

**ATTACHMENT D  
LABORATORY ANALYTICAL REPORTS**



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**Kane Environmental, Inc.**  
Jeff Jensen  
4015 13th Ave W.  
Seattle, WA 98103

**RE: BSCSS**  
**Work Order Number: 1902123**

February 19, 2019

**Attention Jeff Jensen:**

Fremont Analytical, Inc. received 3 sample(s) on 2/12/2019 for the analyses presented in the following report.

- Ammonia by SM 4500 NH3G***
- Dissolved Gases by RSK-175***
- Dissolved Metals by EPA Method 200.8***
- Ion Chromatography by EPA Method 300.0***
- Total Organic Carbon by SM 5310C***
- Volatile Organic Compounds by EPA Method 8260C***

This report consists of the following:

- Case Narrative
- Analytical Results
- Applicable Quality Control Summary Reports
- Chain of Custody

All analyses were performed consistent with the Quality Assurance program of Fremont Analytical, Inc. Please contact the laboratory if you should have any questions about the results.

Thank you for using Fremont Analytical.

Sincerely,

Chelsea Ward  
Project Manager

DoD/ELAP Certification #L 17-135, ISO/IEC 17025:2005  
ORELAP Certification: WA 100009-007 (NELAP Recognized)



Date: 02/19/2019

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**CLIENT:** Kane Environmental, Inc.  
**Project:** BSCSS  
**Work Order:** 1902123

## Work Order Sample Summary

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Lab Sample ID	Client Sample ID	Date/Time Collected	Date/Time Received
1902123-001	MW-23:W	02/12/2019 12:20 PM	02/12/2019 4:50 PM
1902123-002	MW-3:W	02/12/2019 2:35 PM	02/12/2019 4:50 PM
1902123-003	Trip Blank	02/11/2019 8:15 AM	02/12/2019 4:50 PM

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**CLIENT:** Kane Environmental, Inc.

**Project:** BSCSS

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**I. SAMPLE RECEIPT:**

Samples receipt information is recorded on the attached Sample Receipt Checklist.

**II. GENERAL REPORTING COMMENTS:**

Results are reported on a wet weight basis unless dry-weight correction is denoted in the units field on the analytical report ("mg/kg-dry" or "ug/kg-dry").

Matrix Spike (MS) and MS Duplicate (MSD) samples are tested from an analytical batch of "like" matrix to check for possible matrix effect. The MS and MSD will provide site specific matrix data only for those samples which are spiked by the laboratory. The sample chosen for spike purposes may or may not have been a sample submitted in this sample delivery group. The validity of the analytical procedures for which data is reported in this analytical report is determined by the Laboratory Control Sample (LCS) and the Method Blank (MB). The LCS and the MB are processed with the samples and the MS/MSD to ensure method criteria are achieved throughout the entire analytical process.

**III. ANALYSES AND EXCEPTIONS:**

Exceptions associated with this report will be footnoted in the analytical results page(s) or the quality control summary page(s) and/or noted below.

### Qualifiers:

- \* - Flagged value is not within established control limits
- B - Analyte detected in the associated Method Blank
- D - Dilution was required
- E - Value above quantitation range
- H - Holding times for preparation or analysis exceeded
- I - Analyte with an internal standard that does not meet established acceptance criteria
- J - Analyte detected below Reporting Limit
- N - Tentatively Identified Compound (TIC)
- Q - Analyte with an initial or continuing calibration that does not meet established acceptance criteria (<20%RSD, <20% Drift or minimum RRF)
- S - Spike recovery outside accepted recovery limits
- ND - Not detected at the Reporting Limit
- R - High relative percent difference observed

### Acronyms:

- %Rec - Percent Recovery
- CCB - Continued Calibration Blank
- CCV - Continued Calibration Verification
- DF - Dilution Factor
- HEM - Hexane Extractable Material
- ICV - Initial Calibration Verification
- LCS/LCSD - Laboratory Control Sample / Laboratory Control Sample Duplicate
- MB or MBLANK - Method Blank
- MDL - Method Detection Limit
- MS/MSD - Matrix Spike / Matrix Spike Duplicate
- PDS - Post Digestion Spike
- Ref Val - Reference Value
- RL - Reporting Limit
- RPD - Relative Percent Difference
- SD - Serial Dilution
- SGT - Silica Gel Treatment
- SPK - Spike
- Surr - Surrogate



**Client:** Kane Environmental, Inc.

**Collection Date:** 2/12/2019 12:20:00 PM

**Project:** BSCSS

**Lab ID:** 1902123-001

**Matrix:** Groundwater

**Client Sample ID:** MW-23:W

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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**Dissolved Gases by RSK-175**

Batch ID: R49547 Analyst: AD

Methane	ND	0.00863		mg/L	1	2/19/2019 10:24:00 AM
Ethene	ND	0.0151		mg/L	1	2/19/2019 10:24:00 AM
Ethane	ND	0.0162		mg/L	1	2/19/2019 10:24:00 AM

**Volatile Organic Compounds by EPA Method 8260C**

Batch ID: 23532 Analyst: KT

Dichlorodifluoromethane (CFC-12)	ND	1.00		µg/L	1	2/13/2019 9:42:47 PM
Chloromethane	ND	2.00		µg/L	1	2/13/2019 9:42:47 PM
Vinyl chloride	ND	0.200		µg/L	1	2/13/2019 9:42:47 PM
Bromomethane	ND	1.00		µg/L	1	2/13/2019 9:42:47 PM
Trichlorofluoromethane (CFC-11)	ND	1.00		µg/L	1	2/13/2019 9:42:47 PM
Chloroethane	ND	1.00		µg/L	1	2/13/2019 9:42:47 PM
1,1-Dichloroethene	ND	1.00		µg/L	1	2/13/2019 9:42:47 PM
Methylene chloride	ND	1.00		µg/L	1	2/13/2019 9:42:47 PM
trans-1,2-Dichloroethene	ND	1.00		µg/L	1	2/13/2019 9:42:47 PM
Methyl tert-butyl ether (MTBE)	ND	1.00		µg/L	1	2/13/2019 9:42:47 PM
1,1-Dichloroethane	ND	1.00		µg/L	1	2/13/2019 9:42:47 PM
2,2-Dichloropropane	ND	2.00		µg/L	1	2/13/2019 9:42:47 PM
cis-1,2-Dichloroethene	ND	1.00		µg/L	1	2/13/2019 9:42:47 PM
Chloroform	ND	1.00		µg/L	1	2/13/2019 9:42:47 PM
1,1,1-Trichloroethane (TCA)	ND	1.00		µg/L	1	2/13/2019 9:42:47 PM
1,1-Dichloropropene	ND	1.00		µg/L	1	2/13/2019 9:42:47 PM
Carbon tetrachloride	ND	1.00		µg/L	1	2/13/2019 9:42:47 PM
1,2-Dichloroethane (EDC)	ND	1.00		µg/L	1	2/13/2019 9:42:47 PM
Benzene	ND	1.00		µg/L	1	2/13/2019 9:42:47 PM
Trichloroethene (TCE)	ND	0.500		µg/L	1	2/13/2019 9:42:47 PM
1,2-Dichloropropane	ND	1.00		µg/L	1	2/13/2019 9:42:47 PM
Bromodichloromethane	ND	1.00		µg/L	1	2/13/2019 9:42:47 PM
Dibromomethane	ND	1.00		µg/L	1	2/13/2019 9:42:47 PM
cis-1,3-Dichloropropene	ND	1.00		µg/L	1	2/13/2019 9:42:47 PM
Toluene	ND	1.00		µg/L	1	2/13/2019 9:42:47 PM
trans-1,3-Dichloropropylene	ND	1.00		µg/L	1	2/13/2019 9:42:47 PM
1,1,2-Trichloroethane	ND	1.00		µg/L	1	2/13/2019 9:42:47 PM
1,3-Dichloropropane	ND	1.00		µg/L	1	2/13/2019 9:42:47 PM
Tetrachloroethene (PCE)	2.11	1.00		µg/L	1	2/13/2019 9:42:47 PM
Dibromochloromethane	ND	1.00		µg/L	1	2/13/2019 9:42:47 PM
1,2-Dibromoethane (EDB)	ND	0.250		µg/L	1	2/13/2019 9:42:47 PM
Chlorobenzene	ND	1.00		µg/L	1	2/13/2019 9:42:47 PM
1,1,1,2-Tetrachloroethane	ND	1.00		µg/L	1	2/13/2019 9:42:47 PM



**Client:** Kane Environmental, Inc.

**Collection Date:** 2/12/2019 12:20:00 PM

**Project:** BSCSS

**Lab ID:** 1902123-001

**Matrix:** Groundwater

**Client Sample ID:** MW-23:W

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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**Volatile Organic Compounds by EPA Method 8260C**

Batch ID: 23532

Analyst: KT

Ethylbenzene	ND	1.00		µg/L	1	2/13/2019 9:42:47 PM
m,p-Xylene	ND	1.00		µg/L	1	2/13/2019 9:42:47 PM
o-Xylene	ND	1.00		µg/L	1	2/13/2019 9:42:47 PM
Styrene	ND	1.00		µg/L	1	2/13/2019 9:42:47 PM
Isopropylbenzene	ND	1.00		µg/L	1	2/13/2019 9:42:47 PM
Bromoform	ND	2.00		µg/L	1	2/13/2019 9:42:47 PM
1,1,2,2-Tetrachloroethane	ND	1.00		µg/L	1	2/13/2019 9:42:47 PM
n-Propylbenzene	ND	1.00		µg/L	1	2/13/2019 9:42:47 PM
Bromobenzene	ND	1.00		µg/L	1	2/13/2019 9:42:47 PM
1,3,5-Trimethylbenzene	ND	1.00		µg/L	1	2/13/2019 9:42:47 PM
2-Chlorotoluene	ND	1.00		µg/L	1	2/13/2019 9:42:47 PM
4-Chlorotoluene	ND	1.00		µg/L	1	2/13/2019 9:42:47 PM
tert-Butylbenzene	ND	1.00		µg/L	1	2/13/2019 9:42:47 PM
1,2,3-Trichloropropane	ND	1.00		µg/L	1	2/13/2019 9:42:47 PM
1,2,4-Trichlorobenzene	ND	2.00		µg/L	1	2/13/2019 9:42:47 PM
sec-Butylbenzene	ND	1.00		µg/L	1	2/13/2019 9:42:47 PM
4-Isopropyltoluene	ND	1.00		µg/L	1	2/13/2019 9:42:47 PM
1,3-Dichlorobenzene	ND	1.00		µg/L	1	2/13/2019 9:42:47 PM
1,4-Dichlorobenzene	ND	1.00		µg/L	1	2/13/2019 9:42:47 PM
n-Butylbenzene	ND	1.00		µg/L	1	2/13/2019 9:42:47 PM
1,2-Dichlorobenzene	ND	1.00		µg/L	1	2/13/2019 9:42:47 PM
1,2-Dibromo-3-chloropropane	ND	1.00		µg/L	1	2/13/2019 9:42:47 PM
1,2,4-Trimethylbenzene	ND	1.00		µg/L	1	2/13/2019 9:42:47 PM
Hexachloro-1,3-butadiene	ND	4.00		µg/L	1	2/13/2019 9:42:47 PM
Naphthalene	ND	1.00		µg/L	1	2/13/2019 9:42:47 PM
1,2,3-Trichlorobenzene	ND	4.00		µg/L	1	2/13/2019 9:42:47 PM
Surr: Dibromofluoromethane	96.8	45.4 - 152		%Rec	1	2/13/2019 9:42:47 PM
Surr: Toluene-d8	102	40.1 - 139		%Rec	1	2/13/2019 9:42:47 PM
Surr: 1-Bromo-4-fluorobenzene	100	64.2 - 128		%Rec	1	2/13/2019 9:42:47 PM

**Ion Chromatography by EPA Method 300.0**

Batch ID: 23540

Analyst: GM

Chloride	1.46	0.100		mg/L	1	2/14/2019 1:47:00 PM
Sulfate	6.02	0.300		mg/L	1	2/14/2019 1:47:00 PM

**Dissolved Metals by EPA Method 200.8**

Batch ID: 23558

Analyst: WC

Iron	ND	100		µg/L	1	2/18/2019 10:39:40 AM
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**Client:** Kane Environmental, Inc.

**Collection Date:** 2/12/2019 12:20:00 PM

**Project:** BSCSS

**Lab ID:** 1902123-001

**Matrix:** Groundwater

**Client Sample ID:** MW-23:W

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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**Total Organic Carbon by SM 5310C**

Batch ID: R49498 Analyst: GM

Total Organic Carbon	1.17	0.500		mg/L	1	2/15/2019 1:02:00 PM
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**Ammonia by SM 4500 NH3G**

Batch ID: 23530 Analyst: GM

Nitrogen, Ammonia	ND	0.100		mg/L	1	2/13/2019 3:30:00 PM
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**Client:** Kane Environmental, Inc.

**Collection Date:** 2/12/2019 2:35:00 PM

**Project:** BSCSS

**Lab ID:** 1902123-002

**Matrix:** Groundwater

**Client Sample ID:** MW-3:W

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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**Dissolved Gases by RSK-175**

Batch ID: R49547 Analyst: AD

Methane	ND	0.00863		mg/L	1	2/19/2019 10:31:00 AM
Ethene	ND	0.0151		mg/L	1	2/19/2019 10:31:00 AM
Ethane	ND	0.0162		mg/L	1	2/19/2019 10:31:00 AM

**Volatile Organic Compounds by EPA Method 8260C**

Batch ID: 23532 Analyst: KT

Dichlorodifluoromethane (CFC-12)	ND	1.00		µg/L	1	2/13/2019 10:12:58 PM
Chloromethane	ND	2.00		µg/L	1	2/13/2019 10:12:58 PM
Vinyl chloride	ND	0.200		µg/L	1	2/13/2019 10:12:58 PM
Bromomethane	ND	1.00		µg/L	1	2/13/2019 10:12:58 PM
Trichlorofluoromethane (CFC-11)	ND	1.00		µg/L	1	2/13/2019 10:12:58 PM
Chloroethane	ND	1.00		µg/L	1	2/13/2019 10:12:58 PM
1,1-Dichloroethene	ND	1.00		µg/L	1	2/13/2019 10:12:58 PM
Methylene chloride	ND	1.00		µg/L	1	2/13/2019 10:12:58 PM
trans-1,2-Dichloroethene	ND	1.00		µg/L	1	2/13/2019 10:12:58 PM
Methyl tert-butyl ether (MTBE)	ND	1.00		µg/L	1	2/13/2019 10:12:58 PM
1,1-Dichloroethane	ND	1.00		µg/L	1	2/13/2019 10:12:58 PM
2,2-Dichloropropane	ND	2.00		µg/L	1	2/13/2019 10:12:58 PM
cis-1,2-Dichloroethene	ND	1.00		µg/L	1	2/13/2019 10:12:58 PM
Chloroform	9.90	1.00		µg/L	1	2/13/2019 10:12:58 PM
1,1,1-Trichloroethane (TCA)	ND	1.00		µg/L	1	2/13/2019 10:12:58 PM
1,1-Dichloropropene	ND	1.00		µg/L	1	2/13/2019 10:12:58 PM
Carbon tetrachloride	ND	1.00		µg/L	1	2/13/2019 10:12:58 PM
1,2-Dichloroethane (EDC)	ND	1.00		µg/L	1	2/13/2019 10:12:58 PM
Benzene	ND	1.00		µg/L	1	2/13/2019 10:12:58 PM
Trichloroethene (TCE)	ND	0.500		µg/L	1	2/13/2019 10:12:58 PM
1,2-Dichloropropane	ND	1.00		µg/L	1	2/13/2019 10:12:58 PM
Bromodichloromethane	ND	1.00		µg/L	1	2/13/2019 10:12:58 PM
Dibromomethane	ND	1.00		µg/L	1	2/13/2019 10:12:58 PM
cis-1,3-Dichloropropene	ND	1.00		µg/L	1	2/13/2019 10:12:58 PM
Toluene	ND	1.00		µg/L	1	2/13/2019 10:12:58 PM
trans-1,3-Dichloropropylene	ND	1.00		µg/L	1	2/13/2019 10:12:58 PM
1,1,2-Trichloroethane	ND	1.00		µg/L	1	2/13/2019 10:12:58 PM
1,3-Dichloropropane	ND	1.00		µg/L	1	2/13/2019 10:12:58 PM
Tetrachloroethene (PCE)	ND	1.00		µg/L	1	2/13/2019 10:12:58 PM
Dibromochloromethane	ND	1.00		µg/L	1	2/13/2019 10:12:58 PM
1,2-Dibromoethane (EDB)	ND	0.250		µg/L	1	2/13/2019 10:12:58 PM
Chlorobenzene	ND	1.00		µg/L	1	2/13/2019 10:12:58 PM
1,1,1,2-Tetrachloroethane	ND	1.00		µg/L	1	2/13/2019 10:12:58 PM



**Client:** Kane Environmental, Inc.

**Collection Date:** 2/12/2019 2:35:00 PM

**Project:** BSCSS

**Lab ID:** 1902123-002

**Matrix:** Groundwater

**Client Sample ID:** MW-3:W

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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**Volatile Organic Compounds by EPA Method 8260C**

Batch ID: 23532

Analyst: KT

Ethylbenzene	ND	1.00		µg/L	1	2/13/2019 10:12:58 PM
m,p-Xylene	ND	1.00		µg/L	1	2/13/2019 10:12:58 PM
o-Xylene	ND	1.00		µg/L	1	2/13/2019 10:12:58 PM
Styrene	ND	1.00		µg/L	1	2/13/2019 10:12:58 PM
Isopropylbenzene	ND	1.00		µg/L	1	2/13/2019 10:12:58 PM
Bromoform	ND	2.00		µg/L	1	2/13/2019 10:12:58 PM
1,1,2,2-Tetrachloroethane	ND	1.00		µg/L	1	2/13/2019 10:12:58 PM
n-Propylbenzene	ND	1.00		µg/L	1	2/13/2019 10:12:58 PM
Bromobenzene	ND	1.00		µg/L	1	2/13/2019 10:12:58 PM
1,3,5-Trimethylbenzene	ND	1.00		µg/L	1	2/13/2019 10:12:58 PM
2-Chlorotoluene	ND	1.00		µg/L	1	2/13/2019 10:12:58 PM
4-Chlorotoluene	ND	1.00		µg/L	1	2/13/2019 10:12:58 PM
tert-Butylbenzene	ND	1.00		µg/L	1	2/13/2019 10:12:58 PM
1,2,3-Trichloropropane	ND	1.00		µg/L	1	2/13/2019 10:12:58 PM
1,2,4-Trichlorobenzene	ND	2.00		µg/L	1	2/13/2019 10:12:58 PM
sec-Butylbenzene	ND	1.00		µg/L	1	2/13/2019 10:12:58 PM
4-Isopropyltoluene	ND	1.00		µg/L	1	2/13/2019 10:12:58 PM
1,3-Dichlorobenzene	ND	1.00		µg/L	1	2/13/2019 10:12:58 PM
1,4-Dichlorobenzene	ND	1.00		µg/L	1	2/13/2019 10:12:58 PM
n-Butylbenzene	ND	1.00		µg/L	1	2/13/2019 10:12:58 PM
1,2-Dichlorobenzene	ND	1.00		µg/L	1	2/13/2019 10:12:58 PM
1,2-Dibromo-3-chloropropane	ND	1.00		µg/L	1	2/13/2019 10:12:58 PM
1,2,4-Trimethylbenzene	ND	1.00		µg/L	1	2/13/2019 10:12:58 PM
Hexachloro-1,3-butadiene	ND	4.00		µg/L	1	2/13/2019 10:12:58 PM
Naphthalene	ND	1.00		µg/L	1	2/13/2019 10:12:58 PM
1,2,3-Trichlorobenzene	ND	4.00		µg/L	1	2/13/2019 10:12:58 PM
Surr: Dibromofluoromethane	97.4	45.4 - 152		%Rec	1	2/13/2019 10:12:58 PM
Surr: Toluene-d8	102	40.1 - 139		%Rec	1	2/13/2019 10:12:58 PM
Surr: 1-Bromo-4-fluorobenzene	99.5	64.2 - 128		%Rec	1	2/13/2019 10:12:58 PM

**Ion Chromatography by EPA Method 300.0**

Batch ID: 23540

Analyst: GM

Chloride	3.00	0.200	D	mg/L	2	2/14/2019 6:55:00 PM
Sulfate	4.16	0.300		mg/L	1	2/14/2019 3:20:00 PM

**Dissolved Metals by EPA Method 200.8**

Batch ID: 23558

Analyst: WC

Iron	ND	100		µg/L	1	2/18/2019 11:05:52 AM
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**Client:** Kane Environmental, Inc.

**Collection Date:** 2/12/2019 2:35:00 PM

**Project:** BSCSS

**Lab ID:** 1902123-002

**Matrix:** Groundwater

**Client Sample ID:** MW-3:W

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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**Total Organic Carbon by SM 5310C**

Batch ID: R49498      Analyst: GM

Total Organic Carbon	2.36	0.500		mg/L	1	2/15/2019 2:20:00 PM
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**Ammonia by SM 4500 NH3G**

Batch ID: 23530      Analyst: GM

Nitrogen, Ammonia	ND	0.100		mg/L	1	2/13/2019 3:34:00 PM
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**Work Order:** 1902123  
**CLIENT:** Kane Environmental, Inc.  
**Project:** BSCSS

**QC SUMMARY REPORT**  
**Ammonia by SM 4500 NH3G**

Sample ID <b>MB-23530</b>	SampType: <b>MBLK</b>	Units: <b>mg/L</b>	Prep Date: <b>2/13/2019</b>	RunNo: <b>49449</b>							
Client ID: <b>MBLKW</b>	Batch ID: <b>23530</b>		Analysis Date: <b>2/13/2019</b>	SeqNo: <b>969668</b>							
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Nitrogen, Ammonia ND 0.100

Sample ID <b>LCS-23530</b>	SampType: <b>LCS</b>	Units: <b>mg/L</b>	Prep Date: <b>2/13/2019</b>	RunNo: <b>49449</b>							
Client ID: <b>LCSW</b>	Batch ID: <b>23530</b>		Analysis Date: <b>2/13/2019</b>	SeqNo: <b>969669</b>							
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Nitrogen, Ammonia 0.452 0.100 0.5000 0 90.4 80 120

Sample ID <b>1902104-001BDUP</b>	SampType: <b>DUP</b>	Units: <b>mg/L</b>	Prep Date: <b>2/13/2019</b>	RunNo: <b>49449</b>							
Client ID: <b>BATCH</b>	Batch ID: <b>23530</b>		Analysis Date: <b>2/13/2019</b>	SeqNo: <b>969671</b>							
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Nitrogen, Ammonia ND 0.100 0 30

Sample ID <b>1902104-001BMS</b>	SampType: <b>MS</b>	Units: <b>mg/L</b>	Prep Date: <b>2/13/2019</b>	RunNo: <b>49449</b>							
Client ID: <b>BATCH</b>	Batch ID: <b>23530</b>		Analysis Date: <b>2/13/2019</b>	SeqNo: <b>969672</b>							
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Nitrogen, Ammonia 0.330 0.100 0.5000 0 66.0 70 130 S

**NOTES:**

S - Outlying spike recovery(ies) observed. A duplicate analysis was performed with similar results indicating a possible matrix effect.

Sample ID <b>1902104-001BMSD</b>	SampType: <b>MSD</b>	Units: <b>mg/L</b>	Prep Date: <b>2/13/2019</b>	RunNo: <b>49449</b>							
Client ID: <b>BATCH</b>	Batch ID: <b>23530</b>		Analysis Date: <b>2/13/2019</b>	SeqNo: <b>969673</b>							
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Nitrogen, Ammonia 0.329 0.100 0.5000 0 65.8 70 130 0.3300 0.303 30 S

**NOTES:**

S - Outlying spike recovery(ies) observed. A duplicate analysis was performed with similar results indicating a possible matrix effect.



Date: 2/19/2019

Work Order: 1902123  
 CLIENT: Kane Environmental, Inc.  
 Project: BSCSS

**QC SUMMARY REPORT**  
**Ion Chromatography by EPA Method 300.0**

Sample ID <b>MB-23540</b>	SampType: <b>MBLK</b>	Units: <b>mg/L</b>	Prep Date: <b>2/14/2019</b>	RunNo: <b>49485</b>							
Client ID: <b>MBLKW</b>	Batch ID: <b>23540</b>		Analysis Date: <b>2/14/2019</b>	SeqNo: <b>970200</b>							
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Chloride	ND	0.100									
Sulfate	ND	0.300									

Sample ID <b>LCS-23540</b>	SampType: <b>LCS</b>	Units: <b>mg/L</b>	Prep Date: <b>2/14/2019</b>	RunNo: <b>49485</b>							
Client ID: <b>LCSW</b>	Batch ID: <b>23540</b>		Analysis Date: <b>2/14/2019</b>	SeqNo: <b>970201</b>							
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Chloride	0.770	0.100	0.7500	0	103	90	110				
Sulfate	3.79	0.300	3.750	0	101	90	110				

Sample ID <b>1902123-001CDUP</b>	SampType: <b>DUP</b>	Units: <b>mg/L</b>	Prep Date: <b>2/14/2019</b>	RunNo: <b>49485</b>							
Client ID: <b>MW-23:W</b>	Batch ID: <b>23540</b>		Analysis Date: <b>2/14/2019</b>	SeqNo: <b>970204</b>							
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Chloride	1.46	0.100						1.456	0	20	
Sulfate	5.97	0.300						6.016	0.701	20	

Sample ID <b>1902123-001CMS</b>	SampType: <b>MS</b>	Units: <b>mg/L</b>	Prep Date: <b>2/14/2019</b>	RunNo: <b>49485</b>							
Client ID: <b>MW-23:W</b>	Batch ID: <b>23540</b>		Analysis Date: <b>2/14/2019</b>	SeqNo: <b>970205</b>							
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Chloride	2.29	0.100	0.7500	1.456	112	80	120				
Sulfate	10.1	0.300	3.750	6.016	108	80	120				

Sample ID <b>1902123-001CMSD</b>	SampType: <b>MSD</b>	Units: <b>mg/L</b>	Prep Date: <b>2/14/2019</b>	RunNo: <b>49485</b>							
Client ID: <b>MW-23:W</b>	Batch ID: <b>23540</b>		Analysis Date: <b>2/14/2019</b>	SeqNo: <b>970206</b>							
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Chloride	4.31	0.100	0.7500	1.456	381	80	120	2.293	61.2	20	ERS
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**Work Order:** 1902123  
**CLIENT:** Kane Environmental, Inc.  
**Project:** BSCSS

**QC SUMMARY REPORT**  
**Ion Chromatography by EPA Method 300.0**

Sample ID	1902123-001CMSD	SampType:	MSD	Units:	mg/L	Prep Date:	2/14/2019	RunNo:	49485		
Client ID:	MW-23:W	Batch ID:	23540	Analysis Date:	2/14/2019	SeqNo:	970206				
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Sulfate	83.1	0.300	3.750	6.016	2,060	80	120	10.06	157	20	ERS

**NOTES:**

- S - Outlying spike recovery(ies) observed. A duplicate analysis was performed and recovered within range.
- R - High RPD observed. The method is in control as indicated by the LCS.
- E - Estimated value. The amount exceeds the linear working range of the instrument.



**Work Order:** 1902123  
**CLIENT:** Kane Environmental, Inc.  
**Project:** BSCSS

**QC SUMMARY REPORT**  
**Total Organic Carbon by SM 5310C**

Sample ID <b>MB-49498</b>	SampType: <b>MBLK</b>	Units: <b>mg/L</b>	Prep Date: <b>2/15/2019</b>	RunNo: <b>49498</b>							
Client ID: <b>MBLKW</b>	Batch ID: <b>R49498</b>		Analysis Date: <b>2/15/2019</b>	SeqNo: <b>970414</b>							
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Total Organic Carbon ND 0.500

Sample ID <b>LCS-49498</b>	SampType: <b>LCS</b>	Units: <b>mg/L</b>	Prep Date: <b>2/15/2019</b>	RunNo: <b>49498</b>							
Client ID: <b>LCSW</b>	Batch ID: <b>R49498</b>		Analysis Date: <b>2/15/2019</b>	SeqNo: <b>970415</b>							
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Total Organic Carbon 4.84 0.500 5.000 0 96.8 80 120

Sample ID <b>1902123-001EDUP</b>	SampType: <b>DUP</b>	Units: <b>mg/L</b>	Prep Date: <b>2/15/2019</b>	RunNo: <b>49498</b>							
Client ID: <b>MW-23:W</b>	Batch ID: <b>R49498</b>		Analysis Date: <b>2/15/2019</b>	SeqNo: <b>970418</b>							
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Total Organic Carbon 1.20 0.500 1.171 2.61 20

Sample ID <b>1902123-001EMS</b>	SampType: <b>MS</b>	Units: <b>mg/L</b>	Prep Date: <b>2/15/2019</b>	RunNo: <b>49498</b>							
Client ID: <b>MW-23:W</b>	Batch ID: <b>R49498</b>		Analysis Date: <b>2/15/2019</b>	SeqNo: <b>970419</b>							
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Total Organic Carbon 6.14 0.500 5.000 1.171 99.4 70 130

Sample ID <b>1902123-001EMSD</b>	SampType: <b>MSD</b>	Units: <b>mg/L</b>	Prep Date: <b>2/15/2019</b>	RunNo: <b>49498</b>							
Client ID: <b>MW-23:W</b>	Batch ID: <b>R49498</b>		Analysis Date: <b>2/15/2019</b>	SeqNo: <b>970420</b>							
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Total Organic Carbon 6.14 0.500 5.000 1.171 99.4 70 130 6.142 0.0163 30

Work Order: 1902123  
 CLIENT: Kane Environmental, Inc.  
 Project: BSCSS

**QC SUMMARY REPORT**  
**Dissolved Metals by EPA Method 200.8**

Sample ID <b>MB-23558</b>	SampType: <b>MBLK</b>	Units: <b>µg/L</b>	Prep Date: <b>2/18/2019</b>	RunNo: <b>49530</b>							
Client ID: <b>MBLKW</b>	Batch ID: <b>23558</b>	Analysis Date: <b>2/18/2019</b>	SeqNo: <b>970871</b>								
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Iron ND 100

Sample ID <b>LCS-23558</b>	SampType: <b>LCS</b>	Units: <b>µg/L</b>	Prep Date: <b>2/18/2019</b>	RunNo: <b>49530</b>							
Client ID: <b>LCSW</b>	Batch ID: <b>23558</b>	Analysis Date: <b>2/18/2019</b>	SeqNo: <b>970872</b>								
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Iron 968 100 1,000 0 96.8 50 150

Sample ID <b>1902123-001BDUP</b>	SampType: <b>DUP</b>	Units: <b>µg/L</b>	Prep Date: <b>2/18/2019</b>	RunNo: <b>49530</b>							
Client ID: <b>MW-23:W</b>	Batch ID: <b>23558</b>	Analysis Date: <b>2/18/2019</b>	SeqNo: <b>970874</b>								
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Iron ND 100 0 30

Sample ID <b>1902123-001BMS</b>	SampType: <b>MS</b>	Units: <b>µg/L</b>	Prep Date: <b>2/18/2019</b>	RunNo: <b>49530</b>							
Client ID: <b>MW-23:W</b>	Batch ID: <b>23558</b>	Analysis Date: <b>2/18/2019</b>	SeqNo: <b>970875</b>								
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Iron 4,910 100 5,000 0 98.2 50 150

Sample ID <b>1902123-001BMSD</b>	SampType: <b>MSD</b>	Units: <b>µg/L</b>	Prep Date: <b>2/18/2019</b>	RunNo: <b>49530</b>							
Client ID: <b>MW-23:W</b>	Batch ID: <b>23558</b>	Analysis Date: <b>2/18/2019</b>	SeqNo: <b>970878</b>								
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Iron 4,740 100 5,000 0 94.7 50 150 4,908 3.56 30





**Work Order:** 1902123  
**CLIENT:** Kane Environmental, Inc.  
**Project:** BSCSS

**QC SUMMARY REPORT**  
**Dissolved Metals by EPA Method 200.8**

Sample ID <b>MB-23546FB</b>	SampType: <b>MBLK</b>	Units: <b>µg/L</b>	Prep Date: <b>2/18/2019</b>	RunNo: <b>49530</b>							
Client ID: <b>MBLKW</b>	Batch ID: <b>23558</b>	Analysis Date: <b>2/18/2019</b>	SeqNo: <b>970880</b>								
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Iron ND 100

**NOTES:**  
Filter Blank

Work Order: 1902123  
 CLIENT: Kane Environmental, Inc.  
 Project: BSCSS

**QC SUMMARY REPORT**  
**Dissolved Gases by RSK-175**

Sample ID	<b>MB-R49547</b>	SampType:	<b>MBLK</b>	Units:	<b>mg/L</b>	Prep Date:	<b>2/19/2019</b>	RunNo:	<b>49547</b>		
Client ID:	<b>MBLKW</b>	Batch ID:	<b>R49547</b>			Analysis Date:	<b>2/19/2019</b>	SeqNo:	<b>971330</b>		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Methane	ND	0.00863									
Ethene	ND	0.0151									
Ethane	ND	0.0162									

Sample ID	<b>LCS-R49547</b>	SampType:	<b>LCS</b>	Units:	<b>mg/L</b>	Prep Date:	<b>2/19/2019</b>	RunNo:	<b>49547</b>		
Client ID:	<b>LCSW</b>	Batch ID:	<b>R49547</b>			Analysis Date:	<b>2/19/2019</b>	SeqNo:	<b>971329</b>		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Methane	851	0.00863	1,000	0	85.1	70	130				
Ethene	875	0.0151	1,000	0	87.5	70	130				
Ethane	884	0.0162	1,000	0	88.4	70	130				

Sample ID	<b>1902123-001FREP</b>	SampType:	<b>REP</b>	Units:	<b>mg/L</b>	Prep Date:	<b>2/19/2019</b>	RunNo:	<b>49547</b>		
Client ID:	<b>MW-23:W</b>	Batch ID:	<b>R49547</b>			Analysis Date:	<b>2/19/2019</b>	SeqNo:	<b>971325</b>		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Methane	ND	0.00863						0		30	
Ethene	ND	0.0151						0		30	
Ethane	ND	0.0162						0		30	

**Work Order:** 1902123  
**CLIENT:** Kane Environmental, Inc.  
**Project:** BSCSS

**QC SUMMARY REPORT**  
**Volatile Organic Compounds by EPA Method 8260C**

Sample ID	LCS-23532	SampType:	LCS	Units:	µg/L	Prep Date:	2/13/2019	RunNo:	49462
Client ID:	LCSW	Batch ID:	23532			Analysis Date:	2/13/2019	SeqNo:	969834

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Dichlorodifluoromethane (CFC-12)	25.2	1.00	20.00	0	126	18.7	171				
Chloromethane	25.0	2.00	20.00	0	125	38.5	171				
Vinyl chloride	25.0	0.200	20.00	0	125	48	145				
Bromomethane	22.9	1.00	20.00	0	114	32.5	184				
Trichlorofluoromethane (CFC-11)	20.5	1.00	20.00	0	103	43.5	149				
Chloroethane	23.4	1.00	20.00	0	117	43.8	168				
1,1-Dichloroethene	22.5	1.00	20.00	0	112	57.5	150				
Methylene chloride	20.9	1.00	20.00	0	105	67.1	131				
trans-1,2-Dichloroethene	20.7	1.00	20.00	0	104	71.7	129				
Methyl tert-butyl ether (MTBE)	18.3	1.00	20.00	0	91.4	58	138				
1,1-Dichloroethane	20.3	1.00	20.00	0	102	67.9	134				
2,2-Dichloropropane	23.6	2.00	20.00	0	118	26.5	185				
cis-1,2-Dichloroethene	21.2	1.00	20.00	0	106	70.2	139				
Chloroform	19.4	1.00	20.00	0	97.0	66.3	131				
1,1,1-Trichloroethane (TCA)	18.8	1.00	20.00	0	93.8	63	140				
1,1-Dichloropropene	20.4	1.00	20.00	0	102	69.9	124				
Carbon tetrachloride	18.6	1.00	20.00	0	93.2	66.2	134				
1,2-Dichloroethane (EDC)	17.0	1.00	20.00	0	85.1	67	126				
Benzene	21.0	1.00	20.00	0	105	69.3	132				
Trichloroethene (TCE)	20.0	0.500	20.00	0	100	65.2	136				
1,2-Dichloropropane	20.4	1.00	20.00	0	102	70.5	130				
Bromodichloromethane	18.7	1.00	20.00	0	93.7	67.2	137				
Dibromomethane	19.1	1.00	20.00	0	95.7	69.3	143				
cis-1,3-Dichloropropene	18.8	1.00	20.00	0	94.1	62.6	137				
Toluene	21.1	1.00	20.00	0	105	61.3	145				
trans-1,3-Dichloropropylene	17.3	1.00	20.00	0	86.3	56.5	163				
1,1,2-Trichloroethane	19.0	1.00	20.00	0	95.2	71.7	131				
1,3-Dichloropropane	18.5	1.00	20.00	0	92.7	73.5	127				
Tetrachloroethene (PCE)	21.0	1.00	20.00	0	105	47.5	147				
Dibromochloromethane	17.2	1.00	20.00	0	86.0	67.2	134				
1,2-Dibromoethane (EDB)	17.6	0.250	20.00	0	87.9	73.6	125				

**Work Order:** 1902123  
**CLIENT:** Kane Environmental, Inc.  
**Project:** BSCSS

**QC SUMMARY REPORT**  
**Volatile Organic Compounds by EPA Method 8260C**

Sample ID	LCS-23532	SampType:	LCS	Units:	µg/L	Prep Date:	2/13/2019	RunNo:	49462		
Client ID:	LCSW	Batch ID:	23532	Analysis Date:	2/13/2019	SeqNo:	969834				
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Chlorobenzene	20.0	1.00	20.00	0	100	73.9	126				
1,1,1,2-Tetrachloroethane	19.3	1.00	20.00	0	96.4	76.8	124				
Ethylbenzene	20.3	1.00	20.00	0	102	72	130				
m,p-Xylene	40.4	1.00	40.00	0	101	70.3	134				
o-Xylene	20.4	1.00	20.00	0	102	72.1	131				
Styrene	20.5	1.00	20.00	0	102	64.3	140				
Isopropylbenzene	20.5	1.00	20.00	0	102	73.9	128				
Bromoform	17.2	2.00	20.00	0	85.8	55.3	141				
1,1,2,2-Tetrachloroethane	20.0	1.00	20.00	0	100	62.9	132				
n-Propylbenzene	20.9	1.00	20.00	0	104	74.5	127				
Bromobenzene	20.1	1.00	20.00	0	100	71	131				
1,3,5-Trimethylbenzene	20.4	1.00	20.00	0	102	73.1	128				
2-Chlorotoluene	20.7	1.00	20.00	0	103	70.8	130				
4-Chlorotoluene	20.5	1.00	20.00	0	102	70.1	131				
tert-Butylbenzene	20.2	1.00	20.00	0	101	68.2	131				
1,2,3-Trichloropropane	18.9	1.00	20.00	0	94.5	67.7	131				
1,2,4-Trichlorobenzene	20.6	2.00	20.00	0	103	41	139				
sec-Butylbenzene	20.6	1.00	20.00	0	103	72	129				
4-Isopropyltoluene	20.4	1.00	20.00	0	102	69.2	130				
1,3-Dichlorobenzene	23.1	1.00	20.00	0	116	69.5	128				
1,4-Dichlorobenzene	21.1	1.00	20.00	0	105	66.8	119				
n-Butylbenzene	22.0	1.00	20.00	0	110	73.8	127				
1,2-Dichlorobenzene	20.7	1.00	20.00	0	103	69.7	119				
1,2-Dibromo-3-chloropropane	17.6	1.00	20.00	0	88.1	63.1	136				
1,2,4-Trimethylbenzene	20.3	1.00	20.00	0	102	73.4	127				
Hexachloro-1,3-butadiene	22.1	4.00	20.00	0	110	58.6	138				
Naphthalene	19.3	1.00	20.00	0	96.3	41.8	165				
1,2,3-Trichlorobenzene	20.3	4.00	20.00	0	102	35.8	155				
Surr: Dibromofluoromethane	24.5		25.00		98.2	45.4	152				
Surr: Toluene-d8	25.7		25.00		103	40.1	139				
Surr: 1-Bromo-4-fluorobenzene	25.9		25.00		104	64.2	128				

Work Order: 1902123  
 CLIENT: Kane Environmental, Inc.  
 Project: BSCSS

**QC SUMMARY REPORT**  
**Volatile Organic Compounds by EPA Method 8260C**

Sample ID	<b>LCS-23532</b>	SampType:	<b>LCS</b>	Units:	<b>µg/L</b>	Prep Date:	<b>2/13/2019</b>	RunNo:	<b>49462</b>		
Client ID:	<b>LCSW</b>	Batch ID:	<b>23532</b>	Analysis Date:	<b>2/13/2019</b>	SeqNo:	<b>969834</b>				
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Sample ID	<b>MB-23532</b>	SampType:	<b>MBLK</b>	Units:	<b>µg/L</b>	Prep Date:	<b>2/13/2019</b>	RunNo:	<b>49462</b>		
Client ID:	<b>MBLKW</b>	Batch ID:	<b>23532</b>	Analysis Date:	<b>2/13/2019</b>	SeqNo:	<b>969835</b>				
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Dichlorodifluoromethane (CFC-12)	ND	1.00									
Chloromethane	ND	2.00									
Vinyl chloride	ND	0.200									
Bromomethane	ND	1.00									
Trichlorofluoromethane (CFC-11)	ND	1.00									
Chloroethane	ND	1.00									
1,1-Dichloroethene	ND	1.00									
Methylene chloride	ND	1.00									
trans-1,2-Dichloroethene	ND	1.00									
Methyl tert-butyl ether (MTBE)	ND	1.00									
1,1-Dichloroethane	ND	1.00									
2,2-Dichloropropane	ND	2.00									
cis-1,2-Dichloroethene	ND	1.00									
Chloroform	ND	1.00									
1,1,1-Trichloroethane (TCA)	ND	1.00									
1,1-Dichloropropene	ND	1.00									
Carbon tetrachloride	ND	1.00									
1,2-Dichloroethane (EDC)	ND	1.00									
Benzene	ND	1.00									
Trichloroethene (TCE)	ND	0.500									
1,2-Dichloropropane	ND	1.00									
Bromodichloromethane	ND	1.00									
Dibromomethane	ND	1.00									
cis-1,3-Dichloropropene	ND	1.00									
Toluene	ND	1.00									

Work Order: 1902123  
 CLIENT: Kane Environmental, Inc.  
 Project: BSCSS

**QC SUMMARY REPORT**  
**Volatile Organic Compounds by EPA Method 8260C**

Sample ID	<b>MB-23532</b>	SampType:	<b>MBLK</b>	Units:	<b>µg/L</b>	Prep Date:	<b>2/13/2019</b>	RunNo:	<b>49462</b>
Client ID:	<b>MBLKW</b>	Batch ID:	<b>23532</b>			Analysis Date:	<b>2/13/2019</b>	SeqNo:	<b>969835</b>

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
trans-1,3-Dichloropropylene	ND	1.00									
1,1,2-Trichloroethane	ND	1.00									
1,3-Dichloropropane	ND	1.00									
Tetrachloroethene (PCE)	ND	1.00									
Dibromochloromethane	ND	1.00									
1,2-Dibromoethane (EDB)	ND	0.250									
Chlorobenzene	ND	1.00									
1,1,1,2-Tetrachloroethane	ND	1.00									
Ethylbenzene	ND	1.00									
m,p-Xylene	ND	1.00									
o-Xylene	ND	1.00									
Styrene	ND	1.00									
Isopropylbenzene	ND	1.00									
Bromoform	ND	2.00									
1,1,1,2,2-Tetrachloroethane	ND	1.00									
n-Propylbenzene	ND	1.00									
Bromobenzene	ND	1.00									
1,3,5-Trimethylbenzene	ND	1.00									
2-Chlorotoluene	ND	1.00									
4-Chlorotoluene	ND	1.00									
tert-Butylbenzene	ND	1.00									
1,2,3-Trichloropropane	ND	1.00									
1,2,4-Trichlorobenzene	ND	2.00									
sec-Butylbenzene	ND	1.00									
4-Isopropyltoluene	ND	1.00									
1,3-Dichlorobenzene	ND	1.00									
1,4-Dichlorobenzene	ND	1.00									
n-Butylbenzene	ND	1.00									
1,2-Dichlorobenzene	ND	1.00									
1,2-Dibromo-3-chloropropane	ND	1.00									
1,2,4-Trimethylbenzene	ND	1.00									

Work Order: 1902123  
 CLIENT: Kane Environmental, Inc.  
 Project: BSCSS

**QC SUMMARY REPORT**  
**Volatile Organic Compounds by EPA Method 8260C**

Sample ID	<b>MB-23532</b>	SampType:	<b>MBLK</b>	Units:	<b>µg/L</b>	Prep Date:	<b>2/13/2019</b>	RunNo:	<b>49462</b>		
Client ID:	<b>MBLKW</b>	Batch ID:	<b>23532</b>			Analysis Date:	<b>2/13/2019</b>	SeqNo:	<b>969835</b>		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Hexachloro-1,3-butadiene	ND	4.00									
Naphthalene	ND	1.00									
1,2,3-Trichlorobenzene	ND	4.00									
Surr: Dibromofluoromethane	24.2		25.00		96.9	45.4	152				
Surr: Toluene-d8	25.6		25.00		102	40.1	139				
Surr: 1-Bromo-4-fluorobenzene	25.1		25.00		100	64.2	128				

Sample ID	<b>1902127-001ADUP</b>	SampType:	<b>DUP</b>	Units:	<b>µg/L</b>	Prep Date:	<b>2/13/2019</b>	RunNo:	<b>49462</b>		
Client ID:	<b>BATCH</b>	Batch ID:	<b>23532</b>			Analysis Date:	<b>2/13/2019</b>	SeqNo:	<b>969827</b>		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Dichlorodifluoromethane (CFC-12)	ND	1.00						0		30	
Chloromethane	ND	2.00						0		30	
Vinyl chloride	ND	0.200						0		30	
Bromomethane	ND	1.00						0		30	
Trichlorofluoromethane (CFC-11)	ND	1.00						0		30	
Chloroethane	ND	1.00						0		30	
1,1-Dichloroethene	ND	1.00						0		30	
Methylene chloride	ND	1.00						0		30	
trans-1,2-Dichloroethene	ND	1.00						0		30	
Methyl tert-butyl ether (MTBE)	ND	1.00						0		30	
1,1-Dichloroethane	ND	1.00						0		30	
2,2-Dichloropropane	ND	2.00						0		30	
cis-1,2-Dichloroethene	ND	1.00						0		30	
Chloroform	ND	1.00						0		30	
1,1,1-Trichloroethane (TCA)	ND	1.00						0		30	
1,1-Dichloropropene	ND	1.00						0		30	
Carbon tetrachloride	ND	1.00						0		30	
1,2-Dichloroethane (EDC)	ND	1.00						0		30	
Benzene	ND	1.00						0		30	



**Work Order:** 1902123  
**CLIENT:** Kane Environmental, Inc.  
**Project:** BSCSS

**QC SUMMARY REPORT**  
**Volatile Organic Compounds by EPA Method 8260C**

Sample ID: <b>1902127-001ADUP</b>	SampType: <b>DUP</b>	Units: <b>µg/L</b>	Prep Date: <b>2/13/2019</b>	RunNo: <b>49462</b>
Client ID: <b>BATCH</b>	Batch ID: <b>23532</b>		Analysis Date: <b>2/13/2019</b>	SeqNo: <b>969827</b>

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Trichloroethene (TCE)	ND	0.500						0		30	
1,2-Dichloropropane	ND	1.00						0		30	
Bromodichloromethane	ND	1.00						0		30	
Dibromomethane	ND	1.00						0		30	
cis-1,3-Dichloropropene	ND	1.00						0		30	
Toluene	ND	1.00						0		30	
trans-1,3-Dichloropropylene	ND	1.00						0		30	
1,1,2-Trichloroethane	ND	1.00						0		30	
1,3-Dichloropropane	ND	1.00						0		30	
Tetrachloroethene (PCE)	ND	1.00						0		30	
Dibromochloromethane	ND	1.00						0		30	
1,2-Dibromoethane (EDB)	ND	0.250						0		30	
Chlorobenzene	ND	1.00						0		30	
1,1,1,2-Tetrachloroethane	ND	1.00						0		30	
Ethylbenzene	ND	1.00						0		30	
m,p-Xylene	ND	1.00						0		30	
o-Xylene	ND	1.00						0		30	
Styrene	ND	1.00						0		30	
Isopropylbenzene	ND	1.00						0		30	
Bromoform	ND	2.00						0		30	
1,1,2,2-Tetrachloroethane	ND	1.00						0		30	
n-Propylbenzene	ND	1.00						0		30	
Bromobenzene	ND	1.00						0		30	
1,3,5-Trimethylbenzene	ND	1.00						0		30	
2-Chlorotoluene	ND	1.00						0		30	
4-Chlorotoluene	ND	1.00						0		30	
tert-Butylbenzene	ND	1.00						0		30	
1,2,3-Trichloropropane	ND	1.00						0		30	
1,2,4-Trichlorobenzene	ND	2.00						0		30	
sec-Butylbenzene	ND	1.00						0		30	
4-Isopropyltoluene	ND	1.00						0		30	



Work Order: 1902123  
 CLIENT: Kane Environmental, Inc.  
 Project: BSCSS

**QC SUMMARY REPORT**  
**Volatile Organic Compounds by EPA Method 8260C**

Sample ID	1902127-001ADUP	SampType:	DUP	Units:	µg/L	Prep Date:	2/13/2019	RunNo:	49462		
Client ID:	BATCH	Batch ID:	23532	Analysis Date:	2/13/2019	SeqNo:	969827				
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,3-Dichlorobenzene	ND	1.00						0		30	
1,4-Dichlorobenzene	ND	1.00						0		30	
n-Butylbenzene	ND	1.00						0		30	
1,2-Dichlorobenzene	ND	1.00						0		30	
1,2-Dibromo-3-chloropropane	ND	1.00						0		30	
1,2,4-Trimethylbenzene	ND	1.00						0		30	
Hexachloro-1,3-butadiene	ND	4.00						0		30	
Naphthalene	ND	1.00						0		30	
1,2,3-Trichlorobenzene	ND	4.00						0		30	
Surr: Dibromofluoromethane	24.5		25.00		98.1	45.4	152		0		
Surr: Toluene-d8	25.5		25.00		102	40.1	139		0		
Surr: 1-Bromo-4-fluorobenzene	24.7		25.00		98.7	64.2	128		0		

Sample ID	1901269-001ADUP	SampType:	DUP	Units:	µg/L	Prep Date:	2/13/2019	RunNo:	49462		
Client ID:	BATCH	Batch ID:	23532	Analysis Date:	2/13/2019	SeqNo:	969821				
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Dichlorodifluoromethane (CFC-12)	ND	1.00						0		30	H
Chloromethane	ND	2.00						0		30	H
Vinyl chloride	ND	0.200						0		30	H
Bromomethane	ND	1.00						0		30	H
Trichlorofluoromethane (CFC-11)	ND	1.00						0		30	H
Chloroethane	ND	1.00						0		30	H
1,1-Dichloroethene	ND	1.00						0		30	H
Methylene chloride	ND	1.00						0		30	H
trans-1,2-Dichloroethene	ND	1.00						0		30	H
Methyl tert-butyl ether (MTBE)	ND	1.00						0		30	H
1,1-Dichloroethane	ND	1.00						0		30	H
2,2-Dichloropropane	ND	2.00						0		30	H
cis-1,2-Dichloroethene	ND	1.00						0		30	H



Work Order: 1902123  
 CLIENT: Kane Environmental, Inc.  
 Project: BSCSS

**QC SUMMARY REPORT**  
**Volatile Organic Compounds by EPA Method 8260C**

Sample ID	1901269-001ADUP	SampType:	DUP	Units:	µg/L	Prep Date:	2/13/2019	RunNo:	49462
Client ID:	BATCH	Batch ID:	23532			Analysis Date:	2/13/2019	SeqNo:	969821

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Chloroform	ND	1.00						0		30	H
1,1,1-Trichloroethane (TCA)	ND	1.00						0		30	H
1,1-Dichloropropene	ND	1.00						0		30	H
Carbon tetrachloride	ND	1.00						0		30	H
1,2-Dichloroethane (EDC)	ND	1.00						0		30	H
Benzene	ND	1.00						0		30	H
Trichloroethene (TCE)	ND	0.500						0		30	H
1,2-Dichloropropane	ND	1.00						0		30	H
Bromodichloromethane	ND	1.00						0		30	H
Dibromomethane	ND	1.00						0		30	H
cis-1,3-Dichloropropene	ND	1.00						0		30	H
Toluene	ND	1.00						0		30	H
trans-1,3-Dichloropropylene	ND	1.00						0		30	H
1,1,2-Trichloroethane	ND	1.00						0		30	H
1,3-Dichloropropane	ND	1.00						0		30	H
Tetrachloroethene (PCE)	ND	1.00						0		30	H
Dibromochloromethane	ND	1.00						0		30	H
1,2-Dibromoethane (EDB)	ND	0.250						0		30	H
Chlorobenzene	ND	1.00						0		30	H
1,1,1,2-Tetrachloroethane	ND	1.00						0		30	H
Ethylbenzene	ND	1.00						0		30	H
m,p-Xylene	ND	1.00						0		30	H
o-Xylene	ND	1.00						0		30	H
Styrene	ND	1.00						0		30	H
Isopropylbenzene	ND	1.00						0		30	H
Bromoform	ND	2.00						0		30	H
1,1,2,2-Tetrachloroethane	ND	1.00						0		30	H
n-Propylbenzene	ND	1.00						0		30	H
Bromobenzene	ND	1.00						0		30	H
1,3,5-Trimethylbenzene	ND	1.00						0		30	H
2-Chlorotoluene	ND	1.00						0		30	H

Work Order: 1902123  
 CLIENT: Kane Environmental, Inc.  
 Project: BSCSS

**QC SUMMARY REPORT**  
**Volatile Organic Compounds by EPA Method 8260C**

Sample ID	1901269-001ADUP	SampType:	DUP	Units:	µg/L	Prep Date:	2/13/2019	RunNo:	49462		
Client ID:	BATCH	Batch ID:	23532	Analysis Date:	2/13/2019	SeqNo:	969821				
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
4-Chlorotoluene	ND	1.00						0		30	H
tert-Butylbenzene	ND	1.00						0		30	H
1,2,3-Trichloropropane	ND	1.00						0		30	H
1,2,4-Trichlorobenzene	ND	2.00						0		30	H
sec-Butylbenzene	ND	1.00						0		30	H
4-Isopropyltoluene	ND	1.00						0		30	H
1,3-Dichlorobenzene	ND	1.00						0		30	H
1,4-Dichlorobenzene	ND	1.00						0		30	H
n-Butylbenzene	ND	1.00						0		30	H
1,2-Dichlorobenzene	ND	1.00						0		30	H
1,2-Dibromo-3-chloropropane	ND	1.00						0		30	H
1,2,4-Trimethylbenzene	ND	1.00						0		30	H
Hexachloro-1,3-butadiene	ND	4.00						0		30	H
Naphthalene	ND	1.00						0		30	H
1,2,3-Trichlorobenzene	ND	4.00						0		30	H
Surr: Dibromofluoromethane	24.3		25.00		97.3	45.4	152		0		H
Surr: Toluene-d8	25.4		25.00		102	40.1	139		0		H
Surr: 1-Bromo-4-fluorobenzene	25.1		25.00		100	64.2	128		0		H

Sample ID	1902123-002AMS	SampType:	MS	Units:	µg/L	Prep Date:	2/13/2019	RunNo:	49462		
Client ID:	MW-3:W	Batch ID:	23532	Analysis Date:	2/14/2019	SeqNo:	969824				
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Dichlorodifluoromethane (CFC-12)	25.1	1.00	20.00	0	126	33.3	122				S
Chloromethane	23.8	2.00	20.00	0	119	39.7	143				
Vinyl chloride	24.7	0.200	20.00	0	123	41	165				
Bromomethane	22.2	1.00	20.00	0	111	31.5	135				
Trichlorofluoromethane (CFC-11)	20.6	1.00	20.00	0	103	54.7	138				
Chloroethane	22.4	1.00	20.00	0	112	49.9	143				
1,1-Dichloroethene	22.3	1.00	20.00	0	112	51.6	164				

Work Order: 1902123  
 CLIENT: Kane Environmental, Inc.  
 Project: BSCSS

**QC SUMMARY REPORT**  
**Volatile Organic Compounds by EPA Method 8260C**

Sample ID	1902123-002AMS	SampType:	MS	Units:	µg/L	Prep Date:	2/13/2019	RunNo:	49462
Client ID:	MW-3:W	Batch ID:	23532			Analysis Date:	2/14/2019	SeqNo:	969824

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Methylene chloride	20.2	1.00	20.00	0	101	61.6	135				
trans-1,2-Dichloroethene	20.3	1.00	20.00	0	102	63.5	138				
Methyl tert-butyl ether (MTBE)	16.8	1.00	20.00	0	84.1	60.9	132				
1,1-Dichloroethane	20.5	1.00	20.00	0	102	55.7	151				
2,2-Dichloropropane	18.3	2.00	20.00	0	91.6	37.7	150				
cis-1,2-Dichloroethene	20.4	1.00	20.00	0	102	60	154				
Chloroform	29.5	1.00	20.00	9.903	97.9	48.1	140				
1,1,1-Trichloroethane (TCA)	18.5	1.00	20.00	0	92.7	64.2	146				
1,1-Dichloropropene	20.2	1.00	20.00	0	101	73.8	136				
Carbon tetrachloride	18.4	1.00	20.00	0	92.2	62.7	146				
1,2-Dichloroethane (EDC)	16.2	1.00	20.00	0	80.8	63.4	137				
Benzene	20.6	1.00	20.00	0	103	65.4	138				
Trichloroethene (TCE)	19.7	0.500	20.00	0	98.5	60.4	134				
1,2-Dichloropropane	19.3	1.00	20.00	0	96.7	62.6	138				
Bromodichloromethane	18.5	1.00	20.00	0.6053	89.3	59.4	139				
Dibromomethane	18.2	1.00	20.00	0	90.9	58.7	148				
cis-1,3-Dichloropropene	17.4	1.00	20.00	0	87.2	63.8	132				
Toluene	20.6	1.00	20.00	0	103	52	147				
trans-1,3-Dichloropropylene	15.5	1.00	20.00	0	77.3	57.7	125				
1,1,2-Trichloroethane	17.8	1.00	20.00	0	89.1	57.5	153				
1,3-Dichloropropane	17.5	1.00	20.00	0	87.3	54.1	157				
Tetrachloroethene (PCE)	20.7	1.00	20.00	0	104	50.3	133				
Dibromochloromethane	16.0	1.00	20.00	0	80.1	61.6	139				
1,2-Dibromoethane (EDB)	16.5	0.250	20.00	0	82.3	63.2	134				
Chlorobenzene	19.2	1.00	20.00	0	96.0	65.8	134				
1,1,1,2-Tetrachloroethane	18.3	1.00	20.00	0	91.4	65.4	135				
Ethylbenzene	19.8	1.00	20.00	0	99.1	64.5	136				
m,p-Xylene	39.1	1.00	40.00	0	97.6	63.3	135				
o-Xylene	19.6	1.00	20.00	0	97.9	64.8	150				
Styrene	19.3	1.00	20.00	0	96.3	52.9	163				
Isopropylbenzene	19.8	1.00	20.00	0	99.2	56	147				

Work Order: 1902123  
 CLIENT: Kane Environmental, Inc.  
 Project: BSCSS

**QC SUMMARY REPORT**  
**Volatile Organic Compounds by EPA Method 8260C**

Sample ID	1902123-002AMS	SampType:	MS	Units:	µg/L	Prep Date:	2/13/2019	RunNo:	49462		
Client ID:	MW-3:W	Batch ID:	23532	Analysis Date:	2/14/2019	SeqNo:	969824				
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Bromoform	15.4	2.00	20.00	0	77.2	57.7	139				
1,1,2,2-Tetrachloroethane	18.0	1.00	20.00	0	90.2	59.8	146				
n-Propylbenzene	19.5	1.00	20.00	0	97.4	57.6	142				
Bromobenzene	19.1	1.00	20.00	0	95.7	69.3	157				
1,3,5-Trimethylbenzene	19.3	1.00	20.00	0	96.7	59.9	136				
2-Chlorotoluene	19.5	1.00	20.00	0	97.3	61.7	134				
4-Chlorotoluene	19.0	1.00	20.00	0	95.1	58.4	134				
tert-Butylbenzene	19.5	1.00	20.00	0	97.7	66.8	141				
1,2,3-Trichloropropane	16.6	1.00	20.00	0	83.1	62.4	129				
1,2,4-Trichlorobenzene	18.8	2.00	20.00	0	93.8	50.9	133				
sec-Butylbenzene	19.9	1.00	20.00	0	99.4	56	146				
4-Isopropyltoluene	19.2	1.00	20.00	0	96.1	56.4	136				
1,3-Dichlorobenzene	20.1	1.00	20.00	0	101	58.2	128				
1,4-Dichlorobenzene	19.9	1.00	20.00	0	99.4	60.1	123				
n-Butylbenzene	20.8	1.00	20.00	0	104	54.6	135				
1,2-Dichlorobenzene	19.6	1.00	20.00	0	98.0	65.4	133				
1,2-Dibromo-3-chloropropane	15.9	1.00	20.00	0	79.7	51.8	142				
1,2,4-Trimethylbenzene	19.1	1.00	20.00	0	95.6	63.7	132				
Hexachloro-1,3-butadiene	21.1	4.00	20.00	0	106	58.1	130				
Naphthalene	17.2	1.00	20.00	0	86.1	50.7	154				
1,2,3-Trichlorobenzene	18.5	4.00	20.00	0	92.6	57	131				
Surr: Dibromofluoromethane	24.4		25.00		97.8	45.4	152				
Surr: Toluene-d8	25.6		25.00		102	40.1	139				
Surr: 1-Bromo-4-fluorobenzene	25.6		25.00		102	64.2	128				

Sample ID	1902123-002AMSD	SampType:	MSD	Units:	µg/L	Prep Date:	2/13/2019	RunNo:	49462		
Client ID:	MW-3:W	Batch ID:	23532	Analysis Date:	2/14/2019	SeqNo:	969825				
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Dichlorodifluoromethane (CFC-12)	21.2	1.00	20.00	0	106	33.3	122	25.15	17.0	30	



Work Order: 1902123  
 CLIENT: Kane Environmental, Inc.  
 Project: BSCSS

**QC SUMMARY REPORT**  
**Volatile Organic Compounds by EPA Method 8260C**

Sample ID	1902123-002AMSD	SampType:	MSD	Units:	µg/L	Prep Date:	2/13/2019	RunNo:	49462		
Client ID:	MW-3:W	Batch ID:	23532	Analysis Date:	2/14/2019	SeqNo:	969825				
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Chloromethane	20.5	2.00	20.00	0	102	39.7	143	23.77	14.8	30	
Vinyl chloride	20.7	0.200	20.00	0	103	41	165	24.68	17.6	30	
Bromomethane	18.0	1.00	20.00	0	90.2	31.5	135	22.20	20.7	30	
Trichlorofluoromethane (CFC-11)	17.1	1.00	20.00	0	85.6	54.7	138	20.58	18.4	30	
Chloroethane	18.7	1.00	20.00	0	93.3	49.9	143	22.36	18.0	30	
1,1-Dichloroethene	18.8	1.00	20.00	0	94.0	51.6	164	22.34	17.2	30	
Methylene chloride	16.7	1.00	20.00	0	83.3	61.6	135	20.22	19.3	30	
trans-1,2-Dichloroethene	17.4	1.00	20.00	0	86.9	63.5	138	20.33	15.7	30	
Methyl tert-butyl ether (MTBE)	14.0	1.00	20.00	0	69.9	60.9	132	16.83	18.4	30	
1,1-Dichloroethane	17.0	1.00	20.00	0	85.0	55.7	151	20.49	18.6	30	
2,2-Dichloropropane	15.1	2.00	20.00	0	75.7	37.7	150	18.32	19.0	30	
cis-1,2-Dichloroethene	17.0	1.00	20.00	0	85.0	60	154	20.38	18.0	30	
Chloroform	24.3	1.00	20.00	9.903	72.1	48.1	140	29.49	19.2	30	
1,1,1-Trichloroethane (TCA)	15.5	1.00	20.00	0	77.6	64.2	146	18.55	17.8	30	
1,1-Dichloropropene	16.8	1.00	20.00	0	84.2	73.8	136	20.17	18.0	30	
Carbon tetrachloride	15.5	1.00	20.00	0	77.6	62.7	146	18.45	17.3	30	
1,2-Dichloroethane (EDC)	13.3	1.00	20.00	0	66.3	63.4	137	16.15	19.7	30	
Benzene	17.2	1.00	20.00	0	85.8	65.4	138	20.57	18.1	30	
Trichloroethene (TCE)	16.4	0.500	20.00	0	82.2	60.4	134	19.70	18.0	30	
1,2-Dichloropropane	16.0	1.00	20.00	0	80.0	62.6	138	19.35	18.9	30	
Bromodichloromethane	15.4	1.00	20.00	0.6053	74.0	59.4	139	18.46	18.0	30	
Dibromomethane	15.0	1.00	20.00	0	75.2	58.7	148	18.19	18.9	30	
cis-1,3-Dichloropropene	14.3	1.00	20.00	0	71.6	63.8	132	17.45	19.7	30	
Toluene	17.1	1.00	20.00	0	85.3	52	147	20.56	18.6	30	
trans-1,3-Dichloropropylene	12.8	1.00	20.00	0	64.2	57.7	125	15.45	18.5	30	
1,1,2-Trichloroethane	14.8	1.00	20.00	0	73.9	57.5	153	17.82	18.6	30	
1,3-Dichloropropane	14.4	1.00	20.00	0	71.9	54.1	157	17.46	19.3	30	
Tetrachloroethene (PCE)	17.2	1.00	20.00	0	86.1	50.3	133	20.70	18.3	30	
Dibromochloromethane	13.5	1.00	20.00	0	67.5	61.6	139	16.01	17.0	30	
1,2-Dibromoethane (EDB)	13.5	0.250	20.00	0	67.4	63.2	134	16.45	19.9	30	
Chlorobenzene	15.9	1.00	20.00	0	79.7	65.8	134	19.21	18.6	30	

Work Order: 1902123  
 CLIENT: Kane Environmental, Inc.  
 Project: BSCSS

**QC SUMMARY REPORT**  
**Volatile Organic Compounds by EPA Method 8260C**

Sample ID	1902123-002AMSD	SampType:	MSD	Units:	µg/L	Prep Date:	2/13/2019	RunNo:	49462
Client ID:	MW-3-W	Batch ID:	23532			Analysis Date:	2/14/2019	SeqNo:	969825

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,1,1,2-Tetrachloroethane	15.3	1.00	20.00	0	76.3	65.4	135	18.29	18.1	30	
Ethylbenzene	16.6	1.00	20.00	0	82.9	64.5	136	19.81	17.8	30	
m,p-Xylene	32.7	1.00	40.00	0	81.9	63.3	135	39.05	17.6	30	
o-Xylene	16.2	1.00	20.00	0	81.0	64.8	150	19.58	18.9	30	
Styrene	15.9	1.00	20.00	0	79.4	52.9	163	19.27	19.3	30	
Isopropylbenzene	16.5	1.00	20.00	0	82.3	56	147	19.85	18.7	30	
Bromoform	12.9	2.00	20.00	0	64.7	57.7	139	15.44	17.6	30	
1,1,1,2,2-Tetrachloroethane	15.3	1.00	20.00	0	76.7	59.8	146	18.05	16.2	30	
n-Propylbenzene	16.6	1.00	20.00	0	83.1	57.6	142	19.48	15.9	30	
Bromobenzene	15.9	1.00	20.00	0	79.4	69.3	157	19.13	18.6	30	
1,3,5-Trimethylbenzene	16.1	1.00	20.00	0	80.3	59.9	136	19.35	18.6	30	
2-Chlorotoluene	16.2	1.00	20.00	0	81.2	61.7	134	19.46	18.0	30	
4-Chlorotoluene	15.7	1.00	20.00	0	78.6	58.4	134	19.01	19.0	30	
tert-Butylbenzene	16.1	1.00	20.00	0	80.5	66.8	141	19.54	19.4	30	
1,2,3-Trichloropropane	14.0	1.00	20.00	0	69.9	62.4	129	16.62	17.2	30	
1,2,4-Trichlorobenzene	16.3	2.00	20.00	0	81.6	50.9	133	18.76	13.9	30	
sec-Butylbenzene	16.5	1.00	20.00	0	82.6	56	146	19.89	18.5	30	
4-Isopropyltoluene	16.0	1.00	20.00	0	80.2	56.4	136	19.22	18.1	30	
1,3-Dichlorobenzene	18.5	1.00	20.00	0	92.3	58.2	128	20.14	8.74	30	
1,4-Dichlorobenzene	17.1	1.00	20.00	0	85.4	60.1	123	19.88	15.2	30	
n-Butylbenzene	17.7	1.00	20.00	0	88.4	54.6	135	20.82	16.3	30	
1,2-Dichlorobenzene	16.8	1.00	20.00	0	83.8	65.4	133	19.60	15.7	30	
1,2-Dibromo-3-chloropropane	13.6	1.00	20.00	0	68.0	51.8	142	15.94	15.8	30	
1,2,4-Trimethylbenzene	15.9	1.00	20.00	0	79.5	63.7	132	19.13	18.4	30	
Hexachloro-1,3-butadiene	18.2	4.00	20.00	0	91.0	58.1	130	21.13	14.9	30	
Naphthalene	15.2	1.00	20.00	0	76.2	50.7	154	17.23	12.2	30	
1,2,3-Trichlorobenzene	15.8	4.00	20.00	0	79.1	57	131	18.52	15.7	30	
Surr: Dibromofluoromethane	24.5		25.00		98.0	45.4	152		0		
Surr: Toluene-d8	25.6		25.00		102	40.1	139		0		
Surr: 1-Bromo-4-fluorobenzene	25.5		25.00		102	64.2	128		0		

Client Name: **KANE**  
 Logged by: **Clare Griggs**

Work Order Number: **1902123**  
 Date Received: **2/12/2019 4:50:00 PM**

### Chain of Custody

1. Is Chain of Custody complete? Yes  No  Not Present   
 2. How was the sample delivered? Client

### Log In

3. Coolers are present? Yes  No  NA   
 4. Shipping container/cooler in good condition? Yes  No   
 5. Custody Seals present on shipping container/cooler?  
 (Refer to comments for Custody Seals not intact) Yes  No  Not Required   
 6. Was an attempt made to cool the samples? Yes  No  NA   
 7. Were all items received at a temperature of >0°C to 10.0°C \* Yes  No  NA   
 8. Sample(s) in proper container(s)? Yes  No   
 9. Sufficient sample volume for indicated test(s)? Yes  No   
 10. Are samples properly preserved? Yes  No   
 11. Was preservative added to bottles? Yes  No  NA   
 12. Is there headspace in the VOA vials? Yes  No  NA   
 13. Did all samples containers arrive in good condition(unbroken)? Yes  No   
 14. Does paperwork match bottle labels? Yes  No   
 15. Are matrices correctly identified on Chain of Custody? Yes  No   
 16. Is it clear what analyses were requested? Yes  No   
 17. Were all holding times able to be met? Yes  No

### Special Handling (if applicable)

18. Was client notified of all discrepancies with this order? Yes  No  NA

Person Notified:	<input type="text"/>	Date	<input type="text"/>
By Whom:	<input type="text"/>	Via:	<input type="checkbox"/> eMail <input type="checkbox"/> Phone <input type="checkbox"/> Fax <input type="checkbox"/> In Person
Regarding:	<input type="text"/>		
Client Instructions:	<input type="text"/>		

19. Additional remarks:

### Item Information

Item #	Temp °C
Cooler	4.9
Sample	2.0
Temp Blank	4.7

\* Note: DoD/ELAP and TNI require items to be received at 4°C +/- 2°C





3600 Fremont Ave N.  
Seattle, WA 98103  
Tel: 206-352-3790  
Fax: 206-352-7178

# Chain of Custody Record & Laboratory Services Agreement

Date: 2/12/19 Page: 1 of 1

Project Name: BSC55 Laboratory Project No (Internal): 1902123

Project No: 82302-9.4

Collected By: JJ

Location: Bothell, WA

Report To (PM): Jeff Jensen

PM Email: jette.kone-environmental.com

Sample Disposal:  Return to client  Disposal by lab (after 30 days)

Special Remarks:

Client: Kane Environmental  
Address: 4015 13th Ave W  
City, State, Zip: Seattle, WA 98119  
Telephone: (206) 691-0476  
Fax:

Sample Name	Sample Date	Sample Time	Sample Type (Matrix)*	VOCs (EPA 8260 / 624)	GV/BTEX	BTEX	Gasoline Range Organics (GX)	Hydrocarbon Identification (HCID)	Diesel/Heavy Oil Range Organics (DX)	SVOCs (EPA 8270 - SIM)	PAHs (EPA 8270 / 625)	PCBs (EPA 8270 - SIM)	Metals** (EPA 6020 / 200.8)	Total (T) / Dissolved (D)	Anions (IC)**	EDB (801)	TOC	Ammonia - N	BSK	Comments
1 MW-23:W	2/12/19	1220	GW	X	D	X	X	X	X	X	X	X	X	X	X	X	X	X	X	Lab filter
2 MW-3:W	2/12/19	1435	GW	X	D	X	X	X	X	X	X	X	X	X	X	X	X	X	X	Lab filter, QC
3																				
4																				
5																				
6																				
7																				
8																				
9																				
10																				

Matrix: A = Air, AQ = Aqueous, B = Bulk, O = Other, P = Product, S = Soil, SD = Sediment, SL = Solid, W = Water, DW = Drinking Water, GW = Ground Water, SW = Storm Water, WW = Waste Water  
 Metals (Circle): MTCA-5 RCRA-8 Priority Pollutants TAL Individual: Ag Al As B Ba Be Ca Cd Co Cr Cu Fe Hg K Mg Mn Mo Na Ni Pb Sp Se Sr Sn Tl Ti U V Zn  
 Anions (Circle): Nitrate Nitrite Chloride Sulfate Bromide O-Phosphate Fluoride Nitrate+Nitrite

I represent that I am authorized to enter into this Agreement with Fremont Analytical on behalf of the Client named above and that I have verified Client's agreement to each of the terms on the front and backside of this Agreement.

Relinquished x Date/Time 2/12/19 1650 Received x Date/Time 2/12/19 1650  
 Relinquished x Date/Time Received x Date/Time  
 Turn-around Time:  Standard  3 Day  2 Day  Next Day  Same Day (specify)



3600 Fremont Ave. N.  
Seattle, WA 98103  
T: (206) 352-3790  
F: (206) 352-7178  
info@fremontanalytical.com

**Kane Environmental, Inc.**

Jeff Jensen  
4015 13th Ave W.  
Seattle, WA 98103

**RE: BSCSS**

**Work Order Number: 1902220**

February 27, 2019

**Attention Jeff Jensen:**

Fremont Analytical, Inc. received 2 sample(s) on 2/19/2019 for the analyses presented in the following report.

- Ammonia by SM 4500 NH3G***
- Dissolved Gases by RSK-175***
- Dissolved Metals by EPA Method 200.8***
- Ion Chromatography by EPA Method 300.0***
- Total Organic Carbon by SM 5310C***
- Volatile Organic Compounds by EPA Method 8260C***

This report consists of the following:

- Case Narrative
- Analytical Results
- Applicable Quality Control Summary Reports
- Chain of Custody

All analyses were performed consistent with the Quality Assurance program of Fremont Analytical, Inc. Please contact the laboratory if you should have any questions about the results.

Thank you for using Fremont Analytical.

Sincerely,

A handwritten signature in black ink, appearing to read "Chelsea Ward".

Chelsea Ward  
Project Manager

DoD/ELAP Certification #L 17-135, ISO/IEC 17025:2005  
ORELAP Certification: WA 100009-007 (NELAP Recognized)



Date: 02/27/2019

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**CLIENT:** Kane Environmental, Inc.  
**Project:** BSCSS  
**Work Order:** 1902220

## Work Order Sample Summary

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Lab Sample ID	Client Sample ID	Date/Time Collected	Date/Time Received
1902220-001	MW-28:W	02/19/2019 1:35 PM	02/19/2019 4:40 PM
1902220-002	MW-33:W	02/19/2019 3:20 PM	02/19/2019 4:40 PM

**CLIENT:** Kane Environmental, Inc.

**Project:** BSCSS

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**I. SAMPLE RECEIPT:**

Samples receipt information is recorded on the attached Sample Receipt Checklist.

**II. GENERAL REPORTING COMMENTS:**

Results are reported on a wet weight basis unless dry-weight correction is denoted in the units field on the analytical report ("mg/kg-dry" or "ug/kg-dry").

Matrix Spike (MS) and MS Duplicate (MSD) samples are tested from an analytical batch of "like" matrix to check for possible matrix effect. The MS and MSD will provide site specific matrix data only for those samples which are spiked by the laboratory. The sample chosen for spike purposes may or may not have been a sample submitted in this sample delivery group. The validity of the analytical procedures for which data is reported in this analytical report is determined by the Laboratory Control Sample (LCS) and the Method Blank (MB). The LCS and the MB are processed with the samples and the MS/MSD to ensure method criteria are achieved throughout the entire analytical process.

**III. ANALYSES AND EXCEPTIONS:**

Exceptions associated with this report will be footnoted in the analytical results page(s) or the quality control summary page(s) and/or noted below.

### Qualifiers:

- \* - Flagged value is not within established control limits
- B - Analyte detected in the associated Method Blank
- D - Dilution was required
- E - Value above quantitation range
- H - Holding times for preparation or analysis exceeded
- I - Analyte with an internal standard that does not meet established acceptance criteria
- J - Analyte detected below Reporting Limit
- N - Tentatively Identified Compound (TIC)
- Q - Analyte with an initial or continuing calibration that does not meet established acceptance criteria (<20%RSD, <20% Drift or minimum RRF)
- S - Spike recovery outside accepted recovery limits
- ND - Not detected at the Reporting Limit
- R - High relative percent difference observed

### Acronyms:

- %Rec - Percent Recovery
- CCB - Continued Calibration Blank
- CCV - Continued Calibration Verification
- DF - Dilution Factor
- HEM - Hexane Extractable Material
- ICV - Initial Calibration Verification
- LCS/LCSD - Laboratory Control Sample / Laboratory Control Sample Duplicate
- MB or MBLANK - Method Blank
- MDL - Method Detection Limit
- MS/MSD - Matrix Spike / Matrix Spike Duplicate
- PDS - Post Digestion Spike
- Ref Val - Reference Value
- RL - Reporting Limit
- RPD - Relative Percent Difference
- SD - Serial Dilution
- SGT - Silica Gel Treatment
- SPK - Spike
- Surr - Surrogate



**Client:** Kane Environmental, Inc.

**Collection Date:** 2/19/2019 1:35:00 PM

**Project:** BSCSS

**Lab ID:** 1902220-001

**Matrix:** Groundwater

**Client Sample ID:** MW-28:W

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
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**Dissolved Gases by RSK-175**

Batch ID: R49724 Analyst: AD

Methane	ND	0.00863		mg/L	1	2/27/2019 5:27:00 PM
Ethene	ND	0.0151		mg/L	1	2/27/2019 5:27:00 PM
Ethane	ND	0.0162		mg/L	1	2/27/2019 5:27:00 PM

**Volatile Organic Compounds by EPA Method 8260C**

Batch ID: 23618 Analyst: CR

Dichlorodifluoromethane (CFC-12)	ND	1.00		µg/L	1	2/24/2019 11:42:39 PM
Chloromethane	ND	2.00		µg/L	1	2/24/2019 11:42:39 PM
Vinyl chloride	ND	0.200		µg/L	1	2/24/2019 11:42:39 PM
Bromomethane	ND	1.00		µg/L	1	2/24/2019 11:42:39 PM
Trichlorofluoromethane (CFC-11)	ND	1.00		µg/L	1	2/24/2019 11:42:39 PM
Chloroethane	ND	1.00		µg/L	1	2/24/2019 11:42:39 PM
1,1-Dichloroethene	ND	1.00		µg/L	1	2/24/2019 11:42:39 PM
Methylene chloride	ND	1.00		µg/L	1	2/24/2019 11:42:39 PM
trans-1,2-Dichloroethene	ND	1.00		µg/L	1	2/24/2019 11:42:39 PM
Methyl tert-butyl ether (MTBE)	ND	1.00		µg/L	1	2/24/2019 11:42:39 PM
1,1-Dichloroethane	ND	1.00		µg/L	1	2/24/2019 11:42:39 PM
2,2-Dichloropropane	ND	2.00		µg/L	1	2/24/2019 11:42:39 PM
cis-1,2-Dichloroethene	ND	1.00		µg/L	1	2/24/2019 11:42:39 PM
Chloroform	ND	1.00		µg/L	1	2/24/2019 11:42:39 PM
1,1,1-Trichloroethane (TCA)	ND	1.00		µg/L	1	2/24/2019 11:42:39 PM
1,1-Dichloropropene	ND	1.00		µg/L	1	2/24/2019 11:42:39 PM
Carbon tetrachloride	ND	1.00		µg/L	1	2/24/2019 11:42:39 PM
1,2-Dichloroethane (EDC)	ND	1.00		µg/L	1	2/24/2019 11:42:39 PM
Benzene	ND	1.00		µg/L	1	2/24/2019 11:42:39 PM
Trichloroethene (TCE)	ND	0.500		µg/L	1	2/24/2019 11:42:39 PM
1,2-Dichloropropane	ND	1.00		µg/L	1	2/24/2019 11:42:39 PM
Bromodichloromethane	ND	1.00		µg/L	1	2/24/2019 11:42:39 PM
Dibromomethane	ND	1.00		µg/L	1	2/24/2019 11:42:39 PM
cis-1,3-Dichloropropene	ND	1.00		µg/L	1	2/24/2019 11:42:39 PM
Toluene	ND	1.00		µg/L	1	2/24/2019 11:42:39 PM
trans-1,3-Dichloropropylene	ND	1.00		µg/L	1	2/24/2019 11:42:39 PM
1,1,2-Trichloroethane	ND	1.00		µg/L	1	2/24/2019 11:42:39 PM
1,3-Dichloropropane	ND	1.00		µg/L	1	2/24/2019 11:42:39 PM
Tetrachloroethene (PCE)	ND	1.00		µg/L	1	2/24/2019 11:42:39 PM
Dibromochloromethane	ND	1.00		µg/L	1	2/24/2019 11:42:39 PM
1,2-Dibromoethane (EDB)	ND	0.250		µg/L	1	2/24/2019 11:42:39 PM
Chlorobenzene	ND	1.00		µg/L	1	2/24/2019 11:42:39 PM
1,1,1,2-Tetrachloroethane	ND	1.00		µg/L	1	2/24/2019 11:42:39 PM



**Client:** Kane Environmental, Inc.

**Collection Date:** 2/19/2019 1:35:00 PM

**Project:** BSCSS

**Lab ID:** 1902220-001

**Matrix:** Groundwater

**Client Sample ID:** MW-28:W

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
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**Volatile Organic Compounds by EPA Method 8260C**

Batch ID: 23618

Analyst: CR

Ethylbenzene	ND	1.00		µg/L	1	2/24/2019 11:42:39 PM
m,p-Xylene	ND	1.00		µg/L	1	2/24/2019 11:42:39 PM
o-Xylene	ND	1.00		µg/L	1	2/24/2019 11:42:39 PM
Styrene	ND	1.00		µg/L	1	2/24/2019 11:42:39 PM
Isopropylbenzene	ND	1.00		µg/L	1	2/24/2019 11:42:39 PM
Bromoform	ND	2.00		µg/L	1	2/24/2019 11:42:39 PM
1,1,2,2-Tetrachloroethane	ND	1.00		µg/L	1	2/24/2019 11:42:39 PM
n-Propylbenzene	ND	1.00		µg/L	1	2/24/2019 11:42:39 PM
Bromobenzene	ND	1.00		µg/L	1	2/24/2019 11:42:39 PM
1,3,5-Trimethylbenzene	ND	1.00		µg/L	1	2/24/2019 11:42:39 PM
2-Chlorotoluene	ND	1.00		µg/L	1	2/24/2019 11:42:39 PM
4-Chlorotoluene	ND	1.00		µg/L	1	2/24/2019 11:42:39 PM
tert-Butylbenzene	ND	1.00		µg/L	1	2/24/2019 11:42:39 PM
1,2,3-Trichloropropane	ND	1.00		µg/L	1	2/24/2019 11:42:39 PM
1,2,4-Trichlorobenzene	ND	2.00		µg/L	1	2/24/2019 11:42:39 PM
sec-Butylbenzene	ND	1.00		µg/L	1	2/24/2019 11:42:39 PM
4-Isopropyltoluene	ND	1.00		µg/L	1	2/24/2019 11:42:39 PM
1,3-Dichlorobenzene	ND	1.00		µg/L	1	2/24/2019 11:42:39 PM
1,4-Dichlorobenzene	ND	1.00		µg/L	1	2/24/2019 11:42:39 PM
n-Butylbenzene	ND	1.00		µg/L	1	2/24/2019 11:42:39 PM
1,2-Dichlorobenzene	ND	1.00		µg/L	1	2/24/2019 11:42:39 PM
1,2-Dibromo-3-chloropropane	ND	1.00		µg/L	1	2/24/2019 11:42:39 PM
1,2,4-Trimethylbenzene	ND	1.00		µg/L	1	2/24/2019 11:42:39 PM
Hexachloro-1,3-butadiene	ND	4.00		µg/L	1	2/24/2019 11:42:39 PM
Naphthalene	ND	1.00		µg/L	1	2/24/2019 11:42:39 PM
1,2,3-Trichlorobenzene	ND	4.00		µg/L	1	2/24/2019 11:42:39 PM
Surr: Dibromofluoromethane	89.7	45.4 - 152		%Rec	1	2/24/2019 11:42:39 PM
Surr: Toluene-d8	97.1	40.1 - 139		%Rec	1	2/24/2019 11:42:39 PM
Surr: 1-Bromo-4-fluorobenzene	91.3	64.2 - 128		%Rec	1	2/24/2019 11:42:39 PM

**Ion Chromatography by EPA Method 300.0**

Batch ID: 23617

Analyst: GM

Chloride	5.65	0.500	D	mg/L	5	2/22/2019 4:25:00 PM
Sulfate	8.78	0.300		mg/L	1	2/22/2019 5:34:00 PM

**Dissolved Metals by EPA Method 200.8**

Batch ID: 23608

Analyst: WC

Iron	ND	100		µg/L	1	2/22/2019 2:55:32 PM
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**Client:** Kane Environmental, Inc.  
**Project:** BSCSS  
**Lab ID:** 1902220-001  
**Client Sample ID:** MW-28:W

**Collection Date:** 2/19/2019 1:35:00 PM  
**Matrix:** Groundwater

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
<b><u>Total Organic Carbon by SM 5310C</u></b>				Batch ID: R49626		Analyst: GM
Total Organic Carbon	0.618	0.500		mg/L	1	2/21/2019 5:59:00 PM
<b><u>Ammonia by SM 4500 NH3G</u></b>				Batch ID: 23619		Analyst: GM
Nitrogen, Ammonia	ND	0.100		mg/L	1	2/22/2019 3:08:00 PM





**Client:** Kane Environmental, Inc.

**Collection Date:** 2/19/2019 3:20:00 PM

**Project:** BSCSS

**Lab ID:** 1902220-002

**Matrix:** Groundwater

**Client Sample ID:** MW-33:W

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
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**Dissolved Gases by RSK-175**

Batch ID: R49724 Analyst: AD

Methane	ND	0.00863		mg/L	1	2/27/2019 5:34:00 PM
Ethene	ND	0.0151		mg/L	1	2/27/2019 5:34:00 PM
Ethane	ND	0.0162		mg/L	1	2/27/2019 5:34:00 PM

**Volatile Organic Compounds by EPA Method 8260C**

Batch ID: 23618 Analyst: CR

Dichlorodifluoromethane (CFC-12)	ND	1.00		µg/L	1	2/25/2019 12:43:18 AM
Chloromethane	ND	2.00		µg/L	1	2/25/2019 12:43:18 AM
Vinyl chloride	ND	0.200		µg/L	1	2/25/2019 12:43:18 AM
Bromomethane	ND	1.00		µg/L	1	2/25/2019 12:43:18 AM
Trichlorofluoromethane (CFC-11)	ND	1.00		µg/L	1	2/25/2019 12:43:18 AM
Chloroethane	ND	1.00		µg/L	1	2/25/2019 12:43:18 AM
1,1-Dichloroethene	ND	1.00		µg/L	1	2/25/2019 12:43:18 AM
Methylene chloride	ND	1.00		µg/L	1	2/25/2019 12:43:18 AM
trans-1,2-Dichloroethene	ND	1.00		µg/L	1	2/25/2019 12:43:18 AM
Methyl tert-butyl ether (MTBE)	ND	1.00		µg/L	1	2/25/2019 12:43:18 AM
1,1-Dichloroethane	ND	1.00		µg/L	1	2/25/2019 12:43:18 AM
2,2-Dichloropropane	ND	2.00		µg/L	1	2/25/2019 12:43:18 AM
cis-1,2-Dichloroethene	ND	1.00		µg/L	1	2/25/2019 12:43:18 AM
Chloroform	ND	1.00		µg/L	1	2/25/2019 12:43:18 AM
1,1,1-Trichloroethane (TCA)	ND	1.00		µg/L	1	2/25/2019 12:43:18 AM
1,1-Dichloropropene	ND	1.00		µg/L	1	2/25/2019 12:43:18 AM
Carbon tetrachloride	ND	1.00		µg/L	1	2/25/2019 12:43:18 AM
1,2-Dichloroethane (EDC)	ND	1.00		µg/L	1	2/25/2019 12:43:18 AM
Benzene	ND	1.00		µg/L	1	2/25/2019 12:43:18 AM
Trichloroethene (TCE)	ND	0.500		µg/L	1	2/25/2019 12:43:18 AM
1,2-Dichloropropane	ND	1.00		µg/L	1	2/25/2019 12:43:18 AM
Bromodichloromethane	ND	1.00		µg/L	1	2/25/2019 12:43:18 AM
Dibromomethane	ND	1.00		µg/L	1	2/25/2019 12:43:18 AM
cis-1,3-Dichloropropene	ND	1.00		µg/L	1	2/25/2019 12:43:18 AM
Toluene	ND	1.00		µg/L	1	2/25/2019 12:43:18 AM
trans-1,3-Dichloropropylene	ND	1.00		µg/L	1	2/25/2019 12:43:18 AM
1,1,2-Trichloroethane	ND	1.00		µg/L	1	2/25/2019 12:43:18 AM
1,3-Dichloropropane	ND	1.00		µg/L	1	2/25/2019 12:43:18 AM
Tetrachloroethene (PCE)	ND	1.00		µg/L	1	2/25/2019 12:43:18 AM
Dibromochloromethane	ND	1.00		µg/L	1	2/25/2019 12:43:18 AM
1,2-Dibromoethane (EDB)	ND	0.250		µg/L	1	2/25/2019 12:43:18 AM
Chlorobenzene	ND	1.00		µg/L	1	2/25/2019 12:43:18 AM
1,1,1,2-Tetrachloroethane	ND	1.00		µg/L	1	2/25/2019 12:43:18 AM



**Client:** Kane Environmental, Inc.

**Collection Date:** 2/19/2019 3:20:00 PM

**Project:** BSCSS

**Lab ID:** 1902220-002

**Matrix:** Groundwater

**Client Sample ID:** MW-33:W

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
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**Volatile Organic Compounds by EPA Method 8260C**

Batch ID: 23618

Analyst: CR

Ethylbenzene	ND	1.00		µg/L	1	2/25/2019 12:43:18 AM
m,p-Xylene	ND	1.00		µg/L	1	2/25/2019 12:43:18 AM
o-Xylene	ND	1.00		µg/L	1	2/25/2019 12:43:18 AM
Styrene	ND	1.00		µg/L	1	2/25/2019 12:43:18 AM
Isopropylbenzene	ND	1.00		µg/L	1	2/25/2019 12:43:18 AM
Bromoform	ND	2.00		µg/L	1	2/25/2019 12:43:18 AM
1,1,2,2-Tetrachloroethane	ND	1.00		µg/L	1	2/25/2019 12:43:18 AM
n-Propylbenzene	ND	1.00		µg/L	1	2/25/2019 12:43:18 AM
Bromobenzene	ND	1.00		µg/L	1	2/25/2019 12:43:18 AM
1,3,5-Trimethylbenzene	ND	1.00		µg/L	1	2/25/2019 12:43:18 AM
2-Chlorotoluene	ND	1.00		µg/L	1	2/25/2019 12:43:18 AM
4-Chlorotoluene	ND	1.00		µg/L	1	2/25/2019 12:43:18 AM
tert-Butylbenzene	ND	1.00		µg/L	1	2/25/2019 12:43:18 AM
1,2,3-Trichloropropane	ND	1.00		µg/L	1	2/25/2019 12:43:18 AM
1,2,4-Trichlorobenzene	ND	2.00		µg/L	1	2/25/2019 12:43:18 AM
sec-Butylbenzene	ND	1.00		µg/L	1	2/25/2019 12:43:18 AM
4-Isopropyltoluene	ND	1.00		µg/L	1	2/25/2019 12:43:18 AM
1,3-Dichlorobenzene	ND	1.00		µg/L	1	2/25/2019 12:43:18 AM
1,4-Dichlorobenzene	ND	1.00		µg/L	1	2/25/2019 12:43:18 AM
n-Butylbenzene	ND	1.00		µg/L	1	2/25/2019 12:43:18 AM
1,2-Dichlorobenzene	ND	1.00		µg/L	1	2/25/2019 12:43:18 AM
1,2-Dibromo-3-chloropropane	ND	1.00		µg/L	1	2/25/2019 12:43:18 AM
1,2,4-Trimethylbenzene	ND	1.00		µg/L	1	2/25/2019 12:43:18 AM
Hexachloro-1,3-butadiene	ND	4.00		µg/L	1	2/25/2019 12:43:18 AM
Naphthalene	ND	1.00		µg/L	1	2/25/2019 12:43:18 AM
1,2,3-Trichlorobenzene	ND	4.00		µg/L	1	2/25/2019 12:43:18 AM
Surr: Dibromofluoromethane	98.8	45.4 - 152		%Rec	1	2/25/2019 12:43:18 AM
Surr: Toluene-d8	93.4	40.1 - 139		%Rec	1	2/25/2019 12:43:18 AM
Surr: 1-Bromo-4-fluorobenzene	96.5	64.2 - 128		%Rec	1	2/25/2019 12:43:18 AM

**Ion Chromatography by EPA Method 300.0**

Batch ID: 23617

Analyst: GM

Chloride	6.45	0.400	D	mg/L	4	2/22/2019 4:48:00 PM
Sulfate	11.5	0.600	D	mg/L	2	2/22/2019 5:57:00 PM

**Dissolved Metals by EPA Method 200.8**

Batch ID: 23608

Analyst: WC

Iron	ND	100		µg/L	1	2/22/2019 3:11:39 PM
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**Client:** Kane Environmental, Inc.  
**Project:** BSCSS  
**Lab ID:** 1902220-002  
**Client Sample ID:** MW-33:W

**Collection Date:** 2/19/2019 3:20:00 PM  
**Matrix:** Groundwater

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
<b><u>Total Organic Carbon by SM 5310C</u></b>				Batch ID: R49626		Analyst: GM
Total Organic Carbon	1.44	0.500		mg/L	1	2/21/2019 7:18:00 PM
<b><u>Ammonia by SM 4500 NH3G</u></b>				Batch ID: 23619		Analyst: GM
Nitrogen, Ammonia	ND	0.100		mg/L	1	2/22/2019 3:29:00 PM

**Work Order:** 1902220  
**CLIENT:** Kane Environmental, Inc.  
**Project:** BSCSS

**QC SUMMARY REPORT**  
**Ammonia by SM 4500 NH3G**

Sample ID <b>MB-23619</b>	SampType: <b>MBLK</b>	Units: <b>mg/L</b>	Prep Date: <b>2/22/2019</b>	RunNo: <b>49635</b>							
Client ID: <b>MBLKW</b>	Batch ID: <b>23619</b>		Analysis Date: <b>2/22/2019</b>	SeqNo: <b>973043</b>							
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Nitrogen, Ammonia ND 0.100

Sample ID <b>LCS-23619</b>	SampType: <b>LCS</b>	Units: <b>mg/L</b>	Prep Date: <b>2/22/2019</b>	RunNo: <b>49635</b>							
Client ID: <b>LCSW</b>	Batch ID: <b>23619</b>		Analysis Date: <b>2/22/2019</b>	SeqNo: <b>973044</b>							
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Nitrogen, Ammonia 0.443 0.100 0.5000 0 88.6 80 120

Sample ID <b>1902220-001DDUP</b>	SampType: <b>DUP</b>	Units: <b>mg/L</b>	Prep Date: <b>2/22/2019</b>	RunNo: <b>49635</b>							
Client ID: <b>MW-28:W</b>	Batch ID: <b>23619</b>		Analysis Date: <b>2/22/2019</b>	SeqNo: <b>973046</b>							
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Nitrogen, Ammonia ND 0.100 0 30

Sample ID <b>1902220-001DMS</b>	SampType: <b>MS</b>	Units: <b>mg/L</b>	Prep Date: <b>2/22/2019</b>	RunNo: <b>49635</b>							
Client ID: <b>MW-28:W</b>	Batch ID: <b>23619</b>		Analysis Date: <b>2/22/2019</b>	SeqNo: <b>973047</b>							
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Nitrogen, Ammonia 0.291 0.100 0.5000 0 58.2 70 130 S

**NOTES:**

S - Outlying spike recovery(ies) observed. A duplicate analysis was performed with similar results indicating a possible matrix effect.

Sample ID <b>1902220-001DMSD</b>	SampType: <b>MSD</b>	Units: <b>mg/L</b>	Prep Date: <b>2/22/2019</b>	RunNo: <b>49635</b>							
Client ID: <b>MW-28:W</b>	Batch ID: <b>23619</b>		Analysis Date: <b>2/22/2019</b>	SeqNo: <b>973048</b>							
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Nitrogen, Ammonia 0.312 0.100 0.5000 0 62.4 70 130 0.2910 6.97 30 S

**NOTES:**

S - Outlying spike recovery(ies) observed. A duplicate analysis was performed with similar results indicating a possible matrix effect.

Work Order: 1902220  
 CLIENT: Kane Environmental, Inc.  
 Project: BSCSS

**QC SUMMARY REPORT**  
**Ion Chromatography by EPA Method 300.0**

Sample ID	<b>MB-23617</b>	SampType:	<b>MBLK</b>	Units:	<b>mg/L</b>	Prep Date:	<b>2/22/2019</b>	RunNo:	<b>49662</b>			
Client ID:	<b>MBLKW</b>	Batch ID:	<b>23617</b>			Analysis Date:	<b>2/22/2019</b>	SeqNo:	<b>973457</b>			
Analyte		Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Chloride	ND	0.100										
Sulfate	ND	0.300										

Sample ID	<b>LCS-23617</b>	SampType:	<b>LCS</b>	Units:	<b>mg/L</b>	Prep Date:	<b>2/22/2019</b>	RunNo:	<b>49662</b>			
Client ID:	<b>LCSW</b>	Batch ID:	<b>23617</b>			Analysis Date:	<b>2/22/2019</b>	SeqNo:	<b>973458</b>			
Analyte		Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Chloride	0.734	0.100	0.7500	0	97.9	90	110					
Sulfate	3.67	0.300	3.750	0	97.8	90	110					

Sample ID	<b>1902260-002CDUP</b>	SampType:	<b>DUP</b>	Units:	<b>mg/L</b>	Prep Date:	<b>2/22/2019</b>	RunNo:	<b>49662</b>			
Client ID:	<b>BATCH</b>	Batch ID:	<b>23617</b>			Analysis Date:	<b>2/22/2019</b>	SeqNo:	<b>973460</b>			
Analyte		Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Chloride	14.5	0.500							14.44	0.138	20	D
Sulfate	10.2	1.50							10.26	0.0976	20	D

Sample ID	<b>1902260-002CMS</b>	SampType:	<b>MS</b>	Units:	<b>mg/L</b>	Prep Date:	<b>2/22/2019</b>	RunNo:	<b>49662</b>			
Client ID:	<b>BATCH</b>	Batch ID:	<b>23617</b>			Analysis Date:	<b>2/22/2019</b>	SeqNo:	<b>973461</b>			
Analyte		Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Chloride	18.7	0.500	3.750	14.44	113	80	120					DE
Sulfate	28.9	1.50	18.75	10.26	99.5	80	120					D

**NOTES:**

E - Estimated value. The amount exceeds the linear working range of the instrument.

**Work Order:** 1902220  
**CLIENT:** Kane Environmental, Inc.  
**Project:** BSCSS

**QC SUMMARY REPORT**  
**Ion Chromatography by EPA Method 300.0**

Sample ID	1902260-002CMSD	SampType:	MSD	Units:	mg/L	Prep Date:	2/22/2019	RunNo:	49662		
Client ID:	BATCH	Batch ID:	23617			Analysis Date:	2/22/2019	SeqNo:	973462		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Chloride	18.7	0.500	3.750	14.44	114	80	120	18.68	0.214	20	DE
Sulfate	29.2	1.50	18.75	10.26	101	80	120	28.92	1.02	20	D

**NOTES:**

E - Estimated value. The amount exceeds the linear working range of the instrument.



Work Order: 1902220  
 CLIENT: Kane Environmental, Inc.  
 Project: BSCSS

**QC SUMMARY REPORT**  
**Dissolved Metals by EPA Method 200.8**

Sample ID <b>MB-23608</b>	SampType: <b>MBLK</b>	Units: <b>µg/L</b>	Prep Date: <b>2/22/2019</b>	RunNo: <b>49634</b>							
Client ID: <b>MBLKW</b>	Batch ID: <b>23608</b>		Analysis Date: <b>2/22/2019</b>	SeqNo: <b>972935</b>							
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Iron ND 100

Sample ID <b>LCS-23608</b>	SampType: <b>LCS</b>	Units: <b>µg/L</b>	Prep Date: <b>2/22/2019</b>	RunNo: <b>49634</b>							
Client ID: <b>LCSW</b>	Batch ID: <b>23608</b>		Analysis Date: <b>2/22/2019</b>	SeqNo: <b>972938</b>							
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Iron 983 100 1,000 0 98.3 50 150

Sample ID <b>1902220-001BDUP</b>	SampType: <b>DUP</b>	Units: <b>µg/L</b>	Prep Date: <b>2/22/2019</b>	RunNo: <b>49634</b>							
Client ID: <b>MW-28:W</b>	Batch ID: <b>23608</b>		Analysis Date: <b>2/22/2019</b>	SeqNo: <b>972940</b>							
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Iron ND 100 0 30

Sample ID <b>1902220-001BMS</b>	SampType: <b>MS</b>	Units: <b>µg/L</b>	Prep Date: <b>2/22/2019</b>	RunNo: <b>49634</b>							
Client ID: <b>MW-28:W</b>	Batch ID: <b>23608</b>		Analysis Date: <b>2/22/2019</b>	SeqNo: <b>972941</b>							
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Iron 4,810 100 5,000 0 96.2 50 150

Sample ID <b>1902220-001BMSD</b>	SampType: <b>MSD</b>	Units: <b>µg/L</b>	Prep Date: <b>2/22/2019</b>	RunNo: <b>49634</b>							
Client ID: <b>MW-28:W</b>	Batch ID: <b>23608</b>		Analysis Date: <b>2/22/2019</b>	SeqNo: <b>972942</b>							
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Iron 4,890 100 5,000 0 97.7 50 150 4,811 1.53 30





**Work Order:** 1902220  
**CLIENT:** Kane Environmental, Inc.  
**Project:** BSCSS

**QC SUMMARY REPORT**  
**Dissolved Metals by EPA Method 200.8**

Sample ID <b>MB-23594FB</b>	SampType: <b>MBLK</b>	Units: <b>µg/L</b>	Prep Date: <b>2/22/2019</b>	RunNo: <b>49634</b>							
Client ID: <b>MBLKW</b>	Batch ID: <b>23608</b>	Analysis Date: <b>2/22/2019</b>	SeqNo: <b>972945</b>								
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Iron ND 100

**NOTES:**  
Filter Blank

Work Order: 1902220  
 CLIENT: Kane Environmental, Inc.  
 Project: BSCSS

**QC SUMMARY REPORT**  
**Dissolved Gases by RSK-175**

Sample ID	<b>MB-R49724</b>	SampType:	<b>MBLK</b>	Units:	<b>mg/L</b>	Prep Date:	<b>2/27/2019</b>	RunNo:	<b>49724</b>		
Client ID:	<b>MBLKW</b>	Batch ID:	<b>R49724</b>			Analysis Date:	<b>2/27/2019</b>	SeqNo:	<b>974775</b>		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Methane	ND	0.00863									
Ethene	ND	0.0151									
Ethane	ND	0.0162									

Sample ID	<b>LCS-R49724</b>	SampType:	<b>LCS</b>	Units:	<b>mg/L</b>	Prep Date:	<b>2/27/2019</b>	RunNo:	<b>49724</b>		
Client ID:	<b>LCSW</b>	Batch ID:	<b>R49724</b>			Analysis Date:	<b>2/27/2019</b>	SeqNo:	<b>974774</b>		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Methane	987	0.00863	1,000	0	98.7	70	130				
Ethene	979	0.0151	1,000	0	97.9	70	130				
Ethane	988	0.0162	1,000	0	98.8	70	130				

Sample ID	<b>1902220-001FREP</b>	SampType:	<b>REP</b>	Units:	<b>mg/L</b>	Prep Date:	<b>2/27/2019</b>	RunNo:	<b>49724</b>		
Client ID:	<b>MW-28:W</b>	Batch ID:	<b>R49724</b>			Analysis Date:	<b>2/27/2019</b>	SeqNo:	<b>974770</b>		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Methane	ND	0.00863						0		30	
Ethene	ND	0.0151						0		30	
Ethane	ND	0.0162						0		30	



Work Order: 1902220  
 CLIENT: Kane Environmental, Inc.  
 Project: BSCSS

**QC SUMMARY REPORT**  
**Volatile Organic Compounds by EPA Method 8260C**

Sample ID	LCS-23618	SampType:	LCS	Units:	µg/L	Prep Date:	2/24/2019	RunNo:	49652		
Client ID:	LCSW	Batch ID:	23618	Analysis Date:	2/24/2019	SeqNo:	973364				
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Dichlorodifluoromethane (CFC-12)	32.2	1.00	20.00	0	161	18.7	171				
Chloromethane	30.1	2.00	20.00	0	150	38.5	171				
Vinyl chloride	26.0	0.200	20.00	0	130	48	145				
Bromomethane	20.2	1.00	20.00	0	101	32.5	184				
Trichlorofluoromethane (CFC-11)	25.8	1.00	20.00	0	129	43.5	149				
Chloroethane	24.7	1.00	20.00	0	124	43.8	168				
1,1-Dichloroethene	25.8	1.00	20.00	0	129	57.5	150				
Methylene chloride	21.9	1.00	20.00	0	110	67.1	131				
trans-1,2-Dichloroethene	19.7	1.00	20.00	0	98.5	71.7	129				
Methyl tert-butyl ether (MTBE)	18.8	1.00	20.00	0	93.9	58	138				
1,1-Dichloroethane	15.8	1.00	20.00	0	79.1	67.9	134				
2,2-Dichloropropane	13.0	2.00	20.00	0	65.2	26.5	185				
cis-1,2-Dichloroethene	21.7	1.00	20.00	0	108	70.2	139				
Chloroform	19.2	1.00	20.00	0	95.9	66.3	131				
1,1,1-Trichloroethane (TCA)	20.8	1.00	20.00	0	104	63	140				
1,1-Dichloropropene	21.0	1.00	20.00	0	105	69.9	124				
Carbon tetrachloride	20.3	1.00	20.00	0	101	66.2	134				
1,2-Dichloroethane (EDC)	21.2	1.00	20.00	0	106	67	126				
Benzene	21.7	1.00	20.00	0	108	69.3	132				
Trichloroethene (TCE)	20.2	0.500	20.00	0	101	65.2	136				
1,2-Dichloropropane	21.8	1.00	20.00	0	109	70.5	130				
Bromodichloromethane	25.5	1.00	20.00	0	128	67.2	137				
Dibromomethane	21.4	1.00	20.00	0	107	69.3	143				
cis-1,3-Dichloropropene	22.6	1.00	20.00	0	113	62.6	137				
Toluene	24.9	1.00	20.00	0	125	61.3	145				
trans-1,3-Dichloropropylene	22.6	1.00	20.00	0	113	56.5	163				
1,1,2-Trichloroethane	24.4	1.00	20.00	0	122	71.7	131				
1,3-Dichloropropane	23.2	1.00	20.00	0	116	73.5	127				
Tetrachloroethene (PCE)	24.1	1.00	20.00	0	121	47.5	147				
Dibromochloromethane	24.4	1.00	20.00	0	122	67.2	134				
1,2-Dibromoethane (EDB)	20.3	0.250	20.00	0	102	73.6	125				

Work Order: 1902220  
 CLIENT: Kane Environmental, Inc.  
 Project: BSCSS

**QC SUMMARY REPORT**  
**Volatile Organic Compounds by EPA Method 8260C**

Sample ID	LCS-23618	SampType:	LCS	Units:	µg/L	Prep Date:	2/24/2019	RunNo:	49652		
Client ID:	LCSW	Batch ID:	23618	Analysis Date:	2/24/2019	SeqNo:	973364				
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Chlorobenzene	21.5	1.00	20.00	0	108	73.9	126				
1,1,1,2-Tetrachloroethane	22.4	1.00	20.00	0	112	76.8	124				
Ethylbenzene	21.7	1.00	20.00	0	109	72	130				
m,p-Xylene	45.4	1.00	40.00	0	113	70.3	134				
o-Xylene	21.6	1.00	20.00	0	108	72.1	131				
Styrene	21.6	1.00	20.00	0	108	64.3	140				
Isopropylbenzene	22.7	1.00	20.00	0	113	73.9	128				
Bromoform	22.8	2.00	20.00	0	114	55.3	141				
1,1,2,2-Tetrachloroethane	21.7	1.00	20.00	0	108	62.9	132				
n-Propylbenzene	22.4	1.00	20.00	0	112	74.5	127				
Bromobenzene	22.3	1.00	20.00	0	111	71	131				
1,3,5-Trimethylbenzene	23.4	1.00	20.00	0	117	73.1	128				
2-Chlorotoluene	21.6	1.00	20.00	0	108	70.8	130				
4-Chlorotoluene	21.1	1.00	20.00	0	105	70.1	131				
tert-Butylbenzene	23.7	1.00	20.00	0	118	68.2	131				
1,2,3-Trichloropropane	19.6	1.00	20.00	0	98.0	67.7	131				
1,2,4-Trichlorobenzene	18.0	2.00	20.00	0	90.2	41	139				
sec-Butylbenzene	22.8	1.00	20.00	0	114	72	129				
4-Isopropyltoluene	21.9	1.00	20.00	0	109	69.2	130				
1,3-Dichlorobenzene	23.6	1.00	20.00	0	118	69.5	128				
1,4-Dichlorobenzene	21.1	1.00	20.00	0	106	66.8	119				
n-Butylbenzene	20.9	1.00	20.00	0	105	73.8	127				
1,2-Dichlorobenzene	21.9	1.00	20.00	0	110	69.7	119				
1,2-Dibromo-3-chloropropane	18.6	1.00	20.00	0	93.0	63.1	136				
1,2,4-Trimethylbenzene	22.7	1.00	20.00	0	113	73.4	127				
Hexachloro-1,3-butadiene	22.9	4.00	20.00	0	115	58.6	138				
Naphthalene	12.8	1.00	20.00	0	64.2	41.8	165				
1,2,3-Trichlorobenzene	16.0	4.00	20.00	0	80.0	35.8	155				
Surr: Dibromofluoromethane	23.0		25.00		91.9	45.4	152				
Surr: Toluene-d8	27.7		25.00		111	40.1	139				
Surr: 1-Bromo-4-fluorobenzene	26.8		25.00		107	64.2	128				

Work Order: 1902220  
 CLIENT: Kane Environmental, Inc.  
 Project: BSCSS

**QC SUMMARY REPORT**  
**Volatile Organic Compounds by EPA Method 8260C**

Sample ID	<b>LCS-23618</b>	SampType:	<b>LCS</b>	Units:	<b>µg/L</b>	Prep Date:	<b>2/24/2019</b>	RunNo:	<b>49652</b>		
Client ID:	<b>LCSW</b>	Batch ID:	<b>23618</b>			Analysis Date:	<b>2/24/2019</b>	SeqNo:	<b>973364</b>		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Sample ID	<b>LCSD-23618</b>	SampType:	<b>LCSD</b>	Units:	<b>µg/L</b>	Prep Date:	<b>2/24/2019</b>	RunNo:	<b>49652</b>		
Client ID:	<b>LCSW02</b>	Batch ID:	<b>23618</b>			Analysis Date:	<b>2/24/2019</b>	SeqNo:	<b>973365</b>		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Dichlorodifluoromethane (CFC-12)	27.6	1.00	20.00	0	138	18.7	171	32.21	15.4	20	
Chloromethane	28.5	2.00	20.00	0	142	38.5	171	30.09	5.54	20	
Vinyl chloride	25.8	0.200	20.00	0	129	48	145	26.01	0.969	20	
Bromomethane	27.1	1.00	20.00	0	135	32.5	184	20.24	28.8	20	R
Trichlorofluoromethane (CFC-11)	25.3	1.00	20.00	0	127	43.5	149	25.79	1.73	20	
Chloroethane	26.4	1.00	20.00	0	132	43.8	168	24.74	6.43	20	
1,1-Dichloroethene	24.7	1.00	20.00	0	123	57.5	150	25.76	4.31	20	
Methylene chloride	22.3	1.00	20.00	0	112	67.1	131	21.91	1.95	20	
trans-1,2-Dichloroethene	22.8	1.00	20.00	0	114	71.7	129	19.70	14.6	20	
Methyl tert-butyl ether (MTBE)	23.4	1.00	20.00	0	117	58	138	18.79	22.1	20	R
1,1-Dichloroethane	21.6	1.00	20.00	0	108	67.9	134	15.83	30.7	20	R
2,2-Dichloropropane	26.4	2.00	20.00	0	132	26.5	185	13.03	67.8	20	R
cis-1,2-Dichloroethene	23.7	1.00	20.00	0	118	70.2	139	21.67	8.76	20	
Chloroform	22.1	1.00	20.00	0	111	66.3	131	19.17	14.3	20	
1,1,1-Trichloroethane (TCA)	23.3	1.00	20.00	0	117	63	140	20.80	11.5	20	
1,1-Dichloropropene	23.0	1.00	20.00	0	115	69.9	124	20.98	9.16	20	
Carbon tetrachloride	22.5	1.00	20.00	0	113	66.2	134	20.26	10.7	20	
1,2-Dichloroethane (EDC)	23.1	1.00	20.00	0	116	68.8	123	21.23	8.56	20	
Benzene	24.7	1.00	20.00	0	123	69.3	132	21.67	12.9	20	
Trichloroethene (TCE)	21.7	0.500	20.00	0	109	65.2	136	20.21	7.16	20	
1,2-Dichloropropane	21.1	1.00	20.00	0	106	70.5	130	21.84	3.30	20	
Bromodichloromethane	22.1	1.00	20.00	0	111	74.6	127	25.52	14.3	20	
Dibromomethane	21.2	1.00	20.00	0	106	69.3	143	21.38	0.706	20	
cis-1,3-Dichloropropene	22.7	1.00	20.00	0	114	62.6	137	22.62	0.468	20	
Toluene	21.5	1.00	20.00	0	108	61.3	145	24.90	14.4	20	



Work Order: 1902220  
 CLIENT: Kane Environmental, Inc.  
 Project: BSCSS

**QC SUMMARY REPORT**  
**Volatile Organic Compounds by EPA Method 8260C**

Sample ID	LCSD-23618	SampType:	LCSD	Units:	µg/L	Prep Date:	2/24/2019	RunNo:	49652		
Client ID:	LCSW02	Batch ID:	23618	Analysis Date:	2/24/2019	SeqNo:	973365				
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
trans-1,3-Dichloropropylene	22.8	1.00	20.00	0	114	56.5	163	22.60	0.951	20	
1,1,2-Trichloroethane	21.0	1.00	20.00	0	105	71.7	131	24.40	15.0	20	
1,3-Dichloropropane	21.3	1.00	20.00	0	107	73.5	127	23.21	8.37	20	
Tetrachloroethene (PCE)	21.4	1.00	20.00	0	107	47.5	147	24.12	12.0	20	
Dibromochloromethane	21.8	1.00	20.00	0	109	67.2	134	24.37	11.3	20	
1,2-Dibromoethane (EDB)	22.6	0.250	20.00	0	113	73.6	125	20.32	10.4	20	
Chlorobenzene	23.7	1.00	20.00	0	118	73.9	126	21.50	9.62	20	
1,1,1,2-Tetrachloroethane	23.7	1.00	20.00	0	119	76.8	124	22.35	5.96	20	
Ethylbenzene	23.9	1.00	20.00	0	120	72	130	21.71	9.70	20	
m,p-Xylene	46.7	1.00	40.00	0	117	70.3	134	45.39	2.84	20	
o-Xylene	23.5	1.00	20.00	0	118	72.1	131	21.60	8.59	20	
Styrene	23.5	1.00	20.00	0	117	64.3	140	21.59	8.45	20	
Isopropylbenzene	24.0	1.00	20.00	0	120	73.9	128	22.69	5.53	20	
Bromoform	25.9	2.00	20.00	0	129	55.3	141	22.76	12.8	20	
1,1,1,2,2-Tetrachloroethane	25.2	1.00	20.00	0	126	62.9	132	21.70	15.0	20	
n-Propylbenzene	25.8	1.00	20.00	0	129	74.5	127	22.42	14.0	20	S
Bromobenzene	24.0	1.00	20.00	0	120	71	131	22.30	7.39	20	
1,3,5-Trimethylbenzene	24.8	1.00	20.00	0	124	73.1	128	23.35	5.99	20	
2-Chlorotoluene	24.9	1.00	20.00	0	125	70.8	130	21.62	14.1	20	
4-Chlorotoluene	25.0	1.00	20.00	0	125	70.1	131	21.05	17.1	20	
tert-Butylbenzene	25.9	1.00	20.00	0	130	68.2	131	23.70	9.05	20	
1,2,3-Trichloropropane	24.9	1.00	20.00	0	125	67.7	131	19.61	23.8	20	R
1,2,4-Trichlorobenzene	24.6	2.00	20.00	0	123	41	139	18.05	30.7	20	R
sec-Butylbenzene	25.1	1.00	20.00	0	125	72	129	22.80	9.42	20	
4-Isopropyltoluene	24.7	1.00	20.00	0	123	69.2	130	21.86	12.2	20	
1,3-Dichlorobenzene	22.7	1.00	20.00	0	113	69.5	128	23.64	4.13	20	
1,4-Dichlorobenzene	22.4	1.00	20.00	0	112	66.8	119	21.13	6.03	20	
n-Butylbenzene	23.0	1.00	20.00	0	115	73.8	127	20.91	9.66	20	
1,2-Dichlorobenzene	22.8	1.00	20.00	0	114	69.7	119	21.91	3.80	20	
1,2-Dibromo-3-chloropropane	25.0	1.00	20.00	0	125	63.1	136	18.60	29.5	20	R
1,2,4-Trimethylbenzene	24.9	1.00	20.00	0	125	73.4	127	22.66	9.61	20	

Work Order: 1902220  
 CLIENT: Kane Environmental, Inc.  
 Project: BSCSS

**QC SUMMARY REPORT**  
**Volatile Organic Compounds by EPA Method 8260C**

Sample ID <b>LCSD-23618</b>	SampType: <b>LCSD</b>	Units: <b>µg/L</b>				Prep Date: <b>2/24/2019</b>	RunNo: <b>49652</b>				
Client ID: <b>LCSW02</b>	Batch ID: <b>23618</b>					Analysis Date: <b>2/24/2019</b>	SeqNo: <b>973365</b>				
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Hexachloro-1,3-butadiene	25.6	4.00	20.00	0	128	58.6	138	22.93	11.2	20	
Naphthalene	23.0	1.00	20.00	0	115	41.8	165	12.83	56.7	20	R
1,2,3-Trichlorobenzene	24.3	4.00	20.00	0	121	35.8	155	15.99	41.1	20	R
Surr: Dibromofluoromethane	24.8		25.00		99.4	45.4	152		0		
Surr: Toluene-d8	22.0		25.00		88.0	40.1	139		0		
Surr: 1-Bromo-4-fluorobenzene	27.5		25.00		110	64.2	128		0		

**NOTES:**

S - Outlying spike recovery observed (high bias). Samples are non-detect for this analyte; no further action required.  
 R - High RPD observed, spike recoveries are within range.

Sample ID <b>MB-23618</b>	SampType: <b>MBLK</b>	Units: <b>µg/L</b>				Prep Date: <b>2/24/2019</b>	RunNo: <b>49652</b>				
Client ID: <b>MBLKW</b>	Batch ID: <b>23618</b>					Analysis Date: <b>2/24/2019</b>	SeqNo: <b>973366</b>				
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Dichlorodifluoromethane (CFC-12)	ND	1.00									
Chloromethane	ND	2.00									
Vinyl chloride	ND	0.200									
Bromomethane	ND	1.00									
Trichlorofluoromethane (CFC-11)	ND	1.00									
Chloroethane	ND	1.00									
1,1-Dichloroethene	ND	1.00									
Methylene chloride	ND	1.00									
trans-1,2-Dichloroethene	ND	1.00									
Methyl tert-butyl ether (MTBE)	ND	1.00									
1,1-Dichloroethane	ND	1.00									
2,2-Dichloropropane	ND	2.00									
cis-1,2-Dichloroethene	ND	1.00									
Chloroform	ND	1.00									
1,1,1-Trichloroethane (TCA)	ND	1.00									
1,1-Dichloropropene	ND	1.00									
Carbon tetrachloride	ND	1.00									

**Work Order:** 1902220  
**CLIENT:** Kane Environmental, Inc.  
**Project:** BSCSS

**QC SUMMARY REPORT**  
**Volatile Organic Compounds by EPA Method 8260C**

Sample ID <b>MB-23618</b>	SampType: <b>MBLK</b>	Units: <b>µg/L</b>	Prep Date: <b>2/24/2019</b>	RunNo: <b>49652</b>
Client ID: <b>MBLKW</b>	Batch ID: <b>23618</b>		Analysis Date: <b>2/24/2019</b>	SeqNo: <b>973366</b>

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,2-Dichloroethane (EDC)	ND	1.00									
Benzene	ND	1.00									
Trichloroethene (TCE)	ND	0.500									
1,2-Dichloropropane	ND	1.00									
Bromodichloromethane	ND	1.00									
Dibromomethane	ND	1.00									
cis-1,3-Dichloropropene	ND	1.00									
Toluene	ND	1.00									
trans-1,3-Dichloropropylene	ND	1.00									
1,1,2-Trichloroethane	ND	1.00									
1,3-Dichloropropane	ND	1.00									
Tetrachloroethene (PCE)	ND	1.00									
Dibromochloromethane	ND	1.00									
1,2-Dibromoethane (EDB)	ND	0.250									
Chlorobenzene	ND	1.00									
1,1,1,2-Tetrachloroethane	ND	1.00									
Ethylbenzene	ND	1.00									
m,p-Xylene	ND	1.00									
o-Xylene	ND	1.00									
Styrene	ND	1.00									
Isopropylbenzene	ND	1.00									
Bromoform	ND	2.00									
1,1,1,2,2-Pentachloroethane	ND	1.00									
n-Propylbenzene	ND	1.00									
Bromobenzene	ND	1.00									
1,3,5-Trimethylbenzene	ND	1.00									
2-Chlorotoluene	ND	1.00									
4-Chlorotoluene	ND	1.00									
tert-Butylbenzene	ND	1.00									
1,2,3-Trichloropropane	ND	1.00									
1,2,4-Trichlorobenzene	ND	2.00									



Work Order: 1902220  
 CLIENT: Kane Environmental, Inc.  
 Project: BSCSS

**QC SUMMARY REPORT**  
**Volatile Organic Compounds by EPA Method 8260C**

Sample ID <b>MB-23618</b>	SampType: <b>MBLK</b>	Units: <b>µg/L</b>	Prep Date: <b>2/24/2019</b>	RunNo: <b>49652</b>							
Client ID: <b>MBLKW</b>	Batch ID: <b>23618</b>		Analysis Date: <b>2/24/2019</b>	SeqNo: <b>973366</b>							
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

sec-Butylbenzene	ND	1.00									
4-Isopropyltoluene	ND	1.00									
1,3-Dichlorobenzene	ND	1.00									
1,4-Dichlorobenzene	ND	1.00									
n-Butylbenzene	ND	1.00									
1,2-Dichlorobenzene	ND	1.00									
1,2-Dibromo-3-chloropropane	ND	1.00									
1,2,4-Trimethylbenzene	ND	1.00									
Hexachloro-1,3-butadiene	ND	4.00									
Naphthalene	ND	1.00									
1,2,3-Trichlorobenzene	ND	4.00									
Surr: Dibromofluoromethane	24.1		25.00		96.3	45.4	152				
Surr: Toluene-d8	23.4		25.00		93.6	40.1	139				
Surr: 1-Bromo-4-fluorobenzene	25.1		25.00		100	64.2	128				

Sample ID <b>1902220-001ADUP</b>	SampType: <b>DUP</b>	Units: <b>µg/L</b>	Prep Date: <b>2/25/2019</b>	RunNo: <b>49652</b>							
Client ID: <b>MW-28:W</b>	Batch ID: <b>23618</b>		Analysis Date: <b>2/25/2019</b>	SeqNo: <b>973343</b>							
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Dichlorodifluoromethane (CFC-12)	ND	1.00						0		30	
Chloromethane	ND	2.00						0		30	
Vinyl chloride	ND	0.200						0		30	
Bromomethane	ND	1.00						0		30	
Trichlorofluoromethane (CFC-11)	ND	1.00						0		30	
Chloroethane	ND	1.00						0		30	
1,1-Dichloroethene	ND	1.00						0		30	
Methylene chloride	ND	1.00						0		30	
trans-1,2-Dichloroethene	ND	1.00						0		30	
Methyl tert-butyl ether (MTBE)	ND	1.00						0		30	
1,1-Dichloroethane	ND	1.00						0		30	

Work Order: 1902220  
 CLIENT: Kane Environmental, Inc.  
 Project: BSCSS

**QC SUMMARY REPORT**  
**Volatile Organic Compounds by EPA Method 8260C**

Sample ID	1902220-001ADUP	SampType:	DUP	Units:	µg/L	Prep Date:	2/25/2019	RunNo:	49652
Client ID:	MW-28:W	Batch ID:	23618			Analysis Date:	2/25/2019	SeqNo:	973343

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
2,2-Dichloropropane	ND	2.00						0		30	
cis-1,2-Dichloroethene	ND	1.00						0		30	
Chloroform	ND	1.00						0		30	
1,1,1-Trichloroethane (TCA)	ND	1.00						0		30	
1,1-Dichloropropene	ND	1.00						0		30	
Carbon tetrachloride	ND	1.00						0		30	
1,2-Dichloroethane (EDC)	ND	1.00						0		30	
Benzene	ND	1.00						0		30	
Trichloroethene (TCE)	ND	0.500						0		30	
1,2-Dichloropropane	ND	1.00						0		30	
Bromodichloromethane	ND	1.00						0		30	
Dibromomethane	ND	1.00						0		30	
cis-1,3-Dichloropropene	ND	1.00						0		30	
Toluene	ND	1.00						0		30	
trans-1,3-Dichloropropylene	ND	1.00						0		30	
1,1,2-Trichloroethane	ND	1.00						0		30	
1,3-Dichloropropane	ND	1.00						0		30	
Tetrachloroethene (PCE)	ND	1.00						0		30	
Dibromochloromethane	ND	1.00						0		30	
1,2-Dibromoethane (EDB)	ND	0.250						0		30	
Chlorobenzene	ND	1.00						0		30	
1,1,1,2-Tetrachloroethane	ND	1.00						0		30	
Ethylbenzene	ND	1.00						0		30	
m,p-Xylene	ND	1.00						0		30	
o-Xylene	ND	1.00						0		30	
Styrene	ND	1.00						0		30	
Isopropylbenzene	ND	1.00						0		30	
Bromoform	ND	2.00						0		30	
1,1,2,2-Tetrachloroethane	ND	1.00						0		30	
n-Propylbenzene	ND	1.00						0		30	
Bromobenzene	ND	1.00						0		30	

Work Order: 1902220  
 CLIENT: Kane Environmental, Inc.  
 Project: BSCSS

**QC SUMMARY REPORT**  
**Volatile Organic Compounds by EPA Method 8260C**

Sample ID	1902220-001ADUP	SampType:	DUP	Units:	µg/L	Prep Date:	2/25/2019	RunNo:	49652		
Client ID:	MW-28:W	Batch ID:	23618	Analysis Date:	2/25/2019	SeqNo:	973343				
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,3,5-Trimethylbenzene	ND	1.00						0		30	
2-Chlorotoluene	ND	1.00						0		30	
4-Chlorotoluene	ND	1.00						0		30	
tert-Butylbenzene	ND	1.00						0		30	
1,2,3-Trichloropropane	ND	1.00						0		30	
1,2,4-Trichlorobenzene	ND	2.00						0		30	
sec-Butylbenzene	ND	1.00						0		30	
4-Isopropyltoluene	ND	1.00						0		30	
1,3-Dichlorobenzene	ND	1.00						0		30	
1,4-Dichlorobenzene	ND	1.00						0		30	
n-Butylbenzene	ND	1.00						0		30	
1,2-Dichlorobenzene	ND	1.00						0		30	
1,2-Dibromo-3-chloropropane	ND	1.00						0		30	
1,2,4-Trimethylbenzene	ND	1.00						0		30	
Hexachloro-1,3-butadiene	ND	4.00						0		30	
Naphthalene	ND	1.00						0		30	
1,2,3-Trichlorobenzene	ND	4.00						0		30	
Surr: Dibromofluoromethane	24.5		25.00		98.0	45.4	152		0		
Surr: Toluene-d8	23.4		25.00		93.5	40.1	139		0		
Surr: 1-Bromo-4-fluorobenzene	24.0		25.00		95.9	64.2	128		0		

Sample ID	1902233-001ADUP	SampType:	DUP	Units:	µg/L	Prep Date:	2/24/2019	RunNo:	49652		
Client ID:	BATCH	Batch ID:	23618	Analysis Date:	2/25/2019	SeqNo:	973349				
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Dichlorodifluoromethane (CFC-12)	ND	1.00						0		30	
Chloromethane	ND	2.00						0		30	
Vinyl chloride	ND	0.200						0		30	
Bromomethane	ND	1.00						0		30	
Trichlorofluoromethane (CFC-11)	ND	1.00						0		30	



Work Order: 1902220  
 CLIENT: Kane Environmental, Inc.  
 Project: BSCSS

**QC SUMMARY REPORT**  
**Volatile Organic Compounds by EPA Method 8260C**

Sample ID: <b>1902233-001ADUP</b>	SampType: <b>DUP</b>	Units: <b>µg/L</b>	Prep Date: <b>2/24/2019</b>	RunNo: <b>49652</b>
Client ID: <b>BATCH</b>	Batch ID: <b>23618</b>		Analysis Date: <b>2/25/2019</b>	SeqNo: <b>973349</b>

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Chloroethane	ND	1.00						0		30	
1,1-Dichloroethene	ND	1.00						0		30	
Methylene chloride	ND	1.00						0		30	
trans-1,2-Dichloroethene	ND	1.00						0		30	
Methyl tert-butyl ether (MTBE)	ND	1.00						0		30	
1,1-Dichloroethane	ND	1.00						0		30	
2,2-Dichloropropane	ND	2.00						0		30	
cis-1,2-Dichloroethene	ND	1.00						0		30	
Chloroform	ND	1.00						0		30	
1,1,1-Trichloroethane (TCA)	ND	1.00						0		30	
1,1-Dichloropropene	ND	1.00						0		30	
Carbon tetrachloride	ND	1.00						0		30	
1,2-Dichloroethane (EDC)	ND	1.00						0		30	
Benzene	ND	1.00						0		30	
Trichloroethene (TCE)	ND	0.500						0		30	
1,2-Dichloropropane	ND	1.00						0		30	
Bromodichloromethane	ND	1.00						0		30	
Dibromomethane	ND	1.00						0		30	
cis-1,3-Dichloropropene	ND	1.00						0		30	
Toluene	ND	1.00						0		30	
trans-1,3-Dichloropropylene	ND	1.00						0		30	
1,1,2-Trichloroethane	ND	1.00						0		30	
1,3-Dichloropropane	ND	1.00						0		30	
Tetrachloroethene (PCE)	ND	1.00						0		30	
Dibromochloromethane	ND	1.00						0		30	
1,2-Dibromoethane (EDB)	ND	0.250						0		30	
Chlorobenzene	ND	1.00						0		30	
1,1,1,2-Tetrachloroethane	ND	1.00						0		30	
Ethylbenzene	ND	1.00						0		30	
m,p-Xylene	ND	1.00						0		30	
o-Xylene	ND	1.00						0		30	

Work Order: 1902220  
 CLIENT: Kane Environmental, Inc.  
 Project: BSCSS

**QC SUMMARY REPORT**  
**Volatile Organic Compounds by EPA Method 8260C**

Sample ID	1902233-001ADUP	SampType:	DUP	Units:	µg/L	Prep Date:	2/24/2019	RunNo:	49652		
Client ID:	BATCH	Batch ID:	23618	Analysis Date:	2/25/2019	SeqNo:	973349				
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Styrene	ND	1.00						0		30	
Isopropylbenzene	ND	1.00						0		30	
Bromoform	ND	2.00						0		30	
1,1,2,2-Tetrachloroethane	ND	1.00						0		30	
n-Propylbenzene	ND	1.00						0		30	
Bromobenzene	ND	1.00						0		30	
1,3,5-Trimethylbenzene	ND	1.00						0		30	
2-Chlorotoluene	ND	1.00						0		30	
4-Chlorotoluene	ND	1.00						0		30	
tert-Butylbenzene	ND	1.00						0		30	
1,2,3-Trichloropropane	ND	1.00						0		30	
1,2,4-Trichlorobenzene	ND	2.00						0		30	
sec-Butylbenzene	ND	1.00						0		30	
4-Isopropyltoluene	ND	1.00						0		30	
1,3-Dichlorobenzene	ND	1.00						0		30	
1,4-Dichlorobenzene	ND	1.00						0		30	
n-Butylbenzene	ND	1.00						0		30	
1,2-Dichlorobenzene	ND	1.00						0		30	
1,2-Dibromo-3-chloropropane	ND	1.00						0		30	
1,2,4-Trimethylbenzene	ND	1.00						0		30	
Hexachloro-1,3-butadiene	ND	4.00						0		30	
Naphthalene	ND	1.00						0		30	
1,2,3-Trichlorobenzene	ND	4.00						0		30	
Surr: Dibromofluoromethane	25.0		25.00		100	45.4	152		0		
Surr: Toluene-d8	24.8		25.00		99.1	40.1	139		0		
Surr: 1-Bromo-4-fluorobenzene	24.1		25.00		96.3	64.2	128		0		

Client Name: **KANE**  
 Logged by: **Clare Griggs**

Work Order Number: **1902220**  
 Date Received: **2/19/2019 4:40:00 PM**

### Chain of Custody

1. Is Chain of Custody complete? Yes  No  Not Present   
 2. How was the sample delivered? Client

### Log In

3. Coolers are present? Yes  No  NA   
 4. Shipping container/cooler in good condition? Yes  No   
 5. Custody Seals present on shipping container/cooler?  
 (Refer to comments for Custody Seals not intact) Yes  No  Not Required   
 6. Was an attempt made to cool the samples? Yes  No  NA   
 7. Were all items received at a temperature of >0°C to 10.0°C \* Yes  No  NA   
 8. Sample(s) in proper container(s)? Yes  No   
 9. Sufficient sample volume for indicated test(s)? Yes  No   
 10. Are samples properly preserved? Yes  No   
 11. Was preservative added to bottles? Yes  No  NA   
 12. Is there headspace in the VOA vials? Yes  No  NA   
 13. Did all samples containers arrive in good condition(unbroken)? Yes  No   
 14. Does paperwork match bottle labels? Yes  No   
 15. Are matrices correctly identified on Chain of Custody? Yes  No   
 16. Is it clear what analyses were requested? Yes  No   
 17. Were all holding times able to be met? Yes  No

### Special Handling (if applicable)

18. Was client notified of all discrepancies with this order? Yes  No  NA

Person Notified:	<input type="text"/>	Date	<input type="text"/>
By Whom:	<input type="text"/>	Via:	<input type="checkbox"/> eMail <input type="checkbox"/> Phone <input type="checkbox"/> Fax <input type="checkbox"/> In Person
Regarding:	<input type="text"/>		
Client Instructions:	<input type="text"/>		

19. Additional remarks:

### Item Information

Item #	Temp °C
Cooler	1.8
Sample	7.4

\* Note: DoD/ELAP and TNI require items to be received at 4°C +/- 2°C



3600 Fremont Ave N.  
Seattle, WA 98103  
Tel: 206-352-3790  
Fax: 206-352-7178

### Chain of Custody Record & Laboratory Services Agreement

Date: 2/19/19 Page: 1 of 1  
Project Name: BSCSS

Project No: 82302-9.4

Collected by: JJ

Location: Bothell, WA

Report To (PM): Jeff Jensen

PM Email: jeff@kane-environmental.com

Laboratory Project No (Internal): 1902220

Special Remarks:

Sample Disposal:  Return to client  Disposal by lab (after 30 days)

Sample Name	Sample Date	Sample Time	Sample Type (Matrix)*	Analytes												Comments			
				VOCs (EPA 8260 / 624)	GV/BTEX	BTEX	Gasoline Range Organics (GX)	Hydrocarbon Identification (HClD)	Diesel/Heavy Oil Range Organics (DX)	SVOCs (EPA 8270 / 625)	PAHs (EPA 8270 - SIM)	PCBs (EPA 8082 / 608)	Metals** (EPA 6020 / 200.8)	Total (T)   Dissolved (D)	Anions (IC)**		EDB (801)	TCC	Ammonia - N
1 MW-28:W	2/14/19	1335	GW	X															Lab Filter, QC
2 MW-33:W	2/19/19	1520	GW	X															Lab Filter
3																			
4																			
5																			
6																			
7																			
8																			
9																			
10																			

Matrix: A = Air, AQ = Aqueous, B = Bulk, O = Other, P = Product, S = Soil, SD = Sediment, SL = Solid, W = Water, DW = Drinking Water, GW = Ground Water, SW = Storm Water, WW = Waste Water

Metals (Circle): MICA-5 RCRA-8 Priority Pollutants TAL Individual: Ag Al As B Ba Be Ca Cd Co Cr Cu (Fe) Hg K Mg Mn Mo Na Ni Pb Sb Se Sr Sn Tl U V Zn

Anions (Circle): Nitrate Nitrite Chloride Sulfate Bromide Fluoride Nitrate+Nitrite O-Phosphate

I represent that I am authorized to enter into this Agreement with Fremont Analytical on behalf of the Client named above and that I have verified Client's agreement to each of the terms on the front and backside of this Agreement.

Relinquished *[Signature]* Date/Time 2/19/19 1640  
Received *[Signature]* Date/Time 2/19/19 1640

Relinquished *[Signature]* Date/Time *[Blank]*  
Received *[Signature]* Date/Time *[Blank]*  
Turn-around Time:  Standard  3 Day  2 Day  Next Day  Same Day (specify) \_\_\_\_\_



3600 Fremont Ave. N.  
Seattle, WA 98103  
T: (206) 352-3790  
F: (206) 352-7178  
info@fremontanalytical.com

**Kane Environmental, Inc.**

Jeff Jensen  
4015 13th Ave W.  
Seattle, WA 98103

**RE: BSCSS**

**Work Order Number: 1902260**

March 01, 2019

**Attention Jeff Jensen:**

Fremont Analytical, Inc. received 2 sample(s) on 2/21/2019 for the analyses presented in the following report.

***Ammonia by SM 4500 NH3G***  
***Dissolved Gases by RSK-175***  
***Dissolved Metals by EPA Method 200.8***  
***Ion Chromatography by EPA Method 300.0***  
***Total Organic Carbon by SM 5310C***  
***Volatile Organic Compounds by EPA Method 8260C***

This report consists of the following:

- Case Narrative
- Analytical Results
- Applicable Quality Control Summary Reports
- Chain of Custody

All analyses were performed consistent with the Quality Assurance program of Fremont Analytical, Inc. Please contact the laboratory if you should have any questions about the results.

Thank you for using Fremont Analytical.

Sincerely,

Chelsea Ward  
Project Manager

DoD/ELAP Certification #L 17-135, ISO/IEC 17025:2005  
ORELAP Certification: WA 100009-007 (NELAP Recognized)





Date: 03/01/2019

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**CLIENT:** Kane Environmental, Inc.  
**Project:** BSCSS  
**Work Order:** 1902260

## Work Order Sample Summary

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Lab Sample ID	Client Sample ID	Date/Time Collected	Date/Time Received
1902260-001	MW-34:W	02/21/2019 11:45 AM	02/21/2019 5:03 PM
1902260-002	MW-11:W	02/21/2019 2:30 PM	02/21/2019 5:03 PM

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**CLIENT:** Kane Environmental, Inc.

**Project:** BSCSS

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**I. SAMPLE RECEIPT:**

Samples receipt information is recorded on the attached Sample Receipt Checklist.

**II. GENERAL REPORTING COMMENTS:**

Results are reported on a wet weight basis unless dry-weight correction is denoted in the units field on the analytical report ("mg/kg-dry" or "ug/kg-dry").

Matrix Spike (MS) and MS Duplicate (MSD) samples are tested from an analytical batch of "like" matrix to check for possible matrix effect. The MS and MSD will provide site specific matrix data only for those samples which are spiked by the laboratory. The sample chosen for spike purposes may or may not have been a sample submitted in this sample delivery group. The validity of the analytical procedures for which data is reported in this analytical report is determined by the Laboratory Control Sample (LCS) and the Method Blank (MB). The LCS and the MB are processed with the samples and the MS/MSD to ensure method criteria are achieved throughout the entire analytical process.

