	97.5	97.0	1	75.0-125			0.566	20
Iron	10000	80.9	10100	10100	100	99.9	1	75.0-125			0.599	20
Lead	1000	U	990	984	99.0	98.4	1	75.0-125			0.597	20
Magnesium	10000	22.1	10300	10100	103	101	1	75.0-125			2.36	20
Manganese	1000	U	975	971	97.5	97.1	1	75.0-125			0.431	20
Nickel	1000	U	1010	1010	101	101	1	75.0-125			0.434	20
Potassium	10000	102	9630	9580	96.3	95.8	1	75.0-125			0.535	20
Selenium	1000	U	954	950	95.4	95.0	1	75.0-125			0.362	20
Silver	200	U	193	191	96.6	95.7	1	75.0-125			1.01	20
Sodium	10000	205	10100	10000	98.8	98.3	1	75.0-125			0.466	20
Thallium	1000	4.66	978	1020	97.3	102	1	75.0-125			4.51	20
Vanadium	1000	6.53	1010	1010	100	100	1	75.0-125			0.117	20
Zinc	1000	6.15	980	979	97.4	97.3	1	75.0-125			0.136	20



Method Blank (MB)

(MB) R3432678-4 07/18/19 13:18

Analyte	MB Result ug/l	MB Qualifier	MB MDL ug/l	MB RDL ug/l
Benzene	U		0.331	1.00
Bromochloromethane	U		0.520	1.00
Bromodichloromethane	U		0.380	1.00
Bromoform	U		0.469	1.00
Bromomethane	U		0.866	5.00
Carbon disulfide	U		0.275	1.00
Carbon tetrachloride	U		0.379	1.00
Chlorobenzene	U		0.348	1.00
Chlorodibromomethane	U		0.327	1.00
Chloroethane	U		0.453	5.00
Chloroform	U		0.324	5.00
Cyclohexane	U		0.390	1.00
Chloromethane	U		0.276	2.50
1,2-Dibromo-3-Chloropropane	U		1.33	5.00
1,2-Dibromoethane	U		0.381	1.00
1,2-Dichlorobenzene	U		0.349	1.00
1,3-Dichlorobenzene	U		0.220	1.00
1,4-Dichlorobenzene	U		0.274	1.00
Dichlorodifluoromethane	U		0.551	5.00
1,1-Dichloroethane	U		0.259	1.00
1,2-Dichloroethane	U		0.361	1.00
1,1-Dichloroethene	U		0.398	1.00
cis-1,2-Dichloroethene	U		0.260	1.00
trans-1,2-Dichloroethene	U		0.396	1.00
1,2-Dichloropropane	U		0.306	1.00
cis-1,3-Dichloropropene	U		0.418	1.00
trans-1,3-Dichloropropene	U		0.419	1.00
Ethylbenzene	U		0.384	1.00
2-Hexanone	U		3.82	10.0
Isopropylbenzene	U		0.326	1.00
Methyl Acetate	U		4.30	20.0
2-Butanone (MEK)	U		3.93	10.0
Methyl Cyclohexane	U		0.380	1.00
Methylene Chloride	U		1.00	5.00
4-Methyl-2-pentanone (MIBK)	U		2.14	10.0
Methyl tert-butyl ether	U		0.367	1.00
Styrene	U		0.307	1.00
1,1,2,2-Tetrachloroethane	U		0.130	1.00
Tetrachloroethene	U		0.372	1.00
Toluene	U		0.412	1.00

<sup>1</sup> Cp

<sup>2</sup> Tc

<sup>3</sup> Ss

<sup>4</sup> Cn

<sup>5</sup> Sr

<sup>6</sup> Qc

<sup>7</sup> Gl

<sup>8</sup> Al

<sup>9</sup> Sc



Method Blank (MB)

(MB) R3432678-4 07/18/19 13:18

Analyte	MB Result ug/l	MB Qualifier	MB MDL ug/l	MB RDL ug/l
1,1,2-Trichlorotrifluoroethane	U		0.303	1.00
1,2,3-Trichlorobenzene	U		0.230	1.00
1,2,4-Trichlorobenzene	U		0.355	1.00
1,1,1-Trichloroethane	U		0.319	1.00
1,1,2-Trichloroethane	U		0.383	1.00
Trichloroethene	U		0.398	1.00
Trichlorofluoromethane	U		1.20	5.00
Vinyl chloride	U		0.259	1.00
Xylenes, Total	U		1.06	3.00
(S) Toluene-d8	101			80.0-120
(S) 4-Bromofluorobenzene	110			77.0-126
(S) 1,2-Dichloroethane-d4	96.1			70.0-130

<sup>1</sup> Cp

<sup>2</sup> Tc

<sup>3</sup> Ss

<sup>4</sup> Cn

<sup>5</sup> Sr

<sup>6</sup> Qc

<sup>7</sup> Gl

<sup>8</sup> Al

<sup>9</sup> Sc

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3432678-1 07/18/19 11:58 • (LCSD) R3432678-2 07/18/19 12:18

Analyte	Spike Amount ug/l	LCS Result ug/l	LCSD Result ug/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Bromochloromethane	25.0	27.4	26.2	110	105	70.0-130			4.84	20
Benzene	25.0	24.3	22.9	97.0	91.8	70.0-130			5.57	20
Carbon disulfide	25.0	25.1	22.9	100	91.5	70.0-130			9.23	20
Bromodichloromethane	25.0	27.3	25.5	109	102	70.0-130			6.64	20
Bromoform	25.0	25.0	24.1	100	96.2	70.0-130			3.91	20
Bromomethane	25.0	27.2	24.7	109	98.9	70.0-130			9.62	25
Carbon tetrachloride	25.0	26.3	22.8	105	91.1	70.0-130			14.3	20
1,2-Dibromo-3-Chloropropane	25.0	20.2	19.7	80.7	78.8	70.0-130			2.30	20
Chlorobenzene	25.0	23.3	22.7	93.4	90.7	70.0-130			2.95	20
Chlorodibromomethane	25.0	24.1	24.0	96.6	96.0	70.0-130			0.619	20
Chloroethane	25.0	26.8	23.8	107	95.3	70.0-130			11.7	20
Chloroform	25.0	25.2	23.1	101	92.5	70.0-130			8.69	20
Chloromethane	25.0	26.0	23.8	104	95.1	70.0-130			9.00	20
1,2-Dibromoethane	25.0	23.8	24.0	95.2	96.0	70.0-130			0.914	20
1,2-Dichlorobenzene	25.0	22.6	22.7	90.3	90.7	70.0-130			0.379	20
1,3-Dichlorobenzene	25.0	22.0	21.5	88.0	86.1	70.0-130			2.22	20
1,4-Dichlorobenzene	25.0	22.1	21.7	88.6	86.7	70.0-130			2.10	20
Dichlorodifluoromethane	25.0	36.9	33.5	147	134	70.0-130	<u>J4</u>	<u>J4</u>	9.59	20
1,1-Dichloroethane	25.0	25.4	23.6	102	94.5	70.0-130			7.23	20
1,2-Dichloroethane	25.0	25.5	23.2	102	92.6	70.0-130			9.83	20
1,1-Dichloroethene	25.0	26.1	24.2	105	97.0	70.0-130			7.48	20





Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3432678-1 07/18/19 11:58 • (LCSD) R3432678-2 07/18/19 12:18

Analyte	Spike Amount ug/l	LCS Result ug/l	LCSD Result ug/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
cis-1,2-Dichloroethene	25.0	25.9	23.7	104	94.9	70.0-130			8.71	20
trans-1,2-Dichloroethene	25.0	26.7	25.4	107	102	70.0-130			4.91	20
1,2-Dichloropropane	25.0	23.7	21.8	94.8	87.4	70.0-130			8.10	20
cis-1,3-Dichloropropene	25.0	27.5	25.3	110	101	70.0-130			8.52	20
trans-1,3-Dichloropropene	25.0	22.9	22.4	91.6	89.7	70.0-130			2.09	20
Ethylbenzene	25.0	23.7	23.0	94.7	91.9	70.0-130			2.96	20
2-Hexanone	125	96.8	99.1	77.4	79.3	70.0-130			2.43	20
Isopropylbenzene	25.0	24.0	22.8	96.1	91.1	70.0-130			5.40	20
2-Butanone (MEK)	125	101	97.7	80.8	78.1	70.0-130			3.33	20
Methylene Chloride	25.0	23.4	22.6	93.6	90.2	70.0-130			3.65	20
4-Methyl-2-pentanone (MIBK)	125	93.4	94.1	74.8	75.3	70.0-130			0.659	20
Methyl tert-butyl ether	25.0	24.6	24.0	98.4	96.2	70.0-130			2.28	20
Styrene	25.0	23.6	23.5	94.4	94.2	70.0-130			0.266	20
1,1,2,2-Tetrachloroethane	25.0	18.3	18.8	73.3	75.4	70.0-130			2.77	20
Tetrachloroethene	25.0	23.9	23.3	95.6	93.1	70.0-130			2.59	20
Toluene	25.0	22.7	21.6	90.8	86.3	70.0-130			5.09	20
1,2,3-Trichlorobenzene	25.0	23.3	24.1	93.2	96.2	70.0-130			3.20	20
1,2,4-Trichlorobenzene	25.0	24.9	24.7	99.6	98.7	70.0-130			0.924	20
1,1,1-Trichloroethane	25.0	27.0	24.3	108	97.4	70.0-130			10.2	20
1,1,2-Trichloroethane	25.0	23.0	22.9	92.1	91.8	70.0-130			0.364	20
1,1,2-Trichlorotrifluoroethane	25.0	20.6	18.8	82.2	75.0	70.0-130			9.15	20
Trichloroethene	25.0	28.0	26.7	112	107	70.0-130			4.87	20
Trichlorofluoromethane	25.0	26.3	22.9	105	91.4	70.0-130			14.2	20
Vinyl chloride	25.0	25.9	23.1	104	92.6	70.0-130			11.4	20
Xylenes, Total	75.0	71.8	68.7	95.7	91.6	70.0-130			4.41	20
<i>(S) Toluene-d8</i>				98.2	97.8	80.0-120				
<i>(S) 4-Bromofluorobenzene</i>				108	108	77.0-126				
<i>(S) 1,2-Dichloroethane-d4</i>				110	100	70.0-130				

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc



Method Blank (MB)

(MB) R3433046-3 07/22/19 10:49

Analyte	MB Result	MB Qualifier	MB MDL	MB RDL
	ug/l		ug/l	ug/l
Acetone	U		10.0	50.0
(S) Toluene-d8	110			80.0-120
(S) 4-Bromofluorobenzene	105			77.0-126
(S) 1,2-Dichloroethane-d4	105			70.0-130

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3433046-1 07/22/19 09:43 • (LCSD) R3433046-2 07/22/19 10:05

Analyte	Spike Amount	LCS Result	LCSD Result	LCS Rec.	LCSD Rec.	Rec. Limits	LCS Qualifier	LCSD Qualifier	RPD	RPD Limits
	ug/l	ug/l	ug/l	%	%	%			%	%
Acetone	125	137	137	109	109	70.0-130			0.0392	27
(S) Toluene-d8				103	106	80.0-120				
(S) 4-Bromofluorobenzene				100	105	77.0-126				
(S) 1,2-Dichloroethane-d4				108	108	70.0-130				

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc



Method Blank (MB)

(MB) R3432663-2 07/21/19 08:18

Analyte	MB Result ug/l	MB Qualifier	MB MDL ug/l	MB RDL ug/l
Aldrin	U		0.00813	0.0500
Alpha BHC	U		0.0166	0.0500
Beta BHC	U		0.0184	0.0500
Delta BHC	U		0.0197	0.0500
Gamma BHC	U		0.0176	0.0500
4,4-DDD	U		0.0170	0.0500
4,4-DDE	U		0.0164	0.0500
4,4-DDT	U		0.0177	0.0500
Dieldrin	U		0.00751	0.0500
Endosulfan I	U		0.0179	0.0500
Endosulfan II	U		0.0176	0.0500
Endosulfan sulfate	U		0.0196	0.0500
Endrin	U		0.0189	0.0500
Endrin aldehyde	U		0.0142	0.0500
Endrin ketone	U		0.0170	0.0500
Heptachlor	U		0.0108	0.0500
Heptachlor epoxide	U		0.0175	0.0500
Hexachlorobenzene	U		0.0134	0.0500
Methoxychlor	U		0.0193	0.0500
Chlordane	U		0.0977	5.00
Toxaphene	U		0.168	0.500
(S) Decachlorobiphenyl	92.7			10.0-128
(S) Tetrachloro-m-xylene	58.9			10.0-127

<sup>1</sup> Cp

<sup>2</sup> Tc

<sup>3</sup> Ss

<sup>4</sup> Cn

<sup>5</sup> Sr

<sup>6</sup> Qc

<sup>7</sup> Gl

<sup>8</sup> Al

<sup>9</sup> Sc

Laboratory Control Sample (LCS)

(LCS) R3432663-1 07/21/19 08:04

Analyte	Spike Amount ug/l	LCS Result ug/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Aldrin	1.00	0.674	67.4	70.0-130	<u>J4</u>
Alpha BHC	1.00	0.780	78.0	70.0-130	
Beta BHC	1.00	0.807	80.7	70.0-130	
Delta BHC	1.00	0.845	84.5	70.0-130	
Gamma BHC	1.00	0.797	79.7	70.0-130	
4,4-DDD	1.00	0.869	86.9	70.0-130	
4,4-DDE	1.00	0.878	87.8	70.0-130	
4,4-DDT	1.00	0.911	91.1	70.0-130	
Dieldrin	1.00	0.859	85.9	70.0-130	
Endosulfan I	1.00	0.863	86.3	70.0-130	



Laboratory Control Sample (LCS)

(LCS) R3432663-1 07/21/19 08:04

Analyte	Spike Amount ug/l	LCS Result ug/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Endosulfan II	1.00	0.879	87.9	70.0-130	
Endosulfan sulfate	1.00	0.877	87.7	70.0-130	
Endrin	1.00	0.887	88.7	70.0-130	
Endrin aldehyde	1.00	0.867	86.7	70.0-130	
Endrin ketone	1.00	0.896	89.6	70.0-130	
Heptachlor	1.00	0.707	70.7	70.0-130	
Heptachlor epoxide	1.00	0.903	90.3	70.0-130	
Hexachlorobenzene	1.00	0.607	60.7	70.0-130	J4
Methoxychlor	1.00	0.907	90.7	70.0-130	
<i>(S) Decachlorobiphenyl</i>			86.3	10.0-128	
<i>(S) Tetrachloro-m-xylene</i>			67.1	10.0-127	

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

L1119452-02 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1119452-02 07/21/19 12:15 • (MS) R3432663-3 07/21/19 12:29 • (MSD) R3432663-4 07/21/19 12:44