**III. ANALYSES AND EXCEPTIONS:**

Exceptions associated with this report will be footnoted in the analytical results page(s) or the quality control summary page(s) and/or noted below.

### Qualifiers:

- \* - Flagged value is not within established control limits
- B - Analyte detected in the associated Method Blank
- D - Dilution was required
- E - Value above quantitation range
- H - Holding times for preparation or analysis exceeded
- I - Analyte with an internal standard that does not meet established acceptance criteria
- J - Analyte detected below Reporting Limit
- N - Tentatively Identified Compound (TIC)
- Q - Analyte with an initial or continuing calibration that does not meet established acceptance criteria (<20%RSD, <20% Drift or minimum RRF)
- S - Spike recovery outside accepted recovery limits
- ND - Not detected at the Reporting Limit
- R - High relative percent difference observed

### Acronyms:

- %Rec - Percent Recovery
- CCB - Continued Calibration Blank
- CCV - Continued Calibration Verification
- DF - Dilution Factor
- HEM - Hexane Extractable Material
- ICV - Initial Calibration Verification
- LCS/LCSD - Laboratory Control Sample / Laboratory Control Sample Duplicate
- MB or MBLANK - Method Blank
- MDL - Method Detection Limit
- MS/MSD - Matrix Spike / Matrix Spike Duplicate
- PDS - Post Digestion Spike
- Ref Val - Reference Value
- RL - Reporting Limit
- RPD - Relative Percent Difference
- SD - Serial Dilution
- SGT - Silica Gel Treatment
- SPK - Spike
- Surr - Surrogate



**Client:** Kane Environmental, Inc.

**Collection Date:** 2/21/2019 11:45:00 AM

**Project:** BSCSS

**Lab ID:** 1902260-001

**Matrix:** Groundwater

**Client Sample ID:** MW-34:W

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
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**Dissolved Gases by RSK-175**

Batch ID: R49738 Analyst: IH

Methane	0.0274	0.00863		mg/L	1	2/28/2019 10:18:00 AM
Ethene	ND	0.0151		mg/L	1	2/28/2019 10:18:00 AM
Ethane	ND	0.0162		mg/L	1	2/28/2019 10:18:00 AM

**Volatile Organic Compounds by EPA Method 8260C**

Batch ID: 23632 Analyst: CR

Dichlorodifluoromethane (CFC-12)	ND	1.00		µg/L	1	2/26/2019 6:25:08 PM
Chloromethane	ND	2.00		µg/L	1	2/26/2019 6:25:08 PM
Vinyl chloride	ND	0.200		µg/L	1	2/26/2019 6:25:08 PM
Bromomethane	ND	1.00		µg/L	1	2/26/2019 6:25:08 PM
Trichlorofluoromethane (CFC-11)	ND	1.00		µg/L	1	2/26/2019 6:25:08 PM
Chloroethane	ND	1.00		µg/L	1	2/26/2019 6:25:08 PM
1,1-Dichloroethene	ND	1.00		µg/L	1	2/26/2019 6:25:08 PM
Methylene chloride	ND	1.00		µg/L	1	2/26/2019 6:25:08 PM
trans-1,2-Dichloroethene	ND	1.00		µg/L	1	2/26/2019 6:25:08 PM
Methyl tert-butyl ether (MTBE)	ND	1.00		µg/L	1	2/26/2019 6:25:08 PM
1,1-Dichloroethane	ND	1.00		µg/L	1	2/26/2019 6:25:08 PM
2,2-Dichloropropane	ND	2.00		µg/L	1	2/26/2019 6:25:08 PM
cis-1,2-Dichloroethene	1.52	1.00		µg/L	1	2/26/2019 6:25:08 PM
Chloroform	ND	1.00		µg/L	1	2/26/2019 6:25:08 PM
1,1,1-Trichloroethane (TCA)	ND	1.00		µg/L	1	2/26/2019 6:25:08 PM
1,1-Dichloropropene	ND	1.00		µg/L	1	2/26/2019 6:25:08 PM
Carbon tetrachloride	ND	1.00		µg/L	1	2/26/2019 6:25:08 PM
1,2-Dichloroethane (EDC)	ND	1.00		µg/L	1	2/26/2019 6:25:08 PM
Benzene	ND	1.00		µg/L	1	2/26/2019 6:25:08 PM
Trichloroethene (TCE)	ND	0.500		µg/L	1	2/26/2019 6:25:08 PM
1,2-Dichloropropane	ND	1.00		µg/L	1	2/26/2019 6:25:08 PM
Bromodichloromethane	ND	1.00		µg/L	1	2/26/2019 6:25:08 PM
Dibromomethane	ND	1.00		µg/L	1	2/26/2019 6:25:08 PM
cis-1,3-Dichloropropene	ND	1.00		µg/L	1	2/26/2019 6:25:08 PM
Toluene	ND	1.00		µg/L	1	2/26/2019 6:25:08 PM
trans-1,3-Dichloropropylene	ND	1.00		µg/L	1	2/26/2019 6:25:08 PM
1,1,2-Trichloroethane	ND	1.00		µg/L	1	2/26/2019 6:25:08 PM
1,3-Dichloropropane	ND	1.00		µg/L	1	2/26/2019 6:25:08 PM
Tetrachloroethene (PCE)	1.29	1.00		µg/L	1	2/26/2019 6:25:08 PM
Dibromochloromethane	ND	1.00		µg/L	1	2/26/2019 6:25:08 PM
1,2-Dibromoethane (EDB)	ND	0.250		µg/L	1	2/26/2019 6:25:08 PM
Chlorobenzene	ND	1.00		µg/L	1	2/26/2019 6:25:08 PM
1,1,1,2-Tetrachloroethane	ND	1.00		µg/L	1	2/26/2019 6:25:08 PM



**Client:** Kane Environmental, Inc.

**Collection Date:** 2/21/2019 11:45:00 AM

**Project:** BSCSS

**Lab ID:** 1902260-001

**Matrix:** Groundwater

**Client Sample ID:** MW-34:W

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
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**Volatile Organic Compounds by EPA Method 8260C**

Batch ID: 23632

Analyst: CR

Ethylbenzene	ND	1.00		µg/L	1	2/26/2019 6:25:08 PM
m,p-Xylene	ND	1.00		µg/L	1	2/26/2019 6:25:08 PM
o-Xylene	ND	1.00		µg/L	1	2/26/2019 6:25:08 PM
Styrene	ND	1.00		µg/L	1	2/26/2019 6:25:08 PM
Isopropylbenzene	ND	1.00		µg/L	1	2/26/2019 6:25:08 PM
Bromoform	ND	2.00		µg/L	1	2/26/2019 6:25:08 PM
1,1,2,2-Tetrachloroethane	ND	1.00		µg/L	1	2/26/2019 6:25:08 PM
n-Propylbenzene	ND	1.00		µg/L	1	2/26/2019 6:25:08 PM
Bromobenzene	ND	1.00		µg/L	1	2/26/2019 6:25:08 PM
1,3,5-Trimethylbenzene	ND	1.00		µg/L	1	2/26/2019 6:25:08 PM
2-Chlorotoluene	ND	1.00		µg/L	1	2/26/2019 6:25:08 PM
4-Chlorotoluene	ND	1.00		µg/L	1	2/26/2019 6:25:08 PM
tert-Butylbenzene	ND	1.00		µg/L	1	2/26/2019 6:25:08 PM
1,2,3-Trichloropropane	ND	1.00		µg/L	1	2/26/2019 6:25:08 PM
1,2,4-Trichlorobenzene	ND	2.00		µg/L	1	2/26/2019 6:25:08 PM
sec-Butylbenzene	ND	1.00		µg/L	1	2/26/2019 6:25:08 PM
4-Isopropyltoluene	ND	1.00		µg/L	1	2/26/2019 6:25:08 PM
1,3-Dichlorobenzene	ND	1.00		µg/L	1	2/26/2019 6:25:08 PM
1,4-Dichlorobenzene	ND	1.00		µg/L	1	2/26/2019 6:25:08 PM
n-Butylbenzene	ND	1.00		µg/L	1	2/26/2019 6:25:08 PM
1,2-Dichlorobenzene	ND	1.00		µg/L	1	2/26/2019 6:25:08 PM
1,2-Dibromo-3-chloropropane	ND	1.00		µg/L	1	2/26/2019 6:25:08 PM
1,2,4-Trimethylbenzene	ND	1.00		µg/L	1	2/26/2019 6:25:08 PM
Hexachloro-1,3-butadiene	ND	4.00		µg/L	1	2/26/2019 6:25:08 PM
Naphthalene	ND	1.00		µg/L	1	2/26/2019 6:25:08 PM
1,2,3-Trichlorobenzene	ND	4.00		µg/L	1	2/26/2019 6:25:08 PM
Surr: Dibromofluoromethane	94.1	45.4 - 152		%Rec	1	2/26/2019 6:25:08 PM
Surr: Toluene-d8	99.9	40.1 - 139		%Rec	1	2/26/2019 6:25:08 PM
Surr: 1-Bromo-4-fluorobenzene	96.6	64.2 - 128		%Rec	1	2/26/2019 6:25:08 PM

**Ion Chromatography by EPA Method 300.0**

Batch ID: 23617

Analyst: GM

Chloride	32.7	2.00	D	mg/L	20	2/22/2019 7:06:00 PM
Sulfate	14.6	1.50	D	mg/L	5	2/22/2019 5:11:00 PM

**Dissolved Metals by EPA Method 200.8**

Batch ID: 23634

Analyst: WC

Iron	367	100		µg/L	1	2/26/2019 3:50:23 PM
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**Client:** Kane Environmental, Inc.

**Collection Date:** 2/21/2019 11:45:00 AM

**Project:** BSCSS

**Lab ID:** 1902260-001

**Matrix:** Groundwater

**Client Sample ID:** MW-34:W

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
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**Total Organic Carbon by SM 5310C**

Batch ID: R49676 Analyst: GM

Total Organic Carbon	1.49	0.500		mg/L	1	2/25/2019 2:59:00 PM
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**Ammonia by SM 4500 NH3G**

Batch ID: 23619 Analyst: GM

Nitrogen, Ammonia	ND	0.100		mg/L	1	2/22/2019 3:34:00 PM
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**Client:** Kane Environmental, Inc.

**Collection Date:** 2/21/2019 2:30:00 PM

**Project:** BSCSS

**Lab ID:** 1902260-002

**Matrix:** Groundwater

**Client Sample ID:** MW-11:W

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
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**Dissolved Gases by RSK-175**

Batch ID: R49738 Analyst: IH

Methane	0.870	0.0863	D	mg/L	10	2/28/2019 10:30:00 AM
Ethene	ND	0.0151		mg/L	1	2/28/2019 10:26:00 AM
Ethane	ND	0.0162		mg/L	1	2/28/2019 10:26:00 AM

**Volatile Organic Compounds by EPA Method 8260C**

Batch ID: 23632 Analyst: CR

Dichlorodifluoromethane (CFC-12)	ND	1.00		µg/L	1	2/26/2019 6:55:35 PM
Chloromethane	ND	2.00		µg/L	1	2/26/2019 6:55:35 PM
Vinyl chloride	ND	0.200		µg/L	1	2/26/2019 6:55:35 PM
Bromomethane	ND	1.00		µg/L	1	2/26/2019 6:55:35 PM
Trichlorofluoromethane (CFC-11)	ND	1.00		µg/L	1	2/26/2019 6:55:35 PM
Chloroethane	ND	1.00		µg/L	1	2/26/2019 6:55:35 PM
1,1-Dichloroethene	ND	1.00		µg/L	1	2/26/2019 6:55:35 PM
Methylene chloride	ND	1.00		µg/L	1	2/26/2019 6:55:35 PM
trans-1,2-Dichloroethene	ND	1.00		µg/L	1	2/26/2019 6:55:35 PM
Methyl tert-butyl ether (MTBE)	ND	1.00		µg/L	1	2/26/2019 6:55:35 PM
1,1-Dichloroethane	ND	1.00		µg/L	1	2/26/2019 6:55:35 PM
2,2-Dichloropropane	ND	2.00		µg/L	1	2/26/2019 6:55:35 PM
cis-1,2-Dichloroethene	9.58	1.00		µg/L	1	2/26/2019 6:55:35 PM
Chloroform	ND	1.00		µg/L	1	2/26/2019 6:55:35 PM
1,1,1-Trichloroethane (TCA)	ND	1.00		µg/L	1	2/26/2019 6:55:35 PM
1,1-Dichloropropene	ND	1.00		µg/L	1	2/26/2019 6:55:35 PM
Carbon tetrachloride	ND	1.00		µg/L	1	2/26/2019 6:55:35 PM
1,2-Dichloroethane (EDC)	ND	1.00		µg/L	1	2/26/2019 6:55:35 PM
Benzene	15.5	1.00		µg/L	1	2/26/2019 6:55:35 PM
Trichloroethene (TCE)	14.6	0.500		µg/L	1	2/26/2019 6:55:35 PM
1,2-Dichloropropane	ND	1.00		µg/L	1	2/26/2019 6:55:35 PM
Bromodichloromethane	ND	1.00		µg/L	1	2/26/2019 6:55:35 PM
Dibromomethane	ND	1.00		µg/L	1	2/26/2019 6:55:35 PM
cis-1,3-Dichloropropene	ND	1.00		µg/L	1	2/26/2019 6:55:35 PM
Toluene	ND	1.00		µg/L	1	2/26/2019 6:55:35 PM
trans-1,3-Dichloropropylene	ND	1.00		µg/L	1	2/26/2019 6:55:35 PM
1,1,2-Trichloroethane	ND	1.00		µg/L	1	2/26/2019 6:55:35 PM
1,3-Dichloropropane	ND	1.00		µg/L	1	2/26/2019 6:55:35 PM
Tetrachloroethene (PCE)	16.9	1.00		µg/L	1	2/26/2019 6:55:35 PM
Dibromochloromethane	ND	1.00		µg/L	1	2/26/2019 6:55:35 PM
1,2-Dibromoethane (EDB)	ND	0.250		µg/L	1	2/26/2019 6:55:35 PM
Chlorobenzene	ND	1.00		µg/L	1	2/26/2019 6:55:35 PM
1,1,1,2-Tetrachloroethane	ND	1.00		µg/L	1	2/26/2019 6:55:35 PM



**Client:** Kane Environmental, Inc.

**Collection Date:** 2/21/2019 2:30:00 PM

**Project:** BSCSS

**Lab ID:** 1902260-002

**Matrix:** Groundwater

**Client Sample ID:** MW-11:W

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
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**Volatile Organic Compounds by EPA Method 8260C**

Batch ID: 23632

Analyst: CR

Ethylbenzene	ND	1.00		µg/L	1	2/26/2019 6:55:35 PM
m,p-Xylene	ND	1.00		µg/L	1	2/26/2019 6:55:35 PM
o-Xylene	ND	1.00		µg/L	1	2/26/2019 6:55:35 PM
Styrene	ND	1.00		µg/L	1	2/26/2019 6:55:35 PM
Isopropylbenzene	ND	1.00		µg/L	1	2/26/2019 6:55:35 PM
Bromoform	ND	2.00		µg/L	1	2/26/2019 6:55:35 PM
1,1,2,2-Tetrachloroethane	ND	1.00		µg/L	1	2/26/2019 6:55:35 PM
n-Propylbenzene	ND	1.00		µg/L	1	2/26/2019 6:55:35 PM
Bromobenzene	ND	1.00		µg/L	1	2/26/2019 6:55:35 PM
1,3,5-Trimethylbenzene	ND	1.00		µg/L	1	2/26/2019 6:55:35 PM
2-Chlorotoluene	ND	1.00		µg/L	1	2/26/2019 6:55:35 PM
4-Chlorotoluene	ND	1.00		µg/L	1	2/26/2019 6:55:35 PM
tert-Butylbenzene	ND	1.00		µg/L	1	2/26/2019 6:55:35 PM
1,2,3-Trichloropropane	ND	1.00		µg/L	1	2/26/2019 6:55:35 PM
1,2,4-Trichlorobenzene	ND	2.00		µg/L	1	2/26/2019 6:55:35 PM
sec-Butylbenzene	ND	1.00		µg/L	1	2/26/2019 6:55:35 PM
4-Isopropyltoluene	ND	1.00		µg/L	1	2/26/2019 6:55:35 PM
1,3-Dichlorobenzene	ND	1.00		µg/L	1	2/26/2019 6:55:35 PM
1,4-Dichlorobenzene	ND	1.00		µg/L	1	2/26/2019 6:55:35 PM
n-Butylbenzene	ND	1.00		µg/L	1	2/26/2019 6:55:35 PM
1,2-Dichlorobenzene	ND	1.00		µg/L	1	2/26/2019 6:55:35 PM
1,2-Dibromo-3-chloropropane	ND	1.00		µg/L	1	2/26/2019 6:55:35 PM
1,2,4-Trimethylbenzene	ND	1.00		µg/L	1	2/26/2019 6:55:35 PM
Hexachloro-1,3-butadiene	ND	4.00		µg/L	1	2/26/2019 6:55:35 PM
Naphthalene	ND	1.00		µg/L	1	2/26/2019 6:55:35 PM
1,2,3-Trichlorobenzene	ND	4.00		µg/L	1	2/26/2019 6:55:35 PM
Surr: Dibromofluoromethane	97.2	45.4 - 152		%Rec	1	2/26/2019 6:55:35 PM
Surr: Toluene-d8	100	40.1 - 139		%Rec	1	2/26/2019 6:55:35 PM
Surr: 1-Bromo-4-fluorobenzene	96.4	64.2 - 128		%Rec	1	2/26/2019 6:55:35 PM

**Ion Chromatography by EPA Method 300.0**

Batch ID: 23617

Analyst: GM

Chloride	14.4	0.500	D	mg/L	5	2/22/2019 2:52:00 PM
Sulfate	10.3	1.50	D	mg/L	5	2/22/2019 2:52:00 PM

**Dissolved Metals by EPA Method 200.8**

Batch ID: 23634

Analyst: WC

Iron	1,240	100		µg/L	1	2/26/2019 4:06:29 PM
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**Client:** Kane Environmental, Inc.

**Collection Date:** 2/21/2019 2:30:00 PM

**Project:** BSCSS

**Lab ID:** 1902260-002

**Matrix:** Groundwater

**Client Sample ID:** MW-11:W

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
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**Total Organic Carbon by SM 5310C**

Batch ID: R49676 Analyst: GM

Total Organic Carbon	23.7	1.00	D	mg/L	2	2/25/2019 4:18:00 PM
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**Ammonia by SM 4500 NH3G**

Batch ID: 23619 Analyst: GM

Nitrogen, Ammonia	ND	0.100		mg/L	1	2/22/2019 3:39:00 PM
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**Work Order:** 1902260  
**CLIENT:** Kane Environmental, Inc.  
**Project:** BSCSS

**QC SUMMARY REPORT**  
**Ammonia by SM 4500 NH3G**

Sample ID <b>MB-23619</b>	SampType: <b>MBLK</b>	Units: <b>mg/L</b>	Prep Date: <b>2/22/2019</b>	RunNo: <b>49635</b>							
Client ID: <b>MBLKW</b>	Batch ID: <b>23619</b>		Analysis Date: <b>2/22/2019</b>	SeqNo: <b>973043</b>							
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Nitrogen, Ammonia ND 0.100

Sample ID <b>LCS-23619</b>	SampType: <b>LCS</b>	Units: <b>mg/L</b>	Prep Date: <b>2/22/2019</b>	RunNo: <b>49635</b>							
Client ID: <b>LCSW</b>	Batch ID: <b>23619</b>		Analysis Date: <b>2/22/2019</b>	SeqNo: <b>973044</b>							
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Nitrogen, Ammonia 0.443 0.100 0.5000 0 88.6 80 120

Sample ID <b>1902220-001DDUP</b>	SampType: <b>DUP</b>	Units: <b>mg/L</b>	Prep Date: <b>2/22/2019</b>	RunNo: <b>49635</b>							
Client ID: <b>BATCH</b>	Batch ID: <b>23619</b>		Analysis Date: <b>2/22/2019</b>	SeqNo: <b>973046</b>							
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Nitrogen, Ammonia ND 0.100 0 30

Sample ID <b>1902220-001DMS</b>	SampType: <b>MS</b>	Units: <b>mg/L</b>	Prep Date: <b>2/22/2019</b>	RunNo: <b>49635</b>							
Client ID: <b>BATCH</b>	Batch ID: <b>23619</b>		Analysis Date: <b>2/22/2019</b>	SeqNo: <b>973047</b>							
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Nitrogen, Ammonia 0.291 0.100 0.5000 0 58.2 70 130 S

**NOTES:**

S - Outlying spike recovery(ies) observed. A duplicate analysis was performed with similar results indicating a possible matrix effect.

Sample ID <b>1902220-001DMSD</b>	SampType: <b>MSD</b>	Units: <b>mg/L</b>	Prep Date: <b>2/22/2019</b>	RunNo: <b>49635</b>							
Client ID: <b>BATCH</b>	Batch ID: <b>23619</b>		Analysis Date: <b>2/22/2019</b>	SeqNo: <b>973048</b>							
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Nitrogen, Ammonia 0.312 0.100 0.5000 0 62.4 70 130 0.2910 6.97 30 S

**NOTES:**

S - Outlying spike recovery(ies) observed. A duplicate analysis was performed with similar results indicating a possible matrix effect.

Work Order: 1902260  
 CLIENT: Kane Environmental, Inc.  
 Project: BSCSS

**QC SUMMARY REPORT**  
**Ion Chromatography by EPA Method 300.0**

Sample ID	<b>MB-23617</b>	SampType:	<b>MBLK</b>	Units:	<b>mg/L</b>	Prep Date:	<b>2/22/2019</b>	RunNo:	<b>49662</b>		
Client ID:	<b>MBLKW</b>	Batch ID:	<b>23617</b>			Analysis Date:	<b>2/22/2019</b>	SeqNo:	<b>973457</b>		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Chloride	ND	0.100
Sulfate	ND	0.300

Sample ID	<b>LCS-23617</b>	SampType:	<b>LCS</b>	Units:	<b>mg/L</b>	Prep Date:	<b>2/22/2019</b>	RunNo:	<b>49662</b>		
Client ID:	<b>LCSW</b>	Batch ID:	<b>23617</b>			Analysis Date:	<b>2/22/2019</b>	SeqNo:	<b>973458</b>		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Chloride	0.734	0.100	0.7500	0	97.9	90	110
Sulfate	3.67	0.300	3.750	0	97.8	90	110

Sample ID	<b>1902260-002CDUP</b>	SampType:	<b>DUP</b>	Units:	<b>mg/L</b>	Prep Date:	<b>2/22/2019</b>	RunNo:	<b>49662</b>		
Client ID:	<b>MW-11:W</b>	Batch ID:	<b>23617</b>			Analysis Date:	<b>2/22/2019</b>	SeqNo:	<b>973460</b>		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Chloride	14.5	0.500						14.44	0.138	20	D
Sulfate	10.2	1.50						10.26	0.0976	20	D

Sample ID	<b>1902260-002CMS</b>	SampType:	<b>MS</b>	Units:	<b>mg/L</b>	Prep Date:	<b>2/22/2019</b>	RunNo:	<b>49662</b>		
Client ID:	<b>MW-11:W</b>	Batch ID:	<b>23617</b>			Analysis Date:	<b>2/22/2019</b>	SeqNo:	<b>973461</b>		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Chloride	18.7	0.500	3.750	14.44	113	80	120				DE
Sulfate	28.9	1.50	18.75	10.26	99.5	80	120				D

**NOTES:**

E - Estimated value. The amount exceeds the linear working range of the instrument.

**Work Order:** 1902260  
**CLIENT:** Kane Environmental, Inc.  
**Project:** BSCSS

**QC SUMMARY REPORT**  
**Ion Chromatography by EPA Method 300.0**

Sample ID	1902260-002CMSD	SampType:	MSD	Units:	mg/L	Prep Date:	2/22/2019	RunNo:	49662		
Client ID:	MW-11:W	Batch ID:	23617			Analysis Date:	2/22/2019	SeqNo:	973462		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Chloride	18.7	0.500	3.750	14.44	114	80	120	18.68	0.214	20	DE
Sulfate	29.2	1.50	18.75	10.26	101	80	120	28.92	1.02	20	D

**NOTES:**

E - Estimated value. The amount exceeds the linear working range of the instrument.



**Work Order:** 1902260  
**CLIENT:** Kane Environmental, Inc.  
**Project:** BSCSS

**QC SUMMARY REPORT**  
**Total Organic Carbon by SM 5310C**

Sample ID <b>MBLK-49676</b>	SampType: <b>MBLK</b>	Units: <b>mg/L</b>		Prep Date: <b>2/25/2019</b>	RunNo: <b>49676</b>						
Client ID: <b>MBLKW</b>	Batch ID: <b>R49676</b>			Analysis Date: <b>2/25/2019</b>	SeqNo: <b>973820</b>						
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Total Organic Carbon                  ND                  0.500

Sample ID <b>LCS-49676</b>	SampType: <b>LCS</b>	Units: <b>mg/L</b>		Prep Date: <b>2/25/2019</b>	RunNo: <b>49676</b>						
Client ID: <b>LCSW</b>	Batch ID: <b>R49676</b>			Analysis Date: <b>2/25/2019</b>	SeqNo: <b>973821</b>						
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Total Organic Carbon                  4.95                  0.500                  5.000                  0                  99.0                  80                  120

Sample ID <b>1902260-001DDUP</b>	SampType: <b>DUP</b>	Units: <b>mg/L</b>		Prep Date: <b>2/25/2019</b>	RunNo: <b>49676</b>						
Client ID: <b>MW-34:W</b>	Batch ID: <b>R49676</b>			Analysis Date: <b>2/25/2019</b>	SeqNo: <b>973823</b>						
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Total Organic Carbon                  1.52                  0.500                                                                                                                        1.490                  2.06                  20

Sample ID <b>1902260-001DMS</b>	SampType: <b>MS</b>	Units: <b>mg/L</b>		Prep Date: <b>2/25/2019</b>	RunNo: <b>49676</b>						
Client ID: <b>MW-34:W</b>	Batch ID: <b>R49676</b>			Analysis Date: <b>2/25/2019</b>	SeqNo: <b>973824</b>						
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Total Organic Carbon                  6.43                  0.500                  5.000                  1.490                  98.8                  70                  130

Sample ID <b>1902260-001DMSD</b>	SampType: <b>MSD</b>	Units: <b>mg/L</b>		Prep Date: <b>2/25/2019</b>	RunNo: <b>49676</b>						
Client ID: <b>MW-34:W</b>	Batch ID: <b>R49676</b>			Analysis Date: <b>2/25/2019</b>	SeqNo: <b>973825</b>						
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Total Organic Carbon                  6.46                  0.500                  5.000                  1.490                  99.5                  70                  130                  6.430                  0.543                  30

Work Order: 1902260  
 CLIENT: Kane Environmental, Inc.  
 Project: BSCSS

**QC SUMMARY REPORT**  
**Dissolved Metals by EPA Method 200.8**

Sample ID	<b>MB-23634</b>	SampType:	<b>MBLK</b>	Units:	<b>µg/L</b>	Prep Date:	<b>2/26/2019</b>	RunNo:	<b>49708</b>		
Client ID:	<b>MBLKW</b>	Batch ID:	<b>23634</b>	Analysis Date:	<b>2/26/2019</b>	SeqNo:	<b>974436</b>				
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Iron ND 100

Sample ID	<b>LCS-23634</b>	SampType:	<b>LCS</b>	Units:	<b>µg/L</b>	Prep Date:	<b>2/26/2019</b>	RunNo:	<b>49708</b>		
Client ID:	<b>LCSW</b>	Batch ID:	<b>23634</b>	Analysis Date:	<b>2/26/2019</b>	SeqNo:	<b>974437</b>				
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Iron 1,020 100 1,000 0 102 50 150

Sample ID	<b>1902260-001BDUP</b>	SampType:	<b>DUP</b>	Units:	<b>µg/L</b>	Prep Date:	<b>2/26/2019</b>	RunNo:	<b>49708</b>		
Client ID:	<b>MW-34:W</b>	Batch ID:	<b>23634</b>	Analysis Date:	<b>2/26/2019</b>	SeqNo:	<b>974439</b>				
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Iron 348 100 366.9 5.32 30

Sample ID	<b>1902260-001BMS</b>	SampType:	<b>MS</b>	Units:	<b>µg/L</b>	Prep Date:	<b>2/26/2019</b>	RunNo:	<b>49708</b>		
Client ID:	<b>MW-34:W</b>	Batch ID:	<b>23634</b>	Analysis Date:	<b>2/26/2019</b>	SeqNo:	<b>974440</b>				
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Iron 5,190 100 5,000 366.9 96.4 50 150

Sample ID	<b>1902260-001BMSD</b>	SampType:	<b>MSD</b>	Units:	<b>µg/L</b>	Prep Date:	<b>2/26/2019</b>	RunNo:	<b>49708</b>		
Client ID:	<b>MW-34:W</b>	Batch ID:	<b>23634</b>	Analysis Date:	<b>2/26/2019</b>	SeqNo:	<b>974441</b>				
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Iron 5,310 100 5,000 366.9 98.9 50 150 5,189 2.36 30



**Work Order:** 1902260  
**CLIENT:** Kane Environmental, Inc.  
**Project:** BSCSS

**QC SUMMARY REPORT**  
**Dissolved Metals by EPA Method 200.8**

Sample ID <b>MB-23622FB</b>	SampType: <b>MBLK</b>	Units: <b>µg/L</b>	Prep Date: <b>2/26/2019</b>	RunNo: <b>49708</b>							
Client ID: <b>MBLKW</b>	Batch ID: <b>23634</b>	Analysis Date: <b>2/26/2019</b>	SeqNo: <b>974448</b>								
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Iron ND 100

**NOTES:**  
Filter Blank



**Work Order:** 1902260  
**CLIENT:** Kane Environmental, Inc.  
**Project:** BSCSS

**QC SUMMARY REPORT**  
**Dissolved Gases by RSK-175**

Sample ID <b>MB-R49738</b>	SampType: <b>MBLK</b>	Units: <b>mg/L</b>	Prep Date: <b>2/28/2019</b>	RunNo: <b>49738</b>							
Client ID: <b>MBLKW</b>	Batch ID: <b>R49738</b>	Analysis Date: <b>2/28/2019</b>	SeqNo: <b>975032</b>								
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Methane	ND	0.00863									
Ethene	ND	0.0151									
Ethane	ND	0.0162									

Sample ID <b>LCS-R49738</b>	SampType: <b>LCS</b>	Units: <b>mg/L</b>	Prep Date: <b>2/28/2019</b>	RunNo: <b>49738</b>							
Client ID: <b>LCSW</b>	Batch ID: <b>R49738</b>	Analysis Date: <b>2/28/2019</b>	SeqNo: <b>975031</b>								
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Methane	838	0.00863	1,000	0	83.8	70	130				
Ethene	861	0.0151	1,000	0	86.1	70	130				
Ethane	872	0.0162	1,000	0	87.2	70	130				

Sample ID <b>1902260-001FREP</b>	SampType: <b>REP</b>	Units: <b>mg/L</b>	Prep Date: <b>2/28/2019</b>	RunNo: <b>49738</b>							
Client ID: <b>MW-34:W</b>	Batch ID: <b>R49738</b>	Analysis Date: <b>2/28/2019</b>	SeqNo: <b>975016</b>								
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Methane	0.0282	0.00863						0.02742	2.73	30	
Ethene	ND	0.0151						0		30	
Ethane	ND	0.0162						0		30	





Work Order: 1902260  
 CLIENT: Kane Environmental, Inc.  
 Project: BSCSS

**QC SUMMARY REPORT**  
**Volatile Organic Compounds by EPA Method 8260C**

Sample ID	<b>LCS-23632</b>	SampType:	<b>LCS</b>	Units:	<b>µg/L</b>	Prep Date:	<b>2/25/2019</b>	RunNo:	<b>49673</b>
Client ID:	<b>LCSW</b>	Batch ID:	<b>23632</b>			Analysis Date:	<b>2/26/2019</b>	SeqNo:	<b>973746</b>

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Dichlorodifluoromethane (CFC-12)	19.2	1.00	20.00	0	96.1	18.7	171				
Chloromethane	17.8	2.00	20.00	0	89.2	38.5	171				
Vinyl chloride	19.9	0.200	20.00	0	99.3	48	145				
Bromomethane	31.9	1.00	20.00	0	160	32.5	184				
Trichlorofluoromethane (CFC-11)	20.3	1.00	20.00	0	102	43.5	149				
Chloroethane	19.8	1.00	20.00	0	99.2	43.8	168				
1,1-Dichloroethene	20.5	1.00	20.00	0	102	57.5	150				
Methylene chloride	20.1	1.00	20.00	0	101	67.1	131				
trans-1,2-Dichloroethene	20.4	1.00	20.00	0	102	71.7	129				
Methyl tert-butyl ether (MTBE)	20.5	1.00	20.00	0	103	58	138				
1,1-Dichloroethane	20.4	1.00	20.00	0	102	67.9	134				
2,2-Dichloropropane	17.1	2.00	20.00	0	85.7	26.5	185				
cis-1,2-Dichloroethene	20.3	1.00	20.00	0	101	70.2	139				
Chloroform	20.4	1.00	20.00	0	102	66.3	131				
1,1,1-Trichloroethane (TCA)	20.5	1.00	20.00	0	102	63	140				
1,1-Dichloropropene	20.3	1.00	20.00	0	102	69.9	124				
Carbon tetrachloride	20.4	1.00	20.00	0	102	66.2	134				
1,2-Dichloroethane (EDC)	20.5	1.00	20.00	0	102	67	126				
Benzene	20.6	1.00	20.00	0	103	69.3	132				
Trichloroethene (TCE)	20.5	0.500	20.00	0	103	65.2	136				
1,2-Dichloropropane	20.2	1.00	20.00	0	101	70.5	130				
Bromodichloromethane	20.1	1.00	20.00	0	101	67.2	137				
Dibromomethane	20.3	1.00	20.00	0	102	69.3	143				
cis-1,3-Dichloropropene	19.6	1.00	20.00	0	97.8	62.6	137				
Toluene	20.4	1.00	20.00	0	102	61.3	145				
trans-1,3-Dichloropropylene	19.1	1.00	20.00	0	95.7	56.5	163				
1,1,2-Trichloroethane	20.2	1.00	20.00	0	101	71.7	131				
1,3-Dichloropropane	20.2	1.00	20.00	0	101	73.5	127				
Tetrachloroethene (PCE)	20.1	1.00	20.00	0	101	47.5	147				
Dibromochloromethane	20.0	1.00	20.00	0	99.9	67.2	134				
1,2-Dibromoethane (EDB)	20.1	0.250	20.00	0	101	73.6	125				

Work Order: 1902260  
 CLIENT: Kane Environmental, Inc.  
 Project: BSCSS

**QC SUMMARY REPORT**  
**Volatile Organic Compounds by EPA Method 8260C**

Sample ID	LCS-23632	SampType:	LCS	Units:	µg/L	Prep Date:	2/25/2019	RunNo:	49673		
Client ID:	LCSW	Batch ID:	23632	Analysis Date:	2/26/2019	SeqNo:	973746				
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Chlorobenzene	20.7	1.00	20.00	0	104	73.9	126				
1,1,1,2-Tetrachloroethane	20.6	1.00	20.00	0	103	76.8	124				
Ethylbenzene	21.2	1.00	20.00	0	106	72	130				
m,p-Xylene	40.8	1.00	40.00	0	102	70.3	134				
o-Xylene	20.1	1.00	20.00	0	101	72.1	131				
Styrene	20.3	1.00	20.00	0	101	64.3	140				
Isopropylbenzene	21.5	1.00	20.00	0	107	73.9	128				
Bromoform	19.8	2.00	20.00	0	98.9	55.3	141				
1,1,2,2-Tetrachloroethane	20.2	1.00	20.00	0	101	62.9	132				
n-Propylbenzene	21.8	1.00	20.00	0	109	74.5	127				
Bromobenzene	20.3	1.00	20.00	0	101	71	131				
1,3,5-Trimethylbenzene	20.8	1.00	20.00	0	104	73.1	128				
2-Chlorotoluene	22.9	1.00	20.00	0	114	70.8	130				
4-Chlorotoluene	20.5	1.00	20.00	0	102	70.1	131				
tert-Butylbenzene	20.6	1.00	20.00	0	103	68.2	131				
1,2,3-Trichloropropane	20.3	1.00	20.00	0	102	67.7	131				
1,2,4-Trichlorobenzene	20.5	2.00	20.00	0	102	41	139				
sec-Butylbenzene	22.0	1.00	20.00	0	110	72	129				
4-Isopropyltoluene	21.1	1.00	20.00	0	105	69.2	130				
1,3-Dichlorobenzene	20.9	1.00	20.00	0	105	69.5	128				
1,4-Dichlorobenzene	21.0	1.00	20.00	0	105	66.8	119				
n-Butylbenzene	20.9	1.00	20.00	0	104	73.8	127				
1,2-Dichlorobenzene	21.0	1.00	20.00	0	105	69.7	119				
1,2-Dibromo-3-chloropropane	20.1	1.00	20.00	0	101	63.1	136				
1,2,4-Trimethylbenzene	21.0	1.00	20.00	0	105	73.4	127				
Hexachloro-1,3-butadiene	21.0	4.00	20.00	0	105	58.6	138				
Naphthalene	20.9	1.00	20.00	0	104	41.8	165				
1,2,3-Trichlorobenzene	21.0	4.00	20.00	0	105	35.8	155				
Surr: Dibromofluoromethane	24.3		25.00		97.3	45.4	152				
Surr: Toluene-d8	25.0		25.00		99.8	40.1	139				
Surr: 1-Bromo-4-fluorobenzene	25.3		25.00		101	64.2	128				

Work Order: 1902260  
 CLIENT: Kane Environmental, Inc.  
 Project: BSCSS

**QC SUMMARY REPORT**  
**Volatile Organic Compounds by EPA Method 8260C**

Sample ID	<b>LCS-23632</b>	SampType:	<b>LCS</b>	Units:	<b>µg/L</b>	Prep Date:	<b>2/25/2019</b>	RunNo:	<b>49673</b>		
Client ID:	<b>LCSW</b>	Batch ID:	<b>23632</b>	Analysis Date:	<b>2/26/2019</b>	SeqNo:	<b>973746</b>				
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Sample ID	<b>MB-23632</b>	SampType:	<b>MBLK</b>	Units:	<b>µg/L</b>	Prep Date:	<b>2/25/2019</b>	RunNo:	<b>49673</b>		
Client ID:	<b>MBLKW</b>	Batch ID:	<b>23632</b>	Analysis Date:	<b>2/26/2019</b>	SeqNo:	<b>973747</b>				
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Dichlorodifluoromethane (CFC-12)	ND	1.00									
Chloromethane	ND	2.00									
Vinyl chloride	ND	0.200									
Bromomethane	ND	1.00									
Trichlorofluoromethane (CFC-11)	ND	1.00									
Chloroethane	ND	1.00									
1,1-Dichloroethene	ND	1.00									
Methylene chloride	ND	1.00									
trans-1,2-Dichloroethene	ND	1.00									
Methyl tert-butyl ether (MTBE)	ND	1.00									
1,1-Dichloroethane	ND	1.00									
2,2-Dichloropropane	ND	2.00									
cis-1,2-Dichloroethene	ND	1.00									
Chloroform	ND	1.00									
1,1,1-Trichloroethane (TCA)	ND	1.00									
1,1-Dichloropropene	ND	1.00									
Carbon tetrachloride	ND	1.00									
1,2-Dichloroethane (EDC)	ND	1.00									
Benzene	ND	1.00									
Trichloroethene (TCE)	ND	0.500									
1,2-Dichloropropane	ND	1.00									
Bromodichloromethane	ND	1.00									
Dibromomethane	ND	1.00									
cis-1,3-Dichloropropene	ND	1.00									
Toluene	ND	1.00									



Work Order: 1902260  
 CLIENT: Kane Environmental, Inc.  
 Project: BSCSS

**QC SUMMARY REPORT**  
**Volatile Organic Compounds by EPA Method 8260C**

Sample ID <b>MB-23632</b>	SampType: <b>MBLK</b>	Units: <b>µg/L</b>	Prep Date: <b>2/25/2019</b>	RunNo: <b>49673</b>							
Client ID: <b>MBLKW</b>	Batch ID: <b>23632</b>		Analysis Date: <b>2/26/2019</b>	SeqNo: <b>973747</b>							
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
trans-1,3-Dichloropropylene	ND	1.00									
1,1,2-Trichloroethane	ND	1.00									
1,3-Dichloropropane	ND	1.00									
Tetrachloroethene (PCE)	ND	1.00									
Dibromochloromethane	ND	1.00									
1,2-Dibromoethane (EDB)	ND	0.250									
Chlorobenzene	ND	1.00									
1,1,1,2-Tetrachloroethane	ND	1.00									
Ethylbenzene	ND	1.00									
m,p-Xylene	ND	1.00									
o-Xylene	ND	1.00									
Styrene	ND	1.00									
Isopropylbenzene	ND	1.00									
Bromoform	ND	2.00									
1,1,1,2,2-Tetrachloroethane	ND	1.00									
n-Propylbenzene	ND	1.00									
Bromobenzene	ND	1.00									
1,3,5-Trimethylbenzene	ND	1.00									
2-Chlorotoluene	ND	1.00									
4-Chlorotoluene	ND	1.00									
tert-Butylbenzene	ND	1.00									
1,2,3-Trichloropropane	ND	1.00									
1,2,4-Trichlorobenzene	ND	2.00									
sec-Butylbenzene	ND	1.00									
4-Isopropyltoluene	ND	1.00									
1,3-Dichlorobenzene	ND	1.00									
1,4-Dichlorobenzene	ND	1.00									
n-Butylbenzene	ND	1.00									
1,2-Dichlorobenzene	ND	1.00									
1,2-Dibromo-3-chloropropane	ND	1.00									
1,2,4-Trimethylbenzene	ND	1.00									

Work Order: 1902260  
 CLIENT: Kane Environmental, Inc.  
 Project: BSCSS

**QC SUMMARY REPORT**  
**Volatile Organic Compounds by EPA Method 8260C**

Sample ID <b>MB-23632</b>	SampType: <b>MBLK</b>	Units: <b>µg/L</b>			Prep Date: <b>2/25/2019</b>	RunNo: <b>49673</b>					
Client ID: <b>MBLKW</b>	Batch ID: <b>23632</b>				Analysis Date: <b>2/26/2019</b>	SeqNo: <b>973747</b>					
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Hexachloro-1,3-butadiene	ND	4.00									
Naphthalene	ND	1.00									
1,2,3-Trichlorobenzene	ND	4.00									
Surr: Dibromofluoromethane	23.5		25.00		93.9	45.4	152				
Surr: Toluene-d8	25.1		25.00		100	40.1	139				
Surr: 1-Bromo-4-fluorobenzene	24.6		25.00		98.5	64.2	128				

Sample ID <b>1902297-001ADUP</b>	SampType: <b>DUP</b>	Units: <b>µg/L</b>			Prep Date: <b>2/25/2019</b>	RunNo: <b>49673</b>					
Client ID: <b>BATCH</b>	Batch ID: <b>23632</b>				Analysis Date: <b>2/26/2019</b>	SeqNo: <b>973742</b>					
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Dichlorodifluoromethane (CFC-12)	ND	1.00						0		30	
Chloromethane	ND	2.00						0		30	
Vinyl chloride	ND	0.200						0		30	
Bromomethane	ND	1.00						0		30	
Trichlorofluoromethane (CFC-11)	ND	1.00						0		30	
Chloroethane	ND	1.00						0		30	
1,1-Dichloroethene	ND	1.00						0		30	
Methylene chloride	ND	1.00						0		30	
trans-1,2-Dichloroethene	ND	1.00						0		30	
Methyl tert-butyl ether (MTBE)	ND	1.00						0		30	
1,1-Dichloroethane	ND	1.00						0		30	
2,2-Dichloropropane	ND	2.00						0		30	
cis-1,2-Dichloroethene	ND	1.00						0		30	
Chloroform	ND	1.00						0		30	
1,1,1-Trichloroethane (TCA)	ND	1.00						0		30	
1,1-Dichloropropene	ND	1.00						0		30	
Carbon tetrachloride	ND	1.00						0		30	
1,2-Dichloroethane (EDC)	ND	1.00						0		30	
Benzene	ND	1.00						0		30	



**Work Order:** 1902260  
**CLIENT:** Kane Environmental, Inc.  
**Project:** BSCSS

**QC SUMMARY REPORT**  
**Volatile Organic Compounds by EPA Method 8260C**

Sample ID	1902297-001ADUP	SampType:	DUP	Units:	µg/L	Prep Date:	2/25/2019	RunNo:	49673
Client ID:	BATCH	Batch ID:	23632			Analysis Date:	2/26/2019	SeqNo:	973742

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Trichloroethene (TCE)	ND	0.500						0		30	
1,2-Dichloropropane	ND	1.00						0		30	
Bromodichloromethane	ND	1.00						0		30	
Dibromomethane	ND	1.00						0		30	
cis-1,3-Dichloropropene	ND	1.00						0		30	
Toluene	ND	1.00						0		30	
trans-1,3-Dichloropropylene	ND	1.00						0		30	
1,1,2-Trichloroethane	ND	1.00						0		30	
1,3-Dichloropropane	ND	1.00						0		30	
Tetrachloroethene (PCE)	ND	1.00						0		30	
Dibromochloromethane	ND	1.00						0		30	
1,2-Dibromoethane (EDB)	ND	0.250						0		30	
Chlorobenzene	ND	1.00						0		30	
1,1,1,2-Tetrachloroethane	ND	1.00						0		30	
Ethylbenzene	ND	1.00						0		30	
m,p-Xylene	ND	1.00						0		30	
o-Xylene	ND	1.00						0		30	
Styrene	ND	1.00						0		30	
Isopropylbenzene	ND	1.00						0		30	
Bromoform	ND	2.00						0		30	
1,1,2,2-Tetrachloroethane	ND	1.00						0		30	
n-Propylbenzene	ND	1.00						0		30	
Bromobenzene	ND	1.00						0		30	
1,3,5-Trimethylbenzene	ND	1.00						0		30	
2-Chlorotoluene	ND	1.00						0		30	
4-Chlorotoluene	ND	1.00						0		30	
tert-Butylbenzene	ND	1.00						0		30	
1,2,3-Trichloropropane	ND	1.00						0		30	
1,2,4-Trichlorobenzene	ND	2.00						0		30	
sec-Butylbenzene	ND	1.00						0		30	
4-Isopropyltoluene	ND	1.00						0		30	

Work Order: 1902260  
 CLIENT: Kane Environmental, Inc.  
 Project: BSCSS

**QC SUMMARY REPORT**  
**Volatile Organic Compounds by EPA Method 8260C**

Sample ID	1902297-001ADUP	SampType:	DUP	Units:	µg/L	Prep Date:	2/25/2019	RunNo:	49673		
Client ID:	BATCH	Batch ID:	23632	Analysis Date:	2/26/2019	SeqNo:	973742				
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,3-Dichlorobenzene	ND	1.00						0		30	
1,4-Dichlorobenzene	ND	1.00						0		30	
n-Butylbenzene	ND	1.00						0		30	
1,2-Dichlorobenzene	ND	1.00						0		30	
1,2-Dibromo-3-chloropropane	ND	1.00						0		30	
1,2,4-Trimethylbenzene	ND	1.00						0		30	
Hexachloro-1,3-butadiene	ND	4.00						0		30	
Naphthalene	ND	1.00						0		30	
1,2,3-Trichlorobenzene	ND	4.00						0		30	
Surr: Dibromofluoromethane	23.2		25.00		92.7	45.4	152		0		
Surr: Toluene-d8	24.8		25.00		99.1	40.1	139		0		
Surr: 1-Bromo-4-fluorobenzene	21.9		25.00		87.7	64.2	128		0		

Sample ID	1902298-001ADUP	SampType:	DUP	Units:	µg/L	Prep Date:	2/25/2019	RunNo:	49673		
Client ID:	BATCH	Batch ID:	23632	Analysis Date:	2/26/2019	SeqNo:	973744				
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Dichlorodifluoromethane (CFC-12)	ND	1.00						0		30	
Chloromethane	ND	2.00						0		30	
Vinyl chloride	ND	0.200						0		30	
Bromomethane	ND	1.00						0		30	
Trichlorofluoromethane (CFC-11)	ND	1.00						0		30	
Chloroethane	ND	1.00						0		30	
1,1-Dichloroethene	ND	1.00						0		30	
Methylene chloride	ND	1.00						0		30	
trans-1,2-Dichloroethene	ND	1.00						0		30	
Methyl tert-butyl ether (MTBE)	ND	1.00						0		30	
1,1-Dichloroethane	ND	1.00						0		30	
2,2-Dichloropropane	ND	2.00						0		30	
cis-1,2-Dichloroethene	ND	1.00						0		30	



Work Order: 1902260  
 CLIENT: Kane Environmental, Inc.  
 Project: BSCSS

**QC SUMMARY REPORT**  
**Volatile Organic Compounds by EPA Method 8260C**

Sample ID	1902298-001ADUP	SampType:	DUP	Units:	µg/L	Prep Date:	2/25/2019	RunNo:	49673
Client ID:	BATCH	Batch ID:	23632			Analysis Date:	2/26/2019	SeqNo:	973744

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Chloroform	ND	1.00						0		30	
1,1,1-Trichloroethane (TCA)	ND	1.00						0		30	
1,1-Dichloropropene	ND	1.00						0		30	
Carbon tetrachloride	ND	1.00						0		30	
1,2-Dichloroethane (EDC)	ND	1.00						0		30	
Benzene	ND	1.00						0		30	
Trichloroethene (TCE)	ND	0.500						0		30	
1,2-Dichloropropane	ND	1.00						0		30	
Bromodichloromethane	ND	1.00						0		30	
Dibromomethane	ND	1.00						0		30	
cis-1,3-Dichloropropene	ND	1.00						0		30	
Toluene	ND	1.00						0		30	
trans-1,3-Dichloropropylene	ND	1.00						0		30	
1,1,2-Trichloroethane	ND	1.00						0		30	
1,3-Dichloropropane	ND	1.00						0		30	
Tetrachloroethene (PCE)	ND	1.00						0		30	
Dibromochloromethane	ND	1.00						0		30	
1,2-Dibromoethane (EDB)	ND	0.250						0		30	
Chlorobenzene	ND	1.00						0		30	
1,1,1,2-Tetrachloroethane	ND	1.00						0		30	
Ethylbenzene	ND	1.00						0		30	
m,p-Xylene	ND	1.00						0		30	
o-Xylene	ND	1.00						0		30	
Styrene	ND	1.00						0		30	
Isopropylbenzene	ND	1.00						0		30	
Bromoform	ND	2.00						0		30	
1,1,2,2-Tetrachloroethane	ND	1.00						0		30	
n-Propylbenzene	ND	1.00						0		30	
Bromobenzene	ND	1.00						0		30	
1,3,5-Trimethylbenzene	ND	1.00						0		30	
2-Chlorotoluene	ND	1.00						0		30	





**Work Order:** 1902260  
**CLIENT:** Kane Environmental, Inc.  
**Project:** BSCSS

**QC SUMMARY REPORT**  
**Volatile Organic Compounds by EPA Method 8260C**

Sample ID	1902298-001ADUP	SampType:	DUP	Units:	µg/L	Prep Date:	2/25/2019	RunNo:	49673		
Client ID:	BATCH	Batch ID:	23632	Analysis Date:	2/26/2019	SeqNo:	973744				
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
4-Chlorotoluene	ND	1.00						0		30	
tert-Butylbenzene	ND	1.00						0		30	
1,2,3-Trichloropropane	ND	1.00						0		30	
1,2,4-Trichlorobenzene	ND	2.00						0		30	
sec-Butylbenzene	ND	1.00						0		30	
4-Isopropyltoluene	ND	1.00						0		30	
1,3-Dichlorobenzene	ND	1.00						0		30	
1,4-Dichlorobenzene	ND	1.00						0		30	
n-Butylbenzene	ND	1.00						0		30	
1,2-Dichlorobenzene	ND	1.00						0		30	
1,2-Dibromo-3-chloropropane	ND	1.00						0		30	
1,2,4-Trimethylbenzene	ND	1.00						0		30	
Hexachloro-1,3-butadiene	ND	4.00						0		30	
Naphthalene	ND	1.00						0		30	
1,2,3-Trichlorobenzene	ND	4.00						0		30	
Surr: Dibromofluoromethane	23.0		25.00		91.9	45.4	152		0		
Surr: Toluene-d8	24.8		25.00		99.3	40.1	139		0		
Surr: 1-Bromo-4-fluorobenzene	24.1		25.00		96.2	64.2	128		0		

Sample ID	1902259-001AMS	SampType:	MS	Units:	µg/L	Prep Date:	2/25/2019	RunNo:	49673		
Client ID:	BATCH	Batch ID:	23632	Analysis Date:	2/26/2019	SeqNo:	973737				
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Dichlorodifluoromethane (CFC-12)	19.5	1.00	20.00	0	97.3	33.3	122				
Chloromethane	20.2	2.00	20.00	0	101	39.7	143				
Vinyl chloride	20.4	0.200	20.00	0	102	41	165				
Bromomethane	29.4	1.00	20.00	0	147	31.5	135				S
Trichlorofluoromethane (CFC-11)	20.9	1.00	20.00	0	105	54.7	138				
Chloroethane	19.8	1.00	20.00	0	98.8	49.9	143				
1,1-Dichloroethene	20.7	1.00	20.00	0	104	51.6	164				



Work Order: 1902260  
 CLIENT: Kane Environmental, Inc.  
 Project: BSCSS

**QC SUMMARY REPORT**  
**Volatile Organic Compounds by EPA Method 8260C**

Sample ID: <b>1902259-001AMS</b>	SampType: <b>MS</b>	Units: <b>µg/L</b>	Prep Date: <b>2/25/2019</b>	RunNo: <b>49673</b>
Client ID: <b>BATCH</b>	Batch ID: <b>23632</b>		Analysis Date: <b>2/26/2019</b>	SeqNo: <b>973737</b>

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Methylene chloride	19.8	1.00	20.00	0	99.2	61.6	135				
trans-1,2-Dichloroethene	20.3	1.00	20.00	0	102	63.5	138				
Methyl tert-butyl ether (MTBE)	20.6	1.00	20.00	0	103	60.9	132				
1,1-Dichloroethane	20.0	1.00	20.00	0	100	55.7	151				
2,2-Dichloropropane	13.7	2.00	20.00	0	68.5	37.7	150				
cis-1,2-Dichloroethene	20.0	1.00	20.00	0	100	60	154				
Chloroform	20.2	1.00	20.00	0	101	48.1	140				
1,1,1-Trichloroethane (TCA)	20.4	1.00	20.00	0	102	64.2	146				
1,1-Dichloropropene	20.5	1.00	20.00	0	102	73.8	136				
Carbon tetrachloride	20.4	1.00	20.00	0	102	62.7	146				
1,2-Dichloroethane (EDC)	20.2	1.00	20.00	0	101	63.4	137				
Benzene	38.6	1.00	20.00	18.81	98.7	65.4	138				
Trichloroethene (TCE)	20.4	0.500	20.00	0	102	60.4	134				
1,2-Dichloropropane	19.6	1.00	20.00	0	98.2	62.6	138				
Bromodichloromethane	19.6	1.00	20.00	0	97.9	59.4	139				
Dibromomethane	19.3	1.00	20.00	0	96.5	58.7	148				
cis-1,3-Dichloropropene	18.2	1.00	20.00	0	91.1	63.8	132				
Toluene	55.0	1.00	20.00	36.66	91.6	52	147				
trans-1,3-Dichloropropylene	17.8	1.00	20.00	0	88.8	57.7	125				
1,1,2-Trichloroethane	19.9	1.00	20.00	0	99.5	57.5	153				
1,3-Dichloropropane	20.0	1.00	20.00	0	100	54.1	157				
Tetrachloroethene (PCE)	19.9	1.00	20.00	0	99.3	50.3	133				
Dibromochloromethane	19.6	1.00	20.00	0	98.0	61.6	139				
1,2-Dibromoethane (EDB)	19.7	0.250	20.00	0	98.7	63.2	134				
Chlorobenzene	20.2	1.00	20.00	0	101	65.8	134				
1,1,1,2-Tetrachloroethane	19.9	1.00	20.00	0	99.5	65.4	135				
Ethylbenzene	23.2	1.00	20.00	2.088	106	64.5	136				
m,p-Xylene	68.7	1.00	40.00	28.86	99.6	63.3	135				
o-Xylene	46.5	1.00	20.00	25.06	107	64.8	150				
Styrene	20.3	1.00	20.00	0	101	52.9	163				
Isopropylbenzene	21.7	1.00	20.00	0	108	56	147				

Work Order: 1902260  
 CLIENT: Kane Environmental, Inc.  
 Project: BSCSS

**QC SUMMARY REPORT**  
**Volatile Organic Compounds by EPA Method 8260C**

Sample ID: <b>1902259-001AMS</b>	SampType: <b>MS</b>	Units: <b>µg/L</b>	Prep Date: <b>2/25/2019</b>	RunNo: <b>49673</b>
Client ID: <b>BATCH</b>	Batch ID: <b>23632</b>		Analysis Date: <b>2/26/2019</b>	SeqNo: <b>973737</b>

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Bromoform	20.0	2.00	20.00	0	99.9	57.7	139				
1,1,2,2-Tetrachloroethane	21.0	1.00	20.00	0	105	59.8	146				
n-Propylbenzene	22.2	1.00	20.00	0.2517	110	57.6	142				
Bromobenzene	20.5	1.00	20.00	0	102	69.3	157				
1,3,5-Trimethylbenzene	25.3	1.00	20.00	4.140	106	59.9	136				
2-Chlorotoluene	23.5	1.00	20.00	0	118	61.7	134				
4-Chlorotoluene	21.1	1.00	20.00	0	105	58.4	134				
tert-Butylbenzene	21.1	1.00	20.00	0	106	66.8	141				
1,2,3-Trichloropropane	20.7	1.00	20.00	0	103	62.4	129				
1,2,4-Trichlorobenzene	23.3	2.00	20.00	0	117	50.9	133				
sec-Butylbenzene	22.6	1.00	20.00	0	113	56	146				
4-Isopropyltoluene	21.9	1.00	20.00	0	109	56.4	136				
1,3-Dichlorobenzene	20.4	1.00	20.00	0	102	58.2	128				
1,4-Dichlorobenzene	20.4	1.00	20.00	0	102	60.1	123				
n-Butylbenzene	21.4	1.00	20.00	0	107	54.6	135				
1,2-Dichlorobenzene	21.3	1.00	20.00	0	106	65.4	133				
1,2-Dibromo-3-chloropropane	21.6	1.00	20.00	0	108	51.8	142				
1,2,4-Trimethylbenzene	31.8	1.00	20.00	9.299	112	63.7	132				
Hexachloro-1,3-butadiene	21.1	4.00	20.00	0	106	58.1	130				
Naphthalene	46.0	1.00	20.00	21.99	120	50.7	154				
1,2,3-Trichlorobenzene	23.6	4.00	20.00	0	118	57	131				
Surr: Dibromofluoromethane	23.4		25.00		93.4	45.4	152				
Surr: Toluene-d8	24.6		25.00		98.6	40.1	139				
Surr: 1-Bromo-4-fluorobenzene	26.2		25.00		105	64.2	128				

**NOTES:**

S - Outlying spike recovery observed.

Work Order: 1902260  
 CLIENT: Kane Environmental, Inc.  
 Project: BSCSS

**QC SUMMARY REPORT**  
**Volatile Organic Compounds by EPA Method 8260C**

Sample ID	1902259-001AMSD	SampType:	MSD	Units:	µg/L	Prep Date:	2/25/2019	RunNo:	49673
Client ID:	BATCH	Batch ID:	23632	Analysis Date:	2/26/2019	SeqNo:	973738		

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Dichlorodifluoromethane (CFC-12)	19.3	1.00	20.00	0	96.5	33.3	122	19.46	0.859	30	
Chloromethane	19.1	2.00	20.00	0	95.7	39.7	143	20.20	5.37	30	
Vinyl chloride	20.2	0.200	20.00	0	101	41	165	20.42	1.11	30	
Bromomethane	30.0	1.00	20.00	0	150	31.5	135	29.43	1.82	30	S
Trichlorofluoromethane (CFC-11)	21.6	1.00	20.00	0	108	54.7	138	20.93	3.30	30	
Chloroethane	19.8	1.00	20.00	0	98.8	49.9	143	19.76	0.0107	30	
1,1-Dichloroethene	21.9	1.00	20.00	0	109	51.6	164	20.74	5.21	30	
Methylene chloride	20.1	1.00	20.00	0	101	61.6	135	19.84	1.47	30	
trans-1,2-Dichloroethene	21.4	1.00	20.00	0	107	63.5	138	20.31	5.22	30	
Methyl tert-butyl ether (MTBE)	22.2	1.00	20.00	0	111	60.9	132	20.57	7.67	30	
1,1-Dichloroethane	20.7	1.00	20.00	0	103	55.7	151	20.02	3.30	30	
2,2-Dichloropropane	14.2	2.00	20.00	0	70.9	37.7	150	13.70	3.42	30	
cis-1,2-Dichloroethene	20.9	1.00	20.00	0	104	60	154	20.01	4.15	30	
Chloroform	21.0	1.00	20.00	0	105	48.1	140	20.20	3.73	30	
1,1,1-Trichloroethane (TCA)	21.3	1.00	20.00	0	106	64.2	146	20.40	4.29	30	
1,1-Dichloropropene	21.4	1.00	20.00	0	107	73.8	136	20.46	4.40	30	
Carbon tetrachloride	21.3	1.00	20.00	0	106	62.7	146	20.38	4.28	30	
1,2-Dichloroethane (EDC)	21.1	1.00	20.00	0	106	63.4	137	20.23	4.26	30	
Benzene	40.2	1.00	20.00	18.81	107	65.4	138	38.56	4.22	30	
Trichloroethene (TCE)	21.0	0.500	20.00	0	105	60.4	134	20.36	3.26	30	
1,2-Dichloropropane	20.5	1.00	20.00	0	102	62.6	138	19.65	4.14	30	
Bromodichloromethane	20.1	1.00	20.00	0	101	59.4	139	19.58	2.72	30	
Dibromomethane	20.4	1.00	20.00	0	102	58.7	148	19.31	5.52	30	
cis-1,3-Dichloropropene	18.8	1.00	20.00	0	93.9	63.8	132	18.23	3.01	30	
Toluene	57.0	1.00	20.00	36.66	102	52	147	54.98	3.59	30	
trans-1,3-Dichloropropylene	18.9	1.00	20.00	0	94.5	57.7	125	17.77	6.17	30	
1,1,2-Trichloroethane	20.6	1.00	20.00	0	103	57.5	153	19.91	3.62	30	
1,3-Dichloropropane	20.5	1.00	20.00	0	103	54.1	157	20.00	2.52	30	
Tetrachloroethene (PCE)	20.4	1.00	20.00	0	102	50.3	133	19.86	2.66	30	
Dibromochloromethane	19.9	1.00	20.00	0	99.3	61.6	139	19.59	1.37	30	
1,2-Dibromoethane (EDB)	20.3	0.250	20.00	0	102	63.2	134	19.74	2.95	30	

Work Order: 1902260  
 CLIENT: Kane Environmental, Inc.  
 Project: BSCSS

**QC SUMMARY REPORT**  
**Volatile Organic Compounds by EPA Method 8260C**

Sample ID	1902259-001AMSD	SampType:	MSD	Units:	µg/L	Prep Date:	2/25/2019	RunNo:	49673		
Client ID:	BATCH	Batch ID:	23632	Analysis Date:	2/26/2019	SeqNo:	973738				
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Chlorobenzene	20.9	1.00	20.00	0	105	65.8	134	20.22	3.50	30	
1,1,1,2-Tetrachloroethane	20.9	1.00	20.00	0	105	65.4	135	19.90	4.95	30	
Ethylbenzene	24.0	1.00	20.00	2.088	109	64.5	136	23.20	3.30	30	
m,p-Xylene	71.5	1.00	40.00	28.86	106	63.3	135	68.71	3.92	30	
o-Xylene	48.6	1.00	20.00	25.06	118	64.8	150	46.52	4.40	30	
Styrene	20.7	1.00	20.00	0	104	52.9	163	20.28	2.16	30	
Isopropylbenzene	22.4	1.00	20.00	0	112	56	147	21.70	3.13	30	
Bromoform	20.8	2.00	20.00	0	104	57.7	139	19.98	4.06	30	
1,1,2,2-Tetrachloroethane	21.7	1.00	20.00	0	109	59.8	146	21.02	3.41	30	
n-Propylbenzene	22.8	1.00	20.00	0.2517	113	57.6	142	22.24	2.65	30	
Bromobenzene	20.9	1.00	20.00	0	105	69.3	157	20.49	2.04	30	
1,3,5-Trimethylbenzene	26.1	1.00	20.00	4.140	110	59.9	136	25.26	3.20	30	
2-Chlorotoluene	24.1	1.00	20.00	0	121	61.7	134	23.54	2.54	30	
4-Chlorotoluene	21.6	1.00	20.00	0	108	58.4	134	21.05	2.53	30	
tert-Butylbenzene	21.6	1.00	20.00	0	108	66.8	141	21.11	2.22	30	
1,2,3-Trichloropropane	21.1	1.00	20.00	0	106	62.4	129	20.68	2.18	30	
1,2,4-Trichlorobenzene	24.7	2.00	20.00	0	123	50.9	133	23.32	5.64	30	
sec-Butylbenzene	23.1	1.00	20.00	0	116	56	146	22.57	2.53	30	
4-Isopropyltoluene	22.5	1.00	20.00	0	112	56.4	136	21.88	2.63	30	
1,3-Dichlorobenzene	21.1	1.00	20.00	0	106	58.2	128	20.37	3.65	30	
1,4-Dichlorobenzene	21.1	1.00	20.00	0	105	60.1	123	20.35	3.50	30	
n-Butylbenzene	22.6	1.00	20.00	0	113	54.6	135	21.45	5.14	30	
1,2-Dichlorobenzene	22.1	1.00	20.00	0	110	65.4	133	21.27	3.72	30	
1,2-Dibromo-3-chloropropane	22.7	1.00	20.00	0	113	51.8	142	21.57	5.07	30	
1,2,4-Trimethylbenzene	32.6	1.00	20.00	9.299	117	63.7	132	31.76	2.65	30	
Hexachloro-1,3-butadiene	22.8	4.00	20.00	0	114	58.1	130	21.13	7.71	30	
Naphthalene	49.0	1.00	20.00	21.99	135	50.7	154	46.04	6.23	30	
1,2,3-Trichlorobenzene	24.9	4.00	20.00	0	124	57	131	23.59	5.25	30	
Surr: Dibromofluoromethane	23.9		25.00		95.7	45.4	152		0		
Surr: Toluene-d8	24.4		25.00		97.7	40.1	139		0		
Surr: 1-Bromo-4-fluorobenzene	25.8		25.00		103	64.2	128		0		



**Work Order:** 1902260  
**CLIENT:** Kane Environmental, Inc.  
**Project:** BSCSS

**QC SUMMARY REPORT**  
**Volatile Organic Compounds by EPA Method 8260C**

Sample ID	<b>1902259-001AMSD</b>	SampType:	<b>MSD</b>	Units:	<b>µg/L</b>	Prep Date:	<b>2/25/2019</b>	RunNo:	<b>49673</b>		
Client ID:	<b>BATCH</b>	Batch ID:	<b>23632</b>			Analysis Date:	<b>2/26/2019</b>	SeqNo:	<b>973738</b>		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

**NOTES:**

S - Outlying spike recovery observed.

Client Name: **KANE**

 Work Order Number: **1902260**

 Logged by: **Brianna Barnes**

 Date Received: **2/21/2019 5:03:00 PM**
**Chain of Custody**

1. Is Chain of Custody complete? Yes  No  Not Present
2. How was the sample delivered? Client

**Log In**

3. Coolers are present? Yes  No  NA
4. Shipping container/cooler in good condition? Yes  No
5. Custody Seals present on shipping container/cooler?  
(Refer to comments for Custody Seals not intact) Yes  No  Not Required
6. Was an attempt made to cool the samples? Yes  No  NA
7. Were all items received at a temperature of >0°C to 10.0°C \* Yes  No  NA
- Please refer to item information.**
8. Sample(s) in proper container(s)? Yes  No
9. Sufficient sample volume for indicated test(s)? Yes  No
10. Are samples properly preserved? Yes  No
11. Was preservative added to bottles? Yes  No  NA
- HNO3 added to fraction B.
12. Is there headspace in the VOA vials? Yes  No  NA
13. Did all samples containers arrive in good condition(unbroken)? Yes  No
14. Does paperwork match bottle labels? Yes  No
15. Are matrices correctly identified on Chain of Custody? Yes  No
16. Is it clear what analyses were requested? Yes  No
17. Were all holding times able to be met? Yes  No

**Special Handling (if applicable)**

18. Was client notified of all discrepancies with this order? Yes  No  NA

Person Notified:	<input type="text"/>	Date	<input type="text"/>
By Whom:	<input type="text"/>	Via:	<input type="checkbox"/> eMail <input type="checkbox"/> Phone <input type="checkbox"/> Fax <input type="checkbox"/> In Person
Regarding:	<input type="text"/>		
Client Instructions:	<input type="text"/>		

19. Additional remarks:

**Item Information**

Item #	Temp °C
Cooler	10.1
Sample	9.4

\* Note: DoD/ELAP and TNI require items to be received at 4°C +/- 2°C



3600 Fremont Ave N.  
Seattle, WA 98103  
Tel: 206-352-3790  
Fax: 206-352-7178

# Chain of Custody Record & Laboratory Services Agreement

Date: 2/21/19 Page: 1 of 1  
Project Name: BSC55  
Project No: 82302-9.4  
Collected by: JJ

Laboratory Project No (Internal): 1902200  
Special Remarks:

Client: Kane Environmental  
Address: 4015 13th Ave W  
City, State, zip: Seattle, WA 98119  
Telephone: (206) 691-0476  
Fax:

Location: Behr 11, WA  
Report To (PM): Jeff Jensen  
PM Email: jeff@kane-environmental.com

Sample Disposal:  Return to client  Disposal by lab (after 30 days)

Sample Name	Sample Date	Sample Time	Sample Type (Matrix)*	Analytes										Comments					
				VOCs (EPA 8260 / 624)	GX/BTEX	BTEX	Gasoline Range Organics (GX)	Hydrocarbon Identification (HClD)	Diesel/Heavy Oil Range Organics (Dx)	SVOCs (EPA 8270 / 625)	PAHs (EPA 8270 - SIM)	PCBs (EPA 8270 - SIM)	Metals** (EPA 6020 / 200.8)		Total (T)   Dissolved (D)	Anions (C)***	EDB (8011)	TOL	Ammonia - N
1 MW-34:W	2/21/19	1145	GW	X	D	X	X	X	X	X	X	X	X	X	X	X	X	X	Lab Gilr, QC
2 MW-11:W	2/21/19	1430	GW	X	D	X	X	X	X	X	X	X	X	X	X	X	X	X	Lab Gilr, QC
3																			
4																			
5																			
6																			
7																			
8																			
9																			
10																			

Matrix: A = Air, AQ = Aqueous, B = Bulk, O = Other, P = Product, S = Soil, SD = Sediment, SL = Solid, W = Water, DW = Drinking Water, GW = Ground Water, SW = Storm Water, WW = Waste Water  
 \*\*Metals (Circle): MTCA-5 RCRA-8 Priority Pollutants TAL Individual: Ag Al As B Ba Be Ca Cd Co Cr Cu Fe Hg K Mg Mn Mo Na Ni Pb Sb Se Sr Sn Tl Tl U V Zn  
 \*\*\*Anions (Circle): Nitrate Nitrite Chloride Sulfate Bromide O-Phosphate Fluoride Nitrate+Nitrite

I represent that I am authorized to enter into this Agreement with Fremont Analytical on behalf of the Client named above and that I have verified Client's agreement to each of the terms on the front and backside of this Agreement.

Relinquished: Date/Time: 2/21/19 1703  
 Received: Date/Time: 2/21/19 1703  
 Turn-around Time:  Standard  3 Day  2 Day  Next Day  Same Day (specify)





3600 Fremont Ave. N.  
Seattle, WA 98103  
T: (206) 352-3790  
F: (206) 352-7178  
info@fremontanalytical.com

**Kane Environmental, Inc.**  
Jeff Jensen  
4015 13th Ave W.  
Seattle, WA 98103

**RE: BSCSS**  
**Work Order Number: 1902289**

March 01, 2019

**Attention Jeff Jensen:**

Fremont Analytical, Inc. received 3 sample(s) on 2/22/2019 for the analyses presented in the following report.

***Ammonia by SM 4500 NH3G***  
***Dissolved Gases by RSK-175***  
***Dissolved Metals by EPA Method 200.8***  
***Ion Chromatography by EPA Method 300.0***  
***Total Organic Carbon by SM 5310C***  
***Volatile Organic Compounds by EPA Method 8260C***

This report consists of the following:

- Case Narrative
- Analytical Results
- Applicable Quality Control Summary Reports
- Chain of Custody

All analyses were performed consistent with the Quality Assurance program of Fremont Analytical, Inc. Please contact the laboratory if you should have any questions about the results.

Thank you for using Fremont Analytical.

Sincerely,

Chelsea Ward  
Project Manager

DoD/ELAP Certification #L 17-135, ISO/IEC 17025:2005  
ORELAP Certification: WA 100009-007 (NELAP Recognized)



Date: 03/01/2019

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**CLIENT:** Kane Environmental, Inc.  
**Project:** BSCSS  
**Work Order:** 1902289

## Work Order Sample Summary

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Lab Sample ID	Client Sample ID	Date/Time Collected	Date/Time Received
1902289-001	MW-8:W	02/22/2019 11:00 AM	02/22/2019 3:47 PM
1902289-002	MW-6:W	02/22/2019 12:45 PM	02/22/2019 3:47 PM
1902289-003	MW-4:W	02/22/2019 2:25 PM	02/22/2019 3:47 PM

**CLIENT:** Kane Environmental, Inc.**Project:** BSCSS

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**I. SAMPLE RECEIPT:**

Samples receipt information is recorded on the attached Sample Receipt Checklist.

**II. GENERAL REPORTING COMMENTS:**

Results are reported on a wet weight basis unless dry-weight correction is denoted in the units field on the analytical report ("mg/kg-dry" or "ug/kg-dry").

Matrix Spike (MS) and MS Duplicate (MSD) samples are tested from an analytical batch of "like" matrix to check for possible matrix effect. The MS and MSD will provide site specific matrix data only for those samples which are spiked by the laboratory. The sample chosen for spike purposes may or may not have been a sample submitted in this sample delivery group. The validity of the analytical procedures for which data is reported in this analytical report is determined by the Laboratory Control Sample (LCS) and the Method Blank (MB). The LCS and the MB are processed with the samples and the MS/MSD to ensure method criteria are achieved throughout the entire analytical process.

**III. ANALYSES AND EXCEPTIONS:**

Exceptions associated with this report will be footnoted in the analytical results page(s) or the quality control summary page(s) and/or noted below.

### Qualifiers:

- \* - Flagged value is not within established control limits
- B - Analyte detected in the associated Method Blank
- D - Dilution was required
- E - Value above quantitation range
- H - Holding times for preparation or analysis exceeded
- I - Analyte with an internal standard that does not meet established acceptance criteria
- J - Analyte detected below Reporting Limit
- N - Tentatively Identified Compound (TIC)
- Q - Analyte with an initial or continuing calibration that does not meet established acceptance criteria (<20%RSD, <20% Drift or minimum RRF)
- S - Spike recovery outside accepted recovery limits
- ND - Not detected at the Reporting Limit
- R - High relative percent difference observed

### Acronyms:

- %Rec - Percent Recovery
- CCB - Continued Calibration Blank
- CCV - Continued Calibration Verification
- DF - Dilution Factor
- HEM - Hexane Extractable Material
- ICV - Initial Calibration Verification
- LCS/LCSD - Laboratory Control Sample / Laboratory Control Sample Duplicate
- MB or MBLANK - Method Blank
- MDL - Method Detection Limit
- MS/MSD - Matrix Spike / Matrix Spike Duplicate
- PDS - Post Digestion Spike
- Ref Val - Reference Value
- RL - Reporting Limit
- RPD - Relative Percent Difference
- SD - Serial Dilution
- SGT - Silica Gel Treatment
- SPK - Spike
- Surr - Surrogate



**Client:** Kane Environmental, Inc.

**Collection Date:** 2/22/2019 11:00:00 AM

**Project:** BSCSS

**Lab ID:** 1902289-001

**Matrix:** Groundwater

**Client Sample ID:** MW-8:W

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
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**Dissolved Gases by RSK-175**

Batch ID: R49738 Analyst: IH

Methane	0.0173	0.00863		mg/L	1	2/28/2019 10:34:00 AM
Ethene	ND	0.0151		mg/L	1	2/28/2019 10:34:00 AM
Ethane	ND	0.0162		mg/L	1	2/28/2019 10:34:00 AM

**Volatile Organic Compounds by EPA Method 8260C**

Batch ID: 23647 Analyst: KT

Dichlorodifluoromethane (CFC-12)	ND	1.00		µg/L	1	2/27/2019 6:06:36 AM
Chloromethane	ND	2.00	Q	µg/L	1	2/27/2019 6:06:36 AM
Vinyl chloride	ND	0.200		µg/L	1	2/27/2019 6:06:36 AM
Bromomethane	ND	1.00		µg/L	1	2/27/2019 6:06:36 AM
Trichlorofluoromethane (CFC-11)	ND	1.00		µg/L	1	2/27/2019 6:06:36 AM
Chloroethane	ND	1.00		µg/L	1	2/27/2019 6:06:36 AM
1,1-Dichloroethene	ND	1.00		µg/L	1	2/27/2019 6:06:36 AM
Methylene chloride	ND	1.00		µg/L	1	2/27/2019 6:06:36 AM
trans-1,2-Dichloroethene	ND	1.00		µg/L	1	2/27/2019 6:06:36 AM
Methyl tert-butyl ether (MTBE)	ND	1.00		µg/L	1	2/27/2019 6:06:36 AM
1,1-Dichloroethane	ND	1.00		µg/L	1	2/27/2019 6:06:36 AM
2,2-Dichloropropane	ND	2.00	Q	µg/L	1	2/27/2019 6:06:36 AM
cis-1,2-Dichloroethene	7.33	1.00		µg/L	1	2/27/2019 6:06:36 AM
Chloroform	ND	1.00		µg/L	1	2/27/2019 6:06:36 AM
1,1,1-Trichloroethane (TCA)	ND	1.00		µg/L	1	2/27/2019 6:06:36 AM
1,1-Dichloropropene	ND	1.00		µg/L	1	2/27/2019 6:06:36 AM
Carbon tetrachloride	ND	1.00		µg/L	1	2/27/2019 6:06:36 AM
1,2-Dichloroethane (EDC)	ND	1.00		µg/L	1	2/27/2019 6:06:36 AM
Benzene	ND	1.00		µg/L	1	2/27/2019 6:06:36 AM
Trichloroethene (TCE)	2.90	0.500		µg/L	1	2/27/2019 6:06:36 AM
1,2-Dichloropropane	ND	1.00		µg/L	1	2/27/2019 6:06:36 AM
Bromodichloromethane	ND	1.00		µg/L	1	2/27/2019 6:06:36 AM
Dibromomethane	ND	1.00		µg/L	1	2/27/2019 6:06:36 AM
cis-1,3-Dichloropropene	ND	1.00		µg/L	1	2/27/2019 6:06:36 AM
Toluene	ND	1.00		µg/L	1	2/27/2019 6:06:36 AM
trans-1,3-Dichloropropylene	ND	1.00		µg/L	1	2/27/2019 6:06:36 AM
1,1,2-Trichloroethane	ND	1.00		µg/L	1	2/27/2019 6:06:36 AM
1,3-Dichloropropane	ND	1.00		µg/L	1	2/27/2019 6:06:36 AM
Tetrachloroethene (PCE)	4.98	1.00		µg/L	1	2/27/2019 6:06:36 AM
Dibromochloromethane	ND	1.00		µg/L	1	2/27/2019 6:06:36 AM
1,2-Dibromoethane (EDB)	ND	0.250		µg/L	1	2/27/2019 6:06:36 AM
Chlorobenzene	ND	1.00		µg/L	1	2/27/2019 6:06:36 AM
1,1,1,2-Tetrachloroethane	ND	1.00		µg/L	1	2/27/2019 6:06:36 AM



**Client:** Kane Environmental, Inc.

**Collection Date:** 2/22/2019 11:00:00 AM

**Project:** BSCSS

**Lab ID:** 1902289-001

**Matrix:** Groundwater

**Client Sample ID:** MW-8:W

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
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**Volatile Organic Compounds by EPA Method 8260C**

Batch ID: 23647

Analyst: KT

Ethylbenzene	ND	1.00		µg/L	1	2/27/2019 6:06:36 AM
m,p-Xylene	ND	1.00		µg/L	1	2/27/2019 6:06:36 AM
o-Xylene	ND	1.00		µg/L	1	2/27/2019 6:06:36 AM
Styrene	ND	1.00		µg/L	1	2/27/2019 6:06:36 AM
Isopropylbenzene	ND	1.00		µg/L	1	2/27/2019 6:06:36 AM
Bromoform	ND	2.00		µg/L	1	2/27/2019 6:06:36 AM
1,1,2,2-Tetrachloroethane	ND	1.00		µg/L	1	2/27/2019 6:06:36 AM
n-Propylbenzene	ND	1.00		µg/L	1	2/27/2019 6:06:36 AM
Bromobenzene	ND	1.00		µg/L	1	2/27/2019 6:06:36 AM
1,3,5-Trimethylbenzene	ND	1.00		µg/L	1	2/27/2019 6:06:36 AM
2-Chlorotoluene	ND	1.00		µg/L	1	2/27/2019 6:06:36 AM
4-Chlorotoluene	ND	1.00		µg/L	1	2/27/2019 6:06:36 AM
tert-Butylbenzene	ND	1.00		µg/L	1	2/27/2019 6:06:36 AM
1,2,3-Trichloropropane	ND	1.00		µg/L	1	2/27/2019 6:06:36 AM
1,2,4-Trichlorobenzene	ND	2.00		µg/L	1	2/27/2019 6:06:36 AM
sec-Butylbenzene	ND	1.00		µg/L	1	2/27/2019 6:06:36 AM
4-Isopropyltoluene	ND	1.00		µg/L	1	2/27/2019 6:06:36 AM
1,3-Dichlorobenzene	ND	1.00		µg/L	1	2/27/2019 6:06:36 AM
1,4-Dichlorobenzene	ND	1.00		µg/L	1	2/27/2019 6:06:36 AM
n-Butylbenzene	ND	1.00		µg/L	1	2/27/2019 6:06:36 AM
1,2-Dichlorobenzene	ND	1.00		µg/L	1	2/27/2019 6:06:36 AM
1,2-Dibromo-3-chloropropane	ND	1.00		µg/L	1	2/27/2019 6:06:36 AM
1,2,4-Trimethylbenzene	ND	1.00		µg/L	1	2/27/2019 6:06:36 AM
Hexachloro-1,3-butadiene	ND	4.00		µg/L	1	2/27/2019 6:06:36 AM
Naphthalene	ND	1.00		µg/L	1	2/27/2019 6:06:36 AM
1,2,3-Trichlorobenzene	ND	4.00		µg/L	1	2/27/2019 6:06:36 AM
Surr: Dibromofluoromethane	85.7	45.4 - 152		%Rec	1	2/27/2019 6:06:36 AM
Surr: Toluene-d8	99.3	40.1 - 139		%Rec	1	2/27/2019 6:06:36 AM
Surr: 1-Bromo-4-fluorobenzene	89.3	64.2 - 128		%Rec	1	2/27/2019 6:06:36 AM

**NOTES:**

Q - Indicates an analyte with a continuing calibration that does not meet established acceptance criteria

**Ion Chromatography by EPA Method 300.0**

Batch ID: 23633

Analyst: GM

Chloride	7.14	0.500	D	mg/L	5	2/25/2019 4:32:00 PM
Sulfate	4.95	0.300		mg/L	1	2/25/2019 4:09:00 PM



**Client:** Kane Environmental, Inc.

**Collection Date:** 2/22/2019 11:00:00 AM

**Project:** BSCSS

**Lab ID:** 1902289-001

**Matrix:** Groundwater

**Client Sample ID:** MW-8:W

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
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**Dissolved Metals by EPA Method 200.8**

Batch ID: 23634 Analyst: WC

Iron	ND	100		µg/L	1	2/26/2019 4:10:31 PM
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**Total Organic Carbon by SM 5310C**

Batch ID: R49676 Analyst: GM

Total Organic Carbon	1.82	0.500		mg/L	1	2/25/2019 4:37:00 PM
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**Ammonia by SM 4500 NH3G**

Batch ID: 23646 Analyst: GM

Nitrogen, Ammonia	ND	0.100		mg/L	1	2/26/2019 1:16:00 PM
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**Client:** Kane Environmental, Inc.

**Collection Date:** 2/22/2019 12:45:00 PM

**Project:** BSCSS

**Lab ID:** 1902289-002

**Matrix:** Groundwater

**Client Sample ID:** MW-6:W

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
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**Dissolved Gases by RSK-175**

Batch ID: R49738 Analyst: IH

Methane	0.706	0.0432	D	mg/L	5	2/28/2019 10:42:00 AM
Ethene	ND	0.0151		mg/L	1	2/28/2019 10:38:00 AM
Ethane	ND	0.0162		mg/L	1	2/28/2019 10:38:00 AM

**Volatile Organic Compounds by EPA Method 8260C**

Batch ID: 23647 Analyst: KT

Dichlorodifluoromethane (CFC-12)	ND	10.0	D	µg/L	10	2/27/2019 6:34:39 PM
Chloromethane	ND	20.0	DQ	µg/L	10	2/27/2019 6:34:39 PM
Vinyl chloride	14.0	2.00	D	µg/L	10	2/27/2019 6:34:39 PM
Bromomethane	ND	10.0	D	µg/L	10	2/27/2019 6:34:39 PM
Trichlorofluoromethane (CFC-11)	ND	10.0	D	µg/L	10	2/27/2019 6:34:39 PM
Chloroethane	ND	10.0	D	µg/L	10	2/27/2019 6:34:39 PM
1,1-Dichloroethene	ND	10.0	D	µg/L	10	2/27/2019 6:34:39 PM
Methylene chloride	ND	10.0	D	µg/L	10	2/27/2019 6:34:39 PM
trans-1,2-Dichloroethene	14.2	10.0	D	µg/L	10	2/27/2019 6:34:39 PM
Methyl tert-butyl ether (MTBE)	ND	10.0	D	µg/L	10	2/27/2019 6:34:39 PM
1,1-Dichloroethane	ND	10.0	D	µg/L	10	2/27/2019 6:34:39 PM
2,2-Dichloropropane	ND	20.0	DQ	µg/L	10	2/27/2019 6:34:39 PM
cis-1,2-Dichloroethene	1,040	200	D	µg/L	200	2/27/2019 9:40:58 AM
Chloroform	ND	10.0	D	µg/L	10	2/27/2019 6:34:39 PM
1,1,1-Trichloroethane (TCA)	ND	10.0	D	µg/L	10	2/27/2019 6:34:39 PM
1,1-Dichloropropene	ND	10.0	D	µg/L	10	2/27/2019 6:34:39 PM
Carbon tetrachloride	ND	10.0	D	µg/L	10	2/27/2019 6:34:39 PM
1,2-Dichloroethane (EDC)	ND	10.0	D	µg/L	10	2/27/2019 6:34:39 PM
Benzene	ND	10.0	D	µg/L	10	2/27/2019 6:34:39 PM
Trichloroethene (TCE)	568	100	D	µg/L	200	2/27/2019 9:40:58 AM
1,2-Dichloropropane	ND	10.0	D	µg/L	10	2/27/2019 6:34:39 PM
Bromodichloromethane	ND	10.0	D	µg/L	10	2/27/2019 6:34:39 PM
Dibromomethane	ND	10.0	D	µg/L	10	2/27/2019 6:34:39 PM
cis-1,3-Dichloropropene	ND	10.0	D	µg/L	10	2/27/2019 6:34:39 PM
Toluene	ND	10.0	D	µg/L	10	2/27/2019 6:34:39 PM
trans-1,3-Dichloropropylene	ND	10.0	D	µg/L	10	2/27/2019 6:34:39 PM
1,1,2-Trichloroethane	ND	10.0	D	µg/L	10	2/27/2019 6:34:39 PM
1,3-Dichloropropane	ND	10.0	D	µg/L	10	2/27/2019 6:34:39 PM
Tetrachloroethene (PCE)	1,820	200	D	µg/L	200	2/27/2019 9:40:58 AM
Dibromochloromethane	ND	10.0	D	µg/L	10	2/27/2019 6:34:39 PM
1,2-Dibromoethane (EDB)	ND	2.50	D	µg/L	10	2/27/2019 6:34:39 PM
Chlorobenzene	ND	10.0	D	µg/L	10	2/27/2019 6:34:39 PM
1,1,1,2-Tetrachloroethane	ND	10.0	D	µg/L	10	2/27/2019 6:34:39 PM





**Client:** Kane Environmental, Inc.

**Collection Date:** 2/22/2019 12:45:00 PM

**Project:** BSCSS

**Lab ID:** 1902289-002

**Matrix:** Groundwater

**Client Sample ID:** MW-6:W

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
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**Volatile Organic Compounds by EPA Method 8260C**

Batch ID: 23647

Analyst: KT

Ethylbenzene	ND	10.0	D	µg/L	10	2/27/2019 6:34:39 PM
m,p-Xylene	ND	10.0	D	µg/L	10	2/27/2019 6:34:39 PM
o-Xylene	ND	10.0	D	µg/L	10	2/27/2019 6:34:39 PM
Styrene	ND	10.0	D	µg/L	10	2/27/2019 6:34:39 PM
Isopropylbenzene	ND	10.0	D	µg/L	10	2/27/2019 6:34:39 PM
Bromoform	ND	20.0	D	µg/L	10	2/27/2019 6:34:39 PM
1,1,2,2-Tetrachloroethane	ND	10.0	D	µg/L	10	2/27/2019 6:34:39 PM
n-Propylbenzene	ND	10.0	D	µg/L	10	2/27/2019 6:34:39 PM
Bromobenzene	ND	10.0	D	µg/L	10	2/27/2019 6:34:39 PM
1,3,5-Trimethylbenzene	ND	10.0	D	µg/L	10	2/27/2019 6:34:39 PM
2-Chlorotoluene	ND	10.0	D	µg/L	10	2/27/2019 6:34:39 PM
4-Chlorotoluene	ND	10.0	D	µg/L	10	2/27/2019 6:34:39 PM
tert-Butylbenzene	ND	10.0	D	µg/L	10	2/27/2019 6:34:39 PM
1,2,3-Trichloropropane	ND	10.0	D	µg/L	10	2/27/2019 6:34:39 PM
1,2,4-Trichlorobenzene	ND	20.0	D	µg/L	10	2/27/2019 6:34:39 PM
sec-Butylbenzene	ND	10.0	D	µg/L	10	2/27/2019 6:34:39 PM
4-Isopropyltoluene	ND	10.0	D	µg/L	10	2/27/2019 6:34:39 PM
1,3-Dichlorobenzene	ND	10.0	D	µg/L	10	2/27/2019 6:34:39 PM
1,4-Dichlorobenzene	ND	10.0	D	µg/L	10	2/27/2019 6:34:39 PM
n-Butylbenzene	ND	10.0	D	µg/L	10	2/27/2019 6:34:39 PM
1,2-Dichlorobenzene	ND	10.0	D	µg/L	10	2/27/2019 6:34:39 PM
1,2-Dibromo-3-chloropropane	ND	10.0	D	µg/L	10	2/27/2019 6:34:39 PM
1,2,4-Trimethylbenzene	ND	10.0	D	µg/L	10	2/27/2019 6:34:39 PM
Hexachloro-1,3-butadiene	ND	40.0	D	µg/L	10	2/27/2019 6:34:39 PM
Naphthalene	ND	10.0	D	µg/L	10	2/27/2019 6:34:39 PM
1,2,3-Trichlorobenzene	ND	40.0	D	µg/L	10	2/27/2019 6:34:39 PM
Surr: Dibromofluoromethane	89.6	45.4 - 152	D	%Rec	10	2/27/2019 6:34:39 PM
Surr: Toluene-d8	101	40.1 - 139	D	%Rec	10	2/27/2019 6:34:39 PM
Surr: 1-Bromo-4-fluorobenzene	95.4	64.2 - 128	D	%Rec	10	2/27/2019 6:34:39 PM

**NOTES:**

Q - Indicates an analyte with a continuing calibration that does not meet established acceptance criteria  
Diluted due to matrix.

**Ion Chromatography by EPA Method 300.0**

Batch ID: 23633

Analyst: GM

Chloride	7.69	1.00	D	mg/L	10	2/25/2019 6:04:00 PM
Sulfate	13.0	0.600	D	mg/L	2	2/25/2019 6:27:00 PM



**Client:** Kane Environmental, Inc.

**Collection Date:** 2/22/2019 12:45:00 PM

**Project:** BSCSS

**Lab ID:** 1902289-002

**Matrix:** Groundwater

**Client Sample ID:** MW-6:W

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
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**Dissolved Metals by EPA Method 200.8**

Batch ID: 23634 Analyst: WC

Iron	5,800	100		µg/L	1	2/26/2019 4:14:33 PM
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**Total Organic Carbon by SM 5310C**

Batch ID: R49676 Analyst: GM

Total Organic Carbon	13.2	1.00	D	mg/L	2	2/25/2019 4:57:00 PM
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**Ammonia by SM 4500 NH3G**

Batch ID: 23646 Analyst: GM

Nitrogen, Ammonia	ND	0.100		mg/L	1	2/26/2019 1:37:00 PM
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**Client:** Kane Environmental, Inc.

**Collection Date:** 2/22/2019 2:25:00 PM

**Project:** BSCSS

**Lab ID:** 1902289-003

**Matrix:** Groundwater

**Client Sample ID:** MW-4:W

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
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**Dissolved Gases by RSK-175**

Batch ID: R49738 Analyst: IH

Methane	4.12	0.432	D	mg/L	50	2/28/2019 11:33:00 AM
Ethene	ND	0.0151		mg/L	1	2/28/2019 10:51:00 AM
Ethane	ND	0.0162		mg/L	1	2/28/2019 10:51:00 AM

**Volatile Organic Compounds by EPA Method 8260C**

Batch ID: 23647 Analyst: KT

Dichlorodifluoromethane (CFC-12)	ND	10.0	D	µg/L	10	2/27/2019 7:05:16 PM
Chloromethane	ND	20.0	DQ	µg/L	10	2/27/2019 7:05:16 PM
Vinyl chloride	9.72	2.00	D	µg/L	10	2/27/2019 7:05:16 PM
Bromomethane	ND	10.0	D	µg/L	10	2/27/2019 7:05:16 PM
Trichlorofluoromethane (CFC-11)	ND	10.0	D	µg/L	10	2/27/2019 7:05:16 PM
Chloroethane	ND	10.0	D	µg/L	10	2/27/2019 7:05:16 PM
1,1-Dichloroethene	ND	10.0	D	µg/L	10	2/27/2019 7:05:16 PM
Methylene chloride	ND	10.0	D	µg/L	10	2/27/2019 7:05:16 PM
trans-1,2-Dichloroethene	10.7	10.0	D	µg/L	10	2/27/2019 7:05:16 PM
Methyl tert-butyl ether (MTBE)	ND	10.0	D	µg/L	10	2/27/2019 7:05:16 PM
1,1-Dichloroethane	ND	10.0	D	µg/L	10	2/27/2019 7:05:16 PM
2,2-Dichloropropane	ND	20.0	DQ	µg/L	10	2/27/2019 7:05:16 PM
cis-1,2-Dichloroethene	1,790	500	D	µg/L	500	2/27/2019 9:10:16 AM
Chloroform	ND	10.0	D	µg/L	10	2/27/2019 7:05:16 PM
1,1,1-Trichloroethane (TCA)	ND	10.0	D	µg/L	10	2/27/2019 7:05:16 PM
1,1-Dichloropropene	ND	10.0	D	µg/L	10	2/27/2019 7:05:16 PM
Carbon tetrachloride	ND	10.0	D	µg/L	10	2/27/2019 7:05:16 PM
1,2-Dichloroethane (EDC)	ND	10.0	D	µg/L	10	2/27/2019 7:05:16 PM
Benzene	ND	10.0	D	µg/L	10	2/27/2019 7:05:16 PM
Trichloroethene (TCE)	343	5.00	D	µg/L	10	2/27/2019 7:05:16 PM
1,2-Dichloropropane	ND	10.0	D	µg/L	10	2/27/2019 7:05:16 PM
Bromodichloromethane	ND	10.0	D	µg/L	10	2/27/2019 7:05:16 PM
Dibromomethane	ND	10.0	D	µg/L	10	2/27/2019 7:05:16 PM
cis-1,3-Dichloropropene	ND	10.0	D	µg/L	10	2/27/2019 7:05:16 PM
Toluene	ND	10.0	D	µg/L	10	2/27/2019 7:05:16 PM
trans-1,3-Dichloropropylene	ND	10.0	D	µg/L	10	2/27/2019 7:05:16 PM
1,1,2-Trichloroethane	ND	10.0	D	µg/L	10	2/27/2019 7:05:16 PM
1,3-Dichloropropane	ND	10.0	D	µg/L	10	2/27/2019 7:05:16 PM
Tetrachloroethene (PCE)	4,080	500	D	µg/L	500	2/27/2019 9:10:16 AM
Dibromochloromethane	ND	10.0	D	µg/L	10	2/27/2019 7:05:16 PM
1,2-Dibromoethane (EDB)	ND	2.50	D	µg/L	10	2/27/2019 7:05:16 PM
Chlorobenzene	ND	10.0	D	µg/L	10	2/27/2019 7:05:16 PM
1,1,1,2-Tetrachloroethane	ND	10.0	D	µg/L	10	2/27/2019 7:05:16 PM



**Client:** Kane Environmental, Inc.

**Collection Date:** 2/22/2019 2:25:00 PM

**Project:** BSCSS

**Lab ID:** 1902289-003

**Matrix:** Groundwater

**Client Sample ID:** MW-4:W

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
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**Volatile Organic Compounds by EPA Method 8260C**

Batch ID: 23647

Analyst: KT

Ethylbenzene	ND	10.0	D	µg/L	10	2/27/2019 7:05:16 PM
m,p-Xylene	ND	10.0	D	µg/L	10	2/27/2019 7:05:16 PM
o-Xylene	ND	10.0	D	µg/L	10	2/27/2019 7:05:16 PM
Styrene	ND	10.0	D	µg/L	10	2/27/2019 7:05:16 PM
Isopropylbenzene	ND	10.0	D	µg/L	10	2/27/2019 7:05:16 PM
Bromoform	ND	20.0	D	µg/L	10	2/27/2019 7:05:16 PM
1,1,2,2-Tetrachloroethane	ND	10.0	D	µg/L	10	2/27/2019 7:05:16 PM
n-Propylbenzene	ND	10.0	D	µg/L	10	2/27/2019 7:05:16 PM
Bromobenzene	ND	10.0	D	µg/L	10	2/27/2019 7:05:16 PM
1,3,5-Trimethylbenzene	ND	10.0	D	µg/L	10	2/27/2019 7:05:16 PM
2-Chlorotoluene	ND	10.0	D	µg/L	10	2/27/2019 7:05:16 PM
4-Chlorotoluene	ND	10.0	D	µg/L	10	2/27/2019 7:05:16 PM
tert-Butylbenzene	ND	10.0	D	µg/L	10	2/27/2019 7:05:16 PM
1,2,3-Trichloropropane	ND	10.0	D	µg/L	10	2/27/2019 7:05:16 PM
1,2,4-Trichlorobenzene	ND	20.0	D	µg/L	10	2/27/2019 7:05:16 PM
sec-Butylbenzene	ND	10.0	D	µg/L	10	2/27/2019 7:05:16 PM
4-Isopropyltoluene	ND	10.0	D	µg/L	10	2/27/2019 7:05:16 PM
1,3-Dichlorobenzene	ND	10.0	D	µg/L	10	2/27/2019 7:05:16 PM
1,4-Dichlorobenzene	ND	10.0	D	µg/L	10	2/27/2019 7:05:16 PM
n-Butylbenzene	ND	10.0	D	µg/L	10	2/27/2019 7:05:16 PM
1,2-Dichlorobenzene	ND	10.0	D	µg/L	10	2/27/2019 7:05:16 PM
1,2-Dibromo-3-chloropropane	ND	10.0	D	µg/L	10	2/27/2019 7:05:16 PM
1,2,4-Trimethylbenzene	ND	10.0	D	µg/L	10	2/27/2019 7:05:16 PM
Hexachloro-1,3-butadiene	ND	40.0	D	µg/L	10	2/27/2019 7:05:16 PM
Naphthalene	ND	10.0	D	µg/L	10	2/27/2019 7:05:16 PM
1,2,3-Trichlorobenzene	ND	40.0	D	µg/L	10	2/27/2019 7:05:16 PM
Surr: Dibromofluoromethane	87.4	45.4 - 152	D	%Rec	10	2/27/2019 7:05:16 PM
Surr: Toluene-d8	99.9	40.1 - 139	D	%Rec	10	2/27/2019 7:05:16 PM
Surr: 1-Bromo-4-fluorobenzene	94.4	64.2 - 128	D	%Rec	10	2/27/2019 7:05:16 PM

**NOTES:**

Q - Indicates an analyte with a continuing calibration that does not meet established acceptance criteria  
Diluted due to matrix.

**Ion Chromatography by EPA Method 300.0**

Batch ID: 23633

Analyst: GM

Chloride	16.5	1.00	D	mg/L	10	2/25/2019 6:50:00 PM
Sulfate	16.2	0.600	D	mg/L	2	2/25/2019 7:13:00 PM



**Client:** Kane Environmental, Inc.

**Collection Date:** 2/22/2019 2:25:00 PM

**Project:** BSCSS

**Lab ID:** 1902289-003

**Matrix:** Groundwater

**Client Sample ID:** MW-4:W

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
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**Dissolved Metals by EPA Method 200.8**

Batch ID: 23634 Analyst: WC

Iron	ND	100		µg/L	1	2/26/2019 4:18:35 PM
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**Total Organic Carbon by SM 5310C**

Batch ID: R49676 Analyst: GM

Total Organic Carbon	1.94	0.500		mg/L	1	2/25/2019 5:17:00 PM
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**Ammonia by SM 4500 NH3G**

Batch ID: 23646 Analyst: GM

Nitrogen, Ammonia	ND	0.100		mg/L	1	2/26/2019 1:42:00 PM
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**Work Order:** 1902289  
**CLIENT:** Kane Environmental, Inc.  
**Project:** BSCSS

**QC SUMMARY REPORT**  
**Ammonia by SM 4500 NH3G**

Sample ID <b>MB-23646</b>	SampType: <b>MBLK</b>	Units: <b>mg/L</b>	Prep Date: <b>2/26/2019</b>	RunNo: <b>49686</b>							
Client ID: <b>MBLKW</b>	Batch ID: <b>23646</b>		Analysis Date: <b>2/26/2019</b>	SeqNo: <b>974005</b>							
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Nitrogen, Ammonia ND 0.100

Sample ID <b>LCS-23646</b>	SampType: <b>LCS</b>	Units: <b>mg/L</b>	Prep Date: <b>2/26/2019</b>	RunNo: <b>49686</b>							
Client ID: <b>LCSW</b>	Batch ID: <b>23646</b>		Analysis Date: <b>2/26/2019</b>	SeqNo: <b>974006</b>							
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Nitrogen, Ammonia 0.444 0.100 0.5000 0 88.8 80 120

Sample ID <b>1902289-001EDUP</b>	SampType: <b>DUP</b>	Units: <b>mg/L</b>	Prep Date: <b>2/26/2019</b>	RunNo: <b>49686</b>							
Client ID: <b>MW-8:W</b>	Batch ID: <b>23646</b>		Analysis Date: <b>2/26/2019</b>	SeqNo: <b>974008</b>							
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Nitrogen, Ammonia ND 0.100 0 30

Sample ID <b>1902289-001EMS</b>	SampType: <b>MS</b>	Units: <b>mg/L</b>	Prep Date: <b>2/26/2019</b>	RunNo: <b>49686</b>							
Client ID: <b>MW-8:W</b>	Batch ID: <b>23646</b>		Analysis Date: <b>2/26/2019</b>	SeqNo: <b>974009</b>							
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Nitrogen, Ammonia 0.324 0.100 0.5000 0 64.8 70 130 S

**NOTES:**

S - Outlying spike recovery(ies) observed. A duplicate analysis was performed with similar results indicating a possible matrix effect.

Sample ID <b>1902289-001EMSD</b>	SampType: <b>MSD</b>	Units: <b>mg/L</b>	Prep Date: <b>2/26/2019</b>	RunNo: <b>49686</b>							
Client ID: <b>MW-8:W</b>	Batch ID: <b>23646</b>		Analysis Date: <b>2/26/2019</b>	SeqNo: <b>974010</b>							
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Nitrogen, Ammonia 0.329 0.100 0.5000 0 65.8 70 130 0.3240 1.53 30 S

**NOTES:**

S - Outlying spike recovery(ies) observed. A duplicate analysis was performed with similar results indicating a possible matrix effect.



**Work Order:** 1902289  
**CLIENT:** Kane Environmental, Inc.  
**Project:** BSCSS

**QC SUMMARY REPORT**  
**Ion Chromatography by EPA Method 300.0**

Sample ID <b>MB-23633</b>	SampType: <b>MBLK</b>	Units: <b>mg/L</b>	Prep Date: <b>2/25/2019</b>	RunNo: <b>49684</b>							
Client ID: <b>MBLKW</b>	Batch ID: <b>23633</b>		Analysis Date: <b>2/25/2019</b>	SeqNo: <b>973968</b>							
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Chloride	ND	0.100
Sulfate	ND	0.300

Sample ID <b>LCS-23633</b>	SampType: <b>LCS</b>	Units: <b>mg/L</b>	Prep Date: <b>2/25/2019</b>	RunNo: <b>49684</b>							
Client ID: <b>LCSW</b>	Batch ID: <b>23633</b>		Analysis Date: <b>2/25/2019</b>	SeqNo: <b>973969</b>							
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Chloride	0.765	0.100	0.7500	0	102	90	110
Sulfate	3.78	0.300	3.750	0	101	90	110

Sample ID <b>1902289-001CDUP</b>	SampType: <b>DUP</b>	Units: <b>mg/L</b>	Prep Date: <b>2/25/2019</b>	RunNo: <b>49684</b>							
Client ID: <b>MW-8:W</b>	Batch ID: <b>23633</b>		Analysis Date: <b>2/25/2019</b>	SeqNo: <b>973972</b>							
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Chloride	7.17	0.500						7.826	8.75	20	D
Sulfate	5.28	1.50						4.947	6.42	20	D

Sample ID <b>1902289-001CMS</b>	SampType: <b>MS</b>	Units: <b>mg/L</b>	Prep Date: <b>2/25/2019</b>	RunNo: <b>49684</b>							
Client ID: <b>MW-8:W</b>	Batch ID: <b>23633</b>		Analysis Date: <b>2/25/2019</b>	SeqNo: <b>973973</b>							
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Chloride	11.3	0.500	3.750	7.826	91.4	80	120				D
Sulfate	23.2	1.50	18.75	4.947	97.5	80	120				D

Sample ID <b>1902289-001CMSD</b>	SampType: <b>MSD</b>	Units: <b>mg/L</b>	Prep Date: <b>2/25/2019</b>	RunNo: <b>49684</b>							
Client ID: <b>MW-8:W</b>	Batch ID: <b>23633</b>		Analysis Date: <b>2/25/2019</b>	SeqNo: <b>973974</b>							
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Chloride	11.3	0.500	3.750	7.826	91.7	80	120	11.26	0.0888	20	D
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**Work Order:** 1902289  
**CLIENT:** Kane Environmental, Inc.  
**Project:** BSCSS

**QC SUMMARY REPORT**  
**Ion Chromatography by EPA Method 300.0**

Sample ID	<b>1902289-001CMSD</b>	SampType:	<b>MSD</b>	Units:	<b>mg/L</b>	Prep Date:	<b>2/25/2019</b>	RunNo:	<b>49684</b>		
Client ID:	<b>MW-8:W</b>	Batch ID:	<b>23633</b>			Analysis Date:	<b>2/25/2019</b>	SeqNo:	<b>973974</b>		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Sulfate	25.9	1.50	18.75	4.947	112	80	120	23.22	11.1	20	D



**Work Order:** 1902289  
**CLIENT:** Kane Environmental, Inc.  
**Project:** BSCSS

**QC SUMMARY REPORT**  
**Total Organic Carbon by SM 5310C**

Sample ID	<b>MBLK-49676</b>	SampType:	<b>MBLK</b>	Units:	<b>mg/L</b>	Prep Date:	<b>2/25/2019</b>	RunNo:	<b>49676</b>		
Client ID:	<b>MBLKW</b>	Batch ID:	<b>R49676</b>	Analysis Date:	<b>2/25/2019</b>	SeqNo:	<b>973820</b>				
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Total Organic Carbon	ND	0.500									

Sample ID	<b>LCS-49676</b>	SampType:	<b>LCS</b>	Units:	<b>mg/L</b>	Prep Date:	<b>2/25/2019</b>	RunNo:	<b>49676</b>		
Client ID:	<b>LCSW</b>	Batch ID:	<b>R49676</b>	Analysis Date:	<b>2/25/2019</b>	SeqNo:	<b>973821</b>				
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Total Organic Carbon	4.95	0.500	5.000	0	99.0	80	120				

Sample ID	<b>1902260-001DDUP</b>	SampType:	<b>DUP</b>	Units:	<b>mg/L</b>	Prep Date:	<b>2/25/2019</b>	RunNo:	<b>49676</b>		
Client ID:	<b>BATCH</b>	Batch ID:	<b>R49676</b>	Analysis Date:	<b>2/25/2019</b>	SeqNo:	<b>973823</b>				
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Total Organic Carbon	1.52	0.500						1.490	2.06	20	

Sample ID	<b>1902260-001DMS</b>	SampType:	<b>MS</b>	Units:	<b>mg/L</b>	Prep Date:	<b>2/25/2019</b>	RunNo:	<b>49676</b>		
Client ID:	<b>BATCH</b>	Batch ID:	<b>R49676</b>	Analysis Date:	<b>2/25/2019</b>	SeqNo:	<b>973824</b>				
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Total Organic Carbon	6.43	0.500	5.000	1.490	98.8	70	130				

Sample ID	<b>1902260-001DMSD</b>	SampType:	<b>MSD</b>	Units:	<b>mg/L</b>	Prep Date:	<b>2/25/2019</b>	RunNo:	<b>49676</b>		
Client ID:	<b>BATCH</b>	Batch ID:	<b>R49676</b>	Analysis Date:	<b>2/25/2019</b>	SeqNo:	<b>973825</b>				
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Total Organic Carbon	6.46	0.500	5.000	1.490	99.5	70	130	6.430	0.543	30	

Work Order: 1902289  
 CLIENT: Kane Environmental, Inc.  
 Project: BSCSS

**QC SUMMARY REPORT**  
**Dissolved Metals by EPA Method 200.8**

Sample ID <b>MB-23634</b>	SampType: <b>MBLK</b>	Units: <b>µg/L</b>	Prep Date: <b>2/26/2019</b>	RunNo: <b>49708</b>							
Client ID: <b>MBLKW</b>	Batch ID: <b>23634</b>	Analysis Date: <b>2/26/2019</b>	SeqNo: <b>974436</b>								
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Iron ND 100

Sample ID <b>LCS-23634</b>	SampType: <b>LCS</b>	Units: <b>µg/L</b>	Prep Date: <b>2/26/2019</b>	RunNo: <b>49708</b>							
Client ID: <b>LCSW</b>	Batch ID: <b>23634</b>	Analysis Date: <b>2/26/2019</b>	SeqNo: <b>974437</b>								
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Iron 1,020 100 1,000 0 102 50 150

Sample ID <b>1902260-001BDUP</b>	SampType: <b>DUP</b>	Units: <b>µg/L</b>	Prep Date: <b>2/26/2019</b>	RunNo: <b>49708</b>							
Client ID: <b>BATCH</b>	Batch ID: <b>23634</b>	Analysis Date: <b>2/26/2019</b>	SeqNo: <b>974439</b>								
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Iron 348 100 366.9 5.32 30

Sample ID <b>1902260-001BMS</b>	SampType: <b>MS</b>	Units: <b>µg/L</b>	Prep Date: <b>2/26/2019</b>	RunNo: <b>49708</b>							
Client ID: <b>BATCH</b>	Batch ID: <b>23634</b>	Analysis Date: <b>2/26/2019</b>	SeqNo: <b>974440</b>								
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Iron 5,190 100 5,000 366.9 96.4 50 150

Sample ID <b>1902260-001BMSD</b>	SampType: <b>MSD</b>	Units: <b>µg/L</b>	Prep Date: <b>2/26/2019</b>	RunNo: <b>49708</b>							
Client ID: <b>BATCH</b>	Batch ID: <b>23634</b>	Analysis Date: <b>2/26/2019</b>	SeqNo: <b>974441</b>								
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Iron 5,310 100 5,000 366.9 98.9 50 150 5,189 2.36 30



**Work Order:** 1902289  
**CLIENT:** Kane Environmental, Inc.  
**Project:** BSCSS

**QC SUMMARY REPORT**  
**Dissolved Metals by EPA Method 200.8**

Sample ID <b>MB-23622FB</b>	SampType: <b>MBLK</b>	Units: <b>µg/L</b>	Prep Date: <b>2/26/2019</b>	RunNo: <b>49708</b>							
Client ID: <b>MBLKW</b>	Batch ID: <b>23634</b>	Analysis Date: <b>2/26/2019</b>	SeqNo: <b>974448</b>								
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Iron ND 100

**NOTES:**  
Filter Blank

Work Order: 1902289  
 CLIENT: Kane Environmental, Inc.  
 Project: BSCSS

**QC SUMMARY REPORT**  
**Dissolved Gases by RSK-175**

Sample ID	<b>MB-R49738</b>	SampType:	<b>MBLK</b>	Units:	<b>mg/L</b>	Prep Date:	<b>2/28/2019</b>	RunNo:	<b>49738</b>		
Client ID:	<b>MBLKW</b>	Batch ID:	<b>R49738</b>			Analysis Date:	<b>2/28/2019</b>	SeqNo:	<b>975032</b>		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Methane	ND	0.00863									
Ethene	ND	0.0151									
Ethane	ND	0.0162									

Sample ID	<b>LCS-R49738</b>	SampType:	<b>LCS</b>	Units:	<b>mg/L</b>	Prep Date:	<b>2/28/2019</b>	RunNo:	<b>49738</b>		
Client ID:	<b>LCSW</b>	Batch ID:	<b>R49738</b>			Analysis Date:	<b>2/28/2019</b>	SeqNo:	<b>975031</b>		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Methane	838	0.00863	1,000	0	83.8	70	130				
Ethene	861	0.0151	1,000	0	86.1	70	130				
Ethane	872	0.0162	1,000	0	87.2	70	130				

Sample ID	<b>1902260-001FREP</b>	SampType:	<b>REP</b>	Units:	<b>mg/L</b>	Prep Date:	<b>2/28/2019</b>	RunNo:	<b>49738</b>		
Client ID:	<b>BATCH</b>	Batch ID:	<b>R49738</b>			Analysis Date:	<b>2/28/2019</b>	SeqNo:	<b>975016</b>		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Methane	0.0282	0.00863						0.02742	2.73	30	
Ethene	ND	0.0151						0		30	
Ethane	ND	0.0162						0		30	



Work Order: 1902289  
 CLIENT: Kane Environmental, Inc.  
 Project: BSCSS

**QC SUMMARY REPORT**  
**Volatile Organic Compounds by EPA Method 8260C**

Sample ID	<b>LCS-23647</b>	SampType:	<b>LCS</b>	Units:	<b>µg/L</b>	Prep Date:	<b>2/26/2019</b>	RunNo:	<b>49725</b>
Client ID:	<b>LCSW</b>	Batch ID:	<b>23647</b>			Analysis Date:	<b>2/26/2019</b>	SeqNo:	<b>974807</b>

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Dichlorodifluoromethane (CFC-12)	24.4	1.00	20.00	0	122	18.7	171				
Chloromethane	15.7	2.00	20.00	0	78.6	38.5	171				
Vinyl chloride	21.1	0.200	20.00	0	105	48	145				
Bromomethane	22.6	1.00	20.00	0	113	32.5	184				
Trichlorofluoromethane (CFC-11)	21.1	1.00	20.00	0	106	43.5	149				
Chloroethane	20.3	1.00	20.00	0	102	43.8	168				
1,1-Dichloroethene	21.1	1.00	20.00	0	105	57.5	150				
Methylene chloride	20.0	1.00	20.00	0	100	67.1	131				
trans-1,2-Dichloroethene	20.5	1.00	20.00	0	102	71.7	129				
Methyl tert-butyl ether (MTBE)	20.0	1.00	20.00	0	100	58	138				
1,1-Dichloroethane	20.1	1.00	20.00	0	101	67.9	134				
2,2-Dichloropropane	20.4	2.00	20.00	0	102	26.5	185				
cis-1,2-Dichloroethene	20.2	1.00	20.00	0	101	70.2	139				
Chloroform	20.1	1.00	20.00	0	101	66.3	131				
1,1,1-Trichloroethane (TCA)	20.3	1.00	20.00	0	102	63	140				
1,1-Dichloropropene	20.7	1.00	20.00	0	104	69.9	124				
Carbon tetrachloride	20.3	1.00	20.00	0	102	66.2	134				
1,2-Dichloroethane (EDC)	19.8	1.00	20.00	0	99.0	67	126				
Benzene	20.4	1.00	20.00	0	102	69.3	132				
Trichloroethene (TCE)	20.4	0.500	20.00	0	102	65.2	136				
1,2-Dichloropropane	19.8	1.00	20.00	0	98.9	70.5	130				
Bromodichloromethane	19.6	1.00	20.00	0	98.2	67.2	137				
Dibromomethane	20.0	1.00	20.00	0	99.9	69.3	143				
cis-1,3-Dichloropropene	19.8	1.00	20.00	0	99.0	62.6	137				
Toluene	20.4	1.00	20.00	0	102	61.3	145				
trans-1,3-Dichloropropylene	19.5	1.00	20.00	0	97.5	56.5	163				
1,1,2-Trichloroethane	20.0	1.00	20.00	0	99.9	71.7	131				
1,3-Dichloropropane	19.9	1.00	20.00	0	99.3	73.5	127				
Tetrachloroethene (PCE)	20.6	1.00	20.00	0	103	47.5	147				
Dibromochloromethane	19.4	1.00	20.00	0	96.8	67.2	134				
1,2-Dibromoethane (EDB)	20.0	0.250	20.00	0	100	73.6	125				

Work Order: 1902289  
 CLIENT: Kane Environmental, Inc.  
 Project: BSCSS

**QC SUMMARY REPORT**  
**Volatile Organic Compounds by EPA Method 8260C**

Sample ID	<b>LCS-23647</b>	SampType:	<b>LCS</b>	Units:	<b>µg/L</b>	Prep Date:	<b>2/26/2019</b>	RunNo:	<b>49725</b>
Client ID:	<b>LCSW</b>	Batch ID:	<b>23647</b>			Analysis Date:	<b>2/26/2019</b>	SeqNo:	<b>974807</b>

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Chlorobenzene	20.4	1.00	20.00	0	102	73.9	126				
1,1,1,2-Tetrachloroethane	19.9	1.00	20.00	0	99.7	76.8	124				
Ethylbenzene	21.2	1.00	20.00	0	106	72	130				
m,p-Xylene	40.8	1.00	40.00	0	102	70.3	134				
o-Xylene	20.4	1.00	20.00	0	102	72.1	131				
Styrene	20.2	1.00	20.00	0	101	64.3	140				
Isopropylbenzene	21.8	1.00	20.00	0	109	73.9	128				
Bromoform	19.2	2.00	20.00	0	96.1	55.3	141				
1,1,2,2-Tetrachloroethane	20.1	1.00	20.00	0	100	62.9	132				
n-Propylbenzene	22.3	1.00	20.00	0	111	74.5	127				
Bromobenzene	20.2	1.00	20.00	0	101	71	131				
1,3,5-Trimethylbenzene	21.1	1.00	20.00	0	105	73.1	128				
2-Chlorotoluene	23.2	1.00	20.00	0	116	70.8	130				
4-Chlorotoluene	20.8	1.00	20.00	0	104	70.1	131				
tert-Butylbenzene	20.6	1.00	20.00	0	103	68.2	131				
1,2,3-Trichloropropane	19.4	1.00	20.00	0	97.1	67.7	131				
1,2,4-Trichlorobenzene	22.0	2.00	20.00	0	110	41	139				
sec-Butylbenzene	22.4	1.00	20.00	0	112	72	129				
4-Isopropyltoluene	21.5	1.00	20.00	0	108	69.2	130				
1,3-Dichlorobenzene	21.1	1.00	20.00	0	105	69.5	128				
1,4-Dichlorobenzene	21.2	1.00	20.00	0	106	66.8	119				
n-Butylbenzene	21.8	1.00	20.00	0	109	73.8	127				
1,2-Dichlorobenzene	20.9	1.00	20.00	0	105	69.7	119				
1,2-Dibromo-3-chloropropane	19.5	1.00	20.00	0	97.6	63.1	136				
1,2,4-Trimethylbenzene	21.1	1.00	20.00	0	105	73.4	127				
Hexachloro-1,3-butadiene	21.8	4.00	20.00	0	109	58.6	138				
Naphthalene	21.8	1.00	20.00	0	109	41.8	165				
1,2,3-Trichlorobenzene	21.1	4.00	20.00	0	106	35.8	155				
Surr: Dibromofluoromethane	23.8		25.00		95.2	45.4	152				
Surr: Toluene-d8	24.9		25.00		99.4	40.1	139				
Surr: 1-Bromo-4-fluorobenzene	25.5		25.00		102	64.2	128				

Work Order: 1902289  
 CLIENT: Kane Environmental, Inc.  
 Project: BSCSS

**QC SUMMARY REPORT**  
**Volatile Organic Compounds by EPA Method 8260C**

Sample ID	<b>LCS-23647</b>	SampType:	<b>LCS</b>	Units:	<b>µg/L</b>	Prep Date:	<b>2/26/2019</b>	RunNo:	<b>49725</b>		
Client ID:	<b>LCSW</b>	Batch ID:	<b>23647</b>	Analysis Date:	<b>2/26/2019</b>	SeqNo:	<b>974807</b>				
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Sample ID	<b>MB-23647</b>	SampType:	<b>MBLK</b>	Units:	<b>µg/L</b>	Prep Date:	<b>2/26/2019</b>	RunNo:	<b>49725</b>		
Client ID:	<b>MBLKW</b>	Batch ID:	<b>23647</b>	Analysis Date:	<b>2/27/2019</b>	SeqNo:	<b>974808</b>				
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Dichlorodifluoromethane (CFC-12)	ND	1.00									
Chloromethane	ND	2.00									Q
Vinyl chloride	ND	0.200									
Bromomethane	ND	1.00									
Trichlorofluoromethane (CFC-11)	ND	1.00									
Chloroethane	ND	1.00									
1,1-Dichloroethene	ND	1.00									
Methylene chloride	ND	1.00									
trans-1,2-Dichloroethene	ND	1.00									
Methyl tert-butyl ether (MTBE)	ND	1.00									
1,1-Dichloroethane	ND	1.00									
2,2-Dichloropropane	ND	2.00									Q
cis-1,2-Dichloroethene	ND	1.00									
Chloroform	ND	1.00									
1,1,1-Trichloroethane (TCA)	ND	1.00									
1,1-Dichloropropene	ND	1.00									
Carbon tetrachloride	ND	1.00									
1,2-Dichloroethane (EDC)	ND	1.00									
Benzene	ND	1.00									
Trichloroethene (TCE)	ND	0.500									
1,2-Dichloropropane	ND	1.00									
Bromodichloromethane	ND	1.00									
Dibromomethane	ND	1.00									
cis-1,3-Dichloropropene	ND	1.00									
Toluene	ND	1.00									

**Work Order:** 1902289  
**CLIENT:** Kane Environmental, Inc.  
**Project:** BSCSS

**QC SUMMARY REPORT**  
**Volatile Organic Compounds by EPA Method 8260C**

Sample ID <b>MB-23647</b>	SampType: <b>MBLK</b>	Units: <b>µg/L</b>	Prep Date: <b>2/26/2019</b>	RunNo: <b>49725</b>
Client ID: <b>MBLKW</b>	Batch ID: <b>23647</b>		Analysis Date: <b>2/27/2019</b>	SeqNo: <b>974808</b>

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
trans-1,3-Dichloropropylene	ND	1.00									
1,1,2-Trichloroethane	ND	1.00									
1,3-Dichloropropane	ND	1.00									
Tetrachloroethene (PCE)	ND	1.00									
Dibromochloromethane	ND	1.00									
1,2-Dibromoethane (EDB)	ND	0.250									
Chlorobenzene	ND	1.00									
1,1,1,2-Tetrachloroethane	ND	1.00									
Ethylbenzene	ND	1.00									
m,p-Xylene	ND	1.00									
o-Xylene	ND	1.00									
Styrene	ND	1.00									
Isopropylbenzene	ND	1.00									
Bromoform	ND	2.00									
1,1,1,2,2-Tetrachloroethane	ND	1.00									
n-Propylbenzene	ND	1.00									
Bromobenzene	ND	1.00									
1,3,5-Trimethylbenzene	ND	1.00									
2-Chlorotoluene	ND	1.00									
4-Chlorotoluene	ND	1.00									
tert-Butylbenzene	ND	1.00									
1,2,3-Trichloropropane	ND	1.00									
1,2,4-Trichlorobenzene	ND	2.00									
sec-Butylbenzene	ND	1.00									
4-Isopropyltoluene	ND	1.00									
1,3-Dichlorobenzene	ND	1.00									
1,4-Dichlorobenzene	ND	1.00									
n-Butylbenzene	ND	1.00									
1,2-Dichlorobenzene	ND	1.00									
1,2-Dibromo-3-chloropropane	ND	1.00									
1,2,4-Trimethylbenzene	ND	1.00									



**Work Order:** 1902289  
**CLIENT:** Kane Environmental, Inc.  
**Project:** BSCSS

**QC SUMMARY REPORT**  
**Volatile Organic Compounds by EPA Method 8260C**

Sample ID <b>MB-23647</b>	SampType: <b>MBLK</b>	Units: <b>µg/L</b>	Prep Date: <b>2/26/2019</b>	RunNo: <b>49725</b>							
Client ID: <b>MBLKW</b>	Batch ID: <b>23647</b>		Analysis Date: <b>2/27/2019</b>	SeqNo: <b>974808</b>							
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Hexachloro-1,3-butadiene	ND	4.00									
Naphthalene	ND	1.00									
1,2,3-Trichlorobenzene	ND	4.00									
Surr: Dibromofluoromethane	22.0		25.00		88.2	45.4	152				
Surr: Toluene-d8	25.1		25.00		100	40.1	139				
Surr: 1-Bromo-4-fluorobenzene	24.3		25.00		97.3	64.2	128				

**NOTES:**

Q - Indicates an analyte with a continuing calibration that does not meet established acceptance criteria

Sample ID <b>1902264-003ADUP</b>	SampType: <b>DUP</b>	Units: <b>µg/L</b>	Prep Date: <b>2/26/2019</b>	RunNo: <b>49725</b>							
Client ID: <b>BATCH</b>	Batch ID: <b>23647</b>		Analysis Date: <b>2/27/2019</b>	SeqNo: <b>974780</b>							
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Dichlorodifluoromethane (CFC-12)	ND	1.00						0		30	
Chloromethane	ND	2.00						0		30	Q
Vinyl chloride	ND	0.200						0		30	
Bromomethane	ND	1.00						0		30	
Trichlorofluoromethane (CFC-11)	ND	1.00						0		30	
Chloroethane	ND	1.00						0		30	
1,1-Dichloroethene	ND	1.00						0		30	
Methylene chloride	ND	1.00						0		30	
trans-1,2-Dichloroethene	ND	1.00						0		30	
Methyl tert-butyl ether (MTBE)	ND	1.00						0		30	
1,1-Dichloroethane	ND	1.00						0		30	
2,2-Dichloropropane	ND	2.00						0		30	Q
cis-1,2-Dichloroethene	5.60	1.00						5.539	1.13	30	
Chloroform	ND	1.00						0		30	
1,1,1-Trichloroethane (TCA)	ND	1.00						0		30	
1,1-Dichloropropene	ND	1.00						0		30	
Carbon tetrachloride	ND	1.00						0		30	
1,2-Dichloroethane (EDC)	ND	1.00						0		30	



Date: 3/1/2019

Work Order: 1902289  
 CLIENT: Kane Environmental, Inc.  
 Project: BSCSS

**QC SUMMARY REPORT**  
**Volatile Organic Compounds by EPA Method 8260C**

Sample ID: <b>1902264-003ADUP</b>	SampType: <b>DUP</b>	Units: <b>µg/L</b>	Prep Date: <b>2/26/2019</b>	RunNo: <b>49725</b>
Client ID: <b>BATCH</b>	Batch ID: <b>23647</b>		Analysis Date: <b>2/27/2019</b>	SeqNo: <b>974780</b>

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	ND	1.00						0		30	
Trichloroethene (TCE)	0.643	0.500						0.6304	2.05	30	
1,2-Dichloropropane	ND	1.00						0		30	
Bromodichloromethane	ND	1.00						0		30	
Dibromomethane	ND	1.00						0		30	
cis-1,3-Dichloropropene	ND	1.00						0		30	
Toluene	ND	1.00						0		30	
trans-1,3-Dichloropropylene	ND	1.00						0		30	
1,1,2-Trichloroethane	ND	1.00						0		30	
1,3-Dichloropropane	ND	1.00						0		30	
Tetrachloroethene (PCE)	ND	1.00						0		30	
Dibromochloromethane	ND	1.00						0		30	
1,2-Dibromoethane (EDB)	ND	0.250						0		30	
Chlorobenzene	ND	1.00						0		30	
1,1,1,2-Tetrachloroethane	ND	1.00						0		30	
Ethylbenzene	ND	1.00						0		30	
m,p-Xylene	ND	1.00						0		30	
o-Xylene	ND	1.00						0		30	
Styrene	ND	1.00						0		30	
Isopropylbenzene	ND	1.00						0		30	
Bromoform	ND	2.00						0		30	
1,1,2,2-Tetrachloroethane	ND	1.00						0		30	
n-Propylbenzene	ND	1.00						0		30	
Bromobenzene	ND	1.00						0		30	
1,3,5-Trimethylbenzene	ND	1.00						0		30	
2-Chlorotoluene	ND	1.00						0		30	
4-Chlorotoluene	ND	1.00						0		30	
tert-Butylbenzene	ND	1.00						0		30	
1,2,3-Trichloropropane	ND	1.00						0		30	
1,2,4-Trichlorobenzene	ND	2.00						0		30	
sec-Butylbenzene	ND	1.00						0		30	

Work Order: 1902289  
 CLIENT: Kane Environmental, Inc.  
 Project: BSCSS

**QC SUMMARY REPORT**  
**Volatile Organic Compounds by EPA Method 8260C**

Sample ID	<b>1902264-003ADUP</b>	SampType:	<b>DUP</b>	Units:	<b>µg/L</b>	Prep Date:	<b>2/26/2019</b>	RunNo:	<b>49725</b>		
Client ID:	<b>BATCH</b>	Batch ID:	<b>23647</b>			Analysis Date:	<b>2/27/2019</b>	SeqNo:	<b>974780</b>		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

4-Isopropyltoluene	ND	1.00						0		30	
1,3-Dichlorobenzene	ND	1.00						0		30	
1,4-Dichlorobenzene	ND	1.00						0		30	
n-Butylbenzene	ND	1.00						0		30	
1,2-Dichlorobenzene	ND	1.00						0		30	
1,2-Dibromo-3-chloropropane	ND	1.00						0		30	
1,2,4-Trimethylbenzene	ND	1.00						0		30	
Hexachloro-1,3-butadiene	ND	4.00						0		30	
Naphthalene	ND	1.00						0		30	
1,2,3-Trichlorobenzene	ND	4.00						0		30	
Surr: Dibromofluoromethane	20.8		25.00		83.3	45.4	152		0		
Surr: Toluene-d8	25.0		25.00		100	40.1	139		0		
Surr: 1-Bromo-4-fluorobenzene	23.9		25.00		95.6	64.2	128		0		

**NOTES:**

Q - Indicates an analyte with a continuing calibration that does not meet established acceptance criteria

Sample ID	<b>1902276-003ADUP</b>	SampType:	<b>DUP</b>	Units:	<b>µg/L</b>	Prep Date:	<b>2/26/2019</b>	RunNo:	<b>49725</b>		
Client ID:	<b>BATCH</b>	Batch ID:	<b>23647</b>			Analysis Date:	<b>2/27/2019</b>	SeqNo:	<b>974784</b>		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Dichlorodifluoromethane (CFC-12)	ND	1.00						0		30	
Chloromethane	ND	2.00						0		30	Q
Vinyl chloride	ND	0.200						0		30	
Bromomethane	ND	1.00						0		30	
Trichlorofluoromethane (CFC-11)	ND	1.00						0		30	
Chloroethane	ND	1.00						0		30	
1,1-Dichloroethene	ND	1.00						0		30	
Methylene chloride	ND	1.00						0		30	
trans-1,2-Dichloroethene	ND	1.00						0		30	
Methyl tert-butyl ether (MTBE)	ND	1.00						0		30	
1,1-Dichloroethane	ND	1.00						0		30	



Work Order: 1902289  
 CLIENT: Kane Environmental, Inc.  
 Project: BSCSS

**QC SUMMARY REPORT**  
**Volatile Organic Compounds by EPA Method 8260C**

Sample ID: <b>1902276-003ADUP</b>	SampType: <b>DUP</b>	Units: <b>µg/L</b>	Prep Date: <b>2/26/2019</b>	RunNo: <b>49725</b>
Client ID: <b>BATCH</b>	Batch ID: <b>23647</b>		Analysis Date: <b>2/27/2019</b>	SeqNo: <b>974784</b>

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
2,2-Dichloropropane	ND	2.00						0		30	Q
cis-1,2-Dichloroethene	ND	1.00						0		30	
Chloroform	ND	1.00						0		30	
1,1,1-Trichloroethane (TCA)	ND	1.00						0		30	
1,1-Dichloropropene	ND	1.00						0		30	
Carbon tetrachloride	ND	1.00						0		30	
1,2-Dichloroethane (EDC)	ND	1.00						0		30	
Benzene	ND	1.00						0		30	
Trichloroethene (TCE)	ND	0.500						0		30	
1,2-Dichloropropane	ND	1.00						0		30	
Bromodichloromethane	ND	1.00						0		30	
Dibromomethane	ND	1.00						0		30	
cis-1,3-Dichloropropene	ND	1.00						0		30	
Toluene	ND	1.00						0		30	
trans-1,3-Dichloropropylene	ND	1.00						0		30	
1,1,2-Trichloroethane	ND	1.00						0		30	
1,3-Dichloropropane	ND	1.00						0		30	
Tetrachloroethene (PCE)	ND	1.00						0		30	
Dibromochloromethane	ND	1.00						0		30	
1,2-Dibromoethane (EDB)	ND	0.250						0		30	
Chlorobenzene	ND	1.00						0		30	
1,1,1,2-Tetrachloroethane	ND	1.00						0		30	
Ethylbenzene	ND	1.00						0		30	
m,p-Xylene	ND	1.00						0		30	
o-Xylene	ND	1.00						0		30	
Styrene	ND	1.00						0		30	
Isopropylbenzene	ND	1.00						0		30	
Bromoform	ND	2.00						0		30	
1,1,2,2-Tetrachloroethane	ND	1.00						0		30	
n-Propylbenzene	ND	1.00						0		30	
Bromobenzene	ND	1.00						0		30	

Work Order: 1902289  
 CLIENT: Kane Environmental, Inc.  
 Project: BSCSS

**QC SUMMARY REPORT**  
**Volatile Organic Compounds by EPA Method 8260C**

Sample ID	1902276-003ADUP	SampType:	DUP	Units:	µg/L	Prep Date:	2/26/2019	RunNo:	49725		
Client ID:	BATCH	Batch ID:	23647	Analysis Date:	2/27/2019	SeqNo:	974784				
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,3,5-Trimethylbenzene	ND	1.00						0		30	
2-Chlorotoluene	ND	1.00						0		30	
4-Chlorotoluene	ND	1.00						0		30	
tert-Butylbenzene	ND	1.00						0		30	
1,2,3-Trichloropropane	ND	1.00						0		30	
1,2,4-Trichlorobenzene	ND	2.00						0		30	
sec-Butylbenzene	ND	1.00						0		30	
4-Isopropyltoluene	ND	1.00						0		30	
1,3-Dichlorobenzene	ND	1.00						0		30	
1,4-Dichlorobenzene	ND	1.00						0		30	
n-Butylbenzene	ND	1.00						0		30	
1,2-Dichlorobenzene	ND	1.00						0		30	
1,2-Dibromo-3-chloropropane	ND	1.00						0		30	
1,2,4-Trimethylbenzene	ND	1.00						0		30	
Hexachloro-1,3-butadiene	ND	4.00						0		30	
Naphthalene	ND	1.00						0		30	
1,2,3-Trichlorobenzene	ND	4.00						0		30	
Surr: Dibromofluoromethane	21.9		25.00		87.6	45.4	152		0		
Surr: Toluene-d8	25.2		25.00		101	40.1	139		0		
Surr: 1-Bromo-4-fluorobenzene	23.9		25.00		95.5	64.2	128		0		

**NOTES:**

Q - Indicates an analyte with a continuing calibration that does not meet established acceptance criteria

Sample ID	1902289-001AMS	SampType:	MS	Units:	µg/L	Prep Date:	2/26/2019	RunNo:	49725		
Client ID:	MW-8:W	Batch ID:	23647	Analysis Date:	2/27/2019	SeqNo:	974798				
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Dichlorodifluoromethane (CFC-12)	23.6	1.00	20.00	0	118	33.3	122				
Chloromethane	16.6	2.00	20.00	0	83.2	39.7	143				
Vinyl chloride	21.4	0.200	20.00	0	107	41	165				
Bromomethane	35.3	1.00	20.00	0	176	31.5	135				S



**Work Order:** 1902289  
**CLIENT:** Kane Environmental, Inc.  
**Project:** BSCSS

**QC SUMMARY REPORT**  
**Volatile Organic Compounds by EPA Method 8260C**

Sample ID <b>1902289-001AMS</b>	SampType: <b>MS</b>	Units: <b>µg/L</b>	Prep Date: <b>2/26/2019</b>	RunNo: <b>49725</b>
Client ID: <b>MW-8:W</b>	Batch ID: <b>23647</b>		Analysis Date: <b>2/27/2019</b>	SeqNo: <b>974798</b>

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Trichlorofluoromethane (CFC-11)	23.3	1.00	20.00	0	116	54.7	138				
Chloroethane	20.8	1.00	20.00	0	104	49.9	143				
1,1-Dichloroethene	23.2	1.00	20.00	0	116	51.6	164				
Methylene chloride	20.9	1.00	20.00	0	105	61.6	135				
trans-1,2-Dichloroethene	22.7	1.00	20.00	0	113	63.5	138				
Methyl tert-butyl ether (MTBE)	21.4	1.00	20.00	0	107	60.9	132				
1,1-Dichloroethane	22.3	1.00	20.00	0	111	55.7	151				
2,2-Dichloropropane	18.1	2.00	20.00	0	90.7	37.7	150				
cis-1,2-Dichloroethene	27.9	1.00	20.00	7.327	103	60	154				
Chloroform	22.4	1.00	20.00	0	112	48.1	140				
1,1,1-Trichloroethane (TCA)	22.7	1.00	20.00	0	114	64.2	146				
1,1-Dichloropropene	22.7	1.00	20.00	0	113	73.8	136				
Carbon tetrachloride	22.9	1.00	20.00	0	114	62.7	146				
1,2-Dichloroethane (EDC)	21.5	1.00	20.00	0	108	63.4	137				
Benzene	22.2	1.00	20.00	0	111	65.4	138				
Trichloroethene (TCE)	25.4	0.500	20.00	2.902	112	60.4	134				
1,2-Dichloropropane	21.5	1.00	20.00	0	107	62.6	138				
Bromodichloromethane	21.5	1.00	20.00	0	107	59.4	139				
Dibromomethane	21.5	1.00	20.00	0	108	58.7	148				
cis-1,3-Dichloropropene	20.4	1.00	20.00	0	102	63.8	132				
Toluene	21.5	1.00	20.00	0	107	52	147				
trans-1,3-Dichloropropylene	19.7	1.00	20.00	0	98.5	57.7	125				
1,1,2-Trichloroethane	21.2	1.00	20.00	0	106	57.5	153				
1,3-Dichloropropane	21.0	1.00	20.00	0	105	54.1	157				
Tetrachloroethene (PCE)	27.3	1.00	20.00	4.979	112	50.3	133				
Dibromochloromethane	20.6	1.00	20.00	0	103	61.6	139				
1,2-Dibromoethane (EDB)	20.6	0.250	20.00	0	103	63.2	134				
Chlorobenzene	21.5	1.00	20.00	0	108	65.8	134				
1,1,1,2-Tetrachloroethane	21.5	1.00	20.00	0	107	65.4	135				
Ethylbenzene	22.6	1.00	20.00	0	113	64.5	136				
m,p-Xylene	42.8	1.00	40.00	0	107	63.3	135				

Work Order: 1902289  
 CLIENT: Kane Environmental, Inc.  
 Project: BSCSS

**QC SUMMARY REPORT**  
**Volatile Organic Compounds by EPA Method 8260C**

Sample ID	1902289-001AMS	SampType:	MS	Units:	µg/L	Prep Date:	2/26/2019	RunNo:	49725		
Client ID:	MW-8:W	Batch ID:	23647	Analysis Date:	2/27/2019	SeqNo:	974798				
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
o-Xylene	20.1	1.00	20.00	0	100	64.8	150				
Styrene	20.7	1.00	20.00	0	104	52.9	163				
Isopropylbenzene	21.8	1.00	20.00	0	109	56	147				
Bromoform	19.4	2.00	20.00	0	97.1	57.7	139				
1,1,2,2-Tetrachloroethane	20.1	1.00	20.00	0	101	59.8	146				
n-Propylbenzene	22.9	1.00	20.00	0	114	57.6	142				
Bromobenzene	20.2	1.00	20.00	0	101	69.3	157				
1,3,5-Trimethylbenzene	21.3	1.00	20.00	0	106	59.9	136				
2-Chlorotoluene	23.2	1.00	20.00	0	116	61.7	134				
4-Chlorotoluene	20.7	1.00	20.00	0	104	58.4	134				
tert-Butylbenzene	21.1	1.00	20.00	0	106	66.8	141				
1,2,3-Trichloropropane	20.5	1.00	20.00	0	102	62.4	129				
1,2,4-Trichlorobenzene	22.1	2.00	20.00	0	111	50.9	133				
sec-Butylbenzene	22.7	1.00	20.00	0	113	56	146				
4-Isopropyltoluene	22.1	1.00	20.00	0	110	56.4	136				
1,3-Dichlorobenzene	21.6	1.00	20.00	0	108	58.2	128				
1,4-Dichlorobenzene	21.6	1.00	20.00	0	108	60.1	123				
n-Butylbenzene	22.2	1.00	20.00	0	111	54.6	135				
1,2-Dichlorobenzene	21.8	1.00	20.00	0	109	65.4	133				
1,2-Dibromo-3-chloropropane	22.5	1.00	20.00	0	113	51.8	142				
1,2,4-Trimethylbenzene	21.6	1.00	20.00	0	108	63.7	132				
Hexachloro-1,3-butadiene	22.5	4.00	20.00	0	113	58.1	130				
Naphthalene	23.5	1.00	20.00	0	117	50.7	154				
1,2,3-Trichlorobenzene	23.2	4.00	20.00	0	116	57	131				
Surr: Dibromofluoromethane	23.8		25.00		95.0	45.4	152				
Surr: Toluene-d8	24.8		25.00		99.0	40.1	139				
Surr: 1-Bromo-4-fluorobenzene	24.7		25.00		98.6	64.2	128				

**NOTES:**

S - Outlying spike recovery(ies) observed. A duplicate analysis was performed with similar results indicating a possible matrix effect.

Work Order: 1902289  
 CLIENT: Kane Environmental, Inc.  
 Project: BSCSS

**QC SUMMARY REPORT**  
**Volatile Organic Compounds by EPA Method 8260C**

Sample ID	1902289-001AMSD	SampType:	MSD	Units:	µg/L	Prep Date:	2/26/2019	RunNo:	49725		
Client ID:	MW-8:W	Batch ID:	23647	Analysis Date:	2/27/2019	SeqNo:	974799				
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Dichlorodifluoromethane (CFC-12)	24.5	1.00	20.00	0	122	33.3	122	23.59	3.75	30	S
Chloromethane	16.8	2.00	20.00	0	84.1	39.7	143	16.64	1.06	30	
Vinyl chloride	22.4	0.200	20.00	0	112	41	165	21.44	4.19	30	
Bromomethane	33.9	1.00	20.00	0	169	31.5	135	35.25	3.98	30	S
Trichlorofluoromethane (CFC-11)	22.5	1.00	20.00	0	113	54.7	138	23.29	3.38	30	
Chloroethane	21.2	1.00	20.00	0	106	49.9	143	20.85	1.88	30	
1,1-Dichloroethene	22.1	1.00	20.00	0	110	51.6	164	23.24	5.09	30	
Methylene chloride	20.8	1.00	20.00	0	104	61.6	135	20.94	0.535	30	
trans-1,2-Dichloroethene	21.4	1.00	20.00	0	107	63.5	138	22.70	5.86	30	
Methyl tert-butyl ether (MTBE)	20.2	1.00	20.00	0	101	60.9	132	21.38	5.44	30	
1,1-Dichloroethane	21.0	1.00	20.00	0	105	55.7	151	22.25	5.96	30	
2,2-Dichloropropane	16.6	2.00	20.00	0	82.8	37.7	150	18.14	9.09	30	
cis-1,2-Dichloroethene	26.7	1.00	20.00	7.327	97.0	60	154	27.90	4.26	30	
Chloroform	20.8	1.00	20.00	0	104	48.1	140	22.43	7.75	30	
1,1,1-Trichloroethane (TCA)	21.3	1.00	20.00	0	107	64.2	146	22.73	6.41	30	
1,1-Dichloropropene	21.8	1.00	20.00	0	109	73.8	136	22.67	3.96	30	
Carbon tetrachloride	21.4	1.00	20.00	0	107	62.7	146	22.87	6.55	30	
1,2-Dichloroethane (EDC)	20.1	1.00	20.00	0	101	63.4	137	21.53	6.67	30	
Benzene	21.0	1.00	20.00	0	105	65.4	138	22.22	5.86	30	
Trichloroethene (TCE)	23.9	0.500	20.00	2.902	105	60.4	134	25.40	5.94	30	
1,2-Dichloropropane	20.3	1.00	20.00	0	101	62.6	138	21.49	5.73	30	
Bromodichloromethane	20.2	1.00	20.00	0	101	59.4	139	21.47	6.04	30	
Dibromomethane	20.4	1.00	20.00	0	102	58.7	148	21.53	5.26	30	
cis-1,3-Dichloropropene	19.3	1.00	20.00	0	96.6	63.8	132	20.38	5.37	30	
Toluene	21.1	1.00	20.00	0	106	52	147	21.49	1.70	30	
trans-1,3-Dichloropropylene	19.0	1.00	20.00	0	94.9	57.7	125	19.70	3.69	30	
1,1,2-Trichloroethane	20.4	1.00	20.00	0	102	57.5	153	21.16	3.83	30	
1,3-Dichloropropane	20.3	1.00	20.00	0	101	54.1	157	21.00	3.43	30	
Tetrachloroethene (PCE)	27.3	1.00	20.00	4.979	112	50.3	133	27.34	0.0136	30	
Dibromochloromethane	20.0	1.00	20.00	0	100	61.6	139	20.55	2.75	30	
1,2-Dibromoethane (EDB)	20.2	0.250	20.00	0	101	63.2	134	20.60	1.89	30	



Work Order: 1902289  
 CLIENT: Kane Environmental, Inc.  
 Project: BSCSS

**QC SUMMARY REPORT**  
**Volatile Organic Compounds by EPA Method 8260C**

Sample ID	1902289-001AMSD	SampType:	MSD	Units:	µg/L	Prep Date:	2/26/2019	RunNo:	49725		
Client ID:	MW-8:W	Batch ID:	23647	Analysis Date:	2/27/2019	SeqNo:	974799				
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Chlorobenzene	20.9	1.00	20.00	0	105	65.8	134	21.52	2.85	30	
1,1,1,2-Tetrachloroethane	20.2	1.00	20.00	0	101	65.4	135	21.49	6.29	30	
Ethylbenzene	22.0	1.00	20.00	0	110	64.5	136	22.56	2.68	30	
m,p-Xylene	42.1	1.00	40.00	0	105	63.3	135	42.84	1.66	30	
o-Xylene	20.6	1.00	20.00	0	103	64.8	150	20.09	2.49	30	
Styrene	20.5	1.00	20.00	0	102	52.9	163	20.70	1.17	30	
Isopropylbenzene	22.2	1.00	20.00	0	111	56	147	21.81	2.00	30	
Bromoform	19.3	2.00	20.00	0	96.4	57.7	139	19.42	0.768	30	
1,1,2,2-Tetrachloroethane	19.7	1.00	20.00	0	98.3	59.8	146	20.14	2.42	30	
n-Propylbenzene	22.3	1.00	20.00	0	111	57.6	142	22.85	2.59	30	
Bromobenzene	20.0	1.00	20.00	0	99.8	69.3	157	20.22	1.27	30	
1,3,5-Trimethylbenzene	20.6	1.00	20.00	0	103	59.9	136	21.27	3.21	30	
2-Chlorotoluene	22.6	1.00	20.00	0	113	61.7	134	23.18	2.51	30	
4-Chlorotoluene	20.2	1.00	20.00	0	101	58.4	134	20.74	2.50	30	
tert-Butylbenzene	20.8	1.00	20.00	0	104	66.8	141	21.13	1.60	30	
1,2,3-Trichloropropane	19.8	1.00	20.00	0	99.1	62.4	129	20.46	3.12	30	
1,2,4-Trichlorobenzene	21.1	2.00	20.00	0	106	50.9	133	22.12	4.52	30	
sec-Butylbenzene	22.0	1.00	20.00	0	110	56	146	22.70	2.92	30	
4-Isopropyltoluene	21.0	1.00	20.00	0	105	56.4	136	22.06	5.04	30	
1,3-Dichlorobenzene	21.3	1.00	20.00	0	106	58.2	128	21.58	1.35	30	
1,4-Dichlorobenzene	21.3	1.00	20.00	0	107	60.1	123	21.57	1.04	30	
n-Butylbenzene	22.1	1.00	20.00	0	111	54.6	135	22.20	0.263	30	
1,2-Dichlorobenzene	21.4	1.00	20.00	0	107	65.4	133	21.82	1.74	30	
1,2-Dibromo-3-chloropropane	21.0	1.00	20.00	0	105	51.8	142	22.54	6.93	30	
1,2,4-Trimethylbenzene	20.4	1.00	20.00	0	102	63.7	132	21.59	5.76	30	
Hexachloro-1,3-butadiene	21.9	4.00	20.00	0	109	58.1	130	22.51	2.83	30	
Naphthalene	22.6	1.00	20.00	0	113	50.7	154	23.45	3.87	30	
1,2,3-Trichlorobenzene	22.4	4.00	20.00	0	112	57	131	23.25	3.88	30	
Surr: Dibromofluoromethane	23.7		25.00		94.9	45.4	152		0		
Surr: Toluene-d8	25.2		25.00		101	40.1	139		0		
Surr: 1-Bromo-4-fluorobenzene	24.9		25.00		99.5	64.2	128		0		

**Work Order:** 1902289  
**CLIENT:** Kane Environmental, Inc.  
**Project:** BSCSS

**QC SUMMARY REPORT**
**Volatile Organic Compounds by EPA Method 8260C**

Sample ID	<b>1902289-001AMSD</b>	SampType:	<b>MSD</b>	Units:	<b>µg/L</b>	Prep Date:	<b>2/26/2019</b>	RunNo:	<b>49725</b>		
Client ID:	<b>MW-8:W</b>	Batch ID:	<b>23647</b>			Analysis Date:	<b>2/27/2019</b>	SeqNo:	<b>974799</b>		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

**NOTES:**

- S - Outlying spike recovery(ies) observed. A duplicate analysis was performed with similar results indicating a possible matrix effect.
- S - Outlying spike recovery(ies) observed. A duplicate analysis was performed and recovered within range (Dichlorodifluoromethane).

Client Name: **KANE**  
 Logged by: **Clare Griggs**

 Work Order Number: **1902289**  
 Date Received: **2/22/2019 3:47:00 PM**
**Chain of Custody**

1. Is Chain of Custody complete? Yes  No  Not Present
2. How was the sample delivered? Client

**Log In**

3. Coolers are present? Yes  No  NA
4. Shipping container/cooler in good condition? Yes  No
5. Custody Seals present on shipping container/cooler?  
(Refer to comments for Custody Seals not intact) Yes  No  Not Required
6. Was an attempt made to cool the samples? Yes  No  NA
7. Were all items received at a temperature of >0°C to 10.0°C \* Yes  No  NA
8. Sample(s) in proper container(s)? Yes  No
9. Sufficient sample volume for indicated test(s)? Yes  No
10. Are samples properly preserved? Yes  No
11. Was preservative added to bottles? Yes  No  NA
12. Is there headspace in the VOA vials? Yes  No  NA
13. Did all samples containers arrive in good condition(unbroken)? Yes  No
14. Does paperwork match bottle labels? Yes  No
15. Are matrices correctly identified on Chain of Custody? Yes  No
16. Is it clear what analyses were requested? Yes  No
17. Were all holding times able to be met? Yes  No

**Special Handling (if applicable)**

18. Was client notified of all discrepancies with this order? Yes  No  NA

Person Notified:	<input type="text"/>	Date	<input type="text"/>
By Whom:	<input type="text"/>	Via:	<input type="checkbox"/> eMail <input type="checkbox"/> Phone <input type="checkbox"/> Fax <input type="checkbox"/> In Person
Regarding:	<input type="text"/>		
Client Instructions:	<input type="text"/>		

19. Additional remarks:

**Item Information**

Item #	Temp °C
Cooler	5.9
Sample	3.1
Temp Blank	1.3

\* Note: DoD/ELAP and TNI require items to be received at 4°C +/- 2°C



# Fremont

ANALYTICAL

3600 Fremont Ave N.  
Seattle, WA 98103  
Tel: 206-352-3790  
Fax: 206-352-7178

## Chain of Custody Record & Laboratory Services Agreement

Date: 2/22/19 Page: 1 of 1

Project Name: BSCSS

Project No: 82302-9.7

Collected by: JJ

Location: Bothell, WA

Report To (PM): Jeff Jensen

PM Email: jeff@kane-environmental.com

Sample Disposal:  Return to client  Disposal by lab (after 30 days)

Laboratory Project No (Internal): 19072899

Special Remarks:

Client: Kane Environmental  
Address: 4015 13th Ave W  
City, State, Zip: Seattle, WA 98119  
Telephone: (206) 691-0476  
Fax:

Sample Name	Sample Date	Sample Time	Sample Type (Matrix)*	Analytes																	Comments
				VOCs (EPA 8260 / 624)	GX/BTEX	BTEX	Gasoline Range Organics (GX)	Hydrocarbon Identification (HCID)	Diesel/Heavy Oil Range Organics (DX)	SVOCs (EPA 8270 / 625)	PAHs (EPA 8270 - SIM)	PCBs (EPA 8082 / 608)	Metals** (EPA 6020 / 200.8)	Total (T)   Dissolved (D)	Anions (IC)**	EDB (8011)	TOC	Ammonia - N	RSK		

1	MW-8:W	2/22/19	1100	GW	X																			Lab Filter, RC
2	MW-6:W		1245		X																			Lab Filter
3	MW-4:W		1425		X																			Lab Filter
4																								
5																								
6																								
7																								
8																								
9																								
10																								

I represent that I am authorized to enter into this Agreement with Fremont Analytical on behalf of the Client named above and that I have verified Client's agreement to each of the terms on the front and backside of this Agreement.

Matrix: A = Air, AQ = Aqueous, B = Bulk, O = Other, P = Product, S = Soil, SD = Sediment, SL = Solid, W = Water, DW = Drinking Water, GW = Ground Water, SW = Storm Water, WW = Waste Water

Metals (Circle): MTCA-5 RCRA-8 Priority Pollutants TAL Individual: Ag Al As B Ba Be Ca Cd Co Cr Cu Fe Hg K Mg Mn Mo Na Ni Pb Sb Se Sr Sn Tl U V Zn

Anions (Circle): Nitrate Nitrite Chloride Sulfate Bromide Fluoride Nitrate+Nitrite

Turn-around Time:  Standard  3 Day  2 Day  Next Day  Same Day (specify)



**Kane Environmental, Inc.**

Jeff Jensen  
4015 13th Ave W.  
Seattle, WA 98103

**RE: BSCSS**

**Work Order Number: 1903203**

March 21, 2019

**Attention Jeff Jensen:**

Fremont Analytical, Inc. received 2 sample(s) on 3/13/2019 for the analyses presented in the following report.

***Ammonia by SM 4500 NH3G***

***Dissolved Gases by RSK-175***

***Dissolved Metals by EPA Method 200.8***

***Ion Chromatography by EPA Method 300.0***

***Total Organic Carbon by SM 5310C***

***Volatile Organic Compounds by EPA Method 8260C***

This report consists of the following:

- Case Narrative
- Analytical Results
- Applicable Quality Control Summary Reports
- Chain of Custody

All analyses were performed consistent with the Quality Assurance program of Fremont Analytical, Inc. Please contact the laboratory if you should have any questions about the results.

Thank you for using Fremont Analytical.

Sincerely,

Chelsea Ward  
Project Manager



Date: 03/21/2019

---

**CLIENT:** Kane Environmental, Inc.  
**Project:** BSCSS  
**Work Order:** 1903203

## Work Order Sample Summary

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Lab Sample ID	Client Sample ID	Date/Time Collected	Date/Time Received
1903203-001	MW-39:W	03/13/2019 12:40 PM	03/13/2019 4:00 PM
1903203-002	MW-40:W	03/13/2019 2:35 PM	03/13/2019 4:00 PM

**CLIENT:** Kane Environmental, Inc.

**Project:** BSCSS

---

**I. SAMPLE RECEIPT:**

Samples receipt information is recorded on the attached Sample Receipt Checklist.

**II. GENERAL REPORTING COMMENTS:**

Results are reported on a wet weight basis unless dry-weight correction is denoted in the units field on the analytical report ("mg/kg-dry" or "ug/kg-dry").

Matrix Spike (MS) and MS Duplicate (MSD) samples are tested from an analytical batch of "like" matrix to check for possible matrix effect. The MS and MSD will provide site specific matrix data only for those samples which are spiked by the laboratory. The sample chosen for spike purposes may or may not have been a sample submitted in this sample delivery group. The validity of the analytical procedures for which data is reported in this analytical report is determined by the Laboratory Control Sample (LCS) and the Method Blank (MB). The LCS and the MB are processed with the samples and the MS/MSD to ensure method criteria are achieved throughout the entire analytical process.

**III. ANALYSES AND EXCEPTIONS:**

Exceptions associated with this report will be footnoted in the analytical results page(s) or the quality control summary page(s) and/or noted below.

Revision 1: Per client revision, updated sample name for 1903203-001 from MW-38:W to MW-39:W.

### Qualifiers:

- \* - Flagged value is not within established control limits
- B - Analyte detected in the associated Method Blank
- D - Dilution was required
- E - Value above quantitation range
- H - Holding times for preparation or analysis exceeded
- I - Analyte with an internal standard that does not meet established acceptance criteria
- J - Analyte detected below Reporting Limit
- N - Tentatively Identified Compound (TIC)
- Q - Analyte with an initial or continuing calibration that does not meet established acceptance criteria (<20%RSD, <20% Drift or minimum RRF)
- S - Spike recovery outside accepted recovery limits
- ND - Not detected at the Reporting Limit
- R - High relative percent difference observed

### Acronyms:

- %Rec - Percent Recovery
- CCB - Continued Calibration Blank
- CCV - Continued Calibration Verification
- DF - Dilution Factor
- HEM - Hexane Extractable Material
- ICV - Initial Calibration Verification
- LCS/LCSD - Laboratory Control Sample / Laboratory Control Sample Duplicate
- MB or MBLANK - Method Blank
- MDL - Method Detection Limit
- MS/MSD - Matrix Spike / Matrix Spike Duplicate
- PDS - Post Digestion Spike
- Ref Val - Reference Value
- RL - Reporting Limit
- RPD - Relative Percent Difference
- SD - Serial Dilution
- SGT - Silica Gel Treatment
- SPK - Spike
- Surr - Surrogate





**Client:** Kane Environmental, Inc.

**Collection Date:** 3/13/2019 12:40:00 PM

**Project:** BSCSS

**Lab ID:** 1903203-001

**Matrix:** Groundwater

**Client Sample ID:** MW-39:W

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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**Dissolved Gases by RSK-175**

Batch ID: R50163      Analyst: AD

Methane	0.552	0.0863	D	mg/L	10	3/19/2019 3:07:00 PM
Ethene	ND	0.0151		mg/L	1	3/19/2019 1:55:00 PM
Ethane	ND	0.0162		mg/L	1	3/19/2019 1:55:00 PM

**Volatile Organic Compounds by EPA Method 8260C**

Batch ID: 23885      Analyst: KT

Dichlorodifluoromethane (CFC-12)	ND	1.00		µg/L	1	3/20/2019 2:01:52 PM
Chloromethane	ND	2.00	Q	µg/L	1	3/20/2019 2:01:52 PM
Vinyl chloride	ND	0.200		µg/L	1	3/20/2019 2:01:52 PM
Bromomethane	ND	1.00		µg/L	1	3/20/2019 2:01:52 PM
Trichlorofluoromethane (CFC-11)	ND	1.00		µg/L	1	3/20/2019 2:01:52 PM
Chloroethane	ND	1.00		µg/L	1	3/20/2019 2:01:52 PM
1,1-Dichloroethane	ND	1.00		µg/L	1	3/20/2019 2:01:52 PM
Methylene chloride	ND	1.00		µg/L	1	3/20/2019 2:01:52 PM
trans-1,2-Dichloroethene	ND	1.00		µg/L	1	3/20/2019 2:01:52 PM
Methyl tert-butyl ether (MTBE)	ND	1.00		µg/L	1	3/20/2019 2:01:52 PM
1,1-Dichloroethane	ND	1.00		µg/L	1	3/20/2019 2:01:52 PM
2,2-Dichloropropane	ND	2.00		µg/L	1	3/20/2019 2:01:52 PM
cis-1,2-Dichloroethene	1.99	1.00		µg/L	1	3/20/2019 2:01:52 PM
Chloroform	ND	1.00		µg/L	1	3/20/2019 2:01:52 PM
1,1,1-Trichloroethane (TCA)	ND	1.00		µg/L	1	3/20/2019 2:01:52 PM
1,1-Dichloropropene	ND	1.00		µg/L	1	3/20/2019 2:01:52 PM
Carbon tetrachloride	ND	1.00		µg/L	1	3/20/2019 2:01:52 PM
1,2-Dichloroethane (EDC)	ND	1.00		µg/L	1	3/20/2019 2:01:52 PM
Benzene	ND	1.00		µg/L	1	3/20/2019 2:01:52 PM
Trichloroethene (TCE)	ND	0.500		µg/L	1	3/20/2019 2:01:52 PM
1,2-Dichloropropane	ND	1.00		µg/L	1	3/20/2019 2:01:52 PM
Bromodichloromethane	ND	1.00		µg/L	1	3/20/2019 2:01:52 PM
Dibromomethane	ND	1.00		µg/L	1	3/20/2019 2:01:52 PM
cis-1,3-Dichloropropene	ND	1.00		µg/L	1	3/20/2019 2:01:52 PM
Toluene	ND	1.00		µg/L	1	3/20/2019 2:01:52 PM
trans-1,3-Dichloropropylene	ND	1.00		µg/L	1	3/20/2019 2:01:52 PM
1,1,2-Trichloroethane	ND	1.00		µg/L	1	3/20/2019 2:01:52 PM
1,3-Dichloropropane	ND	1.00		µg/L	1	3/20/2019 2:01:52 PM
Tetrachloroethene (PCE)	ND	1.00		µg/L	1	3/20/2019 2:01:52 PM
Dibromochloromethane	ND	1.00		µg/L	1	3/20/2019 2:01:52 PM
1,2-Dibromoethane (EDB)	ND	0.250		µg/L	1	3/20/2019 2:01:52 PM
Chlorobenzene	ND	1.00		µg/L	1	3/20/2019 2:01:52 PM
1,1,1,2-Tetrachloroethane	ND	1.00		µg/L	1	3/20/2019 2:01:52 PM



**Client:** Kane Environmental, Inc.

**Collection Date:** 3/13/2019 12:40:00 PM

**Project:** BSCSS

**Lab ID:** 1903203-001

**Matrix:** Groundwater

**Client Sample ID:** MW-39:W

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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**Volatile Organic Compounds by EPA Method 8260C**

Batch ID: 23885

Analyst: KT

Ethylbenzene	ND	1.00		µg/L	1	3/20/2019 2:01:52 PM
m,p-Xylene	ND	1.00		µg/L	1	3/20/2019 2:01:52 PM
o-Xylene	ND	1.00		µg/L	1	3/20/2019 2:01:52 PM
Styrene	ND	1.00		µg/L	1	3/20/2019 2:01:52 PM
Isopropylbenzene	ND	1.00		µg/L	1	3/20/2019 2:01:52 PM
Bromoform	ND	2.00		µg/L	1	3/20/2019 2:01:52 PM
1,1,2,2-Tetrachloroethane	ND	1.00		µg/L	1	3/20/2019 2:01:52 PM
n-Propylbenzene	ND	1.00		µg/L	1	3/20/2019 2:01:52 PM
Bromobenzene	ND	1.00		µg/L	1	3/20/2019 2:01:52 PM
1,3,5-Trimethylbenzene	ND	1.00		µg/L	1	3/20/2019 2:01:52 PM
2-Chlorotoluene	ND	1.00		µg/L	1	3/20/2019 2:01:52 PM
4-Chlorotoluene	ND	1.00		µg/L	1	3/20/2019 2:01:52 PM
tert-Butylbenzene	ND	1.00		µg/L	1	3/20/2019 2:01:52 PM
1,2,3-Trichloropropane	ND	1.00		µg/L	1	3/20/2019 2:01:52 PM
1,2,4-Trichlorobenzene	ND	2.00		µg/L	1	3/20/2019 2:01:52 PM
sec-Butylbenzene	ND	1.00		µg/L	1	3/20/2019 2:01:52 PM
4-Isopropyltoluene	ND	1.00		µg/L	1	3/20/2019 2:01:52 PM
1,3-Dichlorobenzene	ND	1.00		µg/L	1	3/20/2019 2:01:52 PM
1,4-Dichlorobenzene	ND	1.00		µg/L	1	3/20/2019 2:01:52 PM
n-Butylbenzene	ND	1.00		µg/L	1	3/20/2019 2:01:52 PM
1,2-Dichlorobenzene	ND	1.00		µg/L	1	3/20/2019 2:01:52 PM
1,2-Dibromo-3-chloropropane	ND	1.00		µg/L	1	3/20/2019 2:01:52 PM
1,2,4-Trimethylbenzene	ND	1.00		µg/L	1	3/20/2019 2:01:52 PM
Hexachloro-1,3-butadiene	ND	4.00		µg/L	1	3/20/2019 2:01:52 PM
Naphthalene	ND	1.00		µg/L	1	3/20/2019 2:01:52 PM
1,2,3-Trichlorobenzene	ND	4.00		µg/L	1	3/20/2019 2:01:52 PM
Surr: Dibromofluoromethane	101	45.4 - 152		%Rec	1	3/20/2019 2:01:52 PM
Surr: Toluene-d8	103	40.1 - 139		%Rec	1	3/20/2019 2:01:52 PM
Surr: 1-Bromo-4-fluorobenzene	100	64.2 - 128		%Rec	1	3/20/2019 2:01:52 PM

**NOTES:**

Q - Indicates an analyte with a continuing calibration that does not meet established acceptance criteria

**Ion Chromatography by EPA Method 300.0**

Batch ID: 23831

Analyst: GM

Chloride	3.76	0.200	D	mg/L	2	3/15/2019 4:25:00 PM
Sulfate	ND	0.300		mg/L	1	3/15/2019 4:48:00 PM



**Client:** Kane Environmental, Inc.

**Collection Date:** 3/13/2019 12:40:00 PM

**Project:** BSCSS

**Lab ID:** 1903203-001

**Matrix:** Groundwater

**Client Sample ID:** MW-39:W

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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**Dissolved Metals by EPA Method 200.8**

Batch ID: 23856 Analyst: WC

Iron	4,380	100		µg/L	1	3/18/2019 5:26:56 PM
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**Total Organic Carbon by SM 5310C**

Batch ID: R50145 Analyst: GM

Total Organic Carbon	4.15	0.500		mg/L	1	3/18/2019 11:04:00 PM
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**Ammonia by SM 4500 NH3G**

Batch ID: 23854 Analyst: GM

Nitrogen, Ammonia	0.445	0.100		mg/L	1	3/15/2019 2:01:00 PM
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**Client:** Kane Environmental, Inc.

**Collection Date:** 3/13/2019 2:35:00 PM

**Project:** BSCSS

**Lab ID:** 1903203-002

**Matrix:** Groundwater

**Client Sample ID:** MW-40:W

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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**Dissolved Gases by RSK-175**

Batch ID: R50163      Analyst: AD

Methane	0.00959	0.00863		mg/L	1	3/19/2019 2:45:00 PM
Ethene	ND	0.0151		mg/L	1	3/19/2019 2:45:00 PM
Ethane	ND	0.0162		mg/L	1	3/19/2019 2:45:00 PM

**Volatile Organic Compounds by EPA Method 8260C**

Batch ID: 23885      Analyst: KT

Dichlorodifluoromethane (CFC-12)	ND	1.00		µg/L	1	3/20/2019 4:35:55 PM
Chloromethane	ND	2.00	Q	µg/L	1	3/20/2019 4:35:55 PM
Vinyl chloride	ND	0.200		µg/L	1	3/20/2019 4:35:55 PM
Bromomethane	ND	1.00		µg/L	1	3/20/2019 4:35:55 PM
Trichlorofluoromethane (CFC-11)	ND	1.00		µg/L	1	3/20/2019 4:35:55 PM
Chloroethane	ND	1.00		µg/L	1	3/20/2019 4:35:55 PM
1,1-Dichloroethene	1.49	1.00		µg/L	1	3/20/2019 4:35:55 PM
Methylene chloride	ND	1.00		µg/L	1	3/20/2019 4:35:55 PM
trans-1,2-Dichloroethene	1.30	1.00		µg/L	1	3/20/2019 4:35:55 PM
Methyl tert-butyl ether (MTBE)	ND	1.00		µg/L	1	3/20/2019 4:35:55 PM
1,1-Dichloroethane	ND	1.00		µg/L	1	3/20/2019 4:35:55 PM
2,2-Dichloropropane	ND	2.00		µg/L	1	3/20/2019 4:35:55 PM
cis-1,2-Dichloroethene	746	50.0	D	µg/L	50	3/20/2019 8:41:25 PM
Chloroform	ND	1.00		µg/L	1	3/20/2019 4:35:55 PM
1,1,1-Trichloroethane (TCA)	ND	1.00		µg/L	1	3/20/2019 4:35:55 PM
1,1-Dichloropropene	ND	1.00		µg/L	1	3/20/2019 4:35:55 PM
Carbon tetrachloride	ND	1.00		µg/L	1	3/20/2019 4:35:55 PM
1,2-Dichloroethane (EDC)	ND	1.00		µg/L	1	3/20/2019 4:35:55 PM
Benzene	ND	1.00		µg/L	1	3/20/2019 4:35:55 PM
Trichloroethene (TCE)	146	5.00	D	µg/L	10	3/20/2019 1:31:11 PM
1,2-Dichloropropane	ND	1.00		µg/L	1	3/20/2019 4:35:55 PM
Bromodichloromethane	ND	1.00		µg/L	1	3/20/2019 4:35:55 PM
Dibromomethane	ND	1.00		µg/L	1	3/20/2019 4:35:55 PM
cis-1,3-Dichloropropene	ND	1.00		µg/L	1	3/20/2019 4:35:55 PM
Toluene	ND	1.00		µg/L	1	3/20/2019 4:35:55 PM
trans-1,3-Dichloropropylene	ND	1.00		µg/L	1	3/20/2019 4:35:55 PM
1,1,2-Trichloroethane	ND	1.00		µg/L	1	3/20/2019 4:35:55 PM
1,3-Dichloropropane	ND	1.00		µg/L	1	3/20/2019 4:35:55 PM
Tetrachloroethene (PCE)	213	10.0	D	µg/L	10	3/20/2019 1:31:11 PM
Dibromochloromethane	ND	1.00		µg/L	1	3/20/2019 4:35:55 PM
1,2-Dibromoethane (EDB)	ND	0.250		µg/L	1	3/20/2019 4:35:55 PM
Chlorobenzene	ND	1.00		µg/L	1	3/20/2019 4:35:55 PM
1,1,1,2-Tetrachloroethane	ND	1.00		µg/L	1	3/20/2019 4:35:55 PM



**Client:** Kane Environmental, Inc.

**Collection Date:** 3/13/2019 2:35:00 PM

**Project:** BSCSS

**Lab ID:** 1903203-002

**Matrix:** Groundwater

**Client Sample ID:** MW-40:W

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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**Volatile Organic Compounds by EPA Method 8260C**

Batch ID: 23885

Analyst: KT

Ethylbenzene	ND	1.00		µg/L	1	3/20/2019 4:35:55 PM
m,p-Xylene	ND	1.00		µg/L	1	3/20/2019 4:35:55 PM
o-Xylene	ND	1.00		µg/L	1	3/20/2019 4:35:55 PM
Styrene	ND	1.00		µg/L	1	3/20/2019 4:35:55 PM
Isopropylbenzene	ND	1.00		µg/L	1	3/20/2019 4:35:55 PM
Bromoform	ND	2.00		µg/L	1	3/20/2019 4:35:55 PM
1,1,2,2-Tetrachloroethane	ND	1.00		µg/L	1	3/20/2019 4:35:55 PM
n-Propylbenzene	ND	1.00		µg/L	1	3/20/2019 4:35:55 PM
Bromobenzene	ND	1.00		µg/L	1	3/20/2019 4:35:55 PM
1,3,5-Trimethylbenzene	ND	1.00		µg/L	1	3/20/2019 4:35:55 PM
2-Chlorotoluene	ND	1.00		µg/L	1	3/20/2019 4:35:55 PM
4-Chlorotoluene	ND	1.00		µg/L	1	3/20/2019 4:35:55 PM
tert-Butylbenzene	ND	1.00		µg/L	1	3/20/2019 4:35:55 PM
1,2,3-Trichloropropane	ND	1.00		µg/L	1	3/20/2019 4:35:55 PM
1,2,4-Trichlorobenzene	ND	2.00		µg/L	1	3/20/2019 4:35:55 PM
sec-Butylbenzene	ND	1.00		µg/L	1	3/20/2019 4:35:55 PM
4-Isopropyltoluene	ND	1.00		µg/L	1	3/20/2019 4:35:55 PM
1,3-Dichlorobenzene	ND	1.00		µg/L	1	3/20/2019 4:35:55 PM
1,4-Dichlorobenzene	ND	1.00		µg/L	1	3/20/2019 4:35:55 PM
n-Butylbenzene	ND	1.00		µg/L	1	3/20/2019 4:35:55 PM
1,2-Dichlorobenzene	ND	1.00		µg/L	1	3/20/2019 4:35:55 PM
1,2-Dibromo-3-chloropropane	ND	1.00		µg/L	1	3/20/2019 4:35:55 PM
1,2,4-Trimethylbenzene	ND	1.00		µg/L	1	3/20/2019 4:35:55 PM
Hexachloro-1,3-butadiene	ND	4.00		µg/L	1	3/20/2019 4:35:55 PM
Naphthalene	ND	1.00		µg/L	1	3/20/2019 4:35:55 PM
1,2,3-Trichlorobenzene	ND	4.00		µg/L	1	3/20/2019 4:35:55 PM
Surr: Dibromofluoromethane	93.0	45.4 - 152		%Rec	1	3/20/2019 4:35:55 PM
Surr: Toluene-d8	103	40.1 - 139		%Rec	1	3/20/2019 4:35:55 PM
Surr: 1-Bromo-4-fluorobenzene	97.8	64.2 - 128		%Rec	1	3/20/2019 4:35:55 PM

**NOTES:**

Q - Indicates an analyte with a continuing calibration that does not meet established acceptance criteria

**Ion Chromatography by EPA Method 300.0**

Batch ID: 23831

Analyst: GM

Chloride	2.08	0.100		mg/L	1	3/15/2019 5:11:00 PM
Sulfate	0.819	0.300		mg/L	1	3/15/2019 5:11:00 PM



**Client:** Kane Environmental, Inc.

**Collection Date:** 3/13/2019 2:35:00 PM

**Project:** BSCSS

**Lab ID:** 1903203-002

**Matrix:** Groundwater

**Client Sample ID:** MW-40:W

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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**Dissolved Metals by EPA Method 200.8**

Batch ID: 23856 Analyst: WC

Iron	ND	100		µg/L	1	3/18/2019 5:31:13 PM
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**Total Organic Carbon by SM 5310C**

Batch ID: R50145 Analyst: GM

Total Organic Carbon	2.03	0.500		mg/L	1	3/19/2019 12:29:00 AM
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**Ammonia by SM 4500 NH3G**

Batch ID: 23854 Analyst: GM

Nitrogen, Ammonia	ND	0.100		mg/L	1	3/15/2019 2:06:00 PM
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Work Order: 1903203  
 CLIENT: Kane Environmental, Inc.  
 Project: BSCSS

**QC SUMMARY REPORT**  
**Ammonia by SM 4500 NH3G**

Sample ID: <b>MB-23854</b>	SampType: <b>MBLK</b>	Units: <b>mg/L</b>			Prep Date: <b>3/15/2019</b>	RunNo: <b>50092</b>					
Client ID: <b>MBLKW</b>	Batch ID: <b>23854</b>				Analysis Date: <b>3/15/2019</b>	SeqNo: <b>983214</b>					
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Nitrogen, Ammonia ND 0.100

Sample ID: <b>LCS-23854</b>	SampType: <b>LCS</b>	Units: <b>mg/L</b>			Prep Date: <b>3/15/2019</b>	RunNo: <b>50092</b>					
Client ID: <b>LCSW</b>	Batch ID: <b>23854</b>				Analysis Date: <b>3/15/2019</b>	SeqNo: <b>983215</b>					
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Nitrogen, Ammonia 0.522 0.100 0.5000 0 104 80 120

Sample ID: <b>1903181-001EDUP</b>	SampType: <b>DUP</b>	Units: <b>mg/L</b>			Prep Date: <b>3/15/2019</b>	RunNo: <b>50092</b>					
Client ID: <b>BATCH</b>	Batch ID: <b>23854</b>				Analysis Date: <b>3/15/2019</b>	SeqNo: <b>983237</b>					
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Nitrogen, Ammonia 1.84 0.200 1.698 7.92 30 D

Sample ID: <b>1903181-001EMS</b>	SampType: <b>MS</b>	Units: <b>mg/L</b>			Prep Date: <b>3/15/2019</b>	RunNo: <b>50092</b>					
Client ID: <b>BATCH</b>	Batch ID: <b>23854</b>				Analysis Date: <b>3/15/2019</b>	SeqNo: <b>983238</b>					
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Nitrogen, Ammonia 3.01 0.200 1.000 1.698 131 70 130 DS

**NOTES:**

S - Outlying spike recovery(ies) observed. A duplicate analysis was performed and recovered within range.

Sample ID: <b>1903181-001EMSD</b>	SampType: <b>MSD</b>	Units: <b>mg/L</b>			Prep Date: <b>3/15/2019</b>	RunNo: <b>50092</b>					
Client ID: <b>BATCH</b>	Batch ID: <b>23854</b>				Analysis Date: <b>3/15/2019</b>	SeqNo: <b>983239</b>					
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Nitrogen, Ammonia 2.94 0.200 1.000 1.698 124 70 130 3.008 2.42 30 D

Work Order: 1903203  
 CLIENT: Kane Environmental, Inc.  
 Project: BSCSS

**QC SUMMARY REPORT**  
**Ion Chromatography by EPA Method 300.0**

Sample ID: <b>MB-23831</b>	SampType: <b>MBLK</b>	Units: <b>mg/L</b>			Prep Date: <b>3/14/2019</b>	RunNo: <b>50091</b>					
Client ID: <b>MBLKW</b>	Batch ID: <b>23831</b>				Analysis Date: <b>3/15/2019</b>	SeqNo: <b>983211</b>					
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Chloride	ND	0.100									
Sulfate	ND	0.300									

Sample ID: <b>LCS-23831</b>	SampType: <b>LCS</b>	Units: <b>mg/L</b>			Prep Date: <b>3/14/2019</b>	RunNo: <b>50091</b>					
Client ID: <b>LCSW</b>	Batch ID: <b>23831</b>				Analysis Date: <b>3/15/2019</b>	SeqNo: <b>983201</b>					
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Chloride	0.712	0.100	0.7500	0	94.9	90	110				
Sulfate	3.58	0.300	3.750	0	95.6	90	110				

Sample ID: <b>1903196-001ADUP</b>	SampType: <b>DUP</b>	Units: <b>mg/L</b>			Prep Date: <b>3/14/2019</b>	RunNo: <b>50091</b>					
Client ID: <b>BATCH</b>	Batch ID: <b>23831</b>				Analysis Date: <b>3/15/2019</b>	SeqNo: <b>983205</b>					
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Chloride	21.8	1.00						21.88	0.275	20	D
Sulfate	28.8	3.00						28.94	0.381	20	D

Sample ID: <b>1903196-001AMS</b>	SampType: <b>MS</b>	Units: <b>mg/L</b>			Prep Date: <b>3/14/2019</b>	RunNo: <b>50091</b>					
Client ID: <b>BATCH</b>	Batch ID: <b>23831</b>				Analysis Date: <b>3/15/2019</b>	SeqNo: <b>983206</b>					
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Chloride	30.1	1.00	7.500	21.88	110	80	120				DE
Sulfate	67.1	3.00	37.50	28.94	102	80	120				D

**NOTES:**

E - Estimated value. The amount exceeds the linear working range of the instrument.



**Work Order:** 1903203  
**CLIENT:** Kane Environmental, Inc.  
**Project:** BSCSS

**QC SUMMARY REPORT**  
**Ion Chromatography by EPA Method 300.0**

Sample ID: <b>1903196-001AMSD</b>	SampType: <b>MSD</b>	Units: <b>mg/L</b>	Prep Date: <b>3/14/2019</b>	RunNo: <b>50091</b>							
Client ID: <b>BATCH</b>	Batch ID: <b>23831</b>		Analysis Date: <b>3/15/2019</b>	SeqNo: <b>983207</b>							
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Chloride	30.8	1.00	7.500	21.88	118	80	120	30.10	2.14	20	DE
Sulfate	70.3	3.00	37.50	28.94	110	80	120	67.06	4.69	20	D

**NOTES:**

E - Estimated value. The amount exceeds the linear working range of the instrument.

**Work Order:** 1903203  
**CLIENT:** Kane Environmental, Inc.  
**Project:** BSCSS

**QC SUMMARY REPORT**  
**Total Organic Carbon by SM 5310C**

Sample ID: <b>MB-50145B</b>	SampType: <b>MBLK</b>	Units: <b>mg/L</b>			Prep Date: <b>3/18/2019</b>	RunNo: <b>50145</b>					
Client ID: <b>MBLKW</b>	Batch ID: <b>R50145</b>				Analysis Date: <b>3/18/2019</b>	SeqNo: <b>984556</b>					
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Total Organic Carbon	ND	0.500									

Sample ID: <b>LCS-50145</b>	SampType: <b>LCS</b>	Units: <b>mg/L</b>			Prep Date: <b>3/18/2019</b>	RunNo: <b>50145</b>					
Client ID: <b>LCSW</b>	Batch ID: <b>R50145</b>				Analysis Date: <b>3/18/2019</b>	SeqNo: <b>984557</b>					
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Total Organic Carbon	4.93	0.500	5.000	0	98.7	80	120				

Sample ID: <b>1903203-001DDUP</b>	SampType: <b>DUP</b>	Units: <b>mg/L</b>			Prep Date: <b>3/18/2019</b>	RunNo: <b>50145</b>					
Client ID: <b>MW-39:W</b>	Batch ID: <b>R50145</b>				Analysis Date: <b>3/18/2019</b>	SeqNo: <b>984561</b>					
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Total Organic Carbon	4.04	0.500						4.151	2.66	20	

Sample ID: <b>1903203-001DMS</b>	SampType: <b>MS</b>	Units: <b>mg/L</b>			Prep Date: <b>3/18/2019</b>	RunNo: <b>50145</b>					
Client ID: <b>MW-39:W</b>	Batch ID: <b>R50145</b>				Analysis Date: <b>3/18/2019</b>	SeqNo: <b>984562</b>					
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Total Organic Carbon	8.78	0.500	5.000	4.151	92.7	70	130				

Sample ID: <b>1903203-001DMSD</b>	SampType: <b>MSD</b>	Units: <b>mg/L</b>			Prep Date: <b>3/19/2019</b>	RunNo: <b>50145</b>					
Client ID: <b>MW-39:W</b>	Batch ID: <b>R50145</b>				Analysis Date: <b>3/19/2019</b>	SeqNo: <b>984563</b>					
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Total Organic Carbon	8.86	0.500	5.000	4.151	94.3	70	130	8.784	0.907	30	

Work Order: 1903203  
 CLIENT: Kane Environmental, Inc.  
 Project: BSCSS

**QC SUMMARY REPORT**  
**Dissolved Metals by EPA Method 200.8**

Sample ID: <b>MB-23856</b>	SampType: <b>MBLK</b>	Units: <b>µg/L</b>	Prep Date: <b>3/18/2019</b>	RunNo: <b>50129</b>							
Client ID: <b>MBLKW</b>	Batch ID: <b>23856</b>	Analysis Date: <b>3/18/2019</b>	SeqNo: <b>984321</b>								
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Iron ND 100

Sample ID: <b>LCS-23856</b>	SampType: <b>LCS</b>	Units: <b>µg/L</b>	Prep Date: <b>3/18/2019</b>	RunNo: <b>50129</b>							
Client ID: <b>LCSW</b>	Batch ID: <b>23856</b>	Analysis Date: <b>3/18/2019</b>	SeqNo: <b>984322</b>								
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Iron 943 100 1,000 0 94.3 50 150

Sample ID: <b>1903177-002ADUP</b>	SampType: <b>DUP</b>	Units: <b>µg/L</b>	Prep Date: <b>3/18/2019</b>	RunNo: <b>50129</b>							
Client ID: <b>BATCH</b>	Batch ID: <b>23856</b>	Analysis Date: <b>3/18/2019</b>	SeqNo: <b>984324</b>								
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Iron 6,020 100 6,487 7.50 30

Sample ID: <b>1903177-002AMS</b>	SampType: <b>MS</b>	Units: <b>µg/L</b>	Prep Date: <b>3/18/2019</b>	RunNo: <b>50129</b>							
Client ID: <b>BATCH</b>	Batch ID: <b>23856</b>	Analysis Date: <b>3/18/2019</b>	SeqNo: <b>984325</b>								
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Iron 11,000 100 5,000 6,487 90.3 50 150

Sample ID: <b>1903177-002AMSD</b>	SampType: <b>MSD</b>	Units: <b>µg/L</b>	Prep Date: <b>3/18/2019</b>	RunNo: <b>50129</b>							
Client ID: <b>BATCH</b>	Batch ID: <b>23856</b>	Analysis Date: <b>3/18/2019</b>	SeqNo: <b>984326</b>								
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Iron 10,900 100 5,000 6,487 87.8 50 150 11,000 1.13 30



**Work Order:** 1903203  
**CLIENT:** Kane Environmental, Inc.  
**Project:** BSCSS

**QC SUMMARY REPORT**  
**Dissolved Metals by EPA Method 200.8**

Sample ID: <b>MB-23837FB</b>	SampType: <b>MBLK</b>	Units: <b>µg/L</b>	Prep Date: <b>3/18/2019</b>	RunNo: <b>50129</b>							
Client ID: <b>MBLKW</b>	Batch ID: <b>23856</b>	Analysis Date: <b>3/18/2019</b>	SeqNo: <b>984350</b>								
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Iron ND 100

**NOTES:**  
Filter Blank

Work Order: 1903203  
 CLIENT: Kane Environmental, Inc.  
 Project: BSCSS

**QC SUMMARY REPORT**  
**Dissolved Gases by RSK-175**

Sample ID: <b>MB-R50163</b>	SampType: <b>MBLK</b>	Units: <b>mg/L</b>	Prep Date: <b>3/19/2019</b>	RunNo: <b>50163</b>							
Client ID: <b>MBLKW</b>	Batch ID: <b>R50163</b>		Analysis Date: <b>3/19/2019</b>	SeqNo: <b>984857</b>							
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Methane	ND	0.00863									
Ethene	ND	0.0151									
Ethane	ND	0.0162									

Sample ID: <b>LCS-R50163</b>	SampType: <b>LCS</b>	Units: <b>mg/L</b>	Prep Date: <b>3/19/2019</b>	RunNo: <b>50163</b>							
Client ID: <b>LCSW</b>	Batch ID: <b>R50163</b>		Analysis Date: <b>3/19/2019</b>	SeqNo: <b>984856</b>							
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Methane	1,050	0.00863	1,000	0	105	70	130				
Ethene	1,060	0.0151	1,000	0	106	70	130				
Ethane	1,050	0.0162	1,000	0	105	70	130				

Sample ID: <b>1903203-001FREP</b>	SampType: <b>REP</b>	Units: <b>mg/L</b>	Prep Date: <b>3/19/2019</b>	RunNo: <b>50163</b>							
Client ID: <b>MW-39:W</b>	Batch ID: <b>R50163</b>		Analysis Date: <b>3/19/2019</b>	SeqNo: <b>984849</b>							
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Methane	0.409	0.00863						0.3073	28.4	30	E
Ethene	ND	0.0151						0		30	
Ethane	ND	0.0162						0		30	

**NOTES:**

E - Estimated value. The amount exceeds the linear working range of the instrument.

Work Order: 1903203  
 CLIENT: Kane Environmental, Inc.  
 Project: BSCSS

**QC SUMMARY REPORT**  
**Volatile Organic Compounds by EPA Method 8260C**

Sample ID: LCS-23885	SampType: LCS	Units: µg/L				Prep Date: 3/19/2019	RunNo: 50190				
Client ID: LCSW	Batch ID: 23885					Analysis Date: 3/20/2019	SeqNo: 985671				
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Dichlorodifluoromethane (CFC-12)	21.8	1.00	20.00	0	109	18.7	171				
Chloromethane	15.3	2.00	20.00	0	76.4	38.5	171				
Vinyl chloride	20.5	0.200	20.00	0	102	48	145				
Bromomethane	45.5	1.00	20.00	0	227	32.5	184				S
Trichlorofluoromethane (CFC-11)	22.3	1.00	20.00	0	111	43.5	149				
Chloroethane	21.7	1.00	20.00	0	108	43.8	168				
1,1-Dichloroethene	22.0	1.00	20.00	0	110	57.5	150				
Methylene chloride	21.5	1.00	20.00	0	108	67.1	131				
trans-1,2-Dichloroethene	21.6	1.00	20.00	0	108	71.7	129				
Methyl tert-butyl ether (MTBE)	21.7	1.00	20.00	0	108	58	138				
1,1-Dichloroethane	21.7	1.00	20.00	0	109	67.9	134				
2,2-Dichloropropane	23.3	2.00	20.00	0	116	26.5	185				
cis-1,2-Dichloroethene	21.5	1.00	20.00	0	108	70.2	139				
Chloroform	22.0	1.00	20.00	0	110	66.3	131				
1,1,1-Trichloroethane (TCA)	22.1	1.00	20.00	0	110	63	140				
1,1-Dichloropropene	21.8	1.00	20.00	0	109	69.9	124				
Carbon tetrachloride	21.8	1.00	20.00	0	109	66.2	134				
1,2-Dichloroethane (EDC)	22.0	1.00	20.00	0	110	67	126				
Benzene	21.9	1.00	20.00	0	110	69.3	132				
Trichloroethene (TCE)	22.6	0.500	20.00	0	113	65.2	136				
1,2-Dichloropropane	21.7	1.00	20.00	0	108	70.5	130				
Bromodichloromethane	21.9	1.00	20.00	0	109	67.2	137				
Dibromomethane	21.9	1.00	20.00	0	109	69.3	143				
cis-1,3-Dichloropropene	21.1	1.00	20.00	0	105	62.6	137				
Toluene	21.8	1.00	20.00	0	109	61.3	145				
trans-1,3-Dichloropropylene	20.6	1.00	20.00	0	103	56.5	163				
1,1,2-Trichloroethane	21.2	1.00	20.00	0	106	71.7	131				
1,3-Dichloropropane	21.1	1.00	20.00	0	106	73.5	127				
Tetrachloroethene (PCE)	20.8	1.00	20.00	0	104	47.5	147				
Dibromochloromethane	20.8	1.00	20.00	0	104	67.2	134				
1,2-Dibromoethane (EDB)	20.8	0.250	20.00	0	104	73.6	125				

Work Order: 1903203  
 CLIENT: Kane Environmental, Inc.  
 Project: BSCSS

**QC SUMMARY REPORT**  
**Volatile Organic Compounds by EPA Method 8260C**

Sample ID: LCS-23885	SampType: LCS	Units: µg/L				Prep Date: 3/19/2019	RunNo: 50190				
Client ID: LCSW	Batch ID: 23885					Analysis Date: 3/20/2019	SeqNo: 985671				
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Chlorobenzene	21.3	1.00	20.00	0	106	73.9	126				
1,1,1,2-Tetrachloroethane	20.5	1.00	20.00	0	102	76.8	124				
Ethylbenzene	22.4	1.00	20.00	0	112	72	130				
m,p-Xylene	42.5	1.00	40.00	0	106	70.3	134				
o-Xylene	20.8	1.00	20.00	0	104	72.1	131				
Styrene	21.1	1.00	20.00	0	106	64.3	140				
Isopropylbenzene	22.1	1.00	20.00	0	110	73.9	128				
Bromoform	19.1	2.00	20.00	0	95.3	55.3	141				
1,1,2,2-Tetrachloroethane	19.3	1.00	20.00	0	96.7	62.9	132				
n-Propylbenzene	22.7	1.00	20.00	0	113	74.5	127				
Bromobenzene	20.0	1.00	20.00	0	100	71	131				
1,3,5-Trimethylbenzene	21.0	1.00	20.00	0	105	73.1	128				
2-Chlorotoluene	23.4	1.00	20.00	0	117	70.8	130				
4-Chlorotoluene	21.0	1.00	20.00	0	105	70.1	131				
tert-Butylbenzene	20.1	1.00	20.00	0	101	68.2	131				
1,2,3-Trichloropropane	20.5	1.00	20.00	0	102	67.7	131				
1,2,4-Trichlorobenzene	20.6	2.00	20.00	0	103	41	139				
sec-Butylbenzene	21.7	1.00	20.00	0	109	72	129				
4-Isopropyltoluene	20.9	1.00	20.00	0	104	69.2	130				
1,3-Dichlorobenzene	21.7	1.00	20.00	0	108	69.5	128				
1,4-Dichlorobenzene	21.9	1.00	20.00	0	110	66.8	119				
n-Butylbenzene	22.2	1.00	20.00	0	111	73.8	127				
1,2-Dichlorobenzene	21.3	1.00	20.00	0	106	69.7	119				
1,2-Dibromo-3-chloropropane	21.2	1.00	20.00	0	106	63.1	136				
1,2,4-Trimethylbenzene	21.1	1.00	20.00	0	106	73.4	127				
Hexachloro-1,3-butadiene	20.7	4.00	20.00	0	104	58.6	138				
Naphthalene	21.0	1.00	20.00	0	105	41.8	165				
1,2,3-Trichlorobenzene	20.9	4.00	20.00	0	105	35.8	155				
Surr: Dibromofluoromethane	24.6		25.00		98.5	45.4	152				
Surr: Toluene-d8	25.8		25.00		103	40.1	139				
Surr: 1-Bromo-4-fluorobenzene	25.3		25.00		101	64.2	128				

Work Order: 1903203  
 CLIENT: Kane Environmental, Inc.  
 Project: BSCSS

**QC SUMMARY REPORT**  
**Volatile Organic Compounds by EPA Method 8260C**

Sample ID: <b>LCS-23885</b>	SampType: <b>LCS</b>	Units: <b>µg/L</b>	Prep Date: <b>3/19/2019</b>	RunNo: <b>50190</b>							
Client ID: <b>LCSW</b>	Batch ID: <b>23885</b>		Analysis Date: <b>3/20/2019</b>	SeqNo: <b>985671</b>							
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Sample ID: <b>MB-23885</b>	SampType: <b>MBLK</b>	Units: <b>µg/L</b>	Prep Date: <b>3/19/2019</b>	RunNo: <b>50190</b>							
Client ID: <b>MBLKW</b>	Batch ID: <b>23885</b>		Analysis Date: <b>3/20/2019</b>	SeqNo: <b>985673</b>							
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Dichlorodifluoromethane (CFC-12)	ND	1.00									
Chloromethane	ND	2.00									Q
Vinyl chloride	ND	0.200									
Bromomethane	ND	1.00									
Trichlorofluoromethane (CFC-11)	ND	1.00									
Chloroethane	ND	1.00									
1,1-Dichloroethene	ND	1.00									
Methylene chloride	ND	1.00									
trans-1,2-Dichloroethene	ND	1.00									
Methyl tert-butyl ether (MTBE)	ND	1.00									
1,1-Dichloroethane	ND	1.00									
2,2-Dichloropropane	ND	2.00									
cis-1,2-Dichloroethene	ND	1.00									
Chloroform	ND	1.00									
1,1,1-Trichloroethane (TCA)	ND	1.00									
1,1-Dichloropropene	ND	1.00									
Carbon tetrachloride	ND	1.00									
1,2-Dichloroethane (EDC)	ND	1.00									
Benzene	ND	1.00									
Trichloroethene (TCE)	ND	0.500									
1,2-Dichloropropane	ND	1.00									
Bromodichloromethane	ND	1.00									
Dibromomethane	ND	1.00									
cis-1,3-Dichloropropene	ND	1.00									
Toluene	ND	1.00									



**Work Order:** 1903203  
**CLIENT:** Kane Environmental, Inc.  
**Project:** BSCSS

**QC SUMMARY REPORT**  
**Volatile Organic Compounds by EPA Method 8260C**

Sample ID: <b>MB-23885</b>	SampType: <b>MBLK</b>	Units: <b>µg/L</b>	Prep Date: <b>3/19/2019</b>	RunNo: <b>50190</b>							
Client ID: <b>MBLKW</b>	Batch ID: <b>23885</b>		Analysis Date: <b>3/20/2019</b>	SeqNo: <b>985673</b>							
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

trans-1,3-Dichloropropylene	ND	1.00									
1,1,2-Trichloroethane	ND	1.00									
1,3-Dichloropropane	ND	1.00									
Tetrachloroethene (PCE)	ND	1.00									
Dibromochloromethane	ND	1.00									
1,2-Dibromoethane (EDB)	ND	0.250									
Chlorobenzene	ND	1.00									
1,1,1,2-Tetrachloroethane	ND	1.00									
Ethylbenzene	ND	1.00									
m,p-Xylene	ND	1.00									
o-Xylene	ND	1.00									
Styrene	ND	1.00									
Isopropylbenzene	ND	1.00									
Bromoform	ND	2.00									
1,1,1,2,2-Tetrachloroethane	ND	1.00									
n-Propylbenzene	ND	1.00									
Bromobenzene	ND	1.00									
1,3,5-Trimethylbenzene	ND	1.00									
2-Chlorotoluene	ND	1.00									
4-Chlorotoluene	ND	1.00									
tert-Butylbenzene	ND	1.00									
1,2,3-Trichloropropane	ND	1.00									
1,2,4-Trichlorobenzene	ND	2.00									
sec-Butylbenzene	ND	1.00									
4-Isopropyltoluene	ND	1.00									
1,3-Dichlorobenzene	ND	1.00									
1,4-Dichlorobenzene	ND	1.00									
n-Butylbenzene	ND	1.00									
1,2-Dichlorobenzene	ND	1.00									
1,2-Dibromo-3-chloropropane	ND	1.00									
1,2,4-Trimethylbenzene	ND	1.00									

Work Order: 1903203  
 CLIENT: Kane Environmental, Inc.  
 Project: BSCSS

**QC SUMMARY REPORT**  
**Volatile Organic Compounds by EPA Method 8260C**

Sample ID: <b>MB-23885</b>	SampType: <b>MBLK</b>	Units: <b>µg/L</b>	Prep Date: <b>3/19/2019</b>	RunNo: <b>50190</b>							
Client ID: <b>MBLKW</b>	Batch ID: <b>23885</b>		Analysis Date: <b>3/20/2019</b>	SeqNo: <b>985673</b>							
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Hexachloro-1,3-butadiene	ND	4.00									
Naphthalene	ND	1.00									
1,2,3-Trichlorobenzene	ND	4.00									
Surr: Dibromofluoromethane	24.6		25.00		98.3	45.4	152				
Surr: Toluene-d8	25.6		25.00		102	40.1	139				
Surr: 1-Bromo-4-fluorobenzene	24.9		25.00		99.7	64.2	128				

Sample ID: <b>1903179-001ADUP</b>	SampType: <b>DUP</b>	Units: <b>µg/L</b>	Prep Date: <b>3/19/2019</b>	RunNo: <b>50190</b>							
Client ID: <b>BATCH</b>	Batch ID: <b>23885</b>		Analysis Date: <b>3/20/2019</b>	SeqNo: <b>985657</b>							
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Dichlorodifluoromethane (CFC-12)	ND	1.00						0		30	
Chloromethane	ND	2.00						0		30	Q
Vinyl chloride	ND	0.200						0		30	
Bromomethane	ND	1.00						0		30	
Trichlorofluoromethane (CFC-11)	ND	1.00						0		30	
Chloroethane	ND	1.00						0		30	
1,1-Dichloroethene	ND	1.00						0		30	
Methylene chloride	ND	1.00						0		30	
trans-1,2-Dichloroethene	ND	1.00						0		30	
Methyl tert-butyl ether (MTBE)	ND	1.00						0		30	
1,1-Dichloroethane	ND	1.00						0		30	
2,2-Dichloropropane	ND	2.00						0		30	
cis-1,2-Dichloroethene	ND	1.00						0		30	
Chloroform	ND	1.00						0		30	
1,1,1-Trichloroethane (TCA)	ND	1.00						0		30	
1,1-Dichloropropene	ND	1.00						0		30	
Carbon tetrachloride	ND	1.00						0		30	
1,2-Dichloroethane (EDC)	ND	1.00						0		30	
Benzene	ND	1.00						0		30	

Work Order: 1903203  
 CLIENT: Kane Environmental, Inc.  
 Project: BSCSS

**QC SUMMARY REPORT**  
**Volatile Organic Compounds by EPA Method 8260C**

Sample ID: 1903179-001ADUP	SampType: DUP	Units: µg/L	Prep Date: 3/19/2019	RunNo: 50190							
Client ID: BATCH	Batch ID: 23885		Analysis Date: 3/20/2019	SeqNo: 985657							
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Trichloroethene (TCE)	ND	0.500						0		30	
1,2-Dichloropropane	ND	1.00						0		30	
Bromodichloromethane	ND	1.00						0		30	
Dibromomethane	ND	1.00						0		30	
cis-1,3-Dichloropropene	ND	1.00						0		30	
Toluene	ND	1.00						0		30	
trans-1,3-Dichloropropylene	ND	1.00						0		30	
1,1,2-Trichloroethane	ND	1.00						0		30	
1,3-Dichloropropane	ND	1.00						0		30	
Tetrachloroethene (PCE)	ND	1.00						0		30	
Dibromochloromethane	ND	1.00						0		30	
1,2-Dibromoethane (EDB)	ND	0.250						0		30	
Chlorobenzene	ND	1.00						0		30	
1,1,1,2-Tetrachloroethane	ND	1.00						0		30	
Ethylbenzene	ND	1.00						0		30	
m,p-Xylene	ND	1.00						0		30	
o-Xylene	ND	1.00						0		30	
Styrene	ND	1.00						0		30	
Isopropylbenzene	ND	1.00						0		30	
Bromoform	ND	2.00						0		30	
1,1,1,2-Tetrachloroethane	ND	1.00						0		30	
n-Propylbenzene	ND	1.00						0		30	
Bromobenzene	ND	1.00						0		30	
1,3,5-Trimethylbenzene	ND	1.00						0		30	
2-Chlorotoluene	ND	1.00						0		30	
4-Chlorotoluene	ND	1.00						0		30	
tert-Butylbenzene	ND	1.00						0		30	
1,2,3-Trichloropropane	ND	1.00						0		30	
1,2,4-Trichlorobenzene	ND	2.00						0		30	
sec-Butylbenzene	ND	1.00						0		30	
4-Isopropyltoluene	ND	1.00						0		30	

Work Order: 1903203  
 CLIENT: Kane Environmental, Inc.  
 Project: BSCSS

**QC SUMMARY REPORT**  
**Volatile Organic Compounds by EPA Method 8260C**

Sample ID: <b>1903179-001ADUP</b>	SampType: <b>DUP</b>	Units: <b>µg/L</b>			Prep Date: <b>3/19/2019</b>	RunNo: <b>50190</b>					
Client ID: <b>BATCH</b>	Batch ID: <b>23885</b>				Analysis Date: <b>3/20/2019</b>	SeqNo: <b>985657</b>					
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,3-Dichlorobenzene	ND	1.00						0		30	
1,4-Dichlorobenzene	ND	1.00						0		30	
n-Butylbenzene	ND	1.00						0		30	
1,2-Dichlorobenzene	ND	1.00						0		30	
1,2-Dibromo-3-chloropropane	ND	1.00						0		30	
1,2,4-Trimethylbenzene	ND	1.00						0		30	
Hexachloro-1,3-butadiene	ND	4.00						0		30	
Naphthalene	ND	1.00						0		30	
1,2,3-Trichlorobenzene	ND	4.00						0		30	
Surr: Dibromofluoromethane	23.2		25.00		92.7	45.4	152		0		
Surr: Toluene-d8	25.4		25.00		102	40.1	139		0		
Surr: 1-Bromo-4-fluorobenzene	21.4		25.00		85.6	64.2	128		0		

Sample ID: <b>LCSD-23885</b>	SampType: <b>LCSD</b>	Units: <b>µg/L</b>			Prep Date: <b>3/19/2019</b>	RunNo: <b>50190</b>					
Client ID: <b>LCSW02</b>	Batch ID: <b>23885</b>				Analysis Date: <b>3/20/2019</b>	SeqNo: <b>985672</b>					
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Dichlorodifluoromethane (CFC-12)	19.3	1.00	20.00	0	96.6	18.7	171	21.83	12.2	20	
Chloromethane	14.4	2.00	20.00	0	72.0	38.5	171	15.28	5.93	20	
Vinyl chloride	19.9	0.200	20.00	0	99.3	48	145	20.45	2.93	20	
Bromomethane	42.6	1.00	20.00	0	213	32.5	184	45.48	6.49	20	S
Trichlorofluoromethane (CFC-11)	22.2	1.00	20.00	0	111	43.5	149	22.25	0.160	20	
Chloroethane	21.9	1.00	20.00	0	110	43.8	168	21.66	1.13	20	
1,1-Dichloroethene	21.8	1.00	20.00	0	109	57.5	150	21.95	0.465	20	
Methylene chloride	21.5	1.00	20.00	0	107	67.1	131	21.54	0.354	20	
trans-1,2-Dichloroethene	21.3	1.00	20.00	0	107	71.7	129	21.55	1.12	20	
Methyl tert-butyl ether (MTBE)	21.2	1.00	20.00	0	106	58	138	21.68	2.21	20	
1,1-Dichloroethane	21.6	1.00	20.00	0	108	67.9	134	21.72	0.723	20	
2,2-Dichloropropane	22.4	2.00	20.00	0	112	26.5	185	23.27	3.83	20	
cis-1,2-Dichloroethene	21.3	1.00	20.00	0	106	70.2	139	21.51	1.10	20	

Work Order: 1903203  
 CLIENT: Kane Environmental, Inc.  
 Project: BSCSS

**QC SUMMARY REPORT**  
**Volatile Organic Compounds by EPA Method 8260C**

Sample ID: LCSD-23885	SampType: LCSD	Units: µg/L				Prep Date: 3/19/2019	RunNo: 50190				
Client ID: LCSW02	Batch ID: 23885					Analysis Date: 3/20/2019	SeqNo: 985672				
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Chloroform	22.0	1.00	20.00	0	110	66.3	131	22.01	0.110	20	
1,1,1-Trichloroethane (TCA)	22.0	1.00	20.00	0	110	63	140	22.06	0.171	20	
1,1-Dichloropropene	22.0	1.00	20.00	0	110	69.9	124	21.75	1.03	20	
Carbon tetrachloride	22.1	1.00	20.00	0	110	66.2	134	21.77	1.28	20	
1,2-Dichloroethane (EDC)	21.7	1.00	20.00	0	108	68.8	123	22.03	1.65	20	
Benzene	24.9	1.00	20.00	0	124	69.3	132	21.94	12.5	20	
Trichloroethene (TCE)	22.5	0.500	20.00	0	112	65.2	136	22.64	0.698	20	
1,2-Dichloropropane	21.4	1.00	20.00	0	107	70.5	130	21.67	1.39	20	
Bromodichloromethane	21.7	1.00	20.00	0	108	74.6	127	21.89	0.875	20	
Dibromomethane	21.7	1.00	20.00	0	108	69.3	143	21.90	1.10	20	
cis-1,3-Dichloropropene	20.9	1.00	20.00	0	105	62.6	137	21.07	0.704	20	
Toluene	24.8	1.00	20.00	0	124	61.3	145	21.76	13.0	20	
trans-1,3-Dichloropropylene	20.5	1.00	20.00	0	102	56.5	163	20.59	0.576	20	
1,1,2-Trichloroethane	21.2	1.00	20.00	0	106	71.7	131	21.24	0.0826	20	
1,3-Dichloropropane	21.0	1.00	20.00	0	105	73.5	127	21.12	0.605	20	
Tetrachloroethene (PCE)	21.2	1.00	20.00	0	106	47.5	147	20.80	2.14	20	
Dibromochloromethane	20.5	1.00	20.00	0	102	67.2	134	20.77	1.34	20	
1,2-Dibromoethane (EDB)	20.8	0.250	20.00	0	104	73.6	125	20.76	0.385	20	
Chlorobenzene	21.1	1.00	20.00	0	105	73.9	126	21.26	0.830	20	
1,1,1,2-Tetrachloroethane	20.3	1.00	20.00	0	101	76.8	124	20.47	0.949	20	
Ethylbenzene	25.7	1.00	20.00	0	129	72	130	22.38	13.9	20	
m,p-Xylene	48.1	1.00	40.00	0	120	70.3	134	42.54	12.2	20	
o-Xylene	23.6	1.00	20.00	0	118	72.1	131	20.80	12.4	20	
Styrene	20.9	1.00	20.00	0	105	64.3	140	21.12	0.950	20	
Isopropylbenzene	22.2	1.00	20.00	0	111	73.9	128	22.06	0.596	20	
Bromoform	19.0	2.00	20.00	0	95.0	55.3	141	19.07	0.381	20	
1,1,1,2,2-Tetrachloroethane	18.9	1.00	20.00	0	94.7	62.9	132	19.34	2.02	20	
n-Propylbenzene	23.0	1.00	20.00	0	115	74.5	127	22.69	1.48	20	
Bromobenzene	19.7	1.00	20.00	0	98.3	71	131	20.02	1.77	20	
1,3,5-Trimethylbenzene	21.1	1.00	20.00	0	106	73.1	128	21.01	0.540	20	
2-Chlorotoluene	23.7	1.00	20.00	0	118	70.8	130	23.44	0.925	20	

Work Order: 1903203  
 CLIENT: Kane Environmental, Inc.  
 Project: BSCSS

**QC SUMMARY REPORT**  
**Volatile Organic Compounds by EPA Method 8260C**

Sample ID: LCSD-23885	SampType: LCSD	Units: µg/L				Prep Date: 3/19/2019	RunNo: 50190				
Client ID: LCSW02	Batch ID: 23885					Analysis Date: 3/20/2019	SeqNo: 985672				
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
4-Chlorotoluene	21.2	1.00	20.00	0	106	70.1	131	20.96	0.924	20	
tert-Butylbenzene	20.4	1.00	20.00	0	102	68.2	131	20.10	1.71	20	
1,2,3-Trichloropropane	20.2	1.00	20.00	0	101	67.7	131	20.45	1.17	20	
1,2,4-Trichlorobenzene	19.6	2.00	20.00	0	98.2	41	139	20.59	4.77	20	
sec-Butylbenzene	22.1	1.00	20.00	0	111	72	129	21.71	1.97	20	
4-Isopropyltoluene	21.2	1.00	20.00	0	106	69.2	130	20.88	1.42	20	
1,3-Dichlorobenzene	21.6	1.00	20.00	0	108	69.5	128	21.66	0.0866	20	
1,4-Dichlorobenzene	21.7	1.00	20.00	0	108	66.8	119	21.91	0.962	20	
n-Butylbenzene	22.8	1.00	20.00	0	114	73.8	127	22.24	2.64	20	
1,2-Dichlorobenzene	21.4	1.00	20.00	0	107	69.7	119	21.28	0.617	20	
1,2-Dibromo-3-chloropropane	20.2	1.00	20.00	0	101	63.1	136	21.15	4.74	20	
1,2,4-Trimethylbenzene	21.1	1.00	20.00	0	106	73.4	127	21.10	0.00630	20	
Hexachloro-1,3-butadiene	20.3	4.00	20.00	0	101	58.6	138	20.71	2.05	20	
Naphthalene	20.5	1.00	20.00	0	102	41.8	165	20.99	2.42	20	
1,2,3-Trichlorobenzene	20.2	4.00	20.00	0	101	35.8	155	20.93	3.35	20	
Surr: Dibromofluoromethane	24.7		25.00		98.7	45.4	152		0		
Surr: Toluene-d8	26.1		25.00		104	40.1	139		0		
Surr: 1-Bromo-4-fluorobenzene	25.2		25.00		101	64.2	128		0		

Client Name: **KANE**

 Work Order Number: **1903203**

 Logged by: **Brianna Barnes**

 Date Received: **3/13/2019 4:00:00 PM**

### Chain of Custody

1. Is Chain of Custody complete? Yes  No  Not Present
2. How was the sample delivered? Client

### Log In

3. Coolers are present? Yes  No  NA
4. Shipping container/cooler in good condition? Yes  No
5. Custody Seals present on shipping container/cooler?  
(Refer to comments for Custody Seals not intact) Yes  No  Not Required
6. Was an attempt made to cool the samples? Yes  No  NA
7. Were all items received at a temperature of >0°C to 10.0°C\* Yes  No  NA
8. Sample(s) in proper container(s)? Yes  No
9. Sufficient sample volume for indicated test(s)? Yes  No
10. Are samples properly preserved? Yes  No
11. Was preservative added to bottles? Yes  No  NA   
HNO3 added to B fraction.
12. Is there headspace in the VOA vials? Yes  No  NA
13. Did all samples containers arrive in good condition(unbroken)? Yes  No
14. Does paperwork match bottle labels? Yes  No
15. Are matrices correctly identified on Chain of Custody? Yes  No
16. Is it clear what analyses were requested? Yes  No
17. Were all holding times able to be met? Yes  No

### Special Handling (if applicable)

18. Was client notified of all discrepancies with this order? Yes  No  NA

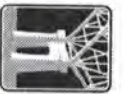
Person Notified:	<input type="text"/>	Date:	<input type="text"/>
By Whom:	<input type="text"/>	Via:	<input type="checkbox"/> eMail <input type="checkbox"/> Phone <input type="checkbox"/> Fax <input type="checkbox"/> In Person
Regarding:	<input type="text"/>		
Client Instructions:	<input type="text"/>		

19. Additional remarks:

### Item Information

Item #	Temp °C
Cooler	4.6
Sample	2.4

\* Note: DoD/ELAP and TNI require items to be received at 4°C +/- 2°C



# Fremont

ANALYTICAL

3600 Fremont Ave N.  
Seattle, WA 98103  
Tel: 206-352-3790  
Fax: 206-352-7178

## Chain of Custody Record & Laboratory Services Agreement

Date: 3/13/19 Page: 1 of 1  
Project Name: BSCSS

Laboratory Project No (Internal): 1903203  
Special Remarks:

Client: KANE ENVIRONMENTAL

Project No: 02302-9.4

Address: 4015 13th Ave W

Collected by: BG

City, State, Zip: Seattle, WA 98119

Location: Botwell, WA

Telephone: (206) 691 0476

Report To (PM): KFF KUNSTIN

Sample Disposal:  Return to client  Disposal by lab (after 30 days)

Fax: PM Email: KFF @ KANE-ENVIRONMENTAL.COM

Sample Name	Sample Date	Sample Time	Sample Type (Matrix)*	VOCs (EPA 8260 / 624)	GX/BTEX	BTEX	Gasoline Range Organics (GX)	Hydrocarbon Identification (HCID)	Diesel/Heavy Oil Range Organics (DX)	SVOCs (EPA 8270 / 625)	PAHs (EPA 8270 - SIM)	PCBs (EPA 8082 / 608)	Metals** (EPA 6020 / 200.8)	Total (T)   Dissolved (D)	Anions (IC)***	EDB (8011)	TDC	AMMONIA-N	BSK	Comments
1 MW-38:W	3/13	1240	GW	X									X	D	X	X	X			LAB FILTER
2 MW-40:W	3/13	1435	GW	X									X	D	X	X	X			LAB FILTER; QC
3																				
4																				
5																				
6																				
7																				
8																				
9																				
10																				

\*Matrix: A = Air, AQ = Aqueous, B = Bulk, O = Other, P = Product, S = Soil, SD = Sediment, SL = Solid, W = Water, DW = Drinking Water, GW = Ground Water, SW = Storm Water, WW = Waste Water  
 \*\*Metals (Circle): MTCA-5 RCRA-8 Priority Pollutants TAL Individual: Ag Al As B Ba Be Ca Cd Co Cr Cu Fe Hg K Mg Mn Mo Na Ni Pb Sb Se Sr Sn Tl U V Zn  
 \*\*\*Anions (Circle): Nitrate Nitrite Chloride Sulfate Bromide Iodide Fluoride Nitrate+Nitrite

Turn-around Time:  
 Standard  
 3 Day  
 2 Day  
 Next Day  
 Same Day (specify)

I represent that I am authorized to enter into this Agreement with Fremont Analytical on behalf of the Client named above and that I have verified Client's agreement to each of the terms on the front and backside of this Agreement.

Relinquished  Date/Time: 3/13/19 1600  
 Received  Date/Time: 3/13/19 1600  
 Relinquished  Date/Time: \_\_\_\_\_  
 Received  Date/Time: \_\_\_\_\_

www.fremontanalytical.com





3600 Fremont Ave N.  
Seattle, WA 98103  
Tel: 206-352-3790  
Fax: 206-352-7178

# Chain of Custody Record & Laboratory Services Agreement

Date: 3/13/19 Page: 1 of: 1  
Laboratory Project No (Internal): 903203

Client: KANE ENVIRONMENTAL  
Project No: 02302-9.4  
Special Remarks:

Address: 4015 13th Ave W  
City, State, zip: Seattle, WA 98119  
Location: Botwell, WA  
Collected by: BG  
Report To (PMI): KH KH KH  
Sample Disposal:  Return to client  Disposal by lab (after 30 days)

Telephone: (206) 491 0476  
PM Email: KH@KANE-ENVIRONMENTAL.COM

Sample Name	Sample Date	Sample Time	Sample Type (Matrix)*	Analytes													Comments			
				VOCS (EPA 8260 / 624)	GX/BTEX	BTEX	Gasoline Range Organics (GX)	Hydrocarbon Identification (HCID)	Diesel/Heavy Oil Range Organics (DH)	SVOCs (EPA 8270 / 625)	PAHs (EPA 8270 - SIM)	PCBs (EPA 8270 / 625)	Metals** (EPA 8082 / 608)	Total (T)   Dissolved (D)	Anions (IC)***	EDB (801)		TDC	UNIDENTIFIED-N	RSK
1 MN-38: W	3/13	1240	GW	X								X	D	X	X	X				LAB FILTER
2 MN-40: W	3/13	1435	GW	X								X	D	X	X	X				LAB FILTER, GC
3																				
4																				
5																				
6																				
7																				
8																				
9																				
10																				

\*Matrix: A = Air, AQ = Aqueous, B = Bulk, O = Other, P = Product, S = Soil, SD = Sediment, SL = Solid, W = Water, DW = Drinking Water, GW = Ground Water, SW = Storm Water, WW = Waste Water  
 \*\*Metals (Circle): MTCA-5 RCRA-8 Priority Pollutants TAL Individual: Ag Al As B Ba Be Ca Cd Co Cr Cu Fe Hg K Mg Mn Mo Na Ni Pb Sp Se Sr Sn Tl U V Zn  
 \*\*\*Anions (Circle): Nitrate Nitrite Chloride Sulfate Bromide O-Phosphate Fluoride Nitrate+Nitrite  
 I represent that I am authorized to enter into this Agreement with Fremont Analytical on behalf of the Client named above and that I have verified Client's agreement to each of the terms on the front and backside of this Agreement.

Relinquished [Signature] Date/Time 3/13/19 1600  
 Received [Signature] Date/Time 3/13/19 1600

Turn-around Time:  
 Standard  
 3 Day  
 2 Day  
 Next Day  
 Same Day (specify) \_\_\_\_\_



**Kane Environmental, Inc.**

Jeff Jensen  
4015 13th Ave W.  
Seattle, WA 98103

**RE: BSCSS**

**Work Order Number: 1903213**

March 22, 2019

**Attention Jeff Jensen:**

Fremont Analytical, Inc. received 1 sample(s) on 3/14/2019 for the analyses presented in the following report.

***Ammonia by SM 4500 NH3G***  
***Dissolved Gases by RSK-175***  
***Dissolved Metals by EPA Method 200.8***  
***Ion Chromatography by EPA Method 300.0***  
***Total Organic Carbon by SM 5310C***  
***Volatile Organic Compounds by EPA Method 8260C***

This report consists of the following:

- Case Narrative
- Analytical Results
- Applicable Quality Control Summary Reports
- Chain of Custody

All analyses were performed consistent with the Quality Assurance program of Fremont Analytical, Inc. Please contact the laboratory if you should have any questions about the results.

Thank you for using Fremont Analytical.

Sincerely,

Chelsea Ward  
Project Manager



Date: 03/22/2019

---

**CLIENT:** Kane Environmental, Inc.  
**Project:** BSCSS  
**Work Order:** 1903213

## Work Order Sample Summary

---

Lab Sample ID	Client Sample ID	Date/Time Collected	Date/Time Received
1903213-001	MW-20:W	03/14/2019 1:10 PM	03/14/2019 3:45 PM

**CLIENT:** Kane Environmental, Inc.  
**Project:** BSCSS

---

**I. SAMPLE RECEIPT:**

Samples receipt information is recorded on the attached Sample Receipt Checklist.

**II. GENERAL REPORTING COMMENTS:**

Results are reported on a wet weight basis unless dry-weight correction is denoted in the units field on the analytical report ("mg/kg-dry" or "ug/kg-dry").

Matrix Spike (MS) and MS Duplicate (MSD) samples are tested from an analytical batch of "like" matrix to check for possible matrix effect. The MS and MSD will provide site specific matrix data only for those samples which are spiked by the laboratory. The sample chosen for spike purposes may or may not have been a sample submitted in this sample delivery group. The validity of the analytical procedures for which data is reported in this analytical report is determined by the Laboratory Control Sample (LCS) and the Method Blank (MB). The LCS and the MB are processed with the samples and the MS/MSD to ensure method criteria are achieved throughout the entire analytical process.

**III. ANALYSES AND EXCEPTIONS:**

Exceptions associated with this report will be footnoted in the analytical results page(s) or the quality control summary page(s) and/or noted below.

Revision 1: PCE reported to the MDL.

### Qualifiers:

- \* - Flagged value is not within established control limits
- B - Analyte detected in the associated Method Blank
- D - Dilution was required
- E - Value above quantitation range
- H - Holding times for preparation or analysis exceeded
- I - Analyte with an internal standard that does not meet established acceptance criteria
- J - Analyte detected below Reporting Limit
- N - Tentatively Identified Compound (TIC)
- Q - Analyte with an initial or continuing calibration that does not meet established acceptance criteria (<20%RSD, <20% Drift or minimum RRF)
- S - Spike recovery outside accepted recovery limits
- ND - Not detected at the Reporting Limit
- R - High relative percent difference observed

### Acronyms:

- %Rec - Percent Recovery
- CCB - Continued Calibration Blank
- CCV - Continued Calibration Verification
- DF - Dilution Factor
- HEM - Hexane Extractable Material
- ICV - Initial Calibration Verification
- LCS/LCSD - Laboratory Control Sample / Laboratory Control Sample Duplicate
- MB or MBLANK - Method Blank
- MDL - Method Detection Limit
- MS/MSD - Matrix Spike / Matrix Spike Duplicate
- PDS - Post Digestion Spike
- Ref Val - Reference Value
- RL - Reporting Limit
- RPD - Relative Percent Difference
- SD - Serial Dilution
- SGT - Silica Gel Treatment
- SPK - Spike
- Surr - Surrogate



**Client:** Kane Environmental, Inc.

**Collection Date:** 3/14/2019 1:10:00 PM

**Project:** BSCSS

**Lab ID:** 1903213-001

**Matrix:** Groundwater

**Client Sample ID:** MW-20:W

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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**Dissolved Gases by RSK-175**

Batch ID: R50163      Analyst: AD

Methane	0.0463	0.00863		mg/L	1	3/19/2019 3:31:00 PM
Ethene	ND	0.0151		mg/L	1	3/19/2019 3:31:00 PM
Ethane	ND	0.0162		mg/L	1	3/19/2019 3:31:00 PM

**Volatile Organic Compounds by EPA Method 8260C**

Batch ID: 23900      Analyst: KT

Dichlorodifluoromethane (CFC-12)	ND	10.0	D	µg/L	10	3/21/2019 7:21:08 AM
Chloromethane	ND	20.0	D	µg/L	10	3/21/2019 7:21:08 AM
Vinyl chloride	ND	2.00	D	µg/L	10	3/21/2019 7:21:08 AM
Bromomethane	ND	10.0	D	µg/L	10	3/21/2019 7:21:08 AM
Trichlorofluoromethane (CFC-11)	ND	10.0	D	µg/L	10	3/21/2019 7:21:08 AM
Chloroethane	ND	10.0	D	µg/L	10	3/21/2019 7:21:08 AM
1,1-Dichloroethene	ND	10.0	D	µg/L	10	3/21/2019 7:21:08 AM
Methylene chloride	ND	10.0	D	µg/L	10	3/21/2019 7:21:08 AM
trans-1,2-Dichloroethene	84.3	10.0	D	µg/L	10	3/21/2019 7:21:08 AM
Methyl tert-butyl ether (MTBE)	ND	10.0	D	µg/L	10	3/21/2019 7:21:08 AM
1,1-Dichloroethane	ND	10.0	D	µg/L	10	3/21/2019 7:21:08 AM
2,2-Dichloropropane	ND	20.0	D	µg/L	10	3/21/2019 7:21:08 AM
cis-1,2-Dichloroethene	163	10.0	D	µg/L	10	3/21/2019 7:21:08 AM
Chloroform	ND	10.0	D	µg/L	10	3/21/2019 7:21:08 AM
1,1,1-Trichloroethane (TCA)	ND	10.0	D	µg/L	10	3/21/2019 7:21:08 AM
1,1-Dichloropropene	ND	10.0	D	µg/L	10	3/21/2019 7:21:08 AM
Carbon tetrachloride	ND	10.0	D	µg/L	10	3/21/2019 7:21:08 AM
1,2-Dichloroethane (EDC)	ND	10.0	D	µg/L	10	3/21/2019 7:21:08 AM
Benzene	11.9	10.0	D	µg/L	10	3/21/2019 7:21:08 AM
Trichloroethene (TCE)	136	5.00	D	µg/L	10	3/21/2019 7:21:08 AM
1,2-Dichloropropane	ND	10.0	D	µg/L	10	3/21/2019 7:21:08 AM
Bromodichloromethane	ND	10.0	D	µg/L	10	3/21/2019 7:21:08 AM
Dibromomethane	ND	10.0	D	µg/L	10	3/21/2019 7:21:08 AM
cis-1,3-Dichloropropene	ND	10.0	D	µg/L	10	3/21/2019 7:21:08 AM
Toluene	ND	10.0	D	µg/L	10	3/21/2019 7:21:08 AM
trans-1,3-Dichloropropylene	ND	10.0	D	µg/L	10	3/21/2019 7:21:08 AM
1,1,2-Trichloroethane	ND	10.0	D	µg/L	10	3/21/2019 7:21:08 AM
1,3-Dichloropropane	ND	10.0	D	µg/L	10	3/21/2019 7:21:08 AM
Tetrachloroethene (PCE)	ND	0.851	DMDL	µg/L	10	3/21/2019 7:21:08 AM
Dibromochloromethane	ND	10.0	D	µg/L	10	3/21/2019 7:21:08 AM
1,2-Dibromoethane (EDB)	ND	2.50	D	µg/L	10	3/21/2019 7:21:08 AM
Chlorobenzene	ND	10.0	D	µg/L	10	3/21/2019 7:21:08 AM
1,1,1,2-Tetrachloroethane	ND	10.0	D	µg/L	10	3/21/2019 7:21:08 AM



**Client:** Kane Environmental, Inc.

**Collection Date:** 3/14/2019 1:10:00 PM

**Project:** BSCSS

**Lab ID:** 1903213-001

**Matrix:** Groundwater

**Client Sample ID:** MW-20:W

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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**Volatile Organic Compounds by EPA Method 8260C**

Batch ID: 23900

Analyst: KT

Ethylbenzene	ND	10.0	D	µg/L	10	3/21/2019 7:21:08 AM
m,p-Xylene	ND	10.0	D	µg/L	10	3/21/2019 7:21:08 AM
o-Xylene	ND	10.0	D	µg/L	10	3/21/2019 7:21:08 AM
Styrene	ND	10.0	D	µg/L	10	3/21/2019 7:21:08 AM
Isopropylbenzene	ND	10.0	D	µg/L	10	3/21/2019 7:21:08 AM
Bromoform	ND	20.0	D	µg/L	10	3/21/2019 7:21:08 AM
1,1,2,2-Tetrachloroethane	ND	10.0	D	µg/L	10	3/21/2019 7:21:08 AM
n-Propylbenzene	ND	10.0	D	µg/L	10	3/21/2019 7:21:08 AM
Bromobenzene	ND	10.0	D	µg/L	10	3/21/2019 7:21:08 AM
1,3,5-Trimethylbenzene	ND	10.0	D	µg/L	10	3/21/2019 7:21:08 AM
2-Chlorotoluene	ND	10.0	D	µg/L	10	3/21/2019 7:21:08 AM
4-Chlorotoluene	ND	10.0	D	µg/L	10	3/21/2019 7:21:08 AM
tert-Butylbenzene	ND	10.0	D	µg/L	10	3/21/2019 7:21:08 AM
1,2,3-Trichloropropane	ND	10.0	D	µg/L	10	3/21/2019 7:21:08 AM
1,2,4-Trichlorobenzene	ND	20.0	D	µg/L	10	3/21/2019 7:21:08 AM
sec-Butylbenzene	ND	10.0	D	µg/L	10	3/21/2019 7:21:08 AM
4-Isopropyltoluene	ND	10.0	D	µg/L	10	3/21/2019 7:21:08 AM
1,3-Dichlorobenzene	ND	10.0	D	µg/L	10	3/21/2019 7:21:08 AM
1,4-Dichlorobenzene	ND	10.0	D	µg/L	10	3/21/2019 7:21:08 AM
n-Butylbenzene	ND	10.0	D	µg/L	10	3/21/2019 7:21:08 AM
1,2-Dichlorobenzene	ND	10.0	D	µg/L	10	3/21/2019 7:21:08 AM
1,2-Dibromo-3-chloropropane	ND	10.0	D	µg/L	10	3/21/2019 7:21:08 AM
1,2,4-Trimethylbenzene	ND	10.0	D	µg/L	10	3/21/2019 7:21:08 AM
Hexachloro-1,3-butadiene	ND	40.0	D	µg/L	10	3/21/2019 7:21:08 AM
Naphthalene	ND	10.0	D	µg/L	10	3/21/2019 7:21:08 AM
1,2,3-Trichlorobenzene	ND	40.0	D	µg/L	10	3/21/2019 7:21:08 AM
Surr: Dibromofluoromethane	115	45.4 - 152	D	%Rec	10	3/21/2019 7:21:08 AM
Surr: Toluene-d8	105	40.1 - 139	D	%Rec	10	3/21/2019 7:21:08 AM
Surr: 1-Bromo-4-fluorobenzene	93.6	64.2 - 128	D	%Rec	10	3/21/2019 7:21:08 AM

**NOTES:**

Diluted due to matrix.

MDL - Analyte reported to Method Detection Limit (MDL)

**Ion Chromatography by EPA Method 300.0**

Batch ID: 23883

Analyst: GM

Chloride	7.80	0.500	D	mg/L	5	3/19/2019 7:55:00 PM
Sulfate	0.348	0.300		mg/L	1	3/19/2019 8:18:00 PM



**Client:** Kane Environmental, Inc.

**Collection Date:** 3/14/2019 1:10:00 PM

**Project:** BSCSS

**Lab ID:** 1903213-001

**Matrix:** Groundwater

**Client Sample ID:** MW-20:W

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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**Dissolved Metals by EPA Method 200.8**

Batch ID: 23856      Analyst: WC

Iron	1,460	100		µg/L	1	3/18/2019 6:09:48 PM
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**Total Organic Carbon by SM 5310C**

Batch ID: R50145      Analyst: GM

Total Organic Carbon	45.3	0.500		mg/L	1	3/19/2019 1:00:00 AM
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**Ammonia by SM 4500 NH3G**

Batch ID: 23854      Analyst: GM

Nitrogen, Ammonia	1.07	0.100		mg/L	1	3/15/2019 4:24:00 PM
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Work Order: 1903213  
 CLIENT: Kane Environmental, Inc.  
 Project: BSCSS

**QC SUMMARY REPORT**  
**Ammonia by SM 4500 NH3G**

Sample ID: <b>MB-23854</b>	SampType: <b>MBLK</b>	Units: <b>mg/L</b>	Prep Date: <b>3/15/2019</b>	RunNo: <b>50092</b>							
Client ID: <b>MBLKW</b>	Batch ID: <b>23854</b>		Analysis Date: <b>3/15/2019</b>	SeqNo: <b>983214</b>							
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Nitrogen, Ammonia ND 0.100

Sample ID: <b>LCS-23854</b>	SampType: <b>LCS</b>	Units: <b>mg/L</b>	Prep Date: <b>3/15/2019</b>	RunNo: <b>50092</b>							
Client ID: <b>LCSW</b>	Batch ID: <b>23854</b>		Analysis Date: <b>3/15/2019</b>	SeqNo: <b>983215</b>							
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Nitrogen, Ammonia 0.522 0.100 0.5000 0 104 80 120

Sample ID: <b>1903181-001EDUP</b>	SampType: <b>DUP</b>	Units: <b>mg/L</b>	Prep Date: <b>3/15/2019</b>	RunNo: <b>50092</b>							
Client ID: <b>BATCH</b>	Batch ID: <b>23854</b>		Analysis Date: <b>3/15/2019</b>	SeqNo: <b>983237</b>							
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Nitrogen, Ammonia 1.84 0.200 1.698 7.92 30 D

Sample ID: <b>1903181-001EMS</b>	SampType: <b>MS</b>	Units: <b>mg/L</b>	Prep Date: <b>3/15/2019</b>	RunNo: <b>50092</b>							
Client ID: <b>BATCH</b>	Batch ID: <b>23854</b>		Analysis Date: <b>3/15/2019</b>	SeqNo: <b>983238</b>							
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Nitrogen, Ammonia 3.01 0.200 1.000 1.698 131 70 130 DS

**NOTES:**

S - Outlying spike recovery(ies) observed. A duplicate analysis was performed and recovered within range.

Sample ID: <b>1903181-001EMSD</b>	SampType: <b>MSD</b>	Units: <b>mg/L</b>	Prep Date: <b>3/15/2019</b>	RunNo: <b>50092</b>							
Client ID: <b>BATCH</b>	Batch ID: <b>23854</b>		Analysis Date: <b>3/15/2019</b>	SeqNo: <b>983239</b>							
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Nitrogen, Ammonia 2.94 0.200 1.000 1.698 124 70 130 3.008 2.42 30 D

Work Order: 1903213  
 CLIENT: Kane Environmental, Inc.  
 Project: BSCSS

**QC SUMMARY REPORT**  
**Ion Chromatography by EPA Method 300.0**

Sample ID: <b>MB-23883</b>	SampType: <b>MBLK</b>	Units: <b>mg/L</b>	Prep Date: <b>3/19/2019</b>	RunNo: <b>50164</b>							
Client ID: <b>MBLKW</b>	Batch ID: <b>23883</b>		Analysis Date: <b>3/19/2019</b>	SeqNo: <b>984863</b>							
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Chloride	ND	0.100									
Sulfate	ND	0.300									

Sample ID: <b>LCS-23883</b>	SampType: <b>LCS</b>	Units: <b>mg/L</b>	Prep Date: <b>3/19/2019</b>	RunNo: <b>50164</b>							
Client ID: <b>LCSW</b>	Batch ID: <b>23883</b>		Analysis Date: <b>3/19/2019</b>	SeqNo: <b>984864</b>							
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Chloride	0.727	0.100	0.7500	0	96.9	90	110				
Sulfate	3.58	0.300	3.750	0	95.4	90	110				

Sample ID: <b>1903216-003ADUP</b>	SampType: <b>DUP</b>	Units: <b>mg/L</b>	Prep Date: <b>3/19/2019</b>	RunNo: <b>50164</b>							
Client ID: <b>BATCH</b>	Batch ID: <b>23883</b>		Analysis Date: <b>3/19/2019</b>	SeqNo: <b>984868</b>							
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Chloride	6.97	0.100						6.929	0.604	20	E
Sulfate	2.31	0.300						2.277	1.57	20	

**NOTES:**

E - Estimated value. The amount exceeds the linear working range of the instrument.

Sample ID: <b>1903216-003AMS</b>	SampType: <b>MS</b>	Units: <b>mg/L</b>	Prep Date: <b>3/19/2019</b>	RunNo: <b>50164</b>							
Client ID: <b>BATCH</b>	Batch ID: <b>23883</b>		Analysis Date: <b>3/19/2019</b>	SeqNo: <b>984869</b>							
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Chloride	7.83	0.100	0.7500	6.929	120	80	120				ES
Sulfate	6.11	0.300	3.750	2.277	102	80	120				

**NOTES:**

S - Outlying spike recovery(ies) observed. A duplicate analysis was performed and recovered within range.

E - Estimated value. The amount exceeds the linear working range of the instrument.

**Work Order:** 1903213  
**CLIENT:** Kane Environmental, Inc.  
**Project:** BSCSS

**QC SUMMARY REPORT**  
**Ion Chromatography by EPA Method 300.0**

Sample ID: <b>1903216-003AMSD</b>	SampType: <b>MSD</b>	Units: <b>mg/L</b>	Prep Date: <b>3/19/2019</b>	RunNo: <b>50164</b>							
Client ID: <b>BATCH</b>	Batch ID: <b>23883</b>		Analysis Date: <b>3/19/2019</b>	SeqNo: <b>984870</b>							
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Chloride	7.82	0.100	0.7500	6.929	118	80	120	7.831	0.205	20	E
Sulfate	6.03	0.300	3.750	2.277	100	80	120	6.108	1.25	20	

**NOTES:**

E - Estimated value. The amount exceeds the linear working range of the instrument.

Work Order: 1903213  
 CLIENT: Kane Environmental, Inc.  
 Project: BSCSS

**QC SUMMARY REPORT**  
**Total Organic Carbon by SM 5310C**

Sample ID: <b>MB-50145B</b>	SampType: <b>MBLK</b>	Units: <b>mg/L</b>	Prep Date: <b>3/18/2019</b>	RunNo: <b>50145</b>							
Client ID: <b>MBLKW</b>	Batch ID: <b>R50145</b>		Analysis Date: <b>3/18/2019</b>	SeqNo: <b>984556</b>							
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Total Organic Carbon ND 0.500

Sample ID: <b>LCS-50145</b>	SampType: <b>LCS</b>	Units: <b>mg/L</b>	Prep Date: <b>3/18/2019</b>	RunNo: <b>50145</b>							
Client ID: <b>LCSW</b>	Batch ID: <b>R50145</b>		Analysis Date: <b>3/18/2019</b>	SeqNo: <b>984557</b>							
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Total Organic Carbon 4.93 0.500 5.000 0 98.7 80 120

Sample ID: <b>1903203-001DDUP</b>	SampType: <b>DUP</b>	Units: <b>mg/L</b>	Prep Date: <b>3/18/2019</b>	RunNo: <b>50145</b>							
Client ID: <b>BATCH</b>	Batch ID: <b>R50145</b>		Analysis Date: <b>3/18/2019</b>	SeqNo: <b>984561</b>							
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Total Organic Carbon 4.04 0.500 4.151 2.66 20

Sample ID: <b>1903203-001DMS</b>	SampType: <b>MS</b>	Units: <b>mg/L</b>	Prep Date: <b>3/18/2019</b>	RunNo: <b>50145</b>							
Client ID: <b>BATCH</b>	Batch ID: <b>R50145</b>		Analysis Date: <b>3/18/2019</b>	SeqNo: <b>984562</b>							
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Total Organic Carbon 8.78 0.500 5.000 4.151 92.7 70 130

Sample ID: <b>1903203-001DMSD</b>	SampType: <b>MSD</b>	Units: <b>mg/L</b>	Prep Date: <b>3/19/2019</b>	RunNo: <b>50145</b>							
Client ID: <b>BATCH</b>	Batch ID: <b>R50145</b>		Analysis Date: <b>3/19/2019</b>	SeqNo: <b>984563</b>							
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Total Organic Carbon 8.86 0.500 5.000 4.151 94.3 70 130 8.784 0.907 30

Work Order: 1903213  
 CLIENT: Kane Environmental, Inc.  
 Project: BSCSS

**QC SUMMARY REPORT**  
**Dissolved Metals by EPA Method 200.8**

Sample ID: <b>MB-23856</b>	SampType: <b>MBLK</b>	Units: <b>µg/L</b>	Prep Date: <b>3/18/2019</b>	RunNo: <b>50129</b>							
Client ID: <b>MBLKW</b>	Batch ID: <b>23856</b>	Analysis Date: <b>3/18/2019</b>	SeqNo: <b>984321</b>								
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Iron ND 100

Sample ID: <b>LCS-23856</b>	SampType: <b>LCS</b>	Units: <b>µg/L</b>	Prep Date: <b>3/18/2019</b>	RunNo: <b>50129</b>							
Client ID: <b>LCSW</b>	Batch ID: <b>23856</b>	Analysis Date: <b>3/18/2019</b>	SeqNo: <b>984322</b>								
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Iron 943 100 1,000 0 94.3 50 150

Sample ID: <b>1903177-002ADUP</b>	SampType: <b>DUP</b>	Units: <b>µg/L</b>	Prep Date: <b>3/18/2019</b>	RunNo: <b>50129</b>							
Client ID: <b>BATCH</b>	Batch ID: <b>23856</b>	Analysis Date: <b>3/18/2019</b>	SeqNo: <b>984324</b>								
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Iron 6,020 100 6,487 7.50 30

Sample ID: <b>1903177-002AMS</b>	SampType: <b>MS</b>	Units: <b>µg/L</b>	Prep Date: <b>3/18/2019</b>	RunNo: <b>50129</b>							
Client ID: <b>BATCH</b>	Batch ID: <b>23856</b>	Analysis Date: <b>3/18/2019</b>	SeqNo: <b>984325</b>								
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Iron 11,000 100 5,000 6,487 90.3 50 150

Sample ID: <b>1903177-002AMSD</b>	SampType: <b>MSD</b>	Units: <b>µg/L</b>	Prep Date: <b>3/18/2019</b>	RunNo: <b>50129</b>							
Client ID: <b>BATCH</b>	Batch ID: <b>23856</b>	Analysis Date: <b>3/18/2019</b>	SeqNo: <b>984326</b>								
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Iron 10,900 100 5,000 6,487 87.8 50 150 11,000 1.13 30

**Work Order:** 1903213  
**CLIENT:** Kane Environmental, Inc.  
**Project:** BSCSS

**QC SUMMARY REPORT**  
**Dissolved Metals by EPA Method 200.8**

Sample ID: <b>MB-23837FB</b>	SampType: <b>MBLK</b>	Units: <b>µg/L</b>	Prep Date: <b>3/18/2019</b>	RunNo: <b>50129</b>							
Client ID: <b>MBLKW</b>	Batch ID: <b>23856</b>		Analysis Date: <b>3/18/2019</b>	SeqNo: <b>984350</b>							
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Iron	ND	100									
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**NOTES:**  
 Filter Blank

Work Order: 1903213  
 CLIENT: Kane Environmental, Inc.  
 Project: BSCSS

**QC SUMMARY REPORT**  
**Dissolved Gases by RSK-175**

Sample ID: <b>MB-R50163</b>	SampType: <b>MBLK</b>	Units: <b>mg/L</b>	Prep Date: <b>3/19/2019</b>	RunNo: <b>50163</b>							
Client ID: <b>MBLKW</b>	Batch ID: <b>R50163</b>		Analysis Date: <b>3/19/2019</b>	SeqNo: <b>984857</b>							
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Methane	ND	0.00863									
Ethene	ND	0.0151									
Ethane	ND	0.0162									

Sample ID: <b>LCS-R50163</b>	SampType: <b>LCS</b>	Units: <b>mg/L</b>	Prep Date: <b>3/19/2019</b>	RunNo: <b>50163</b>							
Client ID: <b>LCSW</b>	Batch ID: <b>R50163</b>		Analysis Date: <b>3/19/2019</b>	SeqNo: <b>984856</b>							
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Methane	1,050	0.00863	1,000	0	105	70	130				
Ethene	1,060	0.0151	1,000	0	106	70	130				
Ethane	1,050	0.0162	1,000	0	105	70	130				

Sample ID: <b>1903203-001FREP</b>	SampType: <b>REP</b>	Units: <b>mg/L</b>	Prep Date: <b>3/19/2019</b>	RunNo: <b>50163</b>							
Client ID: <b>BATCH</b>	Batch ID: <b>R50163</b>		Analysis Date: <b>3/19/2019</b>	SeqNo: <b>984849</b>							
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Methane	0.409	0.00863						0.3073	28.4	30	E
Ethene	ND	0.0151						0		30	
Ethane	ND	0.0162						0		30	

**NOTES:**

E - Estimated value. The amount exceeds the linear working range of the instrument.

Work Order: 1903213  
 CLIENT: Kane Environmental, Inc.  
 Project: BSCSS

**QC SUMMARY REPORT**  
**Volatile Organic Compounds by EPA Method 8260C**

Sample ID: LCS-23900	SampType: LCS	Units: µg/L				Prep Date: 3/20/2019	RunNo: 50194				
Client ID: LCSW	Batch ID: 23900					Analysis Date: 3/20/2019	SeqNo: 985789				
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Dichlorodifluoromethane (CFC-12)	19.9	1.00	20.00	0	99.7	18.7	171				
Chloromethane	17.7	2.00	20.00	0	88.4	38.5	171				
Vinyl chloride	17.0	0.200	20.00	0	84.8	48	145				
Bromomethane	23.1	1.00	20.00	0	116	32.5	184				
Trichlorofluoromethane (CFC-11)	20.4	1.00	20.00	0	102	43.5	149				
Chloroethane	18.0	1.00	20.00	0	90.1	43.8	168				
1,1-Dichloroethene	18.4	1.00	20.00	0	92.2	57.5	150				
Methylene chloride	16.5	1.00	20.00	0	82.3	67.1	131				
trans-1,2-Dichloroethene	17.6	1.00	20.00	0	87.8	71.7	129				
Methyl tert-butyl ether (MTBE)	17.8	1.00	20.00	0	89.2	58	138				
1,1-Dichloroethane	17.5	1.00	20.00	0	87.3	67.9	134				
2,2-Dichloropropane	18.3	2.00	20.00	0	91.5	26.5	185				
cis-1,2-Dichloroethene	17.7	1.00	20.00	0	88.5	70.2	139				
Chloroform	18.8	1.00	20.00	0	94.1	66.3	131				
1,1,1-Trichloroethane (TCA)	19.3	1.00	20.00	0	96.7	63	140				
1,1-Dichloropropene	18.2	1.00	20.00	0	90.9	69.9	124				
Carbon tetrachloride	18.9	1.00	20.00	0	94.4	66.2	134				
1,2-Dichloroethane (EDC)	19.7	1.00	20.00	0	98.6	67	126				
Benzene	17.2	1.00	20.00	0	85.9	69.3	132				
Trichloroethene (TCE)	18.4	0.500	20.00	0	92.0	65.2	136				
1,2-Dichloropropane	16.7	1.00	20.00	0	83.5	70.5	130				
Bromodichloromethane	18.0	1.00	20.00	0	90.1	67.2	137				
Dibromomethane	18.1	1.00	20.00	0	90.3	69.3	143				
cis-1,3-Dichloropropene	16.4	1.00	20.00	0	82.1	62.6	137				
Toluene	18.0	1.00	20.00	0	89.8	61.3	145				
trans-1,3-Dichloropropylene	16.4	1.00	20.00	0	81.9	56.5	163				
1,1,2-Trichloroethane	17.8	1.00	20.00	0	89.2	71.7	131				
1,3-Dichloropropane	17.3	1.00	20.00	0	86.6	73.5	127				
Tetrachloroethene (PCE)	18.7	1.00	20.00	0	93.3	47.5	147				
Dibromochloromethane	17.8	1.00	20.00	0	89.1	67.2	134				
1,2-Dibromoethane (EDB)	18.2	0.250	20.00	0	90.9	73.6	125				



Work Order: 1903213  
 CLIENT: Kane Environmental, Inc.  
 Project: BSCSS

**QC SUMMARY REPORT**  
**Volatile Organic Compounds by EPA Method 8260C**

Sample ID: LCS-23900	SampType: LCS	Units: µg/L				Prep Date: 3/20/2019	RunNo: 50194				
Client ID: LCSW	Batch ID: 23900					Analysis Date: 3/20/2019	SeqNo: 985789				
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Chlorobenzene	19.0	1.00	20.00	0	94.9	73.9	126				
1,1,1,2-Tetrachloroethane	18.0	1.00	20.00	0	90.0	76.8	124				
Ethylbenzene	18.7	1.00	20.00	0	93.6	72	130				
m,p-Xylene	37.4	1.00	40.00	0	93.4	70.3	134				
o-Xylene	19.0	1.00	20.00	0	95.0	72.1	131				
Styrene	19.3	1.00	20.00	0	96.6	64.3	140				
Isopropylbenzene	20.0	1.00	20.00	0	99.8	73.9	128				
Bromoform	18.3	2.00	20.00	0	91.3	55.3	141				
1,1,2,2-Tetrachloroethane	18.7	1.00	20.00	0	93.5	62.9	132				
n-Propylbenzene	19.9	1.00	20.00	0	99.5	74.5	127				
Bromobenzene	19.6	1.00	20.00	0	98.2	71	131				
1,3,5-Trimethylbenzene	19.3	1.00	20.00	0	96.5	73.1	128				
2-Chlorotoluene	19.9	1.00	20.00	0	99.3	70.8	130				
4-Chlorotoluene	19.7	1.00	20.00	0	98.3	70.1	131				
tert-Butylbenzene	19.8	1.00	20.00	0	98.9	68.2	131				
1,2,3-Trichloropropane	18.2	1.00	20.00	0	91.2	67.7	131				
1,2,4-Trichlorobenzene	19.6	2.00	20.00	0	98.2	41	139				
sec-Butylbenzene	20.1	1.00	20.00	0	101	72	129				
4-Isopropyltoluene	19.6	1.00	20.00	0	97.9	69.2	130				
1,3-Dichlorobenzene	19.3	1.00	20.00	0	96.7	69.5	128				
1,4-Dichlorobenzene	19.7	1.00	20.00	0	98.4	66.8	119				
n-Butylbenzene	19.7	1.00	20.00	0	98.5	73.8	127				
1,2-Dichlorobenzene	19.6	1.00	20.00	0	98.0	69.7	119				
1,2-Dibromo-3-chloropropane	19.4	1.00	20.00	0	97.1	63.1	136				
1,2,4-Trimethylbenzene	19.3	1.00	20.00	0	96.7	73.4	127				
Hexachloro-1,3-butadiene	20.1	4.00	20.00	0	100	58.6	138				
Naphthalene	19.9	1.00	20.00	0	99.4	41.8	165				B
1,2,3-Trichlorobenzene	19.9	4.00	20.00	0	99.6	35.8	155				
Surr: Dibromofluoromethane	29.4		25.00		117	45.4	152				
Surr: Toluene-d8	24.0		25.00		96.0	40.1	139				
Surr: 1-Bromo-4-fluorobenzene	25.6		25.00		102	64.2	128				

Work Order: 1903213  
 CLIENT: Kane Environmental, Inc.  
 Project: BSCSS

**QC SUMMARY REPORT**  
**Volatile Organic Compounds by EPA Method 8260C**

Sample ID: <b>LCS-23900</b>	SampType: <b>LCS</b>	Units: <b>µg/L</b>	Prep Date: <b>3/20/2019</b>	RunNo: <b>50194</b>							
Client ID: <b>LCSW</b>	Batch ID: <b>23900</b>		Analysis Date: <b>3/20/2019</b>	SeqNo: <b>985789</b>							
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Sample ID: <b>LCSD-23900</b>	SampType: <b>LCSD</b>	Units: <b>µg/L</b>	Prep Date: <b>3/20/2019</b>	RunNo: <b>50194</b>							
Client ID: <b>LCSW02</b>	Batch ID: <b>23900</b>		Analysis Date: <b>3/20/2019</b>	SeqNo: <b>985790</b>							
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Dichlorodifluoromethane (CFC-12)	19.6	1.00	20.00	0	97.9	18.7	171	19.94	1.82	20	
Chloromethane	18.2	2.00	20.00	0	91.1	38.5	171	17.68	2.99	20	
Vinyl chloride	16.9	0.200	20.00	0	84.7	48	145	16.96	0.134	20	
Bromomethane	21.2	1.00	20.00	0	106	32.5	184	23.14	8.60	20	
Trichlorofluoromethane (CFC-11)	20.7	1.00	20.00	0	104	43.5	149	20.40	1.63	20	
Chloroethane	17.6	1.00	20.00	0	88.1	43.8	168	18.01	2.18	20	
1,1-Dichloroethene	18.2	1.00	20.00	0	90.8	57.5	150	18.44	1.54	20	
Methylene chloride	16.6	1.00	20.00	0	83.0	67.1	131	16.46	0.874	20	
trans-1,2-Dichloroethene	17.6	1.00	20.00	0	87.8	71.7	129	17.56	0.0222	20	
Methyl tert-butyl ether (MTBE)	17.6	1.00	20.00	0	87.9	58	138	17.85	1.55	20	
1,1-Dichloroethane	17.5	1.00	20.00	0	87.6	67.9	134	17.46	0.314	20	
2,2-Dichloropropane	16.8	2.00	20.00	0	84.2	26.5	185	18.31	8.40	20	
cis-1,2-Dichloroethene	17.6	1.00	20.00	0	88.0	70.2	139	17.70	0.589	20	
Chloroform	18.9	1.00	20.00	0	94.7	66.3	131	18.83	0.600	20	
1,1,1-Trichloroethane (TCA)	19.4	1.00	20.00	0	97.1	63	140	19.34	0.454	20	
1,1-Dichloropropene	17.9	1.00	20.00	0	89.3	69.9	124	18.18	1.78	20	
Carbon tetrachloride	18.6	1.00	20.00	0	93.1	66.2	134	18.89	1.46	20	
1,2-Dichloroethane (EDC)	19.8	1.00	20.00	0	99.0	68.8	123	19.71	0.398	20	
Benzene	16.9	1.00	20.00	0	84.6	69.3	132	17.19	1.56	20	
Trichloroethene (TCE)	18.5	0.500	20.00	0	92.6	65.2	136	18.40	0.686	20	
1,2-Dichloropropane	17.2	1.00	20.00	0	85.9	70.5	130	16.69	2.92	20	
Bromodichloromethane	18.9	1.00	20.00	0	94.3	74.6	127	18.02	4.54	20	
Dibromomethane	18.7	1.00	20.00	0	93.6	69.3	143	18.05	3.61	20	
cis-1,3-Dichloropropene	16.4	1.00	20.00	0	81.9	62.6	137	16.42	0.254	20	
Toluene	19.6	1.00	20.00	0	98.2	61.3	145	17.96	8.90	20	

Work Order: 1903213  
 CLIENT: Kane Environmental, Inc.  
 Project: BSCSS

**QC SUMMARY REPORT**  
**Volatile Organic Compounds by EPA Method 8260C**

Sample ID: <b>LCS D-23900</b>	SampType: <b>LCS D</b>	Units: <b>µg/L</b>				Prep Date: <b>3/20/2019</b>	RunNo: <b>50194</b>				
Client ID: <b>LCSW02</b>	Batch ID: <b>23900</b>					Analysis Date: <b>3/20/2019</b>	SeqNo: <b>985790</b>				
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
trans-1,3-Dichloropropylene	16.3	1.00	20.00	0	81.3	56.5	163	16.39	0.729	20	
1,1,2-Trichloroethane	18.9	1.00	20.00	0	94.7	71.7	131	17.83	6.07	20	
1,3-Dichloropropane	18.3	1.00	20.00	0	91.7	73.5	127	17.33	5.65	20	
Tetrachloroethene (PCE)	20.0	1.00	20.00	0	100	47.5	147	18.67	6.98	20	
Dibromochloromethane	19.3	1.00	20.00	0	96.5	67.2	134	17.82	7.96	20	
1,2-Dibromoethane (EDB)	18.6	0.250	20.00	0	92.9	73.6	125	18.19	2.09	20	
Chlorobenzene	19.4	1.00	20.00	0	97.0	73.9	126	18.97	2.25	20	
1,1,1,2-Tetrachloroethane	19.0	1.00	20.00	0	94.8	76.8	124	18.01	5.11	20	
Ethylbenzene	19.0	1.00	20.00	0	95.1	72	130	18.73	1.56	20	
m,p-Xylene	37.5	1.00	40.00	0	93.7	70.3	134	37.37	0.309	20	
o-Xylene	19.5	1.00	20.00	0	97.4	72.1	131	19.01	2.47	20	
Styrene	19.8	1.00	20.00	0	98.8	64.3	140	19.31	2.27	20	
Isopropylbenzene	20.2	1.00	20.00	0	101	73.9	128	19.95	1.07	20	
Bromoform	20.2	2.00	20.00	0	101	55.3	141	18.26	10.1	20	
1,1,1,2,2-Tetrachloroethane	19.6	1.00	20.00	0	97.8	62.9	132	18.69	4.55	20	
n-Propylbenzene	20.7	1.00	20.00	0	103	74.5	127	19.90	3.81	20	
Bromobenzene	20.7	1.00	20.00	0	104	71	131	19.64	5.48	20	
1,3,5-Trimethylbenzene	20.2	1.00	20.00	0	101	73.1	128	19.31	4.30	20	
2-Chlorotoluene	20.8	1.00	20.00	0	104	70.8	130	19.86	4.51	20	
4-Chlorotoluene	20.6	1.00	20.00	0	103	70.1	131	19.66	4.54	20	
tert-Butylbenzene	21.1	1.00	20.00	0	105	68.2	131	19.78	6.36	20	
1,2,3-Trichloropropane	18.3	1.00	20.00	0	91.3	67.7	131	18.23	0.181	20	
1,2,4-Trichlorobenzene	18.7	2.00	20.00	0	93.4	41	139	19.63	4.98	20	
sec-Butylbenzene	20.8	1.00	20.00	0	104	72	129	20.11	3.27	20	
4-Isopropyltoluene	20.0	1.00	20.00	0	100	69.2	130	19.58	2.30	20	
1,3-Dichlorobenzene	19.5	1.00	20.00	0	97.7	69.5	128	19.34	1.06	20	
1,4-Dichlorobenzene	19.9	1.00	20.00	0	99.3	66.8	119	19.68	0.948	20	
n-Butylbenzene	19.4	1.00	20.00	0	96.8	73.8	127	19.70	1.79	20	
1,2-Dichlorobenzene	19.7	1.00	20.00	0	98.6	69.7	119	19.59	0.672	20	
1,2-Dibromo-3-chloropropane	19.1	1.00	20.00	0	95.3	63.1	136	19.41	1.83	20	
1,2,4-Trimethylbenzene	20.0	1.00	20.00	0	99.8	73.4	127	19.33	3.22	20	

Work Order: 1903213  
 CLIENT: Kane Environmental, Inc.  
 Project: BSCSS

**QC SUMMARY REPORT**  
**Volatile Organic Compounds by EPA Method 8260C**

Sample ID: <b>LCSD-23900</b>	SampType: <b>LCSD</b>	Units: <b>µg/L</b>	Prep Date: <b>3/20/2019</b>	RunNo: <b>50194</b>							
Client ID: <b>LCSW02</b>	Batch ID: <b>23900</b>		Analysis Date: <b>3/20/2019</b>	SeqNo: <b>985790</b>							
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Hexachloro-1,3-butadiene	20.1	4.00	20.00	0	101	58.6	138	20.06	0.313	20	
Naphthalene	17.2	1.00	20.00	0	85.9	41.8	165	19.88	14.6	20	B
1,2,3-Trichlorobenzene	18.6	4.00	20.00	0	93.2	35.8	155	19.91	6.65	20	
Surr: Dibromofluoromethane	28.7		25.00		115	45.4	152		0		
Surr: Toluene-d8	26.0		25.00		104	40.1	139		0		
Surr: 1-Bromo-4-fluorobenzene	26.9		25.00		108	64.2	128		0		

Sample ID: <b>MB-23900</b>	SampType: <b>MBLK</b>	Units: <b>µg/L</b>	Prep Date: <b>3/20/2019</b>	RunNo: <b>50194</b>							
Client ID: <b>MBLKW</b>	Batch ID: <b>23900</b>		Analysis Date: <b>3/20/2019</b>	SeqNo: <b>985791</b>							
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Dichlorodifluoromethane (CFC-12)	ND	1.00									
Chloromethane	ND	2.00									
Vinyl chloride	ND	0.200									
Bromomethane	ND	1.00									
Trichlorofluoromethane (CFC-11)	ND	1.00									
Chloroethane	ND	1.00									
1,1-Dichloroethene	ND	1.00									
Methylene chloride	ND	1.00									
trans-1,2-Dichloroethene	ND	1.00									
Methyl tert-butyl ether (MTBE)	ND	1.00									
1,1-Dichloroethane	ND	1.00									
2,2-Dichloropropane	ND	2.00									
cis-1,2-Dichloroethene	ND	1.00									
Chloroform	ND	1.00									
1,1,1-Trichloroethane (TCA)	ND	1.00									
1,1-Dichloropropene	ND	1.00									
Carbon tetrachloride	ND	1.00									
1,2-Dichloroethane (EDC)	ND	1.00									
Benzene	ND	1.00									

Work Order: 1903213  
 CLIENT: Kane Environmental, Inc.  
 Project: BSCSS

**QC SUMMARY REPORT**  
**Volatile Organic Compounds by EPA Method 8260C**

Sample ID: <b>MB-23900</b>	SampType: <b>MBLK</b>	Units: <b>µg/L</b>	Prep Date: <b>3/20/2019</b>	RunNo: <b>50194</b>							
Client ID: <b>MBLKW</b>	Batch ID: <b>23900</b>		Analysis Date: <b>3/20/2019</b>	SeqNo: <b>985791</b>							
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Trichloroethene (TCE)	ND	0.500									
1,2-Dichloropropane	ND	1.00									Q
Bromodichloromethane	ND	1.00									
Dibromomethane	ND	1.00									
cis-1,3-Dichloropropene	ND	1.00									Q
Toluene	ND	1.00									
trans-1,3-Dichloropropylene	ND	1.00									Q
1,1,2-Trichloroethane	ND	1.00									
1,3-Dichloropropane	ND	1.00									
Tetrachloroethene (PCE)	ND	1.00									
Dibromochloromethane	ND	1.00									
1,2-Dibromoethane (EDB)	ND	0.250									
Chlorobenzene	ND	1.00									
1,1,1,2-Tetrachloroethane	ND	1.00									
Ethylbenzene	ND	1.00									
m,p-Xylene	ND	1.00									
o-Xylene	ND	1.00									
Styrene	ND	1.00									
Isopropylbenzene	ND	1.00									
Bromoform	ND	2.00									
1,1,1,2,2-Tetrachloroethane	ND	1.00									
n-Propylbenzene	ND	1.00									
Bromobenzene	ND	1.00									
1,3,5-Trimethylbenzene	ND	1.00									
2-Chlorotoluene	ND	1.00									
4-Chlorotoluene	ND	1.00									
tert-Butylbenzene	ND	1.00									
1,2,3-Trichloropropane	ND	1.00									
1,2,4-Trichlorobenzene	ND	2.00									
sec-Butylbenzene	ND	1.00									
4-Isopropyltoluene	ND	1.00									

Work Order: 1903213  
 CLIENT: Kane Environmental, Inc.  
 Project: BSCSS

**QC SUMMARY REPORT**  
**Volatile Organic Compounds by EPA Method 8260C**

Sample ID: <b>MB-23900</b>	SampType: <b>MBLK</b>	Units: <b>µg/L</b>	Prep Date: <b>3/20/2019</b>	RunNo: <b>50194</b>							
Client ID: <b>MBLKW</b>	Batch ID: <b>23900</b>		Analysis Date: <b>3/20/2019</b>	SeqNo: <b>985791</b>							
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,3-Dichlorobenzene	ND	1.00									
1,4-Dichlorobenzene	ND	1.00									
n-Butylbenzene	ND	1.00									
1,2-Dichlorobenzene	ND	1.00									
1,2-Dibromo-3-chloropropane	ND	1.00									
1,2,4-Trimethylbenzene	ND	1.00									
Hexachloro-1,3-butadiene	ND	4.00									
Naphthalene	1.15	1.00									
1,2,3-Trichlorobenzene	ND	4.00									
Surr: Dibromofluoromethane	27.2		25.00		109	45.4	152				
Surr: Toluene-d8	25.9		25.00		104	40.1	139				
Surr: 1-Bromo-4-fluorobenzene	24.0		25.00		96.1	64.2	128				

**NOTES:**

Q - Indicates an analyte with a continuing calibration that does not meet established acceptance criteria

Sample ID: <b>1903212-001CDUP</b>	SampType: <b>DUP</b>	Units: <b>µg/L</b>	Prep Date: <b>3/20/2019</b>	RunNo: <b>50194</b>							
Client ID: <b>BATCH</b>	Batch ID: <b>23900</b>		Analysis Date: <b>3/20/2019</b>	SeqNo: <b>985781</b>							
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Dichlorodifluoromethane (CFC-12)	ND	1.00						0		30	
Chloromethane	ND	2.00						0		30	
Vinyl chloride	ND	0.200						0		30	
Bromomethane	ND	1.00						0		30	
Trichlorofluoromethane (CFC-11)	ND	1.00						0		30	
Chloroethane	ND	1.00						0		30	
1,1-Dichloroethene	ND	1.00						0		30	
Methylene chloride	ND	1.00						0		30	
trans-1,2-Dichloroethene	ND	1.00						0		30	
Methyl tert-butyl ether (MTBE)	ND	1.00						0		30	
1,1-Dichloroethane	ND	1.00						0		30	
2,2-Dichloropropane	ND	2.00						0		30	



Work Order: 1903213  
 CLIENT: Kane Environmental, Inc.  
 Project: BSCSS

**QC SUMMARY REPORT**  
**Volatile Organic Compounds by EPA Method 8260C**

Sample ID: 1903212-001CDUP	SampType: DUP	Units: µg/L	Prep Date: 3/20/2019	RunNo: 50194							
Client ID: BATCH	Batch ID: 23900		Analysis Date: 3/20/2019	SeqNo: 985781							
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

cis-1,2-Dichloroethene	ND	1.00						0		30	
Chloroform	ND	1.00						0		30	
1,1,1-Trichloroethane (TCA)	ND	1.00						0		30	
1,1-Dichloropropene	ND	1.00						0		30	
Carbon tetrachloride	ND	1.00						0		30	
1,2-Dichloroethane (EDC)	ND	1.00						0		30	
Benzene	ND	1.00						0		30	
Trichloroethene (TCE)	ND	0.500						0		30	
1,2-Dichloropropane	ND	1.00						0		30	Q
Bromodichloromethane	ND	1.00						0		30	
Dibromomethane	ND	1.00						0		30	
cis-1,3-Dichloropropene	ND	1.00						0		30	Q
Toluene	ND	1.00						0		30	
trans-1,3-Dichloropropylene	ND	1.00						0		30	Q
1,1,2-Trichloroethane	ND	1.00						0		30	
1,3-Dichloropropane	ND	1.00						0		30	
Tetrachloroethene (PCE)	ND	1.00						0		30	
Dibromochloromethane	ND	1.00						0		30	
1,2-Dibromoethane (EDB)	ND	0.250						0		30	
Chlorobenzene	ND	1.00						0		30	
1,1,1,2-Tetrachloroethane	ND	1.00						0		30	
Ethylbenzene	ND	1.00						0		30	
m,p-Xylene	ND	1.00						0		30	
o-Xylene	ND	1.00						0		30	
Styrene	ND	1.00						0		30	
Isopropylbenzene	ND	1.00						0		30	
Bromoform	ND	2.00						0		30	
1,1,2,2-Tetrachloroethane	ND	1.00						0		30	
n-Propylbenzene	ND	1.00						0		30	
Bromobenzene	ND	1.00						0		30	
1,3,5-Trimethylbenzene	ND	1.00						0		30	

Work Order: 1903213  
 CLIENT: Kane Environmental, Inc.  
 Project: BSCSS

**QC SUMMARY REPORT**  
**Volatile Organic Compounds by EPA Method 8260C**

Sample ID: 1903212-001CDUP	SampType: DUP	Units: µg/L			Prep Date: 3/20/2019	RunNo: 50194					
Client ID: BATCH	Batch ID: 23900				Analysis Date: 3/20/2019	SeqNo: 985781					
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
2-Chlorotoluene	ND	1.00						0		30	
4-Chlorotoluene	ND	1.00						0		30	
tert-Butylbenzene	ND	1.00						0		30	
1,2,3-Trichloropropane	ND	1.00						0		30	
1,2,4-Trichlorobenzene	ND	2.00						0		30	
sec-Butylbenzene	ND	1.00						0		30	
4-Isopropyltoluene	ND	1.00						0		30	
1,3-Dichlorobenzene	ND	1.00						0		30	
1,4-Dichlorobenzene	ND	1.00						0		30	
n-Butylbenzene	ND	1.00						0		30	
1,2-Dichlorobenzene	ND	1.00						0		30	
1,2-Dibromo-3-chloropropane	ND	1.00						0		30	
1,2,4-Trimethylbenzene	ND	1.00						0		30	
Hexachloro-1,3-butadiene	ND	4.00						0		30	
Naphthalene	ND	1.00						1.167	200	30	R
1,2,3-Trichlorobenzene	ND	4.00						0		30	
Surr: Dibromofluoromethane	28.6		25.00		114	45.4	152		0		
Surr: Toluene-d8	24.4		25.00		97.7	40.1	139		0		
Surr: 1-Bromo-4-fluorobenzene	24.3		25.00		97.4	64.2	128		0		

**NOTES:**

R - High RPD due to low analyte concentration. In this range, high RPD's may be expected.  
 Q - Indicates an analyte with a continuing calibration that does not meet established acceptance criteria

Sample ID: 1903221-001ADUP	SampType: DUP	Units: µg/L			Prep Date: 3/20/2019	RunNo: 50194					
Client ID: BATCH	Batch ID: 23900				Analysis Date: 3/20/2019	SeqNo: 985785					
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Dichlorodifluoromethane (CFC-12)	ND	1.00						0		30	
Chloromethane	ND	2.00						0		30	
Vinyl chloride	ND	0.200						0		30	
Bromomethane	ND	1.00						0		30	



**Work Order:** 1903213  
**CLIENT:** Kane Environmental, Inc.  
**Project:** BSCSS

**QC SUMMARY REPORT**  
**Volatile Organic Compounds by EPA Method 8260C**

Sample ID: <b>1903221-001ADUP</b>	SampType: <b>DUP</b>	Units: <b>µg/L</b>	Prep Date: <b>3/20/2019</b>	RunNo: <b>50194</b>							
Client ID: <b>BATCH</b>	Batch ID: <b>23900</b>		Analysis Date: <b>3/20/2019</b>	SeqNo: <b>985785</b>							
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Trichlorofluoromethane (CFC-11)	ND	1.00						0		30	
Chloroethane	ND	1.00						0		30	
1,1-Dichloroethene	ND	1.00						0		30	
Methylene chloride	ND	1.00						0		30	
trans-1,2-Dichloroethene	ND	1.00						0		30	
Methyl tert-butyl ether (MTBE)	ND	1.00						0		30	
1,1-Dichloroethane	ND	1.00						0		30	
2,2-Dichloropropane	ND	2.00						0		30	
cis-1,2-Dichloroethene	ND	1.00						0		30	
Chloroform	ND	1.00						0		30	
1,1,1-Trichloroethane (TCA)	ND	1.00						0		30	
1,1-Dichloropropene	ND	1.00						0		30	
Carbon tetrachloride	ND	1.00						0		30	
1,2-Dichloroethane (EDC)	ND	1.00						0		30	
Benzene	ND	1.00						0		30	
Trichloroethene (TCE)	ND	0.500						0		30	
1,2-Dichloropropane	ND	1.00						0		30	Q
Bromodichloromethane	ND	1.00						0		30	
Dibromomethane	ND	1.00						0		30	
cis-1,3-Dichloropropene	ND	1.00						0		30	Q
Toluene	ND	1.00						0		30	
trans-1,3-Dichloropropylene	ND	1.00						0		30	Q
1,1,2-Trichloroethane	ND	1.00						0		30	
1,3-Dichloropropane	ND	1.00						0		30	
Tetrachloroethene (PCE)	ND	1.00						0		30	
Dibromochloromethane	ND	1.00						0		30	
1,2-Dibromoethane (EDB)	ND	0.250						0		30	
Chlorobenzene	ND	1.00						0		30	
1,1,1,2-Tetrachloroethane	ND	1.00						0		30	
Ethylbenzene	ND	1.00						0		30	
m,p-Xylene	ND	1.00						0		30	

**Work Order:** 1903213  
**CLIENT:** Kane Environmental, Inc.  
**Project:** BSCSS

**QC SUMMARY REPORT**  
**Volatile Organic Compounds by EPA Method 8260C**

Sample ID: 1903221-001ADUP	SampType: DUP	Units: µg/L			Prep Date: 3/20/2019	RunNo: 50194					
Client ID: BATCH	Batch ID: 23900				Analysis Date: 3/20/2019	SeqNo: 985785					
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
o-Xylene	ND	1.00						0		30	
Styrene	ND	1.00						0		30	
Isopropylbenzene	ND	1.00						0		30	
Bromoform	ND	2.00						0		30	
1,1,2,2-Tetrachloroethane	ND	1.00						0		30	
n-Propylbenzene	ND	1.00						0		30	
Bromobenzene	ND	1.00						0		30	
1,3,5-Trimethylbenzene	ND	1.00						0		30	
2-Chlorotoluene	ND	1.00						0		30	
4-Chlorotoluene	ND	1.00						0		30	
tert-Butylbenzene	ND	1.00						0		30	
1,2,3-Trichloropropane	ND	1.00						0		30	
1,2,4-Trichlorobenzene	ND	2.00						0		30	
sec-Butylbenzene	ND	1.00						0		30	
4-Isopropyltoluene	ND	1.00						0		30	
1,3-Dichlorobenzene	ND	1.00						0		30	
1,4-Dichlorobenzene	ND	1.00						0		30	
n-Butylbenzene	ND	1.00						0		30	
1,2-Dichlorobenzene	ND	1.00						0		30	
1,2-Dibromo-3-chloropropane	ND	1.00						0		30	
1,2,4-Trimethylbenzene	ND	1.00						0		30	
Hexachloro-1,3-butadiene	ND	4.00						0		30	
Naphthalene	ND	1.00						0		30	
1,2,3-Trichlorobenzene	ND	4.00						0		30	
Surr: Dibromofluoromethane	28.6		25.00		115	45.4	152		0		
Surr: Toluene-d8	24.5		25.00		98.1	40.1	139		0		
Surr: 1-Bromo-4-fluorobenzene	23.7		25.00		94.8	64.2	128		0		

**NOTES:**

Q - Indicates an analyte with a continuing calibration that does not meet established acceptance criteria

Client Name: **KANE**

 Work Order Number: **1903213**

 Logged by: **Clare Griggs**

 Date Received: **3/14/2019 3:45:00 PM**

### Chain of Custody

1. Is Chain of Custody complete? Yes  No  Not Present
2. How was the sample delivered? Client

### Log In

3. Coolers are present? Yes  No  NA
4. Shipping container/cooler in good condition? Yes  No
5. Custody Seals present on shipping container/cooler?  
(Refer to comments for Custody Seals not intact) Yes  No  Not Required
6. Was an attempt made to cool the samples? Yes  No  NA
7. Were all items received at a temperature of >0°C to 10.0°C\* Yes  No  NA
8. Sample(s) in proper container(s)? Yes  No
9. Sufficient sample volume for indicated test(s)? Yes  No
10. Are samples properly preserved? Yes  No
11. Was preservative added to bottles? Yes  No  NA
12. Is there headspace in the VOA vials? Yes  No  NA
13. Did all samples containers arrive in good condition(unbroken)? Yes  No
14. Does paperwork match bottle labels? Yes  No
15. Are matrices correctly identified on Chain of Custody? Yes  No
16. Is it clear what analyses were requested? Yes  No
17. Were all holding times able to be met? Yes  No

### Special Handling (if applicable)

18. Was client notified of all discrepancies with this order? Yes  No  NA

Person Notified:	<input type="text"/>	Date:	<input type="text"/>
By Whom:	<input type="text"/>	Via:	<input type="checkbox"/> eMail <input type="checkbox"/> Phone <input type="checkbox"/> Fax <input type="checkbox"/> In Person
Regarding:	<input type="text"/>		
Client Instructions:	<input type="text"/>		

19. Additional remarks:

### Item Information

Item #	Temp °C
Cooler	2.8
Sample	4.7

\* Note: DoD/ELAP and TNI require items to be received at 4°C +/- 2°C



3600 Fremont Ave N.  
Seattle, WA 98103  
Tel: 206-352-3790  
Fax: 206-352-7178

# Chain of Custody Record & Laboratory Services Agreement

Date: 3/14/19 Page: 1 of 1

Laboratory Project No (Internal): 1903213

Client: Kane Environmental

Project Name: BSCSS

Special Remarks:

Address: 4015 13th Ave W

Project No: 812802-9.4

Sample Disposal:  Return to client  Disposal by lab (after 30 days)

City, State, Zip: Seattle, WA 98119

Collected by: BG

Location: Bothell, WA

Telephone: (206) 691 0470

Report To (PM): KFF Jensen

PM Email: kff@kane-environmental.com

Fax:

Sample Name	Sample Date	Sample Time	Sample Type (Matrix)*	VOCs (EPA 8260 / 624)	GX/BTEX	BTEX	Gasoline Range Organics (GX)	Hydrocarbon Identification (HCID)	Diesel/Heavy Oil Range Organics (DHO)	SVOCs (EPA 8270 / 625)	PAHs (EPA 8270 - SIM)	PCBs (EPA 8082 / 608)	Metals** (EPA 6020 / 200.8)	Total (T)   Dissolved (D)	Anions (IC)**	EDB (8011)	TDC (Ammonia-N)	RSK	Comments
1 MW-20:W	3/14	1310	GW	X									X	D	X	X	X		LAB FILTER
2																			
3																			
4																			
5																			
6																			
7																			
8																			
9																			
10																			

\*Matrix: A = Air, AQ = Aqueous, B = Bulk, O = Other, P = Product, S = Soil, SD = Sediment, SL = Solid, W = Water, DW = Drinking Water, GW = Ground Water, SW = Storm Water, WW = Waste Water

\*\*Metals (Circle): MTCAs-5 RCRA-8 Priority Pollutants IAL Individual: Ag Al As B Ba Be Ca Cd Co Cr Cu Fe Hg K Mg Mn Mo Na Ni Pb Sb Se Sr Sn Tl U V Zn

\*\*\*Anions (Circle): Nitrate Nitrite Chloride Sulfate Bromide O-Phosphate Fluoride Nitrate-Nitrite

I represent that I am authorized to enter into this Agreement with Fremont Analytical on behalf of the Client named above and that I have verified Client's agreement to each of the terms on the front and backside of this Agreement.

Relinquished  Received  Date/Time 3/14/19 1545

Relinquished  Received  Date/Time 3/14/19 1545

Turn-around Time:  Standard  3 Day  2 Day  Next Day  Same Day (specify) \_\_\_\_\_



3600 Fremont Ave. N.  
Seattle, WA 98103  
T: (206) 352-3790  
F: (206) 352-7178  
info@fremontanalytical.com

**Kane Environmental, Inc.**

Jeff Jensen  
4015 13th Ave W.  
Seattle, WA 98103

**RE: BSCSS**

**Work Order Number: 1903253**

March 25, 2019

**Attention Jeff Jensen:**

Fremont Analytical, Inc. received 2 sample(s) on 3/18/2019 for the analyses presented in the following report.

***Ammonia by SM 4500 NH3G***  
***Dissolved Gases by RSK-175***  
***Dissolved Metals by EPA Method 200.8***  
***Ion Chromatography by EPA Method 300.0***  
***Total Organic Carbon by SM 5310C***  
***Volatile Organic Compounds by EPA Method 8260C***

This report consists of the following:

- Case Narrative
- Analytical Results
- Applicable Quality Control Summary Reports
- Chain of Custody

All analyses were performed consistent with the Quality Assurance program of Fremont Analytical, Inc. Please contact the laboratory if you should have any questions about the results.

Thank you for using Fremont Analytical.

Sincerely,

Chelsea Ward  
Project Manager

DoD/ELAP Certification #L 17-135, ISO/IEC 17025:2005  
ORELAP Certification: WA 100009-007 (NELAP Recognized)



Date: 03/25/2019

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**CLIENT:** Kane Environmental, Inc.  
**Project:** BSCSS  
**Work Order:** 1903253

## Work Order Sample Summary

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Lab Sample ID	Client Sample ID	Date/Time Collected	Date/Time Received
1903253-001	MW-43:W	03/18/2019 12:40 PM	03/18/2019 3:02 PM
1903253-002	MW-42:W	03/18/2019 2:00 PM	03/18/2019 3:02 PM

**CLIENT:** Kane Environmental, Inc.

**Project:** BSCSS

---

**I. SAMPLE RECEIPT:**

Samples receipt information is recorded on the attached Sample Receipt Checklist.

**II. GENERAL REPORTING COMMENTS:**

Results are reported on a wet weight basis unless dry-weight correction is denoted in the units field on the analytical report ("mg/kg-dry" or "ug/kg-dry").

Matrix Spike (MS) and MS Duplicate (MSD) samples are tested from an analytical batch of "like" matrix to check for possible matrix effect. The MS and MSD will provide site specific matrix data only for those samples which are spiked by the laboratory. The sample chosen for spike purposes may or may not have been a sample submitted in this sample delivery group. The validity of the analytical procedures for which data is reported in this analytical report is determined by the Laboratory Control Sample (LCS) and the Method Blank (MB). The LCS and the MB are processed with the samples and the MS/MSD to ensure method criteria are achieved throughout the entire analytical process.