Analyte	Spike Amount ug/l	Original Result ug/l	MS Result ug/l	MSD Result ug/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Aldrin	1.00	ND	0.746	0.735	74.6	73.5	1	35.0-126			1.49	24
Alpha BHC	1.00	ND	0.843	0.815	84.3	81.5	1	55.0-133			3.38	20
Beta BHC	1.00	ND	0.861	0.840	86.1	84.0	1	59.0-131			2.47	20
Delta BHC	1.00	ND	0.901	0.889	90.1	88.9	1	61.0-134			1.34	20
Gamma BHC	1.00	ND	0.861	0.834	86.1	83.4	1	56.0-133			3.19	20
4,4-DDD	1.00	ND	0.920	0.906	92.0	90.6	1	59.0-138			1.53	20
4,4-DDE	1.00	ND	0.911	0.895	91.1	89.5	1	58.0-131			1.77	20
4,4-DDT	1.00	ND	0.931	0.915	93.1	91.5	1	43.0-147			1.73	20
Dieldrin	1.00	ND	0.910	0.894	91.0	89.4	1	62.0-136			1.77	20
Endosulfan I	1.00	ND	0.907	0.892	90.7	89.2	1	62.0-137			1.67	20
Endosulfan II	1.00	ND	0.917	0.904	91.7	90.4	1	62.0-136			1.43	20
Endosulfan sulfate	1.00	ND	0.893	0.911	89.3	91.1	1	60.0-139			2.00	20
Endrin	1.00	ND	0.923	0.907	92.3	90.7	1	58.0-135			1.75	20
Endrin aldehyde	1.00	ND	0.910	0.905	91.0	90.5	1	56.0-128			0.551	20
Endrin ketone	1.00	ND	0.935	0.938	93.5	93.8	1	54.0-142			0.320	20
Heptachlor	1.00	ND	0.777	0.754	77.7	75.4	1	37.0-134			3.00	24
Heptachlor epoxide	1.00	ND	0.934	0.933	93.4	93.3	1	60.0-132			0.107	20
Hexachlorobenzene	1.00	ND	0.648	0.637	64.8	63.7	1	35.0-120			1.71	25
Methoxychlor	1.00	ND	0.910	0.914	91.0	91.4	1	44.0-160			0.439	22
<i>(S) Decachlorobiphenyl</i>					87.6	90.4		10.0-128				
<i>(S) Tetrachloro-m-xylene</i>					72.3	75.9		10.0-127				



Method Blank (MB)

(MB) R3433710-2 07/24/19 08:36

Analyte	MB Result ug/l	MB Qualifier	MB MDL ug/l	MB RDL ug/l
Aldrin	U		0.00813	0.0500
Alpha BHC	U		0.0166	0.0500
Beta BHC	U		0.0184	0.0500
Delta BHC	U		0.0197	0.0500
Gamma BHC	U		0.0176	0.0500
4,4-DDD	U		0.0170	0.0500
4,4-DDE	U		0.0164	0.0500
4,4-DDT	U		0.0177	0.0500
Dieldrin	U		0.00751	0.0500
Endosulfan I	U		0.0179	0.0500
Endosulfan II	U		0.0176	0.0500
Endosulfan sulfate	U		0.0196	0.0500
Endrin	U		0.0189	0.0500
Endrin aldehyde	U		0.0142	0.0500
Endrin ketone	U		0.0170	0.0500
Heptachlor	U		0.0108	0.0500
Heptachlor epoxide	U		0.0175	0.0500
Hexachlorobenzene	U		0.0134	0.0500
Methoxychlor	U		0.0193	0.0500
Chlordane	U		0.0977	5.00
Toxaphene	U		0.168	0.500
(S) Decachlorobiphenyl	93.7			10.0-128
(S) Tetrachloro-m-xylene	53.0			10.0-127

- 1 Cp
- 2 Tc
- 3 Ss
- 4 Cn
- 5 Sr
- 6 Qc
- 7 Gl
- 8 Al
- 9 Sc

Laboratory Control Sample (LCS)

(LCS) R3433710-1 07/24/19 08:24

Analyte	Spike Amount ug/l	LCS Result ug/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Aldrin	1.00	0.841	84.1	70.0-130	
Alpha BHC	1.00	1.01	101	70.0-130	
Beta BHC	1.00	0.944	94.4	70.0-130	
Delta BHC	1.00	0.970	97.0	70.0-130	
Gamma BHC	1.00	0.965	96.5	70.0-130	
4,4-DDD	1.00	0.968	96.8	70.0-130	
4,4-DDE	1.00	0.995	99.5	70.0-130	
4,4-DDT	1.00	1.01	101	70.0-130	
Dieldrin	1.00	0.925	92.5	70.0-130	
Endosulfan I	1.00	0.986	98.6	70.0-130	



Laboratory Control Sample (LCS)

(LCS) R3433710-1 07/24/19 08:24

Analyte	Spike Amount ug/l	LCS Result ug/l	LCS Rec. %	Rec. Limits %	<u>LCS Qualifier</u>
Endosulfan II	1.00	0.964	96.4	70.0-130	
Endosulfan sulfate	1.00	0.957	95.7	70.0-130	
Endrin	1.00	0.972	97.2	70.0-130	
Endrin aldehyde	1.00	0.929	92.9	70.0-130	
Endrin ketone	1.00	1.15	115	70.0-130	
Heptachlor	1.00	0.968	96.8	70.0-130	
Heptachlor epoxide	1.00	0.979	97.9	70.0-130	
Hexachlorobenzene	1.00	0.873	87.3	70.0-130	
Methoxychlor	1.00	1.08	108	70.0-130	
<i>(S) Decachlorobiphenyl</i>			93.9	10.0-128	
<i>(S) Tetrachloro-m-xylene</i>			83.1	10.0-127	

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

L1119406-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1119406-01 07/24/19 10:03 • (MS) R3433710-3 07/24/19 10:16 • (MSD) R3433710-4 07/24/19 10:28

Analyte	Spike Amount ug/l	Original Result ug/l	MS Result ug/l	MSD Result ug/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	<u>MS Qualifier</u>	<u>MSD Qualifier</u>	RPD %	RPD Limits %
Aldrin	1.00	ND	0.564	0.580	56.4	58.0	1	35.0-126			2.80	24
Alpha BHC	1.00	ND	0.748	0.769	74.8	76.9	1	55.0-133			2.77	20
Beta BHC	1.00	ND	0.728	0.772	72.8	77.2	1	59.0-131			5.87	20
Delta BHC	1.00	ND	1.02	1.09	102	109	1	61.0-134			6.64	20
Gamma BHC	1.00	ND	0.776	0.792	77.6	79.2	1	56.0-133			2.04	20
4,4-DDD	1.00	ND	0.740	0.773	74.0	77.3	1	59.0-138			4.36	20
4,4-DDE	1.00	ND	0.688	0.698	68.8	69.8	1	58.0-131			1.44	20
4,4-DDT	1.00	ND	0.561	0.554	56.1	55.4	1	43.0-147			1.26	20
Dieldrin	1.00	ND	0.641	0.654	64.1	65.4	1	62.0-136			2.01	20
Endosulfan I	1.00	ND	0.655	0.677	65.5	67.7	1	62.0-137			3.30	20
Endosulfan II	1.00	ND	0.711	0.723	71.1	72.3	1	62.0-136			1.67	20
Endosulfan sulfate	1.00	ND	0.723	0.741	72.3	74.1	1	60.0-139			2.46	20
Endrin	1.00	ND	0.735	0.752	73.5	75.2	1	58.0-135			2.29	20
Endrin aldehyde	1.00	ND	0.533	0.545	53.3	54.5	1	56.0-128	J6	J6	2.23	20
Endrin ketone	1.00	ND	0.816	0.856	81.6	85.6	1	54.0-142			4.78	20
Heptachlor	1.00	ND	0.832	0.861	83.2	86.1	1	37.0-134			3.43	24
Heptachlor epoxide	1.00	ND	0.778	0.819	77.8	81.9	1	60.0-132			5.13	20
Hexachlorobenzene	1.00	ND	0.704	0.732	70.4	73.2	1	35.0-120			3.90	25
Methoxychlor	1.00	ND	0.646	0.627	64.6	62.7	1	44.0-160			2.99	22
<i>(S) Decachlorobiphenyl</i>					52.8	60.2		10.0-128				
<i>(S) Tetrachloro-m-xylene</i>					57.1	70.8		10.0-127				



Method Blank (MB)

(MB) R3432896-1 07/21/19 13:04

Analyte	MB Result	MB Qualifier	MB MDL	MB RDL
	ug/l		ug/l	ug/l
PCB 1260	U		0.120	0.500
PCB 1016	U		0.100	0.500
PCB 1221	U		0.0730	0.500
PCB 1232	U		0.0420	0.500
PCB 1242	U		0.0470	0.500
PCB 1248	U		0.0860	0.500
PCB 1254	U		0.0470	0.500
(S) Decachlorobiphenyl	91.0			10.0-128
(S) Tetrachloro-m-xylene	69.1			10.0-127

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

Laboratory Control Sample (LCS)

(LCS) R3432896-2 07/21/19 13:17

Analyte	Spike Amount	LCS Result	LCS Rec.	Rec. Limits	LCS Qualifier
	ug/l	ug/l	%	%	
PCB 1260	2.50	2.45	98.0	70.0-130	
PCB 1016	2.50	2.24	89.6	70.0-130	
(S) Decachlorobiphenyl			91.5	10.0-128	
(S) Tetrachloro-m-xylene			81.8	10.0-127	

7 Gl

8 Al

9 Sc

L1119452-02 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1119452-02 07/21/19 16:48 • (MS) R3432896-3 07/21/19 17:01 • (MSD) R3432896-4 07/21/19 17:13

Analyte	Spike Amount	Original Result	MS Result	MSD Result	MS Rec.	MSD Rec.	Dilution	Rec. Limits	MS Qualifier	MSD Qualifier	RPD	RPD Limits
	ug/l	ug/l	ug/l	ug/l	%	%		%			%	%
PCB 1260	2.50	ND	2.46	3.13	98.4	125	1	45.0-142			24.0	24
PCB 1016	2.50	ND	2.13	2.34	85.2	93.6	1	41.0-134			9.40	23
(S) Decachlorobiphenyl					122	126		10.0-128				
(S) Tetrachloro-m-xylene					86.8	91.5		10.0-127				



Method Blank (MB)

(MB) R3434197-1 07/24/19 15:43

Analyte	MB Result	MB Qualifier	MB MDL	MB RDL
	ug/l		ug/l	ug/l
PCB 1260	U		0.120	0.500
PCB 1016	U		0.100	0.500
PCB 1221	U		0.0730	0.500
PCB 1232	U		0.0420	0.500
PCB 1242	U		0.0470	0.500
PCB 1248	U		0.0860	0.500
PCB 1254	U		0.0470	0.500
(S) Decachlorobiphenyl	71.3			10.0-128
(S) Tetrachloro-m-xylene	36.7			10.0-127

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

Laboratory Control Sample (LCS)

(LCS) R3434197-2 07/24/19 15:57

Analyte	Spike Amount	LCS Result	LCS Rec.	Rec. Limits	LCS Qualifier
	ug/l	ug/l	%	%	
PCB 1260	2.50	2.00	80.0	70.0-130	
PCB 1016	2.50	1.89	75.6	70.0-130	
(S) Decachlorobiphenyl			73.8	10.0-128	
(S) Tetrachloro-m-xylene			66.0	10.0-127	

7 Gl

8 Al

9 Sc





Method Blank (MB)

(MB) R3433166-2 07/23/19 00:58

Analyte	MB Result ug/l	MB Qualifier	MB MDL ug/l	MB RDL ug/l
Acenaphthene	U		0.316	1.00
Acenaphthylene	U		0.309	1.00
Anthracene	U		0.291	1.00
Benzo(a)anthracene	U		0.0975	1.00
Benzo(b)fluoranthene	U		0.0896	1.00
Benzo(k)fluoranthene	U		0.355	1.00
Benzo(g,h,i)perylene	U		0.161	1.00
Benzo(a)pyrene	U		0.340	1.00
Bis(2-chlorethoxy)methane	U		0.329	10.0
Bis(2-chloroethyl)ether	U		1.62	10.0
Bis(2-chloroisopropyl)ether	U		0.445	10.0
4-Bromophenyl-phenylether	U		0.335	10.0
2-Chloronaphthalene	U		0.330	1.00
4-Chlorophenyl-phenylether	U		0.303	10.0
Chrysene	U		0.332	1.00
Dibenz(a,h)anthracene	U		0.279	1.00
3,3-Dichlorobenzidine	U		2.02	10.0
2,4-Dinitrotoluene	U		1.65	10.0
2,6-Dinitrotoluene	U		0.279	10.0
Fluoranthene	U		0.310	1.00
Fluorene	U		0.323	1.00
Hexachlorobenzene	U		0.341	1.00
Hexachloro-1,3-butadiene	U		0.329	10.0
Hexachlorocyclopentadiene	U		2.33	10.0
Hexachloroethane	U		0.365	10.0
Indeno(1,2,3-cd)pyrene	U		0.279	1.00
Isophorone	U		0.272	10.0
Naphthalene	U		0.372	1.00
Nitrobenzene	U		0.367	10.0
n-Nitrosodiphenylamine	U		1.19	10.0
n-Nitrosodi-n-propylamine	U		0.403	10.0
Phenanthrene	U		0.366	1.00
Benzylbutyl phthalate	U		0.275	3.00
Bis(2-ethylhexyl)phthalate	U		0.709	3.00
Di-n-butyl phthalate	U		0.266	3.00
Diethyl phthalate	U		0.282	3.00
Dimethyl phthalate	U		0.283	3.00
Di-n-octyl phthalate	U		0.278	3.00
Pyrene	U		0.330	1.00
4-Chloroaniline	U		0.382	10.0

<sup>1</sup> Cp

<sup>2</sup> Tc

<sup>3</sup> Ss

<sup>4</sup> Cn

<sup>5</sup> Sr

<sup>6</sup> Qc

<sup>7</sup> Gl

<sup>8</sup> Al

<sup>9</sup> Sc



Method Blank (MB)

(MB) R3433166-2 07/23/19 00:58

Analyte	MB Result ug/l	MB Qualifier	MB MDL ug/l	MB RDL ug/l
4-Chloro-3-methylphenol	U		0.263	10.0
2-Chlorophenol	U		0.283	10.0
Dibenzofuran	U		0.338	10.0
2,4-Dichlorophenol	U		0.284	10.0
2,4-Dimethylphenol	U		0.624	10.0
4,6-Dinitro-2-methylphenol	U		2.62	10.0
2,4-Dinitrophenol	U		3.25	10.0
2-Methylnaphthalene	U		0.311	1.00
2-Methylphenol	U		0.312	10.0
3&4-Methyl Phenol	U		0.266	10.0
2-Nitroaniline	U		1.90	10.0
3-Nitroaniline	U		0.308	10.0
4-Nitroaniline	U		0.349	10.0
2-Nitrophenol	U		0.320	10.0
4-Nitrophenol	U		2.01	10.0
Pentachlorophenol	U		0.313	10.0
Phenol	U		0.334	10.0
2,4,5-Trichlorophenol	U		0.236	10.0
2,4,6-Trichlorophenol	U		0.297	10.0
Acetophenone	U		2.71	10.0
Atrazine	U		1.53	10.0
Benzaldehyde	U		1.40	10.0
Biphenyl	U		0.206	10.0
Caprolactam	U		0.583	10.0
Carbazole	U		0.162	10.0
1,2,4,5-Tetrachlorobenzene	U		2.41	10.0
(S) 2-Fluorophenol	30.9			10.0-120
(S) Phenol-d5	18.9			10.0-120
(S) Nitrobenzene-d5	37.6			10.0-127
(S) 2-Fluorobiphenyl	35.4			10.0-130
(S) 2,4,6-Tribromophenol	60.0			10.0-155
(S) p-Terphenyl-d14	69.3			10.0-128

<sup>1</sup> Cp

<sup>2</sup> Tc

<sup>3</sup> Ss

<sup>4</sup> Cn

<sup>5</sup> Sr

<sup>6</sup> Qc

<sup>7</sup> Gl

<sup>8</sup> Al

<sup>9</sup> Sc



Laboratory Control Sample (LCS)

(LCS) R3433166-1 07/23/19 00:35

Analyte	Spike Amount ug/l	LCS Result ug/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Acenaphthene	50.0	23.2	46.4	70.0-130	J4
Acenaphthylene	50.0	24.1	48.2	70.0-130	J4
Anthracene	50.0	29.1	58.2	70.0-130	J4
Benzo(a)anthracene	50.0	36.1	72.2	70.0-130	
Benzo(b)fluoranthene	50.0	34.1	68.2	70.0-130	J4
Benzo(k)fluoranthene	50.0	34.0	68.0	70.0-130	J4
Benzo(g,h,i)perylene	50.0	32.7	65.4	70.0-130	J4
Benzo(a)pyrene	50.0	32.4	64.8	70.0-130	J4
Bis(2-chloroethoxy)methane	50.0	24.4	48.8	70.0-130	J4
Bis(2-chloroethyl)ether	50.0	20.7	41.4	70.0-130	J4
Bis(2-chloroisopropyl)ether	50.0	21.3	42.6	70.0-130	J4
4-Bromophenyl-phenylether	50.0	30.5	61.0	70.0-130	J4
2-Chloronaphthalene	50.0	21.0	42.0	70.0-130	J4
4-Chlorophenyl-phenylether	50.0	27.8	55.6	70.0-130	J4
Chrysene	50.0	35.1	70.2	70.0-130	
Dibenz(a,h)anthracene	50.0	33.2	66.4	70.0-130	J4
3,3-Dichlorobenzidine	100	69.2	69.2	70.0-130	J4
2,4-Dinitrotoluene	50.0	34.0	68.0	70.0-130	J4
2,6-Dinitrotoluene	50.0	30.9	61.8	70.0-130	J4
Fluoranthene	50.0	33.7	67.4	70.0-130	J4
Fluorene	50.0	26.8	53.6	70.0-130	J4
Hexachlorobenzene	50.0	29.6	59.2	70.0-130	J4
Hexachloro-1,3-butadiene	50.0	18.4	36.8	70.0-130	J4
Hexachlorocyclopentadiene	50.0	16.3	32.6	70.0-130	J4
Hexachloroethane	50.0	15.8	31.6	70.0-130	J4
Indeno(1,2,3-cd)pyrene	50.0	33.1	66.2	70.0-130	J4
Isophorone	50.0	24.6	49.2	70.0-130	J4
Naphthalene	50.0	18.9	37.8	70.0-130	J4
Nitrobenzene	50.0	20.2	40.4	70.0-130	J4
n-Nitrosodiphenylamine	50.0	31.1	62.2	70.0-130	J4
n-Nitrosodi-n-propylamine	50.0	26.2	52.4	70.0-130	J4
Phenanthrene	50.0	28.8	57.6	70.0-130	J4
Benzylbutyl phthalate	50.0	34.7	69.4	70.0-130	J4
Bis(2-ethylhexyl)phthalate	50.0	35.4	70.8	70.0-130	
Di-n-butyl phthalate	50.0	35.1	70.2	70.0-130	
Diethyl phthalate	50.0	31.2	62.4	70.0-130	J4
Dimethyl phthalate	50.0	31.0	62.0	70.0-130	J4
Di-n-octyl phthalate	50.0	32.1	64.2	70.0-130	J4
Pyrene	50.0	32.8	65.6	70.0-130	J4
4-Chloroaniline	50.0	23.5	47.0	70.0-130	J4

<sup>1</sup> Cp

<sup>2</sup> Tc

<sup>3</sup> Ss

<sup>4</sup> Cn

<sup>5</sup> Sr

<sup>6</sup> Qc

<sup>7</sup> Gl

<sup>8</sup> Al

<sup>9</sup> Sc



Laboratory Control Sample (LCS)

(LCS) R3433166-1 07/23/19 00:35

Analyte	Spike Amount ug/l	LCS Result ug/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
4-Chloro-3-methylphenol	50.0	28.0	56.0	70.0-130	J4
2-Chlorophenol	50.0	22.0	44.0	70.0-130	J4
Dibenzofuran	50.0	25.3	50.6	70.0-130	J4
2,4-Dichlorophenol	50.0	25.0	50.0	70.0-130	J4
2,4-Dimethylphenol	50.0	23.0	46.0	70.0-130	J4
4,6-Dinitro-2-methylphenol	50.0	36.8	73.6	70.0-130	
2,4-Dinitrophenol	50.0	32.6	65.2	70.0-130	J4
2-Methylnaphthalene	50.0	19.8	39.6	70.0-130	J4
2-Methylphenol	50.0	22.8	45.6	70.0-130	J4
3&4-Methyl Phenol	50.0	25.0	50.0	70.0-130	J4
2-Nitroaniline	50.0	31.1	62.2	70.0-130	J4
3-Nitroaniline	50.0	31.3	62.6	70.0-130	J4
4-Nitroaniline	50.0	31.9	63.8	70.0-130	J4
2-Nitrophenol	50.0	25.6	51.2	70.0-130	J4
4-Nitrophenol	50.0	14.3	28.6	70.0-130	J4
Pentachlorophenol	50.0	30.3	60.6	70.0-130	J4
Phenol	50.0	10.3	20.6	70.0-130	J4
2,4,5-Trichlorophenol	50.0	32.4	64.8	70.0-130	J4
2,4,6-Trichlorophenol	50.0	29.6	59.2	70.0-130	J4
Acetophenone	50.0	24.9	49.8	70.0-130	J4
Atrazine	50.0	33.1	66.2	70.0-130	J4
Benzaldehyde	50.0	24.7	49.4	70.0-130	J4
Biphenyl	50.0	22.5	45.0	70.0-130	J4
Caprolactam	50.0	11.8	23.6	70.0-130	J4
Carbazole	50.0	34.5	69.0	70.0-130	J4
1,2,4,5-Tetrachlorobenzene	50.0	25.2	50.4	70.0-130	J4
(S) 2-Fluorophenol			29.6	10.0-120	
(S) Phenol-d5			19.3	10.0-120	
(S) Nitrobenzene-d5			48.7	10.0-127	
(S) 2-Fluorobiphenyl			41.7	10.0-130	
(S) 2,4,6-Tribromophenol			66.5	10.0-155	
(S) p-Terphenyl-d14			65.9	10.0-128	

<sup>1</sup> Cp

<sup>2</sup> Tc

<sup>3</sup> Ss

<sup>4</sup> Cn

<sup>5</sup> Sr

<sup>6</sup> Qc

<sup>7</sup> Gl

<sup>8</sup> Al

<sup>9</sup> Sc



L1119969-02 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1119969-02 07/23/19 03:10 • (MS) R3433166-3 07/23/19 03:32 • (MSD) R3433166-4 07/23/19 03:54

Analyte	Spike Amount ug/l	Original Result ug/l	MS Result ug/l	MSD Result ug/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Acenaphthene	50.0	U	31.1	23.8	62.2	47.6	1	25.0-143			26.6	29
Acenaphthylene	50.0	U	32.1	25.3	64.2	50.6	1	24.0-149			23.7	29
Anthracene	50.0	U	37.4	30.2	74.8	60.4	1	27.0-145			21.3	30
Benzo(a)anthracene	50.0	U	41.5	37.0	83.0	74.0	1	30.0-138			11.5	26
Benzo(b)fluoranthene	50.0	U	39.5	35.5	79.0	71.0	1	28.0-140			10.7	31
Benzo(k)fluoranthene	50.0	U	40.1	35.3	80.2	70.6	1	28.0-140			12.7	31
Benzo(g,h,i)perylene	50.0	U	39.3	34.8	78.6	69.6	1	26.0-149			12.1	27
Benzo(a)pyrene	50.0	U	38.7	34.0	77.4	68.0	1	28.0-139			12.9	29
Bis(2-chlorethoxy)methane	50.0	U	28.8	26.9	57.6	53.8	1	19.0-135			6.82	30
Bis(2-chloroethyl)ether	50.0	U	23.6	25.4	47.2	50.8	1	10.0-126			7.35	34
Bis(2-chloroisopropyl)ether	50.0	U	26.9	25.3	53.8	50.6	1	18.0-128			6.13	35
4-Bromophenyl-phenylether	50.0	U	39.2	31.0	78.4	62.0	1	28.0-146			23.4	30
2-Chloronaphthalene	50.0	U	29.1	22.1	58.2	44.2	1	23.0-134			27.3	32
4-Chlorophenyl-phenylether	50.0	U	36.0	27.7	72.0	55.4	1	32.0-142			26.1	29
Chrysene	50.0	U	40.0	36.1	80.0	72.2	1	32.0-144			10.2	27
Dibenz(a,h)anthracene	50.0	U	39.6	35.7	79.2	71.4	1	22.0-149			10.4	29
3,3-Dichlorobenzidine	100	U	64.9	61.0	64.9	61.0	1	10.0-160			6.20	34
2,4-Dinitrotoluene	50.0	U	40.6	35.9	81.2	71.8	1	30.0-156			12.3	29
2,6-Dinitrotoluene	50.0	U	37.5	33.2	75.0	66.4	1	28.0-143			12.2	30
Fluoranthene	50.0	U	42.1	34.5	84.2	69.0	1	31.0-146			19.8	30
Fluorene	50.0	U	35.0	27.2	70.0	54.4	1	29.0-143			25.1	31
Hexachlorobenzene	50.0	U	40.1	30.2	80.2	60.4	1	29.0-144			28.2	33
Hexachloro-1,3-butadiene	50.0	U	23.8	20.3	47.6	40.6	1	18.0-122			15.9	35
Hexachlorocyclopentadiene	50.0	U	24.5	18.4	49.0	36.8	1	10.0-146			28.4	34
Hexachloroethane	50.0	U	19.3	18.8	38.6	37.6	1	12.0-120			2.62	36
Indeno(1,2,3-cd)pyrene	50.0	U	38.9	34.3	77.8	68.6	1	24.0-151			12.6	28
Isophorone	50.0	U	29.8	27.3	59.6	54.6	1	22.0-141			8.76	29
Naphthalene	50.0	U	24.5	20.9	49.0	41.8	1	19.0-125			15.9	32
Nitrobenzene	50.0	U	24.1	24.1	48.2	48.2	1	14.0-134			0.000	32
n-Nitrosodiphenylamine	50.0	U	37.1	31.7	74.2	63.4	1	16.0-160			15.7	28
n-Nitrosodi-n-propylamine	50.0	U	32.2	30.1	64.4	60.2	1	16.0-136			6.74	30
Phenanthrene	50.0	U	37.3	30.0	74.6	60.0	1	27.0-137			21.7	28
Benzylbutyl phthalate	50.0	U	41.1	36.8	82.2	73.6	1	30.0-147			11.0	27
Bis(2-ethylhexyl)phthalate	50.0	1.91	39.8	35.0	75.8	66.2	1	25.0-140			12.8	26
Di-n-butyl phthalate	50.0	0.292	43.0	36.8	85.4	73.0	1	32.0-146			15.5	27
Diethyl phthalate	50.0	U	37.6	33.2	75.2	66.4	1	34.0-149			12.4	26
Dimethyl phthalate	50.0	U	37.6	33.2	75.2	66.4	1	29.0-147			12.4	27
Di-n-octyl phthalate	50.0	U	36.3	31.8	72.6	63.6	1	24.0-146			13.2	29
Pyrene	50.0	U	38.9	33.5	77.8	67.0	1	34.0-140			14.9	27
4-Chloroaniline	50.0	U	23.2	19.0	46.4	38.0	1	10.0-137			19.9	33

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc



L1119969-02 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1119969-02 07/23/19 03:10 • (MS) R3433166-3 07/23/19 03:32 • (MSD) R3433166-4 07/23/19 03:54

Analyte	Spike Amount ug/l	Original Result ug/l	MS Result ug/l	MSD Result ug/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
4-Chloro-3-methylphenol	50.0	U	32.8	29.8	65.6	59.6	1	20.0-138			9.58	28
2-Chlorophenol	50.0	U	24.3	26.1	48.6	52.2	1	11.0-120			7.14	33
Dibenzofuran	50.0	U	33.1	25.9	66.2	51.8	1	17.0-150			24.4	27
2,4-Dichlorophenol	50.0	U	30.6	28.6	61.2	57.2	1	19.0-135			6.76	32
2,4-Dimethylphenol	50.0	U	27.3	25.5	54.6	51.0	1	18.0-127			6.82	31
4,6-Dinitro-2-methylphenol	50.0	U	43.5	38.5	87.0	77.0	1	10.0-160			12.2	38
2,4-Dinitrophenol	50.0	U	41.9	36.2	83.8	72.4	1	10.0-137			14.6	36
2-Methylnaphthalene	50.0	U	26.8	20.9	53.6	41.8	1	13.0-142			24.7	29
2-Methylphenol	50.0	U	25.7	25.5	51.4	51.0	1	14.0-120			0.781	29
3&4-Methyl Phenol	50.0	U	29.0	26.8	58.0	53.6	1	13.0-124			7.89	26
2-Nitroaniline	50.0	U	38.0	33.2	76.0	66.4	1	13.0-160			13.5	27
3-Nitroaniline	50.0	U	35.4	29.6	70.8	59.2	1	10.0-160			17.8	26
4-Nitroaniline	50.0	U	36.1	31.4	72.2	62.8	1	17.0-160			13.9	29
2-Nitrophenol	50.0	U	30.5	29.4	61.0	58.8	1	15.0-143			3.67	33
4-Nitrophenol	50.0	U	16.5	14.3	33.0	28.6	1	10.0-120			14.3	31
Pentachlorophenol	50.0	U	37.8	32.9	75.6	65.8	1	10.0-160			13.9	40
Phenol	50.0	1.51	20.6	12.3	38.2	21.6	1	10.0-120		J3	50.5	34
2,4,5-Trichlorophenol	50.0	U	39.1	34.8	78.2	69.6	1	15.0-160			11.6	27
2,4,6-Trichlorophenol	50.0	U	36.6	32.3	73.2	64.6	1	10.0-153			12.5	29
Acetophenone	50.0	U	30.2	29.5	60.4	59.0	1	10.0-139			2.35	35
Atrazine	50.0	U	39.9	34.0	79.8	68.0	1	34.0-147			16.0	28
Benzaldehyde	50.0	U	27.3	31.3	54.6	62.6	1	10.0-120			13.7	40
Biphenyl	50.0	U	30.7	23.5	61.4	47.0	1	23.0-130			26.6	27
Caprolactam	50.0	U	15.0	12.5	30.0	25.0	1	10.0-120			18.2	37
Carbazole	50.0	U	41.5	36.6	83.0	73.2	1	23.0-158			12.5	26
1,2,4,5-Tetrachlorobenzene	50.0	U	34.4	26.9	68.8	53.8	1	10.0-147			24.5	34
(S) 2-Fluorophenol					29.8	32.7		10.0-120				
(S) Phenol-d5					21.5	21.3		10.0-120				
(S) Nitrobenzene-d5					35.7	35.0		10.0-127				
(S) 2-Fluorobiphenyl					56.5	44.1		10.0-130				
(S) 2,4,6-Tribromophenol					84.5	70.5		10.0-155				
(S) p-Terphenyl-d14					77.2	65.7		10.0-128				