**III. ANALYSES AND EXCEPTIONS:**

Exceptions associated with this report will be footnoted in the analytical results page(s) or the quality control summary page(s) and/or noted below.

### Qualifiers:

- \* - Flagged value is not within established control limits
- B - Analyte detected in the associated Method Blank
- D - Dilution was required
- E - Value above quantitation range
- H - Holding times for preparation or analysis exceeded
- I - Analyte with an internal standard that does not meet established acceptance criteria
- J - Analyte detected below Reporting Limit
- N - Tentatively Identified Compound (TIC)
- Q - Analyte with an initial or continuing calibration that does not meet established acceptance criteria (<20%RSD, <20% Drift or minimum RRF)
- S - Spike recovery outside accepted recovery limits
- ND - Not detected at the Reporting Limit
- R - High relative percent difference observed

### Acronyms:

- %Rec - Percent Recovery
- CCB - Continued Calibration Blank
- CCV - Continued Calibration Verification
- DF - Dilution Factor
- HEM - Hexane Extractable Material
- ICV - Initial Calibration Verification
- LCS/LCSD - Laboratory Control Sample / Laboratory Control Sample Duplicate
- MB or MBLANK - Method Blank
- MDL - Method Detection Limit
- MS/MSD - Matrix Spike / Matrix Spike Duplicate
- PDS - Post Digestion Spike
- Ref Val - Reference Value
- RL - Reporting Limit
- RPD - Relative Percent Difference
- SD - Serial Dilution
- SGT - Silica Gel Treatment
- SPK - Spike
- Surr - Surrogate





**Client:** Kane Environmental, Inc.

**Collection Date:** 3/18/2019 12:40:00 PM

**Project:** BSCSS

**Lab ID:** 1903253-001

**Matrix:** Groundwater

**Client Sample ID:** MW-43:W

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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**Dissolved Gases by RSK-175**

Batch ID: R50163 Analyst: AD

Methane	0.0336	0.00863		mg/L	1	3/19/2019 3:34:00 PM
Ethene	ND	0.0151		mg/L	1	3/19/2019 3:34:00 PM
Ethane	ND	0.0162		mg/L	1	3/19/2019 3:34:00 PM

**Volatile Organic Compounds by EPA Method 8260C**

Batch ID: 23914 Analyst: KT

Dichlorodifluoromethane (CFC-12)	ND	1.00		µg/L	1	3/22/2019 7:06:42 AM
Chloromethane	ND	2.00		µg/L	1	3/22/2019 7:06:42 AM
Vinyl chloride	ND	0.200		µg/L	1	3/22/2019 7:06:42 AM
Bromomethane	ND	1.00		µg/L	1	3/22/2019 7:06:42 AM
Trichlorofluoromethane (CFC-11)	ND	1.00		µg/L	1	3/22/2019 7:06:42 AM
Chloroethane	ND	1.00		µg/L	1	3/22/2019 7:06:42 AM
1,1-Dichloroethene	ND	1.00		µg/L	1	3/22/2019 7:06:42 AM
Methylene chloride	ND	1.00		µg/L	1	3/22/2019 7:06:42 AM
trans-1,2-Dichloroethene	ND	1.00		µg/L	1	3/22/2019 7:06:42 AM
Methyl tert-butyl ether (MTBE)	ND	1.00		µg/L	1	3/22/2019 7:06:42 AM
1,1-Dichloroethane	ND	1.00		µg/L	1	3/22/2019 7:06:42 AM
2,2-Dichloropropane	ND	2.00		µg/L	1	3/22/2019 7:06:42 AM
cis-1,2-Dichloroethene	1.20	1.00		µg/L	1	3/22/2019 7:06:42 AM
Chloroform	2.49	1.00		µg/L	1	3/22/2019 7:06:42 AM
1,1,1-Trichloroethane (TCA)	ND	1.00		µg/L	1	3/22/2019 7:06:42 AM
1,1-Dichloropropene	ND	1.00		µg/L	1	3/22/2019 7:06:42 AM
Carbon tetrachloride	ND	1.00		µg/L	1	3/22/2019 7:06:42 AM
1,2-Dichloroethane (EDC)	3.03	1.00		µg/L	1	3/22/2019 7:06:42 AM
Benzene	ND	1.00		µg/L	1	3/22/2019 7:06:42 AM
Trichloroethene (TCE)	ND	0.500		µg/L	1	3/22/2019 7:06:42 AM
1,2-Dichloropropane	ND	1.00		µg/L	1	3/22/2019 7:06:42 AM
Bromodichloromethane	ND	1.00		µg/L	1	3/22/2019 7:06:42 AM
Dibromomethane	ND	1.00		µg/L	1	3/22/2019 7:06:42 AM
cis-1,3-Dichloropropene	ND	1.00		µg/L	1	3/22/2019 7:06:42 AM
Toluene	ND	1.00		µg/L	1	3/22/2019 7:06:42 AM
trans-1,3-Dichloropropylene	ND	1.00		µg/L	1	3/22/2019 7:06:42 AM
1,1,2-Trichloroethane	ND	1.00		µg/L	1	3/22/2019 7:06:42 AM
1,3-Dichloropropane	ND	1.00		µg/L	1	3/22/2019 7:06:42 AM
Tetrachloroethene (PCE)	1.66	1.00		µg/L	1	3/22/2019 7:06:42 AM
Dibromochloromethane	ND	1.00		µg/L	1	3/22/2019 7:06:42 AM
1,2-Dibromoethane (EDB)	ND	0.250		µg/L	1	3/22/2019 7:06:42 AM
Chlorobenzene	ND	1.00		µg/L	1	3/22/2019 7:06:42 AM
1,1,1,2-Tetrachloroethane	ND	1.00		µg/L	1	3/22/2019 7:06:42 AM



**Client:** Kane Environmental, Inc.

**Collection Date:** 3/18/2019 12:40:00 PM

**Project:** BSCSS

**Lab ID:** 1903253-001

**Matrix:** Groundwater

**Client Sample ID:** MW-43:W

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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**Volatile Organic Compounds by EPA Method 8260C**

Batch ID: 23914

Analyst: KT

Ethylbenzene	ND	1.00		µg/L	1	3/22/2019 7:06:42 AM
m,p-Xylene	ND	1.00		µg/L	1	3/22/2019 7:06:42 AM
o-Xylene	ND	1.00		µg/L	1	3/22/2019 7:06:42 AM
Styrene	ND	1.00		µg/L	1	3/22/2019 7:06:42 AM
Isopropylbenzene	ND	1.00		µg/L	1	3/22/2019 7:06:42 AM
Bromoform	ND	2.00		µg/L	1	3/22/2019 7:06:42 AM
1,1,2,2-Tetrachloroethane	ND	1.00		µg/L	1	3/22/2019 7:06:42 AM
n-Propylbenzene	ND	1.00		µg/L	1	3/22/2019 7:06:42 AM
Bromobenzene	ND	1.00		µg/L	1	3/22/2019 7:06:42 AM
1,3,5-Trimethylbenzene	ND	1.00		µg/L	1	3/22/2019 7:06:42 AM
2-Chlorotoluene	ND	1.00		µg/L	1	3/22/2019 7:06:42 AM
4-Chlorotoluene	ND	1.00		µg/L	1	3/22/2019 7:06:42 AM
tert-Butylbenzene	ND	1.00		µg/L	1	3/22/2019 7:06:42 AM
1,2,3-Trichloropropane	ND	1.00		µg/L	1	3/22/2019 7:06:42 AM
1,2,4-Trichlorobenzene	ND	2.00		µg/L	1	3/22/2019 7:06:42 AM
sec-Butylbenzene	ND	1.00		µg/L	1	3/22/2019 7:06:42 AM
4-Isopropyltoluene	ND	1.00		µg/L	1	3/22/2019 7:06:42 AM
1,3-Dichlorobenzene	ND	1.00		µg/L	1	3/22/2019 7:06:42 AM
1,4-Dichlorobenzene	ND	1.00		µg/L	1	3/22/2019 7:06:42 AM
n-Butylbenzene	ND	1.00		µg/L	1	3/22/2019 7:06:42 AM
1,2-Dichlorobenzene	ND	1.00		µg/L	1	3/22/2019 7:06:42 AM
1,2-Dibromo-3-chloropropane	ND	1.00		µg/L	1	3/22/2019 7:06:42 AM
1,2,4-Trimethylbenzene	ND	1.00		µg/L	1	3/22/2019 7:06:42 AM
Hexachloro-1,3-butadiene	ND	4.00		µg/L	1	3/22/2019 7:06:42 AM
Naphthalene	ND	1.00		µg/L	1	3/22/2019 7:06:42 AM
1,2,3-Trichlorobenzene	ND	4.00		µg/L	1	3/22/2019 7:06:42 AM
Surr: Dibromofluoromethane	102	45.4 - 152		%Rec	1	3/22/2019 7:06:42 AM
Surr: Toluene-d8	103	40.1 - 139		%Rec	1	3/22/2019 7:06:42 AM
Surr: 1-Bromo-4-fluorobenzene	99.3	64.2 - 128		%Rec	1	3/22/2019 7:06:42 AM

**Ion Chromatography by EPA Method 300.0**

Batch ID: 23883

Analyst: GM

Chloride	3.34	0.500	D	mg/L	5	3/19/2019 6:23:00 PM
Sulfate	14.4	1.50	D	mg/L	5	3/19/2019 6:23:00 PM

**Dissolved Metals by EPA Method 200.8**

Batch ID: 23888

Analyst: WC

Iron	286	100		µg/L	1	3/20/2019 11:56:21 AM
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**Client:** Kane Environmental, Inc.

**Collection Date:** 3/18/2019 12:40:00 PM

**Project:** BSCSS

**Lab ID:** 1903253-001

**Matrix:** Groundwater

**Client Sample ID:** MW-43:W

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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**Total Organic Carbon by SM 5310C**

Batch ID: R50225 Analyst: GM

Total Organic Carbon	8.25	0.500		mg/L	1	3/20/2019 3:27:00 PM
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**Ammonia by SM 4500 NH3G**

Batch ID: 23923 Analyst: GM

Nitrogen, Ammonia	ND	0.100		mg/L	1	3/21/2019 5:18:00 PM
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**Client:** Kane Environmental, Inc.

**Collection Date:** 3/18/2019 2:00:00 PM

**Project:** BSCSS

**Lab ID:** 1903253-002

**Matrix:** Groundwater

**Client Sample ID:** MW-42:W

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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**Dissolved Gases by RSK-175**

Batch ID: R50163 Analyst: AD

Methane	0.177	0.00863		mg/L	1	3/19/2019 3:38:00 PM
Ethene	ND	0.0151		mg/L	1	3/19/2019 3:38:00 PM
Ethane	ND	0.0162		mg/L	1	3/19/2019 3:38:00 PM

**Volatile Organic Compounds by EPA Method 8260C**

Batch ID: 23914 Analyst: KT

Dichlorodifluoromethane (CFC-12)	ND	1.00		µg/L	1	3/22/2019 7:37:19 AM
Chloromethane	ND	2.00		µg/L	1	3/22/2019 7:37:19 AM
Vinyl chloride	ND	0.200		µg/L	1	3/22/2019 7:37:19 AM
Bromomethane	ND	1.00		µg/L	1	3/22/2019 7:37:19 AM
Trichlorofluoromethane (CFC-11)	ND	1.00		µg/L	1	3/22/2019 7:37:19 AM
Chloroethane	ND	1.00		µg/L	1	3/22/2019 7:37:19 AM
1,1-Dichloroethene	ND	1.00		µg/L	1	3/22/2019 7:37:19 AM
Methylene chloride	6.15	1.00		µg/L	1	3/22/2019 7:37:19 AM
trans-1,2-Dichloroethene	ND	1.00		µg/L	1	3/22/2019 7:37:19 AM
Methyl tert-butyl ether (MTBE)	ND	1.00		µg/L	1	3/22/2019 7:37:19 AM
1,1-Dichloroethane	ND	1.00		µg/L	1	3/22/2019 7:37:19 AM
2,2-Dichloropropane	ND	2.00		µg/L	1	3/22/2019 7:37:19 AM
cis-1,2-Dichloroethene	ND	1.00		µg/L	1	3/22/2019 7:37:19 AM
Chloroform	1.15	1.00		µg/L	1	3/22/2019 7:37:19 AM
1,1,1-Trichloroethane (TCA)	ND	1.00		µg/L	1	3/22/2019 7:37:19 AM
1,1-Dichloropropene	ND	1.00		µg/L	1	3/22/2019 7:37:19 AM
Carbon tetrachloride	ND	1.00		µg/L	1	3/22/2019 7:37:19 AM
1,2-Dichloroethane (EDC)	ND	1.00		µg/L	1	3/22/2019 7:37:19 AM
Benzene	ND	1.00		µg/L	1	3/22/2019 7:37:19 AM
Trichloroethene (TCE)	ND	0.500		µg/L	1	3/22/2019 7:37:19 AM
1,2-Dichloropropane	ND	1.00		µg/L	1	3/22/2019 7:37:19 AM
Bromodichloromethane	ND	1.00		µg/L	1	3/22/2019 7:37:19 AM
Dibromomethane	ND	1.00		µg/L	1	3/22/2019 7:37:19 AM
cis-1,3-Dichloropropene	ND	1.00		µg/L	1	3/22/2019 7:37:19 AM
Toluene	ND	1.00		µg/L	1	3/22/2019 7:37:19 AM
trans-1,3-Dichloropropylene	ND	1.00		µg/L	1	3/22/2019 7:37:19 AM
1,1,2-Trichloroethane	ND	1.00		µg/L	1	3/22/2019 7:37:19 AM
1,3-Dichloropropane	ND	1.00		µg/L	1	3/22/2019 7:37:19 AM
Tetrachloroethene (PCE)	ND	1.00		µg/L	1	3/22/2019 7:37:19 AM
Dibromochloromethane	ND	1.00		µg/L	1	3/22/2019 7:37:19 AM
1,2-Dibromoethane (EDB)	ND	0.250		µg/L	1	3/22/2019 7:37:19 AM
Chlorobenzene	ND	1.00		µg/L	1	3/22/2019 7:37:19 AM
1,1,1,2-Tetrachloroethane	ND	1.00		µg/L	1	3/22/2019 7:37:19 AM



**Client:** Kane Environmental, Inc.

**Collection Date:** 3/18/2019 2:00:00 PM

**Project:** BSCSS

**Lab ID:** 1903253-002

**Matrix:** Groundwater

**Client Sample ID:** MW-42:W

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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**Volatile Organic Compounds by EPA Method 8260C**

Batch ID: 23914

Analyst: KT

Ethylbenzene	ND	1.00		µg/L	1	3/22/2019 7:37:19 AM
m,p-Xylene	ND	1.00		µg/L	1	3/22/2019 7:37:19 AM
o-Xylene	ND	1.00		µg/L	1	3/22/2019 7:37:19 AM
Styrene	ND	1.00		µg/L	1	3/22/2019 7:37:19 AM
Isopropylbenzene	ND	1.00		µg/L	1	3/22/2019 7:37:19 AM
Bromoform	ND	2.00		µg/L	1	3/22/2019 7:37:19 AM
1,1,2,2-Tetrachloroethane	ND	1.00		µg/L	1	3/22/2019 7:37:19 AM
n-Propylbenzene	ND	1.00		µg/L	1	3/22/2019 7:37:19 AM
Bromobenzene	ND	1.00		µg/L	1	3/22/2019 7:37:19 AM
1,3,5-Trimethylbenzene	ND	1.00		µg/L	1	3/22/2019 7:37:19 AM
2-Chlorotoluene	ND	1.00		µg/L	1	3/22/2019 7:37:19 AM
4-Chlorotoluene	ND	1.00		µg/L	1	3/22/2019 7:37:19 AM
tert-Butylbenzene	ND	1.00		µg/L	1	3/22/2019 7:37:19 AM
1,2,3-Trichloropropane	ND	1.00		µg/L	1	3/22/2019 7:37:19 AM
1,2,4-Trichlorobenzene	ND	2.00		µg/L	1	3/22/2019 7:37:19 AM
sec-Butylbenzene	ND	1.00		µg/L	1	3/22/2019 7:37:19 AM
4-Isopropyltoluene	ND	1.00		µg/L	1	3/22/2019 7:37:19 AM
1,3-Dichlorobenzene	ND	1.00		µg/L	1	3/22/2019 7:37:19 AM
1,4-Dichlorobenzene	ND	1.00		µg/L	1	3/22/2019 7:37:19 AM
n-Butylbenzene	ND	1.00		µg/L	1	3/22/2019 7:37:19 AM
1,2-Dichlorobenzene	ND	1.00		µg/L	1	3/22/2019 7:37:19 AM
1,2-Dibromo-3-chloropropane	ND	1.00		µg/L	1	3/22/2019 7:37:19 AM
1,2,4-Trimethylbenzene	ND	1.00		µg/L	1	3/22/2019 7:37:19 AM
Hexachloro-1,3-butadiene	ND	4.00		µg/L	1	3/22/2019 7:37:19 AM
Naphthalene	ND	1.00		µg/L	1	3/22/2019 7:37:19 AM
1,2,3-Trichlorobenzene	ND	4.00		µg/L	1	3/22/2019 7:37:19 AM
Surr: Dibromofluoromethane	103	45.4 - 152		%Rec	1	3/22/2019 7:37:19 AM
Surr: Toluene-d8	104	40.1 - 139		%Rec	1	3/22/2019 7:37:19 AM
Surr: 1-Bromo-4-fluorobenzene	99.3	64.2 - 128		%Rec	1	3/22/2019 7:37:19 AM

**Ion Chromatography by EPA Method 300.0**

Batch ID: 23883

Analyst: GM

Chloride	3.57	0.500	D	mg/L	5	3/19/2019 6:46:00 PM
Sulfate	1.99	0.300		mg/L	1	3/19/2019 7:32:00 PM

**Dissolved Metals by EPA Method 200.8**

Batch ID: 23888

Analyst: WC

Iron	821	100		µg/L	1	3/20/2019 12:00:24 PM
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**Client:** Kane Environmental, Inc.

**Collection Date:** 3/18/2019 2:00:00 PM

**Project:** BSCSS

**Lab ID:** 1903253-002

**Matrix:** Groundwater

**Client Sample ID:** MW-42:W

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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**Total Organic Carbon by SM 5310C**

Batch ID: R50225     Analyst: GM

Total Organic Carbon	1.90	0.500		mg/L	1	3/20/2019 4:53:00 PM
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**Ammonia by SM 4500 NH3G**

Batch ID: 23923     Analyst: GM

Nitrogen, Ammonia	0.266	0.100		mg/L	1	3/21/2019 5:39:00 PM
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**Work Order:** 1903253  
**CLIENT:** Kane Environmental, Inc.  
**Project:** BSCSS

**QC SUMMARY REPORT**  
**Ammonia by SM 4500 NH3G**

Sample ID <b>MB-23923</b>	SampType: <b>MBLK</b>	Units: <b>mg/L</b>	Prep Date: <b>3/21/2019</b>	RunNo: <b>50208</b>							
Client ID: <b>MBLKW</b>	Batch ID: <b>23923</b>		Analysis Date: <b>3/21/2019</b>	SeqNo: <b>986135</b>							
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Nitrogen, Ammonia ND 0.100

Sample ID <b>LCS-23923</b>	SampType: <b>LCS</b>	Units: <b>mg/L</b>	Prep Date: <b>3/21/2019</b>	RunNo: <b>50208</b>							
Client ID: <b>LCSW</b>	Batch ID: <b>23923</b>		Analysis Date: <b>3/21/2019</b>	SeqNo: <b>986136</b>							
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Nitrogen, Ammonia 0.533 0.100 0.5000 0 107 80 120

Sample ID <b>1903253-001EDUP</b>	SampType: <b>DUP</b>	Units: <b>mg/L</b>	Prep Date: <b>3/21/2019</b>	RunNo: <b>50208</b>							
Client ID: <b>MW-43:W</b>	Batch ID: <b>23923</b>		Analysis Date: <b>3/21/2019</b>	SeqNo: <b>986138</b>							
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Nitrogen, Ammonia ND 0.100 0 30

Sample ID <b>1903253-001EMS</b>	SampType: <b>MS</b>	Units: <b>mg/L</b>	Prep Date: <b>3/21/2019</b>	RunNo: <b>50208</b>							
Client ID: <b>MW-43:W</b>	Batch ID: <b>23923</b>		Analysis Date: <b>3/21/2019</b>	SeqNo: <b>986139</b>							
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Nitrogen, Ammonia 0.501 0.100 0.5000 0.05700 88.8 70 130

Sample ID <b>1903253-001EMSD</b>	SampType: <b>MSD</b>	Units: <b>mg/L</b>	Prep Date: <b>3/21/2019</b>	RunNo: <b>50208</b>							
Client ID: <b>MW-43:W</b>	Batch ID: <b>23923</b>		Analysis Date: <b>3/21/2019</b>	SeqNo: <b>986140</b>							
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Nitrogen, Ammonia 0.497 0.100 0.5000 0.05700 88.0 70 130 0.5010 0.802 30

Work Order: 1903253  
 CLIENT: Kane Environmental, Inc.  
 Project: BSCSS

**QC SUMMARY REPORT**  
**Ion Chromatography by EPA Method 300.0**

Sample ID <b>MB-23883</b>	SampType: <b>MBLK</b>	Units: <b>mg/L</b>	Prep Date: <b>3/19/2019</b>	RunNo: <b>50164</b>							
Client ID: <b>MBLKW</b>	Batch ID: <b>23883</b>		Analysis Date: <b>3/19/2019</b>	SeqNo: <b>984863</b>							
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Chloride	ND	0.100									
Sulfate	ND	0.300									

Sample ID <b>LCS-23883</b>	SampType: <b>LCS</b>	Units: <b>mg/L</b>	Prep Date: <b>3/19/2019</b>	RunNo: <b>50164</b>							
Client ID: <b>LCSW</b>	Batch ID: <b>23883</b>		Analysis Date: <b>3/19/2019</b>	SeqNo: <b>984864</b>							
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Chloride	0.727	0.100	0.7500	0	96.9	90	110				
Sulfate	3.58	0.300	3.750	0	95.4	90	110				

Sample ID <b>1903216-003ADUP</b>	SampType: <b>DUP</b>	Units: <b>mg/L</b>	Prep Date: <b>3/19/2019</b>	RunNo: <b>50164</b>							
Client ID: <b>BATCH</b>	Batch ID: <b>23883</b>		Analysis Date: <b>3/19/2019</b>	SeqNo: <b>984868</b>							
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Chloride	6.97	0.100						6.929	0.604	20	E
Sulfate	2.31	0.300						2.277	1.57	20	

**NOTES:**

E - Estimated value. The amount exceeds the linear working range of the instrument.

Sample ID <b>1903216-003AMS</b>	SampType: <b>MS</b>	Units: <b>mg/L</b>	Prep Date: <b>3/19/2019</b>	RunNo: <b>50164</b>							
Client ID: <b>BATCH</b>	Batch ID: <b>23883</b>		Analysis Date: <b>3/19/2019</b>	SeqNo: <b>984869</b>							
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Chloride	7.83	0.100	0.7500	6.929	120	80	120				ES
Sulfate	6.11	0.300	3.750	2.277	102	80	120				

**NOTES:**

S - Outlying spike recovery(ies) observed. A duplicate analysis was performed and recovered within range.

E - Estimated value. The amount exceeds the linear working range of the instrument.



**Work Order:** 1903253  
**CLIENT:** Kane Environmental, Inc.  
**Project:** BSCSS

**QC SUMMARY REPORT**  
**Ion Chromatography by EPA Method 300.0**

Sample ID	1903216-003AMSD	SampType:	MSD	Units:	mg/L	Prep Date:	3/19/2019	RunNo:	50164
Client ID:	BATCH	Batch ID:	23883			Analysis Date:	3/19/2019	SeqNo:	984870

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Chloride	7.82	0.100	0.7500	6.929	118	80	120	7.831	0.205	20	E
Sulfate	6.03	0.300	3.750	2.277	100	80	120	6.108	1.25	20	

**NOTES:**

E - Estimated value. The amount exceeds the linear working range of the instrument.

**Work Order:** 1903253  
**CLIENT:** Kane Environmental, Inc.  
**Project:** BSCSS

**QC SUMMARY REPORT**  
**Total Organic Carbon by SM 5310C**

Sample ID	<b>MB-50225</b>	SampType:	<b>MBLK</b>	Units:	<b>mg/L</b>	Prep Date:	<b>3/20/2019</b>	RunNo:	<b>50225</b>			
Client ID:	<b>MBLKW</b>	Batch ID:	<b>R50225</b>			Analysis Date:	<b>3/20/2019</b>	SeqNo:	<b>986466</b>			
Analyte		Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Total Organic Carbon		ND	0.500									

Sample ID	<b>LCS-50225</b>	SampType:	<b>LCS</b>	Units:	<b>mg/L</b>	Prep Date:	<b>3/20/2019</b>	RunNo:	<b>50225</b>			
Client ID:	<b>LCSW</b>	Batch ID:	<b>R50225</b>			Analysis Date:	<b>3/20/2019</b>	SeqNo:	<b>986467</b>			
Analyte		Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Total Organic Carbon		4.99	0.500	5.000	0	99.8	80	120				

Sample ID	<b>1903253-001DDUP</b>	SampType:	<b>DUP</b>	Units:	<b>mg/L</b>	Prep Date:	<b>3/20/2019</b>	RunNo:	<b>50225</b>			
Client ID:	<b>MW-43:W</b>	Batch ID:	<b>R50225</b>			Analysis Date:	<b>3/20/2019</b>	SeqNo:	<b>986469</b>			
Analyte		Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Total Organic Carbon		8.38	0.500						8.254	1.46	20	

Sample ID	<b>1903253-001DMS</b>	SampType:	<b>MS</b>	Units:	<b>mg/L</b>	Prep Date:	<b>3/20/2019</b>	RunNo:	<b>50225</b>			
Client ID:	<b>MW-43:W</b>	Batch ID:	<b>R50225</b>			Analysis Date:	<b>3/20/2019</b>	SeqNo:	<b>986470</b>			
Analyte		Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Total Organic Carbon		12.9	0.500	5.000	8.254	93.8	70	130				

Sample ID	<b>1903253-001DMSD</b>	SampType:	<b>MSD</b>	Units:	<b>mg/L</b>	Prep Date:	<b>3/20/2019</b>	RunNo:	<b>50225</b>			
Client ID:	<b>MW-43:W</b>	Batch ID:	<b>R50225</b>			Analysis Date:	<b>3/20/2019</b>	SeqNo:	<b>986471</b>			
Analyte		Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Total Organic Carbon		13.3	0.500	5.000	8.254	102	70	130	12.94	2.95	30	

Work Order: 1903253  
 CLIENT: Kane Environmental, Inc.  
 Project: BSCSS

**QC SUMMARY REPORT**  
**Dissolved Metals by EPA Method 200.8**

Sample ID	<b>MB-23888</b>	SampType:	<b>MBLK</b>	Units:	<b>µg/L</b>	Prep Date:	<b>3/20/2019</b>	RunNo:	<b>50174</b>		
Client ID:	<b>MBLKW</b>	Batch ID:	<b>23888</b>	Analysis Date:	<b>3/20/2019</b>	SeqNo:	<b>985077</b>				
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Iron ND 100

Sample ID	<b>LCS-23888</b>	SampType:	<b>LCS</b>	Units:	<b>µg/L</b>	Prep Date:	<b>3/20/2019</b>	RunNo:	<b>50174</b>		
Client ID:	<b>LCSW</b>	Batch ID:	<b>23888</b>	Analysis Date:	<b>3/20/2019</b>	SeqNo:	<b>985080</b>				
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Iron 953 100 1,000 0 95.3 50 150

Sample ID	<b>1903105-023DDUP</b>	SampType:	<b>DUP</b>	Units:	<b>µg/L</b>	Prep Date:	<b>3/20/2019</b>	RunNo:	<b>50174</b>		
Client ID:	<b>BATCH</b>	Batch ID:	<b>23888</b>	Analysis Date:	<b>3/20/2019</b>	SeqNo:	<b>985082</b>				
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Iron ND 100 0 30

Sample ID	<b>1903105-023DMS</b>	SampType:	<b>MS</b>	Units:	<b>µg/L</b>	Prep Date:	<b>3/20/2019</b>	RunNo:	<b>50174</b>		
Client ID:	<b>BATCH</b>	Batch ID:	<b>23888</b>	Analysis Date:	<b>3/20/2019</b>	SeqNo:	<b>985083</b>				
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Iron 4,700 100 5,000 0 94.1 50 150

Sample ID	<b>1903105-023DMSD</b>	SampType:	<b>MSD</b>	Units:	<b>µg/L</b>	Prep Date:	<b>3/20/2019</b>	RunNo:	<b>50174</b>		
Client ID:	<b>BATCH</b>	Batch ID:	<b>23888</b>	Analysis Date:	<b>3/20/2019</b>	SeqNo:	<b>985084</b>				
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Iron 4,670 100 5,000 0 93.4 50 150 4,704 0.716 30



**Work Order:** 1903253  
**CLIENT:** Kane Environmental, Inc.  
**Project:** BSCSS

**QC SUMMARY REPORT**  
**Dissolved Metals by EPA Method 200.8**

Sample ID <b>MB-23873FB</b>	SampType: <b>MBLK</b>	Units: <b>µg/L</b>	Prep Date: <b>3/20/2019</b>	RunNo: <b>50174</b>							
Client ID: <b>MBLKW</b>	Batch ID: <b>23888</b>	Analysis Date: <b>3/20/2019</b>	SeqNo: <b>985088</b>								
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Iron ND 100

**NOTES:**  
Filter Blank

Work Order: 1903253  
 CLIENT: Kane Environmental, Inc.  
 Project: BSCSS

**QC SUMMARY REPORT**  
**Dissolved Gases by RSK-175**

Sample ID	<b>MB-R50163</b>	SampType:	<b>MBLK</b>	Units:	<b>mg/L</b>	Prep Date:	<b>3/19/2019</b>	RunNo:	<b>50163</b>		
Client ID:	<b>MBLKW</b>	Batch ID:	<b>R50163</b>			Analysis Date:	<b>3/19/2019</b>	SeqNo:	<b>984857</b>		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Methane	ND	0.00863									
Ethene	ND	0.0151									
Ethane	ND	0.0162									

Sample ID	<b>LCS-R50163</b>	SampType:	<b>LCS</b>	Units:	<b>mg/L</b>	Prep Date:	<b>3/19/2019</b>	RunNo:	<b>50163</b>		
Client ID:	<b>LCSW</b>	Batch ID:	<b>R50163</b>			Analysis Date:	<b>3/19/2019</b>	SeqNo:	<b>984856</b>		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Methane	1,050	0.00863	1,000	0	105	70	130				
Ethene	1,060	0.0151	1,000	0	106	70	130				
Ethane	1,050	0.0162	1,000	0	105	70	130				

Sample ID	<b>1903203-001FREP</b>	SampType:	<b>REP</b>	Units:	<b>mg/L</b>	Prep Date:	<b>3/19/2019</b>	RunNo:	<b>50163</b>		
Client ID:	<b>BATCH</b>	Batch ID:	<b>R50163</b>			Analysis Date:	<b>3/19/2019</b>	SeqNo:	<b>984849</b>		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Methane	0.409	0.00863						0.3073	28.4	30	E
Ethene	ND	0.0151						0		30	
Ethane	ND	0.0162						0		30	

**NOTES:**

E - Estimated value. The amount exceeds the linear working range of the instrument.



Work Order: 1903253  
 CLIENT: Kane Environmental, Inc.  
 Project: BSCSS

**QC SUMMARY REPORT**  
**Volatile Organic Compounds by EPA Method 8260C**

Sample ID	<b>LCS-23914</b>	SampType:	<b>LCS</b>	Units:	<b>µg/L</b>	Prep Date:	<b>3/21/2019</b>	RunNo:	<b>50213</b>
Client ID:	<b>LCSW</b>	Batch ID:	<b>23914</b>			Analysis Date:	<b>3/21/2019</b>	SeqNo:	<b>986224</b>

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Dichlorodifluoromethane (CFC-12)	28.7	1.00	20.00	0	144	18.7	171				
Chloromethane	19.0	2.00	20.00	0	95.0	38.5	171				
Vinyl chloride	23.4	0.200	20.00	0	117	48	145				
Bromomethane	43.7	1.00	20.00	0	218	32.5	184				S
Trichlorofluoromethane (CFC-11)	23.7	1.00	20.00	0	118	43.5	149				
Chloroethane	23.6	1.00	20.00	0	118	43.8	168				
1,1-Dichloroethene	22.8	1.00	20.00	0	114	57.5	150				
Methylene chloride	22.1	1.00	20.00	0	111	67.1	131				
trans-1,2-Dichloroethene	22.1	1.00	20.00	0	110	71.7	129				
Methyl tert-butyl ether (MTBE)	21.2	1.00	20.00	0	106	58	138				
1,1-Dichloroethane	22.2	1.00	20.00	0	111	67.9	134				
2,2-Dichloropropane	21.0	2.00	20.00	0	105	26.5	185				
cis-1,2-Dichloroethene	21.9	1.00	20.00	0	110	70.2	139				
Chloroform	22.2	1.00	20.00	0	111	66.3	131				
1,1,1-Trichloroethane (TCA)	22.5	1.00	20.00	0	112	63	140				
1,1-Dichloropropene	22.4	1.00	20.00	0	112	69.9	124				
Carbon tetrachloride	22.3	1.00	20.00	0	111	66.2	134				
1,2-Dichloroethane (EDC)	21.9	1.00	20.00	0	109	67	126				
Benzene	22.3	1.00	20.00	0	112	69.3	132				
Trichloroethene (TCE)	23.1	0.500	20.00	0	115	65.2	136				
1,2-Dichloropropane	21.6	1.00	20.00	0	108	70.5	130				
Bromodichloromethane	22.0	1.00	20.00	0	110	67.2	137				
Dibromomethane	21.8	1.00	20.00	0	109	69.3	143				
cis-1,3-Dichloropropene	20.9	1.00	20.00	0	105	62.6	137				
Toluene	22.1	1.00	20.00	0	110	61.3	145				
trans-1,3-Dichloropropylene	20.4	1.00	20.00	0	102	56.5	163				
1,1,2-Trichloroethane	21.1	1.00	20.00	0	106	71.7	131				
1,3-Dichloropropane	21.1	1.00	20.00	0	106	73.5	127				
Tetrachloroethene (PCE)	21.2	1.00	20.00	0	106	47.5	147				
Dibromochloromethane	20.8	1.00	20.00	0	104	67.2	134				
1,2-Dibromoethane (EDB)	20.8	0.250	20.00	0	104	73.6	125				

Work Order: 1903253  
 CLIENT: Kane Environmental, Inc.  
 Project: BSCSS

**QC SUMMARY REPORT**  
**Volatile Organic Compounds by EPA Method 8260C**

Sample ID	LCS-23914	SampType:	LCS	Units:	µg/L	Prep Date:	3/21/2019	RunNo:	50213		
Client ID:	LCSW	Batch ID:	23914	Analysis Date:	3/21/2019	SeqNo:	986224				
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Chlorobenzene	21.3	1.00	20.00	0	106	73.9	126				
1,1,1,2-Tetrachloroethane	20.4	1.00	20.00	0	102	76.8	124				
Ethylbenzene	22.9	1.00	20.00	0	115	72	130				
m,p-Xylene	43.3	1.00	40.00	0	108	70.3	134				
o-Xylene	20.9	1.00	20.00	0	105	72.1	131				
Styrene	21.4	1.00	20.00	0	107	64.3	140				
Isopropylbenzene	22.6	1.00	20.00	0	113	73.9	128				
Bromoform	19.1	2.00	20.00	0	95.3	55.3	141				
1,1,2,2-Tetrachloroethane	18.8	1.00	20.00	0	93.8	62.9	132				
n-Propylbenzene	23.6	1.00	20.00	0	118	74.5	127				
Bromobenzene	20.3	1.00	20.00	0	102	71	131				
1,3,5-Trimethylbenzene	21.8	1.00	20.00	0	109	73.1	128				
2-Chlorotoluene	24.4	1.00	20.00	0	122	70.8	130				
4-Chlorotoluene	21.8	1.00	20.00	0	109	70.1	131				
tert-Butylbenzene	21.0	1.00	20.00	0	105	68.2	131				
1,2,3-Trichloropropane	20.4	1.00	20.00	0	102	67.7	131				
1,2,4-Trichlorobenzene	19.4	2.00	20.00	0	97.0	41	139				
sec-Butylbenzene	22.7	1.00	20.00	0	113	72	129				
4-Isopropyltoluene	21.6	1.00	20.00	0	108	69.2	130				
1,3-Dichlorobenzene	21.6	1.00	20.00	0	108	69.5	128				
1,4-Dichlorobenzene	21.8	1.00	20.00	0	109	66.8	119				
n-Butylbenzene	22.3	1.00	20.00	0	112	73.8	127				
1,2-Dichlorobenzene	21.3	1.00	20.00	0	107	69.7	119				
1,2-Dibromo-3-chloropropane	21.2	1.00	20.00	0	106	63.1	136				
1,2,4-Trimethylbenzene	21.8	1.00	20.00	0	109	73.4	127				
Hexachloro-1,3-butadiene	19.8	4.00	20.00	0	99.1	58.6	138				
Naphthalene	19.7	1.00	20.00	0	98.6	41.8	165				
1,2,3-Trichlorobenzene	19.6	4.00	20.00	0	97.8	35.8	155				
Surr: Dibromofluoromethane	24.8		25.00		99.1	45.4	152				
Surr: Toluene-d8	26.2		25.00		105	40.1	139				
Surr: 1-Bromo-4-fluorobenzene	25.8		25.00		103	64.2	128				

Work Order: 1903253  
 CLIENT: Kane Environmental, Inc.  
 Project: BSCSS

**QC SUMMARY REPORT**  
**Volatile Organic Compounds by EPA Method 8260C**

Sample ID	<b>LCS-23914</b>	SampType:	<b>LCS</b>	Units:	<b>µg/L</b>	Prep Date:	<b>3/21/2019</b>	RunNo:	<b>50213</b>				
Client ID:	<b>LCSW</b>	Batch ID:	<b>23914</b>			Analysis Date:	<b>3/21/2019</b>	SeqNo:	<b>986224</b>				
Analyte		Result		RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

**NOTES:**

S - Outlying spike recovery observed (high bias). Samples are non-detect for this analyte; no further action required.

Sample ID	<b>MB-23914</b>	SampType:	<b>MBLK</b>	Units:	<b>µg/L</b>	Prep Date:	<b>3/21/2019</b>	RunNo:	<b>50213</b>				
Client ID:	<b>MBLKW</b>	Batch ID:	<b>23914</b>			Analysis Date:	<b>3/21/2019</b>	SeqNo:	<b>986225</b>				
Analyte		Result		RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Dichlorodifluoromethane (CFC-12)	ND	1.00											
Chloromethane	ND	2.00											Q
Vinyl chloride	ND	0.200											
Bromomethane	ND	1.00											
Trichlorofluoromethane (CFC-11)	ND	1.00											
Chloroethane	ND	1.00											
1,1-Dichloroethene	ND	1.00											
Methylene chloride	ND	1.00											
trans-1,2-Dichloroethene	ND	1.00											
Methyl tert-butyl ether (MTBE)	ND	1.00											
1,1-Dichloroethane	ND	1.00											
2,2-Dichloropropane	ND	2.00											
cis-1,2-Dichloroethene	ND	1.00											
Chloroform	ND	1.00											
1,1,1-Trichloroethane (TCA)	ND	1.00											
1,1-Dichloropropene	ND	1.00											
Carbon tetrachloride	ND	1.00											
1,2-Dichloroethane (EDC)	ND	1.00											
Benzene	ND	1.00											
Trichloroethene (TCE)	ND	0.500											
1,2-Dichloropropane	ND	1.00											
Bromodichloromethane	ND	1.00											
Dibromomethane	ND	1.00											
cis-1,3-Dichloropropene	ND	1.00											



Work Order: 1903253  
 CLIENT: Kane Environmental, Inc.  
 Project: BSCSS

**QC SUMMARY REPORT**  
**Volatile Organic Compounds by EPA Method 8260C**

Sample ID <b>MB-23914</b>	SampType: <b>MBLK</b>	Units: <b>µg/L</b>	Prep Date: <b>3/21/2019</b>	RunNo: <b>50213</b>							
Client ID: <b>MBLKW</b>	Batch ID: <b>23914</b>		Analysis Date: <b>3/21/2019</b>	SeqNo: <b>986225</b>							
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Toluene	ND	1.00									
trans-1,3-Dichloropropylene	ND	1.00									
1,1,2-Trichloroethane	ND	1.00									
1,3-Dichloropropane	ND	1.00									
Tetrachloroethene (PCE)	ND	1.00									
Dibromochloromethane	ND	1.00									
1,2-Dibromoethane (EDB)	ND	0.250									
Chlorobenzene	ND	1.00									
1,1,1,2-Tetrachloroethane	ND	1.00									
Ethylbenzene	ND	1.00									
m,p-Xylene	ND	1.00									
o-Xylene	ND	1.00									
Styrene	ND	1.00									
Isopropylbenzene	ND	1.00									
Bromoform	ND	2.00									
1,1,1,2,2-Tetrachloroethane	ND	1.00									
n-Propylbenzene	ND	1.00									
Bromobenzene	ND	1.00									
1,3,5-Trimethylbenzene	ND	1.00									
2-Chlorotoluene	ND	1.00									
4-Chlorotoluene	ND	1.00									
tert-Butylbenzene	ND	1.00									
1,2,3-Trichloropropane	ND	1.00									
1,2,4-Trichlorobenzene	ND	2.00									
sec-Butylbenzene	ND	1.00									
4-Isopropyltoluene	ND	1.00									
1,3-Dichlorobenzene	ND	1.00									
1,4-Dichlorobenzene	ND	1.00									
n-Butylbenzene	ND	1.00									
1,2-Dichlorobenzene	ND	1.00									
1,2-Dibromo-3-chloropropane	ND	1.00									

**Work Order:** 1903253  
**CLIENT:** Kane Environmental, Inc.  
**Project:** BSCSS

**QC SUMMARY REPORT**  
**Volatile Organic Compounds by EPA Method 8260C**

Sample ID <b>MB-23914</b>	SampType: <b>MBLK</b>	Units: <b>µg/L</b>	Prep Date: <b>3/21/2019</b>	RunNo: <b>50213</b>							
Client ID: <b>MBLKW</b>	Batch ID: <b>23914</b>		Analysis Date: <b>3/21/2019</b>	SeqNo: <b>986225</b>							
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

1,2,4-Trimethylbenzene	ND	1.00									
Hexachloro-1,3-butadiene	ND	4.00									
Naphthalene	ND	1.00									
1,2,3-Trichlorobenzene	ND	4.00									
Surr: Dibromofluoromethane	24.4		25.00		97.7	45.4	152				
Surr: Toluene-d8	26.1		25.00		104	40.1	139				
Surr: 1-Bromo-4-fluorobenzene	25.0		25.00		99.9	64.2	128				

**NOTES:**

Q - Indicates an analyte with a continuing calibration that does not meet established acceptance criteria

Sample ID <b>1903225-002BDUP</b>	SampType: <b>DUP</b>	Units: <b>µg/L</b>	Prep Date: <b>3/21/2019</b>	RunNo: <b>50213</b>							
Client ID: <b>BATCH</b>	Batch ID: <b>23914</b>		Analysis Date: <b>3/21/2019</b>	SeqNo: <b>986207</b>							
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Dichlorodifluoromethane (CFC-12)	ND	1.00						0		30	
Chloromethane	ND	2.00						0		30	Q
Vinyl chloride	ND	0.200						0		30	
Bromomethane	ND	1.00						0		30	
Trichlorofluoromethane (CFC-11)	ND	1.00						0		30	
Chloroethane	ND	1.00						0		30	
1,1-Dichloroethene	ND	1.00						0		30	
Methylene chloride	ND	1.00						0		30	
trans-1,2-Dichloroethene	ND	1.00						0		30	
Methyl tert-butyl ether (MTBE)	ND	1.00						0		30	
1,1-Dichloroethane	ND	1.00						0		30	
2,2-Dichloropropane	ND	2.00						0		30	
cis-1,2-Dichloroethene	ND	1.00						0		30	
Chloroform	ND	1.00						0		30	
1,1,1-Trichloroethane (TCA)	ND	1.00						0		30	
1,1-Dichloropropene	ND	1.00						0		30	
Carbon tetrachloride	ND	1.00						0		30	



Work Order: 1903253  
 CLIENT: Kane Environmental, Inc.  
 Project: BSCSS

**QC SUMMARY REPORT**  
**Volatile Organic Compounds by EPA Method 8260C**

Sample ID: <b>1903225-002BDUP</b>	SampType: <b>DUP</b>	Units: <b>µg/L</b>	Prep Date: <b>3/21/2019</b>	RunNo: <b>50213</b>
Client ID: <b>BATCH</b>	Batch ID: <b>23914</b>		Analysis Date: <b>3/21/2019</b>	SeqNo: <b>986207</b>

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,2-Dichloroethane (EDC)	ND	1.00						0		30	
Benzene	ND	1.00						0		30	
Trichloroethene (TCE)	ND	0.500						0		30	
1,2-Dichloropropane	ND	1.00						0		30	
Bromodichloromethane	ND	1.00						0		30	
Dibromomethane	ND	1.00						0		30	
cis-1,3-Dichloropropene	ND	1.00						0		30	
Toluene	ND	1.00						0		30	
trans-1,3-Dichloropropylene	ND	1.00						0		30	
1,1,2-Trichloroethane	ND	1.00						0		30	
1,3-Dichloropropane	ND	1.00						0		30	
Tetrachloroethene (PCE)	ND	1.00						0		30	
Dibromochloromethane	ND	1.00						0		30	
1,2-Dibromoethane (EDB)	ND	0.250						0		30	
Chlorobenzene	ND	1.00						0		30	
1,1,1,2-Tetrachloroethane	ND	1.00						0		30	
Ethylbenzene	ND	1.00						0		30	
m,p-Xylene	ND	1.00						0		30	
o-Xylene	ND	1.00						0		30	
Styrene	ND	1.00						0		30	
Isopropylbenzene	ND	1.00						0		30	
Bromoform	ND	2.00						0		30	
1,1,1,2,2-Tetrachloroethane	ND	1.00						0		30	
n-Propylbenzene	ND	1.00						0		30	
Bromobenzene	ND	1.00						0		30	
1,3,5-Trimethylbenzene	ND	1.00						0		30	
2-Chlorotoluene	ND	1.00						0		30	
4-Chlorotoluene	ND	1.00						0		30	
tert-Butylbenzene	ND	1.00						0		30	
1,2,3-Trichloropropane	ND	1.00						0		30	
1,2,4-Trichlorobenzene	ND	2.00						0		30	

Work Order: 1903253  
 CLIENT: Kane Environmental, Inc.  
 Project: BSCSS

**QC SUMMARY REPORT**  
**Volatile Organic Compounds by EPA Method 8260C**

Sample ID	<b>1903225-002BDUP</b>	SampType:	<b>DUP</b>	Units:	<b>µg/L</b>	Prep Date:	<b>3/21/2019</b>	RunNo:	<b>50213</b>		
Client ID:	<b>BATCH</b>	Batch ID:	<b>23914</b>			Analysis Date:	<b>3/21/2019</b>	SeqNo:	<b>986207</b>		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

sec-Butylbenzene	ND	1.00						0		30	
4-Isopropyltoluene	ND	1.00						0		30	
1,3-Dichlorobenzene	ND	1.00						0		30	
1,4-Dichlorobenzene	ND	1.00						0		30	
n-Butylbenzene	ND	1.00						0		30	
1,2-Dichlorobenzene	ND	1.00						0		30	
1,2-Dibromo-3-chloropropane	ND	1.00						0		30	
1,2,4-Trimethylbenzene	ND	1.00						0		30	
Hexachloro-1,3-butadiene	ND	4.00						0		30	
Naphthalene	ND	1.00						0		30	
1,2,3-Trichlorobenzene	ND	4.00						0		30	
Surr: Dibromofluoromethane	24.4		25.00		97.6	45.4	152		0		
Surr: Toluene-d8	25.9		25.00		104	40.1	139		0		
Surr: 1-Bromo-4-fluorobenzene	24.8		25.00		99.3	64.2	128		0		

**NOTES:**

Q - Indicates an analyte with a continuing calibration that does not meet established acceptance criteria

Sample ID	<b>1903230-001BDUP</b>	SampType:	<b>DUP</b>	Units:	<b>µg/L</b>	Prep Date:	<b>3/21/2019</b>	RunNo:	<b>50213</b>		
Client ID:	<b>BATCH</b>	Batch ID:	<b>23914</b>			Analysis Date:	<b>3/22/2019</b>	SeqNo:	<b>986211</b>		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Dichlorodifluoromethane (CFC-12)	ND	1.00						0		30	
Chloromethane	ND	2.00						0		30	Q
Vinyl chloride	ND	0.200						0		30	
Bromomethane	ND	1.00						0		30	
Trichlorofluoromethane (CFC-11)	ND	1.00						0		30	
Chloroethane	ND	1.00						0		30	
1,1-Dichloroethene	ND	1.00						0		30	
Methylene chloride	ND	1.00						0		30	
trans-1,2-Dichloroethene	ND	1.00						0		30	
Methyl tert-butyl ether (MTBE)	ND	1.00						0		30	

Work Order: 1903253  
 CLIENT: Kane Environmental, Inc.  
 Project: BSCSS

**QC SUMMARY REPORT**  
**Volatile Organic Compounds by EPA Method 8260C**

Sample ID: <b>1903230-001BDUP</b>	SampType: <b>DUP</b>	Units: <b>µg/L</b>	Prep Date: <b>3/21/2019</b>	RunNo: <b>50213</b>
Client ID: <b>BATCH</b>	Batch ID: <b>23914</b>		Analysis Date: <b>3/22/2019</b>	SeqNo: <b>986211</b>

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,1-Dichloroethane	ND	1.00						0		30	
2,2-Dichloropropane	ND	2.00						0		30	
cis-1,2-Dichloroethene	ND	1.00						0		30	
Chloroform	ND	1.00						0		30	
1,1,1-Trichloroethane (TCA)	ND	1.00						0		30	
1,1-Dichloropropene	ND	1.00						0		30	
Carbon tetrachloride	ND	1.00						0		30	
1,2-Dichloroethane (EDC)	ND	1.00						0		30	
Benzene	ND	1.00						0		30	
Trichloroethene (TCE)	ND	0.500						0		30	
1,2-Dichloropropane	ND	1.00						0		30	
Bromodichloromethane	ND	1.00						0		30	
Dibromomethane	ND	1.00						0		30	
cis-1,3-Dichloropropene	ND	1.00						0		30	
Toluene	ND	1.00						0		30	
trans-1,3-Dichloropropylene	ND	1.00						0		30	
1,1,2-Trichloroethane	ND	1.00						0		30	
1,3-Dichloropropane	ND	1.00						0		30	
Tetrachloroethene (PCE)	ND	1.00						0		30	
Dibromochloromethane	ND	1.00						0		30	
1,2-Dibromoethane (EDB)	ND	0.250						0		30	
Chlorobenzene	ND	1.00						0		30	
1,1,1,2-Tetrachloroethane	ND	1.00						0		30	
Ethylbenzene	ND	1.00						0		30	
m,p-Xylene	ND	1.00						0		30	
o-Xylene	ND	1.00						0		30	
Styrene	ND	1.00						0		30	
Isopropylbenzene	ND	1.00						0		30	
Bromoform	ND	2.00						0		30	
1,1,2,2-Tetrachloroethane	ND	1.00						0		30	
n-Propylbenzene	ND	1.00						0		30	

Work Order: 1903253  
 CLIENT: Kane Environmental, Inc.  
 Project: BSCSS

**QC SUMMARY REPORT**  
**Volatile Organic Compounds by EPA Method 8260C**

Sample ID	1903230-001BDUP	SampType:	DUP	Units:	µg/L	Prep Date:	3/21/2019	RunNo:	50213		
Client ID:	BATCH	Batch ID:	23914	Analysis Date:	3/22/2019	SeqNo:	986211				
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Bromobenzene	ND	1.00						0		30	
1,3,5-Trimethylbenzene	ND	1.00						0		30	
2-Chlorotoluene	ND	1.00						0		30	
4-Chlorotoluene	ND	1.00						0		30	
tert-Butylbenzene	ND	1.00						0		30	
1,2,3-Trichloropropane	ND	1.00						0		30	
1,2,4-Trichlorobenzene	ND	2.00						0		30	
sec-Butylbenzene	ND	1.00						0		30	
4-Isopropyltoluene	ND	1.00						0		30	
1,3-Dichlorobenzene	ND	1.00						0		30	
1,4-Dichlorobenzene	ND	1.00						0		30	
n-Butylbenzene	ND	1.00						0		30	
1,2-Dichlorobenzene	ND	1.00						0		30	
1,2-Dibromo-3-chloropropane	ND	1.00						0		30	
1,2,4-Trimethylbenzene	ND	1.00						0		30	
Hexachloro-1,3-butadiene	ND	4.00						0		30	
Naphthalene	ND	1.00						0		30	
1,2,3-Trichlorobenzene	ND	4.00						0		30	
Surr: Dibromofluoromethane	25.2		25.00		101	45.4	152		0		
Surr: Toluene-d8	25.9		25.00		104	40.1	139		0		
Surr: 1-Bromo-4-fluorobenzene	24.2		25.00		96.7	64.2	128		0		

**NOTES:**

Q - Indicates an analyte with a continuing calibration that does not meet established acceptance criteria

Sample ID	1903253-002AMS	SampType:	MS	Units:	µg/L	Prep Date:	3/21/2019	RunNo:	50213		
Client ID:	MW-42:W	Batch ID:	23914	Analysis Date:	3/22/2019	SeqNo:	986218				
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Dichlorodifluoromethane (CFC-12)	28.8	1.00	20.00	0	144	33.3	122				S
Chloromethane	19.5	2.00	20.00	0	97.4	39.7	143				
Vinyl chloride	24.1	0.200	20.00	0	121	41	165				

Work Order: 1903253  
 CLIENT: Kane Environmental, Inc.  
 Project: BSCSS

**QC SUMMARY REPORT**  
**Volatile Organic Compounds by EPA Method 8260C**

Sample ID	1903253-002AMS	SampType:	MS	Units:	µg/L	Prep Date:	3/21/2019	RunNo:	50213
Client ID:	MW-42:W	Batch ID:	23914			Analysis Date:	3/22/2019	SeqNo:	986218

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Bromomethane	48.5	1.00	20.00	0	243	31.5	135				S
Trichlorofluoromethane (CFC-11)	25.5	1.00	20.00	0	128	54.7	138				
Chloroethane	24.9	1.00	20.00	0	125	49.9	143				
1,1-Dichloroethene	24.7	1.00	20.00	0	124	51.6	164				
Methylene chloride	30.1	1.00	20.00	6.155	120	61.6	135				
trans-1,2-Dichloroethene	23.6	1.00	20.00	0	118	63.5	138				
Methyl tert-butyl ether (MTBE)	22.1	1.00	20.00	0	110	60.9	132				
1,1-Dichloroethane	23.8	1.00	20.00	0	119	55.7	151				
2,2-Dichloropropane	19.6	2.00	20.00	0	97.8	37.7	150				
cis-1,2-Dichloroethene	23.4	1.00	20.00	0.5933	114	60	154				
Chloroform	24.5	1.00	20.00	1.153	117	48.1	140				
1,1,1-Trichloroethane (TCA)	24.3	1.00	20.00	0	121	64.2	146				
1,1-Dichloropropene	24.2	1.00	20.00	0	121	73.8	136				
Carbon tetrachloride	24.3	1.00	20.00	0	122	62.7	146				
1,2-Dichloroethane (EDC)	23.3	1.00	20.00	0.4049	115	63.4	137				
Benzene	23.8	1.00	20.00	0	119	65.4	138				
Trichloroethene (TCE)	23.8	0.500	20.00	0	119	60.4	134				
1,2-Dichloropropane	23.0	1.00	20.00	0	115	62.6	138				
Bromodichloromethane	23.1	1.00	20.00	0	116	59.4	139				
Dibromomethane	22.6	1.00	20.00	0	113	58.7	148				
cis-1,3-Dichloropropene	21.3	1.00	20.00	0	107	63.8	132				
Toluene	23.2	1.00	20.00	0	116	52	147				
trans-1,3-Dichloropropylene	20.5	1.00	20.00	0	102	57.7	125				
1,1,2-Trichloroethane	22.0	1.00	20.00	0	110	57.5	153				
1,3-Dichloropropane	21.7	1.00	20.00	0	109	54.1	157				
Tetrachloroethene (PCE)	22.0	1.00	20.00	0	110	50.3	133				
Dibromochloromethane	21.2	1.00	20.00	0	106	61.6	139				
1,2-Dibromoethane (EDB)	21.3	0.250	20.00	0	107	63.2	134				
Chlorobenzene	22.3	1.00	20.00	0	111	65.8	134				
1,1,1,2-Tetrachloroethane	21.5	1.00	20.00	0	108	65.4	135				
Ethylbenzene	24.0	1.00	20.00	0	120	64.5	136				

Work Order: 1903253  
 CLIENT: Kane Environmental, Inc.  
 Project: BSCSS

**QC SUMMARY REPORT**  
**Volatile Organic Compounds by EPA Method 8260C**

Sample ID	1903253-002AMS	SampType:	MS	Units:	µg/L	Prep Date:	3/21/2019	RunNo:	50213
Client ID:	MW-42:W	Batch ID:	23914			Analysis Date:	3/22/2019	SeqNo:	986218

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
m,p-Xylene	44.8	1.00	40.00	0	112	63.3	135				
o-Xylene	21.8	1.00	20.00	0	109	64.8	150				
Styrene	22.1	1.00	20.00	0	110	52.9	163				
Isopropylbenzene	23.7	1.00	20.00	0	119	56	147				
Bromoform	19.5	2.00	20.00	0	97.4	57.7	139				
1,1,2,2-Tetrachloroethane	21.0	1.00	20.00	0	105	59.8	146				
n-Propylbenzene	24.6	1.00	20.00	0	123	57.6	142				
Bromobenzene	20.9	1.00	20.00	0	105	69.3	157				
1,3,5-Trimethylbenzene	22.7	1.00	20.00	0	113	59.9	136				
2-Chlorotoluene	25.2	1.00	20.00	0	126	61.7	134				
4-Chlorotoluene	22.6	1.00	20.00	0	113	58.4	134				
tert-Butylbenzene	22.2	1.00	20.00	0	111	66.8	141				
1,2,3-Trichloropropane	21.2	1.00	20.00	0	106	62.4	129				
1,2,4-Trichlorobenzene	19.1	2.00	20.00	0	95.4	50.9	133				
sec-Butylbenzene	23.9	1.00	20.00	0	119	56	146				
4-Isopropyltoluene	22.5	1.00	20.00	0	113	56.4	136				
1,3-Dichlorobenzene	22.0	1.00	20.00	0	110	58.2	128				
1,4-Dichlorobenzene	22.1	1.00	20.00	0	111	60.1	123				
n-Butylbenzene	22.6	1.00	20.00	0	113	54.6	135				
1,2-Dichlorobenzene	21.6	1.00	20.00	0	108	65.4	133				
1,2-Dibromo-3-chloropropane	24.8	1.00	20.00	0	124	51.8	142				
1,2,4-Trimethylbenzene	22.6	1.00	20.00	0	113	63.7	132				
Hexachloro-1,3-butadiene	19.8	4.00	20.00	0	99.2	58.1	130				
Naphthalene	19.9	1.00	20.00	0.2852	98.1	50.7	154				
1,2,3-Trichlorobenzene	20.0	4.00	20.00	0	100	57	131				
Surr: Dibromofluoromethane	25.5		25.00		102	45.4	152				
Surr: Toluene-d8	26.0		25.00		104	40.1	139				
Surr: 1-Bromo-4-fluorobenzene	25.7		25.00		103	64.2	128				

**NOTES:**

S - Outlying spike recovery(ies) observed.





Work Order: 1903253  
 CLIENT: Kane Environmental, Inc.  
 Project: BSCSS

**QC SUMMARY REPORT**  
**Volatile Organic Compounds by EPA Method 8260C**

Sample ID	1903253-002AMSD	SampType:	MSD	Units:	µg/L	Prep Date:	3/21/2019	RunNo:	50213		
Client ID:	MW-42:W	Batch ID:	23914	Analysis Date:	3/22/2019	SeqNo:	986219				
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Dichlorodifluoromethane (CFC-12)	27.6	1.00	20.00	0	138	33.3	122	28.82	4.20	30	S
Chloromethane	19.7	2.00	20.00	0	98.6	39.7	143	19.48	1.23	30	
Vinyl chloride	24.4	0.200	20.00	0	122	41	165	24.12	1.31	30	
Bromomethane	51.3	1.00	20.00	0	256	31.5	135	48.51	5.50	30	S
Trichlorofluoromethane (CFC-11)	25.0	1.00	20.00	0	125	54.7	138	25.54	2.02	30	
Chloroethane	25.1	1.00	20.00	0	125	49.9	143	24.91	0.611	30	
1,1-Dichloroethene	24.2	1.00	20.00	0	121	51.6	164	24.72	2.26	30	
Methylene chloride	33.7	1.00	20.00	6.155	138	61.6	135	30.14	11.0	30	S
trans-1,2-Dichloroethene	23.3	1.00	20.00	0	116	63.5	138	23.60	1.33	30	
Methyl tert-butyl ether (MTBE)	21.6	1.00	20.00	0	108	60.9	132	22.08	2.15	30	
1,1-Dichloroethane	23.4	1.00	20.00	0	117	55.7	151	23.81	1.91	30	
2,2-Dichloropropane	19.1	2.00	20.00	0	95.7	37.7	150	19.56	2.20	30	
cis-1,2-Dichloroethene	23.0	1.00	20.00	0.5933	112	60	154	23.36	1.49	30	
Chloroform	24.0	1.00	20.00	1.153	114	48.1	140	24.52	2.30	30	
1,1,1-Trichloroethane (TCA)	23.8	1.00	20.00	0	119	64.2	146	24.27	2.06	30	
1,1-Dichloropropene	24.0	1.00	20.00	0	120	73.8	136	24.23	1.12	30	
Carbon tetrachloride	23.9	1.00	20.00	0	119	62.7	146	24.32	1.80	30	
1,2-Dichloroethane (EDC)	23.0	1.00	20.00	0.4049	113	63.4	137	23.34	1.54	30	
Benzene	23.4	1.00	20.00	0	117	65.4	138	23.79	1.87	30	
Trichloroethene (TCE)	23.2	0.500	20.00	0	116	60.4	134	23.75	2.38	30	
1,2-Dichloropropane	22.6	1.00	20.00	0	113	62.6	138	22.98	1.65	30	
Bromodichloromethane	22.8	1.00	20.00	0	114	59.4	139	23.11	1.46	30	
Dibromomethane	22.1	1.00	20.00	0	111	58.7	148	22.64	2.30	30	
cis-1,3-Dichloropropene	21.2	1.00	20.00	0	106	63.8	132	21.33	0.765	30	
Toluene	23.2	1.00	20.00	0	116	52	147	23.20	0.0915	30	
trans-1,3-Dichloropropylene	20.5	1.00	20.00	0	103	57.7	125	20.47	0.340	30	
1,1,2-Trichloroethane	21.6	1.00	20.00	0	108	57.5	153	21.97	1.70	30	
1,3-Dichloropropane	21.5	1.00	20.00	0	107	54.1	157	21.75	1.16	30	
Tetrachloroethene (PCE)	22.0	1.00	20.00	0	110	50.3	133	22.00	0.152	30	
Dibromochloromethane	21.3	1.00	20.00	0	106	61.6	139	21.22	0.235	30	
1,2-Dibromoethane (EDB)	21.2	0.250	20.00	0	106	63.2	134	21.32	0.564	30	

Work Order: 1903253  
 CLIENT: Kane Environmental, Inc.  
 Project: BSCSS

**QC SUMMARY REPORT**  
**Volatile Organic Compounds by EPA Method 8260C**

Sample ID	1903253-002AMSD	SampType:	MSD	Units:	µg/L	Prep Date:	3/21/2019	RunNo:	50213		
Client ID:	MW-42:W	Batch ID:	23914	Analysis Date:	3/22/2019	SeqNo:	986219				
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Chlorobenzene	22.2	1.00	20.00	0	111	65.8	134	22.26	0.259	30	
1,1,1,2-Tetrachloroethane	21.2	1.00	20.00	0	106	65.4	135	21.53	1.62	30	
Ethylbenzene	23.8	1.00	20.00	0	119	64.5	136	24.00	0.677	30	
m,p-Xylene	45.1	1.00	40.00	0	113	63.3	135	44.75	0.688	30	
o-Xylene	22.1	1.00	20.00	0	110	64.8	150	21.77	1.31	30	
Styrene	22.0	1.00	20.00	0	110	52.9	163	22.09	0.216	30	
Isopropylbenzene	23.8	1.00	20.00	0	119	56	147	23.73	0.0839	30	
Bromoform	19.6	2.00	20.00	0	98.2	57.7	139	19.47	0.858	30	
1,1,2,2-Tetrachloroethane	21.0	1.00	20.00	0	105	59.8	146	20.97	0.0905	30	
n-Propylbenzene	24.6	1.00	20.00	0	123	57.6	142	24.59	0.00443	30	
Bromobenzene	21.0	1.00	20.00	0	105	69.3	157	20.93	0.296	30	
1,3,5-Trimethylbenzene	22.5	1.00	20.00	0	113	59.9	136	22.66	0.690	30	
2-Chlorotoluene	25.2	1.00	20.00	0	126	61.7	134	25.22	0.00888	30	
4-Chlorotoluene	22.6	1.00	20.00	0	113	58.4	134	22.56	0.00882	30	
tert-Butylbenzene	22.0	1.00	20.00	0	110	66.8	141	22.19	0.840	30	
1,2,3-Trichloropropane	20.8	1.00	20.00	0	104	62.4	129	21.16	1.68	30	
1,2,4-Trichlorobenzene	19.6	2.00	20.00	0	98.1	50.9	133	19.08	2.76	30	
sec-Butylbenzene	23.7	1.00	20.00	0	119	56	146	23.88	0.586	30	
4-Isopropyltoluene	22.5	1.00	20.00	0	113	56.4	136	22.55	0.00621	30	
1,3-Dichlorobenzene	22.3	1.00	20.00	0	111	58.2	128	22.04	0.951	30	
1,4-Dichlorobenzene	22.3	1.00	20.00	0	111	60.1	123	22.14	0.682	30	
n-Butylbenzene	23.1	1.00	20.00	0	116	54.6	135	22.63	2.25	30	
1,2-Dichlorobenzene	22.0	1.00	20.00	0	110	65.4	133	21.59	1.72	30	
1,2-Dibromo-3-chloropropane	28.1	1.00	20.00	0	140	51.8	142	24.83	12.3	30	
1,2,4-Trimethylbenzene	22.4	1.00	20.00	0	112	63.7	132	22.57	0.962	30	
Hexachloro-1,3-butadiene	20.2	4.00	20.00	0	101	58.1	130	19.83	1.91	30	
Naphthalene	20.3	1.00	20.00	0.2852	100	50.7	154	19.90	1.88	30	
1,2,3-Trichlorobenzene	20.1	4.00	20.00	0	101	57	131	20.02	0.557	30	
Surr: Dibromofluoromethane	25.4		25.00		102	45.4	152		0		
Surr: Toluene-d8	26.2		25.00		105	40.1	139		0		
Surr: 1-Bromo-4-fluorobenzene	25.8		25.00		103	64.2	128		0		



**Work Order:** 1903253  
**CLIENT:** Kane Environmental, Inc.  
**Project:** BSCSS

**QC SUMMARY REPORT**  
**Volatile Organic Compounds by EPA Method 8260C**

Sample ID	<b>1903253-002AMSD</b>	SampType:	<b>MSD</b>	Units:	<b>µg/L</b>	Prep Date:	<b>3/21/2019</b>	RunNo:	<b>50213</b>		
Client ID:	<b>MW-42:W</b>	Batch ID:	<b>23914</b>			Analysis Date:	<b>3/22/2019</b>	SeqNo:	<b>986219</b>		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

**NOTES:**

S - Outlying spike recovery(ies) observed.

Client Name: **KANE**  
 Logged by: **Clare Griggs**

Work Order Number: **1903253**  
 Date Received: **3/18/2019 3:02:00 PM**

### Chain of Custody

1. Is Chain of Custody complete? Yes  No  Not Present   
 2. How was the sample delivered? Client

### Log In

3. Coolers are present? Yes  No  NA   
 4. Shipping container/cooler in good condition? Yes  No   
 5. Custody Seals present on shipping container/cooler?  
 (Refer to comments for Custody Seals not intact) Yes  No  Not Required   
 6. Was an attempt made to cool the samples? Yes  No  NA   
 7. Were all items received at a temperature of >0°C to 10.0°C \* Yes  No  NA

### Samples received straight from field

8. Sample(s) in proper container(s)? Yes  No   
 9. Sufficient sample volume for indicated test(s)? Yes  No   
 10. Are samples properly preserved? Yes  No   
 11. Was preservative added to bottles? Yes  No  NA   
 12. Is there headspace in the VOA vials? Yes  No  NA   
 13. Did all samples containers arrive in good condition(unbroken)? Yes  No   
 14. Does paperwork match bottle labels? Yes  No   
 15. Are matrices correctly identified on Chain of Custody? Yes  No   
 16. Is it clear what analyses were requested? Yes  No   
 17. Were all holding times able to be met? Yes  No

### Special Handling (if applicable)

18. Was client notified of all discrepancies with this order? Yes  No  NA

Person Notified:	<input type="text"/>	Date	<input type="text"/>
By Whom:	<input type="text"/>	Via:	<input type="checkbox"/> eMail <input type="checkbox"/> Phone <input type="checkbox"/> Fax <input type="checkbox"/> In Person
Regarding:	<input type="text"/>		
Client Instructions:	<input type="text"/>		

19. Additional remarks:

### Item Information

Item #	Temp °C
Cooler	10.3
Sample	9.4

\* Note: DoD/ELAP and TNI require items to be received at 4°C +/- 2°C



3600 Fremont Ave N.  
Seattle, WA 98103  
Tel: 206-352-3790  
Fax: 206-352-7178

# Chain of Custody Record & Laboratory Services Agreement

Date: 3/18/19 Page: 1 of 1

Laboratory Project No (Internal): 1909253  
Special Remarks:

Client: KANE ENVIRONMENTAL

Project Name: BSCS

Project No: B2302-9.4

Address: 4015 13th Ave W

Collected by: BGS

Location: Botwell, WA

City, State, zip: Seattle, WA 98119

Report To (PM): Jeff Jensen

Sample Disposal:  Return to client  Disposal by lab (after 30 days)

Telephone: (206) 991 0470

PM Email: Jeff Kane-Environmental.com

Fax:

Sample Name	Sample Date	Sample Time	Sample Type (Matrix)*	VOCs (EPA 8260 / 624)	GX/BTEX	BTEX	Gasoline Range Organics (GX)	Hydrocarbon Identification (HCID)	Diesel/Heavy Oil Range Organics (DX)	SVOCs (EPA 8270 / 625)	PAHs (EPA 8270 - SIM)	PCBs (EPA 8082 / 608)	Metals** (EPA 6020 / 200.8)	Total (T) / Dissolved (D)	Anions (C)***	EDB (8011)	Ammonia-N	RSK	Comments
1 MW-U3:W	3/18	1240	GW	X															LAB FILTER
2 MW-U2:W	3/18	1400	GW	X															LAB FILTER; QC EXTRA VOL.
3																			
4																			
5																			
6																			
7																			
8																			
9																			
10																			

\*Matrix: A = Air, AQ = Aqueous, B = Bulk, O = Other, P = Product, S = Soil, SD = Sediment, SI = Solid, W = Water, DW = Drinking Water, GW = Ground Water, SW = Storm Water, WW = Waste Water

\*\*Metals (Circle): MTCA-5 RCRA-8 Priority Pollutants TAL Individual: Ag Al As B Ba Be Ca Cd Co Cr Cu Fe Hg K Mg Mn Mo Na Ni Pb Sp Se Sr Sn Ti Tl U V Zn

\*\*\*Anions (Circle): Nitrate Nitrite Chloride Sulfate Bromide O-Phosphate Fluoride Nitrate-Nitrite

I represent that I am authorized to enter into this Agreement with Fremont Analytical on behalf of the Client named above and that I have verified Client's agreement to each of the terms on the front and backside of this Agreement.

Retrieved: 3/18/19 1502 Date/Time

Received: 3/18/19 1502 Date/Time

Retinquired: x

Same Day  (specify)

Standard  3 Day  2 Day  Next Day



14648 NE 95<sup>th</sup> Street, Redmond, WA 98052 • (425) 883-3881

May 30, 2019

Jeff Jensen  
Kane Environmental, Inc.  
4015 13th Avenue West  
Seattle, WA 98119

Re: Analytical Data for Project 82302-9.4  
Laboratory Reference No. 1905-282

Dear Jeff:

Enclosed are the analytical results and associated quality control data for samples submitted on May 21, 2019.

The standard policy of OnSite Environmental, Inc. is to store your samples for 30 days from the date of receipt. If you require longer storage, please contact the laboratory.

We appreciate the opportunity to be of service to you on this project. If you have any questions concerning the data, or need additional information, please feel free to call me.

Sincerely,

A handwritten signature in black ink, appearing to read "DB", with a long horizontal flourish extending to the right.

David Baumeister  
Project Manager

Enclosures



---

OnSite Environmental, Inc. 14648 NE 95<sup>th</sup> Street, Redmond, WA 98052 (425) 883-3881

This report pertains to the samples analyzed in accordance with the chain of custody, and is intended only for the use of the individual or company to whom it is addressed.

Date of Report: May 30, 2019  
Samples Submitted: May 21, 2019  
Laboratory Reference: 1905-282  
Project: 82302-9.4

### Case Narrative

Samples were collected on May 21, 2019 and received by the laboratory on May 21, 2019. They were maintained at the laboratory at a temperature of 2°C to 6°C.

Please note that any and all soil sample results are reported on a dry-weight basis, unless otherwise noted below.

General QA/QC issues associated with the analytical data enclosed in this laboratory report will be indicated with a reference to a comment or explanation on the Data Qualifier page. More complex and involved QA/QC issues will be discussed in detail below.



Date of Report: May 30, 2019  
 Samples Submitted: May 21, 2019  
 Laboratory Reference: 1905-282  
 Project: 82302-9.4

**VOLATILE ORGANICS EPA 8260C**  
 page 1 of 2

Matrix: Water  
 Units: ug/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>Client ID:</b>	<b>H2-MW-14D:W</b>					
Laboratory ID:	05-282-01					
Dichlorodifluoromethane	ND	0.20	EPA 8260C	5-22-19	5-22-19	
Chloromethane	ND	1.0	EPA 8260C	5-22-19	5-22-19	
Vinyl Chloride	ND	0.20	EPA 8260C	5-22-19	5-22-19	
Bromomethane	ND	0.46	EPA 8260C	5-22-19	5-22-19	
Chloroethane	ND	1.0	EPA 8260C	5-22-19	5-22-19	
Trichlorofluoromethane	ND	0.20	EPA 8260C	5-22-19	5-22-19	
1,1-Dichloroethene	ND	0.20	EPA 8260C	5-22-19	5-22-19	
Iodomethane	ND	3.3	EPA 8260C	5-22-19	5-22-19	
Methylene Chloride	ND	1.0	EPA 8260C	5-22-19	5-22-19	
(trans) 1,2-Dichloroethene	ND	0.20	EPA 8260C	5-22-19	5-22-19	
1,1-Dichloroethane	ND	0.20	EPA 8260C	5-22-19	5-22-19	
2,2-Dichloropropane	ND	0.20	EPA 8260C	5-22-19	5-22-19	
(cis) 1,2-Dichloroethene	12	0.20	EPA 8260C	5-22-19	5-22-19	
Bromochloromethane	ND	0.20	EPA 8260C	5-22-19	5-22-19	
Chloroform	ND	0.20	EPA 8260C	5-22-19	5-22-19	
1,1,1-Trichloroethane	ND	0.20	EPA 8260C	5-22-19	5-22-19	
Carbon Tetrachloride	ND	0.20	EPA 8260C	5-22-19	5-22-19	
1,1-Dichloropropene	ND	0.20	EPA 8260C	5-22-19	5-22-19	
1,2-Dichloroethane	ND	0.20	EPA 8260C	5-22-19	5-22-19	
Trichloroethene	2.9	0.20	EPA 8260C	5-22-19	5-22-19	
1,2-Dichloropropane	ND	0.20	EPA 8260C	5-22-19	5-22-19	
Dibromomethane	ND	0.20	EPA 8260C	5-22-19	5-22-19	
Bromodichloromethane	ND	0.20	EPA 8260C	5-22-19	5-22-19	
2-Chloroethyl Vinyl Ether	ND	1.0	EPA 8260C	5-22-19	5-22-19	
(cis) 1,3-Dichloropropene	ND	0.20	EPA 8260C	5-22-19	5-22-19	
(trans) 1,3-Dichloropropene	ND	0.20	EPA 8260C	5-22-19	5-22-19	





Date of Report: May 30, 2019  
 Samples Submitted: May 21, 2019  
 Laboratory Reference: 1905-282  
 Project: 82302-9.4

**VOLATILE ORGANICS EPA 8260C**  
 page 2 of 2

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>Client ID:</b>	<b>H2-MW-14D:W</b>					
<b>Laboratory ID:</b>	<b>05-282-01</b>					
1,1,2-Trichloroethane	ND	0.20	EPA 8260C	5-22-19	5-22-19	
Tetrachloroethene	65	1.0	EPA 8260C	5-23-19	5-23-19	
1,3-Dichloropropane	ND	0.20	EPA 8260C	5-22-19	5-22-19	
Dibromochloromethane	ND	0.20	EPA 8260C	5-22-19	5-22-19	
1,2-Dibromoethane	ND	0.20	EPA 8260C	5-22-19	5-22-19	
Chlorobenzene	ND	0.20	EPA 8260C	5-22-19	5-22-19	
1,1,1,2-Tetrachloroethane	ND	0.20	EPA 8260C	5-22-19	5-22-19	
Bromoform	ND	1.0	EPA 8260C	5-22-19	5-22-19	
Bromobenzene	ND	0.20	EPA 8260C	5-22-19	5-22-19	
1,1,2,2-Tetrachloroethane	ND	0.20	EPA 8260C	5-22-19	5-22-19	
1,2,3-Trichloropropane	ND	0.20	EPA 8260C	5-22-19	5-22-19	
2-Chlorotoluene	ND	0.20	EPA 8260C	5-22-19	5-22-19	
4-Chlorotoluene	ND	0.20	EPA 8260C	5-22-19	5-22-19	
1,3-Dichlorobenzene	ND	0.20	EPA 8260C	5-22-19	5-22-19	
1,4-Dichlorobenzene	ND	0.20	EPA 8260C	5-22-19	5-22-19	
1,2-Dichlorobenzene	ND	0.20	EPA 8260C	5-22-19	5-22-19	
1,2-Dibromo-3-chloropropane	ND	1.0	EPA 8260C	5-22-19	5-22-19	
1,2,4-Trichlorobenzene	ND	0.20	EPA 8260C	5-22-19	5-22-19	
Hexachlorobutadiene	ND	1.0	EPA 8260C	5-22-19	5-22-19	
1,2,3-Trichlorobenzene	ND	0.20	EPA 8260C	5-22-19	5-22-19	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Dibromofluoromethane</i>	<i>95</i>	<i>75-127</i>				
<i>Toluene-d8</i>	<i>97</i>	<i>80-127</i>				
<i>4-Bromofluorobenzene</i>	<i>99</i>	<i>78-125</i>				



Date of Report: May 30, 2019  
 Samples Submitted: May 21, 2019  
 Laboratory Reference: 1905-282  
 Project: 82302-9.4

**VOLATILE ORGANICS EPA 8260C**  
 page 1 of 2

Matrix: Water  
 Units: ug/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>Client ID:</b>	<b>H2-MW-14S:W</b>					
Laboratory ID:	05-282-02					
Dichlorodifluoromethane	ND	2.0	EPA 8260C	5-22-19	5-22-19	
Chloromethane	ND	10	EPA 8260C	5-22-19	5-22-19	
Vinyl Chloride	ND	2.0	EPA 8260C	5-22-19	5-22-19	
Bromomethane	ND	4.6	EPA 8260C	5-22-19	5-22-19	
Chloroethane	ND	10	EPA 8260C	5-22-19	5-22-19	
Trichlorofluoromethane	ND	2.0	EPA 8260C	5-22-19	5-22-19	
1,1-Dichloroethene	ND	2.0	EPA 8260C	5-22-19	5-22-19	
Iodomethane	ND	33	EPA 8260C	5-22-19	5-22-19	
Methylene Chloride	ND	10	EPA 8260C	5-22-19	5-22-19	
(trans) 1,2-Dichloroethene	ND	2.0	EPA 8260C	5-22-19	5-22-19	
1,1-Dichloroethane	ND	2.0	EPA 8260C	5-22-19	5-22-19	
2,2-Dichloropropane	ND	2.0	EPA 8260C	5-22-19	5-22-19	
(cis) 1,2-Dichloroethene	3.2	2.0	EPA 8260C	5-22-19	5-22-19	
Bromochloromethane	ND	2.0	EPA 8260C	5-22-19	5-22-19	
Chloroform	ND	2.0	EPA 8260C	5-22-19	5-22-19	
1,1,1-Trichloroethane	ND	2.0	EPA 8260C	5-22-19	5-22-19	
Carbon Tetrachloride	ND	2.0	EPA 8260C	5-22-19	5-22-19	
1,1-Dichloropropene	ND	2.0	EPA 8260C	5-22-19	5-22-19	
1,2-Dichloroethane	ND	2.0	EPA 8260C	5-22-19	5-22-19	
Trichloroethene	7.0	2.0	EPA 8260C	5-22-19	5-22-19	
1,2-Dichloropropane	ND	2.0	EPA 8260C	5-22-19	5-22-19	
Dibromomethane	ND	2.0	EPA 8260C	5-22-19	5-22-19	
Bromodichloromethane	ND	2.0	EPA 8260C	5-22-19	5-22-19	
2-Chloroethyl Vinyl Ether	ND	10	EPA 8260C	5-22-19	5-22-19	
(cis) 1,3-Dichloropropene	ND	2.0	EPA 8260C	5-22-19	5-22-19	
(trans) 1,3-Dichloropropene	ND	2.0	EPA 8260C	5-22-19	5-22-19	



Date of Report: May 30, 2019  
 Samples Submitted: May 21, 2019  
 Laboratory Reference: 1905-282  
 Project: 82302-9.4

**VOLATILE ORGANICS EPA 8260C**  
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Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>Client ID:</b>	<b>H2-MW-14S:W</b>					
<b>Laboratory ID:</b>	<b>05-282-02</b>					
1,1,2-Trichloroethane	ND	2.0	EPA 8260C	5-22-19	5-22-19	
Tetrachloroethene	240	2.0	EPA 8260C	5-22-19	5-22-19	
1,3-Dichloropropane	ND	2.0	EPA 8260C	5-22-19	5-22-19	
Dibromochloromethane	ND	2.0	EPA 8260C	5-22-19	5-22-19	
1,2-Dibromoethane	ND	2.0	EPA 8260C	5-22-19	5-22-19	
Chlorobenzene	ND	2.0	EPA 8260C	5-22-19	5-22-19	
1,1,1,2-Tetrachloroethane	ND	2.0	EPA 8260C	5-22-19	5-22-19	
Bromoform	ND	10	EPA 8260C	5-22-19	5-22-19	
Bromobenzene	ND	2.0	EPA 8260C	5-22-19	5-22-19	
1,1,1,2,2-Tetrachloroethane	ND	2.0	EPA 8260C	5-22-19	5-22-19	
1,2,3-Trichloropropane	ND	2.0	EPA 8260C	5-22-19	5-22-19	
2-Chlorotoluene	ND	2.0	EPA 8260C	5-22-19	5-22-19	
4-Chlorotoluene	ND	2.0	EPA 8260C	5-22-19	5-22-19	
1,3-Dichlorobenzene	ND	2.0	EPA 8260C	5-22-19	5-22-19	
1,4-Dichlorobenzene	ND	2.0	EPA 8260C	5-22-19	5-22-19	
1,2-Dichlorobenzene	ND	2.0	EPA 8260C	5-22-19	5-22-19	
1,2-Dibromo-3-chloropropane	ND	10	EPA 8260C	5-22-19	5-22-19	
1,2,4-Trichlorobenzene	ND	2.0	EPA 8260C	5-22-19	5-22-19	
Hexachlorobutadiene	ND	10	EPA 8260C	5-22-19	5-22-19	
1,2,3-Trichlorobenzene	ND	2.0	EPA 8260C	5-22-19	5-22-19	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Dibromofluoromethane</i>	<i>99</i>	<i>75-127</i>				
<i>Toluene-d8</i>	<i>98</i>	<i>80-127</i>				
<i>4-Bromofluorobenzene</i>	<i>98</i>	<i>78-125</i>				



Date of Report: May 30, 2019  
 Samples Submitted: May 21, 2019  
 Laboratory Reference: 1905-282  
 Project: 82302-9.4

**VOLATILE ORGANICS EPA 8260C**  
 page 1 of 2

Matrix: Water  
 Units: ug/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>Client ID:</b>	<b>H2-MW-22:W</b>					
Laboratory ID:	05-282-03					
Dichlorodifluoromethane	ND	0.20	EPA 8260C	5-22-19	5-22-19	
Chloromethane	ND	1.0	EPA 8260C	5-22-19	5-22-19	
Vinyl Chloride	ND	0.20	EPA 8260C	5-22-19	5-22-19	
Bromomethane	ND	0.46	EPA 8260C	5-22-19	5-22-19	
Chloroethane	ND	1.0	EPA 8260C	5-22-19	5-22-19	
Trichlorofluoromethane	ND	0.20	EPA 8260C	5-22-19	5-22-19	
1,1-Dichloroethene	ND	0.20	EPA 8260C	5-22-19	5-22-19	
Iodomethane	ND	3.3	EPA 8260C	5-22-19	5-22-19	
Methylene Chloride	ND	1.0	EPA 8260C	5-22-19	5-22-19	
(trans) 1,2-Dichloroethene	ND	0.20	EPA 8260C	5-22-19	5-22-19	
1,1-Dichloroethane	ND	0.20	EPA 8260C	5-22-19	5-22-19	
2,2-Dichloropropane	ND	0.20	EPA 8260C	5-22-19	5-22-19	
(cis) 1,2-Dichloroethene	0.51	0.20	EPA 8260C	5-22-19	5-22-19	
Bromochloromethane	ND	0.20	EPA 8260C	5-22-19	5-22-19	
Chloroform	ND	0.20	EPA 8260C	5-22-19	5-22-19	
1,1,1-Trichloroethane	ND	0.20	EPA 8260C	5-22-19	5-22-19	
Carbon Tetrachloride	ND	0.20	EPA 8260C	5-22-19	5-22-19	
1,1-Dichloropropene	ND	0.20	EPA 8260C	5-22-19	5-22-19	
1,2-Dichloroethane	ND	0.20	EPA 8260C	5-22-19	5-22-19	
Trichloroethene	0.66	0.20	EPA 8260C	5-22-19	5-22-19	
1,2-Dichloropropane	ND	0.20	EPA 8260C	5-22-19	5-22-19	
Dibromomethane	ND	0.20	EPA 8260C	5-22-19	5-22-19	
Bromodichloromethane	ND	0.20	EPA 8260C	5-22-19	5-22-19	
2-Chloroethyl Vinyl Ether	ND	1.0	EPA 8260C	5-22-19	5-22-19	
(cis) 1,3-Dichloropropene	ND	0.20	EPA 8260C	5-22-19	5-22-19	
(trans) 1,3-Dichloropropene	ND	0.20	EPA 8260C	5-22-19	5-22-19	



Date of Report: May 30, 2019  
 Samples Submitted: May 21, 2019  
 Laboratory Reference: 1905-282  
 Project: 82302-9.4

**VOLATILE ORGANICS EPA 8260C**  
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Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>Client ID:</b>	<b>H2-MW-22:W</b>					
<b>Laboratory ID:</b>	<b>05-282-03</b>					
1,1,2-Trichloroethane	ND	0.20	EPA 8260C	5-22-19	5-22-19	
Tetrachloroethene	1.2	0.20	EPA 8260C	5-22-19	5-22-19	
1,3-Dichloropropane	ND	0.20	EPA 8260C	5-22-19	5-22-19	
Dibromochloromethane	ND	0.20	EPA 8260C	5-22-19	5-22-19	
1,2-Dibromoethane	ND	0.20	EPA 8260C	5-22-19	5-22-19	
Chlorobenzene	ND	0.20	EPA 8260C	5-22-19	5-22-19	
1,1,1,2-Tetrachloroethane	ND	0.20	EPA 8260C	5-22-19	5-22-19	
Bromoform	ND	1.0	EPA 8260C	5-22-19	5-22-19	
Bromobenzene	ND	0.20	EPA 8260C	5-22-19	5-22-19	
1,1,2,2-Tetrachloroethane	ND	0.20	EPA 8260C	5-22-19	5-22-19	
1,2,3-Trichloropropane	ND	0.20	EPA 8260C	5-22-19	5-22-19	
2-Chlorotoluene	ND	0.20	EPA 8260C	5-22-19	5-22-19	
4-Chlorotoluene	ND	0.20	EPA 8260C	5-22-19	5-22-19	
1,3-Dichlorobenzene	ND	0.20	EPA 8260C	5-22-19	5-22-19	
1,4-Dichlorobenzene	ND	0.20	EPA 8260C	5-22-19	5-22-19	
1,2-Dichlorobenzene	ND	0.20	EPA 8260C	5-22-19	5-22-19	
1,2-Dibromo-3-chloropropane	ND	1.0	EPA 8260C	5-22-19	5-22-19	
1,2,4-Trichlorobenzene	ND	0.20	EPA 8260C	5-22-19	5-22-19	
Hexachlorobutadiene	ND	1.0	EPA 8260C	5-22-19	5-22-19	
1,2,3-Trichlorobenzene	ND	0.20	EPA 8260C	5-22-19	5-22-19	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Dibromofluoromethane</i>	<i>96</i>	<i>75-127</i>				
<i>Toluene-d8</i>	<i>98</i>	<i>80-127</i>				
<i>4-Bromofluorobenzene</i>	<i>97</i>	<i>78-125</i>				



Date of Report: May 30, 2019  
 Samples Submitted: May 21, 2019  
 Laboratory Reference: 1905-282  
 Project: 82302-9.4

**VOLATILE ORGANICS EPA 8260C**  
**METHOD BLANK QUALITY CONTROL**  
 page 1 of 2

Matrix: Water  
 Units: ug/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Laboratory ID:	MB0522W1					
Dichlorodifluoromethane	ND	0.20	EPA 8260C	5-22-19	5-22-19	
Chloromethane	ND	1.0	EPA 8260C	5-22-19	5-22-19	
Vinyl Chloride	ND	0.20	EPA 8260C	5-22-19	5-22-19	
Bromomethane	ND	0.46	EPA 8260C	5-22-19	5-22-19	
Chloroethane	ND	1.0	EPA 8260C	5-22-19	5-22-19	
Trichlorofluoromethane	ND	0.20	EPA 8260C	5-22-19	5-22-19	
1,1-Dichloroethene	ND	0.20	EPA 8260C	5-22-19	5-22-19	
Iodomethane	ND	3.3	EPA 8260C	5-22-19	5-22-19	
Methylene Chloride	ND	1.0	EPA 8260C	5-22-19	5-22-19	
(trans) 1,2-Dichloroethene	ND	0.20	EPA 8260C	5-22-19	5-22-19	
1,1-Dichloroethane	ND	0.20	EPA 8260C	5-22-19	5-22-19	
2,2-Dichloropropane	ND	0.20	EPA 8260C	5-22-19	5-22-19	
(cis) 1,2-Dichloroethene	ND	0.20	EPA 8260C	5-22-19	5-22-19	
Bromochloromethane	ND	0.20	EPA 8260C	5-22-19	5-22-19	
Chloroform	ND	0.20	EPA 8260C	5-22-19	5-22-19	
1,1,1-Trichloroethane	ND	0.20	EPA 8260C	5-22-19	5-22-19	
Carbon Tetrachloride	ND	0.20	EPA 8260C	5-22-19	5-22-19	
1,1-Dichloropropene	ND	0.20	EPA 8260C	5-22-19	5-22-19	
1,2-Dichloroethane	ND	0.20	EPA 8260C	5-22-19	5-22-19	
Trichloroethene	ND	0.20	EPA 8260C	5-22-19	5-22-19	
1,2-Dichloropropane	ND	0.20	EPA 8260C	5-22-19	5-22-19	
Dibromomethane	ND	0.20	EPA 8260C	5-22-19	5-22-19	
Bromodichloromethane	ND	0.20	EPA 8260C	5-22-19	5-22-19	
2-Chloroethyl Vinyl Ether	ND	1.0	EPA 8260C	5-22-19	5-22-19	
(cis) 1,3-Dichloropropene	ND	0.20	EPA 8260C	5-22-19	5-22-19	
(trans) 1,3-Dichloropropene	ND	0.20	EPA 8260C	5-22-19	5-22-19	



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**VOLATILE ORGANICS EPA 8260C**  
**METHOD BLANK QUALITY CONTROL**  
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Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Laboratory ID:	MB0522W1					
1,1,2-Trichloroethane	ND	0.20	EPA 8260C	5-22-19	5-22-19	
Tetrachloroethene	ND	0.20	EPA 8260C	5-22-19	5-22-19	
1,3-Dichloropropane	ND	0.20	EPA 8260C	5-22-19	5-22-19	
Dibromochloromethane	ND	0.20	EPA 8260C	5-22-19	5-22-19	
1,2-Dibromoethane	ND	0.20	EPA 8260C	5-22-19	5-22-19	
Chlorobenzene	ND	0.20	EPA 8260C	5-22-19	5-22-19	
1,1,1,2-Tetrachloroethane	ND	0.20	EPA 8260C	5-22-19	5-22-19	
Bromoform	ND	1.0	EPA 8260C	5-22-19	5-22-19	
Bromobenzene	ND	0.20	EPA 8260C	5-22-19	5-22-19	
1,1,2,2-Tetrachloroethane	ND	0.20	EPA 8260C	5-22-19	5-22-19	
1,2,3-Trichloropropane	ND	0.20	EPA 8260C	5-22-19	5-22-19	
2-Chlorotoluene	ND	0.20	EPA 8260C	5-22-19	5-22-19	
4-Chlorotoluene	ND	0.20	EPA 8260C	5-22-19	5-22-19	
1,3-Dichlorobenzene	ND	0.20	EPA 8260C	5-22-19	5-22-19	
1,4-Dichlorobenzene	ND	0.20	EPA 8260C	5-22-19	5-22-19	
1,2-Dichlorobenzene	ND	0.20	EPA 8260C	5-22-19	5-22-19	
1,2-Dibromo-3-chloropropane	ND	1.0	EPA 8260C	5-22-19	5-22-19	
1,2,4-Trichlorobenzene	ND	0.20	EPA 8260C	5-22-19	5-22-19	
Hexachlorobutadiene	ND	1.0	EPA 8260C	5-22-19	5-22-19	
1,2,3-Trichlorobenzene	ND	0.20	EPA 8260C	5-22-19	5-22-19	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Dibromofluoromethane</i>	<i>96</i>	<i>75-127</i>				
<i>Toluene-d8</i>	<i>99</i>	<i>80-127</i>				
<i>4-Bromofluorobenzene</i>	<i>99</i>	<i>78-125</i>				



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**METHOD BLANK QUALITY CONTROL**  
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Matrix: Water  
 Units: ug/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Laboratory ID:	MB0523W1					
Dichlorodifluoromethane	ND	0.20	EPA 8260C	5-23-19	5-23-19	
Chloromethane	ND	1.0	EPA 8260C	5-23-19	5-23-19	
Vinyl Chloride	ND	0.20	EPA 8260C	5-23-19	5-23-19	
Bromomethane	ND	0.20	EPA 8260C	5-23-19	5-23-19	
Chloroethane	ND	1.0	EPA 8260C	5-23-19	5-23-19	
Trichlorofluoromethane	ND	0.20	EPA 8260C	5-23-19	5-23-19	
1,1-Dichloroethene	ND	0.20	EPA 8260C	5-23-19	5-23-19	
Iodomethane	ND	1.0	EPA 8260C	5-23-19	5-23-19	
Methylene Chloride	ND	1.0	EPA 8260C	5-23-19	5-23-19	
(trans) 1,2-Dichloroethene	ND	0.20	EPA 8260C	5-23-19	5-23-19	
1,1-Dichloroethane	ND	0.20	EPA 8260C	5-23-19	5-23-19	
2,2-Dichloropropane	ND	0.20	EPA 8260C	5-23-19	5-23-19	
(cis) 1,2-Dichloroethene	ND	0.20	EPA 8260C	5-23-19	5-23-19	
Bromochloromethane	ND	0.20	EPA 8260C	5-23-19	5-23-19	
Chloroform	ND	0.20	EPA 8260C	5-23-19	5-23-19	
1,1,1-Trichloroethane	ND	0.20	EPA 8260C	5-23-19	5-23-19	
Carbon Tetrachloride	ND	0.20	EPA 8260C	5-23-19	5-23-19	
1,1-Dichloropropene	ND	0.20	EPA 8260C	5-23-19	5-23-19	
1,2-Dichloroethane	ND	0.20	EPA 8260C	5-23-19	5-23-19	
Trichloroethene	ND	0.20	EPA 8260C	5-23-19	5-23-19	
1,2-Dichloropropane	ND	0.20	EPA 8260C	5-23-19	5-23-19	
Dibromomethane	ND	0.20	EPA 8260C	5-23-19	5-23-19	
Bromodichloromethane	ND	0.20	EPA 8260C	5-23-19	5-23-19	
2-Chloroethyl Vinyl Ether	ND	1.4	EPA 8260C	5-23-19	5-23-19	
(cis) 1,3-Dichloropropene	ND	0.20	EPA 8260C	5-23-19	5-23-19	
(trans) 1,3-Dichloropropene	ND	0.20	EPA 8260C	5-23-19	5-23-19	





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**METHOD BLANK QUALITY CONTROL**  
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Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Laboratory ID:	MB0523W1					
1,1,2-Trichloroethane	ND	0.20	EPA 8260C	5-23-19	5-23-19	
Tetrachloroethene	ND	0.20	EPA 8260C	5-23-19	5-23-19	
1,3-Dichloropropane	ND	0.20	EPA 8260C	5-23-19	5-23-19	
Dibromochloromethane	ND	0.20	EPA 8260C	5-23-19	5-23-19	
1,2-Dibromoethane	ND	0.20	EPA 8260C	5-23-19	5-23-19	
Chlorobenzene	ND	0.20	EPA 8260C	5-23-19	5-23-19	
1,1,1,2-Tetrachloroethane	ND	0.20	EPA 8260C	5-23-19	5-23-19	
Bromoform	ND	1.0	EPA 8260C	5-23-19	5-23-19	
Bromobenzene	ND	0.20	EPA 8260C	5-23-19	5-23-19	
1,1,2,2-Tetrachloroethane	ND	0.20	EPA 8260C	5-23-19	5-23-19	
1,2,3-Trichloropropane	ND	0.20	EPA 8260C	5-23-19	5-23-19	
2-Chlorotoluene	ND	0.20	EPA 8260C	5-23-19	5-23-19	
4-Chlorotoluene	ND	0.20	EPA 8260C	5-23-19	5-23-19	
1,3-Dichlorobenzene	ND	0.20	EPA 8260C	5-23-19	5-23-19	
1,4-Dichlorobenzene	ND	0.20	EPA 8260C	5-23-19	5-23-19	
1,2-Dichlorobenzene	ND	0.20	EPA 8260C	5-23-19	5-23-19	
1,2-Dibromo-3-chloropropane	ND	1.0	EPA 8260C	5-23-19	5-23-19	
1,2,4-Trichlorobenzene	ND	0.20	EPA 8260C	5-23-19	5-23-19	
Hexachlorobutadiene	ND	1.0	EPA 8260C	5-23-19	5-23-19	
1,2,3-Trichlorobenzene	ND	0.20	EPA 8260C	5-23-19	5-23-19	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Dibromofluoromethane</i>	93	75-127				
<i>Toluene-d8</i>	98	80-127				
<i>4-Bromofluorobenzene</i>	106	78-125				



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**VOLATILE ORGANICS EPA 8260C  
 SB/SBD QUALITY CONTROL**

Matrix: Water  
 Units: ug/L

<b>Analyte</b>	<b>Result</b>		<b>Spike Level</b>		<b>Percent Recovery</b>		<b>Recovery Limits</b>	<b>RPD</b>	<b>RPD Limit</b>	<b>Flags</b>
<b>SPIKE BLANKS</b>										
Laboratory ID:	SB0522W1									
	SB	SBD	SB	SBD	SB	SBD				
1,1-Dichloroethene	7.99	7.86	10.0	10.0	80	79	63-130	2	17	
Benzene	8.55	8.38	10.0	10.0	86	84	76-125	2	19	
Trichloroethene	9.35	9.19	10.0	10.0	94	92	76-121	2	18	
Toluene	9.13	8.93	10.0	10.0	91	89	80-124	2	18	
Chlorobenzene	9.66	9.62	10.0	10.0	97	96	75-120	0	19	
<i>Surrogate:</i>										
Dibromofluoromethane					97	97	75-127			
Toluene-d8					99	99	80-127			
4-Bromofluorobenzene					100	100	78-125			
Laboratory ID:	SB0523W1									
	SB	SBD	SB	SBD	SB	SBD				
1,1-Dichloroethene	7.48	8.40	10.0	10.0	75	84	63-130	12	17	
Benzene	8.52	9.41	10.0	10.0	85	94	76-125	10	19	
Trichloroethene	9.56	10.5	10.0	10.0	96	105	76-121	9	18	
Toluene	9.15	9.83	10.0	10.0	92	98	80-124	7	18	
Chlorobenzene	9.54	10.2	10.0	10.0	95	102	75-120	7	19	
<i>Surrogate:</i>										
Dibromofluoromethane					93	95	75-127			
Toluene-d8					96	98	80-127			
4-Bromofluorobenzene					107	102	78-125			



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**AMMONIA (as Nitrogen)**  
**SM 4500-NH<sub>3</sub> D**

Matrix: Water  
 Units: mg NH<sub>3</sub>-N/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>Client ID:</b>	<b>H2-MW-14D:W</b>					
Laboratory ID:	05-282-01					
Ammonia	<b>ND</b>	0.050	SM 4500-NH <sub>3</sub> D	5-24-19	5-24-19	

<b>Client ID:</b>	<b>H2-MW-14S:W</b>					
Laboratory ID:	05-282-02					
Ammonia	<b>ND</b>	0.050	SM 4500-NH <sub>3</sub> D	5-24-19	5-24-19	

<b>Client ID:</b>	<b>H2-MW-22:W</b>					
Laboratory ID:	05-282-03					
Ammonia	<b>ND</b>	0.050	SM 4500-NH <sub>3</sub> D	5-24-19	5-24-19	



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**AMMONIA (as Nitrogen)  
 SM 4500-NH<sub>3</sub> D  
 QUALITY CONTROL**

Matrix: Water  
 Units: mg NH<sub>3</sub>-N/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>METHOD BLANK</b>						
Laboratory ID:	MB0524W1					
Ammonia	<b>ND</b>	0.050	SM 4500-NH <sub>3</sub> D	5-24-19	5-24-19	

Analyte	Result	Spike Level	Source Result	Percent Recovery	Recovery Limits	RPD	RPD Limit	Flags
<b>DUPLICATE</b>								
Laboratory ID:	05-321-01							
	ORIG	DUP						
Ammonia	<b>ND</b>	<b>ND</b>	NA	NA	NA	NA	12	

<b>MATRIX SPIKE</b>								
Laboratory ID:	05-321-01							
	MS	MS		MS				
Ammonia	<b>4.79</b>	5.00	ND	96	75-121	NA	NA	

<b>SPIKE BLANK</b>								
Laboratory ID:	SB0524W1							
	SB	SB		SB				
Ammonia	<b>4.75</b>	5.00	NA	95	85-110	NA	NA	



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**DISSOLVED IRON  
 EPA 6010D**

Matrix: Water  
 Units: ug/L (ppb)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>Client ID:</b>	<b>H2-MW-14D:W</b>					
Laboratory ID:	05-282-01					
Iron	<b>ND</b>	56	EPA 6010D	5-21-19	5-29-19	
<b>Client ID:</b>	<b>H2-MW-14S:W</b>					
Laboratory ID:	05-282-02					
Iron	<b>490</b>	56	EPA 6010D	5-21-19	5-29-19	
<b>Client ID:</b>	<b>H2-MW-22:W</b>					
Laboratory ID:	05-282-03					
Iron	<b>ND</b>	56	EPA 6010D	5-21-19	5-29-19	



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**DISSOLVED IRON  
 EPA 6010D  
 QUALITY CONTROL**

Matrix: Water  
 Units: ug/L (ppb)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>METHOD BLANK</b>						
Laboratory ID:	MB0521F1					
Iron	<b>ND</b>	56	EPA 6010D	5-21-19	5-29-19	

Analyte	Result	Spike Level	Source Result	Percent Recovery	Recovery Limits	RPD	RPD Limit	Flags
<b>DUPLICATE</b>								
Laboratory ID:	05-331-02							
	ORIG	DUP						
Iron	<b>528</b>	<b>507</b>	NA	NA	NA	4	20	

**MATRIX SPIKES**

Laboratory ID:	MS	MSD	MS	MSD	MS	MSD	RPD	RPD Limit	Flags	
Laboratory ID:	05-331-02									
	MS	MSD	MS	MSD	MS	MSD				
Iron	<b>20900</b>	<b>20800</b>	22200	22200	528	<b>92</b>	<b>91</b>	75-125	0	20



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**CHLORIDE  
 SM 4500-Cl E**

Matrix: Water  
 Units: mg/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>Client ID:</b>	<b>H2-MW-14D:W</b>					
Laboratory ID:	05-282-01					
Chloride	<b>87</b>	2.0	SM 4500-Cl E	5-22-19	5-22-19	

<b>Client ID:</b>	<b>H2-MW-14S:W</b>					
Laboratory ID:	05-282-02					
Chloride	<b>7.2</b>	2.0	SM 4500-Cl E	5-22-19	5-22-19	

<b>Client ID:</b>	<b>H2-MW-22:W</b>					
Laboratory ID:	05-282-03					
Chloride	<b>8.1</b>	2.0	SM 4500-Cl E	5-22-19	5-22-19	



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**CHLORIDE  
 SM 4500-Cl E  
 QUALITY CONTROL**

Matrix: Water  
 Units: mg/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>METHOD BLANK</b>						
Laboratory ID:	MB0522W1					
Chloride	<b>ND</b>	2.0	SM 4500-Cl E	5-22-19	5-22-19	

Analyte	Result	Spike Level	Source Result	Percent Recovery	Recovery Limits	RPD	RPD Limit	Flags
<b>DUPLICATE</b>								
Laboratory ID:	05-282-01							
	ORIG	DUP						
Chloride	<b>86.8</b>	<b>85.6</b>	NA	NA	NA	1	17	

<b>MATRIX SPIKE</b>								
Laboratory ID:	05-282-01							
	MS	MS		MS				
Chloride	<b>186</b>	100	86.8	99	80-116	NA	NA	

<b>SPIKE BLANK</b>								
Laboratory ID:	SB0522W1							
	SB	SB		SB				
Chloride	<b>49.3</b>	50.0	NA	99	90-110	NA	NA	





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**SULFATE**  
**ASTM D516-11**

Matrix: Water  
 Units: mg/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>Client ID:</b>	<b>H2-MW-14D:W</b>					
Laboratory ID:	05-282-01					
Sulfate	<b>10</b>	5.0	ASTM D516-11	5-22-19	5-22-19	

<b>Client ID:</b>	<b>H2-MW-14S:W</b>					
Laboratory ID:	05-282-02					
Sulfate	<b>21</b>	5.0	ASTM D516-11	5-22-19	5-22-19	

<b>Client ID:</b>	<b>H2-MW-22:W</b>					
Laboratory ID:	05-282-03					
Sulfate	<b>31</b>	10	ASTM D516-11	5-22-19	5-22-19	



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**SULFATE  
 ASTM D516-11  
 QUALITY CONTROL**

Matrix: Water  
 Units: mg/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>METHOD BLANK</b>						
Laboratory ID:	MB0522W1					
Sulfate	<b>ND</b>	5.0	ASTM D516-11	5-22-19	5-22-19	

Analyte	Result	Spike Level	Source Result	Percent Recovery	Recovery Limits	RPD	RPD Limit	Flags
<b>DUPLICATE</b>								
Laboratory ID:	05-267-02							
	ORIG	DUP						
Sulfate	<b>ND</b>	<b>ND</b>	NA	NA	NA	NA	10	

<b>MATRIX SPIKE</b>								
Laboratory ID:	05-267-02							
	MS	MS		MS				
Sulfate	<b>13.1</b>	10.0	ND	131	73-134	NA	NA	

<b>SPIKE BLANK</b>								
Laboratory ID:	SB0522W1							
	SB	SB		SB				
Sulfate	<b>9.93</b>	10.0	NA	99	89-113	NA	NA	



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**TOTAL ORGANIC CARBON  
 SM 5310B**

Matrix: Water  
 Units: mg/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>Client ID:</b>	<b>H2-MW-14D:W</b>					
Laboratory ID:	05-282-01					
Total Organic Carbon	<b>ND</b>	1.0	SM 5310B	5-21-19	5-21-19	
<b>Client ID:</b>	<b>H2-MW-14S:W</b>					
Laboratory ID:	05-282-02					
Total Organic Carbon	<b>1.7</b>	1.0	SM 5310B	5-21-19	5-21-19	
<b>Client ID:</b>	<b>H2-MW-22:W</b>					
Laboratory ID:	05-282-03					
Total Organic Carbon	<b>2.3</b>	1.0	SM 5310B	5-21-19	5-21-19	



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**TOTAL ORGANIC CARBON  
 SM 5310B  
 QUALITY CONTROL**

Matrix: Water  
 Units: mg/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>METHOD BLANK</b>						
Laboratory ID:	MB0521W1					
Total Organic Carbon	<b>ND</b>	1.0	SM 5310B	5-21-19	5-21-19	

Analyte	Result	Spike Level	Source Result	Percent Recovery	Recovery Limits	RPD	RPD Limit	Flags
<b>DUPLICATE</b>								
Laboratory ID:	05-244-01							
	ORIG	DUP						
Total Organic Carbon	<b>1.56</b>	<b>1.53</b>	NA	NA	NA	NA	2	20

**MATRIX SPIKE**

Laboratory ID:	05-244-01							
	MS	MS		MS				
Total Organic Carbon	<b>12.5</b>	10.0	1.56	109	85-131	NA	NA	

**SPIKE BLANK**

Laboratory ID:	SB0521W1							
	SB	SB		SB				
Total Organic Carbon	<b>11.9</b>	10.0	NA	119	88-127	NA	NA	



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**DISSOLVED GASES  
 RSK 175**

Matrix: Water  
 Units: ug/L (ppb)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>Client ID:</b>	<b>H2-MW-14D:W</b>					
Laboratory ID:	05-282-01					
Methane	<b>180</b>	20	RSK 175	5-28-19	5-28-19	
Ethane	<b>ND</b>	10	RSK 175	5-28-19	5-28-19	
Ethene	<b>ND</b>	10	RSK 175	5-28-19	5-28-19	

<b>Client ID:</b>	<b>H2-MW-14S:W</b>					
Laboratory ID:	05-282-02					
Methane	<b>53</b>	10	RSK 175	5-28-19	5-28-19	
Ethane	<b>ND</b>	5.0	RSK 175	5-28-19	5-28-19	
Ethene	<b>ND</b>	5.0	RSK 175	5-28-19	5-28-19	

<b>Client ID:</b>	<b>H2-MW-22:W</b>					
Laboratory ID:	05-282-03					
Methane	<b>4.0</b>	1.0	RSK 175	5-28-19	5-28-19	
Ethane	<b>ND</b>	0.50	RSK 175	5-28-19	5-28-19	
Ethene	<b>ND</b>	0.50	RSK 175	5-28-19	5-28-19	



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**DISSOLVED GASES  
 RSK 175  
 QUALITY CONTROL**

Matrix: Water  
 Units: ug/L (ppb)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>METHOD BLANK</b>						
Laboratory ID:	MB0528W1					
Methane	ND	1.0	RSK 175	5-28-19	5-28-19	
Ethane	ND	0.50	RSK 175	5-28-19	5-28-19	
Ethene	ND	0.50	RSK 175	5-28-19	5-28-19	

Analyte	Result		Spike Level		Source Result	Percent Recovery	Recovery Limits	RPD	RPD Limit	Flags
<b>SPIKE BLANKS</b>										
Laboratory ID:	SB0528W1									
	SB	SBD	SB	SBD		SB	SBD			
Methane	4.12	4.32	4.42	4.42	N/A	93	98	75-125	5	25
Ethane	8.17	8.75	8.32	8.32	N/A	98	105	75-125	7	25
Ethene	7.79	8.87	7.77	7.77	N/A	100	114	75-125	13	25

**MATRIX SPIKES**

Analyte	Result		Spike Level		Source Result	Percent Recovery	Recovery Limits	RPD	RPD Limit	Flags
Laboratory ID:	01-123-01									
	MS	MSD	MS	MSD		MS	MSD			
Methane	9.41	9.08	4.42	4.42	4.20	118	110	75-125	4	25
Ethane	7.79	7.34	8.32	8.32	ND	94	88	75-125	6	25
Ethene	5.79	6.37	7.77	7.77	ND	75	82	75-125	10	25





### Data Qualifiers and Abbreviations

- A - Due to a high sample concentration, the amount spiked is insufficient for meaningful MS/MSD recovery data.
  - B - The analyte indicated was also found in the blank sample.
  - C - The duplicate RPD is outside control limits due to high result variability when analyte concentrations are within five times the quantitation limit.
  - E - The value reported exceeds the quantitation range and is an estimate.
  - F - Surrogate recovery data is not available due to the high concentration of coeluting target compounds.
  - H - The analyte indicated is a common laboratory solvent and may have been introduced during sample preparation, and be impacting the sample result.
  - I - Compound recovery is outside of the control limits.
  - J - The value reported was below the practical quantitation limit. The value is an estimate.
  - K - Sample duplicate RPD is outside control limits due to sample inhomogeneity. The sample was re-extracted and re-analyzed with similar results.
  - L - The RPD is outside of the control limits.
  - M - Hydrocarbons in the gasoline range are impacting the diesel range result.
  - M1 - Hydrocarbons in the gasoline range (toluene-naphthalene) are present in the sample.
  - N - Hydrocarbons in the lube oil range are impacting the diesel range result.
  - N1 - Hydrocarbons in diesel range are impacting lube oil range results.
  - O - Hydrocarbons indicative of heavier fuels are present in the sample and are impacting the gasoline result.
  - P - The RPD of the detected concentrations between the two columns is greater than 40.
  - Q - Surrogate recovery is outside of the control limits.
  - S - Surrogate recovery data is not available due to the necessary dilution of the sample.
  - T - The sample chromatogram is not similar to a typical \_\_\_\_\_.
  - U - The analyte was analyzed for, but was not detected above the reported sample quantitation limit.
  - U1 - The practical quantitation limit is elevated due to interferences present in the sample.
  - V - Matrix Spike/Matrix Spike Duplicate recoveries are outside control limits due to matrix effects.
  - W - Matrix Spike/Matrix Spike Duplicate RPD are outside control limits due to matrix effects.
  - X - Sample extract treated with a mercury cleanup procedure.
  - X1 - Sample extract treated with a sulfuric acid/silica gel cleanup procedure.
  - Y - The calibration verification for this analyte exceeded the 20% drift specified in method 8260C, and therefore the reported result should be considered an estimate. The overall performance of the calibration verification standard met the acceptance criteria of the method.
  - Z -
- ND - Not Detected at PQL  
 PQL - Practical Quantitation Limit  
 RPD - Relative Percent Difference





**MW Onsite Environmental Inc.**  
 Analytical Laboratory Testing Services  
 14648 NE 95th Street • Redmond, WA 98052  
 Phone: (425) 883-3891 • www.onsite-env.com

# Chain of Custody

Page 1 of 1

**Turnaround Request**  
 (in working days)  
 (Check One)

Same Day  1 Day

2 Days  3 Days

Standard (7 Days)

\_\_\_\_\_ (other)

**Laboratory Number: 05-282**

Company: **KANE Environmental, Inc.**

Project Number: **82302-9.4**

Project Name: **BSCSS**

Project Manager: **JEFF JENSEN**

Sampled by: **JEFF@KANE-ENVIRONMENTAL.COM**

Lab ID	Sample Identification	Date Sampled	Time Sampled	Matrix	Number of Containers
1	H2-MW-14D:W	5/21	1127	GW	10
2	H2-MW-14S:W	5/21	1254	GW	10
3	H2-MW-22:W	5/21	1446	GW	10

Number of Containers	NWTPH-HCID	NWTPH-Gx/BTEX	NWTPH-Gx	NWTPH-Dx (Acid / SG Clean-up)	Volatiles 8260C	Halogenated Volatiles 8260C	EDB EPA 8011 (Waters Only)	Semivolatiles 8270D/SIM (with low-level PAHs)	PAHs 8270D/SIM (low-level)	PCBs 8082A	Organochlorine Pesticides 8081B	Organophosphorus Pesticides 8270D/SIM	Chlorinated Acid Herbicides 8151A	Total RCRA Metals	Total MTCA Metals	ammonia - N	HEM (oil and grease) 1664A	dissolved Fe	chloride	sulfate	TDC	RSK #75
10					X												X	X	X	X	X	X
10					X												X	X	X	X	X	X
10					X												X	X	X	X	X	X

*[A large diagonal line is drawn across the table, indicating that the samples were not analyzed.]*

Signature

*[Signature]*

Company

KANE Environmental

Date

5/21

Time

1535

Comments/Special Instructions

LAB AFTER

\* Methane, Ethane, Ethene

Relinquished	Received	Relinquished	Received	Relinquished	Received	Relinquished	Received	Relinquished	Received	Relinquished	Received

Reviewed/Date

Reviewed/Date

Data Package: Standard  Level III  Level IV   
 Chromatograms with final report  Electronic Data Deliverables (EDDs)





14648 NE 95<sup>th</sup> Street, Redmond, WA 98052 • (425) 883-3881

June 3, 2019

Jeff Jensen  
Kane Environmental, Inc.  
4015 13th Avenue West  
Seattle, WA 98119

Re: Analytical Data for Project 82302-9.4  
Laboratory Reference No. 1905-305

Dear Jeff:

Enclosed are the analytical results and associated quality control data for samples submitted on May 22, 2019.

The standard policy of OnSite Environmental, Inc. is to store your samples for 30 days from the date of receipt. If you require longer storage, please contact the laboratory.

We appreciate the opportunity to be of service to you on this project. If you have any questions concerning the data, or need additional information, please feel free to call me.

Sincerely,

A handwritten signature in black ink, appearing to read "DB", with a long horizontal flourish extending to the right.

David Baumeister  
Project Manager

Enclosures



---

OnSite Environmental, Inc. 14648 NE 95<sup>th</sup> Street, Redmond, WA 98052 (425) 883-3881

This report pertains to the samples analyzed in accordance with the chain of custody, and is intended only for the use of the individual or company to whom it is addressed.

Date of Report: June 3, 2019  
Samples Submitted: May 22, 2019  
Laboratory Reference: 1905-305  
Project: 82302-9.4

### Case Narrative

Samples were collected on May 22, 2019 and received by the laboratory on May 22, 2019. They were maintained at the laboratory at a temperature of 2°C to 6°C.

Please note that any and all soil sample results are reported on a dry-weight basis, unless otherwise noted below.

General QA/QC issues associated with the analytical data enclosed in this laboratory report will be indicated with a reference to a comment or explanation on the Data Qualifier page. More complex and involved QA/QC issues will be discussed in detail below.



Date of Report: June 3, 2019  
 Samples Submitted: May 22, 2019  
 Laboratory Reference: 1905-305  
 Project: 82302-9.4

**VOLATILE ORGANICS EPA 8260C**  
 page 1 of 2

Matrix: Water  
 Units: ug/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>Client ID:</b>	<b>MW-6:W</b>					
Laboratory ID:	05-305-01					
Dichlorodifluoromethane	ND	20	EPA 8260C	5-23-19	5-23-19	
Chloromethane	ND	100	EPA 8260C	5-23-19	5-23-19	
Vinyl Chloride	ND	20	EPA 8260C	5-23-19	5-23-19	
Bromomethane	ND	20	EPA 8260C	5-23-19	5-23-19	
Chloroethane	ND	100	EPA 8260C	5-23-19	5-23-19	
Trichlorofluoromethane	ND	20	EPA 8260C	5-23-19	5-23-19	
1,1-Dichloroethene	ND	20	EPA 8260C	5-23-19	5-23-19	
Iodomethane	ND	100	EPA 8260C	5-23-19	5-23-19	
Methylene Chloride	ND	100	EPA 8260C	5-23-19	5-23-19	
(trans) 1,2-Dichloroethene	ND	20	EPA 8260C	5-23-19	5-23-19	
1,1-Dichloroethane	ND	20	EPA 8260C	5-23-19	5-23-19	
2,2-Dichloropropane	ND	20	EPA 8260C	5-23-19	5-23-19	
(cis) 1,2-Dichloroethene	750	20	EPA 8260C	5-23-19	5-23-19	
Bromochloromethane	ND	20	EPA 8260C	5-23-19	5-23-19	
Chloroform	ND	20	EPA 8260C	5-23-19	5-23-19	
1,1,1-Trichloroethane	ND	20	EPA 8260C	5-23-19	5-23-19	
Carbon Tetrachloride	ND	20	EPA 8260C	5-23-19	5-23-19	
1,1-Dichloropropene	ND	20	EPA 8260C	5-23-19	5-23-19	
1,2-Dichloroethane	ND	20	EPA 8260C	5-23-19	5-23-19	
Trichloroethene	1800	20	EPA 8260C	5-23-19	5-23-19	
1,2-Dichloropropane	ND	20	EPA 8260C	5-23-19	5-23-19	
Dibromomethane	ND	20	EPA 8260C	5-23-19	5-23-19	
Bromodichloromethane	ND	20	EPA 8260C	5-23-19	5-23-19	
2-Chloroethyl Vinyl Ether	ND	140	EPA 8260C	5-23-19	5-23-19	
(cis) 1,3-Dichloropropene	ND	20	EPA 8260C	5-23-19	5-23-19	
(trans) 1,3-Dichloropropene	ND	20	EPA 8260C	5-23-19	5-23-19	



Date of Report: June 3, 2019  
 Samples Submitted: May 22, 2019  
 Laboratory Reference: 1905-305  
 Project: 82302-9.4

**VOLATILE ORGANICS EPA 8260C**  
 page 2 of 2

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>Client ID:</b>	<b>MW-6:W</b>					
<b>Laboratory ID:</b>	<b>05-305-01</b>					
1,1,2-Trichloroethane	ND	20	EPA 8260C	5-23-19	5-23-19	
Tetrachloroethene	3800	20	EPA 8260C	5-23-19	5-23-19	
1,3-Dichloropropane	ND	20	EPA 8260C	5-23-19	5-23-19	
Dibromochloromethane	ND	20	EPA 8260C	5-23-19	5-23-19	
1,2-Dibromoethane	ND	20	EPA 8260C	5-23-19	5-23-19	
Chlorobenzene	ND	20	EPA 8260C	5-23-19	5-23-19	
1,1,1,2-Tetrachloroethane	ND	20	EPA 8260C	5-23-19	5-23-19	
Bromoform	ND	100	EPA 8260C	5-23-19	5-23-19	
Bromobenzene	ND	20	EPA 8260C	5-23-19	5-23-19	
1,1,1,2,2-Tetrachloroethane	ND	20	EPA 8260C	5-23-19	5-23-19	
1,2,3-Trichloropropane	ND	20	EPA 8260C	5-23-19	5-23-19	
2-Chlorotoluene	ND	20	EPA 8260C	5-23-19	5-23-19	
4-Chlorotoluene	ND	20	EPA 8260C	5-23-19	5-23-19	
1,3-Dichlorobenzene	ND	20	EPA 8260C	5-23-19	5-23-19	
1,4-Dichlorobenzene	ND	20	EPA 8260C	5-23-19	5-23-19	
1,2-Dichlorobenzene	ND	20	EPA 8260C	5-23-19	5-23-19	
1,2-Dibromo-3-chloropropane	ND	100	EPA 8260C	5-23-19	5-23-19	
1,2,4-Trichlorobenzene	ND	20	EPA 8260C	5-23-19	5-23-19	
Hexachlorobutadiene	ND	100	EPA 8260C	5-23-19	5-23-19	
1,2,3-Trichlorobenzene	ND	20	EPA 8260C	5-23-19	5-23-19	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Dibromofluoromethane</i>	<i>93</i>	<i>75-127</i>				
<i>Toluene-d8</i>	<i>96</i>	<i>80-127</i>				
<i>4-Bromofluorobenzene</i>	<i>105</i>	<i>78-125</i>				



Date of Report: June 3, 2019  
 Samples Submitted: May 22, 2019  
 Laboratory Reference: 1905-305  
 Project: 82302-9.4

**VOLATILE ORGANICS EPA 8260C**  
 page 1 of 2

Matrix: Water  
 Units: ug/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>Client ID:</b>	<b>MW-8:W</b>					
Laboratory ID:	05-305-02					
Dichlorodifluoromethane	ND	0.20	EPA 8260C	5-23-19	5-23-19	
Chloromethane	ND	1.0	EPA 8260C	5-23-19	5-23-19	
Vinyl Chloride	ND	0.20	EPA 8260C	5-23-19	5-23-19	
Bromomethane	ND	0.20	EPA 8260C	5-23-19	5-23-19	
Chloroethane	ND	1.0	EPA 8260C	5-23-19	5-23-19	
Trichlorofluoromethane	ND	0.20	EPA 8260C	5-23-19	5-23-19	
1,1-Dichloroethene	ND	0.20	EPA 8260C	5-23-19	5-23-19	
Iodomethane	ND	1.0	EPA 8260C	5-23-19	5-23-19	
Methylene Chloride	ND	1.0	EPA 8260C	5-23-19	5-23-19	
(trans) 1,2-Dichloroethene	ND	0.20	EPA 8260C	5-23-19	5-23-19	
1,1-Dichloroethane	ND	0.20	EPA 8260C	5-23-19	5-23-19	
2,2-Dichloropropane	ND	0.20	EPA 8260C	5-23-19	5-23-19	
(cis) 1,2-Dichloroethene	1.3	0.20	EPA 8260C	5-23-19	5-23-19	
Bromochloromethane	ND	0.20	EPA 8260C	5-23-19	5-23-19	
Chloroform	ND	0.20	EPA 8260C	5-23-19	5-23-19	
1,1,1-Trichloroethane	ND	0.20	EPA 8260C	5-23-19	5-23-19	
Carbon Tetrachloride	ND	0.20	EPA 8260C	5-23-19	5-23-19	
1,1-Dichloropropene	ND	0.20	EPA 8260C	5-23-19	5-23-19	
1,2-Dichloroethane	ND	0.20	EPA 8260C	5-23-19	5-23-19	
Trichloroethene	1.0	0.20	EPA 8260C	5-23-19	5-23-19	
1,2-Dichloropropane	ND	0.20	EPA 8260C	5-23-19	5-23-19	
Dibromomethane	ND	0.20	EPA 8260C	5-23-19	5-23-19	
Bromodichloromethane	ND	0.20	EPA 8260C	5-23-19	5-23-19	
2-Chloroethyl Vinyl Ether	ND	1.4	EPA 8260C	5-23-19	5-23-19	
(cis) 1,3-Dichloropropene	ND	0.20	EPA 8260C	5-23-19	5-23-19	
(trans) 1,3-Dichloropropene	ND	0.20	EPA 8260C	5-23-19	5-23-19	



Date of Report: June 3, 2019  
 Samples Submitted: May 22, 2019  
 Laboratory Reference: 1905-305  
 Project: 82302-9.4

**VOLATILE ORGANICS EPA 8260C**  
 page 2 of 2

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>Client ID:</b>	<b>MW-8:W</b>					
<b>Laboratory ID:</b>	<b>05-305-02</b>					
1,1,2-Trichloroethane	ND	0.20	EPA 8260C	5-23-19	5-23-19	
Tetrachloroethene	3.1	0.20	EPA 8260C	5-23-19	5-23-19	
1,3-Dichloropropane	ND	0.20	EPA 8260C	5-23-19	5-23-19	
Dibromochloromethane	ND	0.20	EPA 8260C	5-23-19	5-23-19	
1,2-Dibromoethane	ND	0.20	EPA 8260C	5-23-19	5-23-19	
Chlorobenzene	ND	0.20	EPA 8260C	5-23-19	5-23-19	
1,1,1,2-Tetrachloroethane	ND	0.20	EPA 8260C	5-23-19	5-23-19	
Bromoform	ND	1.0	EPA 8260C	5-23-19	5-23-19	
Bromobenzene	ND	0.20	EPA 8260C	5-23-19	5-23-19	
1,1,2,2-Tetrachloroethane	ND	0.20	EPA 8260C	5-23-19	5-23-19	
1,2,3-Trichloropropane	ND	0.20	EPA 8260C	5-23-19	5-23-19	
2-Chlorotoluene	ND	0.20	EPA 8260C	5-23-19	5-23-19	
4-Chlorotoluene	ND	0.20	EPA 8260C	5-23-19	5-23-19	
1,3-Dichlorobenzene	ND	0.20	EPA 8260C	5-23-19	5-23-19	
1,4-Dichlorobenzene	ND	0.20	EPA 8260C	5-23-19	5-23-19	
1,2-Dichlorobenzene	ND	0.20	EPA 8260C	5-23-19	5-23-19	
1,2-Dibromo-3-chloropropane	ND	1.0	EPA 8260C	5-23-19	5-23-19	
1,2,4-Trichlorobenzene	ND	0.20	EPA 8260C	5-23-19	5-23-19	
Hexachlorobutadiene	ND	1.0	EPA 8260C	5-23-19	5-23-19	
1,2,3-Trichlorobenzene	ND	0.20	EPA 8260C	5-23-19	5-23-19	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Dibromofluoromethane</i>	<i>97</i>	<i>75-127</i>				
<i>Toluene-d8</i>	<i>92</i>	<i>80-127</i>				
<i>4-Bromofluorobenzene</i>	<i>108</i>	<i>78-125</i>				



Date of Report: June 3, 2019  
 Samples Submitted: May 22, 2019  
 Laboratory Reference: 1905-305  
 Project: 82302-9.4

**VOLATILE ORGANICS EPA 8260C**  
 page 1 of 2

Matrix: Water  
 Units: ug/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>Client ID:</b>	<b>MW-11:W</b>					
Laboratory ID:	05-305-03					
Dichlorodifluoromethane	ND	0.40	EPA 8260C	5-23-19	5-23-19	
Chloromethane	ND	2.0	EPA 8260C	5-23-19	5-23-19	
Vinyl Chloride	ND	0.40	EPA 8260C	5-23-19	5-23-19	
Bromomethane	ND	0.40	EPA 8260C	5-23-19	5-23-19	
Chloroethane	ND	2.0	EPA 8260C	5-23-19	5-23-19	
Trichlorofluoromethane	ND	0.40	EPA 8260C	5-23-19	5-23-19	
1,1-Dichloroethene	2.3	0.40	EPA 8260C	5-23-19	5-23-19	
Iodomethane	ND	2.0	EPA 8260C	5-23-19	5-23-19	
Methylene Chloride	ND	2.0	EPA 8260C	5-23-19	5-23-19	
(trans) 1,2-Dichloroethene	0.77	0.40	EPA 8260C	5-23-19	5-23-19	
1,1-Dichloroethane	ND	0.40	EPA 8260C	5-23-19	5-23-19	
2,2-Dichloropropane	ND	0.40	EPA 8260C	5-23-19	5-23-19	
(cis) 1,2-Dichloroethene	14	0.40	EPA 8260C	5-23-19	5-23-19	
Bromochloromethane	ND	0.40	EPA 8260C	5-23-19	5-23-19	
Chloroform	ND	0.40	EPA 8260C	5-23-19	5-23-19	
1,1,1-Trichloroethane	ND	0.40	EPA 8260C	5-23-19	5-23-19	
Carbon Tetrachloride	ND	0.40	EPA 8260C	5-23-19	5-23-19	
1,1-Dichloropropene	ND	0.40	EPA 8260C	5-23-19	5-23-19	
1,2-Dichloroethane	ND	0.40	EPA 8260C	5-23-19	5-23-19	
Trichloroethene	69	0.40	EPA 8260C	5-23-19	5-23-19	
1,2-Dichloropropane	ND	0.40	EPA 8260C	5-23-19	5-23-19	
Dibromomethane	ND	0.40	EPA 8260C	5-23-19	5-23-19	
Bromodichloromethane	ND	0.40	EPA 8260C	5-23-19	5-23-19	
2-Chloroethyl Vinyl Ether	ND	2.8	EPA 8260C	5-23-19	5-23-19	
(cis) 1,3-Dichloropropene	ND	0.40	EPA 8260C	5-23-19	5-23-19	
(trans) 1,3-Dichloropropene	ND	0.40	EPA 8260C	5-23-19	5-23-19	



Date of Report: June 3, 2019  
 Samples Submitted: May 22, 2019  
 Laboratory Reference: 1905-305  
 Project: 82302-9.4

**VOLATILE ORGANICS EPA 8260C**  
 page 2 of 2

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>Client ID:</b>	<b>MW-11:W</b>					
<b>Laboratory ID:</b>	<b>05-305-03</b>					
1,1,2-Trichloroethane	ND	0.40	EPA 8260C	5-23-19	5-23-19	
Tetrachloroethene	75	0.40	EPA 8260C	5-23-19	5-23-19	
1,3-Dichloropropane	ND	0.40	EPA 8260C	5-23-19	5-23-19	
Dibromochloromethane	ND	0.40	EPA 8260C	5-23-19	5-23-19	
1,2-Dibromoethane	ND	0.40	EPA 8260C	5-23-19	5-23-19	
Chlorobenzene	ND	0.40	EPA 8260C	5-23-19	5-23-19	
1,1,1,2-Tetrachloroethane	ND	0.40	EPA 8260C	5-23-19	5-23-19	
Bromoform	ND	2.0	EPA 8260C	5-23-19	5-23-19	
Bromobenzene	ND	0.40	EPA 8260C	5-23-19	5-23-19	
1,1,2,2-Tetrachloroethane	ND	0.40	EPA 8260C	5-23-19	5-23-19	
1,2,3-Trichloropropane	ND	0.40	EPA 8260C	5-23-19	5-23-19	
2-Chlorotoluene	ND	0.40	EPA 8260C	5-23-19	5-23-19	
4-Chlorotoluene	ND	0.40	EPA 8260C	5-23-19	5-23-19	
1,3-Dichlorobenzene	ND	0.40	EPA 8260C	5-23-19	5-23-19	
1,4-Dichlorobenzene	ND	0.40	EPA 8260C	5-23-19	5-23-19	
1,2-Dichlorobenzene	ND	0.40	EPA 8260C	5-23-19	5-23-19	
1,2-Dibromo-3-chloropropane	ND	2.0	EPA 8260C	5-23-19	5-23-19	
1,2,4-Trichlorobenzene	ND	0.40	EPA 8260C	5-23-19	5-23-19	
Hexachlorobutadiene	ND	2.0	EPA 8260C	5-23-19	5-23-19	
1,2,3-Trichlorobenzene	ND	0.40	EPA 8260C	5-23-19	5-23-19	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Dibromofluoromethane</i>	<i>91</i>	<i>75-127</i>				
<i>Toluene-d8</i>	<i>95</i>	<i>80-127</i>				
<i>4-Bromofluorobenzene</i>	<i>106</i>	<i>78-125</i>				





Date of Report: June 3, 2019  
 Samples Submitted: May 22, 2019  
 Laboratory Reference: 1905-305  
 Project: 82302-9.4

**VOLATILE ORGANICS EPA 8260C**  
**METHOD BLANK QUALITY CONTROL**  
 page 1 of 2

Matrix: Water  
 Units: ug/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Laboratory ID:	MB0523W1					
Dichlorodifluoromethane	ND	0.20	EPA 8260C	5-23-19	5-23-19	
Chloromethane	ND	1.0	EPA 8260C	5-23-19	5-23-19	
Vinyl Chloride	ND	0.20	EPA 8260C	5-23-19	5-23-19	
Bromomethane	ND	0.20	EPA 8260C	5-23-19	5-23-19	
Chloroethane	ND	1.0	EPA 8260C	5-23-19	5-23-19	
Trichlorofluoromethane	ND	0.20	EPA 8260C	5-23-19	5-23-19	
1,1-Dichloroethene	ND	0.20	EPA 8260C	5-23-19	5-23-19	
Iodomethane	ND	1.0	EPA 8260C	5-23-19	5-23-19	
Methylene Chloride	ND	1.0	EPA 8260C	5-23-19	5-23-19	
(trans) 1,2-Dichloroethene	ND	0.20	EPA 8260C	5-23-19	5-23-19	
1,1-Dichloroethane	ND	0.20	EPA 8260C	5-23-19	5-23-19	
2,2-Dichloropropane	ND	0.20	EPA 8260C	5-23-19	5-23-19	
(cis) 1,2-Dichloroethene	ND	0.20	EPA 8260C	5-23-19	5-23-19	
Bromochloromethane	ND	0.20	EPA 8260C	5-23-19	5-23-19	
Chloroform	ND	0.20	EPA 8260C	5-23-19	5-23-19	
1,1,1-Trichloroethane	ND	0.20	EPA 8260C	5-23-19	5-23-19	
Carbon Tetrachloride	ND	0.20	EPA 8260C	5-23-19	5-23-19	
1,1-Dichloropropene	ND	0.20	EPA 8260C	5-23-19	5-23-19	
1,2-Dichloroethane	ND	0.20	EPA 8260C	5-23-19	5-23-19	
Trichloroethene	ND	0.20	EPA 8260C	5-23-19	5-23-19	
1,2-Dichloropropane	ND	0.20	EPA 8260C	5-23-19	5-23-19	
Dibromomethane	ND	0.20	EPA 8260C	5-23-19	5-23-19	
Bromodichloromethane	ND	0.20	EPA 8260C	5-23-19	5-23-19	
2-Chloroethyl Vinyl Ether	ND	1.4	EPA 8260C	5-23-19	5-23-19	
(cis) 1,3-Dichloropropene	ND	0.20	EPA 8260C	5-23-19	5-23-19	
(trans) 1,3-Dichloropropene	ND	0.20	EPA 8260C	5-23-19	5-23-19	



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**VOLATILE ORGANICS EPA 8260C**  
**METHOD BLANK QUALITY CONTROL**  
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Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Laboratory ID:	MB0523W1					
1,1,2-Trichloroethane	ND	0.20	EPA 8260C	5-23-19	5-23-19	
Tetrachloroethene	ND	0.20	EPA 8260C	5-23-19	5-23-19	
1,3-Dichloropropane	ND	0.20	EPA 8260C	5-23-19	5-23-19	
Dibromochloromethane	ND	0.20	EPA 8260C	5-23-19	5-23-19	
1,2-Dibromoethane	ND	0.20	EPA 8260C	5-23-19	5-23-19	
Chlorobenzene	ND	0.20	EPA 8260C	5-23-19	5-23-19	
1,1,1,2-Tetrachloroethane	ND	0.20	EPA 8260C	5-23-19	5-23-19	
Bromoform	ND	1.0	EPA 8260C	5-23-19	5-23-19	
Bromobenzene	ND	0.20	EPA 8260C	5-23-19	5-23-19	
1,1,2,2-Tetrachloroethane	ND	0.20	EPA 8260C	5-23-19	5-23-19	
1,2,3-Trichloropropane	ND	0.20	EPA 8260C	5-23-19	5-23-19	
2-Chlorotoluene	ND	0.20	EPA 8260C	5-23-19	5-23-19	
4-Chlorotoluene	ND	0.20	EPA 8260C	5-23-19	5-23-19	
1,3-Dichlorobenzene	ND	0.20	EPA 8260C	5-23-19	5-23-19	
1,4-Dichlorobenzene	ND	0.20	EPA 8260C	5-23-19	5-23-19	
1,2-Dichlorobenzene	ND	0.20	EPA 8260C	5-23-19	5-23-19	
1,2-Dibromo-3-chloropropane	ND	1.0	EPA 8260C	5-23-19	5-23-19	
1,2,4-Trichlorobenzene	ND	0.20	EPA 8260C	5-23-19	5-23-19	
Hexachlorobutadiene	ND	1.0	EPA 8260C	5-23-19	5-23-19	
1,2,3-Trichlorobenzene	ND	0.20	EPA 8260C	5-23-19	5-23-19	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Dibromofluoromethane</i>	93	75-127				
<i>Toluene-d8</i>	98	80-127				
<i>4-Bromofluorobenzene</i>	106	78-125				



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**VOLATILE ORGANICS EPA 8260C  
 SB/SBD QUALITY CONTROL**

Matrix: Water  
 Units: ug/L

Analyte	Result		Spike Level		Percent Recovery		Recovery	RPD	RPD	Flags
					Recovery	Limits	RPD	Limit		
<b>SPIKE BLANKS</b>										
Laboratory ID:	SB0523W1									
	SB	SBD	SB	SBD	SB	SBD				
1,1-Dichloroethene	7.48	8.40	10.0	10.0	75	84	63-130	12	17	
Benzene	8.52	9.41	10.0	10.0	85	94	76-125	10	19	
Trichloroethene	9.56	10.5	10.0	10.0	96	105	76-121	9	18	
Toluene	9.15	9.83	10.0	10.0	92	98	80-124	7	18	
Chlorobenzene	9.54	10.2	10.0	10.0	95	102	75-120	7	19	
<i>Surrogate:</i>										
Dibromofluoromethane					93	95	75-127			
Toluene-d8					96	98	80-127			
4-Bromofluorobenzene					107	102	78-125			



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**AMMONIA (as Nitrogen)**  
**SM 4500-NH<sub>3</sub> D**

Matrix: Water  
 Units: mg NH<sub>3</sub>-N/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>Client ID:</b>	<b>MW-6:W</b>					
Laboratory ID:	05-305-01					
Ammonia	<b>0.16</b>	0.050	SM 4500-NH <sub>3</sub> D	5-31-19	5-31-19	

<b>Client ID:</b>	<b>MW-8:W</b>					
Laboratory ID:	05-305-02					
Ammonia	<b>ND</b>	0.050	SM 4500-NH <sub>3</sub> D	5-31-19	5-31-19	

<b>Client ID:</b>	<b>MW-11:W</b>					
Laboratory ID:	05-305-03					
Ammonia	<b>ND</b>	0.050	SM 4500-NH <sub>3</sub> D	5-31-19	5-31-19	



Date of Report: June 3, 2019  
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**AMMONIA (as Nitrogen)  
 SM 4500-NH<sub>3</sub> D  
 QUALITY CONTROL**

Matrix: Water  
 Units: mg NH<sub>3</sub>-N/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>METHOD BLANK</b>						
Laboratory ID:	MB0531W1					
Ammonia	<b>ND</b>	0.050	SM 4500-NH <sub>3</sub> D	5-31-19	5-31-19	

Analyte	Result	Spike Level	Source Result	Percent Recovery	Recovery Limits	RPD	RPD Limit	Flags
<b>DUPLICATE</b>								
Laboratory ID:	05-331-02							
	ORIG	DUP						
Ammonia	<b>ND</b>	<b>ND</b>	NA	NA	NA	NA	12	

<b>MATRIX SPIKE</b>								
Laboratory ID:	05-331-02							
	MS	MS		MS				
Ammonia	<b>4.82</b>	5.00	ND	96	75-121	NA	NA	

<b>SPIKE BLANK</b>								
Laboratory ID:	SB0531W1							
	SB	SB		SB				
Ammonia	<b>4.58</b>	5.00	NA	92	85-110	NA	NA	



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 Project: 82302-9.4

**DISSOLVED IRON**  
**EPA 6010D**

Matrix: Water  
 Units: ug/L (ppb)

<b>Analyte</b>	<b>Result</b>	<b>PQL</b>	<b>Method</b>	<b>Date Prepared</b>	<b>Date Analyzed</b>	<b>Flags</b>
<b>Client ID:</b>	<b>MW-6:W</b>					
Laboratory ID:	05-305-01					
Iron	<b>8800</b>	56	EPA 6010D	5-22-19	5-29-19	
<b>Client ID:</b>	<b>MW-8:W</b>					
Laboratory ID:	05-305-02					
Iron	<b>300</b>	56	EPA 6010D	5-22-19	5-29-19	
<b>Client ID:</b>	<b>MW-11:W</b>					
Laboratory ID:	05-305-03					
Iron	<b>810</b>	56	EPA 6010D	5-22-19	5-29-19	



Date of Report: June 3, 2019  
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**DISSOLVED IRON  
 EPA 6010D  
 QUALITY CONTROL**

Matrix: Water  
 Units: ug/L (ppb)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>METHOD BLANK</b>						
Laboratory ID:	MB0522F1					
Iron	<b>ND</b>	56	EPA 6010D	5-22-19	5-29-19	

Analyte	Result	Spike Level	Source Result	Percent Recovery	Recovery Limits	RPD	RPD Limit	Flags
<b>DUPLICATE</b>								
Laboratory ID:	05-331-02							
	ORIG	DUP						
Iron	<b>528</b>	<b>507</b>	NA	NA	NA	NA	4	20

Analyte	MS	MSD	MS	MSD	MS	MSD	RPD	RPD Limit	Flags	
<b>MATRIX SPIKES</b>										
Laboratory ID:	05-331-02									
	MS	MSD	MS	MSD	MS	MSD				
Iron	<b>20900</b>	<b>20800</b>	22200	22200	528	<b>92</b>	<b>91</b>	75-125	0	20



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**CHLORIDE**  
**SM 4500-Cl E**

Matrix: Water  
 Units: mg/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>Client ID:</b>	<b>MW-6:W</b>					
Laboratory ID:	05-305-01					
Chloride	<b>14</b>	2.0	SM 4500-Cl E	5-29-19	5-29-19	

<b>Client ID:</b>	<b>MW-8:W</b>					
Laboratory ID:	05-305-02					
Chloride	<b>7.8</b>	2.0	SM 4500-Cl E	5-29-19	5-29-19	

<b>Client ID:</b>	<b>MW-11:W</b>					
Laboratory ID:	05-305-03					
Chloride	<b>13</b>	2.0	SM 4500-Cl E	5-29-19	5-29-19	





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**CHLORIDE  
 SM 4500-Cl E  
 QUALITY CONTROL**

Matrix: Water  
 Units: mg/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>METHOD BLANK</b>						
Laboratory ID:	MB0529W1					
Chloride	<b>ND</b>	2.0	SM 4500-Cl E	5-29-19	5-29-19	

Analyte	Result	Spike Level	Source Result	Percent Recovery	Recovery Limits	RPD	RPD Limit	Flags
<b>DUPLICATE</b>								
Laboratory ID:	05-331-02							
	ORIG	DUP						
Chloride	<b>9.48</b>	<b>9.06</b>	NA	NA	NA	5	17	

<b>MATRIX SPIKE</b>								
Laboratory ID:	05-331-02							
	MS	MS		MS				
Chloride	<b>56.8</b>	50.0	9.48	95	80-116	NA	NA	

<b>SPIKE BLANK</b>								
Laboratory ID:	SB0529W1							
	SB	SB		SB				
Chloride	<b>50.2</b>	50.0	NA	100	90-110	NA	NA	



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**SULFATE**  
**ASTM D516-11**

Matrix: Water  
 Units: mg/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>Client ID:</b>	<b>MW-6:W</b>					
Laboratory ID:	05-305-01					
Sulfate	<b>ND</b>	5.0	ASTM D516-11	5-28-19	5-28-19	

<b>Client ID:</b>	<b>MW-8:W</b>					
Laboratory ID:	05-305-02					
Sulfate	<b>5.8</b>	5.0	ASTM D516-11	5-28-19	5-28-19	

<b>Client ID:</b>	<b>MW-11:W</b>					
Laboratory ID:	05-305-03					
Sulfate	<b>13</b>	5.0	ASTM D516-11	5-28-19	5-28-19	



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**SULFATE  
 ASTM D516-11  
 QUALITY CONTROL**

Matrix: Water  
 Units: mg/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>METHOD BLANK</b>						
Laboratory ID:	MB0528W1					
Sulfate	<b>ND</b>	5.0	ASTM D516-11	5-28-19	5-28-19	

Analyte	Result	Spike Level	Source Result	Percent Recovery	Recovery Limits	RPD	RPD Limit	Flags
<b>DUPLICATE</b>								
Laboratory ID:	05-331-02							
	ORIG	DUP						
Sulfate	<b>23.7</b>	<b>25.1</b>	NA	NA	NA	6	10	

<b>MATRIX SPIKE</b>								
Laboratory ID:	05-331-02							
	MS	MS		MS				
Sulfate	<b>48.5</b>	20.0	23.7	124	73-134	NA	NA	

<b>SPIKE BLANK</b>								
Laboratory ID:	SB0528W1							
	SB	SB		SB				
Sulfate	<b>8.99</b>	10.0	NA	90	89-113	NA	NA	



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**TOTAL ORGANIC CARBON  
 SM 5310B**

Matrix: Water  
 Units: mg/L

<b>Analyte</b>	<b>Result</b>	<b>PQL</b>	<b>Method</b>	<b>Date Prepared</b>	<b>Date Analyzed</b>	<b>Flags</b>
<b>Client ID:</b>	<b>MW-6:W</b>					
Laboratory ID:	05-305-01					
Total Organic Carbon	<b>20</b>	1.0	SM 5310B	5-30-19	5-30-19	
<b>Client ID:</b>	<b>MW-8:W</b>					
Laboratory ID:	05-305-02					
Total Organic Carbon	<b>2.0</b>	1.0	SM 5310B	5-30-19	5-30-19	
<b>Client ID:</b>	<b>MW-11:W</b>					
Laboratory ID:	05-305-03					
Total Organic Carbon	<b>27</b>	1.0	SM 5310B	5-30-19	5-30-19	



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**TOTAL ORGANIC CARBON  
 SM 5310B  
 QUALITY CONTROL**

Matrix: Water  
 Units: mg/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>METHOD BLANK</b>						
Laboratory ID:	MB0530W1					
Total Organic Carbon	ND	1.0	SM 5310B	5-30-19	5-30-19	

Analyte	Result	Spike Level	Source Result	Percent Recovery	Recovery Limits	RPD	RPD Limit	Flags
<b>DUPLICATE</b>								
Laboratory ID:	05-331-02							
	ORIG	DUP						
Total Organic Carbon	2.46	2.59	NA	NA	NA	5	20	

**MATRIX SPIKE**

Laboratory ID:	05-331-02							
	MS	MS		MS				
Total Organic Carbon	13.5	10.0	2.46	110	85-131	NA	NA	

**SPIKE BLANK**

Laboratory ID:	SB0530W1							
	SB	SB		SB				
Total Organic Carbon	11.1	10.0	NA	111	88-127	NA	NA	



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**DISSOLVED GASES  
RSK 175**

Matrix: Water  
 Units: ug/L (ppb)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>Client ID:</b>	<b>MW-6:W</b>					
Laboratory ID:	05-305-01					
Methane	<b>1000</b>	150	RSK 175	5-28-19	5-28-19	
Ethane	<b>1.2</b>	0.50	RSK 175	5-28-19	5-28-19	
Ethene	<b>ND</b>	0.50	RSK 175	5-28-19	5-28-19	

<b>Client ID:</b>	<b>MW-8:W</b>					
Laboratory ID:	05-305-02					
Methane	<b>36</b>	10	RSK 175	5-28-19	5-28-19	
Ethane	<b>ND</b>	5.0	RSK 175	5-28-19	5-28-19	
Ethene	<b>ND</b>	5.0	RSK 175	5-28-19	5-28-19	

<b>Client ID:</b>	<b>MW-11:W</b>					
Laboratory ID:	05-305-03					
Methane	<b>490</b>	100	RSK 175	5-28-19	5-28-19	
Ethane	<b>ND</b>	0.50	RSK 175	5-28-19	5-28-19	
Ethene	<b>ND</b>	0.50	RSK 175	5-28-19	5-28-19	



Date of Report: June 3, 2019  
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**DISSOLVED GASES  
 RSK 175  
 QUALITY CONTROL**

Matrix: Water  
 Units: ug/L (ppb)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>METHOD BLANK</b>						
Laboratory ID:	MB0528W1					
Methane	ND	1.0	RSK 175	5-28-19	5-28-19	
Ethane	ND	0.50	RSK 175	5-28-19	5-28-19	
Ethene	ND	0.50	RSK 175	5-28-19	5-28-19	

Analyte	Result		Spike Level		Source Result	Percent Recovery	Recovery Limits	RPD	RPD Limit	Flags
<b>MATRIX SPIKES</b>										
Laboratory ID:	01-123-01									
	MS	MSD	MS	MSD		MS	MSD			
Methane	9.41	9.08	4.42	4.42	4.20	118	110	75-125	4	25
Ethane	7.79	7.34	8.32	8.32	ND	94	88	75-125	6	25
Ethene	5.79	6.37	7.77	7.77	ND	75	82	75-125	10	25





### Data Qualifiers and Abbreviations

- A - Due to a high sample concentration, the amount spiked is insufficient for meaningful MS/MSD recovery data.
  - B - The analyte indicated was also found in the blank sample.
  - C - The duplicate RPD is outside control limits due to high result variability when analyte concentrations are within five times the quantitation limit.
  - E - The value reported exceeds the quantitation range and is an estimate.
  - F - Surrogate recovery data is not available due to the high concentration of coeluting target compounds.
  - H - The analyte indicated is a common laboratory solvent and may have been introduced during sample preparation, and be impacting the sample result.
  - I - Compound recovery is outside of the control limits.
  - J - The value reported was below the practical quantitation limit. The value is an estimate.
  - K - Sample duplicate RPD is outside control limits due to sample inhomogeneity. The sample was re-extracted and re-analyzed with similar results.
  - L - The RPD is outside of the control limits.
  - M - Hydrocarbons in the gasoline range are impacting the diesel range result.
  - M1 - Hydrocarbons in the gasoline range (toluene-naphthalene) are present in the sample.
  - N - Hydrocarbons in the lube oil range are impacting the diesel range result.
  - N1 - Hydrocarbons in diesel range are impacting lube oil range results.
  - O - Hydrocarbons indicative of heavier fuels are present in the sample and are impacting the gasoline result.
  - P - The RPD of the detected concentrations between the two columns is greater than 40.
  - Q - Surrogate recovery is outside of the control limits.
  - S - Surrogate recovery data is not available due to the necessary dilution of the sample.
  - T - The sample chromatogram is not similar to a typical \_\_\_\_\_.
  - U - The analyte was analyzed for, but was not detected above the reported sample quantitation limit.
  - U1 - The practical quantitation limit is elevated due to interferences present in the sample.
  - V - Matrix Spike/Matrix Spike Duplicate recoveries are outside control limits due to matrix effects.
  - W - Matrix Spike/Matrix Spike Duplicate RPD are outside control limits due to matrix effects.
  - X - Sample extract treated with a mercury cleanup procedure.
  - X1 - Sample extract treated with a sulfuric acid/silica gel cleanup procedure.
  - Y - The calibration verification for this analyte exceeded the 20% drift specified in method 8260C, and therefore the reported result should be considered an estimate. The overall performance of the calibration verification standard met the acceptance criteria of the method.
  - Z -
- ND - Not Detected at PQL  
 PQL - Practical Quantitation Limit  
 RPD - Relative Percent Difference







**MA Onsite Environmental Inc.**

Analytical Laboratory Testing Services  
 14648 NE 95th Street • Redmond, WA 98052  
 Phone: (425) 883-3981 • www.onsite-env.com

# Chain of Custody

**Turnaround Request**  
(in working days)

(Check One)

- Same Day     1 Day  
 2 Days     3 Days  
 Standard (7 Days)

\_\_\_\_\_ (other)

**Laboratory Number:**

**05-305**

Company: **LANE Environmental**  
 Project Number: **02302-9.4**  
 Project Name: **Botwell service center**  
 Project Manager: **JEFF STANSON**  
 Sampled by: **JEFF STANSON** → **JEFF STANSON**  
**JEFF@LANE-ENVIRONMENTAL.COM**

Lab ID	Sample Identification	Date Sampled	Time Sampled	Matrix	Number of Containers
1	MW-V0:W	5/22	1235	GW	10
2	MW-8:W	5/22	1408	GW	10
3	MW-11:W	5/22	1523	GW	10

Number of Containers	NWTPH-HCID	NWTPH-Gx/BTEX	NWTPH-Gx	NWTPH-Dx ( <input type="checkbox"/> Acid / SG Clean-up)	Volatiles 8260C	Halogenated Volatiles 8260C	EDB EPA 8011 (Waters Only)	Semivolatiles 8270D/SIM (with low-level PAHs)	PAHs 8270D/SIM (low-level)	PCBs 8082A	Organochlorine Pesticides 8081B	Organophosphorus Pesticides 8270D/SIM	Chlorinated Acid Herbicides 8151A	Total RCRA Metals	Total MTCA Metals	Total Metals ammonia-N	HEM (oil and grease) 1664A	dissolved Fe	chloride	sulfate	TDC	ammonia RSK
10					X													X	X	X	X	X
10					X													X	X	X	X	X
10					X													X	X	X	X	X

*[Large diagonal signature across the table]*

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**Signature**

*[Handwritten signature]*

**Company**

lane env.