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc



L1119964-02 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1119964-02 07/23/19 08:37 • (MS) R3433296-1 07/23/19 08:58 • (MSD) R3433296-2 07/23/19 09:20

Analyte	Spike Amount ug/l	Original Result ug/l	MS Result ug/l	MSD Result ug/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Acenaphthene	50.0	22.6	60.6	45.5	76.0	45.8	1	25.0-143			28.5	29
Acenaphthylene	50.0	U	27.9	20.2	55.8	40.4	1	24.0-149		J3	32.0	29
Anthracene	50.0	0.849	32.4	26.8	63.1	51.9	1	27.0-145			18.9	30
Benzo(a)anthracene	50.0	U	33.0	28.6	66.0	57.2	1	30.0-138			14.3	26
Benzo(b)fluoranthene	50.0	U	32.9	27.5	65.8	55.0	1	28.0-140			17.9	31
Benzo(k)fluoranthene	50.0	U	30.6	27.1	61.2	54.2	1	28.0-140			12.1	31
Benzo(g,h,i)perylene	50.0	U	33.4	29.6	66.8	59.2	1	26.0-149			12.1	27
Benzo(a)pyrene	50.0	U	31.4	27.1	62.8	54.2	1	28.0-139			14.7	29
Bis(2-chloroethoxy)methane	50.0	U	26.5	19.6	53.0	39.2	1	19.0-135			29.9	30
Bis(2-chloroethyl)ether	50.0	U	27.3	17.8	54.6	35.6	1	10.0-126		J3	42.1	34
Bis(2-chloroisopropyl)ether	50.0	U	26.8	17.2	53.6	34.4	1	18.0-128		J3	43.6	35
4-Bromophenyl-phenylether	50.0	U	32.1	25.7	64.2	51.4	1	28.0-146			22.1	30
2-Chloronaphthalene	50.0	U	27.2	18.6	54.4	37.2	1	23.0-134		J3	37.6	32
4-Chlorophenyl-phenylether	50.0	U	29.2	22.6	58.4	45.2	1	32.0-142			25.5	29
Chrysene	50.0	U	33.4	28.7	66.8	57.4	1	32.0-144			15.1	27
Dibenz(a,h)anthracene	50.0	U	32.5	28.7	65.0	57.4	1	22.0-149			12.4	29
3,3-Dichlorobenzidine	100	U	45.9	44.4	45.9	44.4	1	10.0-160			3.32	34
2,4-Dinitrotoluene	50.0	U	32.9	27.2	65.8	54.4	1	30.0-156			19.0	29
2,6-Dinitrotoluene	50.0	U	30.6	25.8	61.2	51.6	1	28.0-143			17.0	30
Fluoranthene	50.0	1.63	35.5	30.2	67.7	57.1	1	31.0-146			16.1	30
Fluorene	50.0	6.33	35.4	27.4	58.1	42.1	1	29.0-143			25.5	31
Hexachlorobenzene	50.0	U	32.1	26.0	64.2	52.0	1	29.0-144			21.0	33
Hexachloro-1,3-butadiene	50.0	U	23.8	14.9	47.6	29.8	1	18.0-122		J3	46.0	35
Hexachlorocyclopentadiene	50.0	U	17.1	10.1	34.2	20.2	1	10.0-146		J3	51.5	34
Hexachloroethane	50.0	U	22.1	12.8	44.2	25.6	1	12.0-120		J3	53.3	36
Indeno(1,2,3-cd)pyrene	50.0	U	32.5	28.9	65.0	57.8	1	24.0-151			11.7	28
Isophorone	50.0	U	27.9	21.0	55.8	42.0	1	22.0-141			28.2	29
Naphthalene	50.0	1.91	24.5	16.2	45.2	28.6	1	19.0-125		J3	40.8	32
Nitrobenzene	50.0	U	26.4	18.0	52.8	36.0	1	14.0-134		J3	37.8	32
n-Nitrosodiphenylamine	50.0	U	33.0	28.4	66.0	56.8	1	16.0-160			15.0	28
n-Nitrosodi-n-propylamine	50.0	U	28.8	20.8	57.6	41.6	1	16.0-136		J3	32.3	30
Phenanthrene	50.0	2.82	34.8	28.6	64.0	51.6	1	27.0-137			19.6	28
Benzylbutyl phthalate	50.0	U	32.0	27.4	64.0	54.8	1	30.0-147			15.5	27
Bis(2-ethylhexyl)phthalate	50.0	U	29.4	25.2	58.8	50.4	1	25.0-140			15.4	26
Di-n-butyl phthalate	50.0	0.294	33.4	29.3	66.2	58.0	1	32.0-146			13.1	27
Diethyl phthalate	50.0	0.291	30.8	26.8	61.0	53.0	1	34.0-149			13.9	26
Dimethyl phthalate	50.0	U	31.6	26.6	63.2	53.2	1	29.0-147			17.2	27
Di-n-octyl phthalate	50.0	U	31.7	27.1	63.4	54.2	1	24.0-146			15.6	29
Pyrene	50.0	0.797	34.1	28.5	66.6	55.4	1	34.0-140			17.9	27
4-Chloroaniline	50.0	U	22.4	14.7	44.8	29.4	1	10.0-137		J3	41.5	33

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc



L1119964-02 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1119964-02 07/23/19 08:37 • (MS) R3433296-1 07/23/19 08:58 • (MSD) R3433296-2 07/23/19 09:20

Analyte	Spike Amount ug/l	Original Result ug/l	MS Result ug/l	MSD Result ug/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
4-Chloro-3-methylphenol	50.0	U	30.0	24.2	60.0	48.4	1	20.0-138			21.4	28
2-Chlorophenol	50.0	U	24.7	15.6	49.4	31.2	1	11.0-120		J3	45.2	33
Dibenzofuran	50.0	5.66	35.3	26.4	59.3	41.5	1	17.0-150		J3	28.8	27
2,4-Dichlorophenol	50.0	U	28.4	20.5	56.8	41.0	1	19.0-135		J3	32.3	32
2,4-Dimethylphenol	50.0	14.7	44.1	32.1	58.8	34.8	1	18.0-127		J3	31.5	31
4,6-Dinitro-2-methylphenol	50.0	U	33.4	27.6	66.8	55.2	1	10.0-160			19.0	38
2,4-Dinitrophenol	50.0	U	24.7	18.4	49.4	36.8	1	10.0-137			29.2	36
2-Methylnaphthalene	50.0	1.83	25.7	17.3	47.7	30.9	1	13.0-142		J3	39.1	29
2-Methylphenol	50.0	3.23	30.4	20.2	54.3	33.9	1	14.0-120		J3	40.3	29
3&4-Methyl Phenol	50.0	2.80	29.1	19.9	52.6	34.2	1	13.0-124		J3	37.6	26
2-Nitroaniline	50.0	U	31.9	26.4	63.8	52.8	1	13.0-160			18.9	27
3-Nitroaniline	50.0	U	28.0	22.3	56.0	44.6	1	10.0-160			22.7	26
4-Nitroaniline	50.0	U	27.6	23.0	55.2	46.0	1	17.0-160			18.2	29
2-Nitrophenol	50.0	U	27.7	19.4	55.4	38.8	1	15.0-143		J3	35.2	33
4-Nitrophenol	50.0	U	14.6	13.0	29.2	26.0	1	10.0-120			11.6	31
Pentachlorophenol	50.0	U	30.9	24.8	61.8	49.6	1	10.0-160			21.9	40
Phenol	50.0	1.10	14.8	9.19	27.4	16.2	1	10.0-120		J3	46.8	34
2,4,5-Trichlorophenol	50.0	U	35.2	28.0	70.4	56.0	1	15.0-160			22.8	27
2,4,6-Trichlorophenol	50.0	U	31.5	24.8	63.0	49.6	1	10.0-153			23.8	29
Acetophenone	50.0	U	29.9	20.8	59.8	41.6	1	10.0-139		J3	35.9	35
Atrazine	50.0	U	30.1	25.6	60.2	51.2	1	34.0-147			16.2	28
Benzaldehyde	50.0	U	33.4	20.9	66.8	41.8	1	10.0-120		J3	46.0	40
Biphenyl	50.0	0.538	28.1	19.7	55.1	38.3	1	23.0-130		J3	35.1	27
Caprolactam	50.0	U	11.3	9.58	22.6	19.2	1	10.0-120			16.5	37
Carbazole	50.0	13.0	47.7	41.9	69.4	57.8	1	23.0-158			12.9	26
1,2,4,5-Tetrachlorobenzene	50.0	U	29.8	19.4	59.6	38.8	1	10.0-147		J3	42.3	34
(S) 2-Fluorophenol					33.4	19.1		10.0-120				
(S) Phenol-d5					20.5	13.0		10.0-120				
(S) Nitrobenzene-d5					49.7	34.3		10.0-127				
(S) 2-Fluorobiphenyl					50.6	35.2		10.0-130				
(S) 2,4,6-Tribromophenol					80.5	69.0		10.0-155				
(S) p-Terphenyl-d14					60.9	51.7		10.0-128				

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc





Method Blank (MB)

(MB) R3433890-2 07/23/19 22:05

Analyte	MB Result ug/l	MB Qualifier	MB MDL ug/l	MB RDL ug/l
Acenaphthene	U		0.316	1.00
Acenaphthylene	U		0.309	1.00
Anthracene	U		0.291	1.00
Benzo(a)anthracene	U		0.0975	1.00
Benzo(b)fluoranthene	U		0.0896	1.00
Benzo(k)fluoranthene	U		0.355	1.00
Benzo(g,h,i)perylene	U		0.161	1.00
Benzo(a)pyrene	U		0.340	1.00
Bis(2-chlorethoxy)methane	U		0.329	10.0
Bis(2-chloroethyl)ether	U		1.62	10.0
Bis(2-chloroisopropyl)ether	U		0.445	10.0
4-Bromophenyl-phenylether	U		0.335	10.0
Carbazole	U		0.162	10.0
2-Chloronaphthalene	U		0.330	1.00
4-Chlorophenyl-phenylether	U		0.303	10.0
Chrysene	U		0.332	1.00
Dibenz(a,h)anthracene	U		0.279	1.00
3,3-Dichlorobenzidine	U		2.02	10.0
2,4-Dinitrotoluene	U		1.65	10.0
2,6-Dinitrotoluene	U		0.279	10.0
Fluoranthene	U		0.310	1.00
Fluorene	U		0.323	1.00
Hexachlorobenzene	U		0.341	1.00
Hexachloro-1,3-butadiene	U		0.329	10.0
Hexachlorocyclopentadiene	U		2.33	10.0
Hexachloroethane	U		0.365	10.0
Indeno(1,2,3-cd)pyrene	U		0.279	1.00
Isophorone	U		0.272	10.0
Naphthalene	U		0.372	1.00
Nitrobenzene	U		0.367	10.0
n-Nitrosodiphenylamine	U		1.19	10.0
n-Nitrosodi-n-propylamine	U		0.403	10.0
Phenanthrene	U		0.366	1.00
Benzylbutyl phthalate	U		0.275	3.00
Bis(2-ethylhexyl)phthalate	U		0.709	3.00
Di-n-butyl phthalate	U		0.266	3.00
Diethyl phthalate	U		0.282	3.00
Dimethyl phthalate	U		0.283	3.00
Di-n-octyl phthalate	U		0.278	3.00
Pyrene	U		0.330	1.00

<sup>1</sup>Cp

<sup>2</sup>Tc

<sup>3</sup>Ss

<sup>4</sup>Cn

<sup>5</sup>Sr

<sup>6</sup>Qc

<sup>7</sup>Gl

<sup>8</sup>Al

<sup>9</sup>Sc



Method Blank (MB)

(MB) R3433890-2 07/23/19 22:05

Analyte	MB Result ug/l	MB Qualifier	MB MDL ug/l	MB RDL ug/l
4-Chloroaniline	U		0.382	10.0
4-Chloro-3-methylphenol	U		0.263	10.0
2-Chlorophenol	U		0.283	10.0
2-Nitrophenol	U		0.320	10.0
4-Nitrophenol	U		2.01	10.0
Pentachlorophenol	U		0.313	10.0
Phenol	U		0.334	10.0
2,4,6-Trichlorophenol	U		0.297	10.0
Dibenzofuran	U		0.338	10.0
2,4-Dichlorophenol	U		0.284	10.0
2,4-Dimethylphenol	U		0.624	10.0
4,6-Dinitro-2-methylphenol	U		2.62	10.0
2,4-Dinitrophenol	U		3.25	10.0
2-Methylnaphthalene	U		0.311	1.00
2-Methylphenol	U		0.312	10.0
3&4-Methyl Phenol	U		0.266	10.0
2-Nitroaniline	U		1.90	10.0
3-Nitroaniline	U		0.308	10.0
4-Nitroaniline	U		0.349	10.0
Acetophenone	U		2.71	10.0
1,2,4,5-Tetrachlorobenzene	U		2.41	10.0
2,4,5-Trichlorophenol	U		0.236	10.0
Biphenyl	U		0.206	10.0
Atrazine	U		1.53	10.0
Benzaldehyde	U		1.40	10.0
Caprolactam	U		0.583	10.0
(S) Nitrobenzene-d5	35.3			10.0-127
(S) 2-Fluorobiphenyl	25.5			10.0-130
(S) p-Terphenyl-d14	61.2			10.0-128
(S) Phenol-d5	12.0			10.0-120
(S) 2-Fluorophenol	22.0			10.0-120
(S) 2,4,6-Tribromophenol	34.8			10.0-155

<sup>1</sup> Cp

<sup>2</sup> Tc

<sup>3</sup> Ss

<sup>4</sup> Cn

<sup>5</sup> Sr

<sup>6</sup> Qc

<sup>7</sup> Gl

<sup>8</sup> Al

<sup>9</sup> Sc



Laboratory Control Sample (LCS)

(LCS) R3433890-1 07/23/19 21:45

Analyte	Spike Amount ug/l	LCS Result ug/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Acenaphthene	50.0	34.9	69.8	70.0-130	J4
Acenaphthylene	50.0	36.5	73.0	70.0-130	
Anthracene	50.0	37.4	74.8	70.0-130	
Biphenyl	50.0	34.6	69.2	70.0-130	J4
Benzo(a)anthracene	50.0	39.4	78.8	70.0-130	
Benzo(b)fluoranthene	50.0	41.4	82.8	70.0-130	
Benzo(k)fluoranthene	50.0	41.2	82.4	70.0-130	
Benzo(g,h,i)perylene	50.0	40.5	81.0	70.0-130	
Benzo(a)pyrene	50.0	38.5	77.0	70.0-130	
Bis(2-chlorethoxy)methane	50.0	33.2	66.4	70.0-130	J4
Bis(2-chloroethyl)ether	50.0	33.1	66.2	70.0-130	J4
Bis(2-chloroisopropyl)ether	50.0	30.6	61.2	70.0-130	J4
4-Bromophenyl-phenylether	50.0	38.1	76.2	70.0-130	
Carbazole	50.0	39.1	78.2	70.0-130	
2-Chloronaphthalene	50.0	32.6	65.2	70.0-130	J4
4-Chlorophenyl-phenylether	50.0	37.2	74.4	70.0-130	
Chrysene	50.0	39.6	79.2	70.0-130	
Dibenz(a,h)anthracene	50.0	40.7	81.4	70.0-130	
3,3-Dichlorobenzidine	100	52.1	52.1	70.0-130	J4
2,4-Dinitrotoluene	50.0	40.9	81.8	70.0-130	
2,6-Dinitrotoluene	50.0	38.8	77.6	70.0-130	
Fluoranthene	50.0	39.0	78.0	70.0-130	
Fluorene	50.0	37.7	75.4	70.0-130	
Hexachlorobenzene	50.0	36.5	73.0	70.0-130	
Hexachloro-1,3-butadiene	50.0	14.0	28.0	70.0-130	J4
Hexachlorocyclopentadiene	50.0	22.7	45.4	70.0-130	J4
Hexachloroethane	50.0	12.7	25.4	70.0-130	J4
Indeno(1,2,3-cd)pyrene	50.0	40.6	81.2	70.0-130	
Isophorone	50.0	33.3	66.6	70.0-130	J4
Naphthalene	50.0	24.3	48.6	70.0-130	J4
Nitrobenzene	50.0	30.7	61.4	70.0-130	J4
n-Nitrosodiphenylamine	50.0	29.3	58.6	70.0-130	J4
n-Nitrosodi-n-propylamine	50.0	36.7	73.4	70.0-130	
Phenanthrene	50.0	37.7	75.4	70.0-130	
Benzylbutyl phthalate	50.0	43.5	87.0	70.0-130	
Bis(2-ethylhexyl)phthalate	50.0	43.3	86.6	70.0-130	
Di-n-butyl phthalate	50.0	42.0	84.0	70.0-130	
Diethyl phthalate	50.0	40.3	80.6	70.0-130	
Dimethyl phthalate	50.0	39.6	79.2	70.0-130	
Di-n-octyl phthalate	50.0	44.3	88.6	70.0-130	

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc



Laboratory Control Sample (LCS)

(LCS) R3433890-1 07/23/19 21:45

Analyte	Spike Amount ug/l	LCS Result ug/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Pyrene	50.0	40.0	80.0	70.0-130	
4-Chloroaniline	50.0	12.2	24.4	70.0-130	J4
4-Chloro-3-methylphenol	50.0	31.6	63.2	70.0-130	J4
2-Chlorophenol	50.0	28.4	56.8	70.0-130	J4
Dibenzofuran	50.0	36.0	72.0	70.0-130	
2,4-Dichlorophenol	50.0	31.4	62.8	70.0-130	J4
2,4-Dimethylphenol	50.0	26.5	53.0	70.0-130	J4
4,6-Dinitro-2-methylphenol	50.0	37.4	74.8	70.0-130	
2,4-Dinitrophenol	50.0	35.5	71.0	70.0-130	
2-Methylnaphthalene	50.0	26.6	53.2	70.0-130	J4
2-Methylphenol	50.0	24.9	49.8	70.0-130	J4
3&4-Methyl Phenol	50.0	26.6	53.2	70.0-130	J4
2-Nitroaniline	50.0	39.8	79.6	70.0-130	
3-Nitroaniline	50.0	28.6	57.2	70.0-130	J4
4-Nitroaniline	50.0	33.7	67.4	70.0-130	J4
2-Nitrophenol	50.0	32.1	64.2	70.0-130	J4
4-Nitrophenol	50.0	14.9	29.8	70.0-130	J4
Pentachlorophenol	50.0	36.9	73.8	70.0-130	
Phenol	50.0	11.0	22.0	70.0-130	J4
2,4,6-Trichlorophenol	50.0	37.8	75.6	70.0-130	
Acetophenone	50.0	34.8	69.6	70.0-130	J4
1,2,4,5-Tetrachlorobenzene	50.0	30.4	60.8	70.0-130	J4
2,4,5-Trichlorophenol	50.0	39.4	78.8	70.0-130	
Atrazine	50.0	37.9	75.8	70.0-130	
Benzaldehyde	50.0	34.5	69.0	70.0-130	J4
Caprolactam	50.0	7.07	14.1	70.0-130	J4
(S) Nitrobenzene-d5			53.4	10.0-127	
(S) 2-Fluorobiphenyl			53.7	10.0-130	
(S) p-Terphenyl-d14			76.9	10.0-128	
(S) Phenol-d5			16.3	10.0-120	
(S) 2-Fluorophenol			27.6	10.0-120	
(S) 2,4,6-Tribromophenol			67.0	10.0-155	

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc



L1119554-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1119554-01 07/24/19 06:37 • (MS) R3434195-1 07/24/19 06:58 • (MSD) R3434195-2 07/24/19 07:19

Analyte	Spike Amount ug/l	Original Result ug/l	MS Result ug/l	MSD Result ug/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Acenaphthene	50.0	ND	31.8	35.6	63.6	71.2	1	25.0-143			11.3	29
Acenaphthylene	50.0	ND	32.5	36.3	65.0	72.6	1	24.0-149			11.0	29
Anthracene	50.0	ND	38.3	42.1	76.6	84.2	1	27.0-145			9.45	30
Benzo(a)anthracene	50.0	ND	38.5	41.3	77.0	82.6	1	30.0-138			7.02	26
Benzo(b)fluoranthene	50.0	ND	37.6	41.8	75.2	83.6	1	28.0-140			10.6	31
Benzo(k)fluoranthene	50.0	ND	36.1	38.9	72.2	77.8	1	28.0-140			7.47	31
Benzo(g,h,i)perylene	50.0	ND	37.7	41.6	75.4	83.2	1	26.0-149			9.84	27
Benzo(a)pyrene	50.0	ND	36.0	39.2	72.0	78.4	1	28.0-139			8.51	29
Bis(2-chloroethoxy)methane	50.0	ND	29.3	32.6	58.6	65.2	1	19.0-135			10.7	30
Bis(2-chloroethyl)ether	50.0	ND	31.6	35.0	63.2	70.0	1	10.0-126			10.2	34
Bis(2-chloroisopropyl)ether	50.0	ND	28.0	31.6	56.0	63.2	1	18.0-128			12.1	35
4-Bromophenyl-phenylether	50.0	ND	40.0	44.1	80.0	88.2	1	28.0-146			9.75	30
2-Chloronaphthalene	50.0	ND	29.1	33.5	58.2	67.0	1	23.0-134			14.1	32
4-Chlorophenyl-phenylether	50.0	ND	36.3	40.5	72.6	81.0	1	32.0-142			10.9	29
Chrysene	50.0	ND	38.4	41.5	76.8	83.0	1	32.0-144			7.76	27
Dibenz(a,h)anthracene	50.0	ND	37.7	41.2	75.4	82.4	1	22.0-149			8.87	29
3,3-Dichlorobenzidine	100	ND	62.7	69.0	62.7	69.0	1	10.0-160			9.57	34
2,4-Dinitrotoluene	50.0	ND	37.5	40.9	75.0	81.8	1	30.0-156			8.67	29
2,6-Dinitrotoluene	50.0	ND	35.8	38.8	71.6	77.6	1	28.0-143			8.04	30
Fluoranthene	50.0	ND	41.8	45.5	83.6	91.0	1	31.0-146			8.48	30
Fluorene	50.0	ND	34.6	38.3	69.2	76.6	1	29.0-143			10.2	31
Hexachlorobenzene	50.0	ND	39.1	43.6	78.2	87.2	1	29.0-144			10.9	33
Hexachloro-1,3-butadiene	50.0	ND	12.7	17.3	25.4	34.6	1	18.0-122			30.7	35
Hexachlorocyclopentadiene	50.0	ND	15.5	19.9	31.0	39.8	1	10.0-146			24.9	34
Hexachloroethane	50.0	ND	9.43	12.4	18.9	24.8	1	12.0-120			27.2	36
Indeno(1,2,3-cd)pyrene	50.0	ND	38.7	42.1	77.4	84.2	1	24.0-151			8.42	28
Isophorone	50.0	ND	30.8	33.9	61.6	67.8	1	22.0-141			9.58	29
Naphthalene	50.0	ND	21.1	24.5	42.2	49.0	1	19.0-125			14.9	32
Nitrobenzene	50.0	ND	28.1	31.0	56.2	62.0	1	14.0-134			9.81	32
n-Nitrosodiphenylamine	50.0	ND	33.1	36.7	66.2	73.4	1	16.0-160			10.3	28
n-Nitrosodi-n-propylamine	50.0	ND	33.9	37.8	67.8	75.6	1	16.0-136			10.9	30
Phenanthrene	50.0	ND	37.7	41.4	75.4	82.8	1	27.0-137			9.36	28
Benzylbutyl phthalate	50.0	ND	36.5	38.9	73.0	77.8	1	30.0-147			6.37	27
Acetophenone	50.0	ND	32.3	35.8	64.6	71.6	1	10.0-139			10.3	35
Bis(2-ethylhexyl)phthalate	50.0	ND	35.0	37.8	70.0	75.6	1	25.0-140			7.69	26
Di-n-butyl phthalate	50.0	ND	39.0	42.2	78.0	84.4	1	32.0-146			7.88	27
Diethyl phthalate	50.0	ND	36.4	38.4	72.8	76.8	1	34.0-149			5.35	26
Dimethyl phthalate	50.0	ND	36.6	39.8	73.2	79.6	1	29.0-147			8.38	27
Atrazine	50.0	ND	36.3	38.7	72.6	77.4	1	34.0-147			6.40	28
Di-n-octyl phthalate	50.0	ND	38.6	41.7	77.2	83.4	1	24.0-146			7.72	29

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc



L1119554-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1119554-01 07/24/19 06:37 • (MS) R3434195-1 07/24/19 06:58 • (MSD) R3434195-2 07/24/19 07:19

Analyte	Spike Amount ug/l	Original Result ug/l	MS Result ug/l	MSD Result ug/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Benzaldehyde	50.0	ND	33.4	37.0	66.8	74.0	1	10.0-120			10.2	40
Pyrene	50.0	ND	36.4	39.5	72.8	79.0	1	34.0-140			8.17	27
4-Chloro-3-methylphenol	50.0	ND	33.8	36.4	67.6	72.8	1	20.0-138			7.41	28
Biphenyl	50.0	ND	31.3	34.9	62.6	69.8	1	23.0-130			10.9	27
2-Chlorophenol	50.0	ND	28.5	31.5	57.0	63.0	1	11.0-120			10.0	33
2,4-Dichlorophenol	50.0	ND	30.9	33.5	61.8	67.0	1	19.0-135			8.07	32
2,4-Dimethylphenol	50.0	ND	28.1	30.2	56.2	60.4	1	18.0-127			7.20	31
4,6-Dinitro-2-methylphenol	50.0	ND	38.6	41.0	77.2	82.0	1	10.0-160			6.03	38
Caprolactam	50.0	ND	9.43	10.3	18.9	20.6	1	10.0-120			8.82	37
2,4-Dinitrophenol	50.0	ND	26.7	26.7	53.4	53.4	1	10.0-137			0.000	36
Carbazole	50.0	ND	40.1	43.5	80.2	87.0	1	23.0-158			8.13	26
4-Chloroaniline	50.0	ND	16.0	16.3	32.0	32.6	1	10.0-137			1.86	33
Dibenzofuran	50.0	ND	33.4	37.2	66.8	74.4	1	17.0-150			10.8	27
2-Nitrophenol	50.0	ND	31.1	34.0	62.2	68.0	1	15.0-143			8.91	33
4-Nitrophenol	50.0	ND	ND	ND	0.000	0.000	1	10.0-120	J6	J6	0.000	31
Pentachlorophenol	50.0	ND	26.5	29.8	53.0	59.6	1	10.0-160			11.7	40
Phenol	50.0	ND	14.6	16.3	29.2	32.6	1	10.0-120			11.0	34
2,4,6-Trichlorophenol	50.0	ND	37.0	39.9	74.0	79.8	1	10.0-153			7.54	29
2-Methylnaphthalene	50.0	ND	24.0	27.8	48.0	55.6	1	13.0-142			14.7	29
2-Nitroaniline	50.0	ND	36.9	40.5	73.8	81.0	1	13.0-160			9.30	27
3-Nitroaniline	50.0	ND	29.8	31.8	59.6	63.6	1	10.0-160			6.49	26
4-Nitroaniline	50.0	ND	32.8	35.1	65.6	70.2	1	17.0-160			6.77	29
2-Methylphenol	50.0	ND	28.5	31.1	57.0	62.2	1	14.0-120			8.72	29
3&4-Methyl Phenol	50.0	ND	29.8	32.6	59.6	65.2	1	13.0-124			8.97	26
2,4,5-Trichlorophenol	50.0	ND	40.2	43.2	80.4	86.4	1	15.0-160			7.19	27
1,2,4,5-Tetrachlorobenzene	50.0	ND	32.0	36.3	64.0	72.6	1	10.0-147			12.6	34
(S) Nitrobenzene-d5					42.6	45.8		10.0-127				
(S) 2-Fluorobiphenyl					44.4	50.2		10.0-130				
(S) p-Terphenyl-d14					69.1	72.8		10.0-128				
(S) Phenol-d5					18.6	20.7		10.0-120				
(S) 2-Fluorophenol					29.3	32.4		10.0-120				
(S) 2,4,6-Tribromophenol					87.0	90.0		10.0-155				

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc



Method Blank (MB)