**Date**

5/22/04

**Time**

1604

**Comments/Special Instructions**

RSK = methanol, ethane, ethene  
 Lab FHMV

Received	Relinquished	Received	Relinquished	Received	Relinquished	Reviewed/Date

Data Package: Standard  Level III  Level IV

Chromatograms with final report  Electronic Data Deliverables (EDDs)



14648 NE 95<sup>th</sup> Street, Redmond, WA 98052 • (425) 883-3881

June 4, 2019

Jeff Jensen  
Kane Environmental, Inc.  
4015 13th Avenue West  
Seattle, WA 98119

Re: Analytical Data for Project 82302-9.4  
Laboratory Reference No. 1905-321

Dear Jeff:

Enclosed are the analytical results and associated quality control data for samples submitted on May 23, 2019.

The standard policy of OnSite Environmental, Inc. is to store your samples for 30 days from the date of receipt. If you require longer storage, please contact the laboratory.

We appreciate the opportunity to be of service to you on this project. If you have any questions concerning the data, or need additional information, please feel free to call me.

Sincerely,

A handwritten signature in black ink, appearing to read "DB", with a long horizontal flourish extending to the right.

David Baumeister  
Project Manager

Enclosures



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OnSite Environmental, Inc. 14648 NE 95<sup>th</sup> Street, Redmond, WA 98052 (425) 883-3881

This report pertains to the samples analyzed in accordance with the chain of custody, and is intended only for the use of the individual or company to whom it is addressed.

Date of Report: June 4, 2019  
Samples Submitted: May 23, 2019  
Laboratory Reference: 1905-321  
Project: 82302-9.4

### Case Narrative

Samples were collected on May 23, 2019 and received by the laboratory on May 23, 2019. They were maintained at the laboratory at a temperature of 2°C to 6°C.

Please note that any and all soil sample results are reported on a dry-weight basis, unless otherwise noted below.

General QA/QC issues associated with the analytical data enclosed in this laboratory report will be indicated with a reference to a comment or explanation on the Data Qualifier page. More complex and involved QA/QC issues will be discussed in detail below.



Date of Report: June 4, 2019  
 Samples Submitted: May 23, 2019  
 Laboratory Reference: 1905-321  
 Project: 82302-9.4

**VOLATILE ORGANICS EPA 8260C**  
 page 1 of 2

Matrix: Water  
 Units: ug/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>Client ID:</b>	<b>MW-4:W</b>					
Laboratory ID:	05-321-01					
Dichlorodifluoromethane	ND	30	EPA 8260C	5-24-19	5-24-19	
Chloromethane	ND	150	EPA 8260C	5-24-19	5-24-19	
Vinyl Chloride	ND	30	EPA 8260C	5-24-19	5-24-19	
Bromomethane	ND	50	EPA 8260C	5-24-19	5-24-19	
Chloroethane	ND	150	EPA 8260C	5-24-19	5-24-19	
Trichlorofluoromethane	ND	30	EPA 8260C	5-24-19	5-24-19	
1,1-Dichloroethene	ND	30	EPA 8260C	5-24-19	5-24-19	
Iodomethane	ND	440	EPA 8260C	5-24-19	5-24-19	
Methylene Chloride	ND	150	EPA 8260C	5-24-19	5-24-19	
(trans) 1,2-Dichloroethene	ND	30	EPA 8260C	5-24-19	5-24-19	
1,1-Dichloroethane	ND	30	EPA 8260C	5-24-19	5-24-19	
2,2-Dichloropropane	ND	30	EPA 8260C	5-24-19	5-24-19	
(cis) 1,2-Dichloroethene	1100	30	EPA 8260C	5-24-19	5-24-19	
Bromochloromethane	ND	30	EPA 8260C	5-24-19	5-24-19	
Chloroform	ND	30	EPA 8260C	5-24-19	5-24-19	
1,1,1-Trichloroethane	ND	30	EPA 8260C	5-24-19	5-24-19	
Carbon Tetrachloride	ND	30	EPA 8260C	5-24-19	5-24-19	
1,1-Dichloropropene	ND	30	EPA 8260C	5-24-19	5-24-19	
1,2-Dichloroethane	ND	30	EPA 8260C	5-24-19	5-24-19	
Trichloroethene	370	30	EPA 8260C	5-24-19	5-24-19	
1,2-Dichloropropane	ND	30	EPA 8260C	5-24-19	5-24-19	
Dibromomethane	ND	30	EPA 8260C	5-24-19	5-24-19	
Bromodichloromethane	ND	30	EPA 8260C	5-24-19	5-24-19	
2-Chloroethyl Vinyl Ether	ND	150	EPA 8260C	5-24-19	5-24-19	
(cis) 1,3-Dichloropropene	ND	30	EPA 8260C	5-24-19	5-24-19	
(trans) 1,3-Dichloropropene	ND	30	EPA 8260C	5-24-19	5-24-19	



Date of Report: June 4, 2019  
 Samples Submitted: May 23, 2019  
 Laboratory Reference: 1905-321  
 Project: 82302-9.4

**VOLATILE ORGANICS EPA 8260C**  
 page 2 of 2

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>Client ID:</b>	<b>MW-4:W</b>					
<b>Laboratory ID:</b>	<b>05-321-01</b>					
1,1,2-Trichloroethane	ND	30	EPA 8260C	5-24-19	5-24-19	
Tetrachloroethene	5500	30	EPA 8260C	5-24-19	5-24-19	
1,3-Dichloropropane	ND	30	EPA 8260C	5-24-19	5-24-19	
Dibromochloromethane	ND	30	EPA 8260C	5-24-19	5-24-19	
1,2-Dibromoethane	ND	30	EPA 8260C	5-24-19	5-24-19	
Chlorobenzene	ND	30	EPA 8260C	5-24-19	5-24-19	
1,1,1,2-Tetrachloroethane	ND	30	EPA 8260C	5-24-19	5-24-19	
Bromoform	ND	150	EPA 8260C	5-24-19	5-24-19	
Bromobenzene	ND	30	EPA 8260C	5-24-19	5-24-19	
1,1,1,2,2-Tetrachloroethane	ND	30	EPA 8260C	5-24-19	5-24-19	
1,2,3-Trichloropropane	ND	30	EPA 8260C	5-24-19	5-24-19	
2-Chlorotoluene	ND	30	EPA 8260C	5-24-19	5-24-19	
4-Chlorotoluene	ND	30	EPA 8260C	5-24-19	5-24-19	
1,3-Dichlorobenzene	ND	30	EPA 8260C	5-24-19	5-24-19	
1,4-Dichlorobenzene	ND	30	EPA 8260C	5-24-19	5-24-19	
1,2-Dichlorobenzene	ND	30	EPA 8260C	5-24-19	5-24-19	
1,2-Dibromo-3-chloropropane	ND	150	EPA 8260C	5-24-19	5-24-19	
1,2,4-Trichlorobenzene	ND	30	EPA 8260C	5-24-19	5-24-19	
Hexachlorobutadiene	ND	150	EPA 8260C	5-24-19	5-24-19	
1,2,3-Trichlorobenzene	ND	30	EPA 8260C	5-24-19	5-24-19	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Dibromofluoromethane</i>	<i>98</i>	<i>75-127</i>				
<i>Toluene-d8</i>	<i>98</i>	<i>80-127</i>				
<i>4-Bromofluorobenzene</i>	<i>98</i>	<i>78-125</i>				



Date of Report: June 4, 2019  
 Samples Submitted: May 23, 2019  
 Laboratory Reference: 1905-321  
 Project: 82302-9.4

**VOLATILE ORGANICS EPA 8260C**  
 page 1 of 2

Matrix: Water  
 Units: ug/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>Client ID:</b>	<b>H2-MW-21:W</b>					
Laboratory ID:	05-321-02					
Dichlorodifluoromethane	ND	0.20	EPA 8260C	5-24-19	5-24-19	
Chloromethane	ND	1.0	EPA 8260C	5-24-19	5-24-19	
Vinyl Chloride	ND	0.20	EPA 8260C	5-24-19	5-24-19	
Bromomethane	ND	0.33	EPA 8260C	5-24-19	5-24-19	
Chloroethane	ND	1.0	EPA 8260C	5-24-19	5-24-19	
Trichlorofluoromethane	ND	0.20	EPA 8260C	5-24-19	5-24-19	
1,1-Dichloroethene	ND	0.20	EPA 8260C	5-24-19	5-24-19	
Iodomethane	ND	2.9	EPA 8260C	5-24-19	5-24-19	
Methylene Chloride	ND	1.0	EPA 8260C	5-24-19	5-24-19	
(trans) 1,2-Dichloroethene	ND	0.20	EPA 8260C	5-24-19	5-24-19	
1,1-Dichloroethane	ND	0.20	EPA 8260C	5-24-19	5-24-19	
2,2-Dichloropropane	ND	0.20	EPA 8260C	5-24-19	5-24-19	
(cis) 1,2-Dichloroethene	ND	0.20	EPA 8260C	5-24-19	5-24-19	
Bromochloromethane	ND	0.20	EPA 8260C	5-24-19	5-24-19	
Chloroform	ND	0.20	EPA 8260C	5-24-19	5-24-19	
1,1,1-Trichloroethane	ND	0.20	EPA 8260C	5-24-19	5-24-19	
Carbon Tetrachloride	ND	0.20	EPA 8260C	5-24-19	5-24-19	
1,1-Dichloropropene	ND	0.20	EPA 8260C	5-24-19	5-24-19	
1,2-Dichloroethane	ND	0.20	EPA 8260C	5-24-19	5-24-19	
Trichloroethene	ND	0.20	EPA 8260C	5-24-19	5-24-19	
1,2-Dichloropropane	ND	0.20	EPA 8260C	5-24-19	5-24-19	
Dibromomethane	ND	0.20	EPA 8260C	5-24-19	5-24-19	
Bromodichloromethane	ND	0.20	EPA 8260C	5-24-19	5-24-19	
2-Chloroethyl Vinyl Ether	ND	1.0	EPA 8260C	5-24-19	5-24-19	
(cis) 1,3-Dichloropropene	ND	0.20	EPA 8260C	5-24-19	5-24-19	
(trans) 1,3-Dichloropropene	ND	0.20	EPA 8260C	5-24-19	5-24-19	



Date of Report: June 4, 2019  
 Samples Submitted: May 23, 2019  
 Laboratory Reference: 1905-321  
 Project: 82302-9.4

**VOLATILE ORGANICS EPA 8260C**  
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Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>Client ID:</b>	<b>H2-MW-21:W</b>					
<b>Laboratory ID:</b>	<b>05-321-02</b>					
1,1,2-Trichloroethane	ND	0.20	EPA 8260C	5-24-19	5-24-19	
Tetrachloroethene	ND	0.20	EPA 8260C	5-24-19	5-24-19	
1,3-Dichloropropane	ND	0.20	EPA 8260C	5-24-19	5-24-19	
Dibromochloromethane	ND	0.20	EPA 8260C	5-24-19	5-24-19	
1,2-Dibromoethane	ND	0.20	EPA 8260C	5-24-19	5-24-19	
Chlorobenzene	ND	0.20	EPA 8260C	5-24-19	5-24-19	
1,1,1,2-Tetrachloroethane	ND	0.20	EPA 8260C	5-24-19	5-24-19	
Bromoform	ND	1.0	EPA 8260C	5-24-19	5-24-19	
Bromobenzene	ND	0.20	EPA 8260C	5-24-19	5-24-19	
1,1,2,2-Tetrachloroethane	ND	0.20	EPA 8260C	5-24-19	5-24-19	
1,2,3-Trichloropropane	ND	0.20	EPA 8260C	5-24-19	5-24-19	
2-Chlorotoluene	ND	0.20	EPA 8260C	5-24-19	5-24-19	
4-Chlorotoluene	ND	0.20	EPA 8260C	5-24-19	5-24-19	
1,3-Dichlorobenzene	ND	0.20	EPA 8260C	5-24-19	5-24-19	
1,4-Dichlorobenzene	ND	0.20	EPA 8260C	5-24-19	5-24-19	
1,2-Dichlorobenzene	ND	0.20	EPA 8260C	5-24-19	5-24-19	
1,2-Dibromo-3-chloropropane	ND	1.0	EPA 8260C	5-24-19	5-24-19	
1,2,4-Trichlorobenzene	ND	0.20	EPA 8260C	5-24-19	5-24-19	
Hexachlorobutadiene	ND	1.0	EPA 8260C	5-24-19	5-24-19	
1,2,3-Trichlorobenzene	ND	0.20	EPA 8260C	5-24-19	5-24-19	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Dibromofluoromethane</i>	<i>98</i>	<i>75-127</i>				
<i>Toluene-d8</i>	<i>97</i>	<i>80-127</i>				
<i>4-Bromofluorobenzene</i>	<i>95</i>	<i>78-125</i>				



Date of Report: June 4, 2019  
 Samples Submitted: May 23, 2019  
 Laboratory Reference: 1905-321  
 Project: 82302-9.4

**VOLATILE ORGANICS EPA 8260C**  
**METHOD BLANK QUALITY CONTROL**  
 page 1 of 2

Matrix: Water  
 Units: ug/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Laboratory ID:	MB0524W1					
Dichlorodifluoromethane	ND	0.20	EPA 8260C	5-24-19	5-24-19	
Chloromethane	ND	1.0	EPA 8260C	5-24-19	5-24-19	
Vinyl Chloride	ND	0.20	EPA 8260C	5-24-19	5-24-19	
Bromomethane	ND	0.33	EPA 8260C	5-24-19	5-24-19	
Chloroethane	ND	1.0	EPA 8260C	5-24-19	5-24-19	
Trichlorofluoromethane	ND	0.20	EPA 8260C	5-24-19	5-24-19	
1,1-Dichloroethene	ND	0.20	EPA 8260C	5-24-19	5-24-19	
Iodomethane	ND	2.9	EPA 8260C	5-24-19	5-24-19	
Methylene Chloride	ND	1.0	EPA 8260C	5-24-19	5-24-19	
(trans) 1,2-Dichloroethene	ND	0.20	EPA 8260C	5-24-19	5-24-19	
1,1-Dichloroethane	ND	0.20	EPA 8260C	5-24-19	5-24-19	
2,2-Dichloropropane	ND	0.20	EPA 8260C	5-24-19	5-24-19	
(cis) 1,2-Dichloroethene	ND	0.20	EPA 8260C	5-24-19	5-24-19	
Bromochloromethane	ND	0.20	EPA 8260C	5-24-19	5-24-19	
Chloroform	ND	0.20	EPA 8260C	5-24-19	5-24-19	
1,1,1-Trichloroethane	ND	0.20	EPA 8260C	5-24-19	5-24-19	
Carbon Tetrachloride	ND	0.20	EPA 8260C	5-24-19	5-24-19	
1,1-Dichloropropene	ND	0.20	EPA 8260C	5-24-19	5-24-19	
1,2-Dichloroethane	ND	0.20	EPA 8260C	5-24-19	5-24-19	
Trichloroethene	ND	0.20	EPA 8260C	5-24-19	5-24-19	
1,2-Dichloropropane	ND	0.20	EPA 8260C	5-24-19	5-24-19	
Dibromomethane	ND	0.20	EPA 8260C	5-24-19	5-24-19	
Bromodichloromethane	ND	0.20	EPA 8260C	5-24-19	5-24-19	
2-Chloroethyl Vinyl Ether	ND	1.0	EPA 8260C	5-24-19	5-24-19	
(cis) 1,3-Dichloropropene	ND	0.20	EPA 8260C	5-24-19	5-24-19	
(trans) 1,3-Dichloropropene	ND	0.20	EPA 8260C	5-24-19	5-24-19	





Date of Report: June 4, 2019  
 Samples Submitted: May 23, 2019  
 Laboratory Reference: 1905-321  
 Project: 82302-9.4

**VOLATILE ORGANICS EPA 8260C**  
**METHOD BLANK QUALITY CONTROL**  
 page 2 of 2

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Laboratory ID:	MB0524W1					
1,1,2-Trichloroethane	ND	0.20	EPA 8260C	5-24-19	5-24-19	
Tetrachloroethene	ND	0.20	EPA 8260C	5-24-19	5-24-19	
1,3-Dichloropropane	ND	0.20	EPA 8260C	5-24-19	5-24-19	
Dibromochloromethane	ND	0.20	EPA 8260C	5-24-19	5-24-19	
1,2-Dibromoethane	ND	0.20	EPA 8260C	5-24-19	5-24-19	
Chlorobenzene	ND	0.20	EPA 8260C	5-24-19	5-24-19	
1,1,1,2-Tetrachloroethane	ND	0.20	EPA 8260C	5-24-19	5-24-19	
Bromoform	ND	1.0	EPA 8260C	5-24-19	5-24-19	
Bromobenzene	ND	0.20	EPA 8260C	5-24-19	5-24-19	
1,1,2,2-Tetrachloroethane	ND	0.20	EPA 8260C	5-24-19	5-24-19	
1,2,3-Trichloropropane	ND	0.20	EPA 8260C	5-24-19	5-24-19	
2-Chlorotoluene	ND	0.20	EPA 8260C	5-24-19	5-24-19	
4-Chlorotoluene	ND	0.20	EPA 8260C	5-24-19	5-24-19	
1,3-Dichlorobenzene	ND	0.20	EPA 8260C	5-24-19	5-24-19	
1,4-Dichlorobenzene	ND	0.20	EPA 8260C	5-24-19	5-24-19	
1,2-Dichlorobenzene	ND	0.20	EPA 8260C	5-24-19	5-24-19	
1,2-Dibromo-3-chloropropane	ND	1.0	EPA 8260C	5-24-19	5-24-19	
1,2,4-Trichlorobenzene	ND	0.20	EPA 8260C	5-24-19	5-24-19	
Hexachlorobutadiene	ND	1.0	EPA 8260C	5-24-19	5-24-19	
1,2,3-Trichlorobenzene	ND	0.20	EPA 8260C	5-24-19	5-24-19	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Dibromofluoromethane</i>	<i>100</i>	<i>75-127</i>				
<i>Toluene-d8</i>	<i>97</i>	<i>80-127</i>				
<i>4-Bromofluorobenzene</i>	<i>95</i>	<i>78-125</i>				



Date of Report: June 4, 2019  
 Samples Submitted: May 23, 2019  
 Laboratory Reference: 1905-321  
 Project: 82302-9.4

**VOLATILE ORGANICS EPA 8260C  
 SB/SBD QUALITY CONTROL**

Matrix: Water  
 Units: ug/L

Analyte	Result		Spike Level		Percent Recovery		Recovery	RPD	RPD	Flags
					SB	SBD	Limits	RPD	Limit	
<b>SPIKE BLANKS</b>										
Laboratory ID:	SB0524W1									
	SB	SBD	SB	SBD	SB	SBD				
1,1-Dichloroethene	<b>10.5</b>	<b>10.6</b>	10.0	10.0	105	106	63-130	1	17	
Benzene	<b>10.1</b>	<b>10.1</b>	10.0	10.0	101	101	76-125	0	19	
Trichloroethene	<b>10.5</b>	<b>10.5</b>	10.0	10.0	105	105	76-121	0	18	
Toluene	<b>10.2</b>	<b>10.2</b>	10.0	10.0	102	102	80-124	0	18	
Chlorobenzene	<b>10.9</b>	<b>10.8</b>	10.0	10.0	109	108	75-120	1	19	
<i>Surrogate:</i>										
Dibromofluoromethane					97	99	75-127			
Toluene-d8					98	99	80-127			
4-Bromofluorobenzene					96	99	78-125			



Date of Report: June 4, 2019  
 Samples Submitted: May 23, 2019  
 Laboratory Reference: 1905-321  
 Project: 82302-9.4

**AMMONIA (as Nitrogen)**  
**SM 4500-NH<sub>3</sub> D**

Matrix: Water  
 Units: mg NH<sub>3</sub>-N/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>Client ID:</b>	<b>MW-4:W</b>					
Laboratory ID:	05-321-01					
Ammonia	<b>ND</b>	0.050	SM 4500-NH <sub>3</sub> D	5-24-19	5-24-19	

<b>Client ID:</b>	<b>H2-MW-21:W</b>					
Laboratory ID:	05-321-02					
Ammonia	<b>0.29</b>	0.050	SM 4500-NH <sub>3</sub> D	5-24-19	5-24-19	



Date of Report: June 4, 2019  
 Samples Submitted: May 23, 2019  
 Laboratory Reference: 1905-321  
 Project: 82302-9.4

**AMMONIA (as Nitrogen)**  
**SM 4500-NH<sub>3</sub> D**  
**QUALITY CONTROL**

Matrix: Water  
 Units: mg NH<sub>3</sub>-N/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>METHOD BLANK</b>						
Laboratory ID:	MB0524W1					
Ammonia	<b>ND</b>	0.050	SM 4500-NH <sub>3</sub> D	5-24-19	5-24-19	

Analyte	Result	Spike Level	Source Result	Percent Recovery	Recovery Limits	RPD	RPD Limit	Flags
<b>DUPLICATE</b>								
Laboratory ID:	05-321-01							
	ORIG	DUP						
Ammonia	<b>ND</b>	<b>ND</b>	NA	NA	NA	NA	12	

Analyte	Result	Spike Level	Source Result	Percent Recovery	Recovery Limits	RPD	RPD Limit	Flags
<b>MATRIX SPIKE</b>								
Laboratory ID:	05-321-01							
	MS	MS		MS				
Ammonia	<b>4.79</b>	5.00	ND	96	75-121	NA	NA	

Analyte	Result	Spike Level	Source Result	Percent Recovery	Recovery Limits	RPD	RPD Limit	Flags
<b>SPIKE BLANK</b>								
Laboratory ID:	SB0524W1							
	SB	SB		SB				
Ammonia	<b>4.75</b>	5.00	NA	95	85-110	NA	NA	



Date of Report: June 4, 2019  
 Samples Submitted: May 23, 2019  
 Laboratory Reference: 1905-321  
 Project: 82302-9.4

**DISSOLVED IRON**  
**EPA 6010D**

Matrix: Water  
 Units: ug/L (ppb)

<b>Analyte</b>	<b>Result</b>	<b>PQL</b>	<b>Method</b>	<b>Date Prepared</b>	<b>Date Analyzed</b>	<b>Flags</b>
<b>Client ID:</b>	<b>MW-4:W</b>					
Laboratory ID:	05-321-01					
Iron	<b>2100</b>	56	EPA 6010D	5-23-19	5-29-19	
<b>Client ID:</b>	<b>H2-MW-21:W</b>					
Laboratory ID:	05-321-02					
Iron	<b>550</b>	56	EPA 6010D	5-23-19	5-29-19	



Date of Report: June 4, 2019  
 Samples Submitted: May 23, 2019  
 Laboratory Reference: 1905-321  
 Project: 82302-9.4

**DISSOLVED IRON  
 EPA 6010D  
 QUALITY CONTROL**

Matrix: Water  
 Units: ug/L (ppb)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>METHOD BLANK</b>						
Laboratory ID:	MB0523F1					
Iron	<b>ND</b>	56	EPA 6010D	5-23-19	5-29-19	

Analyte	Result	Spike Level	Source Result	Percent Recovery	Recovery Limits	RPD	RPD Limit	Flags
<b>DUPLICATE</b>								
Laboratory ID:	05-331-02							
	ORIG	DUP						
Iron	<b>528</b>	<b>507</b>	NA	NA	NA	4	20	

Analyte	Result	Spike Level	Source Result	Percent Recovery	Recovery Limits	RPD	RPD Limit	Flags
<b>MATRIX SPIKES</b>								
Laboratory ID:	05-331-02							
	MS	MSD	MS	MSD	MS	MSD		
Iron	<b>20900</b>	<b>20800</b>	22200	22200	528	<b>92</b>	<b>91</b>	75-125 0 20



Date of Report: June 4, 2019  
Samples Submitted: May 23, 2019  
Laboratory Reference: 1905-321  
Project: 82302-9.4

**CHLORIDE**  
**SM 4500-Cl E**

Matrix: Water  
Units: mg/L

<b>Analyte</b>	<b>Result</b>	<b>PQL</b>	<b>Method</b>	<b>Date Prepared</b>	<b>Date Analyzed</b>	<b>Flags</b>
<b>Client ID:</b>	<b>MW-4:W</b>					
Laboratory ID:	05-321-01					
Chloride	<b>16</b>	2.0	SM 4500-Cl E	5-29-19	5-29-19	

<b>Client ID:</b>	<b>H2-MW-21:W</b>					
Laboratory ID:	05-321-02					
Chloride	<b>8.1</b>	2.0	SM 4500-Cl E	5-29-19	5-29-19	



Date of Report: June 4, 2019  
 Samples Submitted: May 23, 2019  
 Laboratory Reference: 1905-321  
 Project: 82302-9.4

**CHLORIDE  
 SM 4500-Cl E  
 QUALITY CONTROL**

Matrix: Water  
 Units: mg/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>METHOD BLANK</b>						
Laboratory ID:	MB0529W1					
Chloride	<b>ND</b>	2.0	SM 4500-Cl E	5-29-19	5-29-19	

Analyte	Result	Spike Level	Source Result	Percent Recovery	Recovery Limits	RPD	RPD Limit	Flags
<b>DUPLICATE</b>								
Laboratory ID:	05-331-02							
	ORIG	DUP						
Chloride	<b>9.48</b>	<b>9.06</b>	NA	NA	NA	5	17	

<b>MATRIX SPIKE</b>								
Laboratory ID:	05-331-02							
	MS	MS		MS				
Chloride	<b>56.8</b>	50.0	9.48	95	80-116	NA	NA	

<b>SPIKE BLANK</b>								
Laboratory ID:	SB0529W1							
	SB	SB		SB				
Chloride	<b>50.2</b>	50.0	NA	100	90-110	NA	NA	





Date of Report: June 4, 2019  
Samples Submitted: May 23, 2019  
Laboratory Reference: 1905-321  
Project: 82302-9.4

**SULFATE**  
**ASTM D516-11**

Matrix: Water  
Units: mg/L

<b>Analyte</b>	<b>Result</b>	<b>PQL</b>	<b>Method</b>	<b>Date Prepared</b>	<b>Date Analyzed</b>	<b>Flags</b>
<b>Client ID:</b>	<b>MW-4:W</b>					
Laboratory ID:	05-321-01					
Sulfate	17	5.0	ASTM D516-11	5-28-19	5-28-19	

<b>Client ID:</b>	<b>H2-MW-21:W</b>					
Laboratory ID:	05-321-02					
Sulfate	21	5.0	ASTM D516-11	5-28-19	5-28-19	



Date of Report: June 4, 2019  
 Samples Submitted: May 23, 2019  
 Laboratory Reference: 1905-321  
 Project: 82302-9.4

**SULFATE  
 ASTM D516-11  
 QUALITY CONTROL**

Matrix: Water  
 Units: mg/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>METHOD BLANK</b>						
Laboratory ID:	MB0528W1					
Sulfate	<b>ND</b>	5.0	ASTM D516-11	5-28-19	5-28-19	

Analyte	Result	Spike Level	Source Result	Percent Recovery	Recovery Limits	RPD	RPD Limit	Flags
<b>DUPLICATE</b>								
Laboratory ID:	05-331-02							
	ORIG	DUP						
Sulfate	<b>23.7</b>	<b>25.1</b>	NA	NA	NA	6	10	

<b>MATRIX SPIKE</b>								
Laboratory ID:	05-331-02							
	MS	MS		MS				
Sulfate	<b>48.5</b>	20.0	23.7	124	73-134	NA	NA	

<b>SPIKE BLANK</b>								
Laboratory ID:	SB0528W1							
	SB	SB		SB				
Sulfate	<b>8.99</b>	10.0	NA	90	89-113	NA	NA	



Date of Report: June 4, 2019  
 Samples Submitted: May 23, 2019  
 Laboratory Reference: 1905-321  
 Project: 82302-9.4

**TOTAL ORGANIC CARBON  
 SM 5310B**

Matrix: Water  
 Units: mg/L

<b>Analyte</b>	<b>Result</b>	<b>PQL</b>	<b>Method</b>	<b>Date Prepared</b>	<b>Date Analyzed</b>	<b>Flags</b>
<b>Client ID:</b>	<b>MW-4:W</b>					
Laboratory ID:	05-321-01					
Total Organic Carbon	<b>2.9</b>	1.0	SM 5310B	5-30-19	5-30-19	
<b>Client ID:</b>	<b>H2-MW-21:W</b>					
Laboratory ID:	05-321-02					
Total Organic Carbon	<b>14</b>	1.0	SM 5310B	5-30-19	5-30-19	



Date of Report: June 4, 2019  
 Samples Submitted: May 23, 2019  
 Laboratory Reference: 1905-321  
 Project: 82302-9.4

**TOTAL ORGANIC CARBON  
 SM 5310B  
 QUALITY CONTROL**

Matrix: Water  
 Units: mg/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>METHOD BLANK</b>						
Laboratory ID:	MB0530W1					
Total Organic Carbon	<b>ND</b>	1.0	SM 5310B	5-30-19	5-30-19	

Analyte	Result	Spike Level	Source Result	Percent Recovery	Recovery Limits	RPD	RPD Limit	Flags
<b>DUPLICATE</b>								
Laboratory ID:	05-331-02							
	ORIG	DUP						
Total Organic Carbon	<b>2.46</b>	<b>2.59</b>	NA	NA	NA	NA	5	20

**MATRIX SPIKE**

Laboratory ID:	05-331-02							
	MS	MS		MS				
Total Organic Carbon	<b>13.5</b>		10.0	2.46	110	85-131	NA	NA

**SPIKE BLANK**

Laboratory ID:	SB0530W1							
	SB	SB		SB				
Total Organic Carbon	<b>11.1</b>		10.0	NA	111	88-127	NA	NA



Date of Report: June 4, 2019  
 Samples Submitted: May 23, 2019  
 Laboratory Reference: 1905-321  
 Project: 82302-9.4

**DISSOLVED GASES  
 RSK 175**

Matrix: Water  
 Units: ug/L (ppb)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>Client ID:</b>	<b>MW-4:W</b>					
Laboratory ID:	05-321-01					
Methane	<b>9500</b>	1000	RSK 175	6-3-19	6-3-19	
Ethane	<b>ND</b>	500	RSK 175	6-3-19	6-3-19	
Ethene	<b>ND</b>	500	RSK 175	6-3-19	6-3-19	

<b>Client ID:</b>	<b>H2-MW-21:W</b>					
Laboratory ID:	05-321-02					
Methane	<b>140</b>	20	RSK 175	6-3-19	6-3-19	
Ethane	<b>0.93</b>	0.50	RSK 175	6-3-19	6-3-19	
Ethene	<b>ND</b>	0.50	RSK 175	6-3-19	6-3-19	



Date of Report: June 4, 2019  
 Samples Submitted: May 23, 2019  
 Laboratory Reference: 1905-321  
 Project: 82302-9.4

**DISSOLVED GASES  
 RSK 175  
 QUALITY CONTROL**

Matrix: Water  
 Units: ug/L (ppb)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>METHOD BLANK</b>						
Laboratory ID:	MB0603W1					
Methane	ND	1.0	RSK 175	6-3-19	6-3-19	
Ethane	ND	0.50	RSK 175	6-3-19	6-3-19	
Ethene	ND	0.50	RSK 175	6-3-19	6-3-19	

Analyte	Result		Spike Level		Source Result	Percent Recovery	Recovery Limits	RPD	RPD Limit	Flags
<b>MATRIX SPIKES</b>										
Laboratory ID:	01-123-01									
	MS	MSD	MS	MSD		MS	MSD			
Methane	9.41	9.08	4.42	4.42	4.20	118	110	75-125	4	25
Ethane	7.79	7.34	8.32	8.32	ND	94	88	75-125	6	25
Ethene	5.79	6.37	7.77	7.77	ND	75	82	75-125	10	25





### Data Qualifiers and Abbreviations

- A - Due to a high sample concentration, the amount spiked is insufficient for meaningful MS/MSD recovery data.
  - B - The analyte indicated was also found in the blank sample.
  - C - The duplicate RPD is outside control limits due to high result variability when analyte concentrations are within five times the quantitation limit.
  - E - The value reported exceeds the quantitation range and is an estimate.
  - F - Surrogate recovery data is not available due to the high concentration of coeluting target compounds.
  - H - The analyte indicated is a common laboratory solvent and may have been introduced during sample preparation, and be impacting the sample result.
  - I - Compound recovery is outside of the control limits.
  - J - The value reported was below the practical quantitation limit. The value is an estimate.
  - K - Sample duplicate RPD is outside control limits due to sample inhomogeneity. The sample was re-extracted and re-analyzed with similar results.
  - L - The RPD is outside of the control limits.
  - M - Hydrocarbons in the gasoline range are impacting the diesel range result.
  - M1 - Hydrocarbons in the gasoline range (toluene-naphthalene) are present in the sample.
  - N - Hydrocarbons in the lube oil range are impacting the diesel range result.
  - N1 - Hydrocarbons in diesel range are impacting lube oil range results.
  - O - Hydrocarbons indicative of heavier fuels are present in the sample and are impacting the gasoline result.
  - P - The RPD of the detected concentrations between the two columns is greater than 40.
  - Q - Surrogate recovery is outside of the control limits.
  - S - Surrogate recovery data is not available due to the necessary dilution of the sample.
  - T - The sample chromatogram is not similar to a typical \_\_\_\_\_.
  - U - The analyte was analyzed for, but was not detected above the reported sample quantitation limit.
  - U1 - The practical quantitation limit is elevated due to interferences present in the sample.
  - V - Matrix Spike/Matrix Spike Duplicate recoveries are outside control limits due to matrix effects.
  - W - Matrix Spike/Matrix Spike Duplicate RPD are outside control limits due to matrix effects.
  - X - Sample extract treated with a mercury cleanup procedure.
  - X1 - Sample extract treated with a sulfuric acid/silica gel cleanup procedure.
  - Y - The calibration verification for this analyte exceeded the 20% drift specified in method 8260C, and therefore the reported result should be considered an estimate. The overall performance of the calibration verification standard met the acceptance criteria of the method.
  - Z -
- ND - Not Detected at PQL  
 PQL - Practical Quantitation Limit  
 RPD - Relative Percent Difference





**Onsite Environmental Inc.**

Analytical Laboratory Testing Services  
 14648 NE 95th Street • Redmond, WA 98052  
 Phone: (425) 883-3881 • www.onsite-env.com

**Chain of Custody**

Company: **Kane Environmental, Inc.**

Project Number: **82302-9.4**

Project Name: **BSCSS**

Project Manager: **Jeff Jensen**

Sampled by: **Emmy Kane**

**Turnaround Request (in working days)**

(Check One)  
 Same Day  1 Day  
 2 Days  3 Days  
 Standard (7 Days)  
 \_\_\_\_\_ (other)

Lab ID	Sample Identification	Date Sampled	Time Sampled	Matrix	Number of Containers
1	MW-4:W	5/23	1356	GW	10
2	H2-MW-21:W	5/23	1020	GW	10

**Laboratory Number: 05-321**

NWTPH-HCID	
NWTPH-Gx/BTEX	
NWTPH-Gx	
NWTPH-Dx ( <input type="checkbox"/> Acid / SG Clean-up)	
Volatiles 8260C	
Halogenated Volatiles 8260C	X
EDB EPA 8011 (Waters Only)	
Semivolatiles 8270D/SIM (with low-level PAHs)	
PAHs 8270D/SIM (low-level)	
PCBs 8082A	
Organochlorine Pesticides 8081B	
Organophosphorus Pesticides 8270D/SIM	
Chlorinated Acid Herbicides 8151A	
Total RCRA Metals	
Total MTCA Metals	
TCLP Metals	X
HEM (oil and grease) 1664A	
dissolved Fe	X
chloride	X
sulfate	X
TOC	X
% Moisture	X

Signature	Company	Date	Time	Comments/Special Instructions
[Signature]	Kane Environmental	5/23/19	1524	lab filter
[Signature]	OSE	5/23/19	1526	PSK = methane, ethane, ethene

Relinquished

Received

Relinquished

Received

Relinquished

Received

Relinquished

Reviewed/Date

Reviewed/Date

Reviewed/Date

Reviewed/Date

Data Package: Standard  Level III  Level IV

Chromatograms with final report  Electronic Data Deliverables (EDDs)





14648 NE 95<sup>th</sup> Street, Redmond, WA 98052 • (425) 883-3881

June 4, 2019

Jeff Jensen  
Kane Environmental, Inc.  
4015 13th Avenue West  
Seattle, WA 98119

Re: Analytical Data for Project 82302-9.4  
Laboratory Reference No. 1905-331

Dear Jeff:

Enclosed are the analytical results and associated quality control data for samples submitted on May 24, 2019.

The standard policy of OnSite Environmental, Inc. is to store your samples for 30 days from the date of receipt. If you require longer storage, please contact the laboratory.

We appreciate the opportunity to be of service to you on this project. If you have any questions concerning the data, or need additional information, please feel free to call me.

Sincerely,

A handwritten signature in black ink, appearing to read "DB", with a long horizontal flourish extending to the right.

David Baumeister  
Project Manager

Enclosures



---

OnSite Environmental, Inc. 14648 NE 95<sup>th</sup> Street, Redmond, WA 98052 (425) 883-3881

This report pertains to the samples analyzed in accordance with the chain of custody, and is intended only for the use of the individual or company to whom it is addressed.

Date of Report: June 4, 2019  
Samples Submitted: May 24, 2019  
Laboratory Reference: 1905-331  
Project: 82302-9.4

### Case Narrative

Samples were collected on May 24, 2019 and received by the laboratory on May 24, 2019. They were maintained at the laboratory at a temperature of 2°C to 6°C.

Please note that any and all soil sample results are reported on a dry-weight basis, unless otherwise noted below.

General QA/QC issues associated with the analytical data enclosed in this laboratory report will be indicated with a reference to a comment or explanation on the Data Qualifier page. More complex and involved QA/QC issues will be discussed in detail below.



Date of Report: June 4, 2019  
 Samples Submitted: May 24, 2019  
 Laboratory Reference: 1905-331  
 Project: 82302-9.4

**VOLATILE ORGANICS EPA 8260C**  
 page 1 of 2

Matrix: Water  
 Units: ug/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>Client ID:</b>	<b>MW-21:W</b>					
Laboratory ID:	05-331-01					
Dichlorodifluoromethane	0.66	0.40	EPA 8260C	5-28-19	5-28-19	
Chloromethane	ND	2.0	EPA 8260C	5-28-19	5-28-19	
Vinyl Chloride	ND	0.40	EPA 8260C	5-28-19	5-28-19	
Bromomethane	ND	0.50	EPA 8260C	5-28-19	5-28-19	
Chloroethane	ND	2.0	EPA 8260C	5-28-19	5-28-19	
Trichlorofluoromethane	ND	0.40	EPA 8260C	5-28-19	5-28-19	
1,1-Dichloroethene	ND	0.40	EPA 8260C	5-28-19	5-28-19	
Iodomethane	ND	4.8	EPA 8260C	5-28-19	5-28-19	
Methylene Chloride	ND	2.0	EPA 8260C	5-28-19	5-28-19	
(trans) 1,2-Dichloroethene	ND	0.40	EPA 8260C	5-28-19	5-28-19	
1,1-Dichloroethane	ND	0.40	EPA 8260C	5-28-19	5-28-19	
2,2-Dichloropropane	ND	0.40	EPA 8260C	5-28-19	5-28-19	
(cis) 1,2-Dichloroethene	0.50	0.40	EPA 8260C	5-28-19	5-28-19	
Bromochloromethane	ND	0.40	EPA 8260C	5-28-19	5-28-19	
Chloroform	ND	0.40	EPA 8260C	5-28-19	5-28-19	
1,1,1-Trichloroethane	ND	0.40	EPA 8260C	5-28-19	5-28-19	
Carbon Tetrachloride	ND	0.40	EPA 8260C	5-28-19	5-28-19	
1,1-Dichloropropene	ND	0.40	EPA 8260C	5-28-19	5-28-19	
1,2-Dichloroethane	ND	0.40	EPA 8260C	5-28-19	5-28-19	
Trichloroethene	1.4	0.40	EPA 8260C	5-28-19	5-28-19	
1,2-Dichloropropane	ND	0.40	EPA 8260C	5-28-19	5-28-19	
Dibromomethane	ND	0.40	EPA 8260C	5-28-19	5-28-19	
Bromodichloromethane	ND	0.40	EPA 8260C	5-28-19	5-28-19	
2-Chloroethyl Vinyl Ether	ND	2.0	EPA 8260C	5-28-19	5-28-19	
(cis) 1,3-Dichloropropene	ND	0.40	EPA 8260C	5-28-19	5-28-19	
(trans) 1,3-Dichloropropene	ND	0.40	EPA 8260C	5-28-19	5-28-19	



Date of Report: June 4, 2019  
 Samples Submitted: May 24, 2019  
 Laboratory Reference: 1905-331  
 Project: 82302-9.4

**VOLATILE ORGANICS EPA 8260C**  
 page 2 of 2

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>Client ID:</b>	<b>MW-21:W</b>					
<b>Laboratory ID:</b>	<b>05-331-01</b>					
1,1,2-Trichloroethane	ND	0.40	EPA 8260C	5-28-19	5-28-19	
Tetrachloroethene	82	2.0	EPA 8260C	5-29-19	5-29-19	
1,3-Dichloropropane	ND	0.40	EPA 8260C	5-28-19	5-28-19	
Dibromochloromethane	ND	0.40	EPA 8260C	5-28-19	5-28-19	
1,2-Dibromoethane	ND	0.40	EPA 8260C	5-28-19	5-28-19	
Chlorobenzene	ND	0.40	EPA 8260C	5-28-19	5-28-19	
1,1,1,2-Tetrachloroethane	ND	0.40	EPA 8260C	5-28-19	5-28-19	
Bromoform	ND	2.0	EPA 8260C	5-28-19	5-28-19	
Bromobenzene	ND	0.40	EPA 8260C	5-28-19	5-28-19	
1,1,2,2-Tetrachloroethane	ND	0.40	EPA 8260C	5-28-19	5-28-19	
1,2,3-Trichloropropane	ND	0.40	EPA 8260C	5-28-19	5-28-19	
2-Chlorotoluene	ND	0.40	EPA 8260C	5-28-19	5-28-19	
4-Chlorotoluene	ND	0.40	EPA 8260C	5-28-19	5-28-19	
1,3-Dichlorobenzene	ND	0.40	EPA 8260C	5-28-19	5-28-19	
1,4-Dichlorobenzene	ND	0.40	EPA 8260C	5-28-19	5-28-19	
1,2-Dichlorobenzene	ND	0.40	EPA 8260C	5-28-19	5-28-19	
1,2-Dibromo-3-chloropropane	ND	2.0	EPA 8260C	5-28-19	5-28-19	
1,2,4-Trichlorobenzene	ND	0.40	EPA 8260C	5-28-19	5-28-19	
Hexachlorobutadiene	ND	2.0	EPA 8260C	5-28-19	5-28-19	
1,2,3-Trichlorobenzene	ND	0.40	EPA 8260C	5-28-19	5-28-19	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Dibromofluoromethane</i>	<i>101</i>	<i>75-127</i>				
<i>Toluene-d8</i>	<i>100</i>	<i>80-127</i>				
<i>4-Bromofluorobenzene</i>	<i>97</i>	<i>78-125</i>				



Date of Report: June 4, 2019  
 Samples Submitted: May 24, 2019  
 Laboratory Reference: 1905-331  
 Project: 82302-9.4

**VOLATILE ORGANICS EPA 8260C**  
 page 1 of 2

Matrix: Water  
 Units: ug/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>Client ID:</b>	<b>MW-12:W</b>					
Laboratory ID:	05-331-02					
Dichlorodifluoromethane	ND	30	EPA 8260C	5-28-19	5-28-19	
Chloromethane	ND	150	EPA 8260C	5-28-19	5-28-19	
Vinyl Chloride	ND	30	EPA 8260C	5-28-19	5-28-19	
Bromomethane	ND	38	EPA 8260C	5-28-19	5-28-19	
Chloroethane	ND	150	EPA 8260C	5-28-19	5-28-19	
Trichlorofluoromethane	ND	30	EPA 8260C	5-28-19	5-28-19	
1,1-Dichloroethene	ND	30	EPA 8260C	5-28-19	5-28-19	
Iodomethane	ND	360	EPA 8260C	5-28-19	5-28-19	
Methylene Chloride	ND	150	EPA 8260C	5-28-19	5-28-19	
(trans) 1,2-Dichloroethene	ND	30	EPA 8260C	5-28-19	5-28-19	
1,1-Dichloroethane	ND	30	EPA 8260C	5-28-19	5-28-19	
2,2-Dichloropropane	ND	30	EPA 8260C	5-28-19	5-28-19	
(cis) 1,2-Dichloroethene	780	30	EPA 8260C	5-28-19	5-28-19	
Bromochloromethane	ND	30	EPA 8260C	5-28-19	5-28-19	
Chloroform	ND	30	EPA 8260C	5-28-19	5-28-19	
1,1,1-Trichloroethane	ND	30	EPA 8260C	5-28-19	5-28-19	
Carbon Tetrachloride	ND	30	EPA 8260C	5-28-19	5-28-19	
1,1-Dichloropropene	ND	30	EPA 8260C	5-28-19	5-28-19	
1,2-Dichloroethane	ND	30	EPA 8260C	5-28-19	5-28-19	
Trichloroethene	400	30	EPA 8260C	5-28-19	5-28-19	
1,2-Dichloropropane	ND	30	EPA 8260C	5-28-19	5-28-19	
Dibromomethane	ND	30	EPA 8260C	5-28-19	5-28-19	
Bromodichloromethane	ND	30	EPA 8260C	5-28-19	5-28-19	
2-Chloroethyl Vinyl Ether	ND	150	EPA 8260C	5-28-19	5-28-19	
(cis) 1,3-Dichloropropene	ND	30	EPA 8260C	5-28-19	5-28-19	
(trans) 1,3-Dichloropropene	ND	30	EPA 8260C	5-28-19	5-28-19	



Date of Report: June 4, 2019  
 Samples Submitted: May 24, 2019  
 Laboratory Reference: 1905-331  
 Project: 82302-9.4

**VOLATILE ORGANICS EPA 8260C**  
 page 2 of 2

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>Client ID:</b>	<b>MW-12:W</b>					
<b>Laboratory ID:</b>	<b>05-331-02</b>					
1,1,2-Trichloroethane	ND	30	EPA 8260C	5-28-19	5-28-19	
Tetrachloroethene	5400	30	EPA 8260C	5-28-19	5-28-19	
1,3-Dichloropropane	ND	30	EPA 8260C	5-28-19	5-28-19	
Dibromochloromethane	ND	30	EPA 8260C	5-28-19	5-28-19	
1,2-Dibromoethane	ND	30	EPA 8260C	5-28-19	5-28-19	
Chlorobenzene	ND	30	EPA 8260C	5-28-19	5-28-19	
1,1,1,2-Tetrachloroethane	ND	30	EPA 8260C	5-28-19	5-28-19	
Bromoform	ND	150	EPA 8260C	5-28-19	5-28-19	
Bromobenzene	ND	30	EPA 8260C	5-28-19	5-28-19	
1,1,1,2,2-Tetrachloroethane	ND	30	EPA 8260C	5-28-19	5-28-19	
1,2,3-Trichloropropane	ND	30	EPA 8260C	5-28-19	5-28-19	
2-Chlorotoluene	ND	30	EPA 8260C	5-28-19	5-28-19	
4-Chlorotoluene	ND	30	EPA 8260C	5-28-19	5-28-19	
1,3-Dichlorobenzene	ND	30	EPA 8260C	5-28-19	5-28-19	
1,4-Dichlorobenzene	ND	30	EPA 8260C	5-28-19	5-28-19	
1,2-Dichlorobenzene	ND	30	EPA 8260C	5-28-19	5-28-19	
1,2-Dibromo-3-chloropropane	ND	150	EPA 8260C	5-28-19	5-28-19	
1,2,4-Trichlorobenzene	ND	30	EPA 8260C	5-28-19	5-28-19	
Hexachlorobutadiene	ND	150	EPA 8260C	5-28-19	5-28-19	
1,2,3-Trichlorobenzene	ND	30	EPA 8260C	5-28-19	5-28-19	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Dibromofluoromethane</i>	<i>106</i>	<i>75-127</i>				
<i>Toluene-d8</i>	<i>100</i>	<i>80-127</i>				
<i>4-Bromofluorobenzene</i>	<i>98</i>	<i>78-125</i>				



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**VOLATILE ORGANICS EPA 8260C**  
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Matrix: Water  
 Units: ug/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>Client ID:</b>	<b>MW-7:W</b>					
Laboratory ID:	05-331-03					
Dichlorodifluoromethane	ND	10	EPA 8260C	5-28-19	5-28-19	
Chloromethane	ND	50	EPA 8260C	5-28-19	5-28-19	
Vinyl Chloride	ND	10	EPA 8260C	5-28-19	5-28-19	
Bromomethane	ND	13	EPA 8260C	5-28-19	5-28-19	
Chloroethane	ND	50	EPA 8260C	5-28-19	5-28-19	
Trichlorofluoromethane	ND	10	EPA 8260C	5-28-19	5-28-19	
1,1-Dichloroethene	ND	10	EPA 8260C	5-28-19	5-28-19	
Iodomethane	ND	120	EPA 8260C	5-28-19	5-28-19	
Methylene Chloride	ND	50	EPA 8260C	5-28-19	5-28-19	
(trans) 1,2-Dichloroethene	ND	10	EPA 8260C	5-28-19	5-28-19	
1,1-Dichloroethane	ND	10	EPA 8260C	5-28-19	5-28-19	
2,2-Dichloropropane	ND	10	EPA 8260C	5-28-19	5-28-19	
(cis) 1,2-Dichloroethene	240	10	EPA 8260C	5-28-19	5-28-19	
Bromochloromethane	ND	10	EPA 8260C	5-28-19	5-28-19	
Chloroform	ND	10	EPA 8260C	5-28-19	5-28-19	
1,1,1-Trichloroethane	ND	10	EPA 8260C	5-28-19	5-28-19	
Carbon Tetrachloride	ND	10	EPA 8260C	5-28-19	5-28-19	
1,1-Dichloropropene	ND	10	EPA 8260C	5-28-19	5-28-19	
1,2-Dichloroethane	ND	10	EPA 8260C	5-28-19	5-28-19	
Trichloroethene	84	10	EPA 8260C	5-28-19	5-28-19	
1,2-Dichloropropane	ND	10	EPA 8260C	5-28-19	5-28-19	
Dibromomethane	ND	10	EPA 8260C	5-28-19	5-28-19	
Bromodichloromethane	ND	10	EPA 8260C	5-28-19	5-28-19	
2-Chloroethyl Vinyl Ether	ND	50	EPA 8260C	5-28-19	5-28-19	
(cis) 1,3-Dichloropropene	ND	10	EPA 8260C	5-28-19	5-28-19	
(trans) 1,3-Dichloropropene	ND	10	EPA 8260C	5-28-19	5-28-19	



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Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>Client ID:</b>	<b>MW-7:W</b>					
<b>Laboratory ID:</b>	<b>05-331-03</b>					
1,1,2-Trichloroethane	ND	10	EPA 8260C	5-28-19	5-28-19	
Tetrachloroethene	1000	10	EPA 8260C	5-28-19	5-28-19	
1,3-Dichloropropane	ND	10	EPA 8260C	5-28-19	5-28-19	
Dibromochloromethane	ND	10	EPA 8260C	5-28-19	5-28-19	
1,2-Dibromoethane	ND	10	EPA 8260C	5-28-19	5-28-19	
Chlorobenzene	ND	10	EPA 8260C	5-28-19	5-28-19	
1,1,1,2-Tetrachloroethane	ND	10	EPA 8260C	5-28-19	5-28-19	
Bromoform	ND	50	EPA 8260C	5-28-19	5-28-19	
Bromobenzene	ND	10	EPA 8260C	5-28-19	5-28-19	
1,1,2,2-Tetrachloroethane	ND	10	EPA 8260C	5-28-19	5-28-19	
1,2,3-Trichloropropane	ND	10	EPA 8260C	5-28-19	5-28-19	
2-Chlorotoluene	ND	10	EPA 8260C	5-28-19	5-28-19	
4-Chlorotoluene	ND	10	EPA 8260C	5-28-19	5-28-19	
1,3-Dichlorobenzene	ND	10	EPA 8260C	5-28-19	5-28-19	
1,4-Dichlorobenzene	ND	10	EPA 8260C	5-28-19	5-28-19	
1,2-Dichlorobenzene	ND	10	EPA 8260C	5-28-19	5-28-19	
1,2-Dibromo-3-chloropropane	ND	50	EPA 8260C	5-28-19	5-28-19	
1,2,4-Trichlorobenzene	ND	10	EPA 8260C	5-28-19	5-28-19	
Hexachlorobutadiene	ND	50	EPA 8260C	5-28-19	5-28-19	
1,2,3-Trichlorobenzene	ND	10	EPA 8260C	5-28-19	5-28-19	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Dibromofluoromethane</i>	<i>105</i>	<i>75-127</i>				
<i>Toluene-d8</i>	<i>101</i>	<i>80-127</i>				
<i>4-Bromofluorobenzene</i>	<i>100</i>	<i>78-125</i>				





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Matrix: Water  
 Units: ug/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>Client ID:</b>	<b>MW-28:W</b>					
Laboratory ID:	05-331-04					
Dichlorodifluoromethane	ND	0.20	EPA 8260C	5-28-19	5-28-19	
Chloromethane	ND	1.0	EPA 8260C	5-28-19	5-28-19	
Vinyl Chloride	ND	0.20	EPA 8260C	5-28-19	5-28-19	
Bromomethane	ND	0.25	EPA 8260C	5-28-19	5-28-19	
Chloroethane	ND	1.0	EPA 8260C	5-28-19	5-28-19	
Trichlorofluoromethane	ND	0.20	EPA 8260C	5-28-19	5-28-19	
1,1-Dichloroethene	ND	0.20	EPA 8260C	5-28-19	5-28-19	
Iodomethane	ND	2.4	EPA 8260C	5-28-19	5-28-19	
Methylene Chloride	ND	1.0	EPA 8260C	5-28-19	5-28-19	
(trans) 1,2-Dichloroethene	ND	0.20	EPA 8260C	5-28-19	5-28-19	
1,1-Dichloroethane	ND	0.20	EPA 8260C	5-28-19	5-28-19	
2,2-Dichloropropane	ND	0.20	EPA 8260C	5-28-19	5-28-19	
(cis) 1,2-Dichloroethene	ND	0.20	EPA 8260C	5-28-19	5-28-19	
Bromochloromethane	ND	0.20	EPA 8260C	5-28-19	5-28-19	
Chloroform	ND	0.20	EPA 8260C	5-28-19	5-28-19	
1,1,1-Trichloroethane	ND	0.20	EPA 8260C	5-28-19	5-28-19	
Carbon Tetrachloride	ND	0.20	EPA 8260C	5-28-19	5-28-19	
1,1-Dichloropropene	ND	0.20	EPA 8260C	5-28-19	5-28-19	
1,2-Dichloroethane	ND	0.20	EPA 8260C	5-28-19	5-28-19	
Trichloroethene	ND	0.20	EPA 8260C	5-28-19	5-28-19	
1,2-Dichloropropane	ND	0.20	EPA 8260C	5-28-19	5-28-19	
Dibromomethane	ND	0.20	EPA 8260C	5-28-19	5-28-19	
Bromodichloromethane	ND	0.20	EPA 8260C	5-28-19	5-28-19	
2-Chloroethyl Vinyl Ether	ND	1.0	EPA 8260C	5-28-19	5-28-19	
(cis) 1,3-Dichloropropene	ND	0.20	EPA 8260C	5-28-19	5-28-19	
(trans) 1,3-Dichloropropene	ND	0.20	EPA 8260C	5-28-19	5-28-19	



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Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>Client ID:</b>	<b>MW-28:W</b>					
<b>Laboratory ID:</b>	<b>05-331-04</b>					
1,1,2-Trichloroethane	ND	0.20	EPA 8260C	5-28-19	5-28-19	
Tetrachloroethene	ND	0.20	EPA 8260C	5-28-19	5-28-19	
1,3-Dichloropropane	ND	0.20	EPA 8260C	5-28-19	5-28-19	
Dibromochloromethane	ND	0.20	EPA 8260C	5-28-19	5-28-19	
1,2-Dibromoethane	ND	0.20	EPA 8260C	5-28-19	5-28-19	
Chlorobenzene	ND	0.20	EPA 8260C	5-28-19	5-28-19	
1,1,1,2-Tetrachloroethane	ND	0.20	EPA 8260C	5-28-19	5-28-19	
Bromoform	ND	1.0	EPA 8260C	5-28-19	5-28-19	
Bromobenzene	ND	0.20	EPA 8260C	5-28-19	5-28-19	
1,1,2,2-Tetrachloroethane	ND	0.20	EPA 8260C	5-28-19	5-28-19	
1,2,3-Trichloropropane	ND	0.20	EPA 8260C	5-28-19	5-28-19	
2-Chlorotoluene	ND	0.20	EPA 8260C	5-28-19	5-28-19	
4-Chlorotoluene	ND	0.20	EPA 8260C	5-28-19	5-28-19	
1,3-Dichlorobenzene	ND	0.20	EPA 8260C	5-28-19	5-28-19	
1,4-Dichlorobenzene	ND	0.20	EPA 8260C	5-28-19	5-28-19	
1,2-Dichlorobenzene	ND	0.20	EPA 8260C	5-28-19	5-28-19	
1,2-Dibromo-3-chloropropane	ND	1.0	EPA 8260C	5-28-19	5-28-19	
1,2,4-Trichlorobenzene	ND	0.20	EPA 8260C	5-28-19	5-28-19	
Hexachlorobutadiene	ND	1.0	EPA 8260C	5-28-19	5-28-19	
1,2,3-Trichlorobenzene	ND	0.20	EPA 8260C	5-28-19	5-28-19	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Dibromofluoromethane</i>	<i>102</i>	<i>75-127</i>				
<i>Toluene-d8</i>	<i>98</i>	<i>80-127</i>				
<i>4-Bromofluorobenzene</i>	<i>96</i>	<i>78-125</i>				



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Matrix: Water  
 Units: ug/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>Client ID:</b>	<b>MW-27:W</b>					
Laboratory ID:	05-331-05					
Dichlorodifluoromethane	ND	1.0	EPA 8260C	5-28-19	5-28-19	
Chloromethane	ND	5.0	EPA 8260C	5-28-19	5-28-19	
Vinyl Chloride	ND	1.0	EPA 8260C	5-28-19	5-28-19	
Bromomethane	ND	1.3	EPA 8260C	5-28-19	5-28-19	
Chloroethane	ND	5.0	EPA 8260C	5-28-19	5-28-19	
Trichlorofluoromethane	ND	1.0	EPA 8260C	5-28-19	5-28-19	
1,1-Dichloroethene	ND	1.0	EPA 8260C	5-28-19	5-28-19	
Iodomethane	ND	12	EPA 8260C	5-28-19	5-28-19	
Methylene Chloride	ND	5.0	EPA 8260C	5-28-19	5-28-19	
(trans) 1,2-Dichloroethene	ND	1.0	EPA 8260C	5-28-19	5-28-19	
1,1-Dichloroethane	ND	1.0	EPA 8260C	5-28-19	5-28-19	
2,2-Dichloropropane	ND	1.0	EPA 8260C	5-28-19	5-28-19	
(cis) 1,2-Dichloroethene	ND	1.0	EPA 8260C	5-28-19	5-28-19	
Bromochloromethane	ND	1.0	EPA 8260C	5-28-19	5-28-19	
Chloroform	ND	1.0	EPA 8260C	5-28-19	5-28-19	
1,1,1-Trichloroethane	ND	1.0	EPA 8260C	5-28-19	5-28-19	
Carbon Tetrachloride	ND	1.0	EPA 8260C	5-28-19	5-28-19	
1,1-Dichloropropene	ND	1.0	EPA 8260C	5-28-19	5-28-19	
1,2-Dichloroethane	ND	1.0	EPA 8260C	5-28-19	5-28-19	
Trichloroethene	ND	1.0	EPA 8260C	5-28-19	5-28-19	
1,2-Dichloropropane	ND	1.0	EPA 8260C	5-28-19	5-28-19	
Dibromomethane	ND	1.0	EPA 8260C	5-28-19	5-28-19	
Bromodichloromethane	ND	1.0	EPA 8260C	5-28-19	5-28-19	
2-Chloroethyl Vinyl Ether	ND	5.0	EPA 8260C	5-28-19	5-28-19	
(cis) 1,3-Dichloropropene	ND	1.0	EPA 8260C	5-28-19	5-28-19	
(trans) 1,3-Dichloropropene	ND	1.0	EPA 8260C	5-28-19	5-28-19	



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Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>Client ID:</b>	<b>MW-27:W</b>					
<b>Laboratory ID:</b>	<b>05-331-05</b>					
1,1,2-Trichloroethane	ND	1.0	EPA 8260C	5-28-19	5-28-19	
Tetrachloroethene	110	1.0	EPA 8260C	5-28-19	5-28-19	
1,3-Dichloropropane	ND	1.0	EPA 8260C	5-28-19	5-28-19	
Dibromochloromethane	ND	1.0	EPA 8260C	5-28-19	5-28-19	
1,2-Dibromoethane	ND	1.0	EPA 8260C	5-28-19	5-28-19	
Chlorobenzene	ND	1.0	EPA 8260C	5-28-19	5-28-19	
1,1,1,2-Tetrachloroethane	ND	1.0	EPA 8260C	5-28-19	5-28-19	
Bromoform	ND	5.0	EPA 8260C	5-28-19	5-28-19	
Bromobenzene	ND	1.0	EPA 8260C	5-28-19	5-28-19	
1,1,2,2-Tetrachloroethane	ND	1.0	EPA 8260C	5-28-19	5-28-19	
1,2,3-Trichloropropane	ND	1.0	EPA 8260C	5-28-19	5-28-19	
2-Chlorotoluene	ND	1.0	EPA 8260C	5-28-19	5-28-19	
4-Chlorotoluene	ND	1.0	EPA 8260C	5-28-19	5-28-19	
1,3-Dichlorobenzene	ND	1.0	EPA 8260C	5-28-19	5-28-19	
1,4-Dichlorobenzene	ND	1.0	EPA 8260C	5-28-19	5-28-19	
1,2-Dichlorobenzene	ND	1.0	EPA 8260C	5-28-19	5-28-19	
1,2-Dibromo-3-chloropropane	ND	5.0	EPA 8260C	5-28-19	5-28-19	
1,2,4-Trichlorobenzene	ND	1.0	EPA 8260C	5-28-19	5-28-19	
Hexachlorobutadiene	ND	5.0	EPA 8260C	5-28-19	5-28-19	
1,2,3-Trichlorobenzene	ND	1.0	EPA 8260C	5-28-19	5-28-19	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Dibromofluoromethane</i>	<i>102</i>	<i>75-127</i>				
<i>Toluene-d8</i>	<i>100</i>	<i>80-127</i>				
<i>4-Bromofluorobenzene</i>	<i>98</i>	<i>78-125</i>				



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**VOLATILE ORGANICS EPA 8260C**  
**METHOD BLANK QUALITY CONTROL**  
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Matrix: Water  
 Units: ug/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Laboratory ID:	MB0528W1					
Dichlorodifluoromethane	ND	0.20	EPA 8260C	5-28-19	5-28-19	
Chloromethane	ND	1.0	EPA 8260C	5-28-19	5-28-19	
Vinyl Chloride	ND	0.20	EPA 8260C	5-28-19	5-28-19	
Bromomethane	ND	0.25	EPA 8260C	5-28-19	5-28-19	
Chloroethane	ND	1.0	EPA 8260C	5-28-19	5-28-19	
Trichlorofluoromethane	ND	0.20	EPA 8260C	5-28-19	5-28-19	
1,1-Dichloroethene	ND	0.20	EPA 8260C	5-28-19	5-28-19	
Iodomethane	ND	2.4	EPA 8260C	5-28-19	5-28-19	
Methylene Chloride	ND	1.0	EPA 8260C	5-28-19	5-28-19	
(trans) 1,2-Dichloroethene	ND	0.20	EPA 8260C	5-28-19	5-28-19	
1,1-Dichloroethane	ND	0.20	EPA 8260C	5-28-19	5-28-19	
2,2-Dichloropropane	ND	0.20	EPA 8260C	5-28-19	5-28-19	
(cis) 1,2-Dichloroethene	ND	0.20	EPA 8260C	5-28-19	5-28-19	
Bromochloromethane	ND	0.20	EPA 8260C	5-28-19	5-28-19	
Chloroform	ND	0.20	EPA 8260C	5-28-19	5-28-19	
1,1,1-Trichloroethane	ND	0.20	EPA 8260C	5-28-19	5-28-19	
Carbon Tetrachloride	ND	0.20	EPA 8260C	5-28-19	5-28-19	
1,1-Dichloropropene	ND	0.20	EPA 8260C	5-28-19	5-28-19	
1,2-Dichloroethane	ND	0.20	EPA 8260C	5-28-19	5-28-19	
Trichloroethene	ND	0.20	EPA 8260C	5-28-19	5-28-19	
1,2-Dichloropropane	ND	0.20	EPA 8260C	5-28-19	5-28-19	
Dibromomethane	ND	0.20	EPA 8260C	5-28-19	5-28-19	
Bromodichloromethane	ND	0.20	EPA 8260C	5-28-19	5-28-19	
2-Chloroethyl Vinyl Ether	ND	1.0	EPA 8260C	5-28-19	5-28-19	
(cis) 1,3-Dichloropropene	ND	0.20	EPA 8260C	5-28-19	5-28-19	
(trans) 1,3-Dichloropropene	ND	0.20	EPA 8260C	5-28-19	5-28-19	



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**VOLATILE ORGANICS EPA 8260C**  
**METHOD BLANK QUALITY CONTROL**  
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Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Laboratory ID:	MB0528W1					
1,1,2-Trichloroethane	ND	0.20	EPA 8260C	5-28-19	5-28-19	
Tetrachloroethene	ND	0.20	EPA 8260C	5-28-19	5-28-19	
1,3-Dichloropropane	ND	0.20	EPA 8260C	5-28-19	5-28-19	
Dibromochloromethane	ND	0.20	EPA 8260C	5-28-19	5-28-19	
1,2-Dibromoethane	ND	0.20	EPA 8260C	5-28-19	5-28-19	
Chlorobenzene	ND	0.20	EPA 8260C	5-28-19	5-28-19	
1,1,1,2-Tetrachloroethane	ND	0.20	EPA 8260C	5-28-19	5-28-19	
Bromoform	ND	1.0	EPA 8260C	5-28-19	5-28-19	
Bromobenzene	ND	0.20	EPA 8260C	5-28-19	5-28-19	
1,1,2,2-Tetrachloroethane	ND	0.20	EPA 8260C	5-28-19	5-28-19	
1,2,3-Trichloropropane	ND	0.20	EPA 8260C	5-28-19	5-28-19	
2-Chlorotoluene	ND	0.20	EPA 8260C	5-28-19	5-28-19	
4-Chlorotoluene	ND	0.20	EPA 8260C	5-28-19	5-28-19	
1,3-Dichlorobenzene	ND	0.20	EPA 8260C	5-28-19	5-28-19	
1,4-Dichlorobenzene	ND	0.20	EPA 8260C	5-28-19	5-28-19	
1,2-Dichlorobenzene	ND	0.20	EPA 8260C	5-28-19	5-28-19	
1,2-Dibromo-3-chloropropane	ND	1.0	EPA 8260C	5-28-19	5-28-19	
1,2,4-Trichlorobenzene	ND	0.20	EPA 8260C	5-28-19	5-28-19	
Hexachlorobutadiene	ND	1.0	EPA 8260C	5-28-19	5-28-19	
1,2,3-Trichlorobenzene	ND	0.20	EPA 8260C	5-28-19	5-28-19	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Dibromofluoromethane</i>	<i>106</i>	<i>75-127</i>				
<i>Toluene-d8</i>	<i>100</i>	<i>80-127</i>				
<i>4-Bromofluorobenzene</i>	<i>99</i>	<i>78-125</i>				



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**VOLATILE ORGANICS EPA 8260C**  
**METHOD BLANK QUALITY CONTROL**  
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Matrix: Water  
 Units: ug/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Laboratory ID:	MB0529W1					
Dichlorodifluoromethane	ND	0.20	EPA 8260C	5-29-19	5-29-19	
Chloromethane	ND	1.0	EPA 8260C	5-29-19	5-29-19	
Vinyl Chloride	ND	0.20	EPA 8260C	5-29-19	5-29-19	
Bromomethane	ND	0.37	EPA 8260C	5-29-19	5-29-19	
Chloroethane	ND	1.0	EPA 8260C	5-29-19	5-29-19	
Trichlorofluoromethane	ND	0.20	EPA 8260C	5-29-19	5-29-19	
1,1-Dichloroethene	ND	0.20	EPA 8260C	5-29-19	5-29-19	
Iodomethane	ND	2.9	EPA 8260C	5-29-19	5-29-19	
Methylene Chloride	ND	1.0	EPA 8260C	5-29-19	5-29-19	
(trans) 1,2-Dichloroethene	ND	0.20	EPA 8260C	5-29-19	5-29-19	
1,1-Dichloroethane	ND	0.20	EPA 8260C	5-29-19	5-29-19	
2,2-Dichloropropane	ND	0.20	EPA 8260C	5-29-19	5-29-19	
(cis) 1,2-Dichloroethene	ND	0.20	EPA 8260C	5-29-19	5-29-19	
Bromochloromethane	ND	0.20	EPA 8260C	5-29-19	5-29-19	
Chloroform	ND	0.20	EPA 8260C	5-29-19	5-29-19	
1,1,1-Trichloroethane	ND	0.20	EPA 8260C	5-29-19	5-29-19	
Carbon Tetrachloride	ND	0.20	EPA 8260C	5-29-19	5-29-19	
1,1-Dichloropropene	ND	0.20	EPA 8260C	5-29-19	5-29-19	
1,2-Dichloroethane	ND	0.20	EPA 8260C	5-29-19	5-29-19	
Trichloroethene	ND	0.20	EPA 8260C	5-29-19	5-29-19	
1,2-Dichloropropane	ND	0.20	EPA 8260C	5-29-19	5-29-19	
Dibromomethane	ND	0.20	EPA 8260C	5-29-19	5-29-19	
Bromodichloromethane	ND	0.20	EPA 8260C	5-29-19	5-29-19	
2-Chloroethyl Vinyl Ether	ND	1.0	EPA 8260C	5-29-19	5-29-19	
(cis) 1,3-Dichloropropene	ND	0.20	EPA 8260C	5-29-19	5-29-19	
(trans) 1,3-Dichloropropene	ND	0.20	EPA 8260C	5-29-19	5-29-19	



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**VOLATILE ORGANICS EPA 8260C**  
**METHOD BLANK QUALITY CONTROL**  
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Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Laboratory ID:	MB0529W1					
1,1,2-Trichloroethane	ND	0.20	EPA 8260C	5-29-19	5-29-19	
Tetrachloroethene	ND	0.20	EPA 8260C	5-29-19	5-29-19	
1,3-Dichloropropane	ND	0.20	EPA 8260C	5-29-19	5-29-19	
Dibromochloromethane	ND	0.20	EPA 8260C	5-29-19	5-29-19	
1,2-Dibromoethane	ND	0.20	EPA 8260C	5-29-19	5-29-19	
Chlorobenzene	ND	0.20	EPA 8260C	5-29-19	5-29-19	
1,1,1,2-Tetrachloroethane	ND	0.20	EPA 8260C	5-29-19	5-29-19	
Bromoform	ND	1.0	EPA 8260C	5-29-19	5-29-19	
Bromobenzene	ND	0.20	EPA 8260C	5-29-19	5-29-19	
1,1,2,2-Tetrachloroethane	ND	0.20	EPA 8260C	5-29-19	5-29-19	
1,2,3-Trichloropropane	ND	0.20	EPA 8260C	5-29-19	5-29-19	
2-Chlorotoluene	ND	0.20	EPA 8260C	5-29-19	5-29-19	
4-Chlorotoluene	ND	0.20	EPA 8260C	5-29-19	5-29-19	
1,3-Dichlorobenzene	ND	0.20	EPA 8260C	5-29-19	5-29-19	
1,4-Dichlorobenzene	ND	0.20	EPA 8260C	5-29-19	5-29-19	
1,2-Dichlorobenzene	ND	0.20	EPA 8260C	5-29-19	5-29-19	
1,2-Dibromo-3-chloropropane	ND	1.0	EPA 8260C	5-29-19	5-29-19	
1,2,4-Trichlorobenzene	ND	0.20	EPA 8260C	5-29-19	5-29-19	
Hexachlorobutadiene	ND	1.0	EPA 8260C	5-29-19	5-29-19	
1,2,3-Trichlorobenzene	ND	0.20	EPA 8260C	5-29-19	5-29-19	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Dibromofluoromethane</i>	<i>97</i>	<i>75-127</i>				
<i>Toluene-d8</i>	<i>99</i>	<i>80-127</i>				
<i>4-Bromofluorobenzene</i>	<i>98</i>	<i>78-125</i>				





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**VOLATILE ORGANICS EPA 8260C  
 SB/SBD QUALITY CONTROL**

Matrix: Water  
 Units: ug/L

Analyte	Result		Spike Level		Percent Recovery		Recovery	RPD	RPD	Flags
					Recovery	Limits	RPD	Limit		
<b>SPIKE BLANKS</b>										
Laboratory ID:	SB0529W1									
	SB	SBD	SB	SBD	SB	SBD				
1,1-Dichloroethene	9.45	9.56	10.0	10.0	95	96	63-130	1	17	
Benzene	9.16	9.55	10.0	10.0	92	96	76-125	4	19	
Trichloroethene	9.69	9.75	10.0	10.0	97	98	76-121	1	18	
Toluene	9.34	9.44	10.0	10.0	93	94	80-124	1	18	
Chlorobenzene	9.83	9.76	10.0	10.0	98	98	75-120	1	19	
<i>Surrogate:</i>										
Dibromofluoromethane					98	101	75-127			
Toluene-d8					99	99	80-127			
4-Bromofluorobenzene					99	98	78-125			



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**VOLATILE ORGANICS EPA 8260C  
 MS/MSD QUALITY CONTROL**

Matrix: Water  
 Units: ug/L

Analyte	Result		Spike Level		Source	Percent	Recovery	RPD		Flags
					Result	Recovery	Limits	RPD	Limit	
<b>MATRIX SPIKES</b>										
Laboratory ID:	05-331-02									
	MS	MSD	MS	MSD		MS	MSD			
1,1-Dichloroethene	<b>1660</b>	<b>1660</b>	1500	1500	ND	111	111	57-135	0	15
Benzene	<b>1610</b>	<b>1630</b>	1500	1500	ND	107	109	73-131	1	16
Trichloroethene	<b>1980</b>	<b>2000</b>	1500	1500	402	105	107	75-124	1	17
Toluene	<b>1520</b>	<b>1550</b>	1500	1500	ND	101	103	84-123	2	19
Chlorobenzene	<b>1580</b>	<b>1560</b>	1500	1500	ND	105	104	78-122	1	16
<i>Surrogate:</i>										
<i>Dibromofluoromethane</i>						<i>105</i>	<i>106</i>	<i>75-127</i>		
<i>Toluene-d8</i>						<i>98</i>	<i>99</i>	<i>80-127</i>		
<i>4-Bromofluorobenzene</i>						<i>96</i>	<i>97</i>	<i>78-125</i>		



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**DISSOLVED GASES  
RSK 175**

Matrix: Water  
 Units: ug/L (ppb)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>Client ID:</b>	<b>MW-21:W</b>					
Laboratory ID:	05-331-01					
Methane	<b>2.6</b>	1.0	RSK 175	6-3-19	6-3-19	
Ethane	<b>ND</b>	0.50	RSK 175	6-3-19	6-3-19	
Ethene	<b>ND</b>	0.50	RSK 175	6-3-19	6-3-19	

<b>Client ID:</b>	<b>MW-12:W</b>					
Laboratory ID:	05-331-02					
Methane	<b>3700</b>	500	RSK 175	6-3-19	6-3-19	
Ethane	<b>ND</b>	250	RSK 175	6-3-19	6-3-19	
Ethene	<b>ND</b>	250	RSK 175	6-3-19	6-3-19	

<b>Client ID:</b>	<b>MW-7:W</b>					
Laboratory ID:	05-331-03					
Methane	<b>49</b>	6.0	RSK 175	6-3-19	6-3-19	
Ethane	<b>ND</b>	3.0	RSK 175	6-3-19	6-3-19	
Ethene	<b>ND</b>	3.0	RSK 175	6-3-19	6-3-19	

<b>Client ID:</b>	<b>MW-28:W</b>					
Laboratory ID:	05-331-04					
Methane	<b>9.6</b>	1.0	RSK 175	6-3-19	6-3-19	
Ethane	<b>ND</b>	0.50	RSK 175	6-3-19	6-3-19	
Ethene	<b>ND</b>	0.50	RSK 175	6-3-19	6-3-19	

<b>Client ID:</b>	<b>MW-27:W</b>					
Laboratory ID:	05-331-05					
Methane	<b>ND</b>	1.0	RSK 175	6-3-19	6-3-19	
Ethane	<b>ND</b>	0.50	RSK 175	6-3-19	6-3-19	
Ethene	<b>ND</b>	0.50	RSK 175	6-3-19	6-3-19	



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**DISSOLVED GASES  
 RSK 175  
 QUALITY CONTROL**

Matrix: Water  
 Units: ug/L (ppb)

<b>Analyte</b>	<b>Result</b>	<b>PQL</b>	<b>Method</b>	<b>Date Prepared</b>	<b>Date Analyzed</b>	<b>Flags</b>
<b>METHOD BLANK</b>						
Laboratory ID:	MB0603W1					
Methane	<b>ND</b>	1.0	RSK 175	6-3-19	6-3-19	
Ethane	<b>ND</b>	0.50	RSK 175	6-3-19	6-3-19	
Ethene	<b>ND</b>	0.50	RSK 175	6-3-19	6-3-19	

<b>Analyte</b>	<b>Result</b>		<b>Spike Level</b>		<b>Source Result</b>	<b>Percent Recovery</b>		<b>Recovery Limits</b>	<b>RPD</b>	<b>RPD Limit</b>	<b>Flags</b>
<b>MATRIX SPIKES</b>											
Laboratory ID:	01-123-01										
	MS	MSD	MS	MSD		MS	MSD				
Methane	<b>9.41</b>	<b>9.08</b>	4.42	4.42	4.20	<b>118</b>	<b>110</b>	75-125	4	25	
Ethane	<b>7.79</b>	<b>7.34</b>	8.32	8.32	ND	<b>94</b>	<b>88</b>	75-125	6	25	
Ethene	<b>5.79</b>	<b>6.37</b>	7.77	7.77	ND	<b>75</b>	<b>82</b>	75-125	10	25	



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**AMMONIA (as Nitrogen)**  
**SM 4500-NH<sub>3</sub> D**

Matrix: Water  
 Units: mg NH<sub>3</sub>-N/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>Client ID:</b>	<b>MW-21:W</b>					
Laboratory ID:	05-331-01					
Ammonia	<b>ND</b>	0.050	SM 4500-NH <sub>3</sub> D	5-31-19	5-31-19	

<b>Client ID:</b>	<b>MW-12:W</b>					
Laboratory ID:	05-331-02					
Ammonia	<b>ND</b>	0.050	SM 4500-NH <sub>3</sub> D	5-31-19	5-31-19	

<b>Client ID:</b>	<b>MW-7:W</b>					
Laboratory ID:	05-331-03					
Ammonia	<b>ND</b>	0.050	SM 4500-NH <sub>3</sub> D	5-31-19	5-31-19	

<b>Client ID:</b>	<b>MW-28:W</b>					
Laboratory ID:	05-331-04					
Ammonia	<b>ND</b>	0.050	SM 4500-NH <sub>3</sub> D	5-31-19	5-31-19	

<b>Client ID:</b>	<b>MW-27:W</b>					
Laboratory ID:	05-331-05					
Ammonia	<b>ND</b>	0.050	SM 4500-NH <sub>3</sub> D	5-31-19	5-31-19	



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**AMMONIA (as Nitrogen)  
 SM 4500-NH<sub>3</sub> D  
 QUALITY CONTROL**

Matrix: Water  
 Units: mg NH<sub>3</sub>-N/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>METHOD BLANK</b>						
Laboratory ID:	MB0531W1					
Ammonia	<b>ND</b>	0.050	SM 4500-NH <sub>3</sub> D	5-31-19	5-31-19	

Analyte	Result	Spike Level	Source Result	Percent Recovery	Recovery Limits	RPD	RPD Limit	Flags
<b>DUPLICATE</b>								
Laboratory ID:	05-331-02							
	ORIG	DUP						
Ammonia	<b>ND</b>	<b>ND</b>	NA	NA	NA	NA	12	

<b>MATRIX SPIKE</b>								
Laboratory ID:	05-331-02							
	MS	MS		MS				
Ammonia	<b>4.82</b>	5.00	ND	96	75-121	NA	NA	

<b>SPIKE BLANK</b>								
Laboratory ID:	SB0531W1							
	SB	SB		SB				
Ammonia	<b>4.58</b>	5.00	NA	92	85-110	NA	NA	



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**DISSOLVED IRON  
 EPA 6010D**

Matrix: Water  
 Units: ug/L (ppb)

<b>Analyte</b>	<b>Result</b>	<b>PQL</b>	<b>Method</b>	<b>Date Prepared</b>	<b>Date Analyzed</b>	<b>Flags</b>
<b>Client ID:</b>	<b>MW-21:W</b>					
Laboratory ID:	05-331-01					
Iron	<b>ND</b>	56	EPA 6010D	5-24-19	5-29-19	
<b>Client ID:</b>	<b>MW-12:W</b>					
Laboratory ID:	05-331-02					
Iron	<b>530</b>	56	EPA 6010D	5-24-19	5-29-19	
<b>Client ID:</b>	<b>MW-7:W</b>					
Laboratory ID:	05-331-03					
Iron	<b>3900</b>	56	EPA 6010D	5-24-19	5-29-19	
<b>Client ID:</b>	<b>MW-28:W</b>					
Laboratory ID:	05-331-04					
Iron	<b>ND</b>	56	EPA 6010D	5-24-19	5-29-19	
<b>Client ID:</b>	<b>MW-27:W</b>					
Laboratory ID:	05-331-05					
Iron	<b>ND</b>	56	EPA 6010D	5-24-19	5-29-19	



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**DISSOLVED IRON  
 EPA 6010D  
 QUALITY CONTROL**

Matrix: Water  
 Units: ug/L (ppb)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>METHOD BLANK</b>						
Laboratory ID:	MB0524F1					
Iron	<b>ND</b>	56	EPA 6010D	5-24-19	5-29-19	

Analyte	Result	Spike Level	Source Result	Percent Recovery	Recovery Limits	RPD	RPD Limit	Flags
<b>DUPLICATE</b>								
Laboratory ID:	05-331-02							
	ORIG	DUP						
Iron	<b>528</b>	<b>507</b>	NA	NA	NA	4	20	

**MATRIX SPIKES**

Laboratory ID:	MS	MSD	MS	MSD	MS	MSD	RPD	RPD Limit	Flags	
Laboratory ID:	05-331-02									
	MS	MSD	MS	MSD	MS	MSD				
Iron	<b>20900</b>	<b>20800</b>	22200	22200	528	<b>92</b>	<b>91</b>	75-125	0	20





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**CHLORIDE**  
**SM 4500-Cl E**

Matrix: Water  
 Units: mg/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>Client ID:</b>	<b>MW-21:W</b>					
Laboratory ID:	05-331-01					
Chloride	<b>3.7</b>	2.0	SM 4500-Cl E	5-29-19	5-29-19	

<b>Client ID:</b>	<b>MW-12:W</b>					
Laboratory ID:	05-331-02					
Chloride	<b>9.5</b>	2.0	SM 4500-Cl E	5-29-19	5-29-19	

<b>Client ID:</b>	<b>MW-7:W</b>					
Laboratory ID:	05-331-03					
Chloride	<b>6.1</b>	2.0	SM 4500-Cl E	5-29-19	5-29-19	

<b>Client ID:</b>	<b>MW-28:W</b>					
Laboratory ID:	05-331-04					
Chloride	<b>6.2</b>	2.0	SM 4500-Cl E	5-29-19	5-29-19	

<b>Client ID:</b>	<b>MW-27:W</b>					
Laboratory ID:	05-331-05					
Chloride	<b>4.7</b>	2.0	SM 4500-Cl E	5-29-19	5-29-19	



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**CHLORIDE  
 SM 4500-Cl E  
 QUALITY CONTROL**

Matrix: Water  
 Units: mg/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>METHOD BLANK</b>						
Laboratory ID:	MB0529W1					
Chloride	<b>ND</b>	2.0	SM 4500-Cl E	5-29-19	5-29-19	

Analyte	Result	Spike Level	Source Result	Percent Recovery	Recovery Limits	RPD	RPD Limit	Flags
<b>DUPLICATE</b>								
Laboratory ID:	05-331-02							
	ORIG	DUP						
Chloride	<b>9.48</b>	<b>9.06</b>	NA	NA	NA	5	17	

<b>MATRIX SPIKE</b>								
Laboratory ID:	05-331-02							
	MS	MS		MS				
Chloride	<b>56.8</b>	50.0	9.48	95	80-116	NA	NA	

<b>SPIKE BLANK</b>								
Laboratory ID:	SB0529W1							
	SB	SB		SB				
Chloride	<b>50.2</b>	50.0	NA	100	90-110	NA	NA	



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**SULFATE**  
**ASTM D516-11**

Matrix: Water  
 Units: mg/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>Client ID:</b>	<b>MW-21:W</b>					
Laboratory ID:	05-331-01					
Sulfate	<b>12</b>	5.0	ASTM D516-11	5-28-19	5-28-19	

<b>Client ID:</b>	<b>MW-12:W</b>					
Laboratory ID:	05-331-02					
Sulfate	<b>24</b>	5.0	ASTM D516-11	5-28-19	5-28-19	

<b>Client ID:</b>	<b>MW-7:W</b>					
Laboratory ID:	05-331-03					
Sulfate	<b>37</b>	10	ASTM D516-11	5-28-19	5-28-19	

<b>Client ID:</b>	<b>MW-28:W</b>					
Laboratory ID:	05-331-04					
Sulfate	<b>9.5</b>	5.0	ASTM D516-11	5-28-19	5-28-19	

<b>Client ID:</b>	<b>MW-27:W</b>					
Laboratory ID:	05-331-05					
Sulfate	<b>24</b>	5.0	ASTM D516-11	5-28-19	5-28-19	



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**SULFATE  
 ASTM D516-11  
 QUALITY CONTROL**

Matrix: Water  
 Units: mg/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>METHOD BLANK</b>						
Laboratory ID:	MB0528W1					
Sulfate	<b>ND</b>	5.0	ASTM D516-11	5-28-19	5-28-19	

Analyte	Result	Spike Level	Source Result	Percent Recovery	Recovery Limits	RPD	RPD Limit	Flags
<b>DUPLICATE</b>								
Laboratory ID:	05-331-02							
	ORIG	DUP						
Sulfate	<b>23.7</b>	<b>25.1</b>	NA	NA	NA	6	10	

<b>MATRIX SPIKE</b>								
Laboratory ID:	05-331-02							
	MS	MS		MS				
Sulfate	<b>48.5</b>	20.0	23.7	124	73-134	NA	NA	

<b>SPIKE BLANK</b>								
Laboratory ID:	SB0528W1							
	SB	SB		SB				
Sulfate	<b>8.99</b>	10.0	NA	90	89-113	NA	NA	



Date of Report: June 4, 2019  
 Samples Submitted: May 24, 2019  
 Laboratory Reference: 1905-331  
 Project: 82302-9.4

**TOTAL ORGANIC CARBON  
 SM 5310B**

Matrix: Water  
 Units: mg/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>Client ID:</b>	<b>MW-21:W</b>					
Laboratory ID:	05-331-01					
Total Organic Carbon	<b>ND</b>	1.0	SM 5310B	5-30-19	5-30-19	
<b>Client ID:</b>	<b>MW-12:W</b>					
Laboratory ID:	05-331-02					
Total Organic Carbon	<b>2.5</b>	1.0	SM 5310B	5-30-19	5-30-19	
<b>Client ID:</b>	<b>MW-7:W</b>					
Laboratory ID:	05-331-03					
Total Organic Carbon	<b>2.3</b>	1.0	SM 5310B	5-30-19	5-30-19	
<b>Client ID:</b>	<b>MW-28:W</b>					
Laboratory ID:	05-331-04					
Total Organic Carbon	<b>ND</b>	1.0	SM 5310B	5-30-19	5-30-19	
<b>Client ID:</b>	<b>MW-27:W</b>					
Laboratory ID:	05-331-05					
Total Organic Carbon	<b>ND</b>	1.0	SM 5310B	5-30-19	5-30-19	



Date of Report: June 4, 2019  
 Samples Submitted: May 24, 2019  
 Laboratory Reference: 1905-331  
 Project: 82302-9.4

**TOTAL ORGANIC CARBON  
 SM 5310B  
 QUALITY CONTROL**

Matrix: Water  
 Units: mg/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>METHOD BLANK</b>						
Laboratory ID:	MB0530W1					
Total Organic Carbon	<b>ND</b>	1.0	SM 5310B	5-30-19	5-30-19	

Analyte	Result	Spike Level	Source Result	Percent Recovery	Recovery Limits	RPD	RPD Limit	Flags
<b>DUPLICATE</b>								
Laboratory ID:	05-331-02							
	ORIG	DUP						
Total Organic Carbon	<b>2.46</b>	<b>2.59</b>	NA	NA	NA	NA	5	20

**MATRIX SPIKE**

Laboratory ID:	05-331-02							
	MS	MS		MS				
Total Organic Carbon	<b>13.5</b>		10.0	2.46	110	85-131	NA	NA

**SPIKE BLANK**

Laboratory ID:	SB0530W1							
	SB	SB		SB				
Total Organic Carbon	<b>11.1</b>		10.0	NA	111	88-127	NA	NA





### Data Qualifiers and Abbreviations

- A - Due to a high sample concentration, the amount spiked is insufficient for meaningful MS/MSD recovery data.
  - B - The analyte indicated was also found in the blank sample.
  - C - The duplicate RPD is outside control limits due to high result variability when analyte concentrations are within five times the quantitation limit.
  - E - The value reported exceeds the quantitation range and is an estimate.
  - F - Surrogate recovery data is not available due to the high concentration of coeluting target compounds.
  - H - The analyte indicated is a common laboratory solvent and may have been introduced during sample preparation, and be impacting the sample result.
  - I - Compound recovery is outside of the control limits.
  - J - The value reported was below the practical quantitation limit. The value is an estimate.
  - K - Sample duplicate RPD is outside control limits due to sample inhomogeneity. The sample was re-extracted and re-analyzed with similar results.
  - L - The RPD is outside of the control limits.
  - M - Hydrocarbons in the gasoline range are impacting the diesel range result.
  - M1 - Hydrocarbons in the gasoline range (toluene-naphthalene) are present in the sample.
  - N - Hydrocarbons in the lube oil range are impacting the diesel range result.
  - N1 - Hydrocarbons in diesel range are impacting lube oil range results.
  - O - Hydrocarbons indicative of heavier fuels are present in the sample and are impacting the gasoline result.
  - P - The RPD of the detected concentrations between the two columns is greater than 40.
  - Q - Surrogate recovery is outside of the control limits.
  - S - Surrogate recovery data is not available due to the necessary dilution of the sample.
  - T - The sample chromatogram is not similar to a typical \_\_\_\_\_.
  - U - The analyte was analyzed for, but was not detected above the reported sample quantitation limit.
  - U1 - The practical quantitation limit is elevated due to interferences present in the sample.
  - V - Matrix Spike/Matrix Spike Duplicate recoveries are outside control limits due to matrix effects.
  - W - Matrix Spike/Matrix Spike Duplicate RPD are outside control limits due to matrix effects.
  - X - Sample extract treated with a mercury cleanup procedure.
  - X1 - Sample extract treated with a sulfuric acid/silica gel cleanup procedure.
  - Y - The calibration verification for this analyte exceeded the 20% drift specified in method 8260C, and therefore the reported result should be considered an estimate. The overall performance of the calibration verification standard met the acceptance criteria of the method.
  - Z -
- ND - Not Detected at PQL  
 PQL - Practical Quantitation Limit  
 RPD - Relative Percent Difference





**OnSite Environmental Inc.**  
Analytical Laboratory Testing Services  
14648 NE 95th Street • Redmond, WA 98052  
Phone: (425) 883-3881 • www.onsite-env.com

# Chain of Custody

**Turnaround Request**  
(In working days)  
(Check One)

- Same Day     1 Day  
 2 Days     3 Days  
 Standard (7 Days)  
 \_\_\_\_\_ (other)

**Laboratory Number: 05-331**

Company: **KANE ENVIRONMENTAL**  
 Project Number: **82302-9.4**  
 Project Name: **BOTHELL SERVICE CENTER**  
 Project Manager: **JEFF JENSEN**  
 Sampled by: **Bella Graves & Emmy Kane**

Lab ID    Sample Identification    Date Sampled    Time Sampled    Matrix

1	MN-21:W	5/24	1008	GW	10
2	MN-12:W	5/24	1135	GW	10
3	MN-7:W	5/24	1150	GW	10
4	MN-28:W	5/24	1315	GW	10
5	MN-27:W	5/24	1258	GW	10

Number of Containers		Laboratory Number: 05-331																				
		NWTPH-HCID																				
		NWTPH-Gx/BTEX																				
		NWTPH-Gx																				
		NWTPH-Dx ( <input type="checkbox"/> Acid / SG Clean-up)																				
		Volatiles 8260C																				
		Halogenated Volatiles 8260C						X	X	X												
		EDB EPA 8011 (Waters Only)																				
		Semivolatiles 8270D/SIM (with low-level PAHs)																				
		PAHs 8270D/SIM (low-level)																				
		PCBs 8082A																				
		Organochlorine Pesticides 8081B																				
		Organophosphorus Pesticides 8270D/SIM																				
		Chlorinated Acid Herbicides 8151A																				
		Total RCRA Metals																				
		Total MTCA Metals																				
		TCLP Metals						X	X	X												
		HEM (oil and grease) 1664A																				
		ammonia-N						X	X	X												
		dissolved Fe						X	X	X												
		chloride						X	X	X												
		sulfate						X	X	X												
		% Moisture						X	X	X												
		TDC						X	X	X												

*[Large handwritten signature/initials across the table]*

Received/Date	Signature	Company	Date	Time	Comments/Special Instructions
Received	<i>[Signature]</i>	KANE ENVIRONMENTAL	5/24	1414	RSV = methane, Ethane, Ethene lab filter
Relinquished	<i>[Signature]</i>	OSE	5/24	1414	MN-12:W → EXTRA VOLUME FOR ANALOC (10x 40ml HCl vials)
Received					
Relinquished					
Received					
Relinquished					
Received/Date					

Data Package: Standard  Level III  Level IV   
 Chromatograms with final report  Electronic Data Deliverables (EDDs)





14648 NE 95<sup>th</sup> Street, Redmond, WA 98052 • (425) 883-3881

June 11, 2019

Jeff Jensen  
Kane Environmental, Inc.  
4015 13th Avenue West  
Seattle, WA 98119

Re: Analytical Data for Project 82302-9.4  
Laboratory Reference No. 1905-364

Dear Jeff:

Enclosed are the analytical results and associated quality control data for samples submitted on May 29, 2019.

The standard policy of OnSite Environmental, Inc. is to store your samples for 30 days from the date of receipt. If you require longer storage, please contact the laboratory.

We appreciate the opportunity to be of service to you on this project. If you have any questions concerning the data, or need additional information, please feel free to call me.

Sincerely,

A handwritten signature in black ink, appearing to read "DB", with a long horizontal flourish extending to the right.

David Baumeister  
Project Manager

Enclosures



---

OnSite Environmental, Inc. 14648 NE 95<sup>th</sup> Street, Redmond, WA 98052 (425) 883-3881

This report pertains to the samples analyzed in accordance with the chain of custody, and is intended only for the use of the individual or company to whom it is addressed.

Date of Report: June 11, 2019  
Samples Submitted: May 29, 2019  
Laboratory Reference: 1905-364  
Project: 82302-9.4

### Case Narrative

Samples were collected on May 29, 2019 and received by the laboratory on May 29, 2019. They were maintained at the laboratory at a temperature of 2°C to 6°C.

Please note that any and all soil sample results are reported on a dry-weight basis, unless otherwise noted below.

General QA/QC issues associated with the analytical data enclosed in this laboratory report will be indicated with a reference to a comment or explanation on the Data Qualifier page. More complex and involved QA/QC issues will be discussed in detail below.

#### Dissolved Gases RSK 175 Analysis:

The spike blank duplicate on 6-4-19 had one low recovery for ethane. Because of the low recovery, sample MW-40:W which had a detection for ethane was re-run on 6-7-19. All QC for the spike blank/spike blank duplicate on this date was within control limits.

Any other QA/QC issues associated with this extraction and analysis will be indicated with a footnote reference and discussed in detail on the Data Qualifier page.



Date of Report: June 11, 2019  
 Samples Submitted: May 29, 2019  
 Laboratory Reference: 1905-364  
 Project: 82302-9.4

**VOLATILE ORGANICS EPA 8260C**  
 page 1 of 2

Matrix: Water  
 Units: ug/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>Client ID:</b>	<b>MW-39:W</b>					
Laboratory ID:	05-364-01					
Dichlorodifluoromethane	ND	0.20	EPA 8260C	5-30-19	5-30-19	
Chloromethane	ND	1.0	EPA 8260C	5-30-19	5-30-19	
Vinyl Chloride	ND	0.20	EPA 8260C	5-30-19	5-30-19	
Bromomethane	ND	0.30	EPA 8260C	5-30-19	5-30-19	
Chloroethane	ND	1.0	EPA 8260C	5-30-19	5-30-19	
Trichlorofluoromethane	ND	0.20	EPA 8260C	5-30-19	5-30-19	
1,1-Dichloroethene	ND	0.20	EPA 8260C	5-30-19	5-30-19	
Iodomethane	ND	2.8	EPA 8260C	5-30-19	5-30-19	
Methylene Chloride	ND	1.0	EPA 8260C	5-30-19	5-30-19	
(trans) 1,2-Dichloroethene	ND	0.20	EPA 8260C	5-30-19	5-30-19	
1,1-Dichloroethane	ND	0.20	EPA 8260C	5-30-19	5-30-19	
2,2-Dichloropropane	ND	0.20	EPA 8260C	5-30-19	5-30-19	
(cis) 1,2-Dichloroethene	1.2	0.20	EPA 8260C	5-30-19	5-30-19	
Bromochloromethane	ND	0.20	EPA 8260C	5-30-19	5-30-19	
Chloroform	ND	0.20	EPA 8260C	5-30-19	5-30-19	
1,1,1-Trichloroethane	ND	0.20	EPA 8260C	5-30-19	5-30-19	
Carbon Tetrachloride	ND	0.20	EPA 8260C	5-30-19	5-30-19	
1,1-Dichloropropene	ND	0.20	EPA 8260C	5-30-19	5-30-19	
1,2-Dichloroethane	ND	0.20	EPA 8260C	5-30-19	5-30-19	
Trichloroethene	0.34	0.20	EPA 8260C	5-30-19	5-30-19	
1,2-Dichloropropane	ND	0.20	EPA 8260C	5-30-19	5-30-19	
Dibromomethane	ND	0.20	EPA 8260C	5-30-19	5-30-19	
Bromodichloromethane	ND	0.20	EPA 8260C	5-30-19	5-30-19	
2-Chloroethyl Vinyl Ether	ND	1.0	EPA 8260C	5-30-19	5-30-19	
(cis) 1,3-Dichloropropene	ND	0.20	EPA 8260C	5-30-19	5-30-19	
(trans) 1,3-Dichloropropene	ND	0.20	EPA 8260C	5-30-19	5-30-19	



Date of Report: June 11, 2019  
 Samples Submitted: May 29, 2019  
 Laboratory Reference: 1905-364  
 Project: 82302-9.4

**VOLATILE ORGANICS EPA 8260C**  
 page 2 of 2

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>Client ID:</b>	<b>MW-39:W</b>					
<b>Laboratory ID:</b>	<b>05-364-01</b>					
1,1,2-Trichloroethane	ND	0.20	EPA 8260C	5-30-19	5-30-19	
Tetrachloroethene	0.33	0.20	EPA 8260C	5-30-19	5-30-19	
1,3-Dichloropropane	ND	0.20	EPA 8260C	5-30-19	5-30-19	
Dibromochloromethane	ND	0.20	EPA 8260C	5-30-19	5-30-19	
1,2-Dibromoethane	ND	0.20	EPA 8260C	5-30-19	5-30-19	
Chlorobenzene	ND	0.20	EPA 8260C	5-30-19	5-30-19	
1,1,1,2-Tetrachloroethane	ND	0.20	EPA 8260C	5-30-19	5-30-19	
Bromoform	ND	1.0	EPA 8260C	5-30-19	5-30-19	
Bromobenzene	ND	0.20	EPA 8260C	5-30-19	5-30-19	
1,1,2,2-Tetrachloroethane	ND	0.20	EPA 8260C	5-30-19	5-30-19	
1,2,3-Trichloropropane	ND	0.20	EPA 8260C	5-30-19	5-30-19	
2-Chlorotoluene	ND	0.20	EPA 8260C	5-30-19	5-30-19	
4-Chlorotoluene	ND	0.20	EPA 8260C	5-30-19	5-30-19	
1,3-Dichlorobenzene	ND	0.20	EPA 8260C	5-30-19	5-30-19	
1,4-Dichlorobenzene	ND	0.20	EPA 8260C	5-30-19	5-30-19	
1,2-Dichlorobenzene	ND	0.20	EPA 8260C	5-30-19	5-30-19	
1,2-Dibromo-3-chloropropane	ND	1.0	EPA 8260C	5-30-19	5-30-19	
1,2,4-Trichlorobenzene	ND	0.20	EPA 8260C	5-30-19	5-30-19	
Hexachlorobutadiene	ND	1.0	EPA 8260C	5-30-19	5-30-19	
1,2,3-Trichlorobenzene	ND	0.20	EPA 8260C	5-30-19	5-30-19	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Dibromofluoromethane</i>	<i>97</i>	<i>75-127</i>				
<i>Toluene-d8</i>	<i>98</i>	<i>80-127</i>				
<i>4-Bromofluorobenzene</i>	<i>95</i>	<i>78-125</i>				



Date of Report: June 11, 2019  
 Samples Submitted: May 29, 2019  
 Laboratory Reference: 1905-364  
 Project: 82302-9.4

**VOLATILE ORGANICS EPA 8260C**  
 page 1 of 2

Matrix: Water  
 Units: ug/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>Client ID:</b>	<b>MW-40:W</b>					
Laboratory ID:	05-364-02					
Dichlorodifluoromethane	ND	20	EPA 8260C	5-30-19	5-30-19	
Chloromethane	ND	100	EPA 8260C	5-30-19	5-30-19	
Vinyl Chloride	ND	20	EPA 8260C	5-30-19	5-30-19	
Bromomethane	ND	30	EPA 8260C	5-30-19	5-30-19	
Chloroethane	ND	100	EPA 8260C	5-30-19	5-30-19	
Trichlorofluoromethane	ND	20	EPA 8260C	5-30-19	5-30-19	
1,1-Dichloroethene	ND	20	EPA 8260C	5-30-19	5-30-19	
Iodomethane	ND	280	EPA 8260C	5-30-19	5-30-19	
Methylene Chloride	ND	100	EPA 8260C	5-30-19	5-30-19	
(trans) 1,2-Dichloroethene	ND	20	EPA 8260C	5-30-19	5-30-19	
1,1-Dichloroethane	ND	20	EPA 8260C	5-30-19	5-30-19	
2,2-Dichloropropane	ND	20	EPA 8260C	5-30-19	5-30-19	
(cis) 1,2-Dichloroethene	4300	20	EPA 8260C	5-30-19	5-30-19	
Bromochloromethane	ND	20	EPA 8260C	5-30-19	5-30-19	
Chloroform	ND	20	EPA 8260C	5-30-19	5-30-19	
1,1,1-Trichloroethane	ND	20	EPA 8260C	5-30-19	5-30-19	
Carbon Tetrachloride	ND	20	EPA 8260C	5-30-19	5-30-19	
1,1-Dichloropropene	ND	20	EPA 8260C	5-30-19	5-30-19	
1,2-Dichloroethane	ND	20	EPA 8260C	5-30-19	5-30-19	
Trichloroethene	600	20	EPA 8260C	5-30-19	5-30-19	
1,2-Dichloropropane	ND	20	EPA 8260C	5-30-19	5-30-19	
Dibromomethane	ND	20	EPA 8260C	5-30-19	5-30-19	
Bromodichloromethane	ND	20	EPA 8260C	5-30-19	5-30-19	
2-Chloroethyl Vinyl Ether	ND	100	EPA 8260C	5-30-19	5-30-19	
(cis) 1,3-Dichloropropene	ND	20	EPA 8260C	5-30-19	5-30-19	
(trans) 1,3-Dichloropropene	ND	20	EPA 8260C	5-30-19	5-30-19	



Date of Report: June 11, 2019  
 Samples Submitted: May 29, 2019  
 Laboratory Reference: 1905-364  
 Project: 82302-9.4

**VOLATILE ORGANICS EPA 8260C**  
 page 2 of 2

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>Client ID:</b>	<b>MW-40:W</b>					
<b>Laboratory ID:</b>	<b>05-364-02</b>					
1,1,2-Trichloroethane	ND	20	EPA 8260C	5-30-19	5-30-19	
Tetrachloroethene	560	20	EPA 8260C	5-30-19	5-30-19	
1,3-Dichloropropane	ND	20	EPA 8260C	5-30-19	5-30-19	
Dibromochloromethane	ND	20	EPA 8260C	5-30-19	5-30-19	
1,2-Dibromoethane	ND	20	EPA 8260C	5-30-19	5-30-19	
Chlorobenzene	ND	20	EPA 8260C	5-30-19	5-30-19	
1,1,1,2-Tetrachloroethane	ND	20	EPA 8260C	5-30-19	5-30-19	
Bromoform	ND	100	EPA 8260C	5-30-19	5-30-19	
Bromobenzene	ND	20	EPA 8260C	5-30-19	5-30-19	
1,1,1,2,2-Tetrachloroethane	ND	20	EPA 8260C	5-30-19	5-30-19	
1,2,3-Trichloropropane	ND	20	EPA 8260C	5-30-19	5-30-19	
2-Chlorotoluene	ND	20	EPA 8260C	5-30-19	5-30-19	
4-Chlorotoluene	ND	20	EPA 8260C	5-30-19	5-30-19	
1,3-Dichlorobenzene	ND	20	EPA 8260C	5-30-19	5-30-19	
1,4-Dichlorobenzene	ND	20	EPA 8260C	5-30-19	5-30-19	
1,2-Dichlorobenzene	ND	20	EPA 8260C	5-30-19	5-30-19	
1,2-Dibromo-3-chloropropane	ND	100	EPA 8260C	5-30-19	5-30-19	
1,2,4-Trichlorobenzene	ND	20	EPA 8260C	5-30-19	5-30-19	
Hexachlorobutadiene	ND	100	EPA 8260C	5-30-19	5-30-19	
1,2,3-Trichlorobenzene	ND	20	EPA 8260C	5-30-19	5-30-19	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Dibromofluoromethane</i>	<i>95</i>	<i>75-127</i>				
<i>Toluene-d8</i>	<i>98</i>	<i>80-127</i>				
<i>4-Bromofluorobenzene</i>	<i>94</i>	<i>78-125</i>				



Date of Report: June 11, 2019  
 Samples Submitted: May 29, 2019  
 Laboratory Reference: 1905-364  
 Project: 82302-9.4

**VOLATILE ORGANICS EPA 8260C**  
 page 1 of 2

Matrix: Water  
 Units: ug/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>Client ID:</b>	<b>HZ-MW:-31:W</b>					
Laboratory ID:	05-364-03					
Dichlorodifluoromethane	ND	0.20	EPA 8260C	5-30-19	5-30-19	
Chloromethane	ND	1.0	EPA 8260C	5-30-19	5-30-19	
Vinyl Chloride	ND	0.20	EPA 8260C	5-30-19	5-30-19	
Bromomethane	ND	0.30	EPA 8260C	5-30-19	5-30-19	
Chloroethane	ND	1.0	EPA 8260C	5-30-19	5-30-19	
Trichlorofluoromethane	ND	0.20	EPA 8260C	5-30-19	5-30-19	
1,1-Dichloroethene	ND	0.20	EPA 8260C	5-30-19	5-30-19	
Iodomethane	ND	2.8	EPA 8260C	5-30-19	5-30-19	
Methylene Chloride	ND	1.0	EPA 8260C	5-30-19	5-30-19	
(trans) 1,2-Dichloroethene	ND	0.20	EPA 8260C	5-30-19	5-30-19	
1,1-Dichloroethane	ND	0.20	EPA 8260C	5-30-19	5-30-19	
2,2-Dichloropropane	ND	0.20	EPA 8260C	5-30-19	5-30-19	
(cis) 1,2-Dichloroethene	ND	0.20	EPA 8260C	5-30-19	5-30-19	
Bromochloromethane	ND	0.20	EPA 8260C	5-30-19	5-30-19	
Chloroform	ND	0.20	EPA 8260C	5-30-19	5-30-19	
1,1,1-Trichloroethane	ND	0.20	EPA 8260C	5-30-19	5-30-19	
Carbon Tetrachloride	ND	0.20	EPA 8260C	5-30-19	5-30-19	
1,1-Dichloropropene	ND	0.20	EPA 8260C	5-30-19	5-30-19	
1,2-Dichloroethane	ND	0.20	EPA 8260C	5-30-19	5-30-19	
Trichloroethene	ND	0.20	EPA 8260C	5-30-19	5-30-19	
1,2-Dichloropropane	ND	0.20	EPA 8260C	5-30-19	5-30-19	
Dibromomethane	ND	0.20	EPA 8260C	5-30-19	5-30-19	
Bromodichloromethane	ND	0.20	EPA 8260C	5-30-19	5-30-19	
2-Chloroethyl Vinyl Ether	ND	1.0	EPA 8260C	5-30-19	5-30-19	
(cis) 1,3-Dichloropropene	ND	0.20	EPA 8260C	5-30-19	5-30-19	
(trans) 1,3-Dichloropropene	ND	0.20	EPA 8260C	5-30-19	5-30-19	



Date of Report: June 11, 2019  
 Samples Submitted: May 29, 2019  
 Laboratory Reference: 1905-364  
 Project: 82302-9.4

**VOLATILE ORGANICS EPA 8260C**  
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Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>Client ID:</b>	<b>HZ-MW--31:W</b>					
<b>Laboratory ID:</b>	<b>05-364-03</b>					
1,1,2-Trichloroethane	ND	0.20	EPA 8260C	5-30-19	5-30-19	
Tetrachloroethene	0.78	0.20	EPA 8260C	5-30-19	5-30-19	
1,3-Dichloropropane	ND	0.20	EPA 8260C	5-30-19	5-30-19	
Dibromochloromethane	ND	0.20	EPA 8260C	5-30-19	5-30-19	
1,2-Dibromoethane	ND	0.20	EPA 8260C	5-30-19	5-30-19	
Chlorobenzene	ND	0.20	EPA 8260C	5-30-19	5-30-19	
1,1,1,2-Tetrachloroethane	ND	0.20	EPA 8260C	5-30-19	5-30-19	
Bromoform	ND	1.0	EPA 8260C	5-30-19	5-30-19	
Bromobenzene	ND	0.20	EPA 8260C	5-30-19	5-30-19	
1,1,2,2-Tetrachloroethane	ND	0.20	EPA 8260C	5-30-19	5-30-19	
1,2,3-Trichloropropane	ND	0.20	EPA 8260C	5-30-19	5-30-19	
2-Chlorotoluene	ND	0.20	EPA 8260C	5-30-19	5-30-19	
4-Chlorotoluene	ND	0.20	EPA 8260C	5-30-19	5-30-19	
1,3-Dichlorobenzene	ND	0.20	EPA 8260C	5-30-19	5-30-19	
1,4-Dichlorobenzene	ND	0.20	EPA 8260C	5-30-19	5-30-19	
1,2-Dichlorobenzene	ND	0.20	EPA 8260C	5-30-19	5-30-19	
1,2-Dibromo-3-chloropropane	ND	1.0	EPA 8260C	5-30-19	5-30-19	
1,2,4-Trichlorobenzene	ND	0.20	EPA 8260C	5-30-19	5-30-19	
Hexachlorobutadiene	ND	1.0	EPA 8260C	5-30-19	5-30-19	
1,2,3-Trichlorobenzene	ND	0.20	EPA 8260C	5-30-19	5-30-19	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Dibromofluoromethane</i>	<i>100</i>	<i>75-127</i>				
<i>Toluene-d8</i>	<i>98</i>	<i>80-127</i>				
<i>4-Bromofluorobenzene</i>	<i>95</i>	<i>78-125</i>				





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 Project: 82302-9.4

**VOLATILE ORGANICS EPA 8260C**  
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Matrix: Water  
 Units: ug/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>Client ID:</b>	<b>HZ-MW:-30:W</b>					
Laboratory ID:	05-364-04					
Dichlorodifluoromethane	ND	0.20	EPA 8260C	5-30-19	5-30-19	
Chloromethane	ND	1.0	EPA 8260C	5-30-19	5-30-19	
Vinyl Chloride	ND	0.20	EPA 8260C	5-30-19	5-30-19	
Bromomethane	ND	0.30	EPA 8260C	5-30-19	5-30-19	
Chloroethane	ND	1.0	EPA 8260C	5-30-19	5-30-19	
Trichlorofluoromethane	ND	0.20	EPA 8260C	5-30-19	5-30-19	
1,1-Dichloroethene	ND	0.20	EPA 8260C	5-30-19	5-30-19	
Iodomethane	ND	2.8	EPA 8260C	5-30-19	5-30-19	
Methylene Chloride	ND	1.0	EPA 8260C	5-30-19	5-30-19	
(trans) 1,2-Dichloroethene	ND	0.20	EPA 8260C	5-30-19	5-30-19	
1,1-Dichloroethane	ND	0.20	EPA 8260C	5-30-19	5-30-19	
2,2-Dichloropropane	ND	0.20	EPA 8260C	5-30-19	5-30-19	
(cis) 1,2-Dichloroethene	ND	0.20	EPA 8260C	5-30-19	5-30-19	
Bromochloromethane	ND	0.20	EPA 8260C	5-30-19	5-30-19	
Chloroform	ND	0.20	EPA 8260C	5-30-19	5-30-19	
1,1,1-Trichloroethane	ND	0.20	EPA 8260C	5-30-19	5-30-19	
Carbon Tetrachloride	ND	0.20	EPA 8260C	5-30-19	5-30-19	
1,1-Dichloropropene	ND	0.20	EPA 8260C	5-30-19	5-30-19	
1,2-Dichloroethane	ND	0.20	EPA 8260C	5-30-19	5-30-19	
Trichloroethene	ND	0.20	EPA 8260C	5-30-19	5-30-19	
1,2-Dichloropropane	ND	0.20	EPA 8260C	5-30-19	5-30-19	
Dibromomethane	ND	0.20	EPA 8260C	5-30-19	5-30-19	
Bromodichloromethane	ND	0.20	EPA 8260C	5-30-19	5-30-19	
2-Chloroethyl Vinyl Ether	ND	1.0	EPA 8260C	5-30-19	5-30-19	
(cis) 1,3-Dichloropropene	ND	0.20	EPA 8260C	5-30-19	5-30-19	
(trans) 1,3-Dichloropropene	ND	0.20	EPA 8260C	5-30-19	5-30-19	



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**VOLATILE ORGANICS EPA 8260C**  
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Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>Client ID:</b>	<b>HZ-MW--30:W</b>					
<b>Laboratory ID:</b>	<b>05-364-04</b>					
1,1,2-Trichloroethane	ND	0.20	EPA 8260C	5-30-19	5-30-19	
Tetrachloroethene	ND	0.20	EPA 8260C	5-30-19	5-30-19	
1,3-Dichloropropane	ND	0.20	EPA 8260C	5-30-19	5-30-19	
Dibromochloromethane	ND	0.20	EPA 8260C	5-30-19	5-30-19	
1,2-Dibromoethane	ND	0.20	EPA 8260C	5-30-19	5-30-19	
Chlorobenzene	ND	0.20	EPA 8260C	5-30-19	5-30-19	
1,1,1,2-Tetrachloroethane	ND	0.20	EPA 8260C	5-30-19	5-30-19	
Bromoform	ND	1.0	EPA 8260C	5-30-19	5-30-19	
Bromobenzene	ND	0.20	EPA 8260C	5-30-19	5-30-19	
1,1,2,2-Tetrachloroethane	ND	0.20	EPA 8260C	5-30-19	5-30-19	
1,2,3-Trichloropropane	ND	0.20	EPA 8260C	5-30-19	5-30-19	
2-Chlorotoluene	ND	0.20	EPA 8260C	5-30-19	5-30-19	
4-Chlorotoluene	ND	0.20	EPA 8260C	5-30-19	5-30-19	
1,3-Dichlorobenzene	ND	0.20	EPA 8260C	5-30-19	5-30-19	
1,4-Dichlorobenzene	ND	0.20	EPA 8260C	5-30-19	5-30-19	
1,2-Dichlorobenzene	ND	0.20	EPA 8260C	5-30-19	5-30-19	
1,2-Dibromo-3-chloropropane	ND	1.0	EPA 8260C	5-30-19	5-30-19	
1,2,4-Trichlorobenzene	ND	0.20	EPA 8260C	5-30-19	5-30-19	
Hexachlorobutadiene	ND	1.0	EPA 8260C	5-30-19	5-30-19	
1,2,3-Trichlorobenzene	ND	0.20	EPA 8260C	5-30-19	5-30-19	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Dibromofluoromethane</i>	<i>100</i>	<i>75-127</i>				
<i>Toluene-d8</i>	<i>98</i>	<i>80-127</i>				
<i>4-Bromofluorobenzene</i>	<i>97</i>	<i>78-125</i>				



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**VOLATILE ORGANICS EPA 8260C**  
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Matrix: Water  
 Units: ug/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>Client ID:</b>	<b>HZ-MW:-32:W</b>					
Laboratory ID:	05-364-05					
Dichlorodifluoromethane	ND	0.20	EPA 8260C	5-30-19	5-30-19	
Chloromethane	ND	1.0	EPA 8260C	5-30-19	5-30-19	
Vinyl Chloride	ND	0.20	EPA 8260C	5-30-19	5-30-19	
Bromomethane	ND	0.30	EPA 8260C	5-30-19	5-30-19	
Chloroethane	ND	1.0	EPA 8260C	5-30-19	5-30-19	
Trichlorofluoromethane	ND	0.20	EPA 8260C	5-30-19	5-30-19	
1,1-Dichloroethene	ND	0.20	EPA 8260C	5-30-19	5-30-19	
Iodomethane	ND	2.8	EPA 8260C	5-30-19	5-30-19	
Methylene Chloride	ND	1.0	EPA 8260C	5-30-19	5-30-19	
(trans) 1,2-Dichloroethene	ND	0.20	EPA 8260C	5-30-19	5-30-19	
1,1-Dichloroethane	ND	0.20	EPA 8260C	5-30-19	5-30-19	
2,2-Dichloropropane	ND	0.20	EPA 8260C	5-30-19	5-30-19	
(cis) 1,2-Dichloroethene	ND	0.20	EPA 8260C	5-30-19	5-30-19	
Bromochloromethane	ND	0.20	EPA 8260C	5-30-19	5-30-19	
Chloroform	ND	0.20	EPA 8260C	5-30-19	5-30-19	
1,1,1-Trichloroethane	ND	0.20	EPA 8260C	5-30-19	5-30-19	
Carbon Tetrachloride	ND	0.20	EPA 8260C	5-30-19	5-30-19	
1,1-Dichloropropene	ND	0.20	EPA 8260C	5-30-19	5-30-19	
1,2-Dichloroethane	ND	0.20	EPA 8260C	5-30-19	5-30-19	
Trichloroethene	ND	0.20	EPA 8260C	5-30-19	5-30-19	
1,2-Dichloropropane	ND	0.20	EPA 8260C	5-30-19	5-30-19	
Dibromomethane	ND	0.20	EPA 8260C	5-30-19	5-30-19	
Bromodichloromethane	ND	0.20	EPA 8260C	5-30-19	5-30-19	
2-Chloroethyl Vinyl Ether	ND	1.0	EPA 8260C	5-30-19	5-30-19	
(cis) 1,3-Dichloropropene	ND	0.20	EPA 8260C	5-30-19	5-30-19	
(trans) 1,3-Dichloropropene	ND	0.20	EPA 8260C	5-30-19	5-30-19	



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**VOLATILE ORGANICS EPA 8260C**  
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Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>Client ID:</b>	<b>HZ-MW--32:W</b>					
<b>Laboratory ID:</b>	<b>05-364-05</b>					
1,1,2-Trichloroethane	ND	0.20	EPA 8260C	5-30-19	5-30-19	
Tetrachloroethene	ND	0.20	EPA 8260C	5-30-19	5-30-19	
1,3-Dichloropropane	ND	0.20	EPA 8260C	5-30-19	5-30-19	
Dibromochloromethane	ND	0.20	EPA 8260C	5-30-19	5-30-19	
1,2-Dibromoethane	ND	0.20	EPA 8260C	5-30-19	5-30-19	
Chlorobenzene	ND	0.20	EPA 8260C	5-30-19	5-30-19	
1,1,1,2-Tetrachloroethane	ND	0.20	EPA 8260C	5-30-19	5-30-19	
Bromoform	ND	1.0	EPA 8260C	5-30-19	5-30-19	
Bromobenzene	ND	0.20	EPA 8260C	5-30-19	5-30-19	
1,1,2,2-Tetrachloroethane	ND	0.20	EPA 8260C	5-30-19	5-30-19	
1,2,3-Trichloropropane	ND	0.20	EPA 8260C	5-30-19	5-30-19	
2-Chlorotoluene	ND	0.20	EPA 8260C	5-30-19	5-30-19	
4-Chlorotoluene	ND	0.20	EPA 8260C	5-30-19	5-30-19	
1,3-Dichlorobenzene	ND	0.20	EPA 8260C	5-30-19	5-30-19	
1,4-Dichlorobenzene	ND	0.20	EPA 8260C	5-30-19	5-30-19	
1,2-Dichlorobenzene	ND	0.20	EPA 8260C	5-30-19	5-30-19	
1,2-Dibromo-3-chloropropane	ND	1.0	EPA 8260C	5-30-19	5-30-19	
1,2,4-Trichlorobenzene	ND	0.20	EPA 8260C	5-30-19	5-30-19	
Hexachlorobutadiene	ND	1.0	EPA 8260C	5-30-19	5-30-19	
1,2,3-Trichlorobenzene	ND	0.20	EPA 8260C	5-30-19	5-30-19	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Dibromofluoromethane</i>	<i>97</i>	<i>75-127</i>				
<i>Toluene-d8</i>	<i>99</i>	<i>80-127</i>				
<i>4-Bromofluorobenzene</i>	<i>96</i>	<i>78-125</i>				



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 Project: 82302-9.4

**VOLATILE ORGANICS EPA 8260C**  
**METHOD BLANK QUALITY CONTROL**  
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Matrix: Water  
 Units: ug/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Laboratory ID:	MB0530W1					
Dichlorodifluoromethane	ND	0.20	EPA 8260C	5-30-19	5-30-19	
Chloromethane	ND	1.0	EPA 8260C	5-30-19	5-30-19	
Vinyl Chloride	ND	0.20	EPA 8260C	5-30-19	5-30-19	
Bromomethane	ND	0.30	EPA 8260C	5-30-19	5-30-19	
Chloroethane	ND	1.0	EPA 8260C	5-30-19	5-30-19	
Trichlorofluoromethane	ND	0.20	EPA 8260C	5-30-19	5-30-19	
1,1-Dichloroethene	ND	0.20	EPA 8260C	5-30-19	5-30-19	
Iodomethane	ND	2.8	EPA 8260C	5-30-19	5-30-19	
Methylene Chloride	ND	1.0	EPA 8260C	5-30-19	5-30-19	
(trans) 1,2-Dichloroethene	ND	0.20	EPA 8260C	5-30-19	5-30-19	
1,1-Dichloroethane	ND	0.20	EPA 8260C	5-30-19	5-30-19	
2,2-Dichloropropane	ND	0.20	EPA 8260C	5-30-19	5-30-19	
(cis) 1,2-Dichloroethene	ND	0.20	EPA 8260C	5-30-19	5-30-19	
Bromochloromethane	ND	0.20	EPA 8260C	5-30-19	5-30-19	
Chloroform	ND	0.20	EPA 8260C	5-30-19	5-30-19	
1,1,1-Trichloroethane	ND	0.20	EPA 8260C	5-30-19	5-30-19	
Carbon Tetrachloride	ND	0.20	EPA 8260C	5-30-19	5-30-19	
1,1-Dichloropropene	ND	0.20	EPA 8260C	5-30-19	5-30-19	
1,2-Dichloroethane	ND	0.20	EPA 8260C	5-30-19	5-30-19	
Trichloroethene	ND	0.20	EPA 8260C	5-30-19	5-30-19	
1,2-Dichloropropane	ND	0.20	EPA 8260C	5-30-19	5-30-19	
Dibromomethane	ND	0.20	EPA 8260C	5-30-19	5-30-19	
Bromodichloromethane	ND	0.20	EPA 8260C	5-30-19	5-30-19	
2-Chloroethyl Vinyl Ether	ND	1.0	EPA 8260C	5-30-19	5-30-19	
(cis) 1,3-Dichloropropene	ND	0.20	EPA 8260C	5-30-19	5-30-19	
(trans) 1,3-Dichloropropene	ND	0.20	EPA 8260C	5-30-19	5-30-19	



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**VOLATILE ORGANICS EPA 8260C**  
**METHOD BLANK QUALITY CONTROL**  
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Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Laboratory ID:	MB0530W1					
1,1,2-Trichloroethane	ND	0.20	EPA 8260C	5-30-19	5-30-19	
Tetrachloroethene	ND	0.20	EPA 8260C	5-30-19	5-30-19	
1,3-Dichloropropane	ND	0.20	EPA 8260C	5-30-19	5-30-19	
Dibromochloromethane	ND	0.20	EPA 8260C	5-30-19	5-30-19	
1,2-Dibromoethane	ND	0.20	EPA 8260C	5-30-19	5-30-19	
Chlorobenzene	ND	0.20	EPA 8260C	5-30-19	5-30-19	
1,1,1,2-Tetrachloroethane	ND	0.20	EPA 8260C	5-30-19	5-30-19	
Bromoform	ND	1.0	EPA 8260C	5-30-19	5-30-19	
Bromobenzene	ND	0.20	EPA 8260C	5-30-19	5-30-19	
1,1,2,2-Tetrachloroethane	ND	0.20	EPA 8260C	5-30-19	5-30-19	
1,2,3-Trichloropropane	ND	0.20	EPA 8260C	5-30-19	5-30-19	
2-Chlorotoluene	ND	0.20	EPA 8260C	5-30-19	5-30-19	
4-Chlorotoluene	ND	0.20	EPA 8260C	5-30-19	5-30-19	
1,3-Dichlorobenzene	ND	0.20	EPA 8260C	5-30-19	5-30-19	
1,4-Dichlorobenzene	ND	0.20	EPA 8260C	5-30-19	5-30-19	
1,2-Dichlorobenzene	ND	0.20	EPA 8260C	5-30-19	5-30-19	
1,2-Dibromo-3-chloropropane	ND	1.0	EPA 8260C	5-30-19	5-30-19	
1,2,4-Trichlorobenzene	ND	0.20	EPA 8260C	5-30-19	5-30-19	
Hexachlorobutadiene	ND	1.0	EPA 8260C	5-30-19	5-30-19	
1,2,3-Trichlorobenzene	ND	0.20	EPA 8260C	5-30-19	5-30-19	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Dibromofluoromethane</i>	<i>100</i>	<i>75-127</i>				
<i>Toluene-d8</i>	<i>99</i>	<i>80-127</i>				
<i>4-Bromofluorobenzene</i>	<i>98</i>	<i>78-125</i>				



Date of Report: June 11, 2019  
 Samples Submitted: May 29, 2019  
 Laboratory Reference: 1905-364  
 Project: 82302-9.4

**VOLATILE ORGANICS EPA 8260C  
 SB/SBD QUALITY CONTROL**

Matrix: Water  
 Units: ug/L

Analyte	Result		Spike Level		Percent Recovery		Recovery	RPD		Flags
					SB	SBD	Limits	RPD	Limit	
<b>SPIKE BLANKS</b>										
Laboratory ID:	SB0530W1									
	SB	SBD	SB	SBD	SB	SBD				
1,1-Dichloroethene	<b>10.4</b>	<b>10.3</b>	10.0	10.0	104	103	63-130	1	17	
Benzene	<b>10.3</b>	<b>10.2</b>	10.0	10.0	103	102	76-125	1	19	
Trichloroethene	<b>10.7</b>	<b>10.6</b>	10.0	10.0	107	106	76-121	1	18	
Toluene	<b>10.3</b>	<b>10.2</b>	10.0	10.0	103	102	80-124	1	18	
Chlorobenzene	<b>10.5</b>	<b>10.4</b>	10.0	10.0	105	104	75-120	1	19	
<i>Surrogate:</i>										
Dibromofluoromethane					97	100	75-127			
Toluene-d8					98	98	80-127			
4-Bromofluorobenzene					97	97	78-125			



Date of Report: June 11, 2019  
 Samples Submitted: May 29, 2019  
 Laboratory Reference: 1905-364  
 Project: 82302-9.4

**DISSOLVED GASES  
 RSK 175**

Matrix: Water  
 Units: ug/L (ppb)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>Client ID:</b>	<b>MW-39:W</b>					
Laboratory ID:	05-364-01					
Methane	<b>1100</b>	200	RSK 175	6-4-19	6-4-19	
Ethane	<b>ND</b>	100	RSK 175	6-4-19	6-4-19	
Ethene	<b>ND</b>	100	RSK 175	6-4-19	6-4-19	

<b>Client ID:</b>	<b>MW-40:W</b>					
Laboratory ID:	05-364-02					
Methane	<b>470</b>	50	RSK 175	6-7-19	6-7-19	
Ethane	<b>11</b>	0.50	RSK 175	6-7-19	6-7-19	
Ethene	<b>ND</b>	25	RSK 175	6-7-19	6-7-19	

<b>Client ID:</b>	<b>HZ-MW:-31:W</b>					
Laboratory ID:	05-364-03					
Methane	<b>340</b>	50	RSK 175	6-4-19	6-4-19	
Ethane	<b>ND</b>	25	RSK 175	6-4-19	6-4-19	
Ethene	<b>ND</b>	25	RSK 175	6-4-19	6-4-19	

<b>Client ID:</b>	<b>HZ-MW:-30:W</b>					
Laboratory ID:	05-364-04					
Methane	<b>910</b>	100	RSK 175	6-4-19	6-4-19	
Ethane	<b>ND</b>	50	RSK 175	6-4-19	6-4-19	
Ethene	<b>ND</b>	50	RSK 175	6-4-19	6-4-19	

<b>Client ID:</b>	<b>HZ-MW:-32:W</b>					
Laboratory ID:	05-364-05					
Methane	<b>270</b>	30	RSK 175	6-4-19	6-4-19	
Ethane	<b>ND</b>	15	RSK 175	6-4-19	6-4-19	
Ethene	<b>ND</b>	15	RSK 175	6-4-19	6-4-19	





Date of Report: June 11, 2019  
 Samples Submitted: May 29, 2019  
 Laboratory Reference: 1905-364  
 Project: 82302-9.4

**DISSOLVED GASES  
 RSK 175  
 QUALITY CONTROL**

Matrix: Water  
 Units: ug/L (ppb)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>METHOD BLANK</b>						
Laboratory ID:	MB0604W1					
Methane	ND	1.0	RSK 175	6-4-19	6-4-19	
Ethane	ND	0.50	RSK 175	6-4-19	6-4-19	
Ethene	ND	0.50	RSK 175	6-4-19	6-4-19	

Laboratory ID:	MB0607W1					
Methane	ND	1.0	RSK 175	6-7-19	6-7-19	
Ethane	ND	0.50	RSK 175	6-7-19	6-7-19	
Ethene	ND	0.50	RSK 175	6-7-19	6-7-19	

Analyte	Result		Spike Level		Source Result	Percent Recovery		Recovery Limits	RPD	RPD Limit	Flags
<b>MATRIX SPIKES</b>											
Laboratory ID:	01-123-01										
	MS	MSD	MS	MSD		MS	MSD				
Methane	9.41	9.08	4.42	4.42	4.20	118	110	75-125	4	25	
Ethane	7.79	7.34	8.32	8.32	ND	94	88	75-125	6	25	
Ethene	5.79	6.37	7.77	7.77	ND	75	82	75-125	10	25	

<b>SPIKE BLANKS</b>											
Laboratory ID:	SB0607W1										
	SB	SBD	SB	SBD		SB	SBD				
Methane	3.94	4.21	4.42	4.42	N/A	89	95	75-125	7	25	
Ethane	7.96	8.00	8.32	8.32	N/A	96	96	75-125	1	25	
Ethene	7.85	7.96	7.77	7.77	N/A	101	102	75-125	1	25	



Date of Report: June 11, 2019  
 Samples Submitted: May 29, 2019  
 Laboratory Reference: 1905-364  
 Project: 82302-9.4

**AMMONIA (as Nitrogen)**  
**SM 4500-NH<sub>3</sub> D**

Matrix: Water  
 Units: mg NH<sub>3</sub>-N/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>Client ID:</b>	<b>MW-39:W</b>					
Laboratory ID:	05-364-01					
Ammonia	<b>0.48</b>	0.050	SM 4500-NH <sub>3</sub> D	5-31-19	5-31-19	

<b>Client ID:</b>	<b>MW-40:W</b>					
Laboratory ID:	05-364-02					
Ammonia	<b>0.35</b>	0.050	SM 4500-NH <sub>3</sub> D	5-31-19	5-31-19	

<b>Client ID:</b>	<b>HZ-MW:-31:W</b>					
Laboratory ID:	05-364-03					
Ammonia	<b>0.26</b>	0.050	SM 4500-NH <sub>3</sub> D	5-31-19	5-31-19	

<b>Client ID:</b>	<b>HZ-MW:-30:W</b>					
Laboratory ID:	05-364-04					
Ammonia	<b>0.61</b>	0.050	SM 4500-NH <sub>3</sub> D	5-31-19	5-31-19	

<b>Client ID:</b>	<b>HZ-MW:-32:W</b>					
Laboratory ID:	05-364-05					
Ammonia	<b>0.39</b>	0.050	SM 4500-NH <sub>3</sub> D	5-31-19	5-31-19	



Date of Report: June 11, 2019  
 Samples Submitted: May 29, 2019  
 Laboratory Reference: 1905-364  
 Project: 82302-9.4

**AMMONIA (as Nitrogen)**  
**SM 4500-NH<sub>3</sub> D**  
**QUALITY CONTROL**

Matrix: Water  
 Units: mg NH<sub>3</sub>-N/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>METHOD BLANK</b>						
Laboratory ID:	MB0531W1					
Ammonia	<b>ND</b>	0.050	SM 4500-NH <sub>3</sub> D	5-31-19	5-31-19	

Analyte	Result	Spike Level	Source Result	Percent Recovery	Recovery Limits	RPD	RPD Limit	Flags
<b>DUPLICATE</b>								
Laboratory ID:	05-331-02							
	ORIG	DUP						
Ammonia	<b>ND</b>	<b>ND</b>	NA	NA	NA	NA	12	

<b>MATRIX SPIKE</b>								
Laboratory ID:	05-331-02							
	MS	MS		MS				
Ammonia	<b>4.82</b>	5.00	ND	96	75-121	NA	NA	

<b>SPIKE BLANK</b>								
Laboratory ID:	SB0531W1							
	SB	SB		SB				
Ammonia	<b>4.58</b>	5.00	NA	92	85-110	NA	NA	



Date of Report: June 11, 2019  
 Samples Submitted: May 29, 2019  
 Laboratory Reference: 1905-364  
 Project: 82302-9.4

**DISSOLVED IRON  
 EPA 6010D**

Matrix: Water  
 Units: ug/L (ppb)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>Client ID:</b>	<b>MW-39:W</b>					
Laboratory ID:	05-364-01					
Iron	<b>4500</b>	56	EPA 6010D	5-29-19	6-5-19	
<b>Client ID:</b>	<b>MW-40:W</b>					
Laboratory ID:	05-364-02					
Iron	<b>7600</b>	56	EPA 6010D	5-29-19	6-5-19	
<b>Client ID:</b>	<b>HZ-MW:-31:W</b>					
Laboratory ID:	05-364-03					
Iron	<b>20000</b>	56	EPA 6010D	5-29-19	6-5-19	
<b>Client ID:</b>	<b>HZ-MW:-30:W</b>					
Laboratory ID:	05-364-04					
Iron	<b>170</b>	56	EPA 6010D	5-29-19	6-5-19	
<b>Client ID:</b>	<b>HZ-MW:-32:W</b>					
Laboratory ID:	05-364-05					
Iron	<b>27000</b>	56	EPA 6010D	5-29-19	6-5-19	



Date of Report: June 11, 2019  
 Samples Submitted: May 29, 2019  
 Laboratory Reference: 1905-364  
 Project: 82302-9.4

**DISSOLVED IRON  
 EPA 6010D  
 QUALITY CONTROL**

Matrix: Water  
 Units: ug/L (ppb)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>METHOD BLANK</b>						
Laboratory ID:	MB0529F1					
Iron	<b>ND</b>	56	EPA 6010D	5-29-19	6-5-19	

Analyte	Result	Spike Level	Source Result	Percent Recovery	Recovery Limits	RPD	RPD Limit	Flags
<b>DUPLICATE</b>								
Laboratory ID:	05-397-05							
	ORIG	DUP						
Iron	<b>10400</b>	<b>10300</b>	NA	NA	NA	NA	1	20

Analyte	MS	MSD	MS	MSD	MS	MSD	RPD	RPD Limit	Flags	
<b>MATRIX SPIKES</b>										
Laboratory ID:	05-397-05									
	MS	MSD	MS	MSD	MS	MSD				
Iron	<b>28600</b>	<b>28800</b>	22200	22200	10400	<b>82</b>	<b>83</b>	75-125	1	20



Date of Report: June 11, 2019  
 Samples Submitted: May 29, 2019  
 Laboratory Reference: 1905-364  
 Project: 82302-9.4

**CHLORIDE**  
**SM 4500-Cl E**

Matrix: Water  
 Units: mg/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>Client ID:</b>	<b>MW-39:W</b>					
Laboratory ID:	05-364-01					
Chloride	<b>4.3</b>	2.0	SM 4500-Cl E	6-5-19	6-5-19	
<b>Client ID:</b>	<b>MW-40:W</b>					
Laboratory ID:	05-364-02					
Chloride	<b>11</b>	2.0	SM 4500-Cl E	6-5-19	6-5-19	
<b>Client ID:</b>	<b>HZ-MW:-31:W</b>					
Laboratory ID:	05-364-03					
Chloride	<b>8.7</b>	2.0	SM 4500-Cl E	6-5-19	6-5-19	
<b>Client ID:</b>	<b>HZ-MW:-30:W</b>					
Laboratory ID:	05-364-04					
Chloride	<b>4.8</b>	2.0	SM 4500-Cl E	6-5-19	6-5-19	
<b>Client ID:</b>	<b>HZ-MW:-32:W</b>					
Laboratory ID:	05-364-05					
Chloride	<b>13</b>	2.0	SM 4500-Cl E	6-5-19	6-5-19	



Date of Report: June 11, 2019  
 Samples Submitted: May 29, 2019  
 Laboratory Reference: 1905-364  
 Project: 82302-9.4

**CHLORIDE  
 SM 4500-Cl E  
 QUALITY CONTROL**

Matrix: Water  
 Units: mg/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>METHOD BLANK</b>						
Laboratory ID:	MB0605W1					
Chloride	<b>ND</b>	2.0	SM 4500-Cl E	6-5-19	6-5-19	

Analyte	Result	Spike Level	Source Result	Percent Recovery	Recovery Limits	RPD	RPD Limit	Flags
<b>DUPLICATE</b>								
Laboratory ID:	05-397-05							
	ORIG	DUP						
Chloride	<b>18.3</b>	<b>18.0</b>	NA	NA	NA	2	17	

<b>MATRIX SPIKE</b>								
Laboratory ID:	05-397-05							
	MS	MS		MS				
Chloride	<b>68.7</b>	50.0	18.3	101	80-116	NA	NA	

<b>SPIKE BLANK</b>								
Laboratory ID:	SB0605W1							
	SB	SB		SB				
Chloride	<b>51.5</b>	50.0	NA	103	90-110	NA	NA	



Date of Report: June 11, 2019  
 Samples Submitted: May 29, 2019  
 Laboratory Reference: 1905-364  
 Project: 82302-9.4

**SULFATE**  
**ASTM D516-11**

Matrix: Water  
 Units: mg/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>Client ID:</b>	<b>MW-39:W</b>					
Laboratory ID:	05-364-01					
Sulfate	<b>ND</b>	5.0	ASTM D516-11	6-4-19	6-4-19	

<b>Client ID:</b>	<b>MW-40:W</b>					
Laboratory ID:	05-364-02					
Sulfate	<b>ND</b>	5.0	ASTM D516-11	6-4-19	6-4-19	

<b>Client ID:</b>	<b>HZ-MW:-31:W</b>					
Laboratory ID:	05-364-03					
Sulfate	<b>ND</b>	5.0	ASTM D516-11	6-4-19	6-4-19	

<b>Client ID:</b>	<b>HZ-MW:-30:W</b>					
Laboratory ID:	05-364-04					
Sulfate	<b>ND</b>	5.0	ASTM D516-11	6-4-19	6-4-19	

<b>Client ID:</b>	<b>HZ-MW:-32:W</b>					
Laboratory ID:	05-364-05					
Sulfate	<b>ND</b>	5.0	ASTM D516-11	6-4-19	6-4-19	





Date of Report: June 11, 2019  
 Samples Submitted: May 29, 2019  
 Laboratory Reference: 1905-364  
 Project: 82302-9.4

**SULFATE  
 ASTM D516-11  
 QUALITY CONTROL**

Matrix: Water  
 Units: mg/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>METHOD BLANK</b>						
Laboratory ID:	MB0604W1					
Sulfate	<b>ND</b>	5.0	ASTM D516-11	6-4-19	6-4-19	

Analyte	Result	Spike Level	Source Result	Percent Recovery	Recovery Limits	RPD	RPD Limit	Flags
<b>DUPLICATE</b>								
Laboratory ID:	05-397-05							
	ORIG	DUP						
Sulfate	<b>ND</b>	<b>ND</b>	NA	NA	NA	NA	10	

<b>MATRIX SPIKE</b>								
Laboratory ID:	05-397-05							
	MS	MS		MS				
Sulfate	<b>24.4</b>	20.0	ND	122	73-134	NA	NA	

<b>SPIKE BLANK</b>								
Laboratory ID:	SB0604W1							
	SB	SB		SB				
Sulfate	<b>10.1</b>	10.0	NA	101	89-113	NA	NA	



Date of Report: June 11, 2019  
 Samples Submitted: May 29, 2019  
 Laboratory Reference: 1905-364  
 Project: 82302-9.4

**TOTAL ORGANIC CARBON  
 SM 5310B**

Matrix: Water  
 Units: mg/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>Client ID:</b>	<b>MW-39:W</b>					
Laboratory ID:	05-364-01					
Total Organic Carbon	<b>3.3</b>	1.0	SM 5310B	5-30-19	5-30-19	
<b>Client ID:</b>	<b>MW-40:W</b>					
Laboratory ID:	05-364-02					
Total Organic Carbon	<b>11</b>	1.0	SM 5310B	5-30-19	5-30-19	
<b>Client ID:</b>	<b>HZ-MW:-31:W</b>					
Laboratory ID:	05-364-03					
Total Organic Carbon	<b>4.6</b>	1.0	SM 5310B	5-30-19	5-30-19	
<b>Client ID:</b>	<b>HZ-MW:-30:W</b>					
Laboratory ID:	05-364-04					
Total Organic Carbon	<b>1.8</b>	1.0	SM 5310B	5-30-19	5-30-19	
<b>Client ID:</b>	<b>HZ-MW:-32:W</b>					
Laboratory ID:	05-364-05					
Total Organic Carbon	<b>5.9</b>	1.0	SM 5310B	5-30-19	5-30-19	



Date of Report: June 11, 2019  
 Samples Submitted: May 29, 2019  
 Laboratory Reference: 1905-364  
 Project: 82302-9.4

**TOTAL ORGANIC CARBON  
 SM 5310B  
 QUALITY CONTROL**

Matrix: Water  
 Units: mg/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>METHOD BLANK</b>						
Laboratory ID:	MB0530W1					
Total Organic Carbon	<b>ND</b>	1.0	SM 5310B	5-30-19	5-30-19	

Analyte	Result	Spike Level	Source Result	Percent Recovery	Recovery Limits	RPD	RPD Limit	Flags
<b>DUPLICATE</b>								
Laboratory ID:	05-331-02							
	ORIG	DUP						
Total Organic Carbon	<b>2.46</b>	<b>2.59</b>	NA	NA	NA	NA	5	20

**MATRIX SPIKE**

Laboratory ID:	05-331-02							
	MS	MS		MS				
Total Organic Carbon	<b>13.5</b>		10.0	2.46	110	85-131	NA	NA

**SPIKE BLANK**

Laboratory ID:	SB0530W1							
	SB	SB		SB				
Total Organic Carbon	<b>11.1</b>		10.0	NA	111	88-127	NA	NA





### Data Qualifiers and Abbreviations

- A - Due to a high sample concentration, the amount spiked is insufficient for meaningful MS/MSD recovery data.
  - B - The analyte indicated was also found in the blank sample.
  - C - The duplicate RPD is outside control limits due to high result variability when analyte concentrations are within five times the quantitation limit.
  - E - The value reported exceeds the quantitation range and is an estimate.
  - F - Surrogate recovery data is not available due to the high concentration of coeluting target compounds.
  - H - The analyte indicated is a common laboratory solvent and may have been introduced during sample preparation, and be impacting the sample result.
  - I - Compound recovery is outside of the control limits.
  - J - The value reported was below the practical quantitation limit. The value is an estimate.
  - K - Sample duplicate RPD is outside control limits due to sample inhomogeneity. The sample was re-extracted and re-analyzed with similar results.
  - L - The RPD is outside of the control limits.
  - M - Hydrocarbons in the gasoline range are impacting the diesel range result.
  - M1 - Hydrocarbons in the gasoline range (toluene-naphthalene) are present in the sample.
  - N - Hydrocarbons in the lube oil range are impacting the diesel range result.
  - N1 - Hydrocarbons in diesel range are impacting lube oil range results.
  - O - Hydrocarbons indicative of heavier fuels are present in the sample and are impacting the gasoline result.
  - P - The RPD of the detected concentrations between the two columns is greater than 40.
  - Q - Surrogate recovery is outside of the control limits.
  - S - Surrogate recovery data is not available due to the necessary dilution of the sample.
  - T - The sample chromatogram is not similar to a typical \_\_\_\_\_.
  - U - The analyte was analyzed for, but was not detected above the reported sample quantitation limit.
  - U1 - The practical quantitation limit is elevated due to interferences present in the sample.
  - V - Matrix Spike/Matrix Spike Duplicate recoveries are outside control limits due to matrix effects.
  - W - Matrix Spike/Matrix Spike Duplicate RPD are outside control limits due to matrix effects.
  - X - Sample extract treated with a mercury cleanup procedure.
  - X1 - Sample extract treated with a sulfuric acid/silica gel cleanup procedure.
  - Y - The calibration verification for this analyte exceeded the 20% drift specified in method 8260C, and therefore the reported result should be considered an estimate. The overall performance of the calibration verification standard met the acceptance criteria of the method.
  - Z -
- ND - Not Detected at PQL  
 PQL - Practical Quantitation Limit  
 RPD - Relative Percent Difference





**Onsite Environmental Inc.**  
Analytical Laboratory / Testing Services  
14648 NE 95th Street • Redmond, WA 98052  
Phone: (425) 893-3881 • www.onsite-env.com

# Chain of Custody

**Turnaround Request (in working days)**  
(Check One)

Same Day  1 Day

2 Days  3 Days

Standard (7 Days)

(other) \_\_\_\_\_

Company: **KANE Environmental**  
Project Number: **92802-9.4**  
Project Name: **POTRUELL SERVICE CENTER**  
Project Manager: **JEFF FUNKER**  
Sampled by: **KEVA GRAYNS + EMMY KANE**

**Laboratory Number:** 05-364

Lab ID	Sample Identification	Date Sampled	Time Sampled	Matrix	Number of Containers
1	MW-39:W	5/29	1100	GW	1D
2	MW-40:W	5/29	1108	GW	1D
3	H2-MW-31:W	5/29	1240	GW	1D
4	H2-MW-30:W	5/29	1245	GW	1D
5	H2-MW-32:W	5/29	1433	GW	1D

Test Parameters	1	2	3	4	5
NWTPH-HCID					
NWTPH-Gx/BTEX					
NWTPH-Gx					
NWTPH-Dx ( <input type="checkbox"/> Acid / SG Clean-up)					
Volatiles 8260C					
Halogenated Volatiles 8260C	X				
EDB EPA 8011 (Waters Only)					
Semivolatiles 8270D/SIM (with low-level PAHs)					
PAHs 8270D/SIM (low-level)					
PCBs 8082A					
Organochlorine Pesticides 8081B					
Organophosphorus Pesticides 8270D/SIM					
Chlorinated Acid Herbicides 8151A					
Total RCRA Metals					
Total MTCA Metals					
TCLP Metals					
HEM (oil and grease) 1661A - <b>RSK</b>	X	X	X	X	X
<b>ammonia -N</b>	X	X	X	X	X
<b>dissolved Fe</b>	X	X	X	X	X
<b>chloride</b>	X	X	X	X	X
<b>sulfate</b>	X	X	X	X	X
<b>% Moisture TDC</b>	X	X	X	X	X

Signature	Company	Date	Time	Comments/Special Instructions
<i>[Signature]</i>	KANE ENVIRONMENTAL	5/29	1514	RSK = methane, ethane, ethene LAB FILTER
<i>[Signature]</i>	OSE	5/29	1516	

Relinquished/Received	Signature	Company	Date	Time	Comments/Special Instructions
Relinquished	<i>[Signature]</i>	KANE ENVIRONMENTAL	5/29	1514	RSK = methane, ethane, ethene LAB FILTER
Received	<i>[Signature]</i>	OSE	5/29	1516	
Relinquished					
Received					
Relinquished					

Reviewed/Date \_\_\_\_\_

Data Package: Standard  Level III  Level IV   
Chromatograms with final report  Electronic Data Deliverables (EDDs)



14648 NE 95<sup>th</sup> Street, Redmond, WA 98052 • (425) 883-3881

June 12, 2019

Jeff Jensen  
Kane Environmental, Inc.  
4015 13th Avenue West  
Seattle, WA 98119

Re: Analytical Data for Project 82302-9.4  
Laboratory Reference No. 1905-381

Dear Jeff:

Enclosed are the analytical results and associated quality control data for samples submitted on May 30, 2019.

The standard policy of OnSite Environmental, Inc. is to store your samples for 30 days from the date of receipt. If you require longer storage, please contact the laboratory.

We appreciate the opportunity to be of service to you on this project. If you have any questions concerning the data, or need additional information, please feel free to call me.

Sincerely,

A handwritten signature in black ink, appearing to read "DB", with a long horizontal stroke extending to the right.

David Baumeister  
Project Manager

Enclosures



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OnSite Environmental, Inc. 14648 NE 95<sup>th</sup> Street, Redmond, WA 98052 (425) 883-3881

This report pertains to the samples analyzed in accordance with the chain of custody, and is intended only for the use of the individual or company to whom it is addressed.

Date of Report: June 12, 2019  
Samples Submitted: May 30, 2019  
Laboratory Reference: 1905-381  
Project: 82302-9.4

### Case Narrative

Samples were collected on May 30, 2019 and received by the laboratory on May 30, 2019. They were maintained at the laboratory at a temperature of 2°C to 6°C.

Please note that any and all soil sample results are reported on a dry-weight basis, unless otherwise noted below.

General QA/QC issues associated with the analytical data enclosed in this laboratory report will be indicated with a reference to a comment or explanation on the Data Qualifier page. More complex and involved QA/QC issues will be discussed in detail below.



Date of Report: June 12, 2019  
 Samples Submitted: May 30, 2019  
 Laboratory Reference: 1905-381  
 Project: 82302-9.4

**VOLATILE ORGANICS EPA 8260C**  
 page 1 of 2

Matrix: Water  
 Units: ug/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>Client ID:</b>	<b>HZ-MW-23:W</b>					
Laboratory ID:	05-381-01					
Dichlorodifluoromethane	ND	0.20	EPA 8260C	5-31-19	5-31-19	
Chloromethane	ND	1.0	EPA 8260C	5-31-19	5-31-19	
Vinyl Chloride	ND	0.20	EPA 8260C	5-31-19	5-31-19	
Bromomethane	ND	0.28	EPA 8260C	5-31-19	5-31-19	
Chloroethane	ND	1.0	EPA 8260C	5-31-19	5-31-19	
Trichlorofluoromethane	ND	0.20	EPA 8260C	5-31-19	5-31-19	
1,1-Dichloroethene	ND	0.20	EPA 8260C	5-31-19	5-31-19	
Iodomethane	ND	3.0	EPA 8260C	5-31-19	5-31-19	
Methylene Chloride	ND	1.0	EPA 8260C	5-31-19	5-31-19	
(trans) 1,2-Dichloroethene	ND	0.20	EPA 8260C	5-31-19	5-31-19	
1,1-Dichloroethane	ND	0.20	EPA 8260C	5-31-19	5-31-19	
2,2-Dichloropropane	ND	0.20	EPA 8260C	5-31-19	5-31-19	
(cis) 1,2-Dichloroethene	ND	0.20	EPA 8260C	5-31-19	5-31-19	
Bromochloromethane	ND	0.20	EPA 8260C	5-31-19	5-31-19	
Chloroform	ND	0.20	EPA 8260C	5-31-19	5-31-19	
1,1,1-Trichloroethane	ND	0.20	EPA 8260C	5-31-19	5-31-19	
Carbon Tetrachloride	ND	0.20	EPA 8260C	5-31-19	5-31-19	
1,1-Dichloropropene	ND	0.20	EPA 8260C	5-31-19	5-31-19	
1,2-Dichloroethane	ND	0.20	EPA 8260C	5-31-19	5-31-19	
Trichloroethene	ND	0.20	EPA 8260C	5-31-19	5-31-19	
1,2-Dichloropropane	ND	0.20	EPA 8260C	5-31-19	5-31-19	
Dibromomethane	ND	0.20	EPA 8260C	5-31-19	5-31-19	
Bromodichloromethane	ND	0.20	EPA 8260C	5-31-19	5-31-19	
2-Chloroethyl Vinyl Ether	ND	1.0	EPA 8260C	5-31-19	5-31-19	
(cis) 1,3-Dichloropropene	ND	0.20	EPA 8260C	5-31-19	5-31-19	
(trans) 1,3-Dichloropropene	ND	0.20	EPA 8260C	5-31-19	5-31-19	





Date of Report: June 12, 2019  
 Samples Submitted: May 30, 2019  
 Laboratory Reference: 1905-381  
 Project: 82302-9.4

**VOLATILE ORGANICS EPA 8260C**  
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Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>Client ID:</b>	<b>HZ-MW-23:W</b>					
Laboratory ID:	05-381-01					
1,1,2-Trichloroethane	ND	0.20	EPA 8260C	5-31-19	5-31-19	
Tetrachloroethene	ND	0.20	EPA 8260C	5-31-19	5-31-19	
1,3-Dichloropropane	ND	0.20	EPA 8260C	5-31-19	5-31-19	
Dibromochloromethane	ND	0.20	EPA 8260C	5-31-19	5-31-19	
1,2-Dibromoethane	ND	0.20	EPA 8260C	5-31-19	5-31-19	
Chlorobenzene	ND	0.20	EPA 8260C	5-31-19	5-31-19	
1,1,1,2-Tetrachloroethane	ND	0.20	EPA 8260C	5-31-19	5-31-19	
Bromoform	ND	1.0	EPA 8260C	5-31-19	5-31-19	
Bromobenzene	ND	0.20	EPA 8260C	5-31-19	5-31-19	
1,1,2,2-Tetrachloroethane	ND	0.20	EPA 8260C	5-31-19	5-31-19	
1,2,3-Trichloropropane	ND	0.20	EPA 8260C	5-31-19	5-31-19	
2-Chlorotoluene	ND	0.20	EPA 8260C	5-31-19	5-31-19	
4-Chlorotoluene	ND	0.20	EPA 8260C	5-31-19	5-31-19	
1,3-Dichlorobenzene	ND	0.20	EPA 8260C	5-31-19	5-31-19	
1,4-Dichlorobenzene	ND	0.20	EPA 8260C	5-31-19	5-31-19	
1,2-Dichlorobenzene	ND	0.20	EPA 8260C	5-31-19	5-31-19	
1,2-Dibromo-3-chloropropane	ND	1.0	EPA 8260C	5-31-19	5-31-19	
1,2,4-Trichlorobenzene	ND	0.20	EPA 8260C	5-31-19	5-31-19	
Hexachlorobutadiene	ND	1.0	EPA 8260C	5-31-19	5-31-19	
1,2,3-Trichlorobenzene	ND	0.20	EPA 8260C	5-31-19	5-31-19	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Dibromofluoromethane</i>	<i>97</i>	<i>75-127</i>				
<i>Toluene-d8</i>	<i>101</i>	<i>80-127</i>				
<i>4-Bromofluorobenzene</i>	<i>98</i>	<i>78-125</i>				



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Matrix: Water  
 Units: ug/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>Client ID:</b>	<b>HZ-MW-1:W</b>					
Laboratory ID:	05-381-02					
Dichlorodifluoromethane	ND	0.20	EPA 8260C	5-31-19	5-31-19	
Chloromethane	ND	1.0	EPA 8260C	5-31-19	5-31-19	
Vinyl Chloride	ND	0.20	EPA 8260C	5-31-19	5-31-19	
Bromomethane	ND	0.28	EPA 8260C	5-31-19	5-31-19	
Chloroethane	ND	1.0	EPA 8260C	5-31-19	5-31-19	
Trichlorofluoromethane	ND	0.20	EPA 8260C	5-31-19	5-31-19	
1,1-Dichloroethene	ND	0.20	EPA 8260C	5-31-19	5-31-19	
Iodomethane	ND	3.0	EPA 8260C	5-31-19	5-31-19	
Methylene Chloride	ND	1.0	EPA 8260C	5-31-19	5-31-19	
(trans) 1,2-Dichloroethene	ND	0.20	EPA 8260C	5-31-19	5-31-19	
1,1-Dichloroethane	ND	0.20	EPA 8260C	5-31-19	5-31-19	
2,2-Dichloropropane	ND	0.20	EPA 8260C	5-31-19	5-31-19	
(cis) 1,2-Dichloroethene	ND	0.20	EPA 8260C	5-31-19	5-31-19	
Bromochloromethane	ND	0.20	EPA 8260C	5-31-19	5-31-19	
Chloroform	ND	0.20	EPA 8260C	5-31-19	5-31-19	
1,1,1-Trichloroethane	ND	0.20	EPA 8260C	5-31-19	5-31-19	
Carbon Tetrachloride	ND	0.20	EPA 8260C	5-31-19	5-31-19	
1,1-Dichloropropene	ND	0.20	EPA 8260C	5-31-19	5-31-19	
1,2-Dichloroethane	ND	0.20	EPA 8260C	5-31-19	5-31-19	
Trichloroethene	ND	0.20	EPA 8260C	5-31-19	5-31-19	
1,2-Dichloropropane	ND	0.20	EPA 8260C	5-31-19	5-31-19	
Dibromomethane	ND	0.20	EPA 8260C	5-31-19	5-31-19	
Bromodichloromethane	ND	0.20	EPA 8260C	5-31-19	5-31-19	
2-Chloroethyl Vinyl Ether	ND	1.0	EPA 8260C	5-31-19	5-31-19	
(cis) 1,3-Dichloropropene	ND	0.20	EPA 8260C	5-31-19	5-31-19	
(trans) 1,3-Dichloropropene	ND	0.20	EPA 8260C	5-31-19	5-31-19	



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Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>Client ID:</b>	<b>HZ-MW-1:W</b>					
Laboratory ID:	05-381-02					
1,1,2-Trichloroethane	ND	0.20	EPA 8260C	5-31-19	5-31-19	
Tetrachloroethene	11	0.20	EPA 8260C	5-31-19	5-31-19	
1,3-Dichloropropane	ND	0.20	EPA 8260C	5-31-19	5-31-19	
Dibromochloromethane	ND	0.20	EPA 8260C	5-31-19	5-31-19	
1,2-Dibromoethane	ND	0.20	EPA 8260C	5-31-19	5-31-19	
Chlorobenzene	ND	0.20	EPA 8260C	5-31-19	5-31-19	
1,1,1,2-Tetrachloroethane	ND	0.20	EPA 8260C	5-31-19	5-31-19	
Bromoform	ND	1.0	EPA 8260C	5-31-19	5-31-19	
Bromobenzene	ND	0.20	EPA 8260C	5-31-19	5-31-19	
1,1,2,2-Tetrachloroethane	ND	0.20	EPA 8260C	5-31-19	5-31-19	
1,2,3-Trichloropropane	ND	0.20	EPA 8260C	5-31-19	5-31-19	
2-Chlorotoluene	ND	0.20	EPA 8260C	5-31-19	5-31-19	
4-Chlorotoluene	ND	0.20	EPA 8260C	5-31-19	5-31-19	
1,3-Dichlorobenzene	ND	0.20	EPA 8260C	5-31-19	5-31-19	
1,4-Dichlorobenzene	ND	0.20	EPA 8260C	5-31-19	5-31-19	
1,2-Dichlorobenzene	ND	0.20	EPA 8260C	5-31-19	5-31-19	
1,2-Dibromo-3-chloropropane	ND	1.0	EPA 8260C	5-31-19	5-31-19	
1,2,4-Trichlorobenzene	ND	0.20	EPA 8260C	5-31-19	5-31-19	
Hexachlorobutadiene	ND	1.0	EPA 8260C	5-31-19	5-31-19	
1,2,3-Trichlorobenzene	ND	0.20	EPA 8260C	5-31-19	5-31-19	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Dibromofluoromethane</i>	<i>96</i>	<i>75-127</i>				
<i>Toluene-d8</i>	<i>100</i>	<i>80-127</i>				
<i>4-Bromofluorobenzene</i>	<i>99</i>	<i>78-125</i>				



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Matrix: Water  
 Units: ug/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>Client ID:</b>	<b>HZ-MW-25:W</b>					
Laboratory ID:	05-381-03					
Dichlorodifluoromethane	ND	0.20	EPA 8260C	5-31-19	5-31-19	
Chloromethane	ND	1.0	EPA 8260C	5-31-19	5-31-19	
Vinyl Chloride	ND	0.20	EPA 8260C	5-31-19	5-31-19	
Bromomethane	ND	0.28	EPA 8260C	5-31-19	5-31-19	
Chloroethane	ND	1.0	EPA 8260C	5-31-19	5-31-19	
Trichlorofluoromethane	ND	0.20	EPA 8260C	5-31-19	5-31-19	
1,1-Dichloroethene	ND	0.20	EPA 8260C	5-31-19	5-31-19	
Iodomethane	ND	3.0	EPA 8260C	5-31-19	5-31-19	
Methylene Chloride	ND	1.0	EPA 8260C	5-31-19	5-31-19	
(trans) 1,2-Dichloroethene	ND	0.20	EPA 8260C	5-31-19	5-31-19	
1,1-Dichloroethane	ND	0.20	EPA 8260C	5-31-19	5-31-19	
2,2-Dichloropropane	ND	0.20	EPA 8260C	5-31-19	5-31-19	
(cis) 1,2-Dichloroethene	ND	0.20	EPA 8260C	5-31-19	5-31-19	
Bromochloromethane	ND	0.20	EPA 8260C	5-31-19	5-31-19	
Chloroform	ND	0.20	EPA 8260C	5-31-19	5-31-19	
1,1,1-Trichloroethane	ND	0.20	EPA 8260C	5-31-19	5-31-19	
Carbon Tetrachloride	ND	0.20	EPA 8260C	5-31-19	5-31-19	
1,1-Dichloropropene	ND	0.20	EPA 8260C	5-31-19	5-31-19	
1,2-Dichloroethane	ND	0.20	EPA 8260C	5-31-19	5-31-19	
Trichloroethene	ND	0.20	EPA 8260C	5-31-19	5-31-19	
1,2-Dichloropropane	ND	0.20	EPA 8260C	5-31-19	5-31-19	
Dibromomethane	ND	0.20	EPA 8260C	5-31-19	5-31-19	
Bromodichloromethane	ND	0.20	EPA 8260C	5-31-19	5-31-19	
2-Chloroethyl Vinyl Ether	ND	1.0	EPA 8260C	5-31-19	5-31-19	
(cis) 1,3-Dichloropropene	ND	0.20	EPA 8260C	5-31-19	5-31-19	
(trans) 1,3-Dichloropropene	ND	0.20	EPA 8260C	5-31-19	5-31-19	



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Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>Client ID:</b>	<b>HZ-MW-25:W</b>					
Laboratory ID:	05-381-03					
1,1,2-Trichloroethane	ND	0.20	EPA 8260C	5-31-19	5-31-19	
Tetrachloroethene	ND	0.20	EPA 8260C	5-31-19	5-31-19	
1,3-Dichloropropane	ND	0.20	EPA 8260C	5-31-19	5-31-19	
Dibromochloromethane	ND	0.20	EPA 8260C	5-31-19	5-31-19	
1,2-Dibromoethane	ND	0.20	EPA 8260C	5-31-19	5-31-19	
Chlorobenzene	ND	0.20	EPA 8260C	5-31-19	5-31-19	
1,1,1,2-Tetrachloroethane	ND	0.20	EPA 8260C	5-31-19	5-31-19	
Bromoform	ND	1.0	EPA 8260C	5-31-19	5-31-19	
Bromobenzene	ND	0.20	EPA 8260C	5-31-19	5-31-19	
1,1,2,2-Tetrachloroethane	ND	0.20	EPA 8260C	5-31-19	5-31-19	
1,2,3-Trichloropropane	ND	0.20	EPA 8260C	5-31-19	5-31-19	
2-Chlorotoluene	ND	0.20	EPA 8260C	5-31-19	5-31-19	
4-Chlorotoluene	ND	0.20	EPA 8260C	5-31-19	5-31-19	
1,3-Dichlorobenzene	ND	0.20	EPA 8260C	5-31-19	5-31-19	
1,4-Dichlorobenzene	ND	0.20	EPA 8260C	5-31-19	5-31-19	
1,2-Dichlorobenzene	ND	0.20	EPA 8260C	5-31-19	5-31-19	
1,2-Dibromo-3-chloropropane	ND	1.0	EPA 8260C	5-31-19	5-31-19	
1,2,4-Trichlorobenzene	ND	0.20	EPA 8260C	5-31-19	5-31-19	
Hexachlorobutadiene	ND	1.0	EPA 8260C	5-31-19	5-31-19	
1,2,3-Trichlorobenzene	ND	0.20	EPA 8260C	5-31-19	5-31-19	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Dibromofluoromethane</i>	<i>97</i>	<i>75-127</i>				
<i>Toluene-d8</i>	<i>100</i>	<i>80-127</i>				
<i>4-Bromofluorobenzene</i>	<i>99</i>	<i>78-125</i>				



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Matrix: Water  
 Units: ug/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>Client ID:</b>	<b>HZ-MW-27:W</b>					
Laboratory ID:	05-381-04					
Dichlorodifluoromethane	ND	0.20	EPA 8260C	5-31-19	5-31-19	
Chloromethane	ND	1.0	EPA 8260C	5-31-19	5-31-19	
Vinyl Chloride	ND	0.20	EPA 8260C	5-31-19	5-31-19	
Bromomethane	ND	0.28	EPA 8260C	5-31-19	5-31-19	
Chloroethane	ND	1.0	EPA 8260C	5-31-19	5-31-19	
Trichlorofluoromethane	ND	0.20	EPA 8260C	5-31-19	5-31-19	
1,1-Dichloroethene	ND	0.20	EPA 8260C	5-31-19	5-31-19	
Iodomethane	ND	3.0	EPA 8260C	5-31-19	5-31-19	
Methylene Chloride	ND	1.0	EPA 8260C	5-31-19	5-31-19	
(trans) 1,2-Dichloroethene	ND	0.20	EPA 8260C	5-31-19	5-31-19	
1,1-Dichloroethane	ND	0.20	EPA 8260C	5-31-19	5-31-19	
2,2-Dichloropropane	ND	0.20	EPA 8260C	5-31-19	5-31-19	
(cis) 1,2-Dichloroethene	ND	0.20	EPA 8260C	5-31-19	5-31-19	
Bromochloromethane	ND	0.20	EPA 8260C	5-31-19	5-31-19	
Chloroform	ND	0.20	EPA 8260C	5-31-19	5-31-19	
1,1,1-Trichloroethane	ND	0.20	EPA 8260C	5-31-19	5-31-19	
Carbon Tetrachloride	ND	0.20	EPA 8260C	5-31-19	5-31-19	
1,1-Dichloropropene	ND	0.20	EPA 8260C	5-31-19	5-31-19	
1,2-Dichloroethane	ND	0.20	EPA 8260C	5-31-19	5-31-19	
Trichloroethene	ND	0.20	EPA 8260C	5-31-19	5-31-19	
1,2-Dichloropropane	ND	0.20	EPA 8260C	5-31-19	5-31-19	
Dibromomethane	ND	0.20	EPA 8260C	5-31-19	5-31-19	
Bromodichloromethane	ND	0.20	EPA 8260C	5-31-19	5-31-19	
2-Chloroethyl Vinyl Ether	ND	1.0	EPA 8260C	5-31-19	5-31-19	
(cis) 1,3-Dichloropropene	ND	0.20	EPA 8260C	5-31-19	5-31-19	
(trans) 1,3-Dichloropropene	ND	0.20	EPA 8260C	5-31-19	5-31-19	



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Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>Client ID:</b>	<b>HZ-MW-27:W</b>					
Laboratory ID:	05-381-04					
1,1,2-Trichloroethane	ND	0.20	EPA 8260C	5-31-19	5-31-19	
Tetrachloroethene	ND	0.20	EPA 8260C	5-31-19	5-31-19	
1,3-Dichloropropane	ND	0.20	EPA 8260C	5-31-19	5-31-19	
Dibromochloromethane	ND	0.20	EPA 8260C	5-31-19	5-31-19	
1,2-Dibromoethane	ND	0.20	EPA 8260C	5-31-19	5-31-19	
Chlorobenzene	ND	0.20	EPA 8260C	5-31-19	5-31-19	
1,1,1,2-Tetrachloroethane	ND	0.20	EPA 8260C	5-31-19	5-31-19	
Bromoform	ND	1.0	EPA 8260C	5-31-19	5-31-19	
Bromobenzene	ND	0.20	EPA 8260C	5-31-19	5-31-19	
1,1,2,2-Tetrachloroethane	ND	0.20	EPA 8260C	5-31-19	5-31-19	
1,2,3-Trichloropropane	ND	0.20	EPA 8260C	5-31-19	5-31-19	
2-Chlorotoluene	ND	0.20	EPA 8260C	5-31-19	5-31-19	
4-Chlorotoluene	ND	0.20	EPA 8260C	5-31-19	5-31-19	
1,3-Dichlorobenzene	ND	0.20	EPA 8260C	5-31-19	5-31-19	
1,4-Dichlorobenzene	ND	0.20	EPA 8260C	5-31-19	5-31-19	
1,2-Dichlorobenzene	ND	0.20	EPA 8260C	5-31-19	5-31-19	
1,2-Dibromo-3-chloropropane	ND	1.0	EPA 8260C	5-31-19	5-31-19	
1,2,4-Trichlorobenzene	ND	0.20	EPA 8260C	5-31-19	5-31-19	
Hexachlorobutadiene	ND	1.0	EPA 8260C	5-31-19	5-31-19	
1,2,3-Trichlorobenzene	ND	0.20	EPA 8260C	5-31-19	5-31-19	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Dibromofluoromethane</i>	<i>98</i>	<i>75-127</i>				
<i>Toluene-d8</i>	<i>101</i>	<i>80-127</i>				
<i>4-Bromofluorobenzene</i>	<i>98</i>	<i>78-125</i>				



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Matrix: Water  
 Units: ug/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>Client ID:</b>	<b>HZ-MW-4:W</b>					
Laboratory ID:	05-381-05					
Dichlorodifluoromethane	ND	0.20	EPA 8260C	5-31-19	5-31-19	
Chloromethane	ND	1.0	EPA 8260C	5-31-19	5-31-19	
Vinyl Chloride	ND	0.20	EPA 8260C	5-31-19	5-31-19	
Bromomethane	ND	0.28	EPA 8260C	5-31-19	5-31-19	
Chloroethane	ND	1.0	EPA 8260C	5-31-19	5-31-19	
Trichlorofluoromethane	ND	0.20	EPA 8260C	5-31-19	5-31-19	
1,1-Dichloroethene	ND	0.20	EPA 8260C	5-31-19	5-31-19	
Iodomethane	ND	3.0	EPA 8260C	5-31-19	5-31-19	
Methylene Chloride	ND	1.0	EPA 8260C	5-31-19	5-31-19	
(trans) 1,2-Dichloroethene	ND	0.20	EPA 8260C	5-31-19	5-31-19	
1,1-Dichloroethane	ND	0.20	EPA 8260C	5-31-19	5-31-19	
2,2-Dichloropropane	ND	0.20	EPA 8260C	5-31-19	5-31-19	
(cis) 1,2-Dichloroethene	ND	0.20	EPA 8260C	5-31-19	5-31-19	
Bromochloromethane	ND	0.20	EPA 8260C	5-31-19	5-31-19	
Chloroform	ND	0.20	EPA 8260C	5-31-19	5-31-19	
1,1,1-Trichloroethane	ND	0.20	EPA 8260C	5-31-19	5-31-19	
Carbon Tetrachloride	ND	0.20	EPA 8260C	5-31-19	5-31-19	
1,1-Dichloropropene	ND	0.20	EPA 8260C	5-31-19	5-31-19	
1,2-Dichloroethane	ND	0.20	EPA 8260C	5-31-19	5-31-19	
Trichloroethene	ND	0.20	EPA 8260C	5-31-19	5-31-19	
1,2-Dichloropropane	ND	0.20	EPA 8260C	5-31-19	5-31-19	
Dibromomethane	ND	0.20	EPA 8260C	5-31-19	5-31-19	
Bromodichloromethane	ND	0.20	EPA 8260C	5-31-19	5-31-19	
2-Chloroethyl Vinyl Ether	ND	1.0	EPA 8260C	5-31-19	5-31-19	
(cis) 1,3-Dichloropropene	ND	0.20	EPA 8260C	5-31-19	5-31-19	
(trans) 1,3-Dichloropropene	ND	0.20	EPA 8260C	5-31-19	5-31-19	





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Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>Client ID:</b>	<b>HZ-MW-4:W</b>					
Laboratory ID:	05-381-05					
1,1,2-Trichloroethane	ND	0.20	EPA 8260C	5-31-19	5-31-19	
Tetrachloroethene	0.41	0.20	EPA 8260C	5-31-19	5-31-19	
1,3-Dichloropropane	ND	0.20	EPA 8260C	5-31-19	5-31-19	
Dibromochloromethane	ND	0.20	EPA 8260C	5-31-19	5-31-19	
1,2-Dibromoethane	ND	0.20	EPA 8260C	5-31-19	5-31-19	
Chlorobenzene	ND	0.20	EPA 8260C	5-31-19	5-31-19	
1,1,1,2-Tetrachloroethane	ND	0.20	EPA 8260C	5-31-19	5-31-19	
Bromoform	ND	1.0	EPA 8260C	5-31-19	5-31-19	
Bromobenzene	ND	0.20	EPA 8260C	5-31-19	5-31-19	
1,1,2,2-Tetrachloroethane	ND	0.20	EPA 8260C	5-31-19	5-31-19	
1,2,3-Trichloropropane	ND	0.20	EPA 8260C	5-31-19	5-31-19	
2-Chlorotoluene	ND	0.20	EPA 8260C	5-31-19	5-31-19	
4-Chlorotoluene	ND	0.20	EPA 8260C	5-31-19	5-31-19	
1,3-Dichlorobenzene	ND	0.20	EPA 8260C	5-31-19	5-31-19	
1,4-Dichlorobenzene	ND	0.20	EPA 8260C	5-31-19	5-31-19	
1,2-Dichlorobenzene	ND	0.20	EPA 8260C	5-31-19	5-31-19	
1,2-Dibromo-3-chloropropane	ND	1.0	EPA 8260C	5-31-19	5-31-19	
1,2,4-Trichlorobenzene	ND	0.20	EPA 8260C	5-31-19	5-31-19	
Hexachlorobutadiene	ND	1.0	EPA 8260C	5-31-19	5-31-19	
1,2,3-Trichlorobenzene	ND	0.20	EPA 8260C	5-31-19	5-31-19	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Dibromofluoromethane</i>	<i>102</i>	<i>75-127</i>				
<i>Toluene-d8</i>	<i>104</i>	<i>80-127</i>				
<i>4-Bromofluorobenzene</i>	<i>102</i>	<i>78-125</i>				



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 Laboratory Reference: 1905-381  
 Project: 82302-9.4

**VOLATILE ORGANICS EPA 8260C**  
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Matrix: Water  
 Units: ug/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>Client ID:</b>	<b>HZ-MW-26:W</b>					
Laboratory ID:	05-381-06					
Dichlorodifluoromethane	ND	0.20	EPA 8260C	5-31-19	5-31-19	
Chloromethane	ND	1.0	EPA 8260C	5-31-19	5-31-19	
Vinyl Chloride	ND	0.20	EPA 8260C	5-31-19	5-31-19	
Bromomethane	ND	0.28	EPA 8260C	5-31-19	5-31-19	
Chloroethane	ND	1.0	EPA 8260C	5-31-19	5-31-19	
Trichlorofluoromethane	ND	0.20	EPA 8260C	5-31-19	5-31-19	
1,1-Dichloroethene	ND	0.20	EPA 8260C	5-31-19	5-31-19	
Iodomethane	ND	3.0	EPA 8260C	5-31-19	5-31-19	
Methylene Chloride	ND	1.0	EPA 8260C	5-31-19	5-31-19	
(trans) 1,2-Dichloroethene	ND	0.20	EPA 8260C	5-31-19	5-31-19	
1,1-Dichloroethane	ND	0.20	EPA 8260C	5-31-19	5-31-19	
2,2-Dichloropropane	ND	0.20	EPA 8260C	5-31-19	5-31-19	
(cis) 1,2-Dichloroethene	1.4	0.20	EPA 8260C	5-31-19	5-31-19	
Bromochloromethane	ND	0.20	EPA 8260C	5-31-19	5-31-19	
Chloroform	ND	0.20	EPA 8260C	5-31-19	5-31-19	
1,1,1-Trichloroethane	ND	0.20	EPA 8260C	5-31-19	5-31-19	
Carbon Tetrachloride	ND	0.20	EPA 8260C	5-31-19	5-31-19	
1,1-Dichloropropene	ND	0.20	EPA 8260C	5-31-19	5-31-19	
1,2-Dichloroethane	ND	0.20	EPA 8260C	5-31-19	5-31-19	
Trichloroethene	ND	0.20	EPA 8260C	5-31-19	5-31-19	
1,2-Dichloropropane	ND	0.20	EPA 8260C	5-31-19	5-31-19	
Dibromomethane	ND	0.20	EPA 8260C	5-31-19	5-31-19	
Bromodichloromethane	ND	0.20	EPA 8260C	5-31-19	5-31-19	
2-Chloroethyl Vinyl Ether	ND	1.0	EPA 8260C	5-31-19	5-31-19	
(cis) 1,3-Dichloropropene	ND	0.20	EPA 8260C	5-31-19	5-31-19	
(trans) 1,3-Dichloropropene	ND	0.20	EPA 8260C	5-31-19	5-31-19	



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**VOLATILE ORGANICS EPA 8260C**  
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Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>Client ID:</b>	<b>HZ-MW-26:W</b>					
Laboratory ID:	05-381-06					
1,1,2-Trichloroethane	ND	0.20	EPA 8260C	5-31-19	5-31-19	
Tetrachloroethene	9.7	0.20	EPA 8260C	5-31-19	5-31-19	
1,3-Dichloropropane	ND	0.20	EPA 8260C	5-31-19	5-31-19	
Dibromochloromethane	ND	0.20	EPA 8260C	5-31-19	5-31-19	
1,2-Dibromoethane	ND	0.20	EPA 8260C	5-31-19	5-31-19	
Chlorobenzene	ND	0.20	EPA 8260C	5-31-19	5-31-19	
1,1,1,2-Tetrachloroethane	ND	0.20	EPA 8260C	5-31-19	5-31-19	
Bromoform	ND	1.0	EPA 8260C	5-31-19	5-31-19	
Bromobenzene	ND	0.20	EPA 8260C	5-31-19	5-31-19	
1,1,2,2-Tetrachloroethane	ND	0.20	EPA 8260C	5-31-19	5-31-19	
1,2,3-Trichloropropane	ND	0.20	EPA 8260C	5-31-19	5-31-19	
2-Chlorotoluene	ND	0.20	EPA 8260C	5-31-19	5-31-19	
4-Chlorotoluene	ND	0.20	EPA 8260C	5-31-19	5-31-19	
1,3-Dichlorobenzene	ND	0.20	EPA 8260C	5-31-19	5-31-19	
1,4-Dichlorobenzene	ND	0.20	EPA 8260C	5-31-19	5-31-19	
1,2-Dichlorobenzene	ND	0.20	EPA 8260C	5-31-19	5-31-19	
1,2-Dibromo-3-chloropropane	ND	1.0	EPA 8260C	5-31-19	5-31-19	
1,2,4-Trichlorobenzene	ND	0.20	EPA 8260C	5-31-19	5-31-19	
Hexachlorobutadiene	ND	1.0	EPA 8260C	5-31-19	5-31-19	
1,2,3-Trichlorobenzene	ND	0.20	EPA 8260C	5-31-19	5-31-19	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Dibromofluoromethane</i>	<i>94</i>	<i>75-127</i>				
<i>Toluene-d8</i>	<i>99</i>	<i>80-127</i>				
<i>4-Bromofluorobenzene</i>	<i>95</i>	<i>78-125</i>				



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**VOLATILE ORGANICS EPA 8260C**  
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Matrix: Water  
 Units: ug/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>Client ID:</b>	<b>HZ-MW-19:W</b>					
Laboratory ID:	05-381-07					
Dichlorodifluoromethane	ND	0.20	EPA 8260C	5-31-19	5-31-19	
Chloromethane	ND	1.0	EPA 8260C	5-31-19	5-31-19	
Vinyl Chloride	ND	0.20	EPA 8260C	5-31-19	5-31-19	
Bromomethane	ND	0.28	EPA 8260C	5-31-19	5-31-19	
Chloroethane	ND	1.0	EPA 8260C	5-31-19	5-31-19	
Trichlorofluoromethane	ND	0.20	EPA 8260C	5-31-19	5-31-19	
1,1-Dichloroethene	ND	0.20	EPA 8260C	5-31-19	5-31-19	
Iodomethane	ND	3.0	EPA 8260C	5-31-19	5-31-19	
Methylene Chloride	ND	1.0	EPA 8260C	5-31-19	5-31-19	
(trans) 1,2-Dichloroethene	ND	0.20	EPA 8260C	5-31-19	5-31-19	
1,1-Dichloroethane	ND	0.20	EPA 8260C	5-31-19	5-31-19	
2,2-Dichloropropane	ND	0.20	EPA 8260C	5-31-19	5-31-19	
(cis) 1,2-Dichloroethene	ND	0.20	EPA 8260C	5-31-19	5-31-19	
Bromochloromethane	ND	0.20	EPA 8260C	5-31-19	5-31-19	
Chloroform	ND	0.20	EPA 8260C	5-31-19	5-31-19	
1,1,1-Trichloroethane	ND	0.20	EPA 8260C	5-31-19	5-31-19	
Carbon Tetrachloride	ND	0.20	EPA 8260C	5-31-19	5-31-19	
1,1-Dichloropropene	ND	0.20	EPA 8260C	5-31-19	5-31-19	
1,2-Dichloroethane	ND	0.20	EPA 8260C	5-31-19	5-31-19	
Trichloroethene	0.25	0.20	EPA 8260C	5-31-19	5-31-19	
1,2-Dichloropropane	ND	0.20	EPA 8260C	5-31-19	5-31-19	
Dibromomethane	ND	0.20	EPA 8260C	5-31-19	5-31-19	
Bromodichloromethane	ND	0.20	EPA 8260C	5-31-19	5-31-19	
2-Chloroethyl Vinyl Ether	ND	1.0	EPA 8260C	5-31-19	5-31-19	
(cis) 1,3-Dichloropropene	ND	0.20	EPA 8260C	5-31-19	5-31-19	
(trans) 1,3-Dichloropropene	ND	0.20	EPA 8260C	5-31-19	5-31-19	



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**VOLATILE ORGANICS EPA 8260C**  
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Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>Client ID:</b>	<b>HZ-MW-19:W</b>					
Laboratory ID:	05-381-07					
1,1,2-Trichloroethane	ND	0.20	EPA 8260C	5-31-19	5-31-19	
Tetrachloroethene	0.21	0.20	EPA 8260C	5-31-19	5-31-19	
1,3-Dichloropropane	ND	0.20	EPA 8260C	5-31-19	5-31-19	
Dibromochloromethane	ND	0.20	EPA 8260C	5-31-19	5-31-19	
1,2-Dibromoethane	ND	0.20	EPA 8260C	5-31-19	5-31-19	
Chlorobenzene	ND	0.20	EPA 8260C	5-31-19	5-31-19	
1,1,1,2-Tetrachloroethane	ND	0.20	EPA 8260C	5-31-19	5-31-19	
Bromoform	ND	1.0	EPA 8260C	5-31-19	5-31-19	
Bromobenzene	ND	0.20	EPA 8260C	5-31-19	5-31-19	
1,1,2,2-Tetrachloroethane	ND	0.20	EPA 8260C	5-31-19	5-31-19	
1,2,3-Trichloropropane	ND	0.20	EPA 8260C	5-31-19	5-31-19	
2-Chlorotoluene	ND	0.20	EPA 8260C	5-31-19	5-31-19	
4-Chlorotoluene	ND	0.20	EPA 8260C	5-31-19	5-31-19	
1,3-Dichlorobenzene	ND	0.20	EPA 8260C	5-31-19	5-31-19	
1,4-Dichlorobenzene	ND	0.20	EPA 8260C	5-31-19	5-31-19	
1,2-Dichlorobenzene	ND	0.20	EPA 8260C	5-31-19	5-31-19	
1,2-Dibromo-3-chloropropane	ND	1.0	EPA 8260C	5-31-19	5-31-19	
1,2,4-Trichlorobenzene	ND	0.20	EPA 8260C	5-31-19	5-31-19	
Hexachlorobutadiene	ND	1.0	EPA 8260C	5-31-19	5-31-19	
1,2,3-Trichlorobenzene	ND	0.20	EPA 8260C	5-31-19	5-31-19	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Dibromofluoromethane</i>	<i>94</i>	<i>75-127</i>				
<i>Toluene-d8</i>	<i>99</i>	<i>80-127</i>				
<i>4-Bromofluorobenzene</i>	<i>97</i>	<i>78-125</i>				



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 Project: 82302-9.4

**VOLATILE ORGANICS EPA 8260C**  
**METHOD BLANK QUALITY CONTROL**  
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Matrix: Water  
 Units: ug/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Laboratory ID:	MB0531W1					
Dichlorodifluoromethane	ND	0.20	EPA 8260C	5-31-19	5-31-19	
Chloromethane	ND	1.0	EPA 8260C	5-31-19	5-31-19	
Vinyl Chloride	ND	0.20	EPA 8260C	5-31-19	5-31-19	
Bromomethane	ND	0.28	EPA 8260C	5-31-19	5-31-19	
Chloroethane	ND	1.0	EPA 8260C	5-31-19	5-31-19	
Trichlorofluoromethane	ND	0.20	EPA 8260C	5-31-19	5-31-19	
1,1-Dichloroethene	ND	0.20	EPA 8260C	5-31-19	5-31-19	
Iodomethane	ND	3.0	EPA 8260C	5-31-19	5-31-19	
Methylene Chloride	ND	1.0	EPA 8260C	5-31-19	5-31-19	
(trans) 1,2-Dichloroethene	ND	0.20	EPA 8260C	5-31-19	5-31-19	
1,1-Dichloroethane	ND	0.20	EPA 8260C	5-31-19	5-31-19	
2,2-Dichloropropane	ND	0.20	EPA 8260C	5-31-19	5-31-19	
(cis) 1,2-Dichloroethene	ND	0.20	EPA 8260C	5-31-19	5-31-19	
Bromochloromethane	ND	0.20	EPA 8260C	5-31-19	5-31-19	
Chloroform	ND	0.20	EPA 8260C	5-31-19	5-31-19	
1,1,1-Trichloroethane	ND	0.20	EPA 8260C	5-31-19	5-31-19	
Carbon Tetrachloride	ND	0.20	EPA 8260C	5-31-19	5-31-19	
1,1-Dichloropropene	ND	0.20	EPA 8260C	5-31-19	5-31-19	
1,2-Dichloroethane	ND	0.20	EPA 8260C	5-31-19	5-31-19	
Trichloroethene	ND	0.20	EPA 8260C	5-31-19	5-31-19	
1,2-Dichloropropane	ND	0.20	EPA 8260C	5-31-19	5-31-19	
Dibromomethane	ND	0.20	EPA 8260C	5-31-19	5-31-19	
Bromodichloromethane	ND	0.20	EPA 8260C	5-31-19	5-31-19	
2-Chloroethyl Vinyl Ether	ND	1.0	EPA 8260C	5-31-19	5-31-19	
(cis) 1,3-Dichloropropene	ND	0.20	EPA 8260C	5-31-19	5-31-19	
(trans) 1,3-Dichloropropene	ND	0.20	EPA 8260C	5-31-19	5-31-19	



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**VOLATILE ORGANICS EPA 8260C**  
**METHOD BLANK QUALITY CONTROL**  
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Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Laboratory ID:	MB0531W1					
1,1,2-Trichloroethane	ND	0.20	EPA 8260C	5-31-19	5-31-19	
Tetrachloroethene	ND	0.20	EPA 8260C	5-31-19	5-31-19	
1,3-Dichloropropane	ND	0.20	EPA 8260C	5-31-19	5-31-19	
Dibromochloromethane	ND	0.20	EPA 8260C	5-31-19	5-31-19	
1,2-Dibromoethane	ND	0.20	EPA 8260C	5-31-19	5-31-19	
Chlorobenzene	ND	0.20	EPA 8260C	5-31-19	5-31-19	
1,1,1,2-Tetrachloroethane	ND	0.20	EPA 8260C	5-31-19	5-31-19	
Bromoform	ND	1.0	EPA 8260C	5-31-19	5-31-19	
Bromobenzene	ND	0.20	EPA 8260C	5-31-19	5-31-19	
1,1,2,2-Tetrachloroethane	ND	0.20	EPA 8260C	5-31-19	5-31-19	
1,2,3-Trichloropropane	ND	0.20	EPA 8260C	5-31-19	5-31-19	
2-Chlorotoluene	ND	0.20	EPA 8260C	5-31-19	5-31-19	
4-Chlorotoluene	ND	0.20	EPA 8260C	5-31-19	5-31-19	
1,3-Dichlorobenzene	ND	0.20	EPA 8260C	5-31-19	5-31-19	
1,4-Dichlorobenzene	ND	0.20	EPA 8260C	5-31-19	5-31-19	
1,2-Dichlorobenzene	ND	0.20	EPA 8260C	5-31-19	5-31-19	
1,2-Dibromo-3-chloropropane	ND	1.0	EPA 8260C	5-31-19	5-31-19	
1,2,4-Trichlorobenzene	ND	0.20	EPA 8260C	5-31-19	5-31-19	
Hexachlorobutadiene	ND	1.0	EPA 8260C	5-31-19	5-31-19	
1,2,3-Trichlorobenzene	ND	0.20	EPA 8260C	5-31-19	5-31-19	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Dibromofluoromethane</i>	<i>98</i>	<i>75-127</i>				
<i>Toluene-d8</i>	<i>101</i>	<i>80-127</i>				
<i>4-Bromofluorobenzene</i>	<i>98</i>	<i>78-125</i>				



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 Project: 82302-9.4

**VOLATILE ORGANICS EPA 8260C  
 SB/SBD QUALITY CONTROL**

Matrix: Water  
 Units: ug/L

Analyte	Result		Spike Level		Percent Recovery		Recovery	RPD	RPD	Flags
					SB	SBD	Limits	RPD	Limit	
<b>SPIKE BLANKS</b>										
Laboratory ID:	SB0531W1									
	SB	SBD	SB	SBD	SB	SBD				
1,1-Dichloroethene	<b>10.2</b>	<b>9.89</b>	10.0	10.0	102	99	63-130	3	17	
Benzene	<b>10.1</b>	<b>9.84</b>	10.0	10.0	101	98	76-125	3	19	
Trichloroethene	<b>10.7</b>	<b>10.6</b>	10.0	10.0	107	106	76-121	1	18	
Toluene	<b>10.4</b>	<b>10.2</b>	10.0	10.0	104	102	80-124	2	18	
Chlorobenzene	<b>10.8</b>	<b>10.5</b>	10.0	10.0	108	105	75-120	3	19	
<i>Surrogate:</i>										
Dibromofluoromethane					98	98	75-127			
Toluene-d8					100	101	80-127			
4-Bromofluorobenzene					100	99	78-125			





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**DISSOLVED GASES  
 RSK 175**

Matrix: Water  
 Units: ug/L (ppb)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>Client ID:</b>	<b>HZ-MW-23:W</b>					
Laboratory ID:	05-381-01					
Methane	<b>750</b>	100	RSK 175	6-5-19	6-5-19	
Ethane	<b>ND</b>	50	RSK 175	6-5-19	6-5-19	
Ethene	<b>ND</b>	50	RSK 175	6-5-19	6-5-19	

<b>Client ID:</b>	<b>HZ-MW-1:W</b>					
Laboratory ID:	05-381-02					
Methane	<b>1.4</b>	1.0	RSK 175	6-5-19	6-5-19	
Ethane	<b>ND</b>	0.50	RSK 175	6-5-19	6-5-19	
Ethene	<b>ND</b>	0.50	RSK 175	6-5-19	6-5-19	

<b>Client ID:</b>	<b>HZ-MW-25:W</b>					
Laboratory ID:	05-381-03					
Methane	<b>56</b>	10	RSK 175	6-5-19	6-5-19	
Ethane	<b>ND</b>	5.0	RSK 175	6-5-19	6-5-19	
Ethene	<b>ND</b>	5.0	RSK 175	6-5-19	6-5-19	

<b>Client ID:</b>	<b>HZ-MW-27:W</b>					
Laboratory ID:	05-381-04					
Methane	<b>93</b>	10	RSK 175	6-5-19	6-5-19	
Ethane	<b>ND</b>	5.0	RSK 175	6-5-19	6-5-19	
Ethene	<b>ND</b>	5.0	RSK 175	6-5-19	6-5-19	

<b>Client ID:</b>	<b>HZ-MW-4:W</b>					
Laboratory ID:	05-381-05					
Methane	<b>1.6</b>	1.0	RSK 175	6-5-19	6-5-19	
Ethane	<b>ND</b>	0.50	RSK 175	6-5-19	6-5-19	
Ethene	<b>ND</b>	0.50	RSK 175	6-5-19	6-5-19	

<b>Client ID:</b>	<b>HZ-MW-26:W</b>					
Laboratory ID:	05-381-06					
Methane	<b>4.2</b>	1.0	RSK 175	6-5-19	6-5-19	
Ethane	<b>ND</b>	0.50	RSK 175	6-5-19	6-5-19	
Ethene	<b>ND</b>	0.50	RSK 175	6-5-19	6-5-19	



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Laboratory Reference: 1905-381  
Project: 82302-9.4

**DISSOLVED GASES**  
**RSK 175**

Matrix: Water  
Units: ug/L (ppb)

<b>Analyte</b>	<b>Result</b>	<b>PQL</b>	<b>Method</b>	<b>Date Prepared</b>	<b>Date Analyzed</b>	<b>Flags</b>
<b>Client ID:</b>	<b>HZ-MW-19:W</b>					
Laboratory ID:	05-381-07					
Methane	<b>19</b>	2.0	RSK 175	6-11-19	6-11-19	
Ethane	<b>ND</b>	1.0	RSK 175	6-11-19	6-11-19	
Ethene	<b>ND</b>	1.0	RSK 175	6-11-19	6-11-19	



Date of Report: June 12, 2019  
 Samples Submitted: May 30, 2019  
 Laboratory Reference: 1905-381  
 Project: 82302-9.4

**DISSOLVED GASES  
 RSK 175  
 QUALITY CONTROL**

Matrix: Water  
 Units: ug/L (ppb)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>METHOD BLANK</b>						
Laboratory ID:	MB0605W1					
Methane	ND	1.0	RSK 175	6-5-19	6-5-19	
Ethane	ND	0.50	RSK 175	6-5-19	6-5-19	
Ethene	ND	0.50	RSK 175	6-5-19	6-5-19	

Laboratory ID:	MB0611W1					
Methane	ND	1.0	RSK 175	6-11-19	6-11-19	
Ethane	ND	0.50	RSK 175	6-11-19	6-11-19	
Ethene	ND	0.50	RSK 175	6-11-19	6-11-19	

Analyte	Result		Spike Level		Source Result	Percent Recovery		Recovery Limits	RPD	RPD Limit	Flags
<b>MATRIX SPIKES</b>											
Laboratory ID:	01-123-01										
	MS	MSD	MS	MSD		MS	MSD				
Methane	9.41	9.08	4.42	4.42	4.20	118	110	75-125	4	25	
Ethane	7.79	7.34	8.32	8.32	ND	94	88	75-125	6	25	
Ethene	5.79	6.37	7.77	7.77	ND	75	82	75-125	10	25	



Date of Report: June 12, 2019  
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 Project: 82302-9.4

**AMMONIA (as Nitrogen)**  
**SM 4500-NH<sub>3</sub> D**

Matrix: Water  
 Units: mg NH<sub>3</sub>-N/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>Client ID:</b>	<b>HZ-MW-23:W</b>					
Laboratory ID:	05-381-01					
Ammonia	<b>ND</b>	0.050	SM 4500-NH3 D	5-31-19	5-31-19	

<b>Client ID:</b>	<b>HZ-MW-1:W</b>					
Laboratory ID:	05-381-02					
Ammonia	<b>ND</b>	0.050	SM 4500-NH3 D	5-31-19	5-31-19	

<b>Client ID:</b>	<b>HZ-MW-25:W</b>					
Laboratory ID:	05-381-03					
Ammonia	<b>ND</b>	0.050	SM 4500-NH3 D	5-31-19	5-31-19	

<b>Client ID:</b>	<b>HZ-MW-27:W</b>					
Laboratory ID:	05-381-04					
Ammonia	<b>ND</b>	0.050	SM 4500-NH3 D	5-31-19	5-31-19	

<b>Client ID:</b>	<b>HZ-MW-4:W</b>					
Laboratory ID:	05-381-05					
Ammonia	<b>ND</b>	0.050	SM 4500-NH3 D	5-31-19	5-31-19	

<b>Client ID:</b>	<b>HZ-MW-26:W</b>					
Laboratory ID:	05-381-06					
Ammonia	<b>ND</b>	0.050	SM 4500-NH3 D	5-31-19	5-31-19	

<b>Client ID:</b>	<b>HZ-MW-19:W</b>					
Laboratory ID:	05-381-07					
Ammonia	<b>ND</b>	0.050	SM 4500-NH3 D	5-31-19	5-31-19	



Date of Report: June 12, 2019  
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 Laboratory Reference: 1905-381  
 Project: 82302-9.4

**AMMONIA (as Nitrogen)  
 SM 4500-NH<sub>3</sub> D  
 QUALITY CONTROL**

Matrix: Water  
 Units: mg NH<sub>3</sub>-N/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>METHOD BLANK</b>						
Laboratory ID:	MB0531W1					
Ammonia	<b>ND</b>	0.050	SM 4500-NH <sub>3</sub> D	5-31-19	5-31-19	

Analyte	Result	Spike Level	Source Result	Percent Recovery	Recovery Limits	RPD	RPD Limit	Flags
<b>DUPLICATE</b>								
Laboratory ID:	05-331-02							
	ORIG	DUP						
Ammonia	<b>ND</b>	<b>ND</b>	NA	NA	NA	NA	12	

<b>MATRIX SPIKE</b>								
Laboratory ID:	05-331-02							
	MS	MS		MS				
Ammonia	<b>4.82</b>	5.00	ND	96	75-121	NA	NA	

<b>SPIKE BLANK</b>								
Laboratory ID:	SB0531W1							
	SB	SB		SB				
Ammonia	<b>4.58</b>	5.00	NA	92	85-110	NA	NA	



Date of Report: June 12, 2019  
 Samples Submitted: May 30, 2019  
 Laboratory Reference: 1905-381  
 Project: 82302-9.4

**DISSOLVED IRON  
 EPA 6010D**

Matrix: Water  
 Units: ug/L (ppb)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>Client ID:</b>	<b>HZ-MW-23:W</b>					
Laboratory ID:	05-381-01					
Iron	<b>7500</b>	56	EPA 6010D	5-30-19	6-5-19	
<b>Client ID:</b>	<b>HZ-MW-1:W</b>					
Laboratory ID:	05-381-02					
Iron	<b>ND</b>	56	EPA 6010D	5-30-19	6-5-19	
<b>Client ID:</b>	<b>HZ-MW-25:W</b>					
Laboratory ID:	05-381-03					
Iron	<b>330</b>	56	EPA 6010D	5-30-19	6-5-19	
<b>Client ID:</b>	<b>HZ-MW-27:W</b>					
Laboratory ID:	05-381-04					
Iron	<b>1200</b>	56	EPA 6010D	5-30-19	6-5-19	
<b>Client ID:</b>	<b>HZ-MW-4:W</b>					
Laboratory ID:	05-381-05					
Iron	<b>ND</b>	56	EPA 6010D	5-30-19	6-5-19	
<b>Client ID:</b>	<b>HZ-MW-26:W</b>					
Laboratory ID:	05-381-06					
Iron	<b>ND</b>	56	EPA 6010D	5-30-19	6-5-19	
<b>Client ID:</b>	<b>HZ-MW-19:W</b>					
Laboratory ID:	05-381-07					
Iron	<b>240</b>	56	EPA 6010D	5-30-19	6-5-19	



Date of Report: June 12, 2019  
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 Project: 82302-9.4

**DISSOLVED IRON  
 EPA 6010D  
 QUALITY CONTROL**

Matrix: Water  
 Units: ug/L (ppb)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>METHOD BLANK</b>						
Laboratory ID:	MB0530F1					
Iron	<b>ND</b>	56	EPA 6010D	5-30-19	6-5-19	

Analyte	Result	Spike Level	Source Result	Percent Recovery	Recovery Limits	RPD	RPD Limit	Flags
<b>DUPLICATE</b>								
Laboratory ID:	05-397-05							
	ORIG	DUP						
Iron	<b>10400</b>	<b>10300</b>	NA	NA	NA	NA	1	20

Analyte	Result	Spike Level	Source Result	Percent Recovery	Recovery Limits	RPD	RPD Limit	Flags		
<b>MATRIX SPIKES</b>										
Laboratory ID:	05-397-05									
	MS	MSD	MS	MSD	MS	MSD				
Iron	<b>28600</b>	<b>28800</b>	22200	22200	10400	<b>82</b>	<b>83</b>	75-125	1	20



Date of Report: June 12, 2019  
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**CHLORIDE  
 SM 4500-Cl E**

Matrix: Water  
 Units: mg/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>Client ID:</b>	<b>HZ-MW-23:W</b>					
Laboratory ID:	05-381-01					
Chloride	11	2.0	SM 4500-Cl E	6-5-19	6-5-19	

<b>Client ID:</b>	<b>HZ-MW-1:W</b>					
Laboratory ID:	05-381-02					
Chloride	5.9	2.0	SM 4500-Cl E	6-5-19	6-5-19	

<b>Client ID:</b>	<b>HZ-MW-25:W</b>					
Laboratory ID:	05-381-03					
Chloride	22	2.0	SM 4500-Cl E	6-5-19	6-5-19	

<b>Client ID:</b>	<b>HZ-MW-27:W</b>					
Laboratory ID:	05-381-04					
Chloride	8.7	2.0	SM 4500-Cl E	6-5-19	6-5-19	

<b>Client ID:</b>	<b>HZ-MW-4:W</b>					
Laboratory ID:	05-381-05					
Chloride	21	2.0	SM 4500-Cl E	6-5-19	6-5-19	

<b>Client ID:</b>	<b>HZ-MW-26:W</b>					
Laboratory ID:	05-381-06					
Chloride	9.3	2.0	SM 4500-Cl E	6-5-19	6-5-19	

<b>Client ID:</b>	<b>HZ-MW-19:W</b>					
Laboratory ID:	05-381-07					
Chloride	3.9	2.0	SM 4500-Cl E	6-5-19	6-5-19	





Date of Report: June 12, 2019  
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**CHLORIDE  
 SM 4500-Cl E  
 QUALITY CONTROL**

Matrix: Water  
 Units: mg/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>METHOD BLANK</b>						
Laboratory ID:	MB0605W2					
Chloride	<b>ND</b>	2.0	SM 4500-Cl E	6-5-19	6-5-19	

Analyte	Result	Spike Level	Source Result	Percent Recovery	Recovery Limits	RPD	RPD Limit	Flags
<b>DUPLICATE</b>								
Laboratory ID:	05-381-01							
	ORIG	DUP						
Chloride	<b>11.0</b>	<b>11.2</b>	NA	NA	NA	2	17	

<b>MATRIX SPIKE</b>								
Laboratory ID:	05-381-01							
	MS	MS		MS				
Chloride	<b>60.7</b>	50.0	11.0	99	80-116	NA	NA	

<b>SPIKE BLANK</b>								
Laboratory ID:	SB0605W2							
	SB	SB		SB				
Chloride	<b>50.1</b>	50.0	NA	100	90-110	NA	NA	



Date of Report: June 12, 2019  
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 Laboratory Reference: 1905-381  
 Project: 82302-9.4

**SULFATE**  
**ASTM D516-11**

Matrix: Water  
 Units: mg/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>Client ID:</b>	<b>HZ-MW-23:W</b>					
Laboratory ID:	05-381-01					
Sulfate	<b>13</b>	5.0	ASTM D516-11	6-4-19	6-4-19	

<b>Client ID:</b>	<b>HZ-MW-1:W</b>					
Laboratory ID:	05-381-02					
Sulfate	<b>7.4</b>	5.0	ASTM D516-11	6-4-19	6-4-19	

<b>Client ID:</b>	<b>HZ-MW-25:W</b>					
Laboratory ID:	05-381-03					
Sulfate	<b>12</b>	5.0	ASTM D516-11	6-4-19	6-4-19	

<b>Client ID:</b>	<b>HZ-MW-27:W</b>					
Laboratory ID:	05-381-04					
Sulfate	<b>18</b>	5.0	ASTM D516-11	6-4-19	6-4-19	

<b>Client ID:</b>	<b>HZ-MW-4:W</b>					
Laboratory ID:	05-381-05					
Sulfate	<b>45</b>	20	ASTM D516-11	6-4-19	6-4-19	

<b>Client ID:</b>	<b>HZ-MW-26:W</b>					
Laboratory ID:	05-381-06					
Sulfate	<b>28</b>	10	ASTM D516-11	6-4-19	6-4-19	

<b>Client ID:</b>	<b>HZ-MW-19:W</b>					
Laboratory ID:	05-381-07					
Sulfate	<b>28</b>	10	ASTM D516-11	6-4-19	6-4-19	



Date of Report: June 12, 2019  
 Samples Submitted: May 30, 2019  
 Laboratory Reference: 1905-381  
 Project: 82302-9.4

**SULFATE  
 ASTM D516-11  
 QUALITY CONTROL**

Matrix: Water  
 Units: mg/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>METHOD BLANK</b>						
Laboratory ID:	MB0604W1					
Sulfate	<b>ND</b>	5.0	ASTM D516-11	6-4-19	6-4-19	

Analyte	Result	Spike Level	Source Result	Percent Recovery	Recovery Limits	RPD	RPD Limit	Flags
<b>DUPLICATE</b>								
Laboratory ID:	05-397-05							
	ORIG	DUP						
Sulfate	<b>ND</b>	<b>ND</b>	NA	NA	NA	NA	10	

<b>MATRIX SPIKE</b>								
Laboratory ID:	05-397-05							
	MS	MS		MS				
Sulfate	<b>24.4</b>	20.0	ND	122	73-134	NA	NA	

<b>SPIKE BLANK</b>								
Laboratory ID:	SB0604W1							
	SB	SB		SB				
Sulfate	<b>10.1</b>	10.0	NA	101	89-113	NA	NA	



Date of Report: June 12, 2019  
 Samples Submitted: May 30, 2019  
 Laboratory Reference: 1905-381  
 Project: 82302-9.4

**TOTAL ORGANIC CARBON  
 SM 5310B**

Matrix: Water  
 Units: mg/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>Client ID:</b>	<b>HZ-MW-23:W</b>					
Laboratory ID:	05-381-01					
Total Organic Carbon	<b>3.4</b>	1.0	SM 5310B	6-6-19	6-6-19	
<b>Client ID:</b>	<b>HZ-MW-1:W</b>					
Laboratory ID:	05-381-02					
Total Organic Carbon	<b>1.1</b>	1.0	SM 5310B	6-6-19	6-6-19	
<b>Client ID:</b>	<b>HZ-MW-25:W</b>					
Laboratory ID:	05-381-03					
Total Organic Carbon	<b>ND</b>	1.0	SM 5310B	6-6-19	6-6-19	
<b>Client ID:</b>	<b>HZ-MW-27:W</b>					
Laboratory ID:	05-381-04					
Total Organic Carbon	<b>1.4</b>	1.0	SM 5310B	6-6-19	6-6-19	
<b>Client ID:</b>	<b>HZ-MW-4:W</b>					
Laboratory ID:	05-381-05					
Total Organic Carbon	<b>2.6</b>	1.0	SM 5310B	6-6-19	6-6-19	
<b>Client ID:</b>	<b>HZ-MW-26:W</b>					
Laboratory ID:	05-381-06					
Total Organic Carbon	<b>ND</b>	1.0	SM 5310B	6-6-19	6-6-19	
<b>Client ID:</b>	<b>HZ-MW-19:W</b>					
Laboratory ID:	05-381-07					
Total Organic Carbon	<b>3.5</b>	1.0	SM 5310B	6-6-19	6-6-19	



Date of Report: June 12, 2019  
 Samples Submitted: May 30, 2019  
 Laboratory Reference: 1905-381  
 Project: 82302-9.4

**TOTAL ORGANIC CARBON  
 SM 5310B  
 QUALITY CONTROL**

Matrix: Water  
 Units: mg/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>METHOD BLANK</b>						
Laboratory ID:	MB0606W1					
Total Organic Carbon	<b>ND</b>	1.0	SM 5310B	6-6-19	6-6-19	

Analyte	Result	Spike Level	Source Result	Percent Recovery	Recovery Limits	RPD	RPD Limit	Flags
<b>DUPLICATE</b>								
Laboratory ID:	05-397-05							
	ORIG	DUP						
Total Organic Carbon	<b>51.7</b>	<b>52.8</b>	NA	NA	NA	NA	2	20

**MATRIX SPIKE**

Laboratory ID:	05-397-05							
	MS	MS		MS				
Total Organic Carbon	<b>62.7</b>	10.0	51.7	110	85-131	NA	NA	

**SPIKE BLANK**

Laboratory ID:	SB0606W1							
	SB	SB		SB				
Total Organic Carbon	<b>9.64</b>	10.0	NA	96	88-127	NA	NA	





### Data Qualifiers and Abbreviations

- A - Due to a high sample concentration, the amount spiked is insufficient for meaningful MS/MSD recovery data.
  - B - The analyte indicated was also found in the blank sample.
  - C - The duplicate RPD is outside control limits due to high result variability when analyte concentrations are within five times the quantitation limit.
  - E - The value reported exceeds the quantitation range and is an estimate.
  - F - Surrogate recovery data is not available due to the high concentration of coeluting target compounds.
  - H - The analyte indicated is a common laboratory solvent and may have been introduced during sample preparation, and be impacting the sample result.
  - I - Compound recovery is outside of the control limits.
  - J - The value reported was below the practical quantitation limit. The value is an estimate.
  - K - Sample duplicate RPD is outside control limits due to sample inhomogeneity. The sample was re-extracted and re-analyzed with similar results.
  - L - The RPD is outside of the control limits.
  - M - Hydrocarbons in the gasoline range are impacting the diesel range result.
  - M1 - Hydrocarbons in the gasoline range (toluene-naphthalene) are present in the sample.
  - N - Hydrocarbons in the lube oil range are impacting the diesel range result.
  - N1 - Hydrocarbons in diesel range are impacting lube oil range results.
  - O - Hydrocarbons indicative of heavier fuels are present in the sample and are impacting the gasoline result.
  - P - The RPD of the detected concentrations between the two columns is greater than 40.
  - Q - Surrogate recovery is outside of the control limits.
  - S - Surrogate recovery data is not available due to the necessary dilution of the sample.
  - T - The sample chromatogram is not similar to a typical \_\_\_\_\_.
  - U - The analyte was analyzed for, but was not detected above the reported sample quantitation limit.
  - U1 - The practical quantitation limit is elevated due to interferences present in the sample.
  - V - Matrix Spike/Matrix Spike Duplicate recoveries are outside control limits due to matrix effects.
  - W - Matrix Spike/Matrix Spike Duplicate RPD are outside control limits due to matrix effects.
  - X - Sample extract treated with a mercury cleanup procedure.
  - X1 - Sample extract treated with a sulfuric acid/silica gel cleanup procedure.
  - Y - The calibration verification for this analyte exceeded the 20% drift specified in methods 8260 & 8270, and therefore the reported result should be considered an estimate. The overall performance of the calibration verification standard met the acceptance criteria of the method.
  - Z -
- ND - Not Detected at PQL  
 PQL - Practical Quantitation Limit  
 RPD - Relative Percent Difference





**Onsite Environmental Inc.**  
Analytical Laboratory Testing Services  
14648 NE 95th Street • Redmond, WA 98052  
Phone: (425) 883-3881 • www.onsite-env.com

# Chain of Custody

**Turnaround Request (in Working days)**  
(Check One)

Same Day  1 Day  
 2 Days  3 Days  
 Standard (7 Days)

(other) \_\_\_\_\_

**Laboratory Number:** 05-381

05-381

Company: **KANE ENVIRONMENTAL**  
Project Number: **82302-9.1**  
Project Name: **BSCSS (BOTHUJ SERVICE CENTER)**  
Project Manager: **JEFF JENSEN**

Sampled by: **BONIA GIVNERIS & EMMA J PEDNE**

**Lab ID**      **Sample Identification**      **Date Sampled**      **Time Sampled**      **Matrix**

1	H2-MW-28:W	5/30	1043	GW	10
2	H2-MW-1:W	5/30	1106	GW	10
3	H2-MW-25:W	5/30	1225	GW	10
4	H2-MW-27:W	5/30	1248	GW	10
5	H2-MW-4:W	5/30	1428	GW	10
6	H2-MW-26:W	5/30	1510	GW	10
7	H2-MW-19:W	5/30	1309	GW	10

Number of Containers	
NWTPH-HCID	
NWTPH-Gx/BTEX	
NWTPH-Gx	
NWTPH-Dx ( <input type="checkbox"/> Acid / SG Clean-up)	
Volatiles 8260C	
Halogenated Volatiles 8260C	X
EDB EPA 8011 (Waters Only)	
Semivolatiles 8270D/SIM (with low-level PAHs)	
PAHs 8270D/SIM (low-level)	
PCBs 8082A	
Organochlorine Pesticides 8081B	
Organophosphorus Pesticides 8270D/SIM	
Chlorinated Acid Herbicides 8151A	
Total RCRA Metals	
Total MTCA Metals	
TCLP Metals	
HEM (oil and grease) #652A	RSK
ammonia-N	
dissolved Fe	
chlride	
sulfate	
% Moisture	TOC

**Signature**

*[Handwritten Signature]*

**Company**

KANE ENVIRONMENTAL

**Date**      **Time**

5/30      1548

**Comments/Special Instructions**

ESL = methanol, ethanol, ethane  
LAB FILTER

Relinquished

OSI

5/30/19 1548

*[Handwritten Signature]*

Relinquished

OSI

Relinquished

OSI

Received

Data Package: Standard  Level III  Level IV

Reviewed/Date

Chromatograms with final report  Electronic Data Deliverables (EDDs)



14648 NE 95<sup>th</sup> Street, Redmond, WA 98052 • (425) 883-3881

June 11, 2019

Jeff Jensen  
Kane Environmental, Inc.  
4015 13th Avenue West  
Seattle, WA 98119

Re: Analytical Data for Project 82302-9.4  
Laboratory Reference No. 1905-397

Dear Jeff:

Enclosed are the analytical results and associated quality control data for samples submitted on May 31, 2019.

The standard policy of OnSite Environmental, Inc. is to store your samples for 30 days from the date of receipt. If you require longer storage, please contact the laboratory.

We appreciate the opportunity to be of service to you on this project. If you have any questions concerning the data, or need additional information, please feel free to call me.

Sincerely,

A handwritten signature in black ink, appearing to read "DB", with a long horizontal flourish extending to the right.

David Baumeister  
Project Manager

Enclosures



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OnSite Environmental, Inc. 14648 NE 95<sup>th</sup> Street, Redmond, WA 98052 (425) 883-3881

This report pertains to the samples analyzed in accordance with the chain of custody, and is intended only for the use of the individual or company to whom it is addressed.



Date of Report: June 11, 2019  
Samples Submitted: May 31, 2019  
Laboratory Reference: 1905-397  
Project: 82302-9.4

### Case Narrative

Samples were collected on May 31, 2019 and received by the laboratory on May 31, 2019. They were maintained at the laboratory at a temperature of 2°C to 6°C.

Please note that any and all soil sample results are reported on a dry-weight basis, unless otherwise noted below.

General QA/QC issues associated with the analytical data enclosed in this laboratory report will be indicated with a reference to a comment or explanation on the Data Qualifier page. More complex and involved QA/QC issues will be discussed in detail below.



Date of Report: June 11, 2019  
 Samples Submitted: May 31, 2019  
 Laboratory Reference: 1905-397  
 Project: 82302-9.4

**VOLATILE ORGANICS EPA 8260C**  
 page 1 of 2

Matrix: Water  
 Units: ug/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>Client ID:</b>	<b>HZ-MW-34:W</b>					
Laboratory ID:	05-397-01					
Dichlorodifluoromethane	ND	0.20	EPA 8260C	6-4-19	6-4-19	
Chloromethane	ND	1.3	EPA 8260C	6-4-19	6-4-19	
Vinyl Chloride	0.26	0.20	EPA 8260C	6-4-19	6-4-19	
Bromomethane	ND	0.20	EPA 8260C	6-4-19	6-4-19	
Chloroethane	ND	1.0	EPA 8260C	6-4-19	6-4-19	
Trichlorofluoromethane	ND	0.20	EPA 8260C	6-4-19	6-4-19	
1,1-Dichloroethene	ND	0.20	EPA 8260C	6-4-19	6-4-19	
Iodomethane	ND	1.0	EPA 8260C	6-4-19	6-4-19	
Methylene Chloride	ND	1.0	EPA 8260C	6-4-19	6-4-19	
(trans) 1,2-Dichloroethene	0.29	0.20	EPA 8260C	6-4-19	6-4-19	
1,1-Dichloroethane	ND	0.20	EPA 8260C	6-4-19	6-4-19	
2,2-Dichloropropane	ND	0.20	EPA 8260C	6-4-19	6-4-19	
(cis) 1,2-Dichloroethene	24	0.20	EPA 8260C	6-4-19	6-4-19	
Bromochloromethane	ND	0.20	EPA 8260C	6-4-19	6-4-19	
Chloroform	ND	0.20	EPA 8260C	6-4-19	6-4-19	
1,1,1-Trichloroethane	ND	0.20	EPA 8260C	6-4-19	6-4-19	
Carbon Tetrachloride	ND	0.20	EPA 8260C	6-4-19	6-4-19	
1,1-Dichloropropene	ND	0.20	EPA 8260C	6-4-19	6-4-19	
1,2-Dichloroethane	ND	0.20	EPA 8260C	6-4-19	6-4-19	
Trichloroethene	3.3	0.20	EPA 8260C	6-4-19	6-4-19	
1,2-Dichloropropane	ND	0.20	EPA 8260C	6-4-19	6-4-19	
Dibromomethane	ND	0.20	EPA 8260C	6-4-19	6-4-19	
Bromodichloromethane	ND	0.20	EPA 8260C	6-4-19	6-4-19	
2-Chloroethyl Vinyl Ether	ND	1.0	EPA 8260C	6-4-19	6-4-19	
(cis) 1,3-Dichloropropene	ND	0.20	EPA 8260C	6-4-19	6-4-19	
(trans) 1,3-Dichloropropene	ND	0.20	EPA 8260C	6-4-19	6-4-19	



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Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>Client ID:</b>	<b>HZ-MW-34:W</b>					
<b>Laboratory ID:</b>	<b>05-397-01</b>					
1,1,2-Trichloroethane	ND	0.20	EPA 8260C	6-4-19	6-4-19	
Tetrachloroethene	0.83	0.20	EPA 8260C	6-4-19	6-4-19	
1,3-Dichloropropane	ND	0.20	EPA 8260C	6-4-19	6-4-19	
Dibromochloromethane	ND	0.20	EPA 8260C	6-4-19	6-4-19	
1,2-Dibromoethane	ND	0.20	EPA 8260C	6-4-19	6-4-19	
Chlorobenzene	ND	0.20	EPA 8260C	6-4-19	6-4-19	
1,1,1,2-Tetrachloroethane	ND	0.20	EPA 8260C	6-4-19	6-4-19	
Bromoform	ND	1.0	EPA 8260C	6-4-19	6-4-19	
Bromobenzene	ND	0.20	EPA 8260C	6-4-19	6-4-19	
1,1,2,2-Tetrachloroethane	ND	0.20	EPA 8260C	6-4-19	6-4-19	
1,2,3-Trichloropropane	ND	0.20	EPA 8260C	6-4-19	6-4-19	
2-Chlorotoluene	ND	0.20	EPA 8260C	6-4-19	6-4-19	
4-Chlorotoluene	ND	0.20	EPA 8260C	6-4-19	6-4-19	
1,3-Dichlorobenzene	ND	0.20	EPA 8260C	6-4-19	6-4-19	
1,4-Dichlorobenzene	ND	0.20	EPA 8260C	6-4-19	6-4-19	
1,2-Dichlorobenzene	ND	0.20	EPA 8260C	6-4-19	6-4-19	
1,2-Dibromo-3-chloropropane	ND	1.0	EPA 8260C	6-4-19	6-4-19	
1,2,4-Trichlorobenzene	ND	0.20	EPA 8260C	6-4-19	6-4-19	
Hexachlorobutadiene	ND	1.0	EPA 8260C	6-4-19	6-4-19	
1,2,3-Trichlorobenzene	ND	0.20	EPA 8260C	6-4-19	6-4-19	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Dibromofluoromethane</i>	<i>108</i>	<i>75-127</i>				
<i>Toluene-d8</i>	<i>100</i>	<i>80-127</i>				
<i>4-Bromofluorobenzene</i>	<i>113</i>	<i>78-125</i>				



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Matrix: Water  
 Units: ug/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>Client ID:</b>	<b>HZ-MW-28:W</b>					
Laboratory ID:	05-397-02					
Dichlorodifluoromethane	ND	0.20	EPA 8260C	6-4-19	6-4-19	
Chloromethane	ND	1.3	EPA 8260C	6-4-19	6-4-19	
Vinyl Chloride	ND	0.20	EPA 8260C	6-4-19	6-4-19	
Bromomethane	ND	0.20	EPA 8260C	6-4-19	6-4-19	
Chloroethane	ND	1.0	EPA 8260C	6-4-19	6-4-19	
Trichlorofluoromethane	ND	0.20	EPA 8260C	6-4-19	6-4-19	
1,1-Dichloroethene	ND	0.20	EPA 8260C	6-4-19	6-4-19	
Iodomethane	ND	1.0	EPA 8260C	6-4-19	6-4-19	
Methylene Chloride	ND	1.0	EPA 8260C	6-4-19	6-4-19	
(trans) 1,2-Dichloroethene	ND	0.20	EPA 8260C	6-4-19	6-4-19	
1,1-Dichloroethane	ND	0.20	EPA 8260C	6-4-19	6-4-19	
2,2-Dichloropropane	ND	0.20	EPA 8260C	6-4-19	6-4-19	
(cis) 1,2-Dichloroethene	ND	0.20	EPA 8260C	6-4-19	6-4-19	
Bromochloromethane	ND	0.20	EPA 8260C	6-4-19	6-4-19	
Chloroform	ND	0.20	EPA 8260C	6-4-19	6-4-19	
1,1,1-Trichloroethane	ND	0.20	EPA 8260C	6-4-19	6-4-19	
Carbon Tetrachloride	ND	0.20	EPA 8260C	6-4-19	6-4-19	
1,1-Dichloropropene	ND	0.20	EPA 8260C	6-4-19	6-4-19	
1,2-Dichloroethane	0.45	0.20	EPA 8260C	6-4-19	6-4-19	
Trichloroethene	ND	0.20	EPA 8260C	6-4-19	6-4-19	
1,2-Dichloropropane	ND	0.20	EPA 8260C	6-4-19	6-4-19	
Dibromomethane	ND	0.20	EPA 8260C	6-4-19	6-4-19	
Bromodichloromethane	ND	0.20	EPA 8260C	6-4-19	6-4-19	
2-Chloroethyl Vinyl Ether	ND	1.0	EPA 8260C	6-4-19	6-4-19	
(cis) 1,3-Dichloropropene	ND	0.20	EPA 8260C	6-4-19	6-4-19	
(trans) 1,3-Dichloropropene	ND	0.20	EPA 8260C	6-4-19	6-4-19	



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Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>Client ID:</b>	<b>HZ-MW-28:W</b>					
<b>Laboratory ID:</b>	<b>05-397-02</b>					
1,1,2-Trichloroethane	ND	0.20	EPA 8260C	6-4-19	6-4-19	
Tetrachloroethene	ND	0.20	EPA 8260C	6-4-19	6-4-19	
1,3-Dichloropropane	ND	0.20	EPA 8260C	6-4-19	6-4-19	
Dibromochloromethane	ND	0.20	EPA 8260C	6-4-19	6-4-19	
1,2-Dibromoethane	ND	0.20	EPA 8260C	6-4-19	6-4-19	
Chlorobenzene	ND	0.20	EPA 8260C	6-4-19	6-4-19	
1,1,1,2-Tetrachloroethane	ND	0.20	EPA 8260C	6-4-19	6-4-19	
Bromoform	ND	1.0	EPA 8260C	6-4-19	6-4-19	
Bromobenzene	ND	0.20	EPA 8260C	6-4-19	6-4-19	
1,1,2,2-Tetrachloroethane	ND	0.20	EPA 8260C	6-4-19	6-4-19	
1,2,3-Trichloropropane	ND	0.20	EPA 8260C	6-4-19	6-4-19	
2-Chlorotoluene	ND	0.20	EPA 8260C	6-4-19	6-4-19	
4-Chlorotoluene	ND	0.20	EPA 8260C	6-4-19	6-4-19	
1,3-Dichlorobenzene	ND	0.20	EPA 8260C	6-4-19	6-4-19	
1,4-Dichlorobenzene	ND	0.20	EPA 8260C	6-4-19	6-4-19	
1,2-Dichlorobenzene	ND	0.20	EPA 8260C	6-4-19	6-4-19	
1,2-Dibromo-3-chloropropane	ND	1.0	EPA 8260C	6-4-19	6-4-19	
1,2,4-Trichlorobenzene	ND	0.20	EPA 8260C	6-4-19	6-4-19	
Hexachlorobutadiene	ND	1.0	EPA 8260C	6-4-19	6-4-19	
1,2,3-Trichlorobenzene	ND	0.20	EPA 8260C	6-4-19	6-4-19	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Dibromofluoromethane</i>	<i>114</i>	<i>75-127</i>				
<i>Toluene-d8</i>	<i>103</i>	<i>80-127</i>				
<i>4-Bromofluorobenzene</i>	<i>111</i>	<i>78-125</i>				



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Matrix: Water  
 Units: ug/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>Client ID:</b>	<b>HZ-MW-24:W</b>					
Laboratory ID:	05-397-03					
Dichlorodifluoromethane	ND	0.20	EPA 8260C	6-4-19	6-4-19	
Chloromethane	ND	1.3	EPA 8260C	6-4-19	6-4-19	
Vinyl Chloride	0.77	0.20	EPA 8260C	6-4-19	6-4-19	
Bromomethane	ND	0.20	EPA 8260C	6-4-19	6-4-19	
Chloroethane	ND	1.0	EPA 8260C	6-4-19	6-4-19	
Trichlorofluoromethane	ND	0.20	EPA 8260C	6-4-19	6-4-19	
1,1-Dichloroethene	ND	0.20	EPA 8260C	6-4-19	6-4-19	
Iodomethane	ND	1.0	EPA 8260C	6-4-19	6-4-19	
Methylene Chloride	ND	1.0	EPA 8260C	6-4-19	6-4-19	
(trans) 1,2-Dichloroethene	0.20	0.20	EPA 8260C	6-4-19	6-4-19	
1,1-Dichloroethane	ND	0.20	EPA 8260C	6-4-19	6-4-19	
2,2-Dichloropropane	ND	0.20	EPA 8260C	6-4-19	6-4-19	
(cis) 1,2-Dichloroethene	21	0.20	EPA 8260C	6-4-19	6-4-19	
Bromochloromethane	ND	0.20	EPA 8260C	6-4-19	6-4-19	
Chloroform	ND	0.20	EPA 8260C	6-4-19	6-4-19	
1,1,1-Trichloroethane	ND	0.20	EPA 8260C	6-4-19	6-4-19	
Carbon Tetrachloride	ND	0.20	EPA 8260C	6-4-19	6-4-19	
1,1-Dichloropropene	ND	0.20	EPA 8260C	6-4-19	6-4-19	
1,2-Dichloroethane	1.0	0.20	EPA 8260C	6-4-19	6-4-19	
Trichloroethene	0.92	0.20	EPA 8260C	6-4-19	6-4-19	
1,2-Dichloropropane	ND	0.20	EPA 8260C	6-4-19	6-4-19	
Dibromomethane	ND	0.20	EPA 8260C	6-4-19	6-4-19	
Bromodichloromethane	ND	0.20	EPA 8260C	6-4-19	6-4-19	
2-Chloroethyl Vinyl Ether	ND	1.0	EPA 8260C	6-4-19	6-4-19	
(cis) 1,3-Dichloropropene	ND	0.20	EPA 8260C	6-4-19	6-4-19	
(trans) 1,3-Dichloropropene	ND	0.20	EPA 8260C	6-4-19	6-4-19	



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Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>Client ID:</b>	<b>HZ-MW-24:W</b>					
<b>Laboratory ID:</b>	<b>05-397-03</b>					
1,1,2-Trichloroethane	ND	0.20	EPA 8260C	6-4-19	6-4-19	
Tetrachloroethene	2.0	0.20	EPA 8260C	6-4-19	6-4-19	
1,3-Dichloropropane	ND	0.20	EPA 8260C	6-4-19	6-4-19	
Dibromochloromethane	ND	0.20	EPA 8260C	6-4-19	6-4-19	
1,2-Dibromoethane	ND	0.20	EPA 8260C	6-4-19	6-4-19	
Chlorobenzene	ND	0.20	EPA 8260C	6-4-19	6-4-19	
1,1,1,2-Tetrachloroethane	ND	0.20	EPA 8260C	6-4-19	6-4-19	
Bromoform	ND	1.0	EPA 8260C	6-4-19	6-4-19	
Bromobenzene	ND	0.20	EPA 8260C	6-4-19	6-4-19	
1,1,2,2-Tetrachloroethane	ND	0.20	EPA 8260C	6-4-19	6-4-19	
1,2,3-Trichloropropane	ND	0.20	EPA 8260C	6-4-19	6-4-19	
2-Chlorotoluene	ND	0.20	EPA 8260C	6-4-19	6-4-19	
4-Chlorotoluene	ND	0.20	EPA 8260C	6-4-19	6-4-19	
1,3-Dichlorobenzene	ND	0.20	EPA 8260C	6-4-19	6-4-19	
1,4-Dichlorobenzene	ND	0.20	EPA 8260C	6-4-19	6-4-19	
1,2-Dichlorobenzene	ND	0.20	EPA 8260C	6-4-19	6-4-19	
1,2-Dibromo-3-chloropropane	ND	1.0	EPA 8260C	6-4-19	6-4-19	
1,2,4-Trichlorobenzene	ND	0.20	EPA 8260C	6-4-19	6-4-19	
Hexachlorobutadiene	ND	1.0	EPA 8260C	6-4-19	6-4-19	
1,2,3-Trichlorobenzene	ND	0.20	EPA 8260C	6-4-19	6-4-19	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Dibromofluoromethane</i>	<i>106</i>	<i>75-127</i>				
<i>Toluene-d8</i>	<i>100</i>	<i>80-127</i>				
<i>4-Bromofluorobenzene</i>	<i>112</i>	<i>78-125</i>				



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Matrix: Water  
 Units: ug/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>Client ID:</b>	<b>HZ-MW-33:W</b>					
Laboratory ID:	05-397-04					
Dichlorodifluoromethane	ND	0.20	EPA 8260C	6-4-19	6-4-19	
Chloromethane	ND	1.3	EPA 8260C	6-4-19	6-4-19	
Vinyl Chloride	ND	0.20	EPA 8260C	6-4-19	6-4-19	
Bromomethane	ND	0.20	EPA 8260C	6-4-19	6-4-19	
Chloroethane	ND	1.0	EPA 8260C	6-4-19	6-4-19	
Trichlorofluoromethane	ND	0.20	EPA 8260C	6-4-19	6-4-19	
1,1-Dichloroethene	ND	0.20	EPA 8260C	6-4-19	6-4-19	
Iodomethane	ND	1.0	EPA 8260C	6-4-19	6-4-19	
Methylene Chloride	ND	1.0	EPA 8260C	6-4-19	6-4-19	
(trans) 1,2-Dichloroethene	ND	0.20	EPA 8260C	6-4-19	6-4-19	
1,1-Dichloroethane	ND	0.20	EPA 8260C	6-4-19	6-4-19	
2,2-Dichloropropane	ND	0.20	EPA 8260C	6-4-19	6-4-19	
(cis) 1,2-Dichloroethene	1.7	0.20	EPA 8260C	6-4-19	6-4-19	
Bromochloromethane	ND	0.20	EPA 8260C	6-4-19	6-4-19	
Chloroform	ND	0.20	EPA 8260C	6-4-19	6-4-19	
1,1,1-Trichloroethane	ND	0.20	EPA 8260C	6-4-19	6-4-19	
Carbon Tetrachloride	ND	0.20	EPA 8260C	6-4-19	6-4-19	
1,1-Dichloropropene	ND	0.20	EPA 8260C	6-4-19	6-4-19	
1,2-Dichloroethane	ND	0.20	EPA 8260C	6-4-19	6-4-19	
Trichloroethene	ND	0.20	EPA 8260C	6-4-19	6-4-19	
1,2-Dichloropropane	ND	0.20	EPA 8260C	6-4-19	6-4-19	
Dibromomethane	ND	0.20	EPA 8260C	6-4-19	6-4-19	
Bromodichloromethane	ND	0.20	EPA 8260C	6-4-19	6-4-19	
2-Chloroethyl Vinyl Ether	ND	1.0	EPA 8260C	6-4-19	6-4-19	
(cis) 1,3-Dichloropropene	ND	0.20	EPA 8260C	6-4-19	6-4-19	
(trans) 1,3-Dichloropropene	ND	0.20	EPA 8260C	6-4-19	6-4-19	





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Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>Client ID:</b>	<b>HZ-MW-33:W</b>					
<b>Laboratory ID:</b>	<b>05-397-04</b>					
1,1,2-Trichloroethane	ND	0.20	EPA 8260C	6-4-19	6-4-19	
Tetrachloroethene	0.51	0.20	EPA 8260C	6-4-19	6-4-19	
1,3-Dichloropropane	ND	0.20	EPA 8260C	6-4-19	6-4-19	
Dibromochloromethane	ND	0.20	EPA 8260C	6-4-19	6-4-19	
1,2-Dibromoethane	ND	0.20	EPA 8260C	6-4-19	6-4-19	
Chlorobenzene	ND	0.20	EPA 8260C	6-4-19	6-4-19	
1,1,1,2-Tetrachloroethane	ND	0.20	EPA 8260C	6-4-19	6-4-19	
Bromoform	ND	1.0	EPA 8260C	6-4-19	6-4-19	
Bromobenzene	ND	0.20	EPA 8260C	6-4-19	6-4-19	
1,1,2,2-Tetrachloroethane	ND	0.20	EPA 8260C	6-4-19	6-4-19	
1,2,3-Trichloropropane	ND	0.20	EPA 8260C	6-4-19	6-4-19	
2-Chlorotoluene	ND	0.20	EPA 8260C	6-4-19	6-4-19	
4-Chlorotoluene	ND	0.20	EPA 8260C	6-4-19	6-4-19	
1,3-Dichlorobenzene	ND	0.20	EPA 8260C	6-4-19	6-4-19	
1,4-Dichlorobenzene	ND	0.20	EPA 8260C	6-4-19	6-4-19	
1,2-Dichlorobenzene	ND	0.20	EPA 8260C	6-4-19	6-4-19	
1,2-Dibromo-3-chloropropane	ND	1.0	EPA 8260C	6-4-19	6-4-19	
1,2,4-Trichlorobenzene	ND	0.20	EPA 8260C	6-4-19	6-4-19	
Hexachlorobutadiene	ND	1.0	EPA 8260C	6-4-19	6-4-19	
1,2,3-Trichlorobenzene	ND	0.20	EPA 8260C	6-4-19	6-4-19	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Dibromofluoromethane</i>	<i>101</i>	<i>75-127</i>				
<i>Toluene-d8</i>	<i>98</i>	<i>80-127</i>				
<i>4-Bromofluorobenzene</i>	<i>105</i>	<i>78-125</i>				



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**VOLATILE ORGANICS EPA 8260C**  
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Matrix: Water  
 Units: ug/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>Client ID:</b>	<b>HZ-MW-29:W</b>					
Laboratory ID:	05-397-05					
Dichlorodifluoromethane	ND	0.20	EPA 8260C	6-4-19	6-4-19	
Chloromethane	ND	1.3	EPA 8260C	6-4-19	6-4-19	
Vinyl Chloride	0.26	0.20	EPA 8260C	6-4-19	6-4-19	
Bromomethane	ND	0.20	EPA 8260C	6-4-19	6-4-19	
Chloroethane	ND	1.0	EPA 8260C	6-4-19	6-4-19	
Trichlorofluoromethane	ND	0.20	EPA 8260C	6-4-19	6-4-19	
1,1-Dichloroethene	ND	0.20	EPA 8260C	6-4-19	6-4-19	
Iodomethane	ND	1.0	EPA 8260C	6-4-19	6-4-19	
Methylene Chloride	ND	1.0	EPA 8260C	6-4-19	6-4-19	
(trans) 1,2-Dichloroethene	0.22	0.20	EPA 8260C	6-4-19	6-4-19	
1,1-Dichloroethane	ND	0.20	EPA 8260C	6-4-19	6-4-19	
2,2-Dichloropropane	ND	0.20	EPA 8260C	6-4-19	6-4-19	
(cis) 1,2-Dichloroethene	32	0.20	EPA 8260C	6-4-19	6-4-19	
Bromochloromethane	ND	0.20	EPA 8260C	6-4-19	6-4-19	
Chloroform	ND	0.20	EPA 8260C	6-4-19	6-4-19	
1,1,1-Trichloroethane	ND	0.20	EPA 8260C	6-4-19	6-4-19	
Carbon Tetrachloride	ND	0.20	EPA 8260C	6-4-19	6-4-19	
1,1-Dichloropropene	ND	0.20	EPA 8260C	6-4-19	6-4-19	
1,2-Dichloroethane	ND	0.20	EPA 8260C	6-4-19	6-4-19	
Trichloroethene	0.60	0.20	EPA 8260C	6-4-19	6-4-19	
1,2-Dichloropropane	ND	0.20	EPA 8260C	6-4-19	6-4-19	
Dibromomethane	ND	0.20	EPA 8260C	6-4-19	6-4-19	
Bromodichloromethane	ND	0.20	EPA 8260C	6-4-19	6-4-19	
2-Chloroethyl Vinyl Ether	ND	1.0	EPA 8260C	6-4-19	6-4-19	
(cis) 1,3-Dichloropropene	ND	0.20	EPA 8260C	6-4-19	6-4-19	
(trans) 1,3-Dichloropropene	ND	0.20	EPA 8260C	6-4-19	6-4-19	



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**VOLATILE ORGANICS EPA 8260C**  
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Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>Client ID:</b>	<b>HZ-MW-29:W</b>					
<b>Laboratory ID:</b>	<b>05-397-05</b>					
1,1,2-Trichloroethane	ND	0.20	EPA 8260C	6-4-19	6-4-19	
Tetrachloroethene	1.4	0.20	EPA 8260C	6-4-19	6-4-19	
1,3-Dichloropropane	ND	0.20	EPA 8260C	6-4-19	6-4-19	
Dibromochloromethane	ND	0.20	EPA 8260C	6-4-19	6-4-19	
1,2-Dibromoethane	ND	0.20	EPA 8260C	6-4-19	6-4-19	
Chlorobenzene	ND	0.20	EPA 8260C	6-4-19	6-4-19	
1,1,1,2-Tetrachloroethane	ND	0.20	EPA 8260C	6-4-19	6-4-19	
Bromoform	ND	1.0	EPA 8260C	6-4-19	6-4-19	
Bromobenzene	ND	0.20	EPA 8260C	6-4-19	6-4-19	
1,1,2,2-Tetrachloroethane	ND	0.20	EPA 8260C	6-4-19	6-4-19	
1,2,3-Trichloropropane	ND	0.20	EPA 8260C	6-4-19	6-4-19	
2-Chlorotoluene	ND	0.20	EPA 8260C	6-4-19	6-4-19	
4-Chlorotoluene	ND	0.20	EPA 8260C	6-4-19	6-4-19	
1,3-Dichlorobenzene	ND	0.20	EPA 8260C	6-4-19	6-4-19	
1,4-Dichlorobenzene	ND	0.20	EPA 8260C	6-4-19	6-4-19	
1,2-Dichlorobenzene	ND	0.20	EPA 8260C	6-4-19	6-4-19	
1,2-Dibromo-3-chloropropane	ND	1.0	EPA 8260C	6-4-19	6-4-19	
1,2,4-Trichlorobenzene	ND	0.20	EPA 8260C	6-4-19	6-4-19	
Hexachlorobutadiene	ND	1.0	EPA 8260C	6-4-19	6-4-19	
1,2,3-Trichlorobenzene	ND	0.20	EPA 8260C	6-4-19	6-4-19	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Dibromofluoromethane</i>	<i>106</i>	<i>75-127</i>				
<i>Toluene-d8</i>	<i>102</i>	<i>80-127</i>				
<i>4-Bromofluorobenzene</i>	<i>110</i>	<i>78-125</i>				



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**VOLATILE ORGANICS EPA 8260C**  
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Matrix: Water  
 Units: ug/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>Client ID:</b>	<b>HZ-MW-17:W</b>					
Laboratory ID:	05-397-06					
Dichlorodifluoromethane	ND	0.20	EPA 8260C	6-4-19	6-4-19	
Chloromethane	ND	1.3	EPA 8260C	6-4-19	6-4-19	
Vinyl Chloride	ND	0.20	EPA 8260C	6-4-19	6-4-19	
Bromomethane	ND	0.20	EPA 8260C	6-4-19	6-4-19	
Chloroethane	ND	1.0	EPA 8260C	6-4-19	6-4-19	
Trichlorofluoromethane	ND	0.20	EPA 8260C	6-4-19	6-4-19	
1,1-Dichloroethene	ND	0.20	EPA 8260C	6-4-19	6-4-19	
Iodomethane	ND	1.0	EPA 8260C	6-4-19	6-4-19	
Methylene Chloride	ND	1.0	EPA 8260C	6-4-19	6-4-19	
(trans) 1,2-Dichloroethene	ND	0.20	EPA 8260C	6-4-19	6-4-19	
1,1-Dichloroethane	ND	0.20	EPA 8260C	6-4-19	6-4-19	
2,2-Dichloropropane	ND	0.20	EPA 8260C	6-4-19	6-4-19	
(cis) 1,2-Dichloroethene	ND	0.20	EPA 8260C	6-4-19	6-4-19	
Bromochloromethane	ND	0.20	EPA 8260C	6-4-19	6-4-19	
Chloroform	ND	0.20	EPA 8260C	6-4-19	6-4-19	
1,1,1-Trichloroethane	ND	0.20	EPA 8260C	6-4-19	6-4-19	
Carbon Tetrachloride	ND	0.20	EPA 8260C	6-4-19	6-4-19	
1,1-Dichloropropene	ND	0.20	EPA 8260C	6-4-19	6-4-19	
1,2-Dichloroethane	ND	0.20	EPA 8260C	6-4-19	6-4-19	
Trichloroethene	ND	0.20	EPA 8260C	6-4-19	6-4-19	
1,2-Dichloropropane	ND	0.20	EPA 8260C	6-4-19	6-4-19	
Dibromomethane	ND	0.20	EPA 8260C	6-4-19	6-4-19	
Bromodichloromethane	ND	0.20	EPA 8260C	6-4-19	6-4-19	
2-Chloroethyl Vinyl Ether	ND	1.0	EPA 8260C	6-4-19	6-4-19	
(cis) 1,3-Dichloropropene	ND	0.20	EPA 8260C	6-4-19	6-4-19	
(trans) 1,3-Dichloropropene	ND	0.20	EPA 8260C	6-4-19	6-4-19	



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Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>Client ID:</b>	<b>HZ-MW-17:W</b>					
<b>Laboratory ID:</b>	<b>05-397-06</b>					
1,1,2-Trichloroethane	ND	0.20	EPA 8260C	6-4-19	6-4-19	
Tetrachloroethene	ND	0.20	EPA 8260C	6-4-19	6-4-19	
1,3-Dichloropropane	ND	0.20	EPA 8260C	6-4-19	6-4-19	
Dibromochloromethane	ND	0.20	EPA 8260C	6-4-19	6-4-19	
1,2-Dibromoethane	ND	0.20	EPA 8260C	6-4-19	6-4-19	
Chlorobenzene	ND	0.20	EPA 8260C	6-4-19	6-4-19	
1,1,1,2-Tetrachloroethane	ND	0.20	EPA 8260C	6-4-19	6-4-19	
Bromoform	ND	1.0	EPA 8260C	6-4-19	6-4-19	
Bromobenzene	ND	0.20	EPA 8260C	6-4-19	6-4-19	
1,1,2,2-Tetrachloroethane	ND	0.20	EPA 8260C	6-4-19	6-4-19	
1,2,3-Trichloropropane	ND	0.20	EPA 8260C	6-4-19	6-4-19	
2-Chlorotoluene	ND	0.20	EPA 8260C	6-4-19	6-4-19	
4-Chlorotoluene	ND	0.20	EPA 8260C	6-4-19	6-4-19	
1,3-Dichlorobenzene	ND	0.20	EPA 8260C	6-4-19	6-4-19	
1,4-Dichlorobenzene	ND	0.20	EPA 8260C	6-4-19	6-4-19	
1,2-Dichlorobenzene	ND	0.20	EPA 8260C	6-4-19	6-4-19	
1,2-Dibromo-3-chloropropane	ND	1.0	EPA 8260C	6-4-19	6-4-19	
1,2,4-Trichlorobenzene	ND	0.20	EPA 8260C	6-4-19	6-4-19	
Hexachlorobutadiene	ND	1.0	EPA 8260C	6-4-19	6-4-19	
1,2,3-Trichlorobenzene	ND	0.20	EPA 8260C	6-4-19	6-4-19	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Dibromofluoromethane</i>	<i>112</i>	<i>75-127</i>				
<i>Toluene-d8</i>	<i>90</i>	<i>80-127</i>				
<i>4-Bromofluorobenzene</i>	<i>105</i>	<i>78-125</i>				



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**VOLATILE ORGANICS EPA 8260C**  
**METHOD BLANK QUALITY CONTROL**  
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Matrix: Water  
 Units: ug/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Laboratory ID:	MB0604W1					
Dichlorodifluoromethane	ND	0.20	EPA 8260C	6-4-19	6-4-19	
Chloromethane	ND	1.3	EPA 8260C	6-4-19	6-4-19	
Vinyl Chloride	ND	0.20	EPA 8260C	6-4-19	6-4-19	
Bromomethane	ND	0.20	EPA 8260C	6-4-19	6-4-19	
Chloroethane	ND	1.0	EPA 8260C	6-4-19	6-4-19	
Trichlorofluoromethane	ND	0.20	EPA 8260C	6-4-19	6-4-19	
1,1-Dichloroethene	ND	0.20	EPA 8260C	6-4-19	6-4-19	
Iodomethane	ND	1.0	EPA 8260C	6-4-19	6-4-19	
Methylene Chloride	ND	1.0	EPA 8260C	6-4-19	6-4-19	
(trans) 1,2-Dichloroethene	ND	0.20	EPA 8260C	6-4-19	6-4-19	
1,1-Dichloroethane	ND	0.20	EPA 8260C	6-4-19	6-4-19	
2,2-Dichloropropane	ND	0.20	EPA 8260C	6-4-19	6-4-19	
(cis) 1,2-Dichloroethene	ND	0.20	EPA 8260C	6-4-19	6-4-19	
Bromochloromethane	ND	0.20	EPA 8260C	6-4-19	6-4-19	
Chloroform	ND	0.20	EPA 8260C	6-4-19	6-4-19	
1,1,1-Trichloroethane	ND	0.20	EPA 8260C	6-4-19	6-4-19	
Carbon Tetrachloride	ND	0.20	EPA 8260C	6-4-19	6-4-19	
1,1-Dichloropropene	ND	0.20	EPA 8260C	6-4-19	6-4-19	
1,2-Dichloroethane	ND	0.20	EPA 8260C	6-4-19	6-4-19	
Trichloroethene	ND	0.20	EPA 8260C	6-4-19	6-4-19	
1,2-Dichloropropane	ND	0.20	EPA 8260C	6-4-19	6-4-19	
Dibromomethane	ND	0.20	EPA 8260C	6-4-19	6-4-19	
Bromodichloromethane	ND	0.20	EPA 8260C	6-4-19	6-4-19	
2-Chloroethyl Vinyl Ether	ND	1.0	EPA 8260C	6-4-19	6-4-19	
(cis) 1,3-Dichloropropene	ND	0.20	EPA 8260C	6-4-19	6-4-19	
(trans) 1,3-Dichloropropene	ND	0.20	EPA 8260C	6-4-19	6-4-19	



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**METHOD BLANK QUALITY CONTROL**  
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Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Laboratory ID:	MB0604W1					
1,1,2-Trichloroethane	ND	0.20	EPA 8260C	6-4-19	6-4-19	
Tetrachloroethene	ND	0.20	EPA 8260C	6-4-19	6-4-19	
1,3-Dichloropropane	ND	0.20	EPA 8260C	6-4-19	6-4-19	
Dibromochloromethane	ND	0.20	EPA 8260C	6-4-19	6-4-19	
1,2-Dibromoethane	ND	0.20	EPA 8260C	6-4-19	6-4-19	
Chlorobenzene	ND	0.20	EPA 8260C	6-4-19	6-4-19	
1,1,1,2-Tetrachloroethane	ND	0.20	EPA 8260C	6-4-19	6-4-19	
Bromoform	ND	1.0	EPA 8260C	6-4-19	6-4-19	
Bromobenzene	ND	0.20	EPA 8260C	6-4-19	6-4-19	
1,1,2,2-Tetrachloroethane	ND	0.20	EPA 8260C	6-4-19	6-4-19	
1,2,3-Trichloropropane	ND	0.20	EPA 8260C	6-4-19	6-4-19	
2-Chlorotoluene	ND	0.20	EPA 8260C	6-4-19	6-4-19	
4-Chlorotoluene	ND	0.20	EPA 8260C	6-4-19	6-4-19	
1,3-Dichlorobenzene	ND	0.20	EPA 8260C	6-4-19	6-4-19	
1,4-Dichlorobenzene	ND	0.20	EPA 8260C	6-4-19	6-4-19	
1,2-Dichlorobenzene	ND	0.20	EPA 8260C	6-4-19	6-4-19	
1,2-Dibromo-3-chloropropane	ND	1.0	EPA 8260C	6-4-19	6-4-19	
1,2,4-Trichlorobenzene	ND	0.20	EPA 8260C	6-4-19	6-4-19	
Hexachlorobutadiene	ND	1.0	EPA 8260C	6-4-19	6-4-19	
1,2,3-Trichlorobenzene	ND	0.20	EPA 8260C	6-4-19	6-4-19	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Dibromofluoromethane</i>	<i>98</i>	<i>75-127</i>				
<i>Toluene-d8</i>	<i>98</i>	<i>80-127</i>				
<i>4-Bromofluorobenzene</i>	<i>107</i>	<i>78-125</i>				



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**VOLATILE ORGANICS EPA 8260C  
 MS/MSD QUALITY CONTROL**

Matrix: Water  
 Units: ug/L

Analyte	Result		Spike Level		Source	Percent		Recovery	RPD		Flags
	MS	MSD	MS	MSD	Result	Recovery	Limits	RPD	Limit		
<b>MATRIX SPIKES</b>											
Laboratory ID:	05-397-05										
	MS	MSD	MS	MSD		MS	MSD				
1,1-Dichloroethene	8.63	9.17	10.0	10.0	ND	86	92	57-135	6	15	
Benzene	9.23	9.95	10.0	10.0	ND	92	100	73-131	8	16	
Trichloroethene	10.6	10.8	10.0	10.0	0.599	100	102	75-124	2	17	
Toluene	8.35	9.76	10.0	10.0	ND	84	98	84-123	16	19	
Chlorobenzene	9.65	10.1	10.0	10.0	ND	97	101	78-122	5	16	
<i>Surrogate:</i>											
Dibromofluoromethane						105	105	75-127			
Toluene-d8						85	99	80-127			
4-Bromofluorobenzene						111	100	78-125			





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**DISSOLVED GASES  
RSK 175**

Matrix: Water  
 Units: ug/L (ppb)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>Client ID:</b>	<b>HZ-MW-34:W</b>					
Laboratory ID:	05-397-01					
Methane	<b>1100</b>	100	RSK 175	6-5-19	6-5-19	
Ethane	<b>ND</b>	50	RSK 175	6-5-19	6-5-19	
Ethene	<b>ND</b>	50	RSK 175	6-5-19	6-5-19	

<b>Client ID:</b>	<b>HZ-MW-28:W</b>					
Laboratory ID:	05-397-02					
Methane	<b>53</b>	6.0	RSK 175	6-5-19	6-5-19	
Ethane	<b>ND</b>	3.0	RSK 175	6-5-19	6-5-19	
Ethene	<b>ND</b>	3.0	RSK 175	6-5-19	6-5-19	

<b>Client ID:</b>	<b>HZ-MW-24:W</b>					
Laboratory ID:	05-397-03					
Methane	<b>5400</b>	500	RSK 175	6-5-19	6-5-19	
Ethane	<b>ND</b>	250	RSK 175	6-5-19	6-5-19	
Ethene	<b>ND</b>	250	RSK 175	6-5-19	6-5-19	

<b>Client ID:</b>	<b>HZ-MW-33:W</b>					
Laboratory ID:	05-397-04					
Methane	<b>2.7</b>	1.0	RSK 175	6-5-19	6-5-19	
Ethane	<b>ND</b>	0.50	RSK 175	6-5-19	6-5-19	
Ethene	<b>ND</b>	0.50	RSK 175	6-5-19	6-5-19	

<b>Client ID:</b>	<b>HZ-MW-29:W</b>					
Laboratory ID:	05-397-05					
Methane	<b>3900</b>	500	RSK 175	6-5-19	6-5-19	
Ethane	<b>ND</b>	250	RSK 175	6-5-19	6-5-19	
Ethene	<b>ND</b>	250	RSK 175	6-5-19	6-5-19	

<b>Client ID:</b>	<b>HZ-MW-17:W</b>					
Laboratory ID:	05-397-06					
Methane	<b>250</b>	30	RSK 175	6-5-19	6-5-19	
Ethane	<b>ND</b>	15	RSK 175	6-5-19	6-5-19	
Ethene	<b>ND</b>	15	RSK 175	6-5-19	6-5-19	



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**DISSOLVED GASES  
 RSK 175  
 QUALITY CONTROL**

Matrix: Water  
 Units: ug/L (ppb)

<b>Analyte</b>	<b>Result</b>	<b>PQL</b>	<b>Method</b>	<b>Date Prepared</b>	<b>Date Analyzed</b>	<b>Flags</b>
<b>METHOD BLANK</b>						
Laboratory ID:	MB0605W1					
Methane	<b>ND</b>	1.0	RSK 175	6-5-19	6-5-19	
Ethane	<b>ND</b>	0.50	RSK 175	6-5-19	6-5-19	
Ethene	<b>ND</b>	0.50	RSK 175	6-5-19	6-5-19	

<b>Analyte</b>	<b>Result</b>		<b>Spike Level</b>		<b>Source Result</b>	<b>Percent Recovery</b>		<b>Recovery Limits</b>	<b>RPD</b>	<b>RPD Limit</b>	<b>Flags</b>
<b>MATRIX SPIKES</b>											
Laboratory ID:	01-123-01										
	MS	MSD	MS	MSD		MS	MSD				
Methane	<b>9.41</b>	<b>9.08</b>	4.42	4.42	4.20	<b>118</b>	<b>110</b>	75-125	4	25	
Ethane	<b>7.79</b>	<b>7.34</b>	8.32	8.32	ND	<b>94</b>	<b>88</b>	75-125	6	25	
Ethene	<b>5.79</b>	<b>6.37</b>	7.77	7.77	ND	<b>75</b>	<b>82</b>	75-125	10	25	



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**AMMONIA (as Nitrogen)**  
**SM 4500-NH<sub>3</sub> D**

Matrix: Water  
 Units: mg NH<sub>3</sub>-N/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>Client ID:</b>	<b>HZ-MW-34:W</b>					
Laboratory ID:	05-397-01					
Ammonia	<b>ND</b>	0.050	SM 4500-NH <sub>3</sub> D	6-7-19	6-7-19	

<b>Client ID:</b>	<b>HZ-MW-28:W</b>					
Laboratory ID:	05-397-02					
Ammonia	<b>ND</b>	0.050	SM 4500-NH <sub>3</sub> D	6-7-19	6-7-19	

<b>Client ID:</b>	<b>HZ-MW-24:W</b>					
Laboratory ID:	05-397-03					
Ammonia	<b>0.19</b>	0.050	SM 4500-NH <sub>3</sub> D	6-7-19	6-7-19	

<b>Client ID:</b>	<b>HZ-MW-33:W</b>					
Laboratory ID:	05-397-04					
Ammonia	<b>ND</b>	0.050	SM 4500-NH <sub>3</sub> D	6-7-19	6-7-19	

<b>Client ID:</b>	<b>HZ-MW-29:W</b>					
Laboratory ID:	05-397-05					
Ammonia	<b>0.65</b>	0.050	SM 4500-NH <sub>3</sub> D	6-7-19	6-7-19	

<b>Client ID:</b>	<b>HZ-MW-17:W</b>					
Laboratory ID:	05-397-06					
Ammonia	<b>0.081</b>	0.050	SM 4500-NH <sub>3</sub> D	6-7-19	6-7-19	



Date of Report: June 11, 2019  
 Samples Submitted: May 31, 2019  
 Laboratory Reference: 1905-397  
 Project: 82302-9.4

**AMMONIA (as Nitrogen)  
 SM 4500-NH<sub>3</sub> D  
 QUALITY CONTROL**

Matrix: Water  
 Units: mg NH<sub>3</sub>-N/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>METHOD BLANK</b>						
Laboratory ID:	MB0607W1					
Ammonia	<b>ND</b>	0.050	SM 4500-NH <sub>3</sub> D	6-7-19	6-7-19	

Analyte	Result	Spike Level	Source Result	Percent Recovery	Recovery Limits	RPD	RPD Limit	Flags
<b>DUPLICATE</b>								
Laboratory ID:	05-397-05							
	ORIG	DUP						
Ammonia	<b>0.646</b>	<b>0.669</b>	NA	NA	NA	3	12	

<b>MATRIX SPIKE</b>								
Laboratory ID:	05-397-05							
	MS	MS		MS				
Ammonia	<b>5.35</b>	5.00	0.646	94	75-121	NA	NA	

<b>SPIKE BLANK</b>								
Laboratory ID:	SB0607W1							
	SB	SB		SB				
Ammonia	<b>4.97</b>	5.00	NA	99	85-110	NA	NA	



Date of Report: June 11, 2019  
 Samples Submitted: May 31, 2019  
 Laboratory Reference: 1905-397  
 Project: 82302-9.4

**DISSOLVED IRON  
 EPA 6010D**

Matrix: Water  
 Units: ug/L (ppb)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>Client ID:</b>	<b>HZ-MW-34:W</b>					
Laboratory ID:	05-397-01					
Iron	<b>10000</b>	56	EPA 6010D	5-31-19	6-5-19	
<b>Client ID:</b>	<b>HZ-MW-28:W</b>					
Laboratory ID:	05-397-02					
Iron	<b>ND</b>	56	EPA 6010D	5-31-19	6-5-19	
<b>Client ID:</b>	<b>HZ-MW-24:W</b>					
Laboratory ID:	05-397-03					
Iron	<b>8500</b>	56	EPA 6010D	5-31-19	6-5-19	
<b>Client ID:</b>	<b>HZ-MW-33:W</b>					
Laboratory ID:	05-397-04					
Iron	<b>ND</b>	56	EPA 6010D	5-31-19	6-5-19	
<b>Client ID:</b>	<b>HZ-MW-29:W</b>					
Laboratory ID:	05-397-05					
Iron	<b>10000</b>	56	EPA 6010D	5-31-19	6-5-19	
<b>Client ID:</b>	<b>HZ-MW-17:W</b>					
Laboratory ID:	05-397-06					
Iron	<b>3600</b>	56	EPA 6010D	5-31-19	6-5-19	



Date of Report: June 11, 2019  
 Samples Submitted: May 31, 2019  
 Laboratory Reference: 1905-397  
 Project: 82302-9.4

**DISSOLVED IRON  
 EPA 6010D  
 QUALITY CONTROL**

Matrix: Water  
 Units: ug/L (ppb)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>METHOD BLANK</b>						
Laboratory ID:	MB0531F1					
Iron	<b>ND</b>	56	EPA 6010D	5-31-19	6-5-19	

Analyte	Result	Spike Level	Source Result	Percent Recovery	Recovery Limits	RPD	RPD Limit	Flags
<b>DUPLICATE</b>								
Laboratory ID:	05-397-05							
	ORIG	DUP						
Iron	<b>10400</b>	<b>10300</b>	NA	NA	NA	NA	1	20

**MATRIX SPIKES**

Laboratory ID:	05-397-05									
	MS	MSD	MS	MSD	MS	MSD				
Iron	<b>28600</b>	<b>28800</b>	22200	22200	10400	<b>82</b>	<b>83</b>	75-125	1	20



Date of Report: June 11, 2019  
 Samples Submitted: May 31, 2019  
 Laboratory Reference: 1905-397  
 Project: 82302-9.4

**CHLORIDE  
 SM 4500-Cl E**

Matrix: Water  
 Units: mg/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>Client ID:</b>	<b>HZ-MW-34:W</b>					
Laboratory ID:	05-397-01					
Chloride	<b>13</b>	2.0	SM 4500-Cl E	6-5-19	6-5-19	

<b>Client ID:</b>	<b>HZ-MW-28:W</b>					
Laboratory ID:	05-397-02					
Chloride	<b>16</b>	2.0	SM 4500-Cl E	6-5-19	6-5-19	

<b>Client ID:</b>	<b>HZ-MW-24:W</b>					
Laboratory ID:	05-397-03					
Chloride	<b>13</b>	2.0	SM 4500-Cl E	6-5-19	6-5-19	

<b>Client ID:</b>	<b>HZ-MW-33:W</b>					
Laboratory ID:	05-397-04					
Chloride	<b>7.3</b>	2.0	SM 4500-Cl E	6-5-19	6-5-19	

<b>Client ID:</b>	<b>HZ-MW-29:W</b>					
Laboratory ID:	05-397-05					
Chloride	<b>18</b>	2.0	SM 4500-Cl E	6-5-19	6-5-19	

<b>Client ID:</b>	<b>HZ-MW-17:W</b>					
Laboratory ID:	05-397-06					
Chloride	<b>9.0</b>	2.0	SM 4500-Cl E	6-5-19	6-5-19	



Date of Report: June 11, 2019  
 Samples Submitted: May 31, 2019  
 Laboratory Reference: 1905-397  
 Project: 82302-9.4

**CHLORIDE  
 SM 4500-Cl E  
 QUALITY CONTROL**

Matrix: Water  
 Units: mg/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>METHOD BLANK</b>						
Laboratory ID:	MB0605W1					
Chloride	<b>ND</b>	2.0	SM 4500-Cl E	6-5-19	6-5-19	

Analyte	Result	Spike Level	Source Result	Percent Recovery	Recovery Limits	RPD	RPD Limit	Flags
<b>DUPLICATE</b>								
Laboratory ID:	05-397-05							
	ORIG	DUP						
Chloride	<b>18.3</b>	<b>18.0</b>	NA	NA	NA	2	17	

<b>MATRIX SPIKE</b>								
Laboratory ID:	05-397-05							
	MS	MS		MS				
Chloride	<b>68.7</b>	50.0	18.3	101	80-116	NA	NA	

<b>SPIKE BLANK</b>								
Laboratory ID:	SB0605W1							
	SB	SB		SB				
Chloride	<b>51.5</b>	50.0	NA	103	90-110	NA	NA	





Date of Report: June 11, 2019  
 Samples Submitted: May 31, 2019  
 Laboratory Reference: 1905-397  
 Project: 82302-9.4

**SULFATE**  
**ASTM D516-11**

Matrix: Water  
 Units: mg/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>Client ID:</b>	<b>HZ-MW-34:W</b>					
Laboratory ID:	05-397-01					
Sulfate	<b>5.7</b>	5.0	ASTM D516-11	6-4-19	6-4-19	

<b>Client ID:</b>	<b>HZ-MW-28:W</b>					
Laboratory ID:	05-397-02					
Sulfate	<b>45</b>	20	ASTM D516-11	6-4-19	6-4-19	

<b>Client ID:</b>	<b>HZ-MW-24:W</b>					
Laboratory ID:	05-397-03					
Sulfate	<b>ND</b>	5.0	ASTM D516-11	6-4-19	6-4-19	

<b>Client ID:</b>	<b>HZ-MW-33:W</b>					
Laboratory ID:	05-397-04					
Sulfate	<b>16</b>	5.0	ASTM D516-11	6-4-19	6-4-19	

<b>Client ID:</b>	<b>HZ-MW-29:W</b>					
Laboratory ID:	05-397-05					
Sulfate	<b>ND</b>	5.0	ASTM D516-11	6-4-19	6-4-19	

<b>Client ID:</b>	<b>HZ-MW-17:W</b>					
Laboratory ID:	05-397-06					
Sulfate	<b>16</b>	10	ASTM D516-11	6-4-19	6-4-19	



Date of Report: June 11, 2019  
 Samples Submitted: May 31, 2019  
 Laboratory Reference: 1905-397  
 Project: 82302-9.4

**SULFATE  
 ASTM D516-11  
 QUALITY CONTROL**

Matrix: Water  
 Units: mg/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>METHOD BLANK</b>						
Laboratory ID:	MB0604W1					
Sulfate	<b>ND</b>	5.0	ASTM D516-11	6-4-19	6-4-19	

Analyte	Result	Spike Level	Source Result	Percent Recovery	Recovery Limits	RPD	RPD Limit	Flags
<b>DUPLICATE</b>								
Laboratory ID:	05-397-05							
	ORIG	DUP						
Sulfate	<b>ND</b>	<b>ND</b>	NA	NA	NA	NA	10	

<b>MATRIX SPIKE</b>								
Laboratory ID:	05-397-05							
	MS	MS		MS				
Sulfate	<b>24.4</b>	20.0	ND	122	73-134	NA	NA	

<b>SPIKE BLANK</b>								
Laboratory ID:	SB0604W1							
	SB	SB		SB				
Sulfate	<b>10.1</b>	10.0	NA	101	89-113	NA	NA	



Date of Report: June 11, 2019  
 Samples Submitted: May 31, 2019  
 Laboratory Reference: 1905-397  
 Project: 82302-9.4

**TOTAL ORGANIC CARBON  
 SM 5310B**

Matrix: Water  
 Units: mg/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>Client ID:</b>	<b>HZ-MW-34:W</b>					
Laboratory ID:	05-397-01					
Total Organic Carbon	<b>42</b>	1.0	SM 5310B	6-6-19	6-6-19	
<b>Client ID:</b>	<b>HZ-MW-28:W</b>					
Laboratory ID:	05-397-02					
Total Organic Carbon	<b>1.4</b>	1.0	SM 5310B	6-6-19	6-6-19	
<b>Client ID:</b>	<b>HZ-MW-24:W</b>					
Laboratory ID:	05-397-03					
Total Organic Carbon	<b>3.5</b>	1.0	SM 5310B	6-6-19	6-6-19	
<b>Client ID:</b>	<b>HZ-MW-33:W</b>					
Laboratory ID:	05-397-04					
Total Organic Carbon	<b>ND</b>	1.0	SM 5310B	6-6-19	6-6-19	
<b>Client ID:</b>	<b>HZ-MW-29:W</b>					
Laboratory ID:	05-397-05					
Total Organic Carbon	<b>52</b>	1.0	SM 5310B	6-6-19	6-6-19	
<b>Client ID:</b>	<b>HZ-MW-17:W</b>					
Laboratory ID:	05-397-06					
Total Organic Carbon	<b>1.1</b>	1.0	SM 5310B	6-6-19	6-6-19	



Date of Report: June 11, 2019  
 Samples Submitted: May 31, 2019  
 Laboratory Reference: 1905-397  
 Project: 82302-9.4

**TOTAL ORGANIC CARBON  
 SM 5310B  
 QUALITY CONTROL**

Matrix: Water  
 Units: mg/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>METHOD BLANK</b>						
Laboratory ID:	MB0606W1					
Total Organic Carbon	<b>ND</b>	1.0	SM 5310B	6-6-19	6-6-19	

Analyte	Result	Spike Level	Source Result	Percent Recovery	Recovery Limits	RPD	RPD Limit	Flags
<b>DUPLICATE</b>								
Laboratory ID:	05-397-05							
	ORIG	DUP						
Total Organic Carbon	<b>51.7</b>	<b>52.8</b>	NA	NA	NA	NA	2	20

**MATRIX SPIKE**

Laboratory ID:	05-397-05							
	MS	MS		MS				
Total Organic Carbon	<b>62.7</b>	10.0	51.7	110	85-131	NA	NA	

**SPIKE BLANK**

Laboratory ID:	SB0606W1							
	SB	SB		SB				
Total Organic Carbon	<b>9.64</b>	10.0	NA	96	88-127	NA	NA	





### Data Qualifiers and Abbreviations

- A - Due to a high sample concentration, the amount spiked is insufficient for meaningful MS/MSD recovery data.
  - B - The analyte indicated was also found in the blank sample.
  - C - The duplicate RPD is outside control limits due to high result variability when analyte concentrations are within five times the quantitation limit.
  - E - The value reported exceeds the quantitation range and is an estimate.
  - F - Surrogate recovery data is not available due to the high concentration of coeluting target compounds.
  - H - The analyte indicated is a common laboratory solvent and may have been introduced during sample preparation, and be impacting the sample result.
  - I - Compound recovery is outside of the control limits.
  - J - The value reported was below the practical quantitation limit. The value is an estimate.
  - K - Sample duplicate RPD is outside control limits due to sample inhomogeneity. The sample was re-extracted and re-analyzed with similar results.
  - L - The RPD is outside of the control limits.
  - M - Hydrocarbons in the gasoline range are impacting the diesel range result.
  - M1 - Hydrocarbons in the gasoline range (toluene-naphthalene) are present in the sample.
  - N - Hydrocarbons in the lube oil range are impacting the diesel range result.
  - N1 - Hydrocarbons in diesel range are impacting lube oil range results.
  - O - Hydrocarbons indicative of heavier fuels are present in the sample and are impacting the gasoline result.
  - P - The RPD of the detected concentrations between the two columns is greater than 40.
  - Q - Surrogate recovery is outside of the control limits.
  - S - Surrogate recovery data is not available due to the necessary dilution of the sample.
  - T - The sample chromatogram is not similar to a typical \_\_\_\_\_.
  - U - The analyte was analyzed for, but was not detected above the reported sample quantitation limit.
  - U1 - The practical quantitation limit is elevated due to interferences present in the sample.
  - V - Matrix Spike/Matrix Spike Duplicate recoveries are outside control limits due to matrix effects.
  - W - Matrix Spike/Matrix Spike Duplicate RPD are outside control limits due to matrix effects.
  - X - Sample extract treated with a mercury cleanup procedure.
  - X1 - Sample extract treated with a sulfuric acid/silica gel cleanup procedure.
  - Y - The calibration verification for this analyte exceeded the 20% drift specified in methods 8260 & 8270, and therefore the reported result should be considered an estimate. The overall performance of the calibration verification standard met the acceptance criteria of the method.
  - Z -
- ND - Not Detected at PQL  
 PQL - Practical Quantitation Limit  
 RPD - Relative Percent Difference





# Onsite Environmental Inc.

Analytical Laboratory Testing Services  
14648 NE 95th Street • Redmond, WA 98052  
Phone: (425) 883-3881 • www.onsite-env.com

## Chain of Custody

Company: Onsite Environmental

Project Number: 07302-9.4

Project Name: PORTMAN SERVICE CENTER

Project Manager: JEFF JONGUN

Sampled by: Bella Giverts + Emmaly Kano

### Turnaround Request (in working days)

(Check One)

Same Day  1 Day

2 Days  3 Days

Standard (7 Days)

(other) \_\_\_\_\_

Lab ID

Date Sampled

Time Sampled

Matrix

Number of Containers

NWTPH-HCID  
NWTPH-Gx/BTEX  
NWTPH-Gx  
NWTPH-Dx ( Acid / SG Clean-up)  
Volatiles 8260C  
Halogenated Volatiles 8260C  
EDB EPA 8011 (Waters Only)  
Semivolatiles 8270D/SIM (with low-level PAHs)  
PAHs 8270D/SIM (low-level)  
PCBs 8082A  
Organochlorine Pesticides 8081B  
Organophosphorus Pesticides 8270D/SIM  
Chlorinated Acid Herbicides 8151A  
Total RCRA Metals  
Total MTCA Metals  
TCLP Metals  
HEM (oil and grease) Total RSK  
ammonia -N  
dissolved Fe  
chloride  
sulfate  
% Total Solids TDC

Lab ID	Sample Identification	Date Sampled	Time Sampled	Matrix	Number of Containers	Analysis
1	HZ-MW-34:W	5/31	1035	GW	10	X
2	HZ-MW-28:W	5/31	1005	GW	10	X
3	HZ-MW-24:W	5/31	1143	GW	10	X
4	HZ-MW-33:W	5/31	1140	GW	10	X
5	HZ-MW-29:W	5/31	1305	GW	10	X
6	HZ-MW-17:W	5/31	1314	GW	10	X

Signature

Company

Date

Time

Comments/Special Instructions

Onsite Environmental

5/31

1410

RSK = methanol, ethanol, ethene lab filter

OSE

5/31/19 1410

HZ-MW-29:W = QC EXTRA VOLUME (+U VOLS)

Received

Relinquished

Received

Relinquished

Received/Date

Reviewed/Date

*[Handwritten signatures and initials]*

Data Package: Standard  Level III  Level IV

Chromatograms with final report  Electronic Data Deliverables (EDDs)



14648 NE 95<sup>th</sup> Street, Redmond, WA 98052 • (425) 883-3881

June 12, 2019

Jeff Jensen  
Kane Environmental, Inc.  
4015 13th Avenue West  
Seattle, WA 98119

Re: Analytical Data for Project 82302-9.4  
Laboratory Reference No. 1906-021

Dear Jeff:

Enclosed are the analytical results and associated quality control data for samples submitted on June 4, 2019.