(MB) R3432841-2 07/19/19 19:12

Analyte	MB Result ug/l	MB Qualifier	MB MDL ug/l	MB RDL ug/l
Anthracene	U		0.00800	0.0500
Acenaphthene	U		0.0100	0.0500
Acenaphthylene	U		0.00700	0.0500
Benzo(a)anthracene	U		0.00830	0.0500
Benzo(a)pyrene	U		0.0158	0.0500
Benzo(b)fluoranthene	U		0.00212	0.0500
Benzo(g,h,i)perylene	U		0.00227	0.0500
Benzo(k)fluoranthene	U		0.0255	0.0500
Chrysene	U		0.0144	0.0500
Dibenz(a,h)anthracene	U		0.00454	0.0500
Fluoranthene	U		0.0165	0.0500
Fluorene	U		0.00898	0.0500
Indeno(1,2,3-cd)pyrene	U		0.00739	0.0500
Naphthalene	0.0211	<u>J</u>	0.0123	0.250
Phenanthrene	U		0.0184	0.0500
Pyrene	U		0.0155	0.0500
<i>(S) Nitrobenzene-d5</i>	85.0			11.0-135
<i>(S) 2-Fluorobiphenyl</i>	78.5			32.0-120
<i>(S) p-Terphenyl-d14</i>	93.0			23.0-122

<sup>1</sup> Cp

<sup>2</sup> Tc

<sup>3</sup> Ss

<sup>4</sup> Cn

<sup>5</sup> Sr

<sup>6</sup> Qc

<sup>7</sup> Gl

<sup>8</sup> Al

<sup>9</sup> Sc

Laboratory Control Sample (LCS)

(LCS) R3432841-1 07/19/19 18:49

Analyte	Spike Amount ug/l	LCS Result ug/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Anthracene	2.00	1.81	90.5	70.0-130	
Acenaphthene	2.00	1.57	78.5	70.0-130	
Acenaphthylene	2.00	1.74	87.0	70.0-130	
Benzo(a)anthracene	2.00	2.29	115	70.0-130	
Benzo(a)pyrene	2.00	2.17	108	70.0-130	
Benzo(b)fluoranthene	2.00	2.34	117	70.0-130	
Benzo(g,h,i)perylene	2.00	2.31	115	70.0-130	
Benzo(k)fluoranthene	2.00	2.49	124	70.0-130	
Chrysene	2.00	2.32	116	70.0-130	
Dibenz(a,h)anthracene	2.00	2.43	122	70.0-130	
Fluoranthene	2.00	2.04	102	70.0-130	
Fluorene	2.00	1.62	81.0	70.0-130	
Indeno(1,2,3-cd)pyrene	2.00	2.39	119	70.0-130	
Naphthalene	2.00	1.28	64.0	70.0-130	<u>J4</u>



Laboratory Control Sample (LCS)

(LCS) R3432841-1 07/19/19 18:49

Analyte	Spike Amount ug/l	LCS Result ug/l	LCS Rec. %	Rec. Limits %	<u>LCS Qualifier</u>
Phenanthrene	2.00	1.71	85.5	70.0-130	
Pyrene	2.00	1.95	97.5	70.0-130	
<i>(S) Nitrobenzene-d5</i>			97.0	11.0-135	
<i>(S) 2-Fluorobiphenyl</i>			90.5	32.0-120	
<i>(S) p-Terphenyl-d14</i>			105	23.0-122	

<sup>1</sup> Cp

<sup>2</sup> Tc

<sup>3</sup> Ss

<sup>4</sup> Cn

<sup>5</sup> Sr

<sup>6</sup> Qc

<sup>7</sup> Gl

<sup>8</sup> Al

<sup>9</sup> Sc





Method Blank (MB)

(MB) R3433354-3 07/23/19 10:41

Analyte	MB Result ug/l	MB Qualifier	MB MDL ug/l	MB RDL ug/l
Anthracene	U		0.00800	0.0500
Acenaphthene	U		0.0100	0.0500
Acenaphthylene	U		0.00700	0.0500
Benzo(a)anthracene	U		0.00830	0.0500
Benzo(a)pyrene	U		0.0158	0.0500
Benzo(b)fluoranthene	U		0.00212	0.0500
Benzo(g,h,i)perylene	U		0.00227	0.0500
Benzo(k)fluoranthene	U		0.0255	0.0500
Chrysene	U		0.0144	0.0500
Dibenz(a,h)anthracene	U		0.00454	0.0500
Fluoranthene	U		0.0165	0.0500
Fluorene	U		0.00898	0.0500
Indeno(1,2,3-cd)pyrene	U		0.00739	0.0500
Naphthalene	0.0736	J	0.0123	0.250
Phenanthrene	U		0.0184	0.0500
Pyrene	U		0.0155	0.0500
(S) Nitrobenzene-d5	74.0			11.0-135
(S) 2-Fluorobiphenyl	79.5			32.0-120
(S) p-Terphenyl-d14	80.5			23.0-122

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3433354-1 07/23/19 09:57 • (LCSD) R3433354-2 07/23/19 10:19

Analyte	Spike Amount ug/l	LCS Result ug/l	LCSD Result ug/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Anthracene	2.00	1.79	1.52	89.5	76.0	70.0-130			16.3	20
Acenaphthene	2.00	1.69	1.43	84.5	71.5	70.0-130			16.7	20
Acenaphthylene	2.00	1.79	1.51	89.5	75.5	70.0-130			17.0	20
Benzo(a)anthracene	2.00	1.73	1.48	86.5	74.0	70.0-130			15.6	20
Benzo(a)pyrene	2.00	1.68	1.45	84.0	72.5	70.0-130			14.7	20
Benzo(b)fluoranthene	2.00	1.67	1.44	83.5	72.0	70.0-130			14.8	20
Benzo(g,h,i)perylene	2.00	1.74	1.47	87.0	73.5	70.0-130			16.8	20
Benzo(k)fluoranthene	2.00	1.82	1.56	91.0	78.0	70.0-130			15.4	20
Chrysene	2.00	1.77	1.50	88.5	75.0	70.0-130			16.5	20
Dibenz(a,h)anthracene	2.00	1.75	1.49	87.5	74.5	70.0-130			16.0	20
Fluoranthene	2.00	1.87	1.59	93.5	79.5	70.0-130			16.2	20
Fluorene	2.00	1.77	1.49	88.5	74.5	70.0-130			17.2	20
Indeno(1,2,3-cd)pyrene	2.00	1.76	1.49	88.0	74.5	70.0-130			16.6	20
Naphthalene	2.00	1.63	1.38	81.5	69.0	70.0-130		J4	16.6	20



Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3433354-1 07/23/19 09:57 • (LCSD) R3433354-2 07/23/19 10:19

Analyte	Spike Amount ug/l	LCS Result ug/l	LCSD Result ug/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	<u>LCS Qualifier</u>	<u>LCSD Qualifier</u>	RPD %	RPD Limits %
Phenanthrene	2.00	1.78	1.51	89.0	75.5	70.0-130			16.4	20
Pyrene	2.00	1.71	1.45	85.5	72.5	70.0-130			16.5	20
<i>(S) Nitrobenzene-d5</i>				75.5	63.5	11.0-135				
<i>(S) 2-Fluorobiphenyl</i>				81.0	69.5	32.0-120				
<i>(S) p-Terphenyl-d14</i>				81.5	69.5	23.0-122				

- 1 Cp
- 2 Tc
- 3 Ss
- 4 Cn
- 5 Sr
- 6 Qc
- 7 Gl
- 8 Al
- 9 Sc



## Guide to Reading and Understanding Your Laboratory Report

The information below is designed to better explain the various terms used in your report of analytical results from the Laboratory. This is not intended as a comprehensive explanation, and if you have additional questions please contact your project representative.

Results Disclaimer - Information that may be provided by the customer, and contained within this report, include Permit Limits, Project Name, Sample ID, Sample Matrix, Sample Preservation, Field Blanks, Field Spikes, Field Duplicates, On-Site Data, Sampling Collection Dates/Times, and Sampling Location. Results relate to the accuracy of this information provided, and as the samples are received.

### Abbreviations and Definitions

MDL	Method Detection Limit.
ND	Not detected at the Reporting Limit (or MDL where applicable).
RDL	Reported Detection Limit.
Rec.	Recovery.
RPD	Relative Percent Difference.
SDG	Sample Delivery Group.
(S)	Surrogate (Surrogate Standard) - Analytes added to every blank, sample, Laboratory Control Sample/Duplicate and Matrix Spike/Duplicate; used to evaluate analytical efficiency by measuring recovery. Surrogates are not expected to be detected in all environmental media.
U	Not detected at the Reporting Limit (or MDL where applicable).
Analyte	The name of the particular compound or analysis performed. Some Analyses and Methods will have multiple analytes reported.
Dilution	If the sample matrix contains an interfering material, the sample preparation volume or weight values differ from the standard, or if concentrations of analytes in the sample are higher than the highest limit of concentration that the laboratory can accurately report, the sample may be diluted for analysis. If a value different than 1 is used in this field, the result reported has already been corrected for this factor.
Limits	These are the target % recovery ranges or % difference value that the laboratory has historically determined as normal for the method and analyte being reported. Successful QC Sample analysis will target all analytes recovered or duplicated within these ranges.
Original Sample	The non-spiked sample in the prep batch used to determine the Relative Percent Difference (RPD) from a quality control sample. The Original Sample may not be included within the reported SDG.
Qualifier	This column provides a letter and/or number designation that corresponds to additional information concerning the result reported. If a Qualifier is present, a definition per Qualifier is provided within the Glossary and Definitions page and potentially a discussion of possible implications of the Qualifier in the Case Narrative if applicable.
Result	The actual analytical final result (corrected for any sample specific characteristics) reported for your sample. If there was no measurable result returned for a specific analyte, the result in this column may state "ND" (Not Detected) or "BDL" (Below Detectable Levels). The information in the results column should always be accompanied by either an MDL (Method Detection Limit) or RDL (Reporting Detection Limit) that defines the lowest value that the laboratory could detect or report for this analyte.
Uncertainty (Radiochemistry)	Confidence level of 2 sigma.
Case Narrative (Cn)	A brief discussion about the included sample results, including a discussion of any non-conformances to protocol observed either at sample receipt by the laboratory from the field or during the analytical process. If present, there will be a section in the Case Narrative to discuss the meaning of any data qualifiers used in the report.
Quality Control Summary (Qc)	This section of the report includes the results of the laboratory quality control analyses required by procedure or analytical methods to assist in evaluating the validity of the results reported for your samples. These analyses are not being performed on your samples typically, but on laboratory generated material.
Sample Chain of Custody (Sc)	This is the document created in the field when your samples were initially collected. This is used to verify the time and date of collection, the person collecting the samples, and the analyses that the laboratory is requested to perform. This chain of custody also documents all persons (excluding commercial shippers) that have had control or possession of the samples from the time of collection until delivery to the laboratory for analysis.
Sample Results (Sr)	This section of your report will provide the results of all testing performed on your samples. These results are provided by sample ID and are separated by the analyses performed on each sample. The header line of each analysis section for each sample will provide the name and method number for the analysis reported.
Sample Summary (Ss)	This section of the Analytical Report defines the specific analyses performed for each sample ID, including the dates and times of preparation and/or analysis.

- 1 Cp
- 2 Tc
- 3 Ss
- 4 Cn
- 5 Sr
- 6 Qc
- 7 Gl
- 8 Al
- 9 Sc

Qualifier	Description
J	The identification of the analyte is acceptable; the reported value is an estimate.
J3	The associated batch QC was outside the established quality control range for precision.
J4	The associated batch QC was outside the established quality control range for accuracy.
J6	The sample matrix interfered with the ability to make any accurate determination; spike value is low.
P1	RPD value not applicable for sample concentrations less than 5 times the reporting limit.



Pace National is the only environmental laboratory accredited/certified to support your work nationwide from one location. One phone call, one point of contact, one laboratory. No other lab is as accessible or prepared to handle your needs throughout the country. Our capacity and capability from our single location laboratory is comparable to the collective totals of the network laboratories in our industry. The most significant benefit to our one location design is the design of our laboratory campus. The model is conducive to accelerated productivity, decreasing turn-around time, and preventing cross contamination, thus protecting sample integrity. Our focus on premium quality and prompt service allows us to be YOUR LAB OF CHOICE.

\* Not all certifications held by the laboratory are applicable to the results reported in the attached report.  
 \* Accreditation is only applicable to the test methods specified on each scope of accreditation held by Pace National.

## State Accreditations

Alabama	40660	Nebraska	NE-OS-15-05
Alaska	17-026	Nevada	TN-03-2002-34
Arizona	AZ0612	New Hampshire	2975
Arkansas	88-0469	New Jersey-NELAP	TN002
California	2932	New Mexico <sup>1</sup>	n/a
Colorado	TN00003	New York	11742
Connecticut	PH-0197	North Carolina	Env375
Florida	E87487	North Carolina <sup>1</sup>	DW21704
Georgia	NELAP	North Carolina <sup>3</sup>	41
Georgia <sup>1</sup>	923	North Dakota	R-140
Idaho	TN00003	Ohio-VAP	CL0069
Illinois	200008	Oklahoma	9915
Indiana	C-TN-01	Oregon	TN200002
Iowa	364	Pennsylvania	68-02979
Kansas	E-10277	Rhode Island	LA000356
Kentucky <sup>1,6</sup>	90010	South Carolina	84004
Kentucky <sup>2</sup>	16	South Dakota	n/a
Louisiana	AI30792	Tennessee <sup>1,4</sup>	2006
Louisiana <sup>1</sup>	LA180010	Texas	T104704245-18-15
Maine	TN0002	Texas <sup>5</sup>	LAB0152
Maryland	324	Utah	TN00003
Massachusetts	M-TN003	Vermont	VT2006
Michigan	9958	Virginia	460132
Minnesota	047-999-395	Washington	C847
Mississippi	TN00003	West Virginia	233
Missouri	340	Wisconsin	9980939910
Montana	CERT0086	Wyoming	A2LA

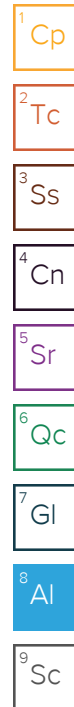
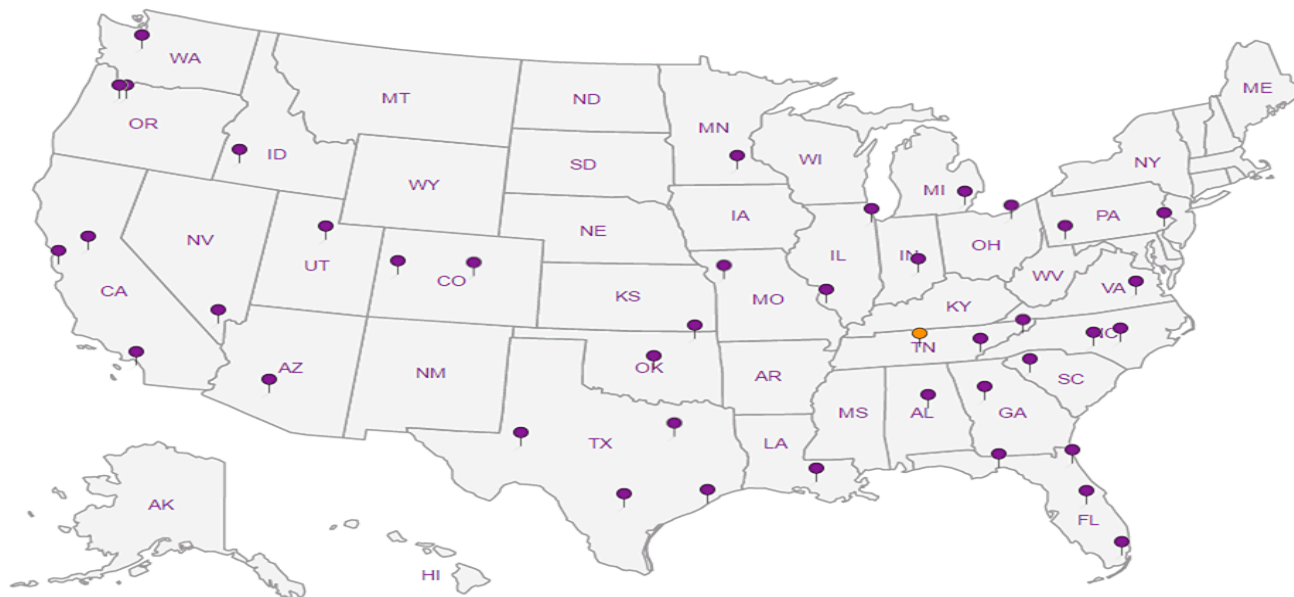
## Third Party Federal Accreditations

A2LA – ISO 17025	1461.01	AIHA-LAP,LLC EMLAP	100789
A2LA – ISO 17025 <sup>5</sup>	1461.02	DOD	1461.01
Canada	1461.01	USDA	P330-15-00234
EPA-Crypto	TN00003		

<sup>1</sup> Drinking Water <sup>2</sup> Underground Storage Tanks <sup>3</sup> Aquatic Toxicity <sup>4</sup> Chemical/Microbiological <sup>5</sup> Mold <sup>6</sup> Wastewater n/a Accreditation not applicable

## Our Locations

Pace National has sixty-four client support centers that provide sample pickup and/or the delivery of sampling supplies. If you would like assistance from one of our support offices, please contact our main office. Pace National performs all testing at our central laboratory.