The standard policy of OnSite Environmental, Inc. is to store your samples for 30 days from the date of receipt. If you require longer storage, please contact the laboratory.

We appreciate the opportunity to be of service to you on this project. If you have any questions concerning the data, or need additional information, please feel free to call me.

Sincerely,

A handwritten signature in black ink, appearing to read "DB", with a long horizontal stroke extending to the right.

David Baumeister  
Project Manager

Enclosures



---

OnSite Environmental, Inc. 14648 NE 95<sup>th</sup> Street, Redmond, WA 98052 (425) 883-3881

This report pertains to the samples analyzed in accordance with the chain of custody, and is intended only for the use of the individual or company to whom it is addressed.

Date of Report: June 12, 2019  
Samples Submitted: June 4, 2019  
Laboratory Reference: 1906-021  
Project: 82302-9.4

### Case Narrative

Samples were collected on June 3, 2019 and received by the laboratory on June 4, 2019. They were maintained at the laboratory at a temperature of 2°C to 6°C.

Please note that any and all soil sample results are reported on a dry-weight basis, unless otherwise noted below.

General QA/QC issues associated with the analytical data enclosed in this laboratory report will be indicated with a reference to a comment or explanation on the Data Qualifier page. More complex and involved QA/QC issues will be discussed in detail below.





Date of Report: June 12, 2019  
 Samples Submitted: June 4, 2019  
 Laboratory Reference: 1906-021  
 Project: 82302-9.4

**VOLATILE ORGANICS EPA 8260C**  
 page 1 of 2

Matrix: Water  
 Units: ug/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>Client ID:</b>	<b>MW-22:W</b>					
Laboratory ID:	06-021-01					
Dichlorodifluoromethane	ND	0.80	EPA 8260C	6-5-19	6-5-19	
Chloromethane	ND	4.0	EPA 8260C	6-5-19	6-5-19	
Vinyl Chloride	ND	0.80	EPA 8260C	6-5-19	6-5-19	
Bromomethane	ND	0.80	EPA 8260C	6-5-19	6-5-19	
Chloroethane	ND	4.0	EPA 8260C	6-5-19	6-5-19	
Trichlorofluoromethane	ND	0.80	EPA 8260C	6-5-19	6-5-19	
1,1-Dichloroethene	ND	0.80	EPA 8260C	6-5-19	6-5-19	
Iodomethane	ND	4.0	EPA 8260C	6-5-19	6-5-19	
Methylene Chloride	ND	4.0	EPA 8260C	6-5-19	6-5-19	
(trans) 1,2-Dichloroethene	ND	0.80	EPA 8260C	6-5-19	6-5-19	
1,1-Dichloroethane	ND	0.80	EPA 8260C	6-5-19	6-5-19	
2,2-Dichloropropane	ND	0.80	EPA 8260C	6-5-19	6-5-19	
(cis) 1,2-Dichloroethene	5.5	0.80	EPA 8260C	6-5-19	6-5-19	
Bromochloromethane	ND	0.80	EPA 8260C	6-5-19	6-5-19	
Chloroform	ND	0.80	EPA 8260C	6-5-19	6-5-19	
1,1,1-Trichloroethane	ND	0.80	EPA 8260C	6-5-19	6-5-19	
Carbon Tetrachloride	ND	0.80	EPA 8260C	6-5-19	6-5-19	
1,1-Dichloropropene	ND	0.80	EPA 8260C	6-5-19	6-5-19	
1,2-Dichloroethane	ND	0.80	EPA 8260C	6-5-19	6-5-19	
Trichloroethene	14	0.80	EPA 8260C	6-5-19	6-5-19	
1,2-Dichloropropane	ND	0.80	EPA 8260C	6-5-19	6-5-19	
Dibromomethane	ND	0.80	EPA 8260C	6-5-19	6-5-19	
Bromodichloromethane	ND	0.80	EPA 8260C	6-5-19	6-5-19	
2-Chloroethyl Vinyl Ether	ND	4.0	EPA 8260C	6-5-19	6-5-19	
(cis) 1,3-Dichloropropene	ND	0.80	EPA 8260C	6-5-19	6-5-19	
(trans) 1,3-Dichloropropene	ND	0.80	EPA 8260C	6-5-19	6-5-19	



Date of Report: June 12, 2019  
 Samples Submitted: June 4, 2019  
 Laboratory Reference: 1906-021  
 Project: 82302-9.4

**VOLATILE ORGANICS EPA 8260C**  
 page 2 of 2

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>Client ID:</b>	<b>MW-22:W</b>					
Laboratory ID:	06-021-01					
1,1,2-Trichloroethane	ND	0.80	EPA 8260C	6-5-19	6-5-19	
Tetrachloroethene	89	0.80	EPA 8260C	6-5-19	6-5-19	
1,3-Dichloropropane	ND	0.80	EPA 8260C	6-5-19	6-5-19	
Dibromochloromethane	ND	0.80	EPA 8260C	6-5-19	6-5-19	
1,2-Dibromoethane	ND	0.80	EPA 8260C	6-5-19	6-5-19	
Chlorobenzene	ND	0.80	EPA 8260C	6-5-19	6-5-19	
1,1,1,2-Tetrachloroethane	ND	0.80	EPA 8260C	6-5-19	6-5-19	
Bromoform	ND	4.0	EPA 8260C	6-5-19	6-5-19	
Bromobenzene	ND	0.80	EPA 8260C	6-5-19	6-5-19	
1,1,2,2-Tetrachloroethane	ND	0.80	EPA 8260C	6-5-19	6-5-19	
1,2,3-Trichloropropane	ND	0.80	EPA 8260C	6-5-19	6-5-19	
2-Chlorotoluene	ND	0.80	EPA 8260C	6-5-19	6-5-19	
4-Chlorotoluene	ND	0.80	EPA 8260C	6-5-19	6-5-19	
1,3-Dichlorobenzene	ND	0.80	EPA 8260C	6-5-19	6-5-19	
1,4-Dichlorobenzene	ND	0.80	EPA 8260C	6-5-19	6-5-19	
1,2-Dichlorobenzene	ND	0.80	EPA 8260C	6-5-19	6-5-19	
1,2-Dibromo-3-chloropropane	ND	4.0	EPA 8260C	6-5-19	6-5-19	
1,2,4-Trichlorobenzene	ND	0.80	EPA 8260C	6-5-19	6-5-19	
Hexachlorobutadiene	ND	4.0	EPA 8260C	6-5-19	6-5-19	
1,2,3-Trichlorobenzene	ND	0.80	EPA 8260C	6-5-19	6-5-19	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Dibromofluoromethane</i>	<i>101</i>	<i>75-127</i>				
<i>Toluene-d8</i>	<i>98</i>	<i>80-127</i>				
<i>4-Bromofluorobenzene</i>	<i>94</i>	<i>78-125</i>				



Date of Report: June 12, 2019  
 Samples Submitted: June 4, 2019  
 Laboratory Reference: 1906-021  
 Project: 82302-9.4

**VOLATILE ORGANICS EPA 8260C**  
 page 1 of 2

Matrix: Water  
 Units: ug/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>Client ID:</b>	<b>MW-35:W</b>					
Laboratory ID:	06-021-02					
Dichlorodifluoromethane	ND	0.20	EPA 8260C	6-5-19	6-5-19	
Chloromethane	ND	1.0	EPA 8260C	6-5-19	6-5-19	
Vinyl Chloride	ND	0.20	EPA 8260C	6-5-19	6-5-19	
Bromomethane	ND	0.20	EPA 8260C	6-5-19	6-5-19	
Chloroethane	ND	1.0	EPA 8260C	6-5-19	6-5-19	
Trichlorofluoromethane	ND	0.20	EPA 8260C	6-5-19	6-5-19	
1,1-Dichloroethene	ND	0.20	EPA 8260C	6-5-19	6-5-19	
Iodomethane	ND	1.0	EPA 8260C	6-5-19	6-5-19	
Methylene Chloride	ND	1.0	EPA 8260C	6-5-19	6-5-19	
(trans) 1,2-Dichloroethene	ND	0.20	EPA 8260C	6-5-19	6-5-19	
1,1-Dichloroethane	ND	0.20	EPA 8260C	6-5-19	6-5-19	
2,2-Dichloropropane	ND	0.20	EPA 8260C	6-5-19	6-5-19	
(cis) 1,2-Dichloroethene	ND	0.20	EPA 8260C	6-5-19	6-5-19	
Bromochloromethane	ND	0.20	EPA 8260C	6-5-19	6-5-19	
Chloroform	ND	0.20	EPA 8260C	6-5-19	6-5-19	
1,1,1-Trichloroethane	ND	0.20	EPA 8260C	6-5-19	6-5-19	
Carbon Tetrachloride	ND	0.20	EPA 8260C	6-5-19	6-5-19	
1,1-Dichloropropene	ND	0.20	EPA 8260C	6-5-19	6-5-19	
1,2-Dichloroethane	ND	0.20	EPA 8260C	6-5-19	6-5-19	
Trichloroethene	ND	0.20	EPA 8260C	6-5-19	6-5-19	
1,2-Dichloropropane	ND	0.20	EPA 8260C	6-5-19	6-5-19	
Dibromomethane	ND	0.20	EPA 8260C	6-5-19	6-5-19	
Bromodichloromethane	ND	0.20	EPA 8260C	6-5-19	6-5-19	
2-Chloroethyl Vinyl Ether	ND	1.0	EPA 8260C	6-5-19	6-5-19	
(cis) 1,3-Dichloropropene	ND	0.20	EPA 8260C	6-5-19	6-5-19	
(trans) 1,3-Dichloropropene	ND	0.20	EPA 8260C	6-5-19	6-5-19	



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Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>Client ID:</b>	<b>MW-35:W</b>					
Laboratory ID:	06-021-02					
1,1,2-Trichloroethane	ND	0.20	EPA 8260C	6-5-19	6-5-19	
Tetrachloroethene	0.66	0.20	EPA 8260C	6-5-19	6-5-19	
1,3-Dichloropropane	ND	0.20	EPA 8260C	6-5-19	6-5-19	
Dibromochloromethane	ND	0.20	EPA 8260C	6-5-19	6-5-19	
1,2-Dibromoethane	ND	0.20	EPA 8260C	6-5-19	6-5-19	
Chlorobenzene	ND	0.20	EPA 8260C	6-5-19	6-5-19	
1,1,1,2-Tetrachloroethane	ND	0.20	EPA 8260C	6-5-19	6-5-19	
Bromoform	ND	1.0	EPA 8260C	6-5-19	6-5-19	
Bromobenzene	ND	0.20	EPA 8260C	6-5-19	6-5-19	
1,1,2,2-Tetrachloroethane	ND	0.20	EPA 8260C	6-5-19	6-5-19	
1,2,3-Trichloropropane	ND	0.20	EPA 8260C	6-5-19	6-5-19	
2-Chlorotoluene	ND	0.20	EPA 8260C	6-5-19	6-5-19	
4-Chlorotoluene	ND	0.20	EPA 8260C	6-5-19	6-5-19	
1,3-Dichlorobenzene	ND	0.20	EPA 8260C	6-5-19	6-5-19	
1,4-Dichlorobenzene	ND	0.20	EPA 8260C	6-5-19	6-5-19	
1,2-Dichlorobenzene	ND	0.20	EPA 8260C	6-5-19	6-5-19	
1,2-Dibromo-3-chloropropane	ND	1.0	EPA 8260C	6-5-19	6-5-19	
1,2,4-Trichlorobenzene	ND	0.20	EPA 8260C	6-5-19	6-5-19	
Hexachlorobutadiene	ND	1.0	EPA 8260C	6-5-19	6-5-19	
1,2,3-Trichlorobenzene	ND	0.20	EPA 8260C	6-5-19	6-5-19	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Dibromofluoromethane</i>	<i>101</i>	<i>75-127</i>				
<i>Toluene-d8</i>	<i>99</i>	<i>80-127</i>				
<i>4-Bromofluorobenzene</i>	<i>99</i>	<i>78-125</i>				



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**VOLATILE ORGANICS EPA 8260C**  
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Matrix: Water  
 Units: ug/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>Client ID:</b>	<b>MW-34:W</b>					
Laboratory ID:	06-021-03					
Dichlorodifluoromethane	ND	0.20	EPA 8260C	6-5-19	6-5-19	
Chloromethane	ND	1.0	EPA 8260C	6-5-19	6-5-19	
Vinyl Chloride	ND	0.20	EPA 8260C	6-5-19	6-5-19	
Bromomethane	ND	0.20	EPA 8260C	6-5-19	6-5-19	
Chloroethane	ND	1.0	EPA 8260C	6-5-19	6-5-19	
Trichlorofluoromethane	ND	0.20	EPA 8260C	6-5-19	6-5-19	
1,1-Dichloroethene	ND	0.20	EPA 8260C	6-5-19	6-5-19	
Iodomethane	ND	1.0	EPA 8260C	6-5-19	6-5-19	
Methylene Chloride	ND	1.0	EPA 8260C	6-5-19	6-5-19	
(trans) 1,2-Dichloroethene	ND	0.20	EPA 8260C	6-5-19	6-5-19	
1,1-Dichloroethane	ND	0.20	EPA 8260C	6-5-19	6-5-19	
2,2-Dichloropropane	ND	0.20	EPA 8260C	6-5-19	6-5-19	
(cis) 1,2-Dichloroethene	3.2	0.20	EPA 8260C	6-5-19	6-5-19	
Bromochloromethane	ND	0.20	EPA 8260C	6-5-19	6-5-19	
Chloroform	ND	0.20	EPA 8260C	6-5-19	6-5-19	
1,1,1-Trichloroethane	ND	0.20	EPA 8260C	6-5-19	6-5-19	
Carbon Tetrachloride	ND	0.20	EPA 8260C	6-5-19	6-5-19	
1,1-Dichloropropene	ND	0.20	EPA 8260C	6-5-19	6-5-19	
1,2-Dichloroethane	ND	0.20	EPA 8260C	6-5-19	6-5-19	
Trichloroethene	ND	0.20	EPA 8260C	6-5-19	6-5-19	
1,2-Dichloropropane	ND	0.20	EPA 8260C	6-5-19	6-5-19	
Dibromomethane	ND	0.20	EPA 8260C	6-5-19	6-5-19	
Bromodichloromethane	ND	0.20	EPA 8260C	6-5-19	6-5-19	
2-Chloroethyl Vinyl Ether	ND	1.0	EPA 8260C	6-5-19	6-5-19	
(cis) 1,3-Dichloropropene	ND	0.20	EPA 8260C	6-5-19	6-5-19	
(trans) 1,3-Dichloropropene	ND	0.20	EPA 8260C	6-5-19	6-5-19	



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Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>Client ID:</b>	<b>MW-34:W</b>					
Laboratory ID:	06-021-03					
1,1,2-Trichloroethane	ND	0.20	EPA 8260C	6-5-19	6-5-19	
Tetrachloroethene	1.3	0.20	EPA 8260C	6-5-19	6-5-19	
1,3-Dichloropropane	ND	0.20	EPA 8260C	6-5-19	6-5-19	
Dibromochloromethane	ND	0.20	EPA 8260C	6-5-19	6-5-19	
1,2-Dibromoethane	ND	0.20	EPA 8260C	6-5-19	6-5-19	
Chlorobenzene	ND	0.20	EPA 8260C	6-5-19	6-5-19	
1,1,1,2-Tetrachloroethane	ND	0.20	EPA 8260C	6-5-19	6-5-19	
Bromoform	ND	1.0	EPA 8260C	6-5-19	6-5-19	
Bromobenzene	ND	0.20	EPA 8260C	6-5-19	6-5-19	
1,1,2,2-Tetrachloroethane	ND	0.20	EPA 8260C	6-5-19	6-5-19	
1,2,3-Trichloropropane	ND	0.20	EPA 8260C	6-5-19	6-5-19	
2-Chlorotoluene	ND	0.20	EPA 8260C	6-5-19	6-5-19	
4-Chlorotoluene	ND	0.20	EPA 8260C	6-5-19	6-5-19	
1,3-Dichlorobenzene	ND	0.20	EPA 8260C	6-5-19	6-5-19	
1,4-Dichlorobenzene	ND	0.20	EPA 8260C	6-5-19	6-5-19	
1,2-Dichlorobenzene	ND	0.20	EPA 8260C	6-5-19	6-5-19	
1,2-Dibromo-3-chloropropane	ND	1.0	EPA 8260C	6-5-19	6-5-19	
1,2,4-Trichlorobenzene	ND	0.20	EPA 8260C	6-5-19	6-5-19	
Hexachlorobutadiene	ND	1.0	EPA 8260C	6-5-19	6-5-19	
1,2,3-Trichlorobenzene	ND	0.20	EPA 8260C	6-5-19	6-5-19	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Dibromofluoromethane</i>	<i>101</i>	<i>75-127</i>				
<i>Toluene-d8</i>	<i>103</i>	<i>80-127</i>				
<i>4-Bromofluorobenzene</i>	<i>96</i>	<i>78-125</i>				



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**VOLATILE ORGANICS EPA 8260C**  
**METHOD BLANK QUALITY CONTROL**  
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Matrix: Water  
 Units: ug/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Laboratory ID:	MB0605W1					
Dichlorodifluoromethane	ND	0.20	EPA 8260C	6-5-19	6-5-19	
Chloromethane	ND	1.0	EPA 8260C	6-5-19	6-5-19	
Vinyl Chloride	ND	0.20	EPA 8260C	6-5-19	6-5-19	
Bromomethane	ND	0.20	EPA 8260C	6-5-19	6-5-19	
Chloroethane	ND	1.0	EPA 8260C	6-5-19	6-5-19	
Trichlorofluoromethane	ND	0.20	EPA 8260C	6-5-19	6-5-19	
1,1-Dichloroethene	ND	0.20	EPA 8260C	6-5-19	6-5-19	
Iodomethane	ND	1.0	EPA 8260C	6-5-19	6-5-19	
Methylene Chloride	ND	1.0	EPA 8260C	6-5-19	6-5-19	
(trans) 1,2-Dichloroethene	ND	0.20	EPA 8260C	6-5-19	6-5-19	
1,1-Dichloroethane	ND	0.20	EPA 8260C	6-5-19	6-5-19	
2,2-Dichloropropane	ND	0.20	EPA 8260C	6-5-19	6-5-19	
(cis) 1,2-Dichloroethene	ND	0.20	EPA 8260C	6-5-19	6-5-19	
Bromochloromethane	ND	0.20	EPA 8260C	6-5-19	6-5-19	
Chloroform	ND	0.20	EPA 8260C	6-5-19	6-5-19	
1,1,1-Trichloroethane	ND	0.20	EPA 8260C	6-5-19	6-5-19	
Carbon Tetrachloride	ND	0.20	EPA 8260C	6-5-19	6-5-19	
1,1-Dichloropropene	ND	0.20	EPA 8260C	6-5-19	6-5-19	
1,2-Dichloroethane	ND	0.20	EPA 8260C	6-5-19	6-5-19	
Trichloroethene	ND	0.20	EPA 8260C	6-5-19	6-5-19	
1,2-Dichloropropane	ND	0.20	EPA 8260C	6-5-19	6-5-19	
Dibromomethane	ND	0.20	EPA 8260C	6-5-19	6-5-19	
Bromodichloromethane	ND	0.20	EPA 8260C	6-5-19	6-5-19	
2-Chloroethyl Vinyl Ether	ND	1.0	EPA 8260C	6-5-19	6-5-19	
(cis) 1,3-Dichloropropene	ND	0.20	EPA 8260C	6-5-19	6-5-19	
(trans) 1,3-Dichloropropene	ND	0.20	EPA 8260C	6-5-19	6-5-19	



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**VOLATILE ORGANICS EPA 8260C**  
**METHOD BLANK QUALITY CONTROL**  
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Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Laboratory ID:	MB0605W1					
1,1,2-Trichloroethane	ND	0.20	EPA 8260C	6-5-19	6-5-19	
Tetrachloroethene	ND	0.20	EPA 8260C	6-5-19	6-5-19	
1,3-Dichloropropane	ND	0.20	EPA 8260C	6-5-19	6-5-19	
Dibromochloromethane	ND	0.20	EPA 8260C	6-5-19	6-5-19	
1,2-Dibromoethane	ND	0.20	EPA 8260C	6-5-19	6-5-19	
Chlorobenzene	ND	0.20	EPA 8260C	6-5-19	6-5-19	
1,1,1,2-Tetrachloroethane	ND	0.20	EPA 8260C	6-5-19	6-5-19	
Bromoform	ND	1.0	EPA 8260C	6-5-19	6-5-19	
Bromobenzene	ND	0.20	EPA 8260C	6-5-19	6-5-19	
1,1,2,2-Tetrachloroethane	ND	0.20	EPA 8260C	6-5-19	6-5-19	
1,2,3-Trichloropropane	ND	0.20	EPA 8260C	6-5-19	6-5-19	
2-Chlorotoluene	ND	0.20	EPA 8260C	6-5-19	6-5-19	
4-Chlorotoluene	ND	0.20	EPA 8260C	6-5-19	6-5-19	
1,3-Dichlorobenzene	ND	0.20	EPA 8260C	6-5-19	6-5-19	
1,4-Dichlorobenzene	ND	0.20	EPA 8260C	6-5-19	6-5-19	
1,2-Dichlorobenzene	ND	0.20	EPA 8260C	6-5-19	6-5-19	
1,2-Dibromo-3-chloropropane	ND	1.0	EPA 8260C	6-5-19	6-5-19	
1,2,4-Trichlorobenzene	ND	0.20	EPA 8260C	6-5-19	6-5-19	
Hexachlorobutadiene	ND	1.0	EPA 8260C	6-5-19	6-5-19	
1,2,3-Trichlorobenzene	ND	0.20	EPA 8260C	6-5-19	6-5-19	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Dibromofluoromethane</i>	<i>102</i>	<i>75-127</i>				
<i>Toluene-d8</i>	<i>101</i>	<i>80-127</i>				
<i>4-Bromofluorobenzene</i>	<i>94</i>	<i>78-125</i>				





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**VOLATILE ORGANICS EPA 8260C  
 SB/SBD QUALITY CONTROL**

Matrix: Water  
 Units: ug/L

Analyte	Result		Spike Level		Percent Recovery		Recovery	RPD	RPD	Flags
					SB	SBD	Limits	RPD	Limit	
<b>SPIKE BLANKS</b>										
Laboratory ID:	SB0605W1									
	SB	SBD	SB	SBD	SB	SBD				
1,1-Dichloroethene	8.88	8.65	10.0	10.0	89	87	63-130	3	17	
Benzene	9.32	9.27	10.0	10.0	93	93	76-125	1	19	
Trichloroethene	10.0	9.84	10.0	10.0	100	98	76-121	2	18	
Toluene	9.68	9.54	10.0	10.0	97	95	80-124	1	18	
Chlorobenzene	10.0	9.66	10.0	10.0	100	97	75-120	3	19	
<i>Surrogate:</i>										
Dibromofluoromethane					101	103	75-127			
Toluene-d8					101	100	80-127			
4-Bromofluorobenzene					99	94	78-125			



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**DISSOLVED GASES  
 RSK 175**

Matrix: Water  
 Units: ug/L (ppb)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>Client ID:</b>	<b>MW-22:W</b>					
Laboratory ID:	06-021-01					
Methane	<b>ND</b>	1.0	RSK 175	6-11-19	6-11-19	
Ethane	<b>ND</b>	0.50	RSK 175	6-11-19	6-11-19	
Ethene	<b>ND</b>	0.50	RSK 175	6-11-19	6-11-19	

<b>Client ID:</b>	<b>MW-35:W</b>					
Laboratory ID:	06-021-02					
Methane	<b>150</b>	15	RSK 175	6-11-19	6-11-19	
Ethane	<b>ND</b>	7.5	RSK 175	6-11-19	6-11-19	
Ethene	<b>ND</b>	7.5	RSK 175	6-11-19	6-11-19	

<b>Client ID:</b>	<b>MW-34:W</b>					
Laboratory ID:	06-021-03					
Methane	<b>140</b>	15	RSK 175	6-11-19	6-11-19	
Ethane	<b>ND</b>	7.5	RSK 175	6-11-19	6-11-19	
Ethene	<b>ND</b>	7.5	RSK 175	6-11-19	6-11-19	



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**DISSOLVED GASES  
 RSK 175  
 QUALITY CONTROL**

Matrix: Water  
 Units: ug/L (ppb)

<b>Analyte</b>	<b>Result</b>	<b>PQL</b>	<b>Method</b>	<b>Date Prepared</b>	<b>Date Analyzed</b>	<b>Flags</b>
<b>METHOD BLANK</b>						
Laboratory ID:	MB0611W1					
Methane	<b>ND</b>	1.0	RSK 175	6-11-19	6-11-19	
Ethane	<b>ND</b>	0.50	RSK 175	6-11-19	6-11-19	
Ethene	<b>ND</b>	0.50	RSK 175	6-11-19	6-11-19	

<b>Analyte</b>	<b>Result</b>		<b>Spike Level</b>		<b>Source Result</b>	<b>Percent Recovery</b>		<b>Recovery Limits</b>	<b>RPD</b>	<b>RPD Limit</b>	<b>Flags</b>
<b>MATRIX SPIKES</b>											
Laboratory ID:	01-123-01										
	MS	MSD	MS	MSD		MS	MSD				
Methane	<b>9.41</b>	<b>9.08</b>	4.42	4.42	4.20	<b>118</b>	<b>110</b>	75-125	4	25	
Ethane	<b>7.79</b>	<b>7.34</b>	8.32	8.32	ND	<b>94</b>	<b>88</b>	75-125	6	25	
Ethene	<b>5.79</b>	<b>6.37</b>	7.77	7.77	ND	<b>75</b>	<b>82</b>	75-125	10	25	



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**AMMONIA (as Nitrogen)**  
**SM 4500-NH<sub>3</sub> D**

Matrix: Water  
 Units: mg NH<sub>3</sub>-N/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>Client ID:</b>	<b>MW-22:W</b>					
Laboratory ID:	06-021-01					
Ammonia	<b>ND</b>	0.050	SM 4500-NH3 D	6-7-19	6-7-19	

<b>Client ID:</b>	<b>MW-35:W</b>					
Laboratory ID:	06-021-02					
Ammonia	<b>0.15</b>	0.050	SM 4500-NH3 D	6-7-19	6-7-19	

<b>Client ID:</b>	<b>MW-34:W</b>					
Laboratory ID:	06-021-03					
Ammonia	<b>ND</b>	0.050	SM 4500-NH3 D	6-7-19	6-7-19	



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**AMMONIA (as Nitrogen)  
 SM 4500-NH<sub>3</sub> D  
 QUALITY CONTROL**

Matrix: Water  
 Units: mg NH<sub>3</sub>-N/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>METHOD BLANK</b>						
Laboratory ID:	MB0607W1					
Ammonia	<b>ND</b>	0.050	SM 4500-NH <sub>3</sub> D	6-7-19	6-7-19	

Analyte	Result	Spike Level	Source Result	Percent Recovery	Recovery Limits	RPD	RPD Limit	Flags
<b>DUPLICATE</b>								
Laboratory ID:	05-397-05							
	ORIG	DUP						
Ammonia	<b>0.646</b>	<b>0.669</b>	NA	NA	NA	3	12	

<b>MATRIX SPIKE</b>								
Laboratory ID:	05-397-05							
	MS	MS		MS				
Ammonia	<b>5.35</b>	5.00	0.646	94	75-121	NA	NA	

<b>SPIKE BLANK</b>								
Laboratory ID:	SB0607W1							
	SB	SB		SB				
Ammonia	<b>4.97</b>	5.00	NA	99	85-110	NA	NA	



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 Laboratory Reference: 1906-021  
 Project: 82302-9.4

**DISSOLVED IRON  
 EPA 6010D**

Matrix: Water  
 Units: ug/L (ppb)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>Client ID:</b>	<b>MW-22:W</b>					
Laboratory ID:	06-021-01					
Iron	<b>ND</b>	56	EPA 6010D	6-3-19	6-10-19	
<b>Client ID:</b>	<b>MW-35:W</b>					
Laboratory ID:	06-021-02					
Iron	<b>1900</b>	56	EPA 6010D	6-3-19	6-10-19	
<b>Client ID:</b>	<b>MW-34:W</b>					
Laboratory ID:	06-021-03					
Iron	<b>440</b>	56	EPA 6010D	6-3-19	6-10-19	



Date of Report: June 12, 2019  
 Samples Submitted: June 4, 2019  
 Laboratory Reference: 1906-021  
 Project: 82302-9.4

**DISSOLVED IRON  
 EPA 6010D  
 QUALITY CONTROL**

Matrix: Water  
 Units: ug/L (ppb)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>METHOD BLANK</b>						
Laboratory ID:	MB0603F1					
Iron	<b>ND</b>	56	EPA 6010D	6-3-19	6-10-19	

Analyte	Result	Spike Level	Source Result	Percent Recovery	Recovery Limits	RPD	RPD Limit	Flags
<b>DUPLICATE</b>								
Laboratory ID:	06-021-01							
	ORIG	DUP						
Iron	<b>ND</b>	<b>ND</b>	NA	NA	NA	NA	20	

**MATRIX SPIKES**

Laboratory ID:	06-021-01									
	MS	MSD	MS	MSD		MS	MSD			
Iron	<b>21700</b>	<b>21800</b>	22200	22200	ND	<b>98</b>	<b>98</b>	75-125	1	20



Date of Report: June 12, 2019  
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 Project: 82302-9.4

**CHLORIDE**  
**SM 4500-Cl E**

Matrix: Water  
 Units: mg/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>Client ID:</b>	<b>MW-22:W</b>					
Laboratory ID:	06-021-01					
Chloride	<b>6.8</b>	2.0	SM 4500-Cl E	6-5-19	6-5-19	

<b>Client ID:</b>	<b>MW-35:W</b>					
Laboratory ID:	06-021-02					
Chloride	<b>12</b>	2.0	SM 4500-Cl E	6-5-19	6-5-19	

<b>Client ID:</b>	<b>MW-34:W</b>					
Laboratory ID:	06-021-03					
Chloride	<b>29</b>	2.0	SM 4500-Cl E	6-5-19	6-5-19	





Date of Report: June 12, 2019  
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 Project: 82302-9.4

**CHLORIDE  
 SM 4500-Cl E  
 QUALITY CONTROL**

Matrix: Water  
 Units: mg/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>METHOD BLANK</b>						
Laboratory ID:	MB0605W1					
Chloride	<b>ND</b>	2.0	SM 4500-Cl E	6-5-19	6-5-19	

Analyte	Result	Spike Level	Source Result	Percent Recovery	Recovery Limits	RPD	RPD Limit	Flags
<b>DUPLICATE</b>								
Laboratory ID:	05-397-05							
	ORIG	DUP						
Chloride	<b>18.3</b>	<b>18.0</b>	NA	NA	NA	2	17	

<b>MATRIX SPIKE</b>								
Laboratory ID:	05-397-05							
	MS	MS		MS				
Chloride	<b>68.7</b>	50.0	18.3	101	80-116	NA	NA	

<b>SPIKE BLANK</b>								
Laboratory ID:	SB0605W1							
	SB	SB		SB				
Chloride	<b>51.5</b>	50.0	NA	103	90-110	NA	NA	



Date of Report: June 12, 2019  
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 Project: 82302-9.4

**SULFATE**  
**ASTM D516-11**

Matrix: Water  
 Units: mg/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>Client ID:</b>	<b>MW-22:W</b>					
Laboratory ID:	06-021-01					
Sulfate	<b>ND</b>	5.0	ASTM D516-11	6-6-19	6-6-19	

<b>Client ID:</b>	<b>MW-35:W</b>					
Laboratory ID:	06-021-02					
Sulfate	<b>5.4</b>	5.0	ASTM D516-11	6-6-19	6-6-19	

<b>Client ID:</b>	<b>MW-34:W</b>					
Laboratory ID:	06-021-03					
Sulfate	<b>15</b>	5.0	ASTM D516-11	6-6-19	6-6-19	



Date of Report: June 12, 2019  
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 Project: 82302-9.4

**SULFATE  
 ASTM D516-11  
 QUALITY CONTROL**

Matrix: Water  
 Units: mg/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>METHOD BLANK</b>						
Laboratory ID:	MB0606W1					
Sulfate	<b>ND</b>	5.0	ASTM D516-11	6-6-19	6-6-19	

Analyte	Result	Spike Level	Source Result	Percent Recovery	Recovery Limits	RPD	RPD Limit	Flags
<b>DUPLICATE</b>								
Laboratory ID:	06-021-01							
	ORIG	DUP						
Sulfate	<b>ND</b>	<b>ND</b>	NA	NA	NA	NA	10	

<b>MATRIX SPIKE</b>								
Laboratory ID:	06-021-01							
	MS	MS		MS				
Sulfate	<b>12.7</b>	10.0	ND	127	73-134	NA	NA	

<b>SPIKE BLANK</b>								
Laboratory ID:	SB0606W1							
	SB	SB		SB				
Sulfate	<b>9.78</b>	10.0	NA	98	89-113	NA	NA	



Date of Report: June 12, 2019  
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 Project: 82302-9.4

**TOTAL ORGANIC CARBON  
 SM 5310B**

Matrix: Water  
 Units: mg/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>Client ID:</b>	<b>MW-22:W</b>					
Laboratory ID:	06-021-01					
Total Organic Carbon	<b>1.1</b>	1.0	SM 5310B	6-6-19	6-6-19	
<b>Client ID:</b>	<b>MW-35:W</b>					
Laboratory ID:	06-021-02					
Total Organic Carbon	<b>1.6</b>	1.0	SM 5310B	6-6-19	6-6-19	
<b>Client ID:</b>	<b>MW-34:W</b>					
Laboratory ID:	06-021-03					
Total Organic Carbon	<b>1.8</b>	1.0	SM 5310B	6-6-19	6-6-19	



Date of Report: June 12, 2019  
 Samples Submitted: June 4, 2019  
 Laboratory Reference: 1906-021  
 Project: 82302-9.4

**TOTAL ORGANIC CARBON  
 SM 5310B  
 QUALITY CONTROL**

Matrix: Water  
 Units: mg/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>METHOD BLANK</b>						
Laboratory ID:	MB0606W1					
Total Organic Carbon	<b>ND</b>	1.0	SM 5310B	6-6-19	6-6-19	

Analyte	Result	Spike Level	Source Result	Percent Recovery	Recovery Limits	RPD	RPD Limit	Flags
<b>DUPLICATE</b>								
Laboratory ID:	05-397-05							
	ORIG	DUP						
Total Organic Carbon	<b>51.7</b>	<b>52.8</b>	NA	NA	NA	NA	2	20

**MATRIX SPIKE**

Laboratory ID:	05-397-05							
	MS	MS		MS				
Total Organic Carbon	<b>62.7</b>	10.0	51.7	110	85-131	NA	NA	

**SPIKE BLANK**

Laboratory ID:	SB0606W1							
	SB	SB		SB				
Total Organic Carbon	<b>9.64</b>	10.0	NA	96	88-127	NA	NA	





### Data Qualifiers and Abbreviations

- A - Due to a high sample concentration, the amount spiked is insufficient for meaningful MS/MSD recovery data.
  - B - The analyte indicated was also found in the blank sample.
  - C - The duplicate RPD is outside control limits due to high result variability when analyte concentrations are within five times the quantitation limit.
  - E - The value reported exceeds the quantitation range and is an estimate.
  - F - Surrogate recovery data is not available due to the high concentration of coeluting target compounds.
  - H - The analyte indicated is a common laboratory solvent and may have been introduced during sample preparation, and be impacting the sample result.
  - I - Compound recovery is outside of the control limits.
  - J - The value reported was below the practical quantitation limit. The value is an estimate.
  - K - Sample duplicate RPD is outside control limits due to sample inhomogeneity. The sample was re-extracted and re-analyzed with similar results.
  - L - The RPD is outside of the control limits.
  - M - Hydrocarbons in the gasoline range are impacting the diesel range result.
  - M1 - Hydrocarbons in the gasoline range (toluene-naphthalene) are present in the sample.
  - N - Hydrocarbons in the lube oil range are impacting the diesel range result.
  - N1 - Hydrocarbons in diesel range are impacting lube oil range results.
  - O - Hydrocarbons indicative of heavier fuels are present in the sample and are impacting the gasoline result.
  - P - The RPD of the detected concentrations between the two columns is greater than 40.
  - Q - Surrogate recovery is outside of the control limits.
  - S - Surrogate recovery data is not available due to the necessary dilution of the sample.
  - T - The sample chromatogram is not similar to a typical \_\_\_\_\_.
  - U - The analyte was analyzed for, but was not detected above the reported sample quantitation limit.
  - U1 - The practical quantitation limit is elevated due to interferences present in the sample.
  - V - Matrix Spike/Matrix Spike Duplicate recoveries are outside control limits due to matrix effects.
  - W - Matrix Spike/Matrix Spike Duplicate RPD are outside control limits due to matrix effects.
  - X - Sample extract treated with a mercury cleanup procedure.
  - X1 - Sample extract treated with a sulfuric acid/silica gel cleanup procedure.
  - Y - The calibration verification for this analyte exceeded the 20% drift specified in methods 8260 & 8270, and therefore the reported result should be considered an estimate. The overall performance of the calibration verification standard met the acceptance criteria of the method.
  - Z -
- ND - Not Detected at PQL  
 PQL - Practical Quantitation Limit  
 RPD - Relative Percent Difference





# MVA Onsite Environmental Inc.

Analytical Laboratory Testing Services  
14648 NE 95th Street • Redmond, WA 98052  
Phone: (425) 883-3881 • www.onsite-env.com

## Chain of Custody

### Turnaround Request (in working days)

(Check One)

Same Day  1 Day

2 Days  3 Days

Standard (7 Days)

(other) \_\_\_\_\_

### Laboratory Number: 06-021

Company: Kane Environmental

Project Number: 82302-9.4

Project Name: BSCSS

Project Manager: JEFF JENSEN

Sampled by: JEFF JENSEN

Lab ID	Sample Identification	Date Sampled	Time Sampled	Matrix	Number of Containers
1	MW-22:W	6/3/19	1135	GW	10
2	MW-35:W	6/26/19	1350	GW	10
3	MW-34:W	6/18/19	1520	GW	10

Number of Containers	NWTPH-HCID	NWTPH-Gx/BTEX	NWTPH-Gx	NWTPH-Dx ( <input type="checkbox"/> Acid / SG Clean-up)	Volatiles 8260C	Halogenated Volatiles 8260C	EDB EPA 8011 (Waters Only)	Semivolatiles 8270D/SIM (with low-level PAHs)	PAHs 8270D/SIM (low-level)	PCBs 8082A	Organochlorine Pesticides 8081B	Organophosphorus Pesticides 8270D/SIM	Chlorinated Acid Herbicides 8151A	Total RCRA Metals	Total MTCA Metals	TCLP Metals	HEM (oil and grease) 1664A	Ammonia - N	Dissolved Fe	Chloride	Sulfate	% Moisture	TOC
10						X												X	X	X	X	X	X
10						X												X	X	X	X	X	X
10						X												X	X	X	X	X	X

Signature	Company	Date	Time	Comments/Special Instructions
	KANE ENVIRONMENTAL	6/4/19	1515	RSK = Methane, ethane, ethane
	KANE ENVIRONMENTAL	6/4/19	1515	Lab files

Received \_\_\_\_\_

Relinquished \_\_\_\_\_

Received \_\_\_\_\_

Relinquished \_\_\_\_\_

Received \_\_\_\_\_

Relinquished \_\_\_\_\_

Reviewed/Date \_\_\_\_\_

Reviewed/Date \_\_\_\_\_

Reviewed/Date \_\_\_\_\_

Data Package: Standard  Level III  Level IV

Chromatograms with final report  Electronic Data Deliverables (EDDs)



14648 NE 95<sup>th</sup> Street, Redmond, WA 98052 • (425) 883-3881

June 12, 2019

Jeff Jensen  
Kane Environmental, Inc.  
4015 13th Avenue West  
Seattle, WA 98119

Re: Analytical Data for Project 82302-9.4  
Laboratory Reference No. 1906-022

Dear Jeff:

Enclosed are the analytical results and associated quality control data for samples submitted on June 4, 2019.

The standard policy of OnSite Environmental, Inc. is to store your samples for 30 days from the date of receipt. If you require longer storage, please contact the laboratory.

We appreciate the opportunity to be of service to you on this project. If you have any questions concerning the data, or need additional information, please feel free to call me.

Sincerely,

A handwritten signature in black ink, appearing to read "DB", with a long horizontal stroke extending to the right.

David Baumeister  
Project Manager

Enclosures



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OnSite Environmental, Inc. 14648 NE 95<sup>th</sup> Street, Redmond, WA 98052 (425) 883-3881

This report pertains to the samples analyzed in accordance with the chain of custody, and is intended only for the use of the individual or company to whom it is addressed.



Date of Report: June 12, 2019  
Samples Submitted: June 4, 2019  
Laboratory Reference: 1906-022  
Project: 82302-9.4

### Case Narrative

Samples were collected on June 4, 2019 and received by the laboratory on June 4, 2019. They were maintained at the laboratory at a temperature of 2°C to 6°C.

Please note that any and all soil sample results are reported on a dry-weight basis, unless otherwise noted below.

General QA/QC issues associated with the analytical data enclosed in this laboratory report will be indicated with a reference to a comment or explanation on the Data Qualifier page. More complex and involved QA/QC issues will be discussed in detail below.



Date of Report: June 12, 2019  
 Samples Submitted: June 4, 2019  
 Laboratory Reference: 1906-022  
 Project: 82302-9.4

**VOLATILE ORGANICS EPA 8260C**  
 page 1 of 2

Matrix: Water  
 Units: ug/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>Client ID:</b>	<b>MW-33:W</b>					
Laboratory ID:	06-022-01					
Dichlorodifluoromethane	ND	0.20	EPA 8260C	6-5-19	6-5-19	
Chloromethane	ND	1.0	EPA 8260C	6-5-19	6-5-19	
Vinyl Chloride	ND	0.20	EPA 8260C	6-5-19	6-5-19	
Bromomethane	ND	0.20	EPA 8260C	6-5-19	6-5-19	
Chloroethane	ND	1.0	EPA 8260C	6-5-19	6-5-19	
Trichlorofluoromethane	ND	0.20	EPA 8260C	6-5-19	6-5-19	
1,1-Dichloroethene	ND	0.20	EPA 8260C	6-5-19	6-5-19	
Iodomethane	ND	1.0	EPA 8260C	6-5-19	6-5-19	
Methylene Chloride	ND	1.0	EPA 8260C	6-5-19	6-5-19	
(trans) 1,2-Dichloroethene	ND	0.20	EPA 8260C	6-5-19	6-5-19	
1,1-Dichloroethane	ND	0.20	EPA 8260C	6-5-19	6-5-19	
2,2-Dichloropropane	ND	0.20	EPA 8260C	6-5-19	6-5-19	
(cis) 1,2-Dichloroethene	ND	0.20	EPA 8260C	6-5-19	6-5-19	
Bromochloromethane	ND	0.20	EPA 8260C	6-5-19	6-5-19	
Chloroform	ND	0.20	EPA 8260C	6-5-19	6-5-19	
1,1,1-Trichloroethane	ND	0.20	EPA 8260C	6-5-19	6-5-19	
Carbon Tetrachloride	ND	0.20	EPA 8260C	6-5-19	6-5-19	
1,1-Dichloropropene	ND	0.20	EPA 8260C	6-5-19	6-5-19	
1,2-Dichloroethane	ND	0.20	EPA 8260C	6-5-19	6-5-19	
Trichloroethene	ND	0.20	EPA 8260C	6-5-19	6-5-19	
1,2-Dichloropropane	ND	0.20	EPA 8260C	6-5-19	6-5-19	
Dibromomethane	ND	0.20	EPA 8260C	6-5-19	6-5-19	
Bromodichloromethane	ND	0.20	EPA 8260C	6-5-19	6-5-19	
2-Chloroethyl Vinyl Ether	ND	1.0	EPA 8260C	6-5-19	6-5-19	
(cis) 1,3-Dichloropropene	ND	0.20	EPA 8260C	6-5-19	6-5-19	
(trans) 1,3-Dichloropropene	ND	0.20	EPA 8260C	6-5-19	6-5-19	



Date of Report: June 12, 2019  
 Samples Submitted: June 4, 2019  
 Laboratory Reference: 1906-022  
 Project: 82302-9.4

**VOLATILE ORGANICS EPA 8260C**  
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Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>Client ID:</b>	<b>MW-33:W</b>					
Laboratory ID:	06-022-01					
1,1,2-Trichloroethane	ND	0.20	EPA 8260C	6-5-19	6-5-19	
Tetrachloroethene	ND	0.20	EPA 8260C	6-5-19	6-5-19	
1,3-Dichloropropane	ND	0.20	EPA 8260C	6-5-19	6-5-19	
Dibromochloromethane	ND	0.20	EPA 8260C	6-5-19	6-5-19	
1,2-Dibromoethane	ND	0.20	EPA 8260C	6-5-19	6-5-19	
Chlorobenzene	ND	0.20	EPA 8260C	6-5-19	6-5-19	
1,1,1,2-Tetrachloroethane	ND	0.20	EPA 8260C	6-5-19	6-5-19	
Bromoform	ND	1.0	EPA 8260C	6-5-19	6-5-19	
Bromobenzene	ND	0.20	EPA 8260C	6-5-19	6-5-19	
1,1,2,2-Tetrachloroethane	ND	0.20	EPA 8260C	6-5-19	6-5-19	
1,2,3-Trichloropropane	ND	0.20	EPA 8260C	6-5-19	6-5-19	
2-Chlorotoluene	ND	0.20	EPA 8260C	6-5-19	6-5-19	
4-Chlorotoluene	ND	0.20	EPA 8260C	6-5-19	6-5-19	
1,3-Dichlorobenzene	ND	0.20	EPA 8260C	6-5-19	6-5-19	
1,4-Dichlorobenzene	ND	0.20	EPA 8260C	6-5-19	6-5-19	
1,2-Dichlorobenzene	ND	0.20	EPA 8260C	6-5-19	6-5-19	
1,2-Dibromo-3-chloropropane	ND	1.0	EPA 8260C	6-5-19	6-5-19	
1,2,4-Trichlorobenzene	ND	0.20	EPA 8260C	6-5-19	6-5-19	
Hexachlorobutadiene	ND	1.0	EPA 8260C	6-5-19	6-5-19	
1,2,3-Trichlorobenzene	ND	0.20	EPA 8260C	6-5-19	6-5-19	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Dibromofluoromethane</i>	<i>101</i>	<i>75-127</i>				
<i>Toluene-d8</i>	<i>99</i>	<i>80-127</i>				
<i>4-Bromofluorobenzene</i>	<i>95</i>	<i>78-125</i>				



Date of Report: June 12, 2019  
 Samples Submitted: June 4, 2019  
 Laboratory Reference: 1906-022  
 Project: 82302-9.4

**VOLATILE ORGANICS EPA 8260C**  
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Matrix: Water  
 Units: ug/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>Client ID:</b>	<b>MW-3:W</b>					
Laboratory ID:	06-022-02					
Dichlorodifluoromethane	ND	0.20	EPA 8260C	6-5-19	6-5-19	
Chloromethane	ND	1.0	EPA 8260C	6-5-19	6-5-19	
Vinyl Chloride	ND	0.20	EPA 8260C	6-5-19	6-5-19	
Bromomethane	ND	0.20	EPA 8260C	6-5-19	6-5-19	
Chloroethane	ND	1.0	EPA 8260C	6-5-19	6-5-19	
Trichlorofluoromethane	ND	0.20	EPA 8260C	6-5-19	6-5-19	
1,1-Dichloroethene	ND	0.20	EPA 8260C	6-5-19	6-5-19	
Iodomethane	ND	1.0	EPA 8260C	6-5-19	6-5-19	
Methylene Chloride	ND	1.0	EPA 8260C	6-5-19	6-5-19	
(trans) 1,2-Dichloroethene	ND	0.20	EPA 8260C	6-5-19	6-5-19	
1,1-Dichloroethane	ND	0.20	EPA 8260C	6-5-19	6-5-19	
2,2-Dichloropropane	ND	0.20	EPA 8260C	6-5-19	6-5-19	
(cis) 1,2-Dichloroethene	ND	0.20	EPA 8260C	6-5-19	6-5-19	
Bromochloromethane	ND	0.20	EPA 8260C	6-5-19	6-5-19	
Chloroform	11	0.20	EPA 8260C	6-5-19	6-5-19	
1,1,1-Trichloroethane	ND	0.20	EPA 8260C	6-5-19	6-5-19	
Carbon Tetrachloride	ND	0.20	EPA 8260C	6-5-19	6-5-19	
1,1-Dichloropropene	ND	0.20	EPA 8260C	6-5-19	6-5-19	
1,2-Dichloroethane	ND	0.20	EPA 8260C	6-5-19	6-5-19	
Trichloroethene	ND	0.20	EPA 8260C	6-5-19	6-5-19	
1,2-Dichloropropane	ND	0.20	EPA 8260C	6-5-19	6-5-19	
Dibromomethane	ND	0.20	EPA 8260C	6-5-19	6-5-19	
Bromodichloromethane	0.87	0.20	EPA 8260C	6-5-19	6-5-19	
2-Chloroethyl Vinyl Ether	ND	1.0	EPA 8260C	6-5-19	6-5-19	
(cis) 1,3-Dichloropropene	ND	0.20	EPA 8260C	6-5-19	6-5-19	
(trans) 1,3-Dichloropropene	ND	0.20	EPA 8260C	6-5-19	6-5-19	



Date of Report: June 12, 2019  
 Samples Submitted: June 4, 2019  
 Laboratory Reference: 1906-022  
 Project: 82302-9.4

**VOLATILE ORGANICS EPA 8260C**  
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Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>Client ID:</b>	<b>MW-3:W</b>					
Laboratory ID:	06-022-02					
1,1,2-Trichloroethane	ND	0.20	EPA 8260C	6-5-19	6-5-19	
Tetrachloroethene	0.72	0.20	EPA 8260C	6-5-19	6-5-19	
1,3-Dichloropropane	ND	0.20	EPA 8260C	6-5-19	6-5-19	
Dibromochloromethane	ND	0.20	EPA 8260C	6-5-19	6-5-19	
1,2-Dibromoethane	ND	0.20	EPA 8260C	6-5-19	6-5-19	
Chlorobenzene	ND	0.20	EPA 8260C	6-5-19	6-5-19	
1,1,1,2-Tetrachloroethane	ND	0.20	EPA 8260C	6-5-19	6-5-19	
Bromoform	ND	1.0	EPA 8260C	6-5-19	6-5-19	
Bromobenzene	ND	0.20	EPA 8260C	6-5-19	6-5-19	
1,1,2,2-Tetrachloroethane	ND	0.20	EPA 8260C	6-5-19	6-5-19	
1,2,3-Trichloropropane	ND	0.20	EPA 8260C	6-5-19	6-5-19	
2-Chlorotoluene	ND	0.20	EPA 8260C	6-5-19	6-5-19	
4-Chlorotoluene	ND	0.20	EPA 8260C	6-5-19	6-5-19	
1,3-Dichlorobenzene	ND	0.20	EPA 8260C	6-5-19	6-5-19	
1,4-Dichlorobenzene	ND	0.20	EPA 8260C	6-5-19	6-5-19	
1,2-Dichlorobenzene	ND	0.20	EPA 8260C	6-5-19	6-5-19	
1,2-Dibromo-3-chloropropane	ND	1.0	EPA 8260C	6-5-19	6-5-19	
1,2,4-Trichlorobenzene	ND	0.20	EPA 8260C	6-5-19	6-5-19	
Hexachlorobutadiene	ND	1.0	EPA 8260C	6-5-19	6-5-19	
1,2,3-Trichlorobenzene	ND	0.20	EPA 8260C	6-5-19	6-5-19	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Dibromofluoromethane</i>	<i>101</i>	<i>75-127</i>				
<i>Toluene-d8</i>	<i>97</i>	<i>80-127</i>				
<i>4-Bromofluorobenzene</i>	<i>99</i>	<i>78-125</i>				



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Matrix: Water  
 Units: ug/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>Client ID:</b>	<b>MW-23:W</b>					
Laboratory ID:	06-022-03					
Dichlorodifluoromethane	ND	0.20	EPA 8260C	6-5-19	6-5-19	
Chloromethane	ND	1.0	EPA 8260C	6-5-19	6-5-19	
Vinyl Chloride	ND	0.20	EPA 8260C	6-5-19	6-5-19	
Bromomethane	ND	0.20	EPA 8260C	6-5-19	6-5-19	
Chloroethane	ND	1.0	EPA 8260C	6-5-19	6-5-19	
Trichlorofluoromethane	ND	0.20	EPA 8260C	6-5-19	6-5-19	
1,1-Dichloroethene	ND	0.20	EPA 8260C	6-5-19	6-5-19	
Iodomethane	ND	1.0	EPA 8260C	6-5-19	6-5-19	
Methylene Chloride	ND	1.0	EPA 8260C	6-5-19	6-5-19	
(trans) 1,2-Dichloroethene	ND	0.20	EPA 8260C	6-5-19	6-5-19	
1,1-Dichloroethane	ND	0.20	EPA 8260C	6-5-19	6-5-19	
2,2-Dichloropropane	ND	0.20	EPA 8260C	6-5-19	6-5-19	
(cis) 1,2-Dichloroethene	ND	0.20	EPA 8260C	6-5-19	6-5-19	
Bromochloromethane	ND	0.20	EPA 8260C	6-5-19	6-5-19	
Chloroform	ND	0.20	EPA 8260C	6-5-19	6-5-19	
1,1,1-Trichloroethane	ND	0.20	EPA 8260C	6-5-19	6-5-19	
Carbon Tetrachloride	ND	0.20	EPA 8260C	6-5-19	6-5-19	
1,1-Dichloropropene	ND	0.20	EPA 8260C	6-5-19	6-5-19	
1,2-Dichloroethane	ND	0.20	EPA 8260C	6-5-19	6-5-19	
Trichloroethene	ND	0.20	EPA 8260C	6-5-19	6-5-19	
1,2-Dichloropropane	ND	0.20	EPA 8260C	6-5-19	6-5-19	
Dibromomethane	ND	0.20	EPA 8260C	6-5-19	6-5-19	
Bromodichloromethane	ND	0.20	EPA 8260C	6-5-19	6-5-19	
2-Chloroethyl Vinyl Ether	ND	1.0	EPA 8260C	6-5-19	6-5-19	
(cis) 1,3-Dichloropropene	ND	0.20	EPA 8260C	6-5-19	6-5-19	
(trans) 1,3-Dichloropropene	ND	0.20	EPA 8260C	6-5-19	6-5-19	



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Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>Client ID:</b>	<b>MW-23:W</b>					
Laboratory ID:	06-022-03					
1,1,2-Trichloroethane	ND	0.20	EPA 8260C	6-5-19	6-5-19	
Tetrachloroethene	0.94	0.20	EPA 8260C	6-5-19	6-5-19	
1,3-Dichloropropane	ND	0.20	EPA 8260C	6-5-19	6-5-19	
Dibromochloromethane	ND	0.20	EPA 8260C	6-5-19	6-5-19	
1,2-Dibromoethane	ND	0.20	EPA 8260C	6-5-19	6-5-19	
Chlorobenzene	ND	0.20	EPA 8260C	6-5-19	6-5-19	
1,1,1,2-Tetrachloroethane	ND	0.20	EPA 8260C	6-5-19	6-5-19	
Bromoform	ND	1.0	EPA 8260C	6-5-19	6-5-19	
Bromobenzene	ND	0.20	EPA 8260C	6-5-19	6-5-19	
1,1,2,2-Tetrachloroethane	ND	0.20	EPA 8260C	6-5-19	6-5-19	
1,2,3-Trichloropropane	ND	0.20	EPA 8260C	6-5-19	6-5-19	
2-Chlorotoluene	ND	0.20	EPA 8260C	6-5-19	6-5-19	
4-Chlorotoluene	ND	0.20	EPA 8260C	6-5-19	6-5-19	
1,3-Dichlorobenzene	ND	0.20	EPA 8260C	6-5-19	6-5-19	
1,4-Dichlorobenzene	ND	0.20	EPA 8260C	6-5-19	6-5-19	
1,2-Dichlorobenzene	ND	0.20	EPA 8260C	6-5-19	6-5-19	
1,2-Dibromo-3-chloropropane	ND	1.0	EPA 8260C	6-5-19	6-5-19	
1,2,4-Trichlorobenzene	ND	0.20	EPA 8260C	6-5-19	6-5-19	
Hexachlorobutadiene	ND	1.0	EPA 8260C	6-5-19	6-5-19	
1,2,3-Trichlorobenzene	ND	0.20	EPA 8260C	6-5-19	6-5-19	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Dibromofluoromethane</i>	<i>99</i>	<i>75-127</i>				
<i>Toluene-d8</i>	<i>99</i>	<i>80-127</i>				
<i>4-Bromofluorobenzene</i>	<i>97</i>	<i>78-125</i>				



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Matrix: Water  
 Units: ug/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>Client ID:</b>	<b>MW-29:W</b>					
Laboratory ID:	06-022-04					
Dichlorodifluoromethane	ND	0.20	EPA 8260C	6-5-19	6-5-19	
Chloromethane	ND	1.0	EPA 8260C	6-5-19	6-5-19	
Vinyl Chloride	ND	0.20	EPA 8260C	6-5-19	6-5-19	
Bromomethane	ND	0.20	EPA 8260C	6-5-19	6-5-19	
Chloroethane	ND	1.0	EPA 8260C	6-5-19	6-5-19	
Trichlorofluoromethane	ND	0.20	EPA 8260C	6-5-19	6-5-19	
1,1-Dichloroethene	ND	0.20	EPA 8260C	6-5-19	6-5-19	
Iodomethane	ND	1.0	EPA 8260C	6-5-19	6-5-19	
Methylene Chloride	ND	1.0	EPA 8260C	6-5-19	6-5-19	
(trans) 1,2-Dichloroethene	ND	0.20	EPA 8260C	6-5-19	6-5-19	
1,1-Dichloroethane	ND	0.20	EPA 8260C	6-5-19	6-5-19	
2,2-Dichloropropane	ND	0.20	EPA 8260C	6-5-19	6-5-19	
(cis) 1,2-Dichloroethene	ND	0.20	EPA 8260C	6-5-19	6-5-19	
Bromochloromethane	ND	0.20	EPA 8260C	6-5-19	6-5-19	
Chloroform	ND	0.20	EPA 8260C	6-5-19	6-5-19	
1,1,1-Trichloroethane	ND	0.20	EPA 8260C	6-5-19	6-5-19	
Carbon Tetrachloride	ND	0.20	EPA 8260C	6-5-19	6-5-19	
1,1-Dichloropropene	ND	0.20	EPA 8260C	6-5-19	6-5-19	
1,2-Dichloroethane	ND	0.20	EPA 8260C	6-5-19	6-5-19	
Trichloroethene	ND	0.20	EPA 8260C	6-5-19	6-5-19	
1,2-Dichloropropane	ND	0.20	EPA 8260C	6-5-19	6-5-19	
Dibromomethane	ND	0.20	EPA 8260C	6-5-19	6-5-19	
Bromodichloromethane	ND	0.20	EPA 8260C	6-5-19	6-5-19	
2-Chloroethyl Vinyl Ether	ND	1.0	EPA 8260C	6-5-19	6-5-19	
(cis) 1,3-Dichloropropene	ND	0.20	EPA 8260C	6-5-19	6-5-19	
(trans) 1,3-Dichloropropene	ND	0.20	EPA 8260C	6-5-19	6-5-19	





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Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>Client ID:</b>	<b>MW-29:W</b>					
Laboratory ID:	06-022-04					
1,1,2-Trichloroethane	ND	0.20	EPA 8260C	6-5-19	6-5-19	
Tetrachloroethene	0.26	0.20	EPA 8260C	6-5-19	6-5-19	
1,3-Dichloropropane	ND	0.20	EPA 8260C	6-5-19	6-5-19	
Dibromochloromethane	ND	0.20	EPA 8260C	6-5-19	6-5-19	
1,2-Dibromoethane	ND	0.20	EPA 8260C	6-5-19	6-5-19	
Chlorobenzene	ND	0.20	EPA 8260C	6-5-19	6-5-19	
1,1,1,2-Tetrachloroethane	ND	0.20	EPA 8260C	6-5-19	6-5-19	
Bromoform	ND	1.0	EPA 8260C	6-5-19	6-5-19	
Bromobenzene	ND	0.20	EPA 8260C	6-5-19	6-5-19	
1,1,2,2-Tetrachloroethane	ND	0.20	EPA 8260C	6-5-19	6-5-19	
1,2,3-Trichloropropane	ND	0.20	EPA 8260C	6-5-19	6-5-19	
2-Chlorotoluene	ND	0.20	EPA 8260C	6-5-19	6-5-19	
4-Chlorotoluene	ND	0.20	EPA 8260C	6-5-19	6-5-19	
1,3-Dichlorobenzene	ND	0.20	EPA 8260C	6-5-19	6-5-19	
1,4-Dichlorobenzene	ND	0.20	EPA 8260C	6-5-19	6-5-19	
1,2-Dichlorobenzene	ND	0.20	EPA 8260C	6-5-19	6-5-19	
1,2-Dibromo-3-chloropropane	ND	1.0	EPA 8260C	6-5-19	6-5-19	
1,2,4-Trichlorobenzene	ND	0.20	EPA 8260C	6-5-19	6-5-19	
Hexachlorobutadiene	ND	1.0	EPA 8260C	6-5-19	6-5-19	
1,2,3-Trichlorobenzene	ND	0.20	EPA 8260C	6-5-19	6-5-19	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Dibromofluoromethane</i>	<i>100</i>	<i>75-127</i>				
<i>Toluene-d8</i>	<i>99</i>	<i>80-127</i>				
<i>4-Bromofluorobenzene</i>	<i>96</i>	<i>78-125</i>				



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Matrix: Water  
 Units: ug/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>Client ID:</b>	<b>HZ-MW-15D:W</b>					
Laboratory ID:	06-022-05					
Dichlorodifluoromethane	ND	100	EPA 8260C	6-5-19	6-5-19	
Chloromethane	ND	500	EPA 8260C	6-5-19	6-5-19	
Vinyl Chloride	ND	100	EPA 8260C	6-5-19	6-5-19	
Bromomethane	ND	100	EPA 8260C	6-5-19	6-5-19	
Chloroethane	ND	500	EPA 8260C	6-5-19	6-5-19	
Trichlorofluoromethane	ND	100	EPA 8260C	6-5-19	6-5-19	
1,1-Dichloroethene	ND	100	EPA 8260C	6-5-19	6-5-19	
Iodomethane	ND	500	EPA 8260C	6-5-19	6-5-19	
Methylene Chloride	ND	500	EPA 8260C	6-5-19	6-5-19	
(trans) 1,2-Dichloroethene	ND	100	EPA 8260C	6-5-19	6-5-19	
1,1-Dichloroethane	ND	100	EPA 8260C	6-5-19	6-5-19	
2,2-Dichloropropane	ND	100	EPA 8260C	6-5-19	6-5-19	
(cis) 1,2-Dichloroethene	260	100	EPA 8260C	6-5-19	6-5-19	
Bromochloromethane	ND	100	EPA 8260C	6-5-19	6-5-19	
Chloroform	ND	100	EPA 8260C	6-5-19	6-5-19	
1,1,1-Trichloroethane	ND	100	EPA 8260C	6-5-19	6-5-19	
Carbon Tetrachloride	ND	100	EPA 8260C	6-5-19	6-5-19	
1,1-Dichloropropene	ND	100	EPA 8260C	6-5-19	6-5-19	
1,2-Dichloroethane	ND	100	EPA 8260C	6-5-19	6-5-19	
Trichloroethene	390	100	EPA 8260C	6-5-19	6-5-19	
1,2-Dichloropropane	ND	100	EPA 8260C	6-5-19	6-5-19	
Dibromomethane	ND	100	EPA 8260C	6-5-19	6-5-19	
Bromodichloromethane	ND	100	EPA 8260C	6-5-19	6-5-19	
2-Chloroethyl Vinyl Ether	ND	500	EPA 8260C	6-5-19	6-5-19	
(cis) 1,3-Dichloropropene	ND	100	EPA 8260C	6-5-19	6-5-19	
(trans) 1,3-Dichloropropene	ND	100	EPA 8260C	6-5-19	6-5-19	



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Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>Client ID:</b>	<b>HZ-MW-15D:W</b>					
Laboratory ID:	06-022-05					
1,1,2-Trichloroethane	ND	100	EPA 8260C	6-5-19	6-5-19	
Tetrachloroethene	10000	100	EPA 8260C	6-5-19	6-5-19	
1,3-Dichloropropane	ND	100	EPA 8260C	6-5-19	6-5-19	
Dibromochloromethane	ND	100	EPA 8260C	6-5-19	6-5-19	
1,2-Dibromoethane	ND	100	EPA 8260C	6-5-19	6-5-19	
Chlorobenzene	ND	100	EPA 8260C	6-5-19	6-5-19	
1,1,1,2-Tetrachloroethane	ND	100	EPA 8260C	6-5-19	6-5-19	
Bromoform	ND	500	EPA 8260C	6-5-19	6-5-19	
Bromobenzene	ND	100	EPA 8260C	6-5-19	6-5-19	
1,1,2,2-Tetrachloroethane	ND	100	EPA 8260C	6-5-19	6-5-19	
1,2,3-Trichloropropane	ND	100	EPA 8260C	6-5-19	6-5-19	
2-Chlorotoluene	ND	100	EPA 8260C	6-5-19	6-5-19	
4-Chlorotoluene	ND	100	EPA 8260C	6-5-19	6-5-19	
1,3-Dichlorobenzene	ND	100	EPA 8260C	6-5-19	6-5-19	
1,4-Dichlorobenzene	ND	100	EPA 8260C	6-5-19	6-5-19	
1,2-Dichlorobenzene	ND	100	EPA 8260C	6-5-19	6-5-19	
1,2-Dibromo-3-chloropropane	ND	500	EPA 8260C	6-5-19	6-5-19	
1,2,4-Trichlorobenzene	ND	100	EPA 8260C	6-5-19	6-5-19	
Hexachlorobutadiene	ND	500	EPA 8260C	6-5-19	6-5-19	
1,2,3-Trichlorobenzene	ND	100	EPA 8260C	6-5-19	6-5-19	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Dibromofluoromethane</i>	<i>100</i>	<i>75-127</i>				
<i>Toluene-d8</i>	<i>96</i>	<i>80-127</i>				
<i>4-Bromofluorobenzene</i>	<i>94</i>	<i>78-125</i>				



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Matrix: Water  
 Units: ug/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>Client ID:</b>	<b>HZ-MW-15S:W</b>					
Laboratory ID:	06-022-06					
Dichlorodifluoromethane	ND	0.20	EPA 8260C	6-5-19	6-5-19	
Chloromethane	ND	1.0	EPA 8260C	6-5-19	6-5-19	
Vinyl Chloride	ND	0.20	EPA 8260C	6-5-19	6-5-19	
Bromomethane	ND	0.20	EPA 8260C	6-5-19	6-5-19	
Chloroethane	ND	1.0	EPA 8260C	6-5-19	6-5-19	
Trichlorofluoromethane	ND	0.20	EPA 8260C	6-5-19	6-5-19	
1,1-Dichloroethene	ND	0.20	EPA 8260C	6-5-19	6-5-19	
Iodomethane	ND	1.0	EPA 8260C	6-5-19	6-5-19	
Methylene Chloride	ND	1.0	EPA 8260C	6-5-19	6-5-19	
(trans) 1,2-Dichloroethene	ND	0.20	EPA 8260C	6-5-19	6-5-19	
1,1-Dichloroethane	ND	0.20	EPA 8260C	6-5-19	6-5-19	
2,2-Dichloropropane	ND	0.20	EPA 8260C	6-5-19	6-5-19	
(cis) 1,2-Dichloroethene	ND	0.20	EPA 8260C	6-5-19	6-5-19	
Bromochloromethane	ND	0.20	EPA 8260C	6-5-19	6-5-19	
Chloroform	ND	0.20	EPA 8260C	6-5-19	6-5-19	
1,1,1-Trichloroethane	ND	0.20	EPA 8260C	6-5-19	6-5-19	
Carbon Tetrachloride	ND	0.20	EPA 8260C	6-5-19	6-5-19	
1,1-Dichloropropene	ND	0.20	EPA 8260C	6-5-19	6-5-19	
1,2-Dichloroethane	ND	0.20	EPA 8260C	6-5-19	6-5-19	
Trichloroethene	0.34	0.20	EPA 8260C	6-5-19	6-5-19	
1,2-Dichloropropane	ND	0.20	EPA 8260C	6-5-19	6-5-19	
Dibromomethane	ND	0.20	EPA 8260C	6-5-19	6-5-19	
Bromodichloromethane	ND	0.20	EPA 8260C	6-5-19	6-5-19	
2-Chloroethyl Vinyl Ether	ND	1.0	EPA 8260C	6-5-19	6-5-19	
(cis) 1,3-Dichloropropene	ND	0.20	EPA 8260C	6-5-19	6-5-19	
(trans) 1,3-Dichloropropene	ND	0.20	EPA 8260C	6-5-19	6-5-19	



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Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>Client ID:</b>	<b>HZ-MW-15S:W</b>					
Laboratory ID:	06-022-06					
1,1,2-Trichloroethane	ND	0.20	EPA 8260C	6-5-19	6-5-19	
Tetrachloroethene	8.9	0.20	EPA 8260C	6-5-19	6-5-19	
1,3-Dichloropropane	ND	0.20	EPA 8260C	6-5-19	6-5-19	
Dibromochloromethane	ND	0.20	EPA 8260C	6-5-19	6-5-19	
1,2-Dibromoethane	ND	0.20	EPA 8260C	6-5-19	6-5-19	
Chlorobenzene	ND	0.20	EPA 8260C	6-5-19	6-5-19	
1,1,1,2-Tetrachloroethane	ND	0.20	EPA 8260C	6-5-19	6-5-19	
Bromoform	ND	1.0	EPA 8260C	6-5-19	6-5-19	
Bromobenzene	ND	0.20	EPA 8260C	6-5-19	6-5-19	
1,1,2,2-Tetrachloroethane	ND	0.20	EPA 8260C	6-5-19	6-5-19	
1,2,3-Trichloropropane	ND	0.20	EPA 8260C	6-5-19	6-5-19	
2-Chlorotoluene	ND	0.20	EPA 8260C	6-5-19	6-5-19	
4-Chlorotoluene	ND	0.20	EPA 8260C	6-5-19	6-5-19	
1,3-Dichlorobenzene	ND	0.20	EPA 8260C	6-5-19	6-5-19	
1,4-Dichlorobenzene	ND	0.20	EPA 8260C	6-5-19	6-5-19	
1,2-Dichlorobenzene	ND	0.20	EPA 8260C	6-5-19	6-5-19	
1,2-Dibromo-3-chloropropane	ND	1.0	EPA 8260C	6-5-19	6-5-19	
1,2,4-Trichlorobenzene	ND	0.20	EPA 8260C	6-5-19	6-5-19	
Hexachlorobutadiene	ND	1.0	EPA 8260C	6-5-19	6-5-19	
1,2,3-Trichlorobenzene	ND	0.20	EPA 8260C	6-5-19	6-5-19	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Dibromofluoromethane</i>	<i>100</i>	<i>75-127</i>				
<i>Toluene-d8</i>	<i>95</i>	<i>80-127</i>				
<i>4-Bromofluorobenzene</i>	<i>94</i>	<i>78-125</i>				



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**VOLATILE ORGANICS EPA 8260C**  
**METHOD BLANK QUALITY CONTROL**  
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Matrix: Water  
 Units: ug/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Laboratory ID:	MB0605W1					
Dichlorodifluoromethane	ND	0.20	EPA 8260C	6-5-19	6-5-19	
Chloromethane	ND	1.0	EPA 8260C	6-5-19	6-5-19	
Vinyl Chloride	ND	0.20	EPA 8260C	6-5-19	6-5-19	
Bromomethane	ND	0.20	EPA 8260C	6-5-19	6-5-19	
Chloroethane	ND	1.0	EPA 8260C	6-5-19	6-5-19	
Trichlorofluoromethane	ND	0.20	EPA 8260C	6-5-19	6-5-19	
1,1-Dichloroethene	ND	0.20	EPA 8260C	6-5-19	6-5-19	
Iodomethane	ND	1.0	EPA 8260C	6-5-19	6-5-19	
Methylene Chloride	ND	1.0	EPA 8260C	6-5-19	6-5-19	
(trans) 1,2-Dichloroethene	ND	0.20	EPA 8260C	6-5-19	6-5-19	
1,1-Dichloroethane	ND	0.20	EPA 8260C	6-5-19	6-5-19	
2,2-Dichloropropane	ND	0.20	EPA 8260C	6-5-19	6-5-19	
(cis) 1,2-Dichloroethene	ND	0.20	EPA 8260C	6-5-19	6-5-19	
Bromochloromethane	ND	0.20	EPA 8260C	6-5-19	6-5-19	
Chloroform	ND	0.20	EPA 8260C	6-5-19	6-5-19	
1,1,1-Trichloroethane	ND	0.20	EPA 8260C	6-5-19	6-5-19	
Carbon Tetrachloride	ND	0.20	EPA 8260C	6-5-19	6-5-19	
1,1-Dichloropropene	ND	0.20	EPA 8260C	6-5-19	6-5-19	
1,2-Dichloroethane	ND	0.20	EPA 8260C	6-5-19	6-5-19	
Trichloroethene	ND	0.20	EPA 8260C	6-5-19	6-5-19	
1,2-Dichloropropane	ND	0.20	EPA 8260C	6-5-19	6-5-19	
Dibromomethane	ND	0.20	EPA 8260C	6-5-19	6-5-19	
Bromodichloromethane	ND	0.20	EPA 8260C	6-5-19	6-5-19	
2-Chloroethyl Vinyl Ether	ND	1.0	EPA 8260C	6-5-19	6-5-19	
(cis) 1,3-Dichloropropene	ND	0.20	EPA 8260C	6-5-19	6-5-19	
(trans) 1,3-Dichloropropene	ND	0.20	EPA 8260C	6-5-19	6-5-19	



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**METHOD BLANK QUALITY CONTROL**  
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Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Laboratory ID:	MB0605W1					
1,1,2-Trichloroethane	ND	0.20	EPA 8260C	6-5-19	6-5-19	
Tetrachloroethene	ND	0.20	EPA 8260C	6-5-19	6-5-19	
1,3-Dichloropropane	ND	0.20	EPA 8260C	6-5-19	6-5-19	
Dibromochloromethane	ND	0.20	EPA 8260C	6-5-19	6-5-19	
1,2-Dibromoethane	ND	0.20	EPA 8260C	6-5-19	6-5-19	
Chlorobenzene	ND	0.20	EPA 8260C	6-5-19	6-5-19	
1,1,1,2-Tetrachloroethane	ND	0.20	EPA 8260C	6-5-19	6-5-19	
Bromoform	ND	1.0	EPA 8260C	6-5-19	6-5-19	
Bromobenzene	ND	0.20	EPA 8260C	6-5-19	6-5-19	
1,1,2,2-Tetrachloroethane	ND	0.20	EPA 8260C	6-5-19	6-5-19	
1,2,3-Trichloropropane	ND	0.20	EPA 8260C	6-5-19	6-5-19	
2-Chlorotoluene	ND	0.20	EPA 8260C	6-5-19	6-5-19	
4-Chlorotoluene	ND	0.20	EPA 8260C	6-5-19	6-5-19	
1,3-Dichlorobenzene	ND	0.20	EPA 8260C	6-5-19	6-5-19	
1,4-Dichlorobenzene	ND	0.20	EPA 8260C	6-5-19	6-5-19	
1,2-Dichlorobenzene	ND	0.20	EPA 8260C	6-5-19	6-5-19	
1,2-Dibromo-3-chloropropane	ND	1.0	EPA 8260C	6-5-19	6-5-19	
1,2,4-Trichlorobenzene	ND	0.20	EPA 8260C	6-5-19	6-5-19	
Hexachlorobutadiene	ND	1.0	EPA 8260C	6-5-19	6-5-19	
1,2,3-Trichlorobenzene	ND	0.20	EPA 8260C	6-5-19	6-5-19	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Dibromofluoromethane</i>	<i>102</i>	<i>75-127</i>				
<i>Toluene-d8</i>	<i>101</i>	<i>80-127</i>				
<i>4-Bromofluorobenzene</i>	<i>94</i>	<i>78-125</i>				



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**VOLATILE ORGANICS EPA 8260C  
 SB/SBD QUALITY CONTROL**

Matrix: Water  
 Units: ug/L

Analyte	Result		Spike Level		Percent Recovery		Recovery	RPD	RPD	Flags
					SB	SBD	Limits	RPD	Limit	
<b>SPIKE BLANKS</b>										
Laboratory ID:	SB0605W1									
	SB	SBD	SB	SBD	SB	SBD				
1,1-Dichloroethene	<b>8.88</b>	<b>8.65</b>	10.0	10.0	89	87	63-130	3	17	
Benzene	<b>9.32</b>	<b>9.27</b>	10.0	10.0	93	93	76-125	1	19	
Trichloroethene	<b>10.0</b>	<b>9.84</b>	10.0	10.0	100	98	76-121	2	18	
Toluene	<b>9.68</b>	<b>9.54</b>	10.0	10.0	97	95	80-124	1	18	
Chlorobenzene	<b>10.0</b>	<b>9.66</b>	10.0	10.0	100	97	75-120	3	19	
<i>Surrogate:</i>										
Dibromofluoromethane					101	103	75-127			
Toluene-d8					101	100	80-127			
4-Bromofluorobenzene					99	94	78-125			





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**DISSOLVED GASES  
 RSK 175**

Matrix: Water  
 Units: ug/L (ppb)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>Client ID:</b>	<b>MW-33:W</b>					
Laboratory ID:	06-022-01					
Methane	1.2	1.0	RSK 175	6-11-19	6-11-19	
Ethane	ND	0.50	RSK 175	6-11-19	6-11-19	
Ethene	ND	0.50	RSK 175	6-11-19	6-11-19	

<b>Client ID:</b>	<b>MW-3:W</b>					
Laboratory ID:	06-022-02					
Methane	ND	1.0	RSK 175	6-11-19	6-11-19	
Ethane	ND	0.50	RSK 175	6-11-19	6-11-19	
Ethene	ND	0.50	RSK 175	6-11-19	6-11-19	

<b>Client ID:</b>	<b>MW-23:W</b>					
Laboratory ID:	06-022-03					
Methane	140	15	RSK 175	6-11-19	6-11-19	
Ethane	ND	7.5	RSK 175	6-11-19	6-11-19	
Ethene	ND	7.5	RSK 175	6-11-19	6-11-19	

<b>Client ID:</b>	<b>MW-29:W</b>					
Laboratory ID:	06-022-04					
Methane	320	30	RSK 175	6-11-19	6-11-19	
Ethane	ND	15	RSK 175	6-11-19	6-11-19	
Ethene	ND	15	RSK 175	6-11-19	6-11-19	

<b>Client ID:</b>	<b>HZ-MW-15D:W</b>					
Laboratory ID:	06-022-05					
Methane	5000	500	RSK 175	6-11-19	6-11-19	
Ethane	ND	250	RSK 175	6-11-19	6-11-19	
Ethene	ND	250	RSK 175	6-11-19	6-11-19	

<b>Client ID:</b>	<b>HZ-MW-15S:W</b>					
Laboratory ID:	06-022-06					
Methane	19	2.0	RSK 175	6-11-19	6-11-19	
Ethane	ND	1.0	RSK 175	6-11-19	6-11-19	
Ethene	ND	1.0	RSK 175	6-11-19	6-11-19	



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**DISSOLVED GASES  
 RSK 175  
 QUALITY CONTROL**

Matrix: Water  
 Units: ug/L (ppb)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>METHOD BLANK</b>						
Laboratory ID:	MB0611W1					
Methane	ND	1.0	RSK 175	6-11-19	6-11-19	
Ethane	ND	0.50	RSK 175	6-11-19	6-11-19	
Ethene	ND	0.50	RSK 175	6-11-19	6-11-19	

Analyte	Result		Spike Level		Source Result	Percent Recovery		Recovery Limits	RPD	RPD Limit	Flags
<b>MATRIX SPIKES</b>											
Laboratory ID:	01-123-01										
	MS	MSD	MS	MSD		MS	MSD				
Methane	9.41	9.08	4.42	4.42	4.20	118	110	75-125	4	25	
Ethane	7.79	7.34	8.32	8.32	ND	94	88	75-125	6	25	
Ethene	5.79	6.37	7.77	7.77	ND	75	82	75-125	10	25	



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**AMMONIA (as Nitrogen)**  
**SM 4500-NH<sub>3</sub> D**

Matrix: Water  
 Units: mg NH<sub>3</sub>-N/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>Client ID:</b>	<b>MW-33:W</b>					
Laboratory ID:	06-022-01					
Ammonia	<b>ND</b>	0.050	SM 4500-NH <sub>3</sub> D	6-7-19	6-7-19	
<b>Client ID:</b>	<b>MW-3:W</b>					
Laboratory ID:	06-022-02					
Ammonia	<b>ND</b>	0.050	SM 4500-NH <sub>3</sub> D	6-7-19	6-7-19	
<b>Client ID:</b>	<b>MW-23:W</b>					
Laboratory ID:	06-022-03					
Ammonia	<b>ND</b>	0.050	SM 4500-NH <sub>3</sub> D	6-7-19	6-7-19	
<b>Client ID:</b>	<b>MW-29:W</b>					
Laboratory ID:	06-022-04					
Ammonia	<b>0.25</b>	0.050	SM 4500-NH <sub>3</sub> D	6-7-19	6-7-19	
<b>Client ID:</b>	<b>HZ-MW-15D:W</b>					
Laboratory ID:	06-022-05					
Ammonia	<b>ND</b>	0.050	SM 4500-NH <sub>3</sub> D	6-7-19	6-7-19	
<b>Client ID:</b>	<b>HZ-MW-15S:W</b>					
Laboratory ID:	06-022-06					
Ammonia	<b>ND</b>	0.050	SM 4500-NH <sub>3</sub> D	6-7-19	6-7-19	



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**AMMONIA (as Nitrogen)  
 SM 4500-NH<sub>3</sub> D  
 QUALITY CONTROL**

Matrix: Water  
 Units: mg NH<sub>3</sub>-N/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>METHOD BLANK</b>						
Laboratory ID:	MB0607W1					
Ammonia	<b>ND</b>	0.050	SM 4500-NH <sub>3</sub> D	6-7-19	6-7-19	

Analyte	Result	Spike Level	Source Result	Percent Recovery	Recovery Limits	RPD	RPD Limit	Flags
<b>DUPLICATE</b>								
Laboratory ID:	05-397-05							
	ORIG	DUP						
Ammonia	<b>0.646</b>	<b>0.669</b>	NA	NA	NA	3	12	

<b>MATRIX SPIKE</b>								
Laboratory ID:	05-397-05							
	MS	MS		MS				
Ammonia	<b>5.35</b>	5.00	0.646	94	75-121	NA	NA	

<b>SPIKE BLANK</b>								
Laboratory ID:	SB0607W1							
	SB	SB		SB				
Ammonia	<b>4.97</b>	5.00	NA	99	85-110	NA	NA	



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**DISSOLVED IRON  
 EPA 6010D**

Matrix: Water  
 Units: ug/L (ppb)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>Client ID:</b>	<b>MW-33:W</b>					
Laboratory ID:	06-022-01					
Iron	<b>ND</b>	56	EPA 6010D	6-3-19	6-10-19	
<b>Client ID:</b>	<b>MW-3:W</b>					
Laboratory ID:	06-022-02					
Iron	<b>ND</b>	56	EPA 6010D	6-3-19	6-10-19	
<b>Client ID:</b>	<b>MW-23:W</b>					
Laboratory ID:	06-022-03					
Iron	<b>720</b>	56	EPA 6010D	6-3-19	6-10-19	
<b>Client ID:</b>	<b>MW-29:W</b>					
Laboratory ID:	06-022-04					
Iron	<b>450</b>	56	EPA 6010D	6-3-19	6-10-19	
<b>Client ID:</b>	<b>HZ-MW-15D:W</b>					
Laboratory ID:	06-022-05					
Iron	<b>ND</b>	56	EPA 6010D	6-3-19	6-10-19	
<b>Client ID:</b>	<b>HZ-MW-15S:W</b>					
Laboratory ID:	06-022-06					
Iron	<b>ND</b>	56	EPA 6010D	6-3-19	6-10-19	



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**DISSOLVED IRON  
 EPA 6010D  
 QUALITY CONTROL**

Matrix: Water  
 Units: ug/L (ppb)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>METHOD BLANK</b>						
Laboratory ID:	MB0603F1					
Iron	<b>ND</b>	56	EPA 6010D	6-3-19	6-10-19	

Analyte	Result	Spike Level	Source Result	Percent Recovery	Recovery Limits	RPD	RPD Limit	Flags
<b>DUPLICATE</b>								
Laboratory ID:	06-021-01							
	ORIG	DUP						
Iron	<b>ND</b>	<b>ND</b>	NA	NA	NA	NA	20	

Analyte	MS	MSD	MS	MSD	MS	MSD	RPD	RPD Limit	Flags	
<b>MATRIX SPIKES</b>										
Laboratory ID:	06-021-01									
	MS	MSD	MS	MSD	MS	MSD				
Iron	<b>21700</b>	<b>21800</b>	22200	22200	ND	<b>98</b>	<b>98</b>	75-125	1	20



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**CHLORIDE**  
**SM 4500-Cl E**

Matrix: Water  
 Units: mg/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>Client ID:</b>	<b>MW-33:W</b>					
Laboratory ID:	06-022-01					
Chloride	<b>6.6</b>	2.0	SM 4500-Cl E	6-5-19	6-5-19	

<b>Client ID:</b>	<b>MW-3:W</b>					
Laboratory ID:	06-022-02					
Chloride	<b>3.4</b>	2.0	SM 4500-Cl E	6-5-19	6-5-19	

<b>Client ID:</b>	<b>MW-23:W</b>					
Laboratory ID:	06-022-03					
Chloride	<b>3.3</b>	2.0	SM 4500-Cl E	6-5-19	6-5-19	

<b>Client ID:</b>	<b>MW-29:W</b>					
Laboratory ID:	06-022-04					
Chloride	<b>26</b>	2.0	SM 4500-Cl E	6-5-19	6-5-19	

<b>Client ID:</b>	<b>HZ-MW-15D:W</b>					
Laboratory ID:	06-022-05					
Chloride	<b>14</b>	2.0	SM 4500-Cl E	6-5-19	6-5-19	

<b>Client ID:</b>	<b>HZ-MW-15S:W</b>					
Laboratory ID:	06-022-06					
Chloride	<b>3.0</b>	2.0	SM 4500-Cl E	6-5-19	6-5-19	



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**CHLORIDE  
 SM 4500-Cl E  
 QUALITY CONTROL**

Matrix: Water  
 Units: mg/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>METHOD BLANK</b>						
Laboratory ID:	MB0605W1					
Chloride	<b>ND</b>	2.0	SM 4500-Cl E	6-5-19	6-5-19	

Analyte	Result	Spike Level	Source Result	Percent Recovery	Recovery Limits	RPD	RPD Limit	Flags
<b>DUPLICATE</b>								
Laboratory ID:	05-397-05							
	ORIG	DUP						
Chloride	<b>18.3</b>	<b>18.0</b>	NA	NA	NA	2	17	

<b>MATRIX SPIKE</b>								
Laboratory ID:	05-397-05							
	MS	MS		MS				
Chloride	<b>68.7</b>	50.0	18.3	101	80-116	NA	NA	

<b>SPIKE BLANK</b>								
Laboratory ID:	SB0605W1							
	SB	SB		SB				
Chloride	<b>51.5</b>	50.0	NA	103	90-110	NA	NA	





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**SULFATE**  
**ASTM D516-11**

Matrix: Water  
 Units: mg/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>Client ID:</b>	<b>MW-33:W</b>					
Laboratory ID:	06-022-01					
Sulfate	<b>13</b>	5.0	ASTM D516-11	6-6-19	6-6-19	

<b>Client ID:</b>	<b>MW-3:W</b>					
Laboratory ID:	06-022-02					
Sulfate	<b>ND</b>	5.0	ASTM D516-11	6-6-19	6-6-19	

<b>Client ID:</b>	<b>MW-23:W</b>					
Laboratory ID:	06-022-03					
Sulfate	<b>6.7</b>	5.0	ASTM D516-11	6-6-19	6-6-19	

<b>Client ID:</b>	<b>MW-29:W</b>					
Laboratory ID:	06-022-04					
Sulfate	<b>ND</b>	5.0	ASTM D516-11	6-6-19	6-6-19	

<b>Client ID:</b>	<b>HZ-MW-15D:W</b>					
Laboratory ID:	06-022-05					
Sulfate	<b>23</b>	5.0	ASTM D516-11	6-6-19	6-6-19	

<b>Client ID:</b>	<b>HZ-MW-15S:W</b>					
Laboratory ID:	06-022-06					
Sulfate	<b>16</b>	5.0	ASTM D516-11	6-6-19	6-6-19	



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**SULFATE  
 ASTM D516-11  
 QUALITY CONTROL**

Matrix: Water  
 Units: mg/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>METHOD BLANK</b>						
Laboratory ID:	MB0606W1					
Sulfate	<b>ND</b>	5.0	ASTM D516-11	6-6-19	6-6-19	

Analyte	Result	Spike Level	Source Result	Percent Recovery	Recovery Limits	RPD	RPD Limit	Flags
<b>DUPLICATE</b>								
Laboratory ID:	06-021-01							
	ORIG	DUP						
Sulfate	<b>ND</b>	<b>ND</b>	NA	NA	NA	NA	10	

<b>MATRIX SPIKE</b>								
Laboratory ID:	06-021-01							
	MS	MS		MS				
Sulfate	<b>12.7</b>	10.0	ND	127	73-134	NA	NA	

<b>SPIKE BLANK</b>								
Laboratory ID:	SB0606W1							
	SB	SB		SB				
Sulfate	<b>9.78</b>	10.0	NA	98	89-113	NA	NA	



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**TOTAL ORGANIC CARBON  
 SM 5310B**

Matrix: Water  
 Units: mg/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>Client ID:</b>	<b>MW-33:W</b>					
Laboratory ID:	06-022-01					
Total Organic Carbon	1.5	1.0	SM 5310B	6-6-19	6-6-19	
<b>Client ID:</b>	<b>MW-3:W</b>					
Laboratory ID:	06-022-02					
Total Organic Carbon	2.1	1.0	SM 5310B	6-6-19	6-6-19	
<b>Client ID:</b>	<b>MW-23:W</b>					
Laboratory ID:	06-022-03					
Total Organic Carbon	1.6	1.0	SM 5310B	6-6-19	6-6-19	
<b>Client ID:</b>	<b>MW-29:W</b>					
Laboratory ID:	06-022-04					
Total Organic Carbon	2.2	1.0	SM 5310B	6-6-19	6-6-19	
<b>Client ID:</b>	<b>HZ-MW-15D:W</b>					
Laboratory ID:	06-022-05					
Total Organic Carbon	1.5	1.0	SM 5310B	6-6-19	6-6-19	
<b>Client ID:</b>	<b>HZ-MW-15S:W</b>					
Laboratory ID:	06-022-06					
Total Organic Carbon	1.1	1.0	SM 5310B	6-6-19	6-6-19	



Date of Report: June 12, 2019  
 Samples Submitted: June 4, 2019  
 Laboratory Reference: 1906-022  
 Project: 82302-9.4

**TOTAL ORGANIC CARBON  
 SM 5310B  
 QUALITY CONTROL**

Matrix: Water  
 Units: mg/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>METHOD BLANK</b>						
Laboratory ID:	MB0606W2					
Total Organic Carbon	<b>ND</b>	1.0	SM 5310B	6-6-19	6-6-19	

Analyte	Result	Spike Level	Source Result	Percent Recovery	Recovery Limits	RPD	RPD Limit	Flags
<b>DUPLICATE</b>								
Laboratory ID:	06-022-01							
	ORIG	DUP						
Total Organic Carbon	<b>1.53</b>	<b>1.46</b>	NA	NA	NA	NA	5	20

**MATRIX SPIKE**

Laboratory ID:	06-022-01							
	MS	MS		MS				
Total Organic Carbon	<b>12.5</b>	10.0	1.53	110	85-131	NA	NA	

**SPIKE BLANK**

Laboratory ID:	SB0606W2							
	SB	SB		SB				
Total Organic Carbon	<b>9.88</b>	10.0	NA	99	88-127	NA	NA	





### Data Qualifiers and Abbreviations

- A - Due to a high sample concentration, the amount spiked is insufficient for meaningful MS/MSD recovery data.
  - B - The analyte indicated was also found in the blank sample.
  - C - The duplicate RPD is outside control limits due to high result variability when analyte concentrations are within five times the quantitation limit.
  - E - The value reported exceeds the quantitation range and is an estimate.
  - F - Surrogate recovery data is not available due to the high concentration of coeluting target compounds.
  - H - The analyte indicated is a common laboratory solvent and may have been introduced during sample preparation, and be impacting the sample result.
  - I - Compound recovery is outside of the control limits.
  - J - The value reported was below the practical quantitation limit. The value is an estimate.
  - K - Sample duplicate RPD is outside control limits due to sample inhomogeneity. The sample was re-extracted and re-analyzed with similar results.
  - L - The RPD is outside of the control limits.
  - M - Hydrocarbons in the gasoline range are impacting the diesel range result.
  - M1 - Hydrocarbons in the gasoline range (toluene-naphthalene) are present in the sample.
  - N - Hydrocarbons in the lube oil range are impacting the diesel range result.
  - N1 - Hydrocarbons in diesel range are impacting lube oil range results.
  - O - Hydrocarbons indicative of heavier fuels are present in the sample and are impacting the gasoline result.
  - P - The RPD of the detected concentrations between the two columns is greater than 40.
  - Q - Surrogate recovery is outside of the control limits.
  - S - Surrogate recovery data is not available due to the necessary dilution of the sample.
  - T - The sample chromatogram is not similar to a typical \_\_\_\_\_.
  - U - The analyte was analyzed for, but was not detected above the reported sample quantitation limit.
  - U1 - The practical quantitation limit is elevated due to interferences present in the sample.
  - V - Matrix Spike/Matrix Spike Duplicate recoveries are outside control limits due to matrix effects.
  - W - Matrix Spike/Matrix Spike Duplicate RPD are outside control limits due to matrix effects.
  - X - Sample extract treated with a mercury cleanup procedure.
  - X1 - Sample extract treated with a sulfuric acid/silica gel cleanup procedure.
  - Y - The calibration verification for this analyte exceeded the 20% drift specified in methods 8260 & 8270, and therefore the reported result should be considered an estimate. The overall performance of the calibration verification standard met the acceptance criteria of the method.
  - Z -
- ND - Not Detected at PQL  
 PQL - Practical Quantitation Limit  
 RPD - Relative Percent Difference





# Chain of Custody

Laboratory Number: **06-022**

Company: **Kare Environmental**

Project Number: **82302-9.4**

Project Name: **BCSS**

Project Manager: **Jeff Jensen**

Sampled by: **Bella Graves and Jeff Jensen**

Turnaround Request (in working days)  
(Check One)  
 Same Day  1 Day  
 2 Days  3 Days  
 Standard (7 Days)  
 (other) \_\_\_\_\_

Lab ID	Sample Identification	Date Sampled	Time Sampled	Matrix	Number of Containers
1	MW-33:W	6/4	1015	GW	10
2	MW-3:W	6/4	1135	GW	10
3	MW-23:W	6/4	1240	GW	10
4	MW-29:W	6/4	1350	GW	10
5	H2-MW-15D:W	6/4	1420	GW	10
6	H2-MW-15S:W	6/4	1445	GW	10

Lab ID	Sample Identification	Date Sampled	Time Sampled	Matrix	Number of Containers	NWTPH-HCID	NWTPH-Gx/BTEX	NWTPH-Gx	NWTPH-Dx ( <input type="checkbox"/> Acid / SG Clean-up)	Volatiles 8260C	Halogenated Volatiles 8260C	EDB EPA 8011 (Waters Only)	Semivolatiles 8270D/SIM (with low-level PAHs)	PAHs 8270D/SIM (low-level)	PCBs 8082A	Organochlorine Pesticides 8081B	Organophosphorus Pesticides 8270D/SIM	Chlorinated Acid Herbicides 8151A	Total RCRA Metals	Total MTCA Metals	TCLP Metals	HEM (oil and grease) 1064A	ammonia - N	dissolved Fe	chloride	sulfate	% Moisture TDC
1	MW-33:W	6/4	1015	GW	10						X											X	X	X	X	X	X
2	MW-3:W	6/4	1135	GW	10						X											X	X	X	X	X	X
3	MW-23:W	6/4	1240	GW	10						X											X	X	X	X	X	X
4	MW-29:W	6/4	1350	GW	10						X											X	X	X	X	X	X
5	H2-MW-15D:W	6/4	1420	GW	10						X											X	X	X	X	X	X
6	H2-MW-15S:W	6/4	1445	GW	10						X											X	X	X	X	X	X

Signature	Company	Date	Time	Comments/Special Instructions
[Signature]	Kare Environmental	6/4/19	1515	RST - warnard, etnane, etnane law filter
[Signature]	ORE	6/21/19	1515	
Received				
Relinquished				
Received				
Relinquished				
Received				
Relinquished				
Reviewed/Date	Reviewed/Date			

Data Package: Standard  Level III  Level IV

Chromatograms with final report  Electronic Data Deliverables (EDDs)



14648 NE 95<sup>th</sup> Street, Redmond, WA 98052 • (425) 883-3881

June 14, 2019

Jeff Jensen  
Kane Environmental, Inc.  
4015 13th Avenue West  
Seattle, WA 98119

Re: Analytical Data for Project 82302-9.4  
Laboratory Reference No. 1906-039

Dear Jeff:

Enclosed are the analytical results and associated quality control data for samples submitted on June 5, 2019.

The standard policy of OnSite Environmental, Inc. is to store your samples for 30 days from the date of receipt. If you require longer storage, please contact the laboratory.

We appreciate the opportunity to be of service to you on this project. If you have any questions concerning the data, or need additional information, please feel free to call me.

Sincerely,

A handwritten signature in black ink, appearing to read "DB", with a long horizontal flourish extending to the right.

David Baumeister  
Project Manager

Enclosures



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OnSite Environmental, Inc. 14648 NE 95<sup>th</sup> Street, Redmond, WA 98052 (425) 883-3881

This report pertains to the samples analyzed in accordance with the chain of custody, and is intended only for the use of the individual or company to whom it is addressed.

Date of Report: June 14, 2019  
Samples Submitted: June 5, 2019  
Laboratory Reference: 1906-039  
Project: 82302-9.4

### Case Narrative

Samples were collected on June 5, 2019 and received by the laboratory on June 5, 2019. They were maintained at the laboratory at a temperature of 2°C to 6°C.

Please note that any and all soil sample results are reported on a dry-weight basis, unless otherwise noted below.

General QA/QC issues associated with the analytical data enclosed in this laboratory report will be indicated with a reference to a comment or explanation on the Data Qualifier page. More complex and involved QA/QC issues will be discussed in detail below.





Date of Report: June 14, 2019  
 Samples Submitted: June 5, 2019  
 Laboratory Reference: 1906-039  
 Project: 82302-9.4

**GASOLINE RANGE ORGANICS**  
**NWTPH-Gx**

Matrix: Water  
 Units: ug/L (ppb)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>Client ID:</b>	<b>S-MW-4:W</b>					
Laboratory ID:	06-039-02					
Gasoline	<b>ND</b>	100	NWTPH-Gx	6-10-19	6-10-19	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Fluorobenzene</i>	96	59-122				



Date of Report: June 14, 2019  
 Samples Submitted: June 5, 2019  
 Laboratory Reference: 1906-039  
 Project: 82302-9.4

**GASOLINE RANGE ORGANICS  
 NWTPH-Gx  
 QUALITY CONTROL**

Matrix: Water  
 Units: ug/L (ppb)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>METHOD BLANK</b>						
Laboratory ID:	MB0610W1					
Gasoline	<b>ND</b>	100	NWTPH-Gx	6-10-19	6-10-19	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Fluorobenzene</i>	95	59-122				

Analyte	Result	Spike Level	Source Result	Percent Recovery	Recovery Limits	RPD	RPD Limit	Flags
<b>DUPLICATE</b>								
Laboratory ID:	06-081-05							
	ORIG	DUP						
Gasoline	<b>ND</b>	<b>ND</b>	NA	NA	NA	NA	NA	30
<i>Surrogate:</i>								
<i>Fluorobenzene</i>			103	96	59-122			



Date of Report: June 14, 2019  
 Samples Submitted: June 5, 2019  
 Laboratory Reference: 1906-039  
 Project: 82302-9.4

**VOLATILE ORGANICS EPA 8260C**  
 page 1 of 2

Matrix: Water  
 Units: ug/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>Client ID:</b>	<b>S-MW-3:W</b>					
Laboratory ID:	06-039-01					
Dichlorodifluoromethane	ND	0.20	EPA 8260C	6-7-19	6-7-19	
Chloromethane	ND	1.0	EPA 8260C	6-7-19	6-7-19	
Vinyl Chloride	ND	0.20	EPA 8260C	6-7-19	6-7-19	
Bromomethane	ND	0.20	EPA 8260C	6-7-19	6-7-19	
Chloroethane	ND	1.0	EPA 8260C	6-7-19	6-7-19	
Trichlorofluoromethane	ND	0.20	EPA 8260C	6-7-19	6-7-19	
1,1-Dichloroethene	ND	0.20	EPA 8260C	6-7-19	6-7-19	
Iodomethane	ND	1.0	EPA 8260C	6-7-19	6-7-19	
Methylene Chloride	ND	1.0	EPA 8260C	6-7-19	6-7-19	
(trans) 1,2-Dichloroethene	ND	0.20	EPA 8260C	6-7-19	6-7-19	
1,1-Dichloroethane	ND	0.20	EPA 8260C	6-7-19	6-7-19	
2,2-Dichloropropane	ND	0.20	EPA 8260C	6-7-19	6-7-19	
(cis) 1,2-Dichloroethene	ND	0.20	EPA 8260C	6-7-19	6-7-19	
Bromochloromethane	ND	0.20	EPA 8260C	6-7-19	6-7-19	
Chloroform	ND	0.20	EPA 8260C	6-7-19	6-7-19	
1,1,1-Trichloroethane	ND	0.20	EPA 8260C	6-7-19	6-7-19	
Carbon Tetrachloride	ND	0.20	EPA 8260C	6-7-19	6-7-19	
1,1-Dichloropropene	ND	0.20	EPA 8260C	6-7-19	6-7-19	
1,2-Dichloroethane	ND	0.20	EPA 8260C	6-7-19	6-7-19	
Trichloroethene	ND	0.20	EPA 8260C	6-7-19	6-7-19	
1,2-Dichloropropane	ND	0.20	EPA 8260C	6-7-19	6-7-19	
Dibromomethane	ND	0.20	EPA 8260C	6-7-19	6-7-19	
Bromodichloromethane	ND	0.20	EPA 8260C	6-7-19	6-7-19	
2-Chloroethyl Vinyl Ether	ND	1.0	EPA 8260C	6-7-19	6-7-19	
(cis) 1,3-Dichloropropene	ND	0.20	EPA 8260C	6-7-19	6-7-19	
(trans) 1,3-Dichloropropene	ND	0.20	EPA 8260C	6-7-19	6-7-19	



Date of Report: June 14, 2019  
 Samples Submitted: June 5, 2019  
 Laboratory Reference: 1906-039  
 Project: 82302-9.4

**VOLATILE ORGANICS EPA 8260C**  
 page 2 of 2

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>Client ID:</b>	<b>S-MW-3:W</b>					
<b>Laboratory ID:</b>	06-039-01					
1,1,2-Trichloroethane	ND	0.20	EPA 8260C	6-7-19	6-7-19	
Tetrachloroethene	2.2	0.20	EPA 8260C	6-7-19	6-7-19	
1,3-Dichloropropane	ND	0.20	EPA 8260C	6-7-19	6-7-19	
Dibromochloromethane	ND	0.20	EPA 8260C	6-7-19	6-7-19	
1,2-Dibromoethane	ND	0.20	EPA 8260C	6-7-19	6-7-19	
Chlorobenzene	ND	0.20	EPA 8260C	6-7-19	6-7-19	
1,1,1,2-Tetrachloroethane	ND	0.20	EPA 8260C	6-7-19	6-7-19	
Bromoform	ND	1.0	EPA 8260C	6-7-19	6-7-19	
Bromobenzene	ND	0.20	EPA 8260C	6-7-19	6-7-19	
1,1,2,2-Tetrachloroethane	ND	0.20	EPA 8260C	6-7-19	6-7-19	
1,2,3-Trichloropropane	ND	0.20	EPA 8260C	6-7-19	6-7-19	
2-Chlorotoluene	ND	0.20	EPA 8260C	6-7-19	6-7-19	
4-Chlorotoluene	ND	0.20	EPA 8260C	6-7-19	6-7-19	
1,3-Dichlorobenzene	ND	0.20	EPA 8260C	6-7-19	6-7-19	
1,4-Dichlorobenzene	ND	0.20	EPA 8260C	6-7-19	6-7-19	
1,2-Dichlorobenzene	ND	0.20	EPA 8260C	6-7-19	6-7-19	
1,2-Dibromo-3-chloropropane	ND	1.0	EPA 8260C	6-7-19	6-7-19	
1,2,4-Trichlorobenzene	ND	0.20	EPA 8260C	6-7-19	6-7-19	
Hexachlorobutadiene	ND	1.0	EPA 8260C	6-7-19	6-7-19	
1,2,3-Trichlorobenzene	ND	0.20	EPA 8260C	6-7-19	6-7-19	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Dibromofluoromethane</i>	<i>100</i>	<i>75-127</i>				
<i>Toluene-d8</i>	<i>100</i>	<i>80-127</i>				
<i>4-Bromofluorobenzene</i>	<i>96</i>	<i>78-125</i>				



Date of Report: June 14, 2019  
 Samples Submitted: June 5, 2019  
 Laboratory Reference: 1906-039  
 Project: 82302-9.4

**VOLATILE ORGANICS EPA 8260C**  
 page 1 of 2

Matrix: Water  
 Units: ug/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>Client ID:</b>	<b>S-MW-4:W</b>					
Laboratory ID:	06-039-02					
Dichlorodifluoromethane	ND	0.20	EPA 8260C	6-7-19	6-7-19	
Chloromethane	ND	1.0	EPA 8260C	6-7-19	6-7-19	
Vinyl Chloride	ND	0.20	EPA 8260C	6-7-19	6-7-19	
Bromomethane	ND	0.20	EPA 8260C	6-7-19	6-7-19	
Chloroethane	ND	1.0	EPA 8260C	6-7-19	6-7-19	
Trichlorofluoromethane	ND	0.20	EPA 8260C	6-7-19	6-7-19	
1,1-Dichloroethene	ND	0.20	EPA 8260C	6-7-19	6-7-19	
Iodomethane	ND	1.0	EPA 8260C	6-7-19	6-7-19	
Methylene Chloride	ND	1.0	EPA 8260C	6-7-19	6-7-19	
(trans) 1,2-Dichloroethene	ND	0.20	EPA 8260C	6-7-19	6-7-19	
1,1-Dichloroethane	ND	0.20	EPA 8260C	6-7-19	6-7-19	
2,2-Dichloropropane	ND	0.20	EPA 8260C	6-7-19	6-7-19	
(cis) 1,2-Dichloroethene	ND	0.20	EPA 8260C	6-7-19	6-7-19	
Bromochloromethane	ND	0.20	EPA 8260C	6-7-19	6-7-19	
Chloroform	ND	0.20	EPA 8260C	6-7-19	6-7-19	
1,1,1-Trichloroethane	ND	0.20	EPA 8260C	6-7-19	6-7-19	
Carbon Tetrachloride	ND	0.20	EPA 8260C	6-7-19	6-7-19	
1,1-Dichloropropene	ND	0.20	EPA 8260C	6-7-19	6-7-19	
Benzene	ND	0.20	EPA 8260C	6-7-19	6-7-19	
1,2-Dichloroethane	ND	0.20	EPA 8260C	6-7-19	6-7-19	
Trichloroethene	ND	0.20	EPA 8260C	6-7-19	6-7-19	
1,2-Dichloropropane	ND	0.20	EPA 8260C	6-7-19	6-7-19	
Dibromomethane	ND	0.20	EPA 8260C	6-7-19	6-7-19	
Bromodichloromethane	ND	0.20	EPA 8260C	6-7-19	6-7-19	
2-Chloroethyl Vinyl Ether	ND	1.0	EPA 8260C	6-7-19	6-7-19	
(cis) 1,3-Dichloropropene	ND	0.20	EPA 8260C	6-7-19	6-7-19	
Toluene	ND	1.0	EPA 8260C	6-7-19	6-7-19	
(trans) 1,3-Dichloropropene	ND	0.20	EPA 8260C	6-7-19	6-7-19	



Date of Report: June 14, 2019  
 Samples Submitted: June 5, 2019  
 Laboratory Reference: 1906-039  
 Project: 82302-9.4

**VOLATILE ORGANICS EPA 8260C**  
 page 2 of 2

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>Client ID:</b>	<b>S-MW-4:W</b>					
<b>Laboratory ID:</b>	06-039-02					
1,1,2-Trichloroethane	ND	0.20	EPA 8260C	6-7-19	6-7-19	
Tetrachloroethene	0.56	0.20	EPA 8260C	6-7-19	6-7-19	
1,3-Dichloropropane	ND	0.20	EPA 8260C	6-7-19	6-7-19	
Dibromochloromethane	ND	0.20	EPA 8260C	6-7-19	6-7-19	
1,2-Dibromoethane	ND	0.20	EPA 8260C	6-7-19	6-7-19	
Chlorobenzene	ND	0.20	EPA 8260C	6-7-19	6-7-19	
1,1,1,2-Tetrachloroethane	ND	0.20	EPA 8260C	6-7-19	6-7-19	
Ethylbenzene	ND	0.20	EPA 8260C	6-7-19	6-7-19	
m,p-Xylene	ND	0.40	EPA 8260C	6-7-19	6-7-19	
o-Xylene	ND	0.20	EPA 8260C	6-7-19	6-7-19	
Bromoform	ND	1.0	EPA 8260C	6-7-19	6-7-19	
Bromobenzene	ND	0.20	EPA 8260C	6-7-19	6-7-19	
1,1,2,2-Tetrachloroethane	ND	0.20	EPA 8260C	6-7-19	6-7-19	
1,2,3-Trichloropropane	ND	0.20	EPA 8260C	6-7-19	6-7-19	
2-Chlorotoluene	ND	0.20	EPA 8260C	6-7-19	6-7-19	
4-Chlorotoluene	ND	0.20	EPA 8260C	6-7-19	6-7-19	
1,3-Dichlorobenzene	ND	0.20	EPA 8260C	6-7-19	6-7-19	
1,4-Dichlorobenzene	ND	0.20	EPA 8260C	6-7-19	6-7-19	
1,2-Dichlorobenzene	ND	0.20	EPA 8260C	6-7-19	6-7-19	
1,2-Dibromo-3-chloropropane	ND	1.0	EPA 8260C	6-7-19	6-7-19	
1,2,4-Trichlorobenzene	ND	0.20	EPA 8260C	6-7-19	6-7-19	
Hexachlorobutadiene	ND	1.0	EPA 8260C	6-7-19	6-7-19	
1,2,3-Trichlorobenzene	ND	0.20	EPA 8260C	6-7-19	6-7-19	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Dibromofluoromethane</i>	<i>102</i>	<i>75-127</i>				
<i>Toluene-d8</i>	<i>100</i>	<i>80-127</i>				
<i>4-Bromofluorobenzene</i>	<i>92</i>	<i>78-125</i>				



Date of Report: June 14, 2019  
 Samples Submitted: June 5, 2019  
 Laboratory Reference: 1906-039  
 Project: 82302-9.4

**VOLATILE ORGANICS EPA 8260C**  
 page 1 of 2

Matrix: Water  
 Units: ug/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>Client ID:</b>	<b>S-MW-5:W</b>					
Laboratory ID:	06-039-03					
Dichlorodifluoromethane	ND	10	EPA 8260C	6-7-19	6-7-19	
Chloromethane	ND	50	EPA 8260C	6-7-19	6-7-19	
Vinyl Chloride	ND	10	EPA 8260C	6-7-19	6-7-19	
Bromomethane	ND	10	EPA 8260C	6-7-19	6-7-19	
Chloroethane	ND	50	EPA 8260C	6-7-19	6-7-19	
Trichlorofluoromethane	ND	10	EPA 8260C	6-7-19	6-7-19	
1,1-Dichloroethene	ND	10	EPA 8260C	6-7-19	6-7-19	
Iodomethane	ND	50	EPA 8260C	6-7-19	6-7-19	
Methylene Chloride	ND	50	EPA 8260C	6-7-19	6-7-19	
(trans) 1,2-Dichloroethene	ND	10	EPA 8260C	6-7-19	6-7-19	
1,1-Dichloroethane	ND	10	EPA 8260C	6-7-19	6-7-19	
2,2-Dichloropropane	ND	10	EPA 8260C	6-7-19	6-7-19	
(cis) 1,2-Dichloroethene	ND	10	EPA 8260C	6-7-19	6-7-19	
Bromochloromethane	ND	10	EPA 8260C	6-7-19	6-7-19	
Chloroform	ND	10	EPA 8260C	6-7-19	6-7-19	
1,1,1-Trichloroethane	ND	10	EPA 8260C	6-7-19	6-7-19	
Carbon Tetrachloride	ND	10	EPA 8260C	6-7-19	6-7-19	
1,1-Dichloropropene	ND	10	EPA 8260C	6-7-19	6-7-19	
1,2-Dichloroethane	ND	10	EPA 8260C	6-7-19	6-7-19	
Trichloroethene	ND	10	EPA 8260C	6-7-19	6-7-19	
1,2-Dichloropropane	ND	10	EPA 8260C	6-7-19	6-7-19	
Dibromomethane	ND	10	EPA 8260C	6-7-19	6-7-19	
Bromodichloromethane	ND	10	EPA 8260C	6-7-19	6-7-19	
2-Chloroethyl Vinyl Ether	ND	50	EPA 8260C	6-7-19	6-7-19	
(cis) 1,3-Dichloropropene	ND	10	EPA 8260C	6-7-19	6-7-19	
(trans) 1,3-Dichloropropene	ND	10	EPA 8260C	6-7-19	6-7-19	



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Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>Client ID:</b>	<b>S-MW-5:W</b>					
<b>Laboratory ID:</b>	06-039-03					
1,1,2-Trichloroethane	ND	10	EPA 8260C	6-7-19	6-7-19	
Tetrachloroethene	880	10	EPA 8260C	6-7-19	6-7-19	
1,3-Dichloropropane	ND	10	EPA 8260C	6-7-19	6-7-19	
Dibromochloromethane	ND	10	EPA 8260C	6-7-19	6-7-19	
1,2-Dibromoethane	ND	10	EPA 8260C	6-7-19	6-7-19	
Chlorobenzene	ND	10	EPA 8260C	6-7-19	6-7-19	
1,1,1,2-Tetrachloroethane	ND	10	EPA 8260C	6-7-19	6-7-19	
Bromoform	ND	50	EPA 8260C	6-7-19	6-7-19	
Bromobenzene	ND	10	EPA 8260C	6-7-19	6-7-19	
1,1,2,2-Tetrachloroethane	ND	10	EPA 8260C	6-7-19	6-7-19	
1,2,3-Trichloropropane	ND	10	EPA 8260C	6-7-19	6-7-19	
2-Chlorotoluene	ND	10	EPA 8260C	6-7-19	6-7-19	
4-Chlorotoluene	ND	10	EPA 8260C	6-7-19	6-7-19	
1,3-Dichlorobenzene	ND	10	EPA 8260C	6-7-19	6-7-19	
1,4-Dichlorobenzene	ND	10	EPA 8260C	6-7-19	6-7-19	
1,2-Dichlorobenzene	ND	10	EPA 8260C	6-7-19	6-7-19	
1,2-Dibromo-3-chloropropane	ND	50	EPA 8260C	6-7-19	6-7-19	
1,2,4-Trichlorobenzene	ND	10	EPA 8260C	6-7-19	6-7-19	
Hexachlorobutadiene	ND	50	EPA 8260C	6-7-19	6-7-19	
1,2,3-Trichlorobenzene	ND	10	EPA 8260C	6-7-19	6-7-19	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Dibromofluoromethane</i>	<i>101</i>	<i>75-127</i>				
<i>Toluene-d8</i>	<i>101</i>	<i>80-127</i>				
<i>4-Bromofluorobenzene</i>	<i>95</i>	<i>78-125</i>				





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Matrix: Water  
 Units: ug/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>Client ID:</b>	<b>MW-42:W</b>					
Laboratory ID:	06-039-04					
Dichlorodifluoromethane	ND	0.20	EPA 8260C	6-7-19	6-7-19	
Chloromethane	ND	1.0	EPA 8260C	6-7-19	6-7-19	
Vinyl Chloride	ND	0.20	EPA 8260C	6-7-19	6-7-19	
Bromomethane	ND	0.20	EPA 8260C	6-7-19	6-7-19	
Chloroethane	ND	1.0	EPA 8260C	6-7-19	6-7-19	
Trichlorofluoromethane	ND	0.20	EPA 8260C	6-7-19	6-7-19	
1,1-Dichloroethene	ND	0.20	EPA 8260C	6-7-19	6-7-19	
Iodomethane	ND	1.0	EPA 8260C	6-7-19	6-7-19	
Methylene Chloride	8.9	1.0	EPA 8260C	6-7-19	6-7-19	
(trans) 1,2-Dichloroethene	ND	0.20	EPA 8260C	6-7-19	6-7-19	
1,1-Dichloroethane	ND	0.20	EPA 8260C	6-7-19	6-7-19	
2,2-Dichloropropane	ND	0.20	EPA 8260C	6-7-19	6-7-19	
(cis) 1,2-Dichloroethene	ND	0.20	EPA 8260C	6-7-19	6-7-19	
Bromochloromethane	ND	0.20	EPA 8260C	6-7-19	6-7-19	
Chloroform	ND	0.20	EPA 8260C	6-7-19	6-7-19	
1,1,1-Trichloroethane	ND	0.20	EPA 8260C	6-7-19	6-7-19	
Carbon Tetrachloride	ND	0.20	EPA 8260C	6-7-19	6-7-19	
1,1-Dichloropropene	ND	0.20	EPA 8260C	6-7-19	6-7-19	
1,2-Dichloroethane	0.65	0.20	EPA 8260C	6-7-19	6-7-19	
Trichloroethene	ND	0.20	EPA 8260C	6-7-19	6-7-19	
1,2-Dichloropropane	ND	0.20	EPA 8260C	6-7-19	6-7-19	
Dibromomethane	ND	0.20	EPA 8260C	6-7-19	6-7-19	
Bromodichloromethane	ND	0.20	EPA 8260C	6-7-19	6-7-19	
2-Chloroethyl Vinyl Ether	ND	1.0	EPA 8260C	6-7-19	6-7-19	
(cis) 1,3-Dichloropropene	ND	0.20	EPA 8260C	6-7-19	6-7-19	
(trans) 1,3-Dichloropropene	ND	0.20	EPA 8260C	6-7-19	6-7-19	



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Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>Client ID:</b>	<b>MW-42:W</b>					
<b>Laboratory ID:</b>	<b>06-039-04</b>					
1,1,2-Trichloroethane	ND	0.20	EPA 8260C	6-7-19	6-7-19	
Tetrachloroethene	ND	0.20	EPA 8260C	6-7-19	6-7-19	
1,3-Dichloropropane	ND	0.20	EPA 8260C	6-7-19	6-7-19	
Dibromochloromethane	ND	0.20	EPA 8260C	6-7-19	6-7-19	
1,2-Dibromoethane	ND	0.20	EPA 8260C	6-7-19	6-7-19	
Chlorobenzene	ND	0.20	EPA 8260C	6-7-19	6-7-19	
1,1,1,2-Tetrachloroethane	ND	0.20	EPA 8260C	6-7-19	6-7-19	
Bromoform	ND	1.0	EPA 8260C	6-7-19	6-7-19	
Bromobenzene	ND	0.20	EPA 8260C	6-7-19	6-7-19	
1,1,2,2-Tetrachloroethane	ND	0.20	EPA 8260C	6-7-19	6-7-19	
1,2,3-Trichloropropane	ND	0.20	EPA 8260C	6-7-19	6-7-19	
2-Chlorotoluene	ND	0.20	EPA 8260C	6-7-19	6-7-19	
4-Chlorotoluene	ND	0.20	EPA 8260C	6-7-19	6-7-19	
1,3-Dichlorobenzene	ND	0.20	EPA 8260C	6-7-19	6-7-19	
1,4-Dichlorobenzene	ND	0.20	EPA 8260C	6-7-19	6-7-19	
1,2-Dichlorobenzene	ND	0.20	EPA 8260C	6-7-19	6-7-19	
1,2-Dibromo-3-chloropropane	ND	1.0	EPA 8260C	6-7-19	6-7-19	
1,2,4-Trichlorobenzene	ND	0.20	EPA 8260C	6-7-19	6-7-19	
Hexachlorobutadiene	ND	1.0	EPA 8260C	6-7-19	6-7-19	
1,2,3-Trichlorobenzene	ND	0.20	EPA 8260C	6-7-19	6-7-19	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Dibromofluoromethane</i>	<i>102</i>	<i>75-127</i>				
<i>Toluene-d8</i>	<i>100</i>	<i>80-127</i>				
<i>4-Bromofluorobenzene</i>	<i>93</i>	<i>78-125</i>				



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Matrix: Water  
 Units: ug/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>Client ID:</b>	<b>MW-43:W</b>					
Laboratory ID:	06-039-05					
Dichlorodifluoromethane	ND	0.20	EPA 8260C	6-7-19	6-7-19	
Chloromethane	ND	1.0	EPA 8260C	6-7-19	6-7-19	
Vinyl Chloride	ND	0.20	EPA 8260C	6-7-19	6-7-19	
Bromomethane	ND	0.20	EPA 8260C	6-7-19	6-7-19	
Chloroethane	ND	1.0	EPA 8260C	6-7-19	6-7-19	
Trichlorofluoromethane	ND	0.20	EPA 8260C	6-7-19	6-7-19	
1,1-Dichloroethene	ND	0.20	EPA 8260C	6-7-19	6-7-19	
Iodomethane	ND	1.0	EPA 8260C	6-7-19	6-7-19	
Methylene Chloride	3.1	1.0	EPA 8260C	6-7-19	6-7-19	
(trans) 1,2-Dichloroethene	ND	0.20	EPA 8260C	6-7-19	6-7-19	
1,1-Dichloroethane	ND	0.20	EPA 8260C	6-7-19	6-7-19	
2,2-Dichloropropane	ND	0.20	EPA 8260C	6-7-19	6-7-19	
(cis) 1,2-Dichloroethene	35	0.20	EPA 8260C	6-7-19	6-7-19	
Bromochloromethane	ND	0.20	EPA 8260C	6-7-19	6-7-19	
Chloroform	3.3	0.20	EPA 8260C	6-7-19	6-7-19	
1,1,1-Trichloroethane	ND	0.20	EPA 8260C	6-7-19	6-7-19	
Carbon Tetrachloride	ND	0.20	EPA 8260C	6-7-19	6-7-19	
1,1-Dichloropropene	ND	0.20	EPA 8260C	6-7-19	6-7-19	
1,2-Dichloroethane	1.3	0.20	EPA 8260C	6-7-19	6-7-19	
Trichloroethene	7.6	0.20	EPA 8260C	6-7-19	6-7-19	
1,2-Dichloropropane	ND	0.20	EPA 8260C	6-7-19	6-7-19	
Dibromomethane	ND	0.20	EPA 8260C	6-7-19	6-7-19	
Bromodichloromethane	ND	0.20	EPA 8260C	6-7-19	6-7-19	
2-Chloroethyl Vinyl Ether	ND	1.0	EPA 8260C	6-7-19	6-7-19	
(cis) 1,3-Dichloropropene	ND	0.20	EPA 8260C	6-7-19	6-7-19	
(trans) 1,3-Dichloropropene	ND	0.20	EPA 8260C	6-7-19	6-7-19	



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Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>Client ID:</b>	<b>MW-43:W</b>					
<b>Laboratory ID:</b>	<b>06-039-05</b>					
1,1,2-Trichloroethane	ND	0.20	EPA 8260C	6-7-19	6-7-19	
Tetrachloroethene	9.1	0.20	EPA 8260C	6-7-19	6-7-19	
1,3-Dichloropropane	ND	0.20	EPA 8260C	6-7-19	6-7-19	
Dibromochloromethane	ND	0.20	EPA 8260C	6-7-19	6-7-19	
1,2-Dibromoethane	ND	0.20	EPA 8260C	6-7-19	6-7-19	
Chlorobenzene	ND	0.20	EPA 8260C	6-7-19	6-7-19	
1,1,1,2-Tetrachloroethane	ND	0.20	EPA 8260C	6-7-19	6-7-19	
Bromoform	ND	1.0	EPA 8260C	6-7-19	6-7-19	
Bromobenzene	ND	0.20	EPA 8260C	6-7-19	6-7-19	
1,1,2,2-Tetrachloroethane	ND	0.20	EPA 8260C	6-7-19	6-7-19	
1,2,3-Trichloropropane	ND	0.20	EPA 8260C	6-7-19	6-7-19	
2-Chlorotoluene	ND	0.20	EPA 8260C	6-7-19	6-7-19	
4-Chlorotoluene	ND	0.20	EPA 8260C	6-7-19	6-7-19	
1,3-Dichlorobenzene	ND	0.20	EPA 8260C	6-7-19	6-7-19	
1,4-Dichlorobenzene	ND	0.20	EPA 8260C	6-7-19	6-7-19	
1,2-Dichlorobenzene	ND	0.20	EPA 8260C	6-7-19	6-7-19	
1,2-Dibromo-3-chloropropane	ND	1.0	EPA 8260C	6-7-19	6-7-19	
1,2,4-Trichlorobenzene	ND	0.20	EPA 8260C	6-7-19	6-7-19	
Hexachlorobutadiene	ND	1.0	EPA 8260C	6-7-19	6-7-19	
1,2,3-Trichlorobenzene	ND	0.20	EPA 8260C	6-7-19	6-7-19	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Dibromofluoromethane</i>	<i>99</i>	<i>75-127</i>				
<i>Toluene-d8</i>	<i>99</i>	<i>80-127</i>				
<i>4-Bromofluorobenzene</i>	<i>97</i>	<i>78-125</i>				



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Matrix: Water  
 Units: ug/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>Client ID:</b>	<b>HZ-MW-16:W</b>					
Laboratory ID:	06-039-06					
Dichlorodifluoromethane	ND	0.20	EPA 8260C	6-7-19	6-7-19	
Chloromethane	ND	1.0	EPA 8260C	6-7-19	6-7-19	
Vinyl Chloride	ND	0.20	EPA 8260C	6-7-19	6-7-19	
Bromomethane	ND	0.20	EPA 8260C	6-7-19	6-7-19	
Chloroethane	ND	1.0	EPA 8260C	6-7-19	6-7-19	
Trichlorofluoromethane	ND	0.20	EPA 8260C	6-7-19	6-7-19	
1,1-Dichloroethene	ND	0.20	EPA 8260C	6-7-19	6-7-19	
Iodomethane	ND	1.0	EPA 8260C	6-7-19	6-7-19	
Methylene Chloride	ND	1.0	EPA 8260C	6-7-19	6-7-19	
(trans) 1,2-Dichloroethene	ND	0.20	EPA 8260C	6-7-19	6-7-19	
1,1-Dichloroethane	ND	0.20	EPA 8260C	6-7-19	6-7-19	
2,2-Dichloropropane	ND	0.20	EPA 8260C	6-7-19	6-7-19	
(cis) 1,2-Dichloroethene	0.61	0.20	EPA 8260C	6-7-19	6-7-19	
Bromochloromethane	ND	0.20	EPA 8260C	6-7-19	6-7-19	
Chloroform	ND	0.20	EPA 8260C	6-7-19	6-7-19	
1,1,1-Trichloroethane	ND	0.20	EPA 8260C	6-7-19	6-7-19	
Carbon Tetrachloride	ND	0.20	EPA 8260C	6-7-19	6-7-19	
1,1-Dichloropropene	ND	0.20	EPA 8260C	6-7-19	6-7-19	
1,2-Dichloroethane	ND	0.20	EPA 8260C	6-7-19	6-7-19	
Trichloroethene	0.30	0.20	EPA 8260C	6-7-19	6-7-19	
1,2-Dichloropropane	ND	0.20	EPA 8260C	6-7-19	6-7-19	
Dibromomethane	ND	0.20	EPA 8260C	6-7-19	6-7-19	
Bromodichloromethane	ND	0.20	EPA 8260C	6-7-19	6-7-19	
2-Chloroethyl Vinyl Ether	ND	1.0	EPA 8260C	6-7-19	6-7-19	
(cis) 1,3-Dichloropropene	ND	0.20	EPA 8260C	6-7-19	6-7-19	
(trans) 1,3-Dichloropropene	ND	0.20	EPA 8260C	6-7-19	6-7-19	



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Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>Client ID:</b>	<b>HZ-MW-16:W</b>					
<b>Laboratory ID:</b>	<b>06-039-06</b>					
1,1,2-Trichloroethane	ND	0.20	EPA 8260C	6-7-19	6-7-19	
Tetrachloroethene	2.0	0.20	EPA 8260C	6-7-19	6-7-19	
1,3-Dichloropropane	ND	0.20	EPA 8260C	6-7-19	6-7-19	
Dibromochloromethane	ND	0.20	EPA 8260C	6-7-19	6-7-19	
1,2-Dibromoethane	ND	0.20	EPA 8260C	6-7-19	6-7-19	
Chlorobenzene	ND	0.20	EPA 8260C	6-7-19	6-7-19	
1,1,1,2-Tetrachloroethane	ND	0.20	EPA 8260C	6-7-19	6-7-19	
Bromoform	ND	1.0	EPA 8260C	6-7-19	6-7-19	
Bromobenzene	ND	0.20	EPA 8260C	6-7-19	6-7-19	
1,1,2,2-Tetrachloroethane	ND	0.20	EPA 8260C	6-7-19	6-7-19	
1,2,3-Trichloropropane	ND	0.20	EPA 8260C	6-7-19	6-7-19	
2-Chlorotoluene	ND	0.20	EPA 8260C	6-7-19	6-7-19	
4-Chlorotoluene	ND	0.20	EPA 8260C	6-7-19	6-7-19	
1,3-Dichlorobenzene	ND	0.20	EPA 8260C	6-7-19	6-7-19	
1,4-Dichlorobenzene	ND	0.20	EPA 8260C	6-7-19	6-7-19	
1,2-Dichlorobenzene	ND	0.20	EPA 8260C	6-7-19	6-7-19	
1,2-Dibromo-3-chloropropane	ND	1.0	EPA 8260C	6-7-19	6-7-19	
1,2,4-Trichlorobenzene	ND	0.20	EPA 8260C	6-7-19	6-7-19	
Hexachlorobutadiene	ND	1.0	EPA 8260C	6-7-19	6-7-19	
1,2,3-Trichlorobenzene	ND	0.20	EPA 8260C	6-7-19	6-7-19	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Dibromofluoromethane</i>	<i>100</i>	<i>75-127</i>				
<i>Toluene-d8</i>	<i>98</i>	<i>80-127</i>				
<i>4-Bromofluorobenzene</i>	<i>96</i>	<i>78-125</i>				



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**VOLATILE ORGANICS EPA 8260C**  
**METHOD BLANK QUALITY CONTROL**  
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Matrix: Water  
 Units: ug/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Laboratory ID:	MB0607W1					
Dichlorodifluoromethane	ND	0.20	EPA 8260C	6-7-19	6-7-19	
Chloromethane	ND	1.0	EPA 8260C	6-7-19	6-7-19	
Vinyl Chloride	ND	0.20	EPA 8260C	6-7-19	6-7-19	
Bromomethane	ND	0.20	EPA 8260C	6-7-19	6-7-19	
Chloroethane	ND	1.0	EPA 8260C	6-7-19	6-7-19	
Trichlorofluoromethane	ND	0.20	EPA 8260C	6-7-19	6-7-19	
1,1-Dichloroethene	ND	0.20	EPA 8260C	6-7-19	6-7-19	
Iodomethane	ND	1.0	EPA 8260C	6-7-19	6-7-19	
Methylene Chloride	ND	1.0	EPA 8260C	6-7-19	6-7-19	
(trans) 1,2-Dichloroethene	ND	0.20	EPA 8260C	6-7-19	6-7-19	
1,1-Dichloroethane	ND	0.20	EPA 8260C	6-7-19	6-7-19	
2,2-Dichloropropane	ND	0.20	EPA 8260C	6-7-19	6-7-19	
(cis) 1,2-Dichloroethene	ND	0.20	EPA 8260C	6-7-19	6-7-19	
Bromochloromethane	ND	0.20	EPA 8260C	6-7-19	6-7-19	
Chloroform	ND	0.20	EPA 8260C	6-7-19	6-7-19	
1,1,1-Trichloroethane	ND	0.20	EPA 8260C	6-7-19	6-7-19	
Carbon Tetrachloride	ND	0.20	EPA 8260C	6-7-19	6-7-19	
1,1-Dichloropropene	ND	0.20	EPA 8260C	6-7-19	6-7-19	
Benzene	ND	0.20	EPA 8260C	6-7-19	6-7-19	
1,2-Dichloroethane	ND	0.20	EPA 8260C	6-7-19	6-7-19	
Trichloroethene	ND	0.20	EPA 8260C	6-7-19	6-7-19	
1,2-Dichloropropane	ND	0.20	EPA 8260C	6-7-19	6-7-19	
Dibromomethane	ND	0.20	EPA 8260C	6-7-19	6-7-19	
Bromodichloromethane	ND	0.20	EPA 8260C	6-7-19	6-7-19	
2-Chloroethyl Vinyl Ether	ND	1.0	EPA 8260C	6-7-19	6-7-19	
(cis) 1,3-Dichloropropene	ND	0.20	EPA 8260C	6-7-19	6-7-19	
Toluene	ND	1.0	EPA 8260C	6-7-19	6-7-19	
(trans) 1,3-Dichloropropene	ND	0.20	EPA 8260C	6-7-19	6-7-19	