Company Name/Address:  
**S&ME Inc. - Spartanburg SC**  
 301 Zima Park Drive  
 Spartanburg, SC 29301

Alternate billing information:

Analysis/Container/Preservative

Chain of Custody  
 Page 1 of 2  
 Prepared by: **H238**  
**ENVIRONMENTAL SCIENCE CORP.**  
 12065 Lebanon Road  
 Mt. Juliet, TN 37122  
 Phone (615) 758-5858  
 Phone (800) 767-5859  
 FAX (615) 758-5859  
 1119444

Report to: **SCOTT DACUS**

Email to: **sdacus@smeinc.com**

Project Description: **PROJECT COLUMBIA**

City/State Collected: **SC**

Phone: **(864) 574-2360**  
 FAX: **(864) 576-8730**

Client Project #: **4213-18-087**

ESC Key: **SMESPAR-4213-18-087**

Collected by: **Kevin McIntyre**

Site/Facility ID#:

P.O.#: **4213-18-087**

Collected by (signature): *Kevin McIntyre*  
 Immediately Packed on Ice N  Y

**Rush?** (Lab MUST Be Notified)  
 Same Day.....200%  
 Next Day.....100%  
 Two Day.....50%  
 Three Day.....25%

Date Results Needed:  
 Email?  No  Yes  
 FAX?  No  Yes

808V/80825C 100mL  
 8270 PAHSDSC  
 8270 TCLDSC  
 CN 250ml  
 TAL Metals  
 V8260 TCLSC

CoCode: **SMESPAR** (lab use only)  
 T137919  
 Template/Prelogin P716950  
 T6 6-28-19  
 Shipped Via: **Fedex Ground**

Sample ID	Comp/Grab	Matrix*	Depth	Date	Time	No. of Cntrs
R43-MW-3	G	GW	24.7	7-16-19	13:10	11
R43-MW-2	↓	↓	23.4	7-16-19	10:57	11
R43-MW-1	↓	↓	31	7-15-19	15:30	11
GW-13	↓	↓	38	7-15-19	11:38	11
GW-10	↓	↓	32.5	7-15-19	13:25	11
CM-DUP-GW-2	↓	↓		7-16-19		11

Remarks/Contaminant	Sample # (lab only)
	01
	02
	03
	04
	05
	06

\*Matrix: **SS** - Soil/Solid **GW** - Groundwater **WW** - WasteWater **DW** - Drinking Water **OT** - Other \_\_\_\_\_ pH \_\_\_\_\_ Temp \_\_\_\_\_

Remarks: **1082 5980 8151 -1082 5987 2767-4624 3005 6510 -1082 5987 2778** Flow \_\_\_\_\_ Other \_\_\_\_\_

Relinquished by: (Signature) <i>Kevin McIntyre</i>	Date: 7-16-19	Time: 1800	Received by: (Signature) <i>[Signature]</i>	Samples returned via: <input checked="" type="checkbox"/> UPS <input checked="" type="checkbox"/> FedEx <input type="checkbox"/> Courier <input type="checkbox"/> _____	Condition: (lab use only) <i>OK</i>
Relinquished by: (Signature) _____	Date: _____	Time: _____	Received by: (Signature) _____	Temp: 2.9-10/1:30 <i>23</i>	Bottles Received: 78
Relinquished by: (Signature) _____	Date: _____	Time: _____	Received for lab by: (Signature) <i>[Signature]</i>	Date: 7-17-19	Time: 8:45

CoC Seals Intact  Y  N  NA  
 pH Checked: \_\_\_\_\_ NCF: \_\_\_\_\_



## Pace Analytical National Center for Testing & Innovation Cooler Receipt Form

Client: <i>SMESPAR</i>	SDG#:	<i>1119444</i>	
Cooler Received/Opened On: <i>7/17/19</i>	Temperature:	<i>3.0</i>	
Received By: Lexxi Romero			
Signature: <i>[Signature]</i>			
Receipt Check List	NP	Yes	No
COC Seal Present / Intact?	<input checked="" type="checkbox"/>		
COC Signed / Accurate?		<input checked="" type="checkbox"/>	
Bottles arrive intact?		<input checked="" type="checkbox"/>	
Correct bottles used?		<input checked="" type="checkbox"/>	
Sufficient volume sent?		<input checked="" type="checkbox"/>	
If Applicable			
VOA Zero headspace?		<input checked="" type="checkbox"/>	
Preservation Correct / Checked?		<input checked="" type="checkbox"/>	

## **Appendix F – Dioxin Remediation Documents**



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
WASHINGTON, D.C. 20460

APR 13 1998

OFFICE OF  
SOLID WASTE AND EMERGENCY RESPONSE

OSWER Directive 9200.4-26

**MEMORANDUM**

**SUBJECT:** Approach for Addressing Dioxin in Soil at CERCLA and RCRA Sites

**FROM:** Timothy Fields, Jr. Acting Administrator  
Office of Solid Waste and Emergency Response

A handwritten signature in black ink, appearing to read "Timothy Fields, Jr.", written over the typed name in the "FROM:" field.

**TO:** Director, Office of Site Remediation and Restoration  
Region I  
Director, Emergency and Remedial Response Division  
Region II  
Director, Division of Environmental Planning and Protection  
Region II  
Director, Hazardous Waste Management Division  
Regions IX  
Director, Waste Management Division  
Region IV  
Director, Waste, Pesticides, & Toxics Division  
Region V  
Director, RCRA Multimedia Planning & Permitting  
Division  
Region V  
Director, Superfund Division  
Regions III, V, VI, VII  
Assistant Regional Administrator, Office of Ecosystems  
Protection and Remediation  
Region VIII  
Director, Hazardous Waste Program  
Region VIII  
Director, Office of Environmental Cleanup  
Region X  
Director, Office of Waste and Chemical Management  
Region X



## **PURPOSE**

The purpose of this Directive is to recommend preliminary remediation goals (PRGs) or starting points for setting cleanup levels for dioxin in soil at Comprehensive Environmental Response, Compensation and Liability Act (CERCLA) and Resource Conservation and Recovery Act (RCRA) corrective action sites. These recommended levels are to be used pending the release of the U.S. Environmental Protection Agency (EPA) comprehensive dioxin reassessment report and cross-program assessment of the impacts of the report. One ppb (TEQs, or toxicity equivalents) is to be generally used as a starting point for setting cleanup levels for CERCLA removal sites and as a PRG for remedial sites for dioxin in surface soil involving a residential exposure scenario. For commercial/industrial exposure scenarios, a soil level within the range of 5 ppb to 20 ppb (TEQs) should generally be used as a starting point for setting cleanup levels at CERCLA removal sites and as a PRG for remedial sites for dioxin in surface soil. These levels are recommended unless extenuating site-specific circumstances warrant a different level.

The dioxin levels discussed in this Directive are also generally recommended for actions taken under RCRA at corrective action sites. The recommended levels of 1 ppb (TEQs) for residential soils and within the range of 5 ppb to 20 ppb (TEQs) for commercial/industrial soils should generally be used as starting points in setting soil cleanup levels at RCRA corrective action sites. These levels are generally consistent with soil cleanup levels set at RCRA facilities throughout the country where dioxin is a principal contaminant of concern at the facility. However, because states are the primary implementors of the RCRA Corrective Action program, this Directive does not prescribe specific procedures for implementation under RCRA.

This Directive sets forth the policy basis for these recommended levels and prescribes procedures for implementing these recommendations.

## **BACKGROUND**

To date, EPA has generally selected 1 ppb as a cleanup level for dioxin in residential soils at Superfund and RCRA cleanup sites where dioxin is a principal contaminant of concern at the facility. EPA has also, to date, generally selected a cleanup level for dioxin within the range of 5 ppb to 20 ppb for commercial/industrial soils at Superfund and RCRA cleanup sites where dioxin is a principal contaminant of concern at the facility. The levels that EPA has selected at these sites are protective of human health and the environment. Based on presently available information, and using standard default assumptions for reasonable maximum exposure scenarios, the upper-

bound lifetime excess cancer risk from residential exposure to a concentration of 1 ppb dioxin is approximately  $2.5 \times 10^{-4}$ , which is at the higher end of the range of excess cancer risks that are generally acceptable at Superfund sites. The calculated upper-bound excess cancer risk associated with a lifetime commercial/industrial exposure to 5 ppb, or the lower end of the range recommended for commercial/industrial soils, is approximately  $1.3 \times 10^{-4}$ , which is also within the CERCLA risk range. It should be noted that there is more difficulty in generalizing about the cancer risk associated with commercial/industrial cleanup levels than there is with residential cleanup levels due to the greater variability in exposures associated with commercial/industrial scenarios. Accordingly, the consultation process for Superfund sites referenced in the implementation section of this Directive should be used to ensure the selection of appropriate, protective dioxin levels at CERCLA commercial/industrial sites. Similarly, for RCRA corrective action sites, please refer to the implementation section of this Directive.

EPA is presently completing work on a comprehensive reassessment of the toxicity of dioxin, to be embodied in the documents entitled "Health Assessment Document for 2,3,7,8 tetrachlorodibenzo-p-dioxin (TCDD) and Related Compounds" and "Estimating Exposure to Dioxin-like Compounds." The reassessment report, which is scheduled to be issued in 1998, will represent the culmination of an Agency-wide effort to collect, analyze and synthesize all of the available information about dioxin. It has undergone significant internal and external review and is one of the most comprehensive evaluations of toxicity of a chemical ever performed by the Agency. Following release of the report, the Office of Solid Waste and Emergency Response (OSWER) will participate in a cross-program review of the implications of the report for the regulation and management of dioxin by EPA. We anticipate that this review will culminate in OSWER guidance addressing the management of dioxin at CERCLA and RCRA sites.

The Office of Solid Waste and Emergency Response does not believe it is prudent to establish new, and possibly varying, precedents for Superfund or RCRA dioxin levels just prior to the release of this reassessment report. As with any other pollutant, it is important that EPA ensure appropriate national consistency in remediation efforts. The Agency has used 1 ppb as a residential cleanup level and between 5 ppb and 20 ppb as a commercial/industrial cleanup level at CERCLA and RCRA cleanup sites for dioxin in soil in the past; it is anticipated that OSWER will be issuing guidance, informed by the reassessment effort, that will provide a basis for the selection of dioxin cleanup levels in the near future. In the interim, for sites that require the establishment of a final dioxin soil cleanup level prior to the release of the reassessment report and

development of OSWER guidance, EPA should generally use 1 ppb (TEQs) as a starting point for residential soil cleanup levels for CERCLA non-time critical removal sites (time permitting, for emergency and time critical sites) and as a PRG for remedial sites. EPA should generally use a level within the range of 5 ppb to 20 ppb (TEQs) as a starting point for cleanup levels at CERCLA non-time critical removal sites (time permitting, for emergency and time critical sites) and as a PRG for remedial sites for commercial/industrial soil. These levels should also be used as starting points in setting soil cleanup levels at RCRA corrective action sites.

For CERCLA remedial sites, consistent with 40 CFR § 300.430(f)(5)(iii)(D), EPA should commit to reviewing Records of Decision (RODs) (i.e., RODs in which this Directive has been used to develop dioxin soil cleanup levels) promptly following the release and analysis of the reassessment report and OSWER guidance, and, if necessary, to making changes to the RODs and cleanup actions, based on the information contained in the reassessment report and in the OSWER guidance. Similarly, in the case of non-time critical removal actions (time permitting, for emergency and time critical actions), EPA should commit to reviewing Action Memoranda promptly following the release and analysis of the reassessment report and OSWER guidance, and, if necessary, to making changes to the Action Memoranda and cleanup actions, based on the information contained in the reassessment report and the OSWER guidance. EPA should similarly commit to reviewing RCRA cleanup decisions (i.e., decisions for which this Directive has been used) promptly following the release and analysis of the reassessment report and OSWER guidance.

#### **IMPLEMENTATION**

Regional management should consult with the appropriate Office of Emergency and Remedial Response (OERR) Regional Centers on all proposed Fund and Potentially Responsible Party-lead site decisions under CERCLA, including other Federal agency-lead and state-lead site decisions, involving the development of dioxin soil cleanup levels for non-time critical removal sites (time permitting, for emergency and time critical removal sites) and remedial sites. Consultation should be initiated at the risk assessment stage. For Federal agency-lead sites, OERR will, in turn, notify the Federal Facilities Restoration Reuse Office of ongoing consultations. The Office of Site Remediation Enforcement will provide support if enforcement issues are identified. For consultation procedures, refer to the OSWER "Headquarters Consultation for Dioxin Sites", 9200.4-19, December 13, 1996, plus the OSWER "Consolidated Guide to Consultation Procedures for Superfund Response Decisions", 9200.1-18FS, May 1997.

In the case of EPA-lead RCRA corrective action sites, Regions should provide the Office of Solid Waste Permits and State Programs Division (OSW/PSPD) with proposed dioxin soil cleanup levels (i.e., prior to notice and comment) in order to ensure appropriate implementation of this Directive. For state-lead RCRA corrective action sites, it is also recommended that states use the dioxin levels recommended by this Directive as starting points in setting soil cleanup levels. States are encouraged to share their approaches with the Regions in a manner consistent with established procedures for EPA support and oversight of state RCRA Corrective Action programs.

The levels in this Directive are recommended unless extenuating site-specific circumstances warrant different levels, a more stringent state applicable or relevant and appropriate requirement (ARAR) establishes a cleanup level at CERCLA sites, or a more stringent state requirement applies at RCRA sites. We recommend that levels other than 1 ppb (TEQs) for residential soils and outside the range of 5 ppb to 20 ppb (TEQs) for commercial/industrial soils be used only where evidence exists that risks posed by the site differ from risks estimated using standard national default guidance values. These recommendations apply to RCRA corrective actions, CERCLA non-time critical removal actions (time permitting, for emergency and time-critical actions) and CERCLA remedial actions where cleanup levels are to be developed for dioxin in soil, regardless of whether dioxin itself drives the decision-making process.

The recommended levels found in this Directive, generally considered protective of human health and the environment, apply to surface soils. Please note that with respect to human health, these levels are based on the direct contact exposure pathway. The recommended levels in this Directive do not apply to other exposure pathways, such as migration of soil contaminants to ground water or to agricultural products. While the focus of this Directive is on soils, these recommended levels also apply to sediments in the event that this environmental medium is considered to be a direct exposure pathway for human receptors.

This document provides guidance to EPA staff. The guidance is designed to communicate national policy on dioxin cleanups for soil. The document does not, however, substitute for EPA's statutes or regulations, nor is it a regulation itself. Thus, it cannot impose legally-binding requirements on EPA, states, or the regulated community, and may not apply to a particular situation based upon the circumstances. EPA may change this guidance in the future, as appropriate.

If you have any questions concerning this Directive, please contact either Marlene Berg at (703)603-8701 in Headquarters or Elmer Akin of Region 4 at (404)562-8634, as Marlene and Elmer are

**SUPERFUND DIOXIN WORKGROUP - REGIONAL POINTS OF CONTACT**

- Region 1: Superfund/RCRA - Anne-Marie Burke. (617)223-5528
- Region 2: Superfund - Marian Olsen. (212) 637-4313  
RCRA - Richard Krauser. (212) 637-4166
- Region 3: Superfund - Nancy Rios Jafolla. (215)566-3324  
RCRA - Elizabeth Quinn. (215)566-3388
- Region 4: Superfund - Elmer Akin. (404)562-8634  
RCRA - Wesley S. Hardegree. (404)562-8486
- Region 5: Superfund - Carol Braverman. (312)886-2610  
RCRA - Mario Mangino. (312)886-2589
- Region 6: Superfund - Ghassan Khoury. (214)665-8515  
RCRA - Jeff Yurk. (214)665-8309
- Region 7: Superfund - Bob Feild. (913) 551-7697  
RCRA - Scott Ritchey. (913)551-7641
- Region 8: Superfund contact Susan Griffin. (303)312-6651  
RCRA - Tala Henry. (303)312-6648
- Region 9: Superfund - Sophia Serda. (415) 744-2307  
RCRA - Mary Blevins. (415)744-2069
- Region 10: Superfund/RCRA - Marcia Bailey. (206) 553-0684

co-chairs of the Superfund Dioxin Workgroup. For the RCRA Corrective Action program, please contact Robert Hall of the Office of Solid Waste Permits and State Programs Division at (703)308-8484. Attached, for your information, is a list of Regional points of contact who are serving on the dioxin workgroup.

Attachment: Superfund Dioxin Workgroup: Regional Points of Contact

cc: Mike Shapiro, OSWER  
Peter Grevatt, OSWER  
Steve Luftig, OERR  
Elaine Davies, OERR  
Larry Reed, OERR  
Gershon Bergeisen, OERR  
David Bennett, OERR  
Bruce Means, OERR  
Betsy Shaw, OERR  
Paul Nadeau, OERR  
Tom Sheckells, OERR  
Murray Newton, OERR  
John Cunningham, OERR  
Dave Evans, OERR  
Joe LaFornara, OERR  
Mark Mjoness, OERR  
Jim Woolford, FFRRO  
Elizabeth Cotsworth, OSW  
Barry Breen, OSRE  
Tudor Davies, OW  
Craig Hooks, FFEO  
Earl Salo, OGC  
Bill Sanders, OPPT  
Bill Farland, ORD  
Regional Counsel, Regions I-X  
Peggy Schwebke, Region 5  
Superfund Dioxin Workgroup

**Frequently Asked Questions on the *Update to the ATSDR Policy Guideline for Dioxins and Dioxin-Like Compounds in Residential Soil***

**INTRODUCTION**

The Agency for Toxic Substances and Disease Registry (ATSDR) issued an update (October 15, 2008) to its policy guideline for dioxin and dioxin-like compounds in residential soil (ATSDR, 2008; 73 Fed. Reg. 61,133). The purpose of this update is to eliminate confusion regarding the interpretation of ATSDR's "evaluation," "screening" and "action" levels for dioxin. The update eliminates ATSDR's action level criterion for dioxins in residential soil that was intended to trigger the consideration of specific public health actions. However, ATSDR continues to consider health risks associated with levels of dioxins in soil below 1 ppb to be low under most residential scenarios where the primary exposure pathway is incidental ingestion through direct exposure to soil. In such instances, ATSDR public health recommendations may include community health education or limiting access to contaminated areas. The purpose of these frequently asked questions are to explain this ATSDR update in relation to EPA's activities at Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) sites and Resource Conservation and Recovery Act (RCRA) corrective action sites.

This update does not change ATSDR's Toxicological Profile (ATSDR, 1998) or ATSDR's minimal risk level (MRL) for dioxin established in 1998 (Appendix A in ATSDR, 1998). This update also does not impact the process used for conducting risk assessments or developing cleanup decisions at CERCLA and Resource Conservation and Recovery Act (RCRA) sites. The U.S. Environmental Protection Agency's (EPA) preliminary remediation goal (PRG) for dioxin in residential soil has not changed and remains at 1 ppb (EPA, 1998).

Background. In 1998, ATSDR developed a policy guideline for dioxin and dioxin-like compounds in residential soil. The 1998 policy was developed to assist ATSDR health assessors in evaluating the public health implications of dioxin and dioxin-like compounds in residential soils near or on hazardous waste sites. The 1998 guideline established three levels as criteria for comparing dioxin levels in residential soil: a screening level, an evaluation level and a public health action level. The 1998 guideline also recommended, for levels between 0.05 ppb and 1 ppb TEQ, evaluation of site-specific factors, and for levels over 1 ppb TEQ, consideration of specific public health actions. The 1998 policy guideline is only available, in hard copy, as Appendix B to the Toxicological Profile for Chlorinated Dibenzo-p-Dioxins. ATSDR has updated the 1998 dioxin soil guideline in order to be consistent with its more recent *Public Health Assessment Guidance Manual* (PHAGM) (ATSDR, 2005).

## **FREQUENTLY ASKED QUESTIONS**

### **Q: What is the role of ATSDR and EPA at contaminated sites?**

**A:** EPA determines cleanup standards at CERCLA and RCRA corrective action sites, while ATSDR advises EPA and other Federal and state agencies, and the public, on the health impacts of CERCLA sites.

### **Q: What is the objective of ATSDR's updated policy?**

**A:** The objective of this update is to provide consistency with the ATSDR *Public Health Assessment Guidance Manual* (PHAGM) (ATSDR, 2005) and eliminate the confusion regarding interpretation of residential dioxin soil levels that exceed the ATSDR established screening level of 0.05 ppb.

### **Q: Why is ATSDR updating its 1998 residential dioxin soil policy?**

**A:** The 1998 policy (placed as Appendix B to ATSDR's *Toxicological Profile for Chlorinated Dibenzo-p-dioxins (CDDs)* (ATSDR, 1998)) recommended three levels as criteria for comparing dioxin levels in residential soil: a screening level of 0.05 ppb, an evaluation level of between 0.05 ppb and 1 ppb, and an action level of 1 ppb. Use of the 1998 policy led to confusion in applying these criteria and subsequently resulted in inconsistent application of the guideline. ATSDR updated the policy guideline to be consistent with the more recent ATSDR PHAGM (ATSDR, 2005), which recommends the use of screening levels for all chemicals, thus ensuring that ATSDR evaluation of residential soil dioxin is consistent with other contaminants. As ATSDR does not develop "action levels," the dioxin action level of 1 ppb has been eliminated. With the deletion of the 1 ppb action level, the evaluation level, or range between screening level and action level, has been eliminated as well.

### **Q: When does ATSDR's update go into effect?**

**A:** ATSDR's update is in effect, with issuance in the Federal Register on October 15, 2008 (73 Fed. Reg.61,133), with minor edits announced on Nov. 28, 2008 ( 73, Fed. Reg.72, 484). The update has been incorporated into Appendix B of the on-line version of the Toxicological Profile for Chlorinated Dibenzo-p-Dioxins (ATSDR, 1998). The update document can also be found at the following link:  
[http://www.atsdr.cdc.gov/substances/dioxin/policy/Dioxin\\_Policy\\_Guidelines.pdf](http://www.atsdr.cdc.gov/substances/dioxin/policy/Dioxin_Policy_Guidelines.pdf)

### **Q: Does the elimination of ATSDR's public health action level of 1 ppb impact EPA's residential soil preliminary remediation goal also established at 1 ppb?**

**A:** ATSDR continues to consider health risks associated with levels of dioxins in residential soil below 1 ppb to be low under most scenarios where the primary exposure pathway is incidental ingestion through direct exposure to soil. At sites where dioxin levels are between 0.05 ppb and 1 ppb, ATSDR recommends that appropriate public health activities may include community health education and/or site access restrictions.



**Q: What does ATSDR's updated policy recommend?**

**A:** The updated policy recommends that ATSDR health assessors evaluate, on a site-specific basis, residential dioxin soil levels that exceed the ATSDR established screening level of 0.05 ppb, as described in the ATSDR PHAGM (ATSDR, 2005). ATSDR defines a screening level as follows: a concentration in air, soil, or water (or other environmental media), which is derived from ATSDR's minimal risk level for dioxin (MRL) and below which adverse non-cancer health effects are not expected to occur. Separate levels can be derived to account for acute, intermediate, or chronic exposure durations.

The level of 0.05 ppb is an ATSDR screening level for dioxin and dioxin-like compounds (including 2,3,7,8-tetrachlorodibenzo-*p*-dioxin and other structurally related halogenated aromatic hydrocarbons) based on non-cancer risks associated with the ingestion of soil in residential settings. In addition to evaluating dioxin with respect to soil ingestion, ATSDR health assessors, in applying the 2005 PHAGM, ensure that comprehensive evaluation of dioxins include the consideration of scenarios and relevant screening levels where dioxins may enter the food chain pathway.

ATSDR continues to consider health risks associated with levels of dioxins in soil below 1 ppb to be low under most residential scenarios where the primary exposure pathway is incidental ingestion through direct exposure to soil. In such instances, ATSDR public health recommendations may include community health education or limiting access to contaminated areas.

**Q: How does the updated policy affect ATSDR's scientific assessment of the toxicity of dioxin?**

**A:** ATSDR's scientific assessment of dioxin toxicity and ATSDR's MRL for dioxin have not changed. ATSDR's soil dioxin policy is not based on new scientific data or reanalysis of existing data.

**Q: What is EPA's policy for evaluating dioxin in residential soil at CERCLA sites and RCRA corrective action sites?**

**A:** EPA generally uses 1 ppb dioxin as a starting point for setting cleanup levels at RCRA corrective action sites and Comprehensive Environmental Response, Compensation and Liability Act (CERCLA) removal sites (i.e., non-time critical removal sites and, time permitting, for emergency and time critical sites) and as a preliminary remediation goal (PRG) for CERCLA remedial sites for dioxin in surface soil involving a residential exposure scenario (EPA, 1998). The recommended level of 1 ppb is based on the direct contact exposure pathway for human health. This level does not apply to other exposure pathways, such as migration of soil contaminants to ground water or to agricultural products. The 1 ppb level is recommended unless extenuating site-specific circumstances warrant different levels or a more stringent state applicable or relevant and appropriate requirement (ARAR) establishes a cleanup level at CERCLA sites.

The recommended level of 1 ppb is to be used pending the release of EPA's comprehensive dioxin reassessment report and cross-program assessment of the impacts of the report.

EPA regional management should continue to consult with the appropriate Office of Solid Waste and Emergency Response (OSWER) programs on all proposed Fund and Potentially Responsible Party-lead site decisions under CERCLA, including other Federal agency-lead and state-lead site decisions, involving the development of dioxin soil cleanup levels for non-time critical removal sites (time permitting, for emergency and time critical removal sites) and remedial sites. Consultation should be initiated at the risk assessment stage. The Office of Site Remediation Enforcement will provide support if enforcement issues are identified.

In the case of EPA-lead RCRA corrective action sites, Regions should provide the appropriate Office of Resource Conservation and Recovery programs with proposed dioxin soil cleanup levels (i.e., prior to notice and comment). For state-lead RCRA corrective action sites, it is also recommended that states use the 1 ppb dioxin level as a starting point in setting residential soil cleanup levels. States are encouraged to share their approaches with EPA Regions in a manner consistent with established procedures for EPA support and oversight of state RCRA Corrective Action programs.

For consultation procedures, refer to the OSWER *Guidance on Non-NPL Removal Actions Involving Nationally Significant or Precedent-Setting Issues* (EPA, 1989), the OSWER *Headquarters Consultation for Dioxin Sites* (EPA, 1996), plus the OSWER *Consolidated Guide to Consultation Procedures for Superfund Response Decisions* (EPA, 1997).

**Q: How does ATSDR's updated policy impact the CERCLA and RCRA risk assessment process?**

A: The ATSDR update does not impact the process used for conducting risk assessments or developing cleanup decisions at CERCLA sites and RCRA corrective action sites. Specifically, the update does not alter the use of EPA's PRG for dioxin in residential settings; the soil PRG remains 1 ppb.

**Q: What is the status of EPA's comprehensive reassessment of dioxin?**

A: In 2003, EPA released a comprehensive reassessment of dioxin exposure and human health effects. A National Academy of Sciences (NAS) expert panel reviewed this reassessment and identified three key areas for improvement: 1) justification of approaches to dose-response modeling for cancer and noncancer endpoints; 2) transparency and clarity in selection of key data sets for analysis; and 3) transparency, thoroughness, and clarity in quantitative uncertainty analysis. EPA is in the process of planning its response to the NAS comments.

**Q: What are the implications for EPA of the ATSDR update on exposure pathways other than direct ingestion?**

**A:** One of the purposes of the ATSDR update is to provide for a strengthened emphasis on exposure pathway analysis beyond direct soil contact. Dietary sources and indirect exposure pathways may make a significant contribution to dioxin exposure. Assessing both direct and indirect exposure pathways should result in a more comprehensive evaluation of exposure conditions at residential sites with dioxin contamination. EPA believes that the updated ATSDR policy is consistent with the Agency's policy of recommending 1 ppb as a starting point for developing a dioxin cleanup level in residential soil. EPA's recommendation is based on direct contact with surface soil. Other exposure pathways may be of importance at dioxin sites, resulting in the need for additional site-specific evaluation.

**Q: Who should be contacted for information?**

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