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 Project: 82302-9.4

**VOLATILE ORGANICS EPA 8260C**  
**METHOD BLANK QUALITY CONTROL**  
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Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Laboratory ID:	MB0607W1					
1,1,2-Trichloroethane	ND	0.20	EPA 8260C	6-7-19	6-7-19	
Tetrachloroethene	ND	0.20	EPA 8260C	6-7-19	6-7-19	
1,3-Dichloropropane	ND	0.20	EPA 8260C	6-7-19	6-7-19	
Dibromochloromethane	ND	0.20	EPA 8260C	6-7-19	6-7-19	
1,2-Dibromoethane	ND	0.20	EPA 8260C	6-7-19	6-7-19	
Chlorobenzene	ND	0.20	EPA 8260C	6-7-19	6-7-19	
1,1,1,2-Tetrachloroethane	ND	0.20	EPA 8260C	6-7-19	6-7-19	
Ethylbenzene	ND	0.20	EPA 8260C	6-7-19	6-7-19	
m,p-Xylene	ND	0.40	EPA 8260C	6-7-19	6-7-19	
o-Xylene	ND	0.20	EPA 8260C	6-7-19	6-7-19	
Bromoform	ND	1.0	EPA 8260C	6-7-19	6-7-19	
Bromobenzene	ND	0.20	EPA 8260C	6-7-19	6-7-19	
1,1,2,2-Tetrachloroethane	ND	0.20	EPA 8260C	6-7-19	6-7-19	
1,2,3-Trichloropropane	ND	0.20	EPA 8260C	6-7-19	6-7-19	
2-Chlorotoluene	ND	0.20	EPA 8260C	6-7-19	6-7-19	
4-Chlorotoluene	ND	0.20	EPA 8260C	6-7-19	6-7-19	
1,3-Dichlorobenzene	ND	0.20	EPA 8260C	6-7-19	6-7-19	
1,4-Dichlorobenzene	ND	0.20	EPA 8260C	6-7-19	6-7-19	
1,2-Dichlorobenzene	ND	0.20	EPA 8260C	6-7-19	6-7-19	
1,2-Dibromo-3-chloropropane	ND	1.0	EPA 8260C	6-7-19	6-7-19	
1,2,4-Trichlorobenzene	ND	0.20	EPA 8260C	6-7-19	6-7-19	
Hexachlorobutadiene	ND	1.0	EPA 8260C	6-7-19	6-7-19	
1,2,3-Trichlorobenzene	ND	0.20	EPA 8260C	6-7-19	6-7-19	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Dibromofluoromethane</i>	<i>102</i>	<i>75-127</i>				
<i>Toluene-d8</i>	<i>100</i>	<i>80-127</i>				
<i>4-Bromofluorobenzene</i>	<i>98</i>	<i>78-125</i>				





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**VOLATILE ORGANICS EPA 8260C  
 SB/SBD QUALITY CONTROL**

Matrix: Water  
 Units: ug/L

Analyte	Result		Spike Level		Percent Recovery		Recovery	RPD	RPD	Flags
					SB	SBD	Limits	RPD	Limit	
<b>SPIKE BLANKS</b>										
Laboratory ID:	SB0607W1									
	SB	SBD	SB	SBD	SB	SBD				
1,1-Dichloroethene	10.9	11.5	10.0	10.0	109	115	63-130	5	17	
Benzene	10.3	10.5	10.0	10.0	103	105	76-125	2	19	
Trichloroethene	10.9	11.0	10.0	10.0	109	110	76-121	1	18	
Toluene	10.4	10.6	10.0	10.0	104	106	80-124	2	18	
Chlorobenzene	10.4	10.3	10.0	10.0	104	103	75-120	1	19	
<i>Surrogate:</i>										
Dibromofluoromethane					100	102	75-127			
Toluene-d8					101	103	80-127			
4-Bromofluorobenzene					106	98	78-125			



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**DISSOLVED GASES  
 RSK 175**

Matrix: Water  
 Units: ug/L (ppb)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>Client ID:</b>	<b>S-MW-3:W</b>					
Laboratory ID:	06-039-01					
Methane	<b>490</b>	50	RSK 175	6-11-19	6-11-19	
Ethane	<b>ND</b>	25	RSK 175	6-11-19	6-11-19	
Ethene	<b>ND</b>	25	RSK 175	6-11-19	6-11-19	

<b>Client ID:</b>	<b>S-MW-4:W</b>					
Laboratory ID:	06-039-02					
Methane	<b>84</b>	10	RSK 175	6-11-19	6-11-19	
Ethane	<b>ND</b>	5.0	RSK 175	6-11-19	6-11-19	
Ethene	<b>ND</b>	5.0	RSK 175	6-11-19	6-11-19	

<b>Client ID:</b>	<b>S-MW-5:W</b>					
Laboratory ID:	06-039-03					
Methane	<b>ND</b>	1.0	RSK 175	6-11-19	6-11-19	
Ethane	<b>ND</b>	0.50	RSK 175	6-11-19	6-11-19	
Ethene	<b>ND</b>	0.50	RSK 175	6-11-19	6-11-19	

<b>Client ID:</b>	<b>MW-42:W</b>					
Laboratory ID:	06-039-04					
Methane	<b>4100</b>	500	RSK 175	6-11-19	6-11-19	
Ethane	<b>ND</b>	250	RSK 175	6-11-19	6-11-19	
Ethene	<b>ND</b>	250	RSK 175	6-11-19	6-11-19	

<b>Client ID:</b>	<b>MW-43:W</b>					
Laboratory ID:	06-039-05					
Methane	<b>530</b>	75	RSK 175	6-11-19	6-11-19	
Ethane	<b>ND</b>	38	RSK 175	6-11-19	6-11-19	
Ethene	<b>ND</b>	38	RSK 175	6-11-19	6-11-19	

<b>Client ID:</b>	<b>HZ-MW-16:W</b>					
Laboratory ID:	06-039-06					
Methane	<b>ND</b>	1.0	RSK 175	6-11-19	6-11-19	
Ethane	<b>ND</b>	0.50	RSK 175	6-11-19	6-11-19	
Ethene	<b>ND</b>	0.50	RSK 175	6-11-19	6-11-19	



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**DISSOLVED GASES  
 RSK 175  
 QUALITY CONTROL**

Matrix: Water  
 Units: ug/L (ppb)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>METHOD BLANK</b>						
Laboratory ID:	MB0611W1					
Methane	ND	1.0	RSK 175	6-11-19	6-11-19	
Ethane	ND	0.50	RSK 175	6-11-19	6-11-19	
Ethene	ND	0.50	RSK 175	6-11-19	6-11-19	

Analyte	Result		Spike Level		Source Result	Percent Recovery		Recovery Limits	RPD	RPD Limit	Flags
<b>MATRIX SPIKES</b>											
Laboratory ID:	01-123-01										
	MS	MSD	MS	MSD		MS	MSD				
Methane	9.41	9.08	4.42	4.42	4.20	118	110	75-125	4	25	
Ethane	7.79	7.34	8.32	8.32	ND	94	88	75-125	6	25	
Ethene	5.79	6.37	7.77	7.77	ND	75	82	75-125	10	25	



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**AMMONIA (as Nitrogen)**  
**SM 4500-NH<sub>3</sub> D**

Matrix: Water  
 Units: mg NH<sub>3</sub>-N/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>Client ID:</b>	<b>S-MW-3:W</b>					
Laboratory ID:	06-039-01					
Ammonia	<b>ND</b>	0.050	SM 4500-NH <sub>3</sub> D	6-11-19	6-11-19	

<b>Client ID:</b>	<b>S-MW-4:W</b>					
Laboratory ID:	06-039-02					
Ammonia	<b>ND</b>	0.050	SM 4500-NH <sub>3</sub> D	6-11-19	6-11-19	

<b>Client ID:</b>	<b>S-MW-5:W</b>					
Laboratory ID:	06-039-03					
Ammonia	<b>ND</b>	0.050	SM 4500-NH <sub>3</sub> D	6-11-19	6-11-19	

<b>Client ID:</b>	<b>MW-42:W</b>					
Laboratory ID:	06-039-04					
Ammonia	<b>0.20</b>	0.050	SM 4500-NH <sub>3</sub> D	6-11-19	6-11-19	

<b>Client ID:</b>	<b>MW-43:W</b>					
Laboratory ID:	06-039-05					
Ammonia	<b>0.080</b>	0.050	SM 4500-NH <sub>3</sub> D	6-11-19	6-11-19	

<b>Client ID:</b>	<b>HZ-MW-16:W</b>					
Laboratory ID:	06-039-06					
Ammonia	<b>ND</b>	0.050	SM 4500-NH <sub>3</sub> D	6-11-19	6-11-19	



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**AMMONIA (as Nitrogen)**  
**SM 4500-NH<sub>3</sub> D**  
**QUALITY CONTROL**

Matrix: Water  
 Units: mg NH<sub>3</sub>-N/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>METHOD BLANK</b>						
Laboratory ID:	MB0611W1					
Ammonia	<b>ND</b>	0.050	SM 4500-NH <sub>3</sub> D	6-11-19	6-11-19	

Analyte	Result	Spike Level	Source Result	Percent Recovery	Recovery Limits	RPD	RPD Limit	Flags
<b>DUPLICATE</b>								
Laboratory ID:	06-081-05							
	ORIG	DUP						
Ammonia	<b>0.0598</b>	<b>0.0588</b>	NA	NA	NA	2	12	

<b>MATRIX SPIKE</b>								
Laboratory ID:	06-081-05							
	MS	MS		MS				
Ammonia	<b>5.49</b>	5.00	0.0598	109	75-121	NA	NA	

<b>SPIKE BLANK</b>								
Laboratory ID:	SB0611W1							
	SB	SB		SB				
Ammonia	<b>4.77</b>	5.00	NA	95	85-110	NA	NA	



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**DISSOLVED METALS  
 EPA 6010D**

Matrix: Water  
 Units: ug/L (ppb)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>Client ID:</b>	<b>S-MW-3:W</b>					
Laboratory ID:	06-039-01					
Iron	<b>ND</b>	56	EPA 6010D	6-5-19	6-10-19	
<b>Client ID:</b>	<b>S-MW-4:W</b>					
Laboratory ID:	06-039-02					
Iron	<b>410</b>	56	EPA 6010D	6-5-19	6-10-19	
<b>Client ID:</b>	<b>S-MW-5:W</b>					
Laboratory ID:	06-039-03					
Iron	<b>ND</b>	56	EPA 6010D	6-5-19	6-10-19	
<b>Client ID:</b>	<b>MW-42:W</b>					
Laboratory ID:	06-039-04					
Iron	<b>5500</b>	56	EPA 6010D	6-5-19	6-10-19	
<b>Client ID:</b>	<b>MW-43:W</b>					
Laboratory ID:	06-039-05					
Iron	<b>450</b>	56	EPA 6010D	6-5-19	6-10-19	
<b>Client ID:</b>	<b>HZ-MW-16:W</b>					
Laboratory ID:	06-039-06					
Iron	<b>ND</b>	56	EPA 6010D	6-5-19	6-10-19	



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**DISSOLVED METALS  
 EPA 6010D  
 QUALITY CONTROL**

Matrix: Water  
 Units: ug/L (ppb)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>METHOD BLANK</b>						
Laboratory ID:	MB0605F1					
Iron	<b>ND</b>	56	EPA 6010D	6-5-19	6-10-19	

Analyte	Result	Spike Level	Source Result	Percent Recovery	Recovery Limits	RPD	RPD Limit	Flags
<b>DUPLICATE</b>								
Laboratory ID:	06-021-01							
	ORIG	DUP						
Iron	<b>ND</b>	<b>ND</b>	NA	NA	NA	NA	20	

**MATRIX SPIKES**

Laboratory ID:	MS	MSD	MS	MSD	MS	MSD	RPD	RPD Limit		
Laboratory ID:	06-021-01									
	MS	MSD	MS	MSD	MS	MSD				
Iron	<b>21700</b>	<b>21800</b>	22200	22200	ND	<b>98</b>	<b>98</b>	75-125	1	20



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**CHLORIDE**  
**SM 4500-Cl E**

Matrix: Water  
 Units: mg/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>Client ID:</b>	<b>S-MW-3:W</b>					
Laboratory ID:	06-039-01					
Chloride	<b>3.6</b>	2.0	SM 4500-Cl E	6-10-19	6-10-19	

<b>Client ID:</b>	<b>S-MW-4:W</b>					
Laboratory ID:	06-039-02					
Chloride	<b>4.5</b>	2.0	SM 4500-Cl E	6-10-19	6-10-19	

<b>Client ID:</b>	<b>S-MW-5:W</b>					
Laboratory ID:	06-039-03					
Chloride	<b>5.9</b>	2.0	SM 4500-Cl E	6-10-19	6-10-19	

<b>Client ID:</b>	<b>MW-42:W</b>					
Laboratory ID:	06-039-04					
Chloride	<b>6.3</b>	2.0	SM 4500-Cl E	6-10-19	6-10-19	

<b>Client ID:</b>	<b>MW-43:W</b>					
Laboratory ID:	06-039-05					
Chloride	<b>3.7</b>	2.0	SM 4500-Cl E	6-10-19	6-10-19	

<b>Client ID:</b>	<b>HZ-MW-16:W</b>					
Laboratory ID:	06-039-06					
Chloride	<b>7.6</b>	2.0	SM 4500-Cl E	6-10-19	6-10-19	





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**CHLORIDE  
 SM 4500-Cl E  
 QUALITY CONTROL**

Matrix: Water  
 Units: mg/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>METHOD BLANK</b>						
Laboratory ID:	MB0610W1					
Chloride	<b>ND</b>	2.0	SM 4500-Cl E	6-10-19	6-10-19	

Analyte	Result	Spike Level	Source Result	Percent Recovery	Recovery Limits	RPD	RPD Limit	Flags
<b>DUPLICATE</b>								
Laboratory ID:	06-081-05							
	ORIG	DUP						
Chloride	<b>3.49</b>	<b>3.41</b>	NA	NA	NA	2	17	

<b>MATRIX SPIKE</b>								
Laboratory ID:	06-081-05							
	MS	MS		MS				
Chloride	<b>53.0</b>	50.0	3.49	99	80-116	NA	NA	

<b>SPIKE BLANK</b>								
Laboratory ID:	SB0610W1							
	SB	SB		SB				
Chloride	<b>49.2</b>	50.0	NA	98	90-110	NA	NA	



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**SULFATE**  
**ASTM D516-11**

Matrix: Water  
 Units: mg/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>Client ID:</b>	<b>S-MW-3:W</b>					
Laboratory ID:	06-039-01					
Sulfate	<b>13</b>	5.0	ASTM D516-11	6-6-19	6-6-19	

<b>Client ID:</b>	<b>S-MW-4:W</b>					
Laboratory ID:	06-039-02					
Sulfate	<b>15</b>	5.0	ASTM D516-11	6-6-19	6-6-19	

<b>Client ID:</b>	<b>S-MW-5:W</b>					
Laboratory ID:	06-039-03					
Sulfate	<b>19</b>	5.0	ASTM D516-11	6-6-19	6-6-19	

<b>Client ID:</b>	<b>MW-42:W</b>					
Laboratory ID:	06-039-04					
Sulfate	<b>ND</b>	5.0	ASTM D516-11	6-6-19	6-6-19	

<b>Client ID:</b>	<b>MW-43:W</b>					
Laboratory ID:	06-039-05					
Sulfate	<b>15</b>	5.0	ASTM D516-11	6-6-19	6-6-19	

<b>Client ID:</b>	<b>HZ-MW-16:W</b>					
Laboratory ID:	06-039-06					
Sulfate	<b>16</b>	5.0	ASTM D516-11	6-6-19	6-6-19	



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**SULFATE  
 ASTM D516-11  
 QUALITY CONTROL**

Matrix: Water  
 Units: mg/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>METHOD BLANK</b>						
Laboratory ID:	MB0606W1					
Sulfate	<b>ND</b>	5.0	ASTM D516-11	6-6-19	6-6-19	

Analyte	Result	Spike Level	Source Result	Percent Recovery	Recovery Limits	RPD	RPD Limit	Flags
<b>DUPLICATE</b>								
Laboratory ID:	06-021-01							
	ORIG	DUP						
Sulfate	<b>ND</b>	<b>ND</b>	NA	NA	NA	NA	10	

<b>MATRIX SPIKE</b>								
Laboratory ID:	06-021-01							
	MS	MS		MS				
Sulfate	<b>12.7</b>	10.0	ND	127	73-134	NA	NA	

<b>SPIKE BLANK</b>								
Laboratory ID:	SB0606W1							
	SB	SB		SB				
Sulfate	<b>9.78</b>	10.0	NA	98	89-113	NA	NA	



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**TOTAL ORGANIC CARBON  
SM 5310B**

Matrix: Water  
 Units: mg/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>Client ID:</b>	<b>S-MW-3:W</b>					
Laboratory ID:	06-039-01					
Total Organic Carbon	<b>ND</b>	1.0	SM 5310B	6-6-19	6-6-19	
<b>Client ID:</b>	<b>S-MW-4:W</b>					
Laboratory ID:	06-039-02					
Total Organic Carbon	<b>ND</b>	1.0	SM 5310B	6-6-19	6-6-19	
<b>Client ID:</b>	<b>S-MW-5:W</b>					
Laboratory ID:	06-039-03					
Total Organic Carbon	<b>ND</b>	1.0	SM 5310B	6-6-19	6-6-19	
<b>Client ID:</b>	<b>MW-42:W</b>					
Laboratory ID:	06-039-04					
Total Organic Carbon	<b>2.3</b>	1.0	SM 5310B	6-6-19	6-6-19	
<b>Client ID:</b>	<b>MW-43:W</b>					
Laboratory ID:	06-039-05					
Total Organic Carbon	<b>5.8</b>	1.0	SM 5310B	6-6-19	6-6-19	
<b>Client ID:</b>	<b>HZ-MW-16:W</b>					
Laboratory ID:	06-039-06					
Total Organic Carbon	<b>ND</b>	1.0	SM 5310B	6-6-19	6-6-19	



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**TOTAL ORGANIC CARBON  
 SM 5310B  
 QUALITY CONTROL**

Matrix: Water  
 Units: mg/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>METHOD BLANK</b>						
Laboratory ID:	MB0606W2					
Total Organic Carbon	<b>ND</b>	1.0	SM 5310B	6-6-19	6-6-19	

Analyte	Result	Spike Level	Source Result	Percent Recovery	Recovery Limits	RPD	RPD Limit	Flags
<b>DUPLICATE</b>								
Laboratory ID:	06-022-01							
	ORIG	DUP						
Total Organic Carbon	<b>1.53</b>	<b>1.46</b>	NA	NA	NA	NA	5	20

**MATRIX SPIKE**

Laboratory ID:	06-022-01							
	MS	MS		MS				
Total Organic Carbon	<b>12.5</b>		10.0	1.53	110	85-131	NA	NA

**SPIKE BLANK**

Laboratory ID:	SB0606W2							
	SB	SB		SB				
Total Organic Carbon	<b>9.88</b>		10.0	NA	99	88-127	NA	NA





### Data Qualifiers and Abbreviations

- A - Due to a high sample concentration, the amount spiked is insufficient for meaningful MS/MSD recovery data.
  - B - The analyte indicated was also found in the blank sample.
  - C - The duplicate RPD is outside control limits due to high result variability when analyte concentrations are within five times the quantitation limit.
  - E - The value reported exceeds the quantitation range and is an estimate.
  - F - Surrogate recovery data is not available due to the high concentration of coeluting target compounds.
  - H - The analyte indicated is a common laboratory solvent and may have been introduced during sample preparation, and be impacting the sample result.
  - I - Compound recovery is outside of the control limits.
  - J - The value reported was below the practical quantitation limit. The value is an estimate.
  - K - Sample duplicate RPD is outside control limits due to sample inhomogeneity. The sample was re-extracted and re-analyzed with similar results.
  - L - The RPD is outside of the control limits.
  - M - Hydrocarbons in the gasoline range are impacting the diesel range result.
  - M1 - Hydrocarbons in the gasoline range (toluene-naphthalene) are present in the sample.
  - N - Hydrocarbons in the lube oil range are impacting the diesel range result.
  - N1 - Hydrocarbons in diesel range are impacting lube oil range results.
  - O - Hydrocarbons indicative of heavier fuels are present in the sample and are impacting the gasoline result.
  - P - The RPD of the detected concentrations between the two columns is greater than 40.
  - Q - Surrogate recovery is outside of the control limits.
  - S - Surrogate recovery data is not available due to the necessary dilution of the sample.
  - T - The sample chromatogram is not similar to a typical \_\_\_\_\_.
  - U - The analyte was analyzed for, but was not detected above the reported sample quantitation limit.
  - U1 - The practical quantitation limit is elevated due to interferences present in the sample.
  - V - Matrix Spike/Matrix Spike Duplicate recoveries are outside control limits due to matrix effects.
  - W - Matrix Spike/Matrix Spike Duplicate RPD are outside control limits due to matrix effects.
  - X - Sample extract treated with a mercury cleanup procedure.
  - X1 - Sample extract treated with a sulfuric acid/silica gel cleanup procedure.
  - Y - The calibration verification for this analyte exceeded the 20% drift specified in methods 8260 & 8270, and therefore the reported result should be considered an estimate. The overall performance of the calibration verification standard met the acceptance criteria of the method.
  - Z -
- ND - Not Detected at PQL  
 PQL - Practical Quantitation Limit  
 RPD - Relative Percent Difference





**Onsite Environmental Inc.**  
 Analytical Laboratory Testing Services  
 14648 NE 95th Street • Redmond, WA 98052  
 Phone: (425) 883-3881 • www.onsite-env.com

# Chain of Custody

Turnaround Request  
(in working days)

Laboratory Number: **06-039**

Company: **Kane Environmental**

Project Number: **82302-914**

Project Name: **Bethell Service Center**

Project Manager: **Jeff Jensen**

Sampled by: **Sella Graves + Emmy Kane**

(Check One)  
 Same Day  
 1 Day  
 2 Days  
 3 Days  
 Standard (7 Days)

\_\_\_\_\_ (other)

Lab ID	Sample Identification	Date Sampled	Time Sampled	Matrix
1	S-MW-3:W	6/5	1030	GW 10
2	S-MW-4:W	6/5	1230	GW 10
3	S-MW-5:W	6/5	1438	GW 10
4	MW-42:W	6/5	1030	GW 10
5	MW-43:W	6/5	1155	GW 10
6	H2-MW-10:W	6/5	1348	GW 10

Number of Containers	
NWTPH-HCID	
NWTPH-Gx/BTEX	<b>8260C</b>
NWTPH-Gx	
NWTPH-Dx ( <input type="checkbox"/> Acid / SG Clean-up)	
Volatiles 8260C	
Halogenated Volatiles 8260C	
EDB EPA 8011 (Waters Only)	
Semivolatiles 8270D/SIM (with low-level PAHs)	
PAHs 8270D/SIM (low-level)	
PCBs 8082A	
Organochlorine Pesticides 8081B	
Organophosphorus Pesticides 8270D/SIM	
Chlorinated Acid Herbicides 8151A	
Total RCRA Metals	
Total MTCA Metals	
TCLP Metals	
HEM (oil and grease) 1664A	<b>RSK</b>
ammonia-N	
dissolved Fe	
chloride	
sulfate	
% Moisture	<b>TOC</b>

Company	Date	Time	Comments/Special Instructions
Kane Environmental	6/5	1522	RSK = methane, ethane, ethene
OSE	6/9/19	1522	lab filter added 6/7/19. D3 (STA)

Signature	Company	Date	Time	Comments/Special Instructions
	Kane Environmental	6/5	1522	RSK = methane, ethane, ethene
	OSE	6/9/19	1522	lab filter added 6/7/19. D3 (STA)
Received				
Relinquished				
Received				
Relinquished				
Received				
Relinquished				
Reviewed/Date				

Data Package: Standard  Level III  Level IV   
 Chromatograms with final report  Electronic Data Deliverables (EDDs)



14648 NE 95<sup>th</sup> Street, Redmond, WA 98052 • (425) 883-3881

June 14, 2019

Jeff Jensen  
Kane Environmental, Inc.  
4015 13th Avenue West  
Seattle, WA 98119

Re: Analytical Data for Project 82302-9.4  
Laboratory Reference No. 1906-063

Dear Jeff:

Enclosed are the analytical results and associated quality control data for samples submitted on June 6, 2019.

The standard policy of OnSite Environmental, Inc. is to store your samples for 30 days from the date of receipt. If you require longer storage, please contact the laboratory.

We appreciate the opportunity to be of service to you on this project. If you have any questions concerning the data, or need additional information, please feel free to call me.

Sincerely,

A handwritten signature in black ink, appearing to read "DB", with a long horizontal flourish extending to the right.

David Baumeister  
Project Manager

Enclosures



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OnSite Environmental, Inc. 14648 NE 95<sup>th</sup> Street, Redmond, WA 98052 (425) 883-3881

This report pertains to the samples analyzed in accordance with the chain of custody, and is intended only for the use of the individual or company to whom it is addressed.



Date of Report: June 14, 2019  
Samples Submitted: June 6, 2019  
Laboratory Reference: 1906-063  
Project: 82302-9.4

### Case Narrative

Samples were collected on June 6, 2019 and received by the laboratory on June 6, 2019. They were maintained at the laboratory at a temperature of 2°C to 6°C.

Please note that any and all soil sample results are reported on a dry-weight basis, unless otherwise noted below.

General QA/QC issues associated with the analytical data enclosed in this laboratory report will be indicated with a reference to a comment or explanation on the Data Qualifier page. More complex and involved QA/QC issues will be discussed in detail below.



Date of Report: June 14, 2019  
 Samples Submitted: June 6, 2019  
 Laboratory Reference: 1906-063  
 Project: 82302-9.4

**GASOLINE RANGE ORGANICS**  
**NWTPH-Gx**

Matrix: Water  
 Units: ug/L (ppb)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>Client ID:</b>	<b>S-MW-2:W</b>					
Laboratory ID:	06-063-05					
Gasoline	<b>ND</b>	100	NWTPH-Gx	6-10-19	6-10-19	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Fluorobenzene</i>	95	59-122				



Date of Report: June 14, 2019  
 Samples Submitted: June 6, 2019  
 Laboratory Reference: 1906-063  
 Project: 82302-9.4

**GASOLINE RANGE ORGANICS  
 NWTPH-Gx  
 QUALITY CONTROL**

Matrix: Water  
 Units: ug/L (ppb)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>METHOD BLANK</b>						
Laboratory ID:	MB0610W1					
Gasoline	<b>ND</b>	100	NWTPH-Gx	6-10-19	6-10-19	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Fluorobenzene</i>	95	59-122				

Analyte	Result	Spike Level	Source Result	Percent Recovery	Recovery Limits	RPD	RPD Limit	Flags
<b>DUPLICATE</b>								
Laboratory ID:	06-081-05							
	ORIG	DUP						
Gasoline	<b>ND</b>	<b>ND</b>	NA	NA	NA	NA	NA	30
<i>Surrogate:</i>								
<i>Fluorobenzene</i>			103	96	59-122			



Date of Report: June 14, 2019  
 Samples Submitted: June 6, 2019  
 Laboratory Reference: 1906-063  
 Project: 82302-9.4

**VOLATILE ORGANICS EPA 8260C**  
 page 1 of 2

Matrix: Water  
 Units: ug/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>Client ID:</b>	<b>MW-44:W</b>					
Laboratory ID:	06-063-01					
Dichlorodifluoromethane	ND	0.20	EPA 8260C	6-10-19	6-10-19	
Chloromethane	ND	1.0	EPA 8260C	6-10-19	6-10-19	
Vinyl Chloride	ND	0.20	EPA 8260C	6-10-19	6-10-19	
Bromomethane	ND	0.20	EPA 8260C	6-10-19	6-10-19	
Chloroethane	ND	1.0	EPA 8260C	6-10-19	6-10-19	
Trichlorofluoromethane	ND	0.20	EPA 8260C	6-10-19	6-10-19	
1,1-Dichloroethene	ND	0.20	EPA 8260C	6-10-19	6-10-19	
Iodomethane	ND	1.5	EPA 8260C	6-10-19	6-10-19	
Methylene Chloride	ND	1.0	EPA 8260C	6-10-19	6-10-19	
(trans) 1,2-Dichloroethene	14	0.20	EPA 8260C	6-10-19	6-10-19	
1,1-Dichloroethane	ND	0.20	EPA 8260C	6-10-19	6-10-19	
2,2-Dichloropropane	ND	0.20	EPA 8260C	6-10-19	6-10-19	
(cis) 1,2-Dichloroethene	28	0.40	EPA 8260C	6-10-19	6-10-19	
Bromochloromethane	ND	0.20	EPA 8260C	6-10-19	6-10-19	
Chloroform	ND	0.20	EPA 8260C	6-10-19	6-10-19	
1,1,1-Trichloroethane	ND	0.20	EPA 8260C	6-10-19	6-10-19	
Carbon Tetrachloride	ND	0.20	EPA 8260C	6-10-19	6-10-19	
1,1-Dichloropropene	ND	0.20	EPA 8260C	6-10-19	6-10-19	
1,2-Dichloroethane	0.41	0.20	EPA 8260C	6-10-19	6-10-19	
Trichloroethene	1.7	0.20	EPA 8260C	6-10-19	6-10-19	
1,2-Dichloropropane	ND	0.20	EPA 8260C	6-10-19	6-10-19	
Dibromomethane	ND	0.20	EPA 8260C	6-10-19	6-10-19	
Bromodichloromethane	ND	0.20	EPA 8260C	6-10-19	6-10-19	
2-Chloroethyl Vinyl Ether	ND	1.0	EPA 8260C	6-10-19	6-10-19	
(cis) 1,3-Dichloropropene	ND	0.20	EPA 8260C	6-10-19	6-10-19	
(trans) 1,3-Dichloropropene	ND	0.20	EPA 8260C	6-10-19	6-10-19	



Date of Report: June 14, 2019  
 Samples Submitted: June 6, 2019  
 Laboratory Reference: 1906-063  
 Project: 82302-9.4

**VOLATILE ORGANICS EPA 8260C**  
 page 2 of 2

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>Client ID:</b>	<b>MW-44:W</b>					
<b>Laboratory ID:</b>	<b>06-063-01</b>					
1,1,2-Trichloroethane	ND	0.20	EPA 8260C	6-10-19	6-10-19	
Tetrachloroethene	ND	0.20	EPA 8260C	6-10-19	6-10-19	
1,3-Dichloropropane	ND	0.20	EPA 8260C	6-10-19	6-10-19	
Dibromochloromethane	ND	0.20	EPA 8260C	6-10-19	6-10-19	
1,2-Dibromoethane	ND	0.20	EPA 8260C	6-10-19	6-10-19	
Chlorobenzene	ND	0.20	EPA 8260C	6-10-19	6-10-19	
1,1,1,2-Tetrachloroethane	ND	0.20	EPA 8260C	6-10-19	6-10-19	
Bromoform	ND	1.0	EPA 8260C	6-10-19	6-10-19	
Bromobenzene	ND	0.20	EPA 8260C	6-10-19	6-10-19	
1,1,2,2-Tetrachloroethane	ND	0.20	EPA 8260C	6-10-19	6-10-19	
1,2,3-Trichloropropane	ND	0.20	EPA 8260C	6-10-19	6-10-19	
2-Chlorotoluene	ND	0.20	EPA 8260C	6-10-19	6-10-19	
4-Chlorotoluene	ND	0.20	EPA 8260C	6-10-19	6-10-19	
1,3-Dichlorobenzene	ND	0.20	EPA 8260C	6-10-19	6-10-19	
1,4-Dichlorobenzene	ND	0.20	EPA 8260C	6-10-19	6-10-19	
1,2-Dichlorobenzene	ND	0.20	EPA 8260C	6-10-19	6-10-19	
1,2-Dibromo-3-chloropropane	ND	1.0	EPA 8260C	6-10-19	6-10-19	
1,2,4-Trichlorobenzene	ND	0.20	EPA 8260C	6-10-19	6-10-19	
Hexachlorobutadiene	ND	1.0	EPA 8260C	6-10-19	6-10-19	
1,2,3-Trichlorobenzene	ND	0.20	EPA 8260C	6-10-19	6-10-19	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Dibromofluoromethane</i>	<i>109</i>	<i>75-127</i>				
<i>Toluene-d8</i>	<i>96</i>	<i>80-127</i>				
<i>4-Bromofluorobenzene</i>	<i>100</i>	<i>78-125</i>				



Date of Report: June 14, 2019  
 Samples Submitted: June 6, 2019  
 Laboratory Reference: 1906-063  
 Project: 82302-9.4

**VOLATILE ORGANICS EPA 8260C**  
 page 1 of 2

Matrix: Water  
 Units: ug/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>Client ID:</b>	<b>MW-45:W</b>					
Laboratory ID:	06-063-02					
Dichlorodifluoromethane	ND	0.20	EPA 8260C	6-10-19	6-10-19	
Chloromethane	ND	1.0	EPA 8260C	6-10-19	6-10-19	
Vinyl Chloride	ND	0.20	EPA 8260C	6-10-19	6-10-19	
Bromomethane	ND	0.20	EPA 8260C	6-10-19	6-10-19	
Chloroethane	ND	1.0	EPA 8260C	6-10-19	6-10-19	
Trichlorofluoromethane	ND	0.20	EPA 8260C	6-10-19	6-10-19	
1,1-Dichloroethene	ND	0.20	EPA 8260C	6-10-19	6-10-19	
Iodomethane	ND	1.5	EPA 8260C	6-10-19	6-10-19	
Methylene Chloride	ND	1.0	EPA 8260C	6-10-19	6-10-19	
(trans) 1,2-Dichloroethene	0.40	0.20	EPA 8260C	6-10-19	6-10-19	
1,1-Dichloroethane	ND	0.20	EPA 8260C	6-10-19	6-10-19	
2,2-Dichloropropane	ND	0.20	EPA 8260C	6-10-19	6-10-19	
(cis) 1,2-Dichloroethene	6.0	0.20	EPA 8260C	6-10-19	6-10-19	
Bromochloromethane	ND	0.20	EPA 8260C	6-10-19	6-10-19	
Chloroform	ND	0.20	EPA 8260C	6-10-19	6-10-19	
1,1,1-Trichloroethane	ND	0.20	EPA 8260C	6-10-19	6-10-19	
Carbon Tetrachloride	ND	0.20	EPA 8260C	6-10-19	6-10-19	
1,1-Dichloropropene	ND	0.20	EPA 8260C	6-10-19	6-10-19	
1,2-Dichloroethane	0.24	0.20	EPA 8260C	6-10-19	6-10-19	
Trichloroethene	ND	0.20	EPA 8260C	6-10-19	6-10-19	
1,2-Dichloropropane	ND	0.20	EPA 8260C	6-10-19	6-10-19	
Dibromomethane	ND	0.20	EPA 8260C	6-10-19	6-10-19	
Bromodichloromethane	ND	0.20	EPA 8260C	6-10-19	6-10-19	
2-Chloroethyl Vinyl Ether	ND	1.0	EPA 8260C	6-10-19	6-10-19	
(cis) 1,3-Dichloropropene	ND	0.20	EPA 8260C	6-10-19	6-10-19	
(trans) 1,3-Dichloropropene	ND	0.20	EPA 8260C	6-10-19	6-10-19	



Date of Report: June 14, 2019  
 Samples Submitted: June 6, 2019  
 Laboratory Reference: 1906-063  
 Project: 82302-9.4

**VOLATILE ORGANICS EPA 8260C**  
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Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>Client ID:</b>	<b>MW-45:W</b>					
<b>Laboratory ID:</b>	<b>06-063-02</b>					
1,1,2-Trichloroethane	ND	0.20	EPA 8260C	6-10-19	6-10-19	
Tetrachloroethene	ND	0.20	EPA 8260C	6-10-19	6-10-19	
1,3-Dichloropropane	ND	0.20	EPA 8260C	6-10-19	6-10-19	
Dibromochloromethane	ND	0.20	EPA 8260C	6-10-19	6-10-19	
1,2-Dibromoethane	ND	0.20	EPA 8260C	6-10-19	6-10-19	
Chlorobenzene	ND	0.20	EPA 8260C	6-10-19	6-10-19	
1,1,1,2-Tetrachloroethane	ND	0.20	EPA 8260C	6-10-19	6-10-19	
Bromoform	ND	1.0	EPA 8260C	6-10-19	6-10-19	
Bromobenzene	ND	0.20	EPA 8260C	6-10-19	6-10-19	
1,1,2,2-Tetrachloroethane	ND	0.20	EPA 8260C	6-10-19	6-10-19	
1,2,3-Trichloropropane	ND	0.20	EPA 8260C	6-10-19	6-10-19	
2-Chlorotoluene	ND	0.20	EPA 8260C	6-10-19	6-10-19	
4-Chlorotoluene	ND	0.20	EPA 8260C	6-10-19	6-10-19	
1,3-Dichlorobenzene	ND	0.20	EPA 8260C	6-10-19	6-10-19	
1,4-Dichlorobenzene	ND	0.20	EPA 8260C	6-10-19	6-10-19	
1,2-Dichlorobenzene	ND	0.20	EPA 8260C	6-10-19	6-10-19	
1,2-Dibromo-3-chloropropane	ND	1.0	EPA 8260C	6-10-19	6-10-19	
1,2,4-Trichlorobenzene	ND	0.20	EPA 8260C	6-10-19	6-10-19	
Hexachlorobutadiene	ND	1.0	EPA 8260C	6-10-19	6-10-19	
1,2,3-Trichlorobenzene	ND	0.20	EPA 8260C	6-10-19	6-10-19	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Dibromofluoromethane</i>	<i>111</i>	<i>75-127</i>				
<i>Toluene-d8</i>	<i>105</i>	<i>80-127</i>				
<i>4-Bromofluorobenzene</i>	<i>101</i>	<i>78-125</i>				



Date of Report: June 14, 2019  
 Samples Submitted: June 6, 2019  
 Laboratory Reference: 1906-063  
 Project: 82302-9.4

**VOLATILE ORGANICS EPA 8260C**  
 page 1 of 2

Matrix: Water  
 Units: ug/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>Client ID:</b>	<b>MW-20:W</b>					
Laboratory ID:	06-063-03					
Dichlorodifluoromethane	ND	0.40	EPA 8260C	6-10-19	6-10-19	
Chloromethane	ND	2.0	EPA 8260C	6-10-19	6-10-19	
Vinyl Chloride	ND	0.40	EPA 8260C	6-10-19	6-10-19	
Bromomethane	ND	0.40	EPA 8260C	6-10-19	6-10-19	
Chloroethane	ND	2.0	EPA 8260C	6-10-19	6-10-19	
Trichlorofluoromethane	ND	0.40	EPA 8260C	6-10-19	6-10-19	
1,1-Dichloroethene	ND	0.40	EPA 8260C	6-10-19	6-10-19	
Iodomethane	ND	3.0	EPA 8260C	6-10-19	6-10-19	
Methylene Chloride	ND	2.0	EPA 8260C	6-10-19	6-10-19	
(trans) 1,2-Dichloroethene	14	0.40	EPA 8260C	6-10-19	6-10-19	
1,1-Dichloroethane	ND	0.40	EPA 8260C	6-10-19	6-10-19	
2,2-Dichloropropane	ND	0.40	EPA 8260C	6-10-19	6-10-19	
(cis) 1,2-Dichloroethene	31	0.40	EPA 8260C	6-10-19	6-10-19	
Bromochloromethane	ND	0.40	EPA 8260C	6-10-19	6-10-19	
Chloroform	ND	0.40	EPA 8260C	6-10-19	6-10-19	
1,1,1-Trichloroethane	ND	0.40	EPA 8260C	6-10-19	6-10-19	
Carbon Tetrachloride	ND	0.40	EPA 8260C	6-10-19	6-10-19	
1,1-Dichloropropene	ND	0.40	EPA 8260C	6-10-19	6-10-19	
1,2-Dichloroethane	ND	0.40	EPA 8260C	6-10-19	6-10-19	
Trichloroethene	51	0.40	EPA 8260C	6-10-19	6-10-19	
1,2-Dichloropropane	ND	0.40	EPA 8260C	6-10-19	6-10-19	
Dibromomethane	ND	0.40	EPA 8260C	6-10-19	6-10-19	
Bromodichloromethane	ND	0.40	EPA 8260C	6-10-19	6-10-19	
2-Chloroethyl Vinyl Ether	ND	2.0	EPA 8260C	6-10-19	6-10-19	
(cis) 1,3-Dichloropropene	ND	0.40	EPA 8260C	6-10-19	6-10-19	
(trans) 1,3-Dichloropropene	ND	0.40	EPA 8260C	6-10-19	6-10-19	





Date of Report: June 14, 2019  
 Samples Submitted: June 6, 2019  
 Laboratory Reference: 1906-063  
 Project: 82302-9.4

**VOLATILE ORGANICS EPA 8260C**  
 page 2 of 2

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>Client ID:</b>	<b>MW-20:W</b>					
<b>Laboratory ID:</b>	<b>06-063-03</b>					
1,1,2-Trichloroethane	ND	0.40	EPA 8260C	6-10-19	6-10-19	
Tetrachloroethene	0.43	0.40	EPA 8260C	6-10-19	6-10-19	
1,3-Dichloropropane	ND	0.40	EPA 8260C	6-10-19	6-10-19	
Dibromochloromethane	ND	0.40	EPA 8260C	6-10-19	6-10-19	
1,2-Dibromoethane	ND	0.40	EPA 8260C	6-10-19	6-10-19	
Chlorobenzene	ND	0.40	EPA 8260C	6-10-19	6-10-19	
1,1,1,2-Tetrachloroethane	ND	0.40	EPA 8260C	6-10-19	6-10-19	
Bromoform	ND	2.0	EPA 8260C	6-10-19	6-10-19	
Bromobenzene	ND	0.40	EPA 8260C	6-10-19	6-10-19	
1,1,2,2-Tetrachloroethane	ND	0.40	EPA 8260C	6-10-19	6-10-19	
1,2,3-Trichloropropane	ND	0.40	EPA 8260C	6-10-19	6-10-19	
2-Chlorotoluene	ND	0.40	EPA 8260C	6-10-19	6-10-19	
4-Chlorotoluene	ND	0.40	EPA 8260C	6-10-19	6-10-19	
1,3-Dichlorobenzene	ND	0.40	EPA 8260C	6-10-19	6-10-19	
1,4-Dichlorobenzene	ND	0.40	EPA 8260C	6-10-19	6-10-19	
1,2-Dichlorobenzene	ND	0.40	EPA 8260C	6-10-19	6-10-19	
1,2-Dibromo-3-chloropropane	ND	2.0	EPA 8260C	6-10-19	6-10-19	
1,2,4-Trichlorobenzene	ND	0.40	EPA 8260C	6-10-19	6-10-19	
Hexachlorobutadiene	ND	2.0	EPA 8260C	6-10-19	6-10-19	
1,2,3-Trichlorobenzene	ND	0.40	EPA 8260C	6-10-19	6-10-19	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Dibromofluoromethane</i>	<i>108</i>	<i>75-127</i>				
<i>Toluene-d8</i>	<i>99</i>	<i>80-127</i>				
<i>4-Bromofluorobenzene</i>	<i>97</i>	<i>78-125</i>				



Date of Report: June 14, 2019  
 Samples Submitted: June 6, 2019  
 Laboratory Reference: 1906-063  
 Project: 82302-9.4

**VOLATILE ORGANICS EPA 8260C**  
 page 1 of 2

Matrix: Water  
 Units: ug/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>Client ID:</b>	<b>S-MW-1:W</b>					
Laboratory ID:	06-063-04					
Dichlorodifluoromethane	0.28	0.20	EPA 8260C	6-10-19	6-10-19	
Chloromethane	ND	1.0	EPA 8260C	6-10-19	6-10-19	
Vinyl Chloride	ND	0.20	EPA 8260C	6-10-19	6-10-19	
Bromomethane	ND	0.20	EPA 8260C	6-10-19	6-10-19	
Chloroethane	ND	1.0	EPA 8260C	6-10-19	6-10-19	
Trichlorofluoromethane	ND	0.20	EPA 8260C	6-10-19	6-10-19	
1,1-Dichloroethene	ND	0.20	EPA 8260C	6-10-19	6-10-19	
Iodomethane	ND	1.5	EPA 8260C	6-10-19	6-10-19	
Methylene Chloride	ND	1.0	EPA 8260C	6-10-19	6-10-19	
(trans) 1,2-Dichloroethene	ND	0.20	EPA 8260C	6-10-19	6-10-19	
1,1-Dichloroethane	ND	0.20	EPA 8260C	6-10-19	6-10-19	
2,2-Dichloropropane	ND	0.20	EPA 8260C	6-10-19	6-10-19	
(cis) 1,2-Dichloroethene	ND	0.20	EPA 8260C	6-10-19	6-10-19	
Bromochloromethane	ND	0.20	EPA 8260C	6-10-19	6-10-19	
Chloroform	0.29	0.20	EPA 8260C	6-10-19	6-10-19	
1,1,1-Trichloroethane	ND	0.20	EPA 8260C	6-10-19	6-10-19	
Carbon Tetrachloride	ND	0.20	EPA 8260C	6-10-19	6-10-19	
1,1-Dichloropropene	ND	0.20	EPA 8260C	6-10-19	6-10-19	
1,2-Dichloroethane	ND	0.20	EPA 8260C	6-10-19	6-10-19	
Trichloroethene	ND	0.20	EPA 8260C	6-10-19	6-10-19	
1,2-Dichloropropane	ND	0.20	EPA 8260C	6-10-19	6-10-19	
Dibromomethane	ND	0.20	EPA 8260C	6-10-19	6-10-19	
Bromodichloromethane	ND	0.20	EPA 8260C	6-10-19	6-10-19	
2-Chloroethyl Vinyl Ether	ND	1.0	EPA 8260C	6-10-19	6-10-19	
(cis) 1,3-Dichloropropene	ND	0.20	EPA 8260C	6-10-19	6-10-19	
(trans) 1,3-Dichloropropene	ND	0.20	EPA 8260C	6-10-19	6-10-19	



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**VOLATILE ORGANICS EPA 8260C**  
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Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>Client ID:</b>	<b>S-MW-1:W</b>					
<b>Laboratory ID:</b>	06-063-04					
1,1,2-Trichloroethane	ND	0.20	EPA 8260C	6-10-19	6-10-19	
Tetrachloroethene	8.9	0.20	EPA 8260C	6-10-19	6-10-19	
1,3-Dichloropropane	ND	0.20	EPA 8260C	6-10-19	6-10-19	
Dibromochloromethane	ND	0.20	EPA 8260C	6-10-19	6-10-19	
1,2-Dibromoethane	ND	0.20	EPA 8260C	6-10-19	6-10-19	
Chlorobenzene	ND	0.20	EPA 8260C	6-10-19	6-10-19	
1,1,1,2-Tetrachloroethane	ND	0.20	EPA 8260C	6-10-19	6-10-19	
Bromoform	ND	1.0	EPA 8260C	6-10-19	6-10-19	
Bromobenzene	ND	0.20	EPA 8260C	6-10-19	6-10-19	
1,1,2,2-Tetrachloroethane	ND	0.20	EPA 8260C	6-10-19	6-10-19	
1,2,3-Trichloropropane	ND	0.20	EPA 8260C	6-10-19	6-10-19	
2-Chlorotoluene	ND	0.20	EPA 8260C	6-10-19	6-10-19	
4-Chlorotoluene	ND	0.20	EPA 8260C	6-10-19	6-10-19	
1,3-Dichlorobenzene	ND	0.20	EPA 8260C	6-10-19	6-10-19	
1,4-Dichlorobenzene	ND	0.20	EPA 8260C	6-10-19	6-10-19	
1,2-Dichlorobenzene	ND	0.20	EPA 8260C	6-10-19	6-10-19	
1,2-Dibromo-3-chloropropane	ND	1.0	EPA 8260C	6-10-19	6-10-19	
1,2,4-Trichlorobenzene	ND	0.20	EPA 8260C	6-10-19	6-10-19	
Hexachlorobutadiene	ND	1.0	EPA 8260C	6-10-19	6-10-19	
1,2,3-Trichlorobenzene	ND	0.20	EPA 8260C	6-10-19	6-10-19	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Dibromofluoromethane</i>	<i>107</i>	<i>75-127</i>				
<i>Toluene-d8</i>	<i>101</i>	<i>80-127</i>				
<i>4-Bromofluorobenzene</i>	<i>92</i>	<i>78-125</i>				



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**VOLATILE ORGANICS EPA 8260C**  
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Matrix: Water  
 Units: ug/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>Client ID:</b>	<b>S-MW-2:W</b>					
Laboratory ID:	06-063-05					
Dichlorodifluoromethane	ND	0.20	EPA 8260C	6-10-19	6-10-19	
Chloromethane	ND	1.0	EPA 8260C	6-10-19	6-10-19	
Vinyl Chloride	ND	0.20	EPA 8260C	6-10-19	6-10-19	
Bromomethane	ND	0.20	EPA 8260C	6-10-19	6-10-19	
Chloroethane	ND	1.0	EPA 8260C	6-10-19	6-10-19	
Trichlorofluoromethane	ND	0.20	EPA 8260C	6-10-19	6-10-19	
1,1-Dichloroethene	ND	0.20	EPA 8260C	6-10-19	6-10-19	
Iodomethane	ND	1.5	EPA 8260C	6-10-19	6-10-19	
Methylene Chloride	ND	1.0	EPA 8260C	6-10-19	6-10-19	
(trans) 1,2-Dichloroethene	ND	0.20	EPA 8260C	6-10-19	6-10-19	
1,1-Dichloroethane	ND	0.20	EPA 8260C	6-10-19	6-10-19	
2,2-Dichloropropane	ND	0.20	EPA 8260C	6-10-19	6-10-19	
(cis) 1,2-Dichloroethene	3.2	0.20	EPA 8260C	6-10-19	6-10-19	
Bromochloromethane	ND	0.20	EPA 8260C	6-10-19	6-10-19	
Chloroform	0.46	0.20	EPA 8260C	6-10-19	6-10-19	
1,1,1-Trichloroethane	ND	0.20	EPA 8260C	6-10-19	6-10-19	
Carbon Tetrachloride	ND	0.20	EPA 8260C	6-10-19	6-10-19	
1,1-Dichloropropene	ND	0.20	EPA 8260C	6-10-19	6-10-19	
Benzene	ND	0.20	EPA 8260C	6-10-19	6-10-19	
1,2-Dichloroethane	ND	0.20	EPA 8260C	6-10-19	6-10-19	
Trichloroethene	3.8	0.20	EPA 8260C	6-10-19	6-10-19	
1,2-Dichloropropane	ND	0.20	EPA 8260C	6-10-19	6-10-19	
Dibromomethane	ND	0.20	EPA 8260C	6-10-19	6-10-19	
Bromodichloromethane	ND	0.20	EPA 8260C	6-10-19	6-10-19	
2-Chloroethyl Vinyl Ether	ND	1.0	EPA 8260C	6-10-19	6-10-19	
(cis) 1,3-Dichloropropene	ND	0.20	EPA 8260C	6-10-19	6-10-19	
Toluene	ND	1.0	EPA 8260C	6-10-19	6-10-19	
(trans) 1,3-Dichloropropene	ND	0.20	EPA 8260C	6-10-19	6-10-19	



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Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>Client ID:</b>	<b>S-MW-2:W</b>					
<b>Laboratory ID:</b>	06-063-05					
1,1,2-Trichloroethane	ND	0.20	EPA 8260C	6-10-19	6-10-19	
Tetrachloroethene	5.8	0.20	EPA 8260C	6-10-19	6-10-19	
1,3-Dichloropropane	ND	0.20	EPA 8260C	6-10-19	6-10-19	
Dibromochloromethane	ND	0.20	EPA 8260C	6-10-19	6-10-19	
1,2-Dibromoethane	ND	0.20	EPA 8260C	6-10-19	6-10-19	
Chlorobenzene	ND	0.20	EPA 8260C	6-10-19	6-10-19	
1,1,1,2-Tetrachloroethane	ND	0.20	EPA 8260C	6-10-19	6-10-19	
Ethylbenzene	ND	0.20	EPA 8260C	6-10-19	6-10-19	
m,p-Xylene	ND	0.40	EPA 8260C	6-10-19	6-10-19	
o-Xylene	ND	0.20	EPA 8260C	6-10-19	6-10-19	
Bromoform	ND	1.0	EPA 8260C	6-10-19	6-10-19	
Bromobenzene	ND	0.20	EPA 8260C	6-10-19	6-10-19	
1,1,2,2-Tetrachloroethane	ND	0.20	EPA 8260C	6-10-19	6-10-19	
1,2,3-Trichloropropane	ND	0.20	EPA 8260C	6-10-19	6-10-19	
2-Chlorotoluene	ND	0.20	EPA 8260C	6-10-19	6-10-19	
4-Chlorotoluene	ND	0.20	EPA 8260C	6-10-19	6-10-19	
1,3-Dichlorobenzene	ND	0.20	EPA 8260C	6-10-19	6-10-19	
1,4-Dichlorobenzene	ND	0.20	EPA 8260C	6-10-19	6-10-19	
1,2-Dichlorobenzene	ND	0.20	EPA 8260C	6-10-19	6-10-19	
1,2-Dibromo-3-chloropropane	ND	1.0	EPA 8260C	6-10-19	6-10-19	
1,2,4-Trichlorobenzene	ND	0.20	EPA 8260C	6-10-19	6-10-19	
Hexachlorobutadiene	ND	1.0	EPA 8260C	6-10-19	6-10-19	
1,2,3-Trichlorobenzene	ND	0.20	EPA 8260C	6-10-19	6-10-19	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Dibromofluoromethane</i>	<i>105</i>	<i>75-127</i>				
<i>Toluene-d8</i>	<i>103</i>	<i>80-127</i>				
<i>4-Bromofluorobenzene</i>	<i>99</i>	<i>78-125</i>				



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**VOLATILE ORGANICS EPA 8260C**  
**METHOD BLANK QUALITY CONTROL**  
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Matrix: Water  
 Units: ug/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Laboratory ID:	MB0610W1					
Dichlorodifluoromethane	ND	0.20	EPA 8260C	6-10-19	6-10-19	
Chloromethane	ND	1.0	EPA 8260C	6-10-19	6-10-19	
Vinyl Chloride	ND	0.20	EPA 8260C	6-10-19	6-10-19	
Bromomethane	ND	0.20	EPA 8260C	6-10-19	6-10-19	
Chloroethane	ND	1.0	EPA 8260C	6-10-19	6-10-19	
Trichlorofluoromethane	ND	0.20	EPA 8260C	6-10-19	6-10-19	
1,1-Dichloroethene	ND	0.20	EPA 8260C	6-10-19	6-10-19	
Iodomethane	ND	1.5	EPA 8260C	6-10-19	6-10-19	
Methylene Chloride	ND	1.0	EPA 8260C	6-10-19	6-10-19	
(trans) 1,2-Dichloroethene	ND	0.20	EPA 8260C	6-10-19	6-10-19	
1,1-Dichloroethane	ND	0.20	EPA 8260C	6-10-19	6-10-19	
2,2-Dichloropropane	ND	0.20	EPA 8260C	6-10-19	6-10-19	
(cis) 1,2-Dichloroethene	ND	0.20	EPA 8260C	6-10-19	6-10-19	
Bromochloromethane	ND	0.20	EPA 8260C	6-10-19	6-10-19	
Chloroform	ND	0.20	EPA 8260C	6-10-19	6-10-19	
1,1,1-Trichloroethane	ND	0.20	EPA 8260C	6-10-19	6-10-19	
Carbon Tetrachloride	ND	0.20	EPA 8260C	6-10-19	6-10-19	
1,1-Dichloropropene	ND	0.20	EPA 8260C	6-10-19	6-10-19	
Benzene	ND	0.20	EPA 8260C	6-10-19	6-10-19	
1,2-Dichloroethane	ND	0.20	EPA 8260C	6-10-19	6-10-19	
Trichloroethene	ND	0.20	EPA 8260C	6-10-19	6-10-19	
1,2-Dichloropropane	ND	0.20	EPA 8260C	6-10-19	6-10-19	
Dibromomethane	ND	0.20	EPA 8260C	6-10-19	6-10-19	
Bromodichloromethane	ND	0.20	EPA 8260C	6-10-19	6-10-19	
2-Chloroethyl Vinyl Ether	ND	1.0	EPA 8260C	6-10-19	6-10-19	
(cis) 1,3-Dichloropropene	ND	0.20	EPA 8260C	6-10-19	6-10-19	
Toluene	ND	1.0	EPA 8260C	6-10-19	6-10-19	
(trans) 1,3-Dichloropropene	ND	0.20	EPA 8260C	6-10-19	6-10-19	



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**VOLATILE ORGANICS EPA 8260C**  
**METHOD BLANK QUALITY CONTROL**  
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Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Laboratory ID:	MB0610W1					
1,1,2-Trichloroethane	ND	0.20	EPA 8260C	6-10-19	6-10-19	
Tetrachloroethene	ND	0.20	EPA 8260C	6-10-19	6-10-19	
1,3-Dichloropropane	ND	0.20	EPA 8260C	6-10-19	6-10-19	
Dibromochloromethane	ND	0.20	EPA 8260C	6-10-19	6-10-19	
1,2-Dibromoethane	ND	0.20	EPA 8260C	6-10-19	6-10-19	
Chlorobenzene	ND	0.20	EPA 8260C	6-10-19	6-10-19	
1,1,1,2-Tetrachloroethane	ND	0.20	EPA 8260C	6-10-19	6-10-19	
Ethylbenzene	ND	0.20	EPA 8260C	6-10-19	6-10-19	
m,p-Xylene	ND	0.40	EPA 8260C	6-10-19	6-10-19	
o-Xylene	ND	0.20	EPA 8260C	6-10-19	6-10-19	
Bromoform	ND	1.0	EPA 8260C	6-10-19	6-10-19	
Bromobenzene	ND	0.20	EPA 8260C	6-10-19	6-10-19	
1,1,2,2-Tetrachloroethane	ND	0.20	EPA 8260C	6-10-19	6-10-19	
1,2,3-Trichloropropane	ND	0.20	EPA 8260C	6-10-19	6-10-19	
2-Chlorotoluene	ND	0.20	EPA 8260C	6-10-19	6-10-19	
4-Chlorotoluene	ND	0.20	EPA 8260C	6-10-19	6-10-19	
1,3-Dichlorobenzene	ND	0.20	EPA 8260C	6-10-19	6-10-19	
1,4-Dichlorobenzene	ND	0.20	EPA 8260C	6-10-19	6-10-19	
1,2-Dichlorobenzene	ND	0.20	EPA 8260C	6-10-19	6-10-19	
1,2-Dibromo-3-chloropropane	ND	1.0	EPA 8260C	6-10-19	6-10-19	
1,2,4-Trichlorobenzene	ND	0.20	EPA 8260C	6-10-19	6-10-19	
Hexachlorobutadiene	ND	1.0	EPA 8260C	6-10-19	6-10-19	
1,2,3-Trichlorobenzene	ND	0.20	EPA 8260C	6-10-19	6-10-19	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Dibromofluoromethane</i>	<i>109</i>	<i>75-127</i>				
<i>Toluene-d8</i>	<i>109</i>	<i>80-127</i>				
<i>4-Bromofluorobenzene</i>	<i>104</i>	<i>78-125</i>				



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**VOLATILE ORGANICS EPA 8260C  
 MS/MSD QUALITY CONTROL**

Matrix: Water  
 Units: ug/L

Analyte	Result		Spike Level		Source	Percent		Recovery	RPD		Flags
	MS	MSD	MS	MSD	Result	Recovery	Limits	RPD	Limit		
<b>MATRIX SPIKES</b>											
Laboratory ID:	06-081-05										
	MS	MSD	MS	MSD		MS	MSD				
1,1-Dichloroethene	<b>10.9</b>	<b>11.1</b>	10.0	10.0	ND	109	111	57-135	2	15	
Benzene	<b>10.5</b>	<b>10.3</b>	10.0	10.0	ND	105	103	73-131	2	16	
Trichloroethene	<b>12.1</b>	<b>12.4</b>	10.0	10.0	1.62	105	108	75-124	2	17	
Toluene	<b>10.2</b>	<b>10.5</b>	10.0	10.0	ND	102	105	84-123	3	19	
Chlorobenzene	<b>9.90</b>	<b>10.0</b>	10.0	10.0	ND	99	100	78-122	1	16	
<i>Surrogate:</i>											
Dibromofluoromethane						111	109	75-127			
Toluene-d8						104	105	80-127			
4-Bromofluorobenzene						101	103	78-125			





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**DISSOLVED GASES  
 RSK 175**

Matrix: Water  
 Units: ug/L (ppb)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>Client ID:</b>	<b>MW-44:W</b>					
Laboratory ID:	06-063-01					
Methane	<b>240</b>	50	RSK 175	6-13-19	6-13-19	
Ethane	<b>ND</b>	25	RSK 175	6-13-19	6-13-19	
Ethene	<b>ND</b>	25	RSK 175	6-13-19	6-13-19	

<b>Client ID:</b>	<b>MW-45:W</b>					
Laboratory ID:	06-063-02					
Methane	<b>110</b>	15	RSK 175	6-13-19	6-13-19	
Ethane	<b>ND</b>	7.5	RSK 175	6-13-19	6-13-19	
Ethene	<b>ND</b>	7.5	RSK 175	6-13-19	6-13-19	

<b>Client ID:</b>	<b>MW-20:W</b>					
Laboratory ID:	06-063-03					
Methane	<b>510</b>	100	RSK 175	6-13-19	6-13-19	
Ethane	<b>ND</b>	50	RSK 175	6-13-19	6-13-19	
Ethene	<b>ND</b>	50	RSK 175	6-13-19	6-13-19	

<b>Client ID:</b>	<b>S-MW-1:W</b>					
Laboratory ID:	06-063-04					
Methane	<b>ND</b>	1.0	RSK 175	6-13-19	6-13-19	
Ethane	<b>ND</b>	0.50	RSK 175	6-13-19	6-13-19	
Ethene	<b>ND</b>	0.50	RSK 175	6-13-19	6-13-19	

<b>Client ID:</b>	<b>S-MW-2:W</b>					
Laboratory ID:	06-063-05					
Methane	<b>33</b>	5.0	RSK 175	6-13-19	6-13-19	
Ethane	<b>ND</b>	2.5	RSK 175	6-13-19	6-13-19	
Ethene	<b>ND</b>	2.5	RSK 175	6-13-19	6-13-19	



Date of Report: June 14, 2019  
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**DISSOLVED GASES  
 RSK 175  
 QUALITY CONTROL**

Matrix: Water  
 Units: ug/L (ppb)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>METHOD BLANK</b>						
Laboratory ID:	MB0613W1					
Methane	ND	1.0	RSK 175	6-13-19	6-13-19	
Ethane	ND	0.50	RSK 175	6-13-19	6-13-19	
Ethene	ND	0.50	RSK 175	6-13-19	6-13-19	

Analyte	Result		Spike Level		Source Result	Percent Recovery		Recovery Limits	RPD	RPD Limit	Flags
<b>MATRIX SPIKES</b>											
Laboratory ID:	01-123-01										
	MS	MSD	MS	MSD		MS	MSD				
Methane	9.41	9.08	4.42	4.42	4.20	118	110	75-125	4	25	
Ethane	7.79	7.34	8.32	8.32	ND	94	88	75-125	6	25	
Ethene	5.79	6.37	7.77	7.77	ND	75	82	75-125	10	25	



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**AMMONIA (as Nitrogen)**  
**SM 4500-NH<sub>3</sub> D**

Matrix: Water  
 Units: mg NH<sub>3</sub>-N/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>Client ID:</b>	<b>MW-44:W</b>					
Laboratory ID:	06-063-01					
Ammonia	<b>0.49</b>	0.050	SM 4500-NH <sub>3</sub> D	6-11-19	6-11-19	
<b>Client ID:</b>	<b>MW-45:W</b>					
Laboratory ID:	06-063-02					
Ammonia	<b>0.36</b>	0.050	SM 4500-NH <sub>3</sub> D	6-11-19	6-11-19	
<b>Client ID:</b>	<b>MW-20:W</b>					
Laboratory ID:	06-063-03					
Ammonia	<b>0.75</b>	0.050	SM 4500-NH <sub>3</sub> D	6-11-19	6-11-19	
<b>Client ID:</b>	<b>S-MW-1:W</b>					
Laboratory ID:	06-063-04					
Ammonia	<b>ND</b>	0.050	SM 4500-NH <sub>3</sub> D	6-11-19	6-11-19	
<b>Client ID:</b>	<b>S-MW-2:W</b>					
Laboratory ID:	06-063-05					
Ammonia	<b>ND</b>	0.050	SM 4500-NH <sub>3</sub> D	6-11-19	6-11-19	



Date of Report: June 14, 2019  
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**AMMONIA (as Nitrogen)  
 SM 4500-NH<sub>3</sub> D  
 QUALITY CONTROL**

Matrix: Water  
 Units: mg NH<sub>3</sub>-N/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>METHOD BLANK</b>						
Laboratory ID:	MB0611W1					
Ammonia	<b>ND</b>	0.050	SM 4500-NH <sub>3</sub> D	6-11-19	6-11-19	

Analyte	Result	Spike Level	Source Result	Percent Recovery	Recovery Limits	RPD	RPD Limit	Flags
<b>DUPLICATE</b>								
Laboratory ID:	06-081-05							
	ORIG	DUP						
Ammonia	<b>0.0598</b>	<b>0.0588</b>	NA	NA	NA	2	12	

<b>MATRIX SPIKE</b>								
Laboratory ID:	06-081-05							
	MS	MS		MS				
Ammonia	<b>5.49</b>	5.00	0.0598	109	75-121	NA	NA	

<b>SPIKE BLANK</b>								
Laboratory ID:	SB0611W1							
	SB	SB		SB				
Ammonia	<b>4.77</b>	5.00	NA	95	85-110	NA	NA	



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**DISSOLVED IRON  
 EPA 6010D**

Matrix: Water  
 Units: ug/L (ppb)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>Client ID:</b>	<b>MW-44:W</b>					
Laboratory ID:	06-063-01					
Iron	<b>1700</b>	56	EPA 6010D	6-6-19	6-12-19	
<b>Client ID:</b>	<b>MW-45:W</b>					
Laboratory ID:	06-063-02					
Iron	<b>770</b>	56	EPA 6010D	6-6-19	6-12-19	
<b>Client ID:</b>	<b>MW-20:W</b>					
Laboratory ID:	06-063-03					
Iron	<b>950</b>	56	EPA 6010D	6-6-19	6-12-19	
<b>Client ID:</b>	<b>S-MW-1:W</b>					
Laboratory ID:	06-063-04					
Iron	<b>ND</b>	56	EPA 6010D	6-6-19	6-12-19	
<b>Client ID:</b>	<b>S-MW-2:W</b>					
Laboratory ID:	06-063-05					
Iron	<b>ND</b>	56	EPA 6010D	6-6-19	6-12-19	



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**DISSOLVED IRON  
 EPA 6010D  
 QUALITY CONTROL**

Matrix: Water  
 Units: ug/L (ppb)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>METHOD BLANK</b>						
Laboratory ID:	MB0606F1					
Iron	<b>ND</b>	56	EPA 6010D	6-6-19	6-12-19	

Analyte	Result	Spike Level	Source Result	Percent Recovery	Recovery Limits	RPD	RPD Limit	Flags
<b>DUPLICATE</b>								
Laboratory ID:	06-084-01							
	ORIG	DUP						
Iron	<b>253</b>	<b>231</b>	NA	NA	NA	9	20	

Analyte	Result	Spike Level	Source Result	Percent Recovery	Recovery Limits	RPD	RPD Limit	Flags
<b>MATRIX SPIKES</b>								
Laboratory ID:	06-084-01							
	MS	MSD	MS	MSD	MS	MSD		
Iron	<b>24500</b>	<b>21100</b>	22200	22200	253	<b>109 94</b>	75-125	15 20



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**CHLORIDE  
 SM 4500-Cl E**

Matrix: Water  
 Units: mg/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>Client ID:</b>	<b>MW-44:W</b>					
Laboratory ID:	06-063-01					
Chloride	<b>7.6</b>	2.0	SM 4500-Cl E	6-10-19	6-10-19	

<b>Client ID:</b>	<b>MW-45:W</b>					
Laboratory ID:	06-063-02					
Chloride	<b>38</b>	2.0	SM 4500-Cl E	6-10-19	6-10-19	

<b>Client ID:</b>	<b>MW-20:W</b>					
Laboratory ID:	06-063-03					
Chloride	<b>7.4</b>	2.0	SM 4500-Cl E	6-10-19	6-10-19	

<b>Client ID:</b>	<b>S-MW-1:W</b>					
Laboratory ID:	06-063-04					
Chloride	<b>4.6</b>	2.0	SM 4500-Cl E	6-10-19	6-10-19	

<b>Client ID:</b>	<b>S-MW-2:W</b>					
Laboratory ID:	06-063-05					
Chloride	<b>6.6</b>	2.0	SM 4500-Cl E	6-10-19	6-10-19	



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**CHLORIDE  
 SM 4500-Cl E  
 QUALITY CONTROL**

Matrix: Water  
 Units: mg/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>METHOD BLANK</b>						
Laboratory ID:	MB0610W1					
Chloride	<b>ND</b>	2.0	SM 4500-Cl E	6-10-19	6-10-19	

Analyte	Result	Spike Level	Source Result	Percent Recovery	Recovery Limits	RPD	RPD Limit	Flags
<b>DUPLICATE</b>								
Laboratory ID:	06-081-05							
	ORIG	DUP						
Chloride	<b>3.49</b>	<b>3.41</b>	NA	NA	NA	2	17	

<b>MATRIX SPIKE</b>								
Laboratory ID:	06-081-05							
	MS	MS		MS				
Chloride	<b>53.0</b>	50.0	3.49	99	80-116	NA	NA	

<b>SPIKE BLANK</b>								
Laboratory ID:	SB0610W1							
	SB	SB		SB				
Chloride	<b>49.2</b>	50.0	NA	98	90-110	NA	NA	





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**SULFATE**  
**ASTM D516-11**

Matrix: Water  
 Units: mg/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>Client ID:</b>	<b>MW-44:W</b>					
Laboratory ID:	06-063-01					
Sulfate	<b>ND</b>	5.0	ASTM D516-11	6-12-19	6-12-19	

<b>Client ID:</b>	<b>MW-45:W</b>					
Laboratory ID:	06-063-02					
Sulfate	<b>ND</b>	5.0	ASTM D516-11	6-12-19	6-12-19	

<b>Client ID:</b>	<b>MW-20:W</b>					
Laboratory ID:	06-063-03					
Sulfate	<b>ND</b>	5.0	ASTM D516-11	6-12-19	6-12-19	

<b>Client ID:</b>	<b>S-MW-1:W</b>					
Laboratory ID:	06-063-04					
Sulfate	<b>50</b>	20	ASTM D516-11	6-12-19	6-12-19	

<b>Client ID:</b>	<b>S-MW-2:W</b>					
Laboratory ID:	06-063-05					
Sulfate	<b>35</b>	10	ASTM D516-11	6-12-19	6-12-19	



Date of Report: June 14, 2019  
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**SULFATE  
 ASTM D516-11  
 QUALITY CONTROL**

Matrix: Water  
 Units: mg/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>METHOD BLANK</b>						
Laboratory ID:	MB0612W1					
Sulfate	<b>ND</b>	5.0	ASTM D516-11	6-12-19	6-12-19	

Analyte	Result	Spike Level	Source Result	Percent Recovery	Recovery Limits	RPD	RPD Limit	Flags
<b>DUPLICATE</b>								
Laboratory ID:	06-081-05							
	ORIG	DUP						
Sulfate	<b>17.6</b>	<b>19.2</b>	NA	NA	NA	9	10	

<b>MATRIX SPIKE</b>								
Laboratory ID:	06-081-05							
	MS	MS		MS				
Sulfate	<b>39.3</b>	20.0	17.6	109	73-134	NA	NA	

<b>SPIKE BLANK</b>								
Laboratory ID:	SB0612W1							
	SB	SB		SB				
Sulfate	<b>9.34</b>	10.0	NA	93	89-113	NA	NA	



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**TOTAL ORGANIC CARBON  
 SM 5310B**

Matrix: Water  
 Units: mg/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>Client ID:</b>	<b>MW-44:W</b>					
Laboratory ID:	06-063-01					
Total Organic Carbon	<b>19</b>	1.0	SM 5310B	6-12-19	6-12-19	
<b>Client ID:</b>	<b>MW-45:W</b>					
Laboratory ID:	06-063-02					
Total Organic Carbon	<b>120</b>	2.0	SM 5310B	6-12-19	6-12-19	
<b>Client ID:</b>	<b>MW-20:W</b>					
Laboratory ID:	06-063-03					
Total Organic Carbon	<b>16</b>	1.0	SM 5310B	6-12-19	6-12-19	
<b>Client ID:</b>	<b>S-MW-1:W</b>					
Laboratory ID:	06-063-04					
Total Organic Carbon	<b>1.4</b>	1.0	SM 5310B	6-12-19	6-12-19	
<b>Client ID:</b>	<b>S-MW-2:W</b>					
Laboratory ID:	06-063-05					
Total Organic Carbon	<b>1.6</b>	1.0	SM 5310B	6-12-19	6-12-19	



Date of Report: June 14, 2019  
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**TOTAL ORGANIC CARBON  
 SM 5310B  
 QUALITY CONTROL**

Matrix: Water  
 Units: mg/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>METHOD BLANK</b>						
Laboratory ID:	MB0612W1					
Total Organic Carbon	<b>ND</b>	1.0	SM 5310B	6-12-19	6-12-19	

Analyte	Result	Spike Level	Source Result	Percent Recovery	Recovery Limits	RPD	RPD Limit	Flags
<b>DUPLICATE</b>								
Laboratory ID:	06-081-05							
	ORIG	DUP						
Total Organic Carbon	<b>1.02</b>	<b>1.04</b>	NA	NA	NA	NA	2	20

**MATRIX SPIKE**

Laboratory ID:	06-081-05							
	MS	MS		MS				
Total Organic Carbon	<b>11.7</b>		10.0	1.02	107	85-131	NA	NA

**SPIKE BLANK**

Laboratory ID:	SB0612W1							
	SB	SB		SB				
Total Organic Carbon	<b>10.0</b>		10.0	NA	100	88-127	NA	NA





### Data Qualifiers and Abbreviations

- A - Due to a high sample concentration, the amount spiked is insufficient for meaningful MS/MSD recovery data.
  - B - The analyte indicated was also found in the blank sample.
  - C - The duplicate RPD is outside control limits due to high result variability when analyte concentrations are within five times the quantitation limit.
  - E - The value reported exceeds the quantitation range and is an estimate.
  - F - Surrogate recovery data is not available due to the high concentration of coeluting target compounds.
  - H - The analyte indicated is a common laboratory solvent and may have been introduced during sample preparation, and be impacting the sample result.
  - I - Compound recovery is outside of the control limits.
  - J - The value reported was below the practical quantitation limit. The value is an estimate.
  - K - Sample duplicate RPD is outside control limits due to sample inhomogeneity. The sample was re-extracted and re-analyzed with similar results.
  - L - The RPD is outside of the control limits.
  - M - Hydrocarbons in the gasoline range are impacting the diesel range result.
  - M1 - Hydrocarbons in the gasoline range (toluene-naphthalene) are present in the sample.
  - N - Hydrocarbons in the lube oil range are impacting the diesel range result.
  - N1 - Hydrocarbons in diesel range are impacting lube oil range results.
  - O - Hydrocarbons indicative of heavier fuels are present in the sample and are impacting the gasoline result.
  - P - The RPD of the detected concentrations between the two columns is greater than 40.
  - Q - Surrogate recovery is outside of the control limits.
  - S - Surrogate recovery data is not available due to the necessary dilution of the sample.
  - T - The sample chromatogram is not similar to a typical \_\_\_\_\_.
  - U - The analyte was analyzed for, but was not detected above the reported sample quantitation limit.
  - U1 - The practical quantitation limit is elevated due to interferences present in the sample.
  - V - Matrix Spike/Matrix Spike Duplicate recoveries are outside control limits due to matrix effects.
  - W - Matrix Spike/Matrix Spike Duplicate RPD are outside control limits due to matrix effects.
  - X - Sample extract treated with a mercury cleanup procedure.
  - X1 - Sample extract treated with a sulfuric acid/silica gel cleanup procedure.
  - Y - The calibration verification for this analyte exceeded the 20% drift specified in methods 8260 & 8270, and therefore the reported result should be considered an estimate. The overall performance of the calibration verification standard met the acceptance criteria of the method.
  - Z -
- ND - Not Detected at PQL  
 PQL - Practical Quantitation Limit  
 RPD - Relative Percent Difference







14648 NE 95<sup>th</sup> Street, Redmond, WA 98052 • (425) 883-3881

June 17, 2019

Jeff Jensen  
Kane Environmental, Inc.  
4015 13th Avenue West  
Seattle, WA 98119

Re: Analytical Data for Project 82302-9.4  
Laboratory Reference No. 1906-080

Dear Jeff:

Enclosed are the analytical results and associated quality control data for samples submitted on June 7, 2019.

The standard policy of OnSite Environmental, Inc. is to store your samples for 30 days from the date of receipt. If you require longer storage, please contact the laboratory.

We appreciate the opportunity to be of service to you on this project. If you have any questions concerning the data, or need additional information, please feel free to call me.

Sincerely,

A handwritten signature in black ink, appearing to read "DB", with a long horizontal flourish extending to the right.

David Baumeister  
Project Manager

Enclosures



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OnSite Environmental, Inc. 14648 NE 95<sup>th</sup> Street, Redmond, WA 98052 (425) 883-3881

This report pertains to the samples analyzed in accordance with the chain of custody, and is intended only for the use of the individual or company to whom it is addressed.

Date of Report: June 17, 2019  
Samples Submitted: June 7, 2019  
Laboratory Reference: 1906-080  
Project: 82302-9.4

### Case Narrative

Samples were collected on June 7, 2019 and received by the laboratory on June 7, 2019. They were maintained at the laboratory at a temperature of 2°C to 6°C.

Please note that any and all soil sample results are reported on a dry-weight basis, unless otherwise noted below.

General QA/QC issues associated with the analytical data enclosed in this laboratory report will be indicated with a reference to a comment or explanation on the Data Qualifier page. More complex and involved QA/QC issues will be discussed in detail below.





Date of Report: June 17, 2019  
 Samples Submitted: June 7, 2019  
 Laboratory Reference: 1906-080  
 Project: 82302-9.4

**VOLATILE ORGANICS EPA 8260C**  
 page 1 of 2

Matrix: Water  
 Units: ug/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>Client ID:</b>	<b>S-MW-6:W</b>					
Laboratory ID:	06-080-01					
Dichlorodifluoromethane	ND	0.20	EPA 8260C	6-10-19	6-10-19	
Chloromethane	ND	1.0	EPA 8260C	6-10-19	6-10-19	
Vinyl Chloride	ND	0.20	EPA 8260C	6-10-19	6-10-19	
Bromomethane	ND	0.20	EPA 8260C	6-10-19	6-10-19	
Chloroethane	ND	1.0	EPA 8260C	6-10-19	6-10-19	
Trichlorofluoromethane	ND	0.20	EPA 8260C	6-10-19	6-10-19	
1,1-Dichloroethene	ND	0.20	EPA 8260C	6-10-19	6-10-19	
Iodomethane	ND	1.5	EPA 8260C	6-10-19	6-10-19	
Methylene Chloride	ND	1.0	EPA 8260C	6-10-19	6-10-19	
(trans) 1,2-Dichloroethene	ND	0.20	EPA 8260C	6-10-19	6-10-19	
1,1-Dichloroethane	ND	0.20	EPA 8260C	6-10-19	6-10-19	
2,2-Dichloropropane	ND	0.20	EPA 8260C	6-10-19	6-10-19	
(cis) 1,2-Dichloroethene	ND	0.20	EPA 8260C	6-10-19	6-10-19	
Bromochloromethane	ND	0.20	EPA 8260C	6-10-19	6-10-19	
Chloroform	11	0.20	EPA 8260C	6-10-19	6-10-19	
1,1,1-Trichloroethane	ND	0.20	EPA 8260C	6-10-19	6-10-19	
Carbon Tetrachloride	ND	0.20	EPA 8260C	6-10-19	6-10-19	
1,1-Dichloropropene	ND	0.20	EPA 8260C	6-10-19	6-10-19	
1,2-Dichloroethane	ND	0.20	EPA 8260C	6-10-19	6-10-19	
Trichloroethene	ND	0.20	EPA 8260C	6-10-19	6-10-19	
1,2-Dichloropropane	ND	0.20	EPA 8260C	6-10-19	6-10-19	
Dibromomethane	ND	0.20	EPA 8260C	6-10-19	6-10-19	
Bromodichloromethane	0.61	0.20	EPA 8260C	6-10-19	6-10-19	
2-Chloroethyl Vinyl Ether	ND	1.0	EPA 8260C	6-10-19	6-10-19	
(cis) 1,3-Dichloropropene	ND	0.20	EPA 8260C	6-10-19	6-10-19	
(trans) 1,3-Dichloropropene	ND	0.20	EPA 8260C	6-10-19	6-10-19	



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**VOLATILE ORGANICS EPA 8260C**  
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Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>Client ID:</b>	<b>S-MW-6:W</b>					
Laboratory ID:	06-080-01					
1,1,2-Trichloroethane	ND	0.20	EPA 8260C	6-10-19	6-10-19	
Tetrachloroethene	ND	0.20	EPA 8260C	6-10-19	6-10-19	
1,3-Dichloropropane	ND	0.20	EPA 8260C	6-10-19	6-10-19	
Dibromochloromethane	ND	0.20	EPA 8260C	6-10-19	6-10-19	
1,2-Dibromoethane	ND	0.20	EPA 8260C	6-10-19	6-10-19	
Chlorobenzene	ND	0.20	EPA 8260C	6-10-19	6-10-19	
1,1,1,2-Tetrachloroethane	ND	0.20	EPA 8260C	6-10-19	6-10-19	
Bromoform	ND	1.0	EPA 8260C	6-10-19	6-10-19	
Bromobenzene	ND	0.20	EPA 8260C	6-10-19	6-10-19	
1,1,2,2-Tetrachloroethane	ND	0.20	EPA 8260C	6-10-19	6-10-19	
1,2,3-Trichloropropane	ND	0.20	EPA 8260C	6-10-19	6-10-19	
2-Chlorotoluene	ND	0.20	EPA 8260C	6-10-19	6-10-19	
4-Chlorotoluene	ND	0.20	EPA 8260C	6-10-19	6-10-19	
1,3-Dichlorobenzene	ND	0.20	EPA 8260C	6-10-19	6-10-19	
1,4-Dichlorobenzene	ND	0.20	EPA 8260C	6-10-19	6-10-19	
1,2-Dichlorobenzene	ND	0.20	EPA 8260C	6-10-19	6-10-19	
1,2-Dibromo-3-chloropropane	ND	1.0	EPA 8260C	6-10-19	6-10-19	
1,2,4-Trichlorobenzene	ND	0.20	EPA 8260C	6-10-19	6-10-19	
Hexachlorobutadiene	ND	1.0	EPA 8260C	6-10-19	6-10-19	
1,2,3-Trichlorobenzene	ND	0.20	EPA 8260C	6-10-19	6-10-19	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Dibromofluoromethane</i>	<i>111</i>	<i>75-127</i>				
<i>Toluene-d8</i>	<i>102</i>	<i>80-127</i>				
<i>4-Bromofluorobenzene</i>	<i>101</i>	<i>78-125</i>				



Date of Report: June 17, 2019  
 Samples Submitted: June 7, 2019  
 Laboratory Reference: 1906-080  
 Project: 82302-9.4

**VOLATILE ORGANICS EPA 8260C**  
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Matrix: Water  
 Units: ug/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>Client ID:</b>	<b>MW-41:W</b>					
Laboratory ID:	06-080-02					
Dichlorodifluoromethane	ND	0.20	EPA 8260C	6-10-19	6-10-19	
Chloromethane	ND	1.0	EPA 8260C	6-10-19	6-10-19	
Vinyl Chloride	ND	0.20	EPA 8260C	6-10-19	6-10-19	
Bromomethane	ND	0.20	EPA 8260C	6-10-19	6-10-19	
Chloroethane	ND	1.0	EPA 8260C	6-10-19	6-10-19	
Trichlorofluoromethane	ND	0.20	EPA 8260C	6-10-19	6-10-19	
1,1-Dichloroethene	ND	0.20	EPA 8260C	6-10-19	6-10-19	
Iodomethane	ND	1.5	EPA 8260C	6-10-19	6-10-19	
Methylene Chloride	ND	1.0	EPA 8260C	6-10-19	6-10-19	
(trans) 1,2-Dichloroethene	ND	0.20	EPA 8260C	6-10-19	6-10-19	
1,1-Dichloroethane	ND	0.20	EPA 8260C	6-10-19	6-10-19	
2,2-Dichloropropane	ND	0.20	EPA 8260C	6-10-19	6-10-19	
(cis) 1,2-Dichloroethene	ND	0.20	EPA 8260C	6-10-19	6-10-19	
Bromochloromethane	ND	0.20	EPA 8260C	6-10-19	6-10-19	
Chloroform	ND	0.20	EPA 8260C	6-10-19	6-10-19	
1,1,1-Trichloroethane	ND	0.20	EPA 8260C	6-10-19	6-10-19	
Carbon Tetrachloride	ND	0.20	EPA 8260C	6-10-19	6-10-19	
1,1-Dichloropropene	ND	0.20	EPA 8260C	6-10-19	6-10-19	
1,2-Dichloroethane	ND	0.20	EPA 8260C	6-10-19	6-10-19	
Trichloroethene	ND	0.20	EPA 8260C	6-10-19	6-10-19	
1,2-Dichloropropane	ND	0.20	EPA 8260C	6-10-19	6-10-19	
Dibromomethane	ND	0.20	EPA 8260C	6-10-19	6-10-19	
Bromodichloromethane	ND	0.20	EPA 8260C	6-10-19	6-10-19	
2-Chloroethyl Vinyl Ether	ND	1.0	EPA 8260C	6-10-19	6-10-19	
(cis) 1,3-Dichloropropene	ND	0.20	EPA 8260C	6-10-19	6-10-19	
(trans) 1,3-Dichloropropene	ND	0.20	EPA 8260C	6-10-19	6-10-19	



Date of Report: June 17, 2019  
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**VOLATILE ORGANICS EPA 8260C**  
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Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>Client ID:</b>	<b>MW-41:W</b>					
Laboratory ID:	06-080-02					
1,1,2-Trichloroethane	ND	0.20	EPA 8260C	6-10-19	6-10-19	
Tetrachloroethene	1.3	0.20	EPA 8260C	6-10-19	6-10-19	
1,3-Dichloropropane	ND	0.20	EPA 8260C	6-10-19	6-10-19	
Dibromochloromethane	ND	0.20	EPA 8260C	6-10-19	6-10-19	
1,2-Dibromoethane	ND	0.20	EPA 8260C	6-10-19	6-10-19	
Chlorobenzene	ND	0.20	EPA 8260C	6-10-19	6-10-19	
1,1,1,2-Tetrachloroethane	ND	0.20	EPA 8260C	6-10-19	6-10-19	
Bromoform	ND	1.0	EPA 8260C	6-10-19	6-10-19	
Bromobenzene	ND	0.20	EPA 8260C	6-10-19	6-10-19	
1,1,2,2-Tetrachloroethane	ND	0.20	EPA 8260C	6-10-19	6-10-19	
1,2,3-Trichloropropane	ND	0.20	EPA 8260C	6-10-19	6-10-19	
2-Chlorotoluene	ND	0.20	EPA 8260C	6-10-19	6-10-19	
4-Chlorotoluene	ND	0.20	EPA 8260C	6-10-19	6-10-19	
1,3-Dichlorobenzene	ND	0.20	EPA 8260C	6-10-19	6-10-19	
1,4-Dichlorobenzene	ND	0.20	EPA 8260C	6-10-19	6-10-19	
1,2-Dichlorobenzene	ND	0.20	EPA 8260C	6-10-19	6-10-19	
1,2-Dibromo-3-chloropropane	ND	1.0	EPA 8260C	6-10-19	6-10-19	
1,2,4-Trichlorobenzene	ND	0.20	EPA 8260C	6-10-19	6-10-19	
Hexachlorobutadiene	ND	1.0	EPA 8260C	6-10-19	6-10-19	
1,2,3-Trichlorobenzene	ND	0.20	EPA 8260C	6-10-19	6-10-19	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Dibromofluoromethane</i>	<i>110</i>	<i>75-127</i>				
<i>Toluene-d8</i>	<i>102</i>	<i>80-127</i>				
<i>4-Bromofluorobenzene</i>	<i>100</i>	<i>78-125</i>				



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**VOLATILE ORGANICS EPA 8260C**  
**METHOD BLANK QUALITY CONTROL**  
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Matrix: Water  
 Units: ug/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Laboratory ID:	MB0610W1					
Dichlorodifluoromethane	ND	0.20	EPA 8260C	6-10-19	6-10-19	
Chloromethane	ND	1.0	EPA 8260C	6-10-19	6-10-19	
Vinyl Chloride	ND	0.20	EPA 8260C	6-10-19	6-10-19	
Bromomethane	ND	0.20	EPA 8260C	6-10-19	6-10-19	
Chloroethane	ND	1.0	EPA 8260C	6-10-19	6-10-19	
Trichlorofluoromethane	ND	0.20	EPA 8260C	6-10-19	6-10-19	
1,1-Dichloroethene	ND	0.20	EPA 8260C	6-10-19	6-10-19	
Iodomethane	ND	1.5	EPA 8260C	6-10-19	6-10-19	
Methylene Chloride	ND	1.0	EPA 8260C	6-10-19	6-10-19	
(trans) 1,2-Dichloroethene	ND	0.20	EPA 8260C	6-10-19	6-10-19	
1,1-Dichloroethane	ND	0.20	EPA 8260C	6-10-19	6-10-19	
2,2-Dichloropropane	ND	0.20	EPA 8260C	6-10-19	6-10-19	
(cis) 1,2-Dichloroethene	ND	0.20	EPA 8260C	6-10-19	6-10-19	
Bromochloromethane	ND	0.20	EPA 8260C	6-10-19	6-10-19	
Chloroform	ND	0.20	EPA 8260C	6-10-19	6-10-19	
1,1,1-Trichloroethane	ND	0.20	EPA 8260C	6-10-19	6-10-19	
Carbon Tetrachloride	ND	0.20	EPA 8260C	6-10-19	6-10-19	
1,1-Dichloropropene	ND	0.20	EPA 8260C	6-10-19	6-10-19	
1,2-Dichloroethane	ND	0.20	EPA 8260C	6-10-19	6-10-19	
Trichloroethene	ND	0.20	EPA 8260C	6-10-19	6-10-19	
1,2-Dichloropropane	ND	0.20	EPA 8260C	6-10-19	6-10-19	
Dibromomethane	ND	0.20	EPA 8260C	6-10-19	6-10-19	
Bromodichloromethane	ND	0.20	EPA 8260C	6-10-19	6-10-19	
2-Chloroethyl Vinyl Ether	ND	1.0	EPA 8260C	6-10-19	6-10-19	
(cis) 1,3-Dichloropropene	ND	0.20	EPA 8260C	6-10-19	6-10-19	
(trans) 1,3-Dichloropropene	ND	0.20	EPA 8260C	6-10-19	6-10-19	



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**VOLATILE ORGANICS EPA 8260C**  
**METHOD BLANK QUALITY CONTROL**  
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Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Laboratory ID:	MB0610W1					
1,1,2-Trichloroethane	ND	0.20	EPA 8260C	6-10-19	6-10-19	
Tetrachloroethene	ND	0.20	EPA 8260C	6-10-19	6-10-19	
1,3-Dichloropropane	ND	0.20	EPA 8260C	6-10-19	6-10-19	
Dibromochloromethane	ND	0.20	EPA 8260C	6-10-19	6-10-19	
1,2-Dibromoethane	ND	0.20	EPA 8260C	6-10-19	6-10-19	
Chlorobenzene	ND	0.20	EPA 8260C	6-10-19	6-10-19	
1,1,1,2-Tetrachloroethane	ND	0.20	EPA 8260C	6-10-19	6-10-19	
Bromoform	ND	1.0	EPA 8260C	6-10-19	6-10-19	
Bromobenzene	ND	0.20	EPA 8260C	6-10-19	6-10-19	
1,1,2,2-Tetrachloroethane	ND	0.20	EPA 8260C	6-10-19	6-10-19	
1,2,3-Trichloropropane	ND	0.20	EPA 8260C	6-10-19	6-10-19	
2-Chlorotoluene	ND	0.20	EPA 8260C	6-10-19	6-10-19	
4-Chlorotoluene	ND	0.20	EPA 8260C	6-10-19	6-10-19	
1,3-Dichlorobenzene	ND	0.20	EPA 8260C	6-10-19	6-10-19	
1,4-Dichlorobenzene	ND	0.20	EPA 8260C	6-10-19	6-10-19	
1,2-Dichlorobenzene	ND	0.20	EPA 8260C	6-10-19	6-10-19	
1,2-Dibromo-3-chloropropane	ND	1.0	EPA 8260C	6-10-19	6-10-19	
1,2,4-Trichlorobenzene	ND	0.20	EPA 8260C	6-10-19	6-10-19	
Hexachlorobutadiene	ND	1.0	EPA 8260C	6-10-19	6-10-19	
1,2,3-Trichlorobenzene	ND	0.20	EPA 8260C	6-10-19	6-10-19	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Dibromofluoromethane</i>	<i>109</i>	<i>75-127</i>				
<i>Toluene-d8</i>	<i>109</i>	<i>80-127</i>				
<i>4-Bromofluorobenzene</i>	<i>104</i>	<i>78-125</i>				



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**VOLATILE ORGANICS EPA 8260C  
 MS/MSD QUALITY CONTROL**

Matrix: Water  
 Units: ug/L

Analyte	Result		Spike Level		Source	Percent		Recovery	RPD	RPD	Flags
	MS	MSD	MS	MSD	Result	Recovery	Limits	RPD	Limit		
<b>MATRIX SPIKES</b>											
Laboratory ID:	06-081-05										
	MS	MSD	MS	MSD		MS	MSD				
1,1-Dichloroethene	<b>10.9</b>	<b>11.1</b>	10.0	10.0	ND	109	111	57-135	2	15	
Benzene	<b>10.5</b>	<b>10.3</b>	10.0	10.0	ND	105	103	73-131	2	16	
Trichloroethene	<b>12.1</b>	<b>12.4</b>	10.0	10.0	1.62	105	108	75-124	2	17	
Toluene	<b>10.2</b>	<b>10.5</b>	10.0	10.0	ND	102	105	84-123	3	19	
Chlorobenzene	<b>9.90</b>	<b>10.0</b>	10.0	10.0	ND	99	100	78-122	1	16	
<i>Surrogate:</i>											
Dibromofluoromethane						111	109	75-127			
Toluene-d8						104	105	80-127			
4-Bromofluorobenzene						101	103	78-125			



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**DISSOLVED GASES  
 RSK 175**

Matrix: Water  
 Units: ug/L (ppb)

<b>Analyte</b>	<b>Result</b>	<b>PQL</b>	<b>Method</b>	<b>Date Prepared</b>	<b>Date Analyzed</b>	<b>Flags</b>
<b>Client ID:</b>	<b>S-MW-6:W</b>					
Laboratory ID:	06-080-01					
Methane	<b>1.6</b>	1.0	RSK 175	6-13-19	6-13-19	
Ethane	<b>ND</b>	0.50	RSK 175	6-13-19	6-13-19	
Ethene	<b>ND</b>	0.50	RSK 175	6-13-19	6-13-19	

<b>Client ID:</b>	<b>MW-41:W</b>					
Laboratory ID:	06-080-02					
Methane	<b>ND</b>	1.0	RSK 175	6-13-19	6-13-19	
Ethane	<b>ND</b>	0.50	RSK 175	6-13-19	6-13-19	
Ethene	<b>ND</b>	0.50	RSK 175	6-13-19	6-13-19	





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**DISSOLVED GASES  
 RSK 175  
 QUALITY CONTROL**

Matrix: Water  
 Units: ug/L (ppb)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>METHOD BLANK</b>						
Laboratory ID:	MB0613W1					
Methane	ND	1.0	RSK 175	6-13-19	6-13-19	
Ethane	ND	0.50	RSK 175	6-13-19	6-13-19	
Ethene	ND	0.50	RSK 175	6-13-19	6-13-19	

Analyte	Result		Spike Level		Source Result	Percent Recovery		Recovery Limits	RPD	RPD Limit	Flags
<b>MATRIX SPIKES</b>											
Laboratory ID:	01-123-01										
	MS	MSD	MS	MSD		MS	MSD				
Methane	9.41	9.08	4.42	4.42	4.20	118	110	75-125	4	25	
Ethane	7.79	7.34	8.32	8.32	ND	94	88	75-125	6	25	
Ethene	5.79	6.37	7.77	7.77	ND	75	82	75-125	10	25	



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**AMMONIA (as Nitrogen)**  
**SM 4500-NH<sub>3</sub> D**

Matrix: Water  
Units: mg NH<sub>3</sub>-N/L

<b>Analyte</b>	<b>Result</b>	<b>PQL</b>	<b>Method</b>	<b>Date Prepared</b>	<b>Date Analyzed</b>	<b>Flags</b>
<b>Client ID:</b>	<b>S-MW-6:W</b>					
Laboratory ID:	06-080-01					
Ammonia	<b>ND</b>	0.050	SM 4500-NH <sub>3</sub> D	6-11-19	6-11-19	

<b>Client ID:</b>	<b>MW-41:W</b>					
Laboratory ID:	06-080-02					
Ammonia	<b>ND</b>	0.050	SM 4500-NH <sub>3</sub> D	6-11-19	6-11-19	



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**AMMONIA (as Nitrogen)  
 SM 4500-NH<sub>3</sub> D  
 QUALITY CONTROL**

Matrix: Water  
 Units: mg NH<sub>3</sub>-N/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>METHOD BLANK</b>						
Laboratory ID:	MB0611W1					
Ammonia	<b>ND</b>	0.050	SM 4500-NH <sub>3</sub> D	6-11-19	6-11-19	

Analyte	Result	Spike Level	Source Result	Percent Recovery	Recovery Limits	RPD	RPD Limit	Flags
<b>DUPLICATE</b>								
Laboratory ID:	06-081-05							
	ORIG	DUP						
Ammonia	<b>0.0598</b>	<b>0.0588</b>	NA	NA	NA	2	12	

<b>MATRIX SPIKE</b>								
Laboratory ID:	06-081-05							
	MS	MS		MS				
Ammonia	<b>5.49</b>	5.00	0.0598	109	75-121	NA	NA	

<b>SPIKE BLANK</b>								
Laboratory ID:	SB0611W1							
	SB	SB		SB				
Ammonia	<b>4.77</b>	5.00	NA	95	85-110	NA	NA	



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**DISSOLVED IRON**  
**EPA 200.8**

Matrix: Water  
 Units: ug/L (ppb)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>Client ID:</b>	<b>S-MW-6:W</b>					
Laboratory ID:	06-080-01					
Iron	<b>ND</b>	56	EPA 6010D	6-6-12	6-12-19	

<b>Client ID:</b>	<b>MW-41:W</b>					
Laboratory ID:	06-080-02					
Iron	<b>ND</b>	56	EPA 6010D	6-6-12	6-12-19	



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**DISSOLVED IRON  
 EPA 200.8  
 QUALITY CONTROL**

Matrix: Water  
 Units: ug/L (ppb)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>METHOD BLANK</b>						
Laboratory ID:	MB0606F1					
Iron	<b>ND</b>	56	EPA 6010D	6-6-19	6-12-19	

Analyte	Result	Spike Level	Source Result	Percent Recovery	Recovery Limits	RPD	RPD Limit	Flags
<b>DUPLICATE</b>								
Laboratory ID:	06-081-05							
	ORIG	DUP						
Iron	<b>ND</b>	<b>ND</b>	NA	NA	NA	NA	20	

**MATRIX SPIKES**

Laboratory ID:	06-081-05									
	MS	MSD	MS	MSD		MS	MSD			
Iron	<b>22700</b>	<b>22500</b>	22200	22200	ND	<b>102</b>	<b>101</b>	75-125	1	20



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**CHLORIDE**  
**SM 4500-Cl E**

Matrix: Water  
Units: mg/L

<b>Analyte</b>	<b>Result</b>	<b>PQL</b>	<b>Method</b>	<b>Date Prepared</b>	<b>Date Analyzed</b>	<b>Flags</b>
<b>Client ID:</b>	<b>S-MW-6:W</b>					
Laboratory ID:	06-080-01					
Chloride	<b>7.3</b>	2.0	SM 4500-Cl E	6-10-19	6-10-19	

<b>Client ID:</b>	<b>MW-41:W</b>					
Laboratory ID:	06-080-02					
Chloride	<b>4.5</b>	2.0	SM 4500-Cl E	6-10-19	6-10-19	



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**CHLORIDE  
 SM 4500-Cl E  
 QUALITY CONTROL**

Matrix: Water  
 Units: mg/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>METHOD BLANK</b>						
Laboratory ID:	MB0610W1					
Chloride	<b>ND</b>	2.0	SM 4500-Cl E	6-10-19	6-10-19	

Analyte	Result	Spike Level	Source Result	Percent Recovery	Recovery Limits	RPD	RPD Limit	Flags
<b>DUPLICATE</b>								
Laboratory ID:	06-081-05							
	ORIG	DUP						
Chloride	<b>3.49</b>	<b>3.41</b>	NA	NA	NA	2	17	

<b>MATRIX SPIKE</b>								
Laboratory ID:	06-081-05							
	MS	MS		MS				
Chloride	<b>53.0</b>	50.0	3.49	99	80-116	NA	NA	

<b>SPIKE BLANK</b>								
Laboratory ID:	SB0610W1							
	SB	SB		SB				
Chloride	<b>49.2</b>	50.0	NA	98	90-110	NA	NA	



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**SULFATE**  
**ASTM D516-11**

Matrix: Water  
Units: mg/L

<b>Analyte</b>	<b>Result</b>	<b>PQL</b>	<b>Method</b>	<b>Date Prepared</b>	<b>Date Analyzed</b>	<b>Flags</b>
<b>Client ID:</b>	<b>S-MW-6:W</b>					
Laboratory ID:	06-080-01					
Sulfate	<b>29</b>	20	ASTM D516-11	6-12-19	6-12-19	

<b>Client ID:</b>	<b>MW-41:W</b>					
Laboratory ID:	06-080-02					
Sulfate	<b>6.6</b>	5.0	ASTM D516-11	6-12-19	6-12-19	





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**SULFATE  
 ASTM D516-11  
 QUALITY CONTROL**

Matrix: Water  
 Units: mg/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>METHOD BLANK</b>						
Laboratory ID:	MB0612W1					
Sulfate	<b>ND</b>	5.0	ASTM D516-11	6-12-19	6-12-19	

Analyte	Result	Spike Level	Source Result	Percent Recovery	Recovery Limits	RPD	RPD Limit	Flags
<b>DUPLICATE</b>								
Laboratory ID:	06-081-05							
	ORIG	DUP						
Sulfate	<b>17.6</b>	<b>19.2</b>	NA	NA	NA	9	10	

<b>MATRIX SPIKE</b>								
Laboratory ID:	06-081-05							
	MS	MS		MS				
Sulfate	<b>39.3</b>	20.0	17.6	109	73-134	NA	NA	

<b>SPIKE BLANK</b>								
Laboratory ID:	SB0612W1							
	SB	SB		SB				
Sulfate	<b>9.34</b>	10.0	NA	93	89-113	NA	NA	



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**TOTAL ORGANIC CARBON  
 SM 5310B**

Matrix: Water  
 Units: mg/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>Client ID:</b>	<b>S-MW-6:W</b>					
Laboratory ID:	06-080-01					
Total Organic Carbon	<b>ND</b>	1.0	SM 5310B	6-12-19	6-12-19	
<b>Client ID:</b>	<b>MW-41:W</b>					
Laboratory ID:	06-080-02					
Total Organic Carbon	<b>ND</b>	1.0	SM 5310B	6-12-19	6-12-19	



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**TOTAL ORGANIC CARBON  
 SM 5310B  
 QUALITY CONTROL**

Matrix: Water  
 Units: mg/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>METHOD BLANK</b>						
Laboratory ID:	MB0612W1					
Total Organic Carbon	<b>ND</b>	1.0	SM 5310B	6-12-19	6-12-19	

Analyte	Result	Spike Level	Source Result	Percent Recovery	Recovery Limits	RPD	RPD Limit	Flags
<b>DUPLICATE</b>								
Laboratory ID:	06-081-05							
	ORIG	DUP						
Total Organic Carbon	<b>1.02</b>	<b>1.04</b>	NA	NA	NA	NA	2	20

**MATRIX SPIKE**

Laboratory ID:	06-081-05							
	MS	MS		MS				
Total Organic Carbon	<b>11.7</b>		10.0	1.02	107	85-131	NA	NA

**SPIKE BLANK**

Laboratory ID:	SB0612W1							
	SB	SB		SB				
Total Organic Carbon	<b>10.0</b>		10.0	NA	100	88-127	NA	NA





### Data Qualifiers and Abbreviations

- A - Due to a high sample concentration, the amount spiked is insufficient for meaningful MS/MSD recovery data.
  - B - The analyte indicated was also found in the blank sample.
  - C - The duplicate RPD is outside control limits due to high result variability when analyte concentrations are within five times the quantitation limit.
  - E - The value reported exceeds the quantitation range and is an estimate.
  - F - Surrogate recovery data is not available due to the high concentration of coeluting target compounds.
  - H - The analyte indicated is a common laboratory solvent and may have been introduced during sample preparation, and be impacting the sample result.
  - I - Compound recovery is outside of the control limits.
  - J - The value reported was below the practical quantitation limit. The value is an estimate.
  - K - Sample duplicate RPD is outside control limits due to sample inhomogeneity. The sample was re-extracted and re-analyzed with similar results.
  - L - The RPD is outside of the control limits.
  - M - Hydrocarbons in the gasoline range are impacting the diesel range result.
  - M1 - Hydrocarbons in the gasoline range (toluene-naphthalene) are present in the sample.
  - N - Hydrocarbons in the lube oil range are impacting the diesel range result.
  - N1 - Hydrocarbons in diesel range are impacting lube oil range results.
  - O - Hydrocarbons indicative of heavier fuels are present in the sample and are impacting the gasoline result.
  - P - The RPD of the detected concentrations between the two columns is greater than 40.
  - Q - Surrogate recovery is outside of the control limits.
  - S - Surrogate recovery data is not available due to the necessary dilution of the sample.
  - T - The sample chromatogram is not similar to a typical \_\_\_\_\_.
  - U - The analyte was analyzed for, but was not detected above the reported sample quantitation limit.
  - U1 - The practical quantitation limit is elevated due to interferences present in the sample.
  - V - Matrix Spike/Matrix Spike Duplicate recoveries are outside control limits due to matrix effects.
  - W - Matrix Spike/Matrix Spike Duplicate RPD are outside control limits due to matrix effects.
  - X - Sample extract treated with a mercury cleanup procedure.
  - X1 - Sample extract treated with a sulfuric acid/silica gel cleanup procedure.
  - Y - The calibration verification for this analyte exceeded the 20% drift specified in methods 8260 & 8270, and therefore the reported result should be considered an estimate. The overall performance of the calibration verification standard met the acceptance criteria of the method.
  - Z -
- ND - Not Detected at PQL  
 PQL - Practical Quantitation Limit  
 RPD - Relative Percent Difference





**Onsite Environmental Inc.**  
 Analytical Laboratory Testing Services  
 14648 NE 95th Street • Redmond, WA 98052  
 Phone: (425) 883-3881 • www.onsite-env.com

# Chain of Custody

Turnaround Request  
 (in working days)  
 (Check One)

Same Day  1 Day

2 Days  3 Days

Standard (7 Days)

\_\_\_\_\_ (other)

Laboratory Number: **06-080**

Company: **Kane Environmental**  
 Project Number: **82302-9,4**  
 Project Name: **BSCSS**  
 Project Manager: **Jeff Jensen**  
 Sampled by: **Jimmy Kane**

Lab ID	Sample Identification	Date Sampled	Time Sampled	Matrix	Number of Containers
1	S-MW-10:W	6/7	1045	GW	9
2	MW-41:W	6/7	1330	GW	7

Number of Containers	NWTPH-HCID	NWTPH-Gx/BTEX	NWTPH-Gx	NWTPH-Dx ( <input type="checkbox"/> Acid / SG Clean-up)	Volatiles 8260C	Halogenated Volatiles 8260C	EDB EPA 8011 (Waters Only)	Semivolatiles 8270D/SIM (with low-level PAHs)	PAHs 8270D/SIM (low-level)	PCBs 8082A	Organochlorine Pesticides 8081B	Organophosphorus Pesticides 8270D/SIM	Chlorinated Acid Herbicides 8151A	Total RCRA Metals	Total MTCA Metals	TCLP Metals	HEM (oil and grease) 166A	ammonia-N	dissolved Fe	chloride	sulfate	% Moisture TDC
9						X												X	X	X	X	X
7						X												X	X	X	X	X

Signature	Company	Date	Time	Comments/Special Instructions
	Kane Environmental	6/7/18	1510	RSK - MATRONS, STARR, STARR LAB FILTER

Relinquished

Received

Relinquished

Received

Relinquished

Received

Reviewed/Date

Reviewed/Date

Reviewed/Date

Data Package: Standard  Level III  Level IV

Chromatograms with final report  Electronic Data Deliverables (EDDs)



14648 NE 95<sup>th</sup> Street, Redmond, WA 98052 • (425) 883-3881

July 29, 2019

Jeff Jensen  
Kane Environmental, Inc.  
4015 13th Avenue West  
Seattle, WA 98119

Re: Analytical Data for Project 82302-9.4  
Laboratory Reference No. 1907-170

Dear Jeff:

Enclosed are the analytical results and associated quality control data for samples submitted on July 16, 2019.

The standard policy of OnSite Environmental, Inc. is to store your samples for 30 days from the date of receipt. If you require longer storage, please contact the laboratory.

We appreciate the opportunity to be of service to you on this project. If you have any questions concerning the data, or need additional information, please feel free to call me.

Sincerely,

A handwritten signature in black ink, appearing to read "DB", with a long horizontal stroke extending to the right.

David Baumeister  
Project Manager

Enclosures



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OnSite Environmental, Inc. 14648 NE 95<sup>th</sup> Street, Redmond, WA 98052 (425) 883-3881

This report pertains to the samples analyzed in accordance with the chain of custody, and is intended only for the use of the individual or company to whom it is addressed.

Date of Report: July 29, 2019  
Samples Submitted: July 16, 2019  
Laboratory Reference: 1907-170  
Project: 82302-9.4

### Case Narrative

Samples were collected on July 16, 2019 and received by the laboratory on July 16, 2019. They were maintained at the laboratory at a temperature of 2°C to 6°C.

Please note that any and all soil sample results are reported on a dry-weight basis, unless otherwise noted below.

General QA/QC issues associated with the analytical data enclosed in this laboratory report will be indicated with a reference to a comment or explanation on the Data Qualifier page. More complex and involved QA/QC issues will be discussed in detail below.



Date of Report: July 29, 2019  
 Samples Submitted: July 16, 2019  
 Laboratory Reference: 1907-170  
 Project: 82302-9.4

**VOLATILE ORGANICS EPA 8260C**  
 page 1 of 2

Matrix: Water  
 Units: ug/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>Client ID:</b>	<b>MW-27:W</b>					
Laboratory ID:	07-170-01					
Dichlorodifluoromethane	2.4	0.40	EPA 8260C	7-18-19	7-18-19	
Chloromethane	ND	2.0	EPA 8260C	7-18-19	7-18-19	
Vinyl Chloride	ND	0.040	EPA 8260C/SIM	7-18-19	7-18-19	
Bromomethane	ND	0.40	EPA 8260C	7-18-19	7-18-19	
Chloroethane	ND	2.0	EPA 8260C	7-18-19	7-18-19	
Trichlorofluoromethane	ND	0.40	EPA 8260C	7-18-19	7-18-19	
1,1-Dichloroethene	ND	0.40	EPA 8260C	7-18-19	7-18-19	
Iodomethane	ND	2.0	EPA 8260C	7-18-19	7-18-19	
Methylene Chloride	ND	2.0	EPA 8260C	7-18-19	7-18-19	
(trans) 1,2-Dichloroethene	ND	0.40	EPA 8260C	7-18-19	7-18-19	
1,1-Dichloroethane	ND	0.40	EPA 8260C	7-18-19	7-18-19	
2,2-Dichloropropane	ND	0.40	EPA 8260C	7-18-19	7-18-19	
(cis) 1,2-Dichloroethene	ND	0.40	EPA 8260C	7-18-19	7-18-19	
Bromochloromethane	ND	0.40	EPA 8260C	7-18-19	7-18-19	
Chloroform	ND	0.40	EPA 8260C	7-18-19	7-18-19	
1,1,1-Trichloroethane	ND	0.40	EPA 8260C	7-18-19	7-18-19	
Carbon Tetrachloride	ND	0.40	EPA 8260C	7-18-19	7-18-19	
1,1-Dichloropropene	ND	0.40	EPA 8260C	7-18-19	7-18-19	
1,2-Dichloroethane	ND	0.40	EPA 8260C	7-18-19	7-18-19	
Trichloroethene	ND	0.40	EPA 8260C	7-18-19	7-18-19	
1,2-Dichloropropane	ND	0.40	EPA 8260C	7-18-19	7-18-19	
Dibromomethane	ND	0.40	EPA 8260C	7-18-19	7-18-19	
Bromodichloromethane	ND	0.40	EPA 8260C	7-18-19	7-18-19	
2-Chloroethyl Vinyl Ether	ND	2.0	EPA 8260C	7-18-19	7-18-19	
(cis) 1,3-Dichloropropene	ND	0.40	EPA 8260C	7-18-19	7-18-19	
(trans) 1,3-Dichloropropene	ND	0.40	EPA 8260C	7-18-19	7-18-19	





Date of Report: July 29, 2019  
 Samples Submitted: July 16, 2019  
 Laboratory Reference: 1907-170  
 Project: 82302-9.4

**VOLATILE ORGANICS EPA 8260C**  
 page 2 of 2

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>Client ID:</b>	<b>MW-27:W</b>					
Laboratory ID:	07-170-01					
1,1,2-Trichloroethane	ND	0.40	EPA 8260C	7-18-19	7-18-19	
Tetrachloroethene	91	0.40	EPA 8260C	7-18-19	7-18-19	
1,3-Dichloropropane	ND	0.40	EPA 8260C	7-18-19	7-18-19	
Dibromochloromethane	ND	0.40	EPA 8260C	7-18-19	7-18-19	
1,2-Dibromoethane	ND	0.40	EPA 8260C	7-18-19	7-18-19	
Chlorobenzene	ND	0.40	EPA 8260C	7-18-19	7-18-19	
1,1,1,2-Tetrachloroethane	ND	0.40	EPA 8260C	7-18-19	7-18-19	
Bromoform	ND	2.0	EPA 8260C	7-18-19	7-18-19	
Bromobenzene	ND	0.40	EPA 8260C	7-18-19	7-18-19	
1,1,2,2-Tetrachloroethane	ND	0.40	EPA 8260C	7-18-19	7-18-19	
1,2,3-Trichloropropane	ND	0.40	EPA 8260C	7-18-19	7-18-19	
2-Chlorotoluene	ND	0.40	EPA 8260C	7-18-19	7-18-19	
4-Chlorotoluene	ND	0.40	EPA 8260C	7-18-19	7-18-19	
1,3-Dichlorobenzene	ND	0.40	EPA 8260C	7-18-19	7-18-19	
1,4-Dichlorobenzene	ND	0.40	EPA 8260C	7-18-19	7-18-19	
1,2-Dichlorobenzene	ND	0.40	EPA 8260C	7-18-19	7-18-19	
1,2-Dibromo-3-chloropropane	ND	2.0	EPA 8260C	7-18-19	7-18-19	
1,2,4-Trichlorobenzene	ND	0.40	EPA 8260C	7-18-19	7-18-19	
Hexachlorobutadiene	ND	2.0	EPA 8260C	7-18-19	7-18-19	
1,2,3-Trichlorobenzene	ND	0.40	EPA 8260C	7-18-19	7-18-19	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Dibromofluoromethane</i>	<i>104</i>	<i>75-127</i>				
<i>Toluene-d8</i>	<i>101</i>	<i>80-127</i>				
<i>4-Bromofluorobenzene</i>	<i>97</i>	<i>78-125</i>				



Date of Report: July 29, 2019  
 Samples Submitted: July 16, 2019  
 Laboratory Reference: 1907-170  
 Project: 82302-9.4

**VOLATILE ORGANICS EPA 8260C**  
 page 1 of 2

Matrix: Water  
 Units: ug/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>Client ID:</b>	<b>MW-29:W</b>					
Laboratory ID:	07-170-02					
Dichlorodifluoromethane	ND	0.20	EPA 8260C	7-18-19	7-18-19	
Chloromethane	ND	1.0	EPA 8260C	7-18-19	7-18-19	
Vinyl Chloride	ND	0.020	EPA 8260C/SIM	7-18-19	7-18-19	
Bromomethane	ND	0.20	EPA 8260C	7-18-19	7-18-19	
Chloroethane	ND	1.0	EPA 8260C	7-18-19	7-18-19	
Trichlorofluoromethane	ND	0.20	EPA 8260C	7-18-19	7-18-19	
1,1-Dichloroethene	ND	0.20	EPA 8260C	7-18-19	7-18-19	
Iodomethane	ND	1.0	EPA 8260C	7-18-19	7-18-19	
Methylene Chloride	ND	1.0	EPA 8260C	7-18-19	7-18-19	
(trans) 1,2-Dichloroethene	ND	0.20	EPA 8260C	7-18-19	7-18-19	
1,1-Dichloroethane	ND	0.20	EPA 8260C	7-18-19	7-18-19	
2,2-Dichloropropane	ND	0.20	EPA 8260C	7-18-19	7-18-19	
(cis) 1,2-Dichloroethene	ND	0.20	EPA 8260C	7-18-19	7-18-19	
Bromochloromethane	ND	0.20	EPA 8260C	7-18-19	7-18-19	
Chloroform	ND	0.20	EPA 8260C	7-18-19	7-18-19	
1,1,1-Trichloroethane	ND	0.20	EPA 8260C	7-18-19	7-18-19	
Carbon Tetrachloride	ND	0.20	EPA 8260C	7-18-19	7-18-19	
1,1-Dichloropropene	ND	0.20	EPA 8260C	7-18-19	7-18-19	
1,2-Dichloroethane	ND	0.20	EPA 8260C	7-18-19	7-18-19	
Trichloroethene	ND	0.20	EPA 8260C	7-18-19	7-18-19	
1,2-Dichloropropane	ND	0.20	EPA 8260C	7-18-19	7-18-19	
Dibromomethane	ND	0.20	EPA 8260C	7-18-19	7-18-19	
Bromodichloromethane	ND	0.20	EPA 8260C	7-18-19	7-18-19	
2-Chloroethyl Vinyl Ether	ND	1.0	EPA 8260C	7-18-19	7-18-19	
(cis) 1,3-Dichloropropene	ND	0.20	EPA 8260C	7-18-19	7-18-19	
(trans) 1,3-Dichloropropene	ND	0.20	EPA 8260C	7-18-19	7-18-19	



Date of Report: July 29, 2019  
 Samples Submitted: July 16, 2019  
 Laboratory Reference: 1907-170  
 Project: 82302-9.4

**VOLATILE ORGANICS EPA 8260C**  
 page 2 of 2

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>Client ID:</b>	<b>MW-29:W</b>					
Laboratory ID:	07-170-02					
1,1,2-Trichloroethane	ND	0.20	EPA 8260C	7-18-19	7-18-19	
Tetrachloroethene	ND	0.20	EPA 8260C	7-18-19	7-18-19	
1,3-Dichloropropane	ND	0.20	EPA 8260C	7-18-19	7-18-19	
Dibromochloromethane	ND	0.20	EPA 8260C	7-18-19	7-18-19	
1,2-Dibromoethane	ND	0.20	EPA 8260C	7-18-19	7-18-19	
Chlorobenzene	ND	0.20	EPA 8260C	7-18-19	7-18-19	
1,1,1,2-Tetrachloroethane	ND	0.20	EPA 8260C	7-18-19	7-18-19	
Bromoform	ND	1.0	EPA 8260C	7-18-19	7-18-19	
Bromobenzene	ND	0.20	EPA 8260C	7-18-19	7-18-19	
1,1,2,2-Tetrachloroethane	ND	0.20	EPA 8260C	7-18-19	7-18-19	
1,2,3-Trichloropropane	ND	0.20	EPA 8260C	7-18-19	7-18-19	
2-Chlorotoluene	ND	0.20	EPA 8260C	7-18-19	7-18-19	
4-Chlorotoluene	ND	0.20	EPA 8260C	7-18-19	7-18-19	
1,3-Dichlorobenzene	ND	0.20	EPA 8260C	7-18-19	7-18-19	
1,4-Dichlorobenzene	ND	0.20	EPA 8260C	7-18-19	7-18-19	
1,2-Dichlorobenzene	ND	0.20	EPA 8260C	7-18-19	7-18-19	
1,2-Dibromo-3-chloropropane	ND	1.0	EPA 8260C	7-18-19	7-18-19	
1,2,4-Trichlorobenzene	ND	0.20	EPA 8260C	7-18-19	7-18-19	
Hexachlorobutadiene	ND	1.0	EPA 8260C	7-18-19	7-18-19	
1,2,3-Trichlorobenzene	ND	0.20	EPA 8260C	7-18-19	7-18-19	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Dibromofluoromethane</i>	96	75-127				
<i>Toluene-d8</i>	96	80-127				
<i>4-Bromofluorobenzene</i>	92	78-125				



Date of Report: July 29, 2019  
 Samples Submitted: July 16, 2019  
 Laboratory Reference: 1907-170  
 Project: 82302-9.4

**VOLATILE ORGANICS EPA 8260C**  
 page 1 of 2

Matrix: Water  
 Units: ug/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>Client ID:</b>	<b>MW-4:W</b>					
Laboratory ID:	07-170-03					
Dichlorodifluoromethane	ND	20	EPA 8260C	7-18-19	7-18-19	
Chloromethane	ND	100	EPA 8260C	7-18-19	7-18-19	
Vinyl Chloride	9.1	2.0	EPA 8260C/SIM	7-18-19	7-18-19	
Bromomethane	ND	20	EPA 8260C	7-18-19	7-18-19	
Chloroethane	ND	100	EPA 8260C	7-18-19	7-18-19	
Trichlorofluoromethane	ND	20	EPA 8260C	7-18-19	7-18-19	
1,1-Dichloroethene	ND	20	EPA 8260C	7-18-19	7-18-19	
Iodomethane	ND	100	EPA 8260C	7-18-19	7-18-19	
Methylene Chloride	ND	100	EPA 8260C	7-18-19	7-18-19	
(trans) 1,2-Dichloroethene	ND	20	EPA 8260C	7-18-19	7-18-19	
1,1-Dichloroethane	ND	20	EPA 8260C	7-18-19	7-18-19	
2,2-Dichloropropane	ND	20	EPA 8260C	7-18-19	7-18-19	
(cis) 1,2-Dichloroethene	1400	20	EPA 8260C	7-18-19	7-18-19	
Bromochloromethane	ND	20	EPA 8260C	7-18-19	7-18-19	
Chloroform	ND	20	EPA 8260C	7-18-19	7-18-19	
1,1,1-Trichloroethane	ND	20	EPA 8260C	7-18-19	7-18-19	
Carbon Tetrachloride	ND	20	EPA 8260C	7-18-19	7-18-19	
1,1-Dichloropropene	ND	20	EPA 8260C	7-18-19	7-18-19	
1,2-Dichloroethane	ND	20	EPA 8260C	7-18-19	7-18-19	
Trichloroethene	590	20	EPA 8260C	7-18-19	7-18-19	
1,2-Dichloropropane	ND	20	EPA 8260C	7-18-19	7-18-19	
Dibromomethane	ND	20	EPA 8260C	7-18-19	7-18-19	
Bromodichloromethane	ND	20	EPA 8260C	7-18-19	7-18-19	
2-Chloroethyl Vinyl Ether	ND	100	EPA 8260C	7-18-19	7-18-19	
(cis) 1,3-Dichloropropene	ND	20	EPA 8260C	7-18-19	7-18-19	
(trans) 1,3-Dichloropropene	ND	20	EPA 8260C	7-18-19	7-18-19	



Date of Report: July 29, 2019  
 Samples Submitted: July 16, 2019  
 Laboratory Reference: 1907-170  
 Project: 82302-9.4

**VOLATILE ORGANICS EPA 8260C**  
 page 2 of 2

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>Client ID:</b>	<b>MW-4:W</b>					
Laboratory ID:	07-170-03					
1,1,2-Trichloroethane	ND	20	EPA 8260C	7-18-19	7-18-19	
Tetrachloroethene	3700	20	EPA 8260C	7-18-19	7-18-19	
1,3-Dichloropropane	ND	20	EPA 8260C	7-18-19	7-18-19	
Dibromochloromethane	ND	20	EPA 8260C	7-18-19	7-18-19	
1,2-Dibromoethane	ND	20	EPA 8260C	7-18-19	7-18-19	
Chlorobenzene	ND	20	EPA 8260C	7-18-19	7-18-19	
1,1,1,2-Tetrachloroethane	ND	20	EPA 8260C	7-18-19	7-18-19	
Bromoform	ND	100	EPA 8260C	7-18-19	7-18-19	
Bromobenzene	ND	20	EPA 8260C	7-18-19	7-18-19	
1,1,2,2-Tetrachloroethane	ND	20	EPA 8260C	7-18-19	7-18-19	
1,2,3-Trichloropropane	ND	20	EPA 8260C	7-18-19	7-18-19	
2-Chlorotoluene	ND	20	EPA 8260C	7-18-19	7-18-19	
4-Chlorotoluene	ND	20	EPA 8260C	7-18-19	7-18-19	
1,3-Dichlorobenzene	ND	20	EPA 8260C	7-18-19	7-18-19	
1,4-Dichlorobenzene	ND	20	EPA 8260C	7-18-19	7-18-19	
1,2-Dichlorobenzene	ND	20	EPA 8260C	7-18-19	7-18-19	
1,2-Dibromo-3-chloropropane	ND	100	EPA 8260C	7-18-19	7-18-19	
1,2,4-Trichlorobenzene	ND	20	EPA 8260C	7-18-19	7-18-19	
Hexachlorobutadiene	ND	100	EPA 8260C	7-18-19	7-18-19	
1,2,3-Trichlorobenzene	ND	20	EPA 8260C	7-18-19	7-18-19	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Dibromofluoromethane</i>	<i>98</i>	<i>75-127</i>				
<i>Toluene-d8</i>	<i>96</i>	<i>80-127</i>				
<i>4-Bromofluorobenzene</i>	<i>90</i>	<i>78-125</i>				



Date of Report: July 29, 2019  
 Samples Submitted: July 16, 2019  
 Laboratory Reference: 1907-170  
 Project: 82302-9.4

**VOLATILE ORGANICS EPA 8260C**  
**METHOD BLANK QUALITY CONTROL**  
 page 1 of 2

Matrix: Water  
 Units: ug/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Laboratory ID:	MB0718W2					
Dichlorodifluoromethane	ND	0.20	EPA 8260C	7-18-19	7-18-19	
Chloromethane	ND	1.0	EPA 8260C	7-18-19	7-18-19	
Vinyl Chloride	ND	0.020	EPA 8260C/SIM	7-18-19	7-18-19	
Bromomethane	ND	0.20	EPA 8260C	7-18-19	7-18-19	
Chloroethane	ND	1.0	EPA 8260C	7-18-19	7-18-19	
Trichlorofluoromethane	ND	0.20	EPA 8260C	7-18-19	7-18-19	
1,1-Dichloroethene	ND	0.20	EPA 8260C	7-18-19	7-18-19	
Iodomethane	ND	1.0	EPA 8260C	7-18-19	7-18-19	
Methylene Chloride	ND	1.0	EPA 8260C	7-18-19	7-18-19	
(trans) 1,2-Dichloroethene	ND	0.20	EPA 8260C	7-18-19	7-18-19	
1,1-Dichloroethane	ND	0.20	EPA 8260C	7-18-19	7-18-19	
2,2-Dichloropropane	ND	0.20	EPA 8260C	7-18-19	7-18-19	
(cis) 1,2-Dichloroethene	ND	0.20	EPA 8260C	7-18-19	7-18-19	
Bromochloromethane	ND	0.20	EPA 8260C	7-18-19	7-18-19	
Chloroform	ND	0.20	EPA 8260C	7-18-19	7-18-19	
1,1,1-Trichloroethane	ND	0.20	EPA 8260C	7-18-19	7-18-19	
Carbon Tetrachloride	ND	0.20	EPA 8260C	7-18-19	7-18-19	
1,1-Dichloropropene	ND	0.20	EPA 8260C	7-18-19	7-18-19	
1,2-Dichloroethane	ND	0.20	EPA 8260C	7-18-19	7-18-19	
Trichloroethene	ND	0.20	EPA 8260C	7-18-19	7-18-19	
1,2-Dichloropropane	ND	0.20	EPA 8260C	7-18-19	7-18-19	
Dibromomethane	ND	0.20	EPA 8260C	7-18-19	7-18-19	
Bromodichloromethane	ND	0.20	EPA 8260C	7-18-19	7-18-19	
2-Chloroethyl Vinyl Ether	ND	1.0	EPA 8260C	7-18-19	7-18-19	
(cis) 1,3-Dichloropropene	ND	0.20	EPA 8260C	7-18-19	7-18-19	
(trans) 1,3-Dichloropropene	ND	0.20	EPA 8260C	7-18-19	7-18-19	



Date of Report: July 29, 2019  
 Samples Submitted: July 16, 2019  
 Laboratory Reference: 1907-170  
 Project: 82302-9.4

**VOLATILE ORGANICS EPA 8260C**  
**METHOD BLANK QUALITY CONTROL**  
 page 2 of 2

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Laboratory ID:	MB0718W2					
1,1,2-Trichloroethane	ND	0.20	EPA 8260C	7-18-19	7-18-19	
Tetrachloroethene	ND	0.20	EPA 8260C	7-18-19	7-18-19	
1,3-Dichloropropane	ND	0.20	EPA 8260C	7-18-19	7-18-19	
Dibromochloromethane	ND	0.20	EPA 8260C	7-18-19	7-18-19	
1,2-Dibromoethane	ND	0.20	EPA 8260C	7-18-19	7-18-19	
Chlorobenzene	ND	0.20	EPA 8260C	7-18-19	7-18-19	
1,1,1,2-Tetrachloroethane	ND	0.20	EPA 8260C	7-18-19	7-18-19	
Bromoform	ND	1.0	EPA 8260C	7-18-19	7-18-19	
Bromobenzene	ND	0.20	EPA 8260C	7-18-19	7-18-19	
1,1,2,2-Tetrachloroethane	ND	0.20	EPA 8260C	7-18-19	7-18-19	
1,2,3-Trichloropropane	ND	0.20	EPA 8260C	7-18-19	7-18-19	
2-Chlorotoluene	ND	0.20	EPA 8260C	7-18-19	7-18-19	
4-Chlorotoluene	ND	0.20	EPA 8260C	7-18-19	7-18-19	
1,3-Dichlorobenzene	ND	0.20	EPA 8260C	7-18-19	7-18-19	
1,4-Dichlorobenzene	ND	0.20	EPA 8260C	7-18-19	7-18-19	
1,2-Dichlorobenzene	ND	0.20	EPA 8260C	7-18-19	7-18-19	
1,2-Dibromo-3-chloropropane	ND	1.0	EPA 8260C	7-18-19	7-18-19	
1,2,4-Trichlorobenzene	ND	0.20	EPA 8260C	7-18-19	7-18-19	
Hexachlorobutadiene	ND	1.0	EPA 8260C	7-18-19	7-18-19	
1,2,3-Trichlorobenzene	ND	0.20	EPA 8260C	7-18-19	7-18-19	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Dibromofluoromethane</i>	<i>96</i>	<i>75-127</i>				
<i>Toluene-d8</i>	<i>98</i>	<i>80-127</i>				
<i>4-Bromofluorobenzene</i>	<i>101</i>	<i>78-125</i>				



Date of Report: July 29, 2019  
 Samples Submitted: July 16, 2019  
 Laboratory Reference: 1907-170  
 Project: 82302-9.4

**VOLATILE ORGANICS EPA 8260C  
 SB/SBD QUALITY CONTROL**

Matrix: Water  
 Units: ug/L

Analyte	Result		Spike Level		Percent Recovery		Recovery	RPD	RPD	Flags
					SB	SBD	Limits	RPD	Limit	
<b>SPIKE BLANKS</b>										
Laboratory ID:	SB0718W1									
	SB	SBD	SB	SBD	SB	SBD				
1,1-Dichloroethene	9.14	9.17	10.0	10.0	91	92	63-130	0	17	
Benzene	9.20	9.24	10.0	10.0	92	92	76-125	0	19	
Trichloroethene	10.5	10.7	10.0	10.0	105	107	76-121	2	18	
Toluene	9.75	9.91	10.0	10.0	98	99	80-124	2	18	
Chlorobenzene	10.1	10.4	10.0	10.0	101	104	75-120	3	19	
<i>Surrogate:</i>										
<i>Dibromofluoromethane</i>					101	99	75-127			
<i>Toluene-d8</i>					102	101	80-127			
<i>4-Bromofluorobenzene</i>					99	96	78-125			





Date of Report: July 29, 2019  
 Samples Submitted: July 16, 2019  
 Laboratory Reference: 1907-170  
 Project: 82302-9.4

**AMMONIA (as Nitrogen)**  
**SM 4500-NH<sub>3</sub> D**

Matrix: Water  
 Units: mg NH<sub>3</sub>-N/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>Client ID:</b>	<b>MW-27:W</b>					
Laboratory ID:	07-170-01					
Ammonia	<b>ND</b>	0.050	SM 4500-NH <sub>3</sub> D	7-19-19	7-19-19	
<b>Client ID:</b>	<b>MW-29:W</b>					
Laboratory ID:	07-170-02					
Ammonia	<b>0.30</b>	0.050	SM 4500-NH <sub>3</sub> D	7-19-19	7-19-19	
<b>Client ID:</b>	<b>MW-4:W</b>					
Laboratory ID:	07-170-03					
Ammonia	<b>ND</b>	0.050	SM 4500-NH <sub>3</sub> D	7-19-19	7-19-19	



Date of Report: July 29, 2019  
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 Project: 82302-9.4

**AMMONIA (as Nitrogen)**  
**SM 4500-NH<sub>3</sub> D**  
**QUALITY CONTROL**

Matrix: Water  
 Units: mg NH<sub>3</sub>-N/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>METHOD BLANK</b>						
Laboratory ID:	MB0719W1					
Ammonia	<b>ND</b>	0.050	SM 4500-NH <sub>3</sub> D	7-19-19	7-19-19	

Analyte	Result	Spike Level	Source Result	Percent Recovery	Recovery Limits	RPD	RPD Limit	Flags
<b>DUPLICATE</b>								
Laboratory ID:	07-170-01							
	ORIG	DUP						
Ammonia	<b>ND</b>	<b>ND</b>	NA	NA	NA	NA	12	

<b>MATRIX SPIKE</b>								
Laboratory ID:	07-170-01							
	MS	MS		MS				
Ammonia	<b>5.01</b>	5.00	ND	100	75-121	NA	NA	

<b>SPIKE BLANK</b>								
Laboratory ID:	SB0719W1							
	SB	SB		SB				
Ammonia	<b>5.01</b>	5.00	NA	100	85-110	NA	NA	



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**DISSOLVED IRON  
 EPA 6010D**

Matrix: Water  
 Units: ug/L (ppb)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>Client ID:</b>	<b>MW-27:W</b>					
Laboratory ID:	07-170-01					
Iron	<b>ND</b>	56	EPA 6010D	7-16-19	7-18-19	

<b>Client ID:</b>	<b>MW-29:W</b>					
Laboratory ID:	07-170-02					
Iron	<b>460</b>	56	EPA 6010D	7-16-19	7-18-19	

<b>Client ID:</b>	<b>MW-4:W</b>					
Laboratory ID:	07-170-03					
Iron	<b>6300</b>	56	EPA 6010D	7-16-19	7-18-19	



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**DISSOLVED IRON  
 EPA 6010D  
 QUALITY CONTROL**

Matrix: Water  
 Units: ug/L (ppb)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>METHOD BLANK</b>						
Laboratory ID:	MB0716F1					
Iron	<b>ND</b>	56	EPA 6010D	7-16-19	7-18-19	

Analyte	Result	Spike Level	Source Result	Percent Recovery	Recovery Limits	RPD	RPD Limit	Flags
<b>DUPLICATE</b>								
Laboratory ID:	07-170-01							
	ORIG	DUP						
Iron	<b>ND</b>	<b>ND</b>	NA	NA	NA	NA	20	

**MATRIX SPIKES**

Laboratory ID:	07-170-01									
	MS	MSD	MS	MSD		MS	MSD			
Iron	<b>23600</b>	<b>23600</b>	22200	22200	ND	<b>107</b>	<b>107</b>	75-125	0	20



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**CHLORIDE  
 SM 4500-Cl E**

Matrix: Water  
 Units: mg/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>Client ID:</b>	<b>MW-27:W</b>					
Laboratory ID:	07-170-01					
Chloride	<b>3.6</b>	2.0	SM 4500-Cl E	7-18-19	7-18-19	

<b>Client ID:</b>	<b>MW-29:W</b>					
Laboratory ID:	07-170-02					
Chloride	<b>5.2</b>	2.0	SM 4500-Cl E	7-18-19	7-18-19	

<b>Client ID:</b>	<b>MW-4:W</b>					
Laboratory ID:	07-170-03					
Chloride	<b>15</b>	2.0	SM 4500-Cl E	7-18-19	7-18-19	



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**CHLORIDE  
 SM 4500-Cl E  
 QUALITY CONTROL**

Matrix: Water  
 Units: mg/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>METHOD BLANK</b>						
Laboratory ID:	MB0718W1					
Chloride	<b>ND</b>	2.0	SM 4500-Cl E	7-18-19	7-18-19	

Analyte	Result	Spike Level	Source Result	Percent Recovery	Recovery Limits	RPD	RPD Limit	Flags
<b>DUPLICATE</b>								
Laboratory ID:	07-190-01							
	ORIG	DUP						
Chloride	<b>15.6</b>	<b>15.9</b>	NA	NA	NA	2	17	

<b>MATRIX SPIKE</b>								
Laboratory ID:	07-190-01							
	MS	MS		MS				
Chloride	<b>61.2</b>	50.0	15.6	91	80-116	NA	NA	

<b>SPIKE BLANK</b>								
Laboratory ID:	SB0718W1							
	SB	SB		SB				
Chloride	<b>46.3</b>	50.0	NA	93	90-110	NA	NA	



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**SULFATE**  
**ASTM D516-11**

Matrix: Water  
 Units: mg/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>Client ID:</b>	<b>MW-27:W</b>					
Laboratory ID:	07-170-01					
Sulfate	<b>23</b>	5.0	ASTM D516-11	7-17-19	7-17-19	

<b>Client ID:</b>	<b>MW-29:W</b>					
Laboratory ID:	07-170-02					
Sulfate	<b>ND</b>	5.0	ASTM D516-11	7-17-19	7-17-19	

<b>Client ID:</b>	<b>MW-4:W</b>					
Laboratory ID:	07-170-03					
Sulfate	<b>15</b>	5.0	ASTM D516-11	7-17-19	7-17-19	



Date of Report: July 29, 2019  
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**SULFATE  
 ASTM D516-11  
 QUALITY CONTROL**

Matrix: Water  
 Units: mg/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>METHOD BLANK</b>						
Laboratory ID:	MB0717W1					
Sulfate	<b>ND</b>	5.0	ASTM D516-11	7-17-19	7-17-19	

Analyte	Result	Spike Level	Source Result	Percent Recovery	Recovery Limits	RPD	RPD Limit	Flags
<b>DUPLICATE</b>								
Laboratory ID:	07-170-01							
	ORIG	DUP						
Sulfate	<b>23.2</b>	<b>21.7</b>	NA	NA	NA	7	10	

<b>MATRIX SPIKE</b>								
Laboratory ID:	07-170-01							
	MS	MS		MS				
Sulfate	<b>40.5</b>	20.0	23.2	87	73-134	NA	NA	

<b>SPIKE BLANK</b>								
Laboratory ID:	SB0717W1							
	SB	SB		SB				
Sulfate	<b>9.76</b>	10.0	NA	98	89-113	NA	NA	





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 Project: 82302-9.4

**TOTAL ORGANIC CARBON  
 SM 5310B**

Matrix: Water  
 Units: mg/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>Client ID:</b>	<b>MW-27:W</b>					
Laboratory ID:	07-170-01					
Total Organic Carbon	<b>ND</b>	1.0	SM 5310B	7-17-19	7-17-19	
<b>Client ID:</b>	<b>MW-29:W</b>					
Laboratory ID:	07-170-02					
Total Organic Carbon	<b>2.1</b>	1.0	SM 5310B	7-17-19	7-17-19	
<b>Client ID:</b>	<b>MW-4:W</b>					
Laboratory ID:	07-170-03					
Total Organic Carbon	<b>2.3</b>	1.0	SM 5310B	7-17-19	7-17-19	



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**TOTAL ORGANIC CARBON  
 SM 5310B  
 QUALITY CONTROL**

Matrix: Water  
 Units: mg/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>METHOD BLANK</b>						
Laboratory ID:	MB0717W1					
Total Organic Carbon	<b>ND</b>	1.0	SM 5310B	7-17-19	7-17-19	

Analyte	Result	Spike Level	Source Result	Percent Recovery	Recovery Limits	RPD	RPD Limit	Flags
<b>DUPLICATE</b>								
Laboratory ID:	07-170-01							
	ORIG	DUP						
Total Organic Carbon	<b>ND</b>	<b>ND</b>	NA	NA	NA	NA	20	

**MATRIX SPIKE**

Laboratory ID:	07-170-01							
	MS	MS		MS				
Total Organic Carbon	<b>10.1</b>	10.0	ND	101	85-131	NA	NA	

**SPIKE BLANK**

Laboratory ID:	SB0717W1							
	SB	SB		SB				
Total Organic Carbon	<b>8.82</b>	10.0	NA	88	88-127	NA	NA	



Date of Report: July 29, 2019  
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 Project: 82302-9.4

**DISSOLVED GASES  
 RSK 175**

Matrix: Water  
 Units: ug/L (ppb)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>Client ID:</b>	<b>MW-27:W</b>					
Laboratory ID:	07-170-01					
Methane	<b>ND</b>	1.0	RSK 175	7-23-19	7-23-19	
Ethane	<b>ND</b>	0.50	RSK 175	7-23-19	7-23-19	
Ethene	<b>ND</b>	0.50	RSK 175	7-23-19	7-23-19	

<b>Client ID:</b>	<b>MW-29:W</b>					
Laboratory ID:	07-170-02					
Methane	<b>350</b>	50	RSK 175	7-23-19	7-23-19	
Ethane	<b>ND</b>	0.50	RSK 175	7-23-19	7-23-19	
Ethene	<b>ND</b>	0.50	RSK 175	7-23-19	7-23-19	

<b>Client ID:</b>	<b>MW-4:W</b>					
Laboratory ID:	07-170-03					
Methane	<b>5200</b>	1000	RSK 175	7-23-19	7-23-19	
Ethane	<b>ND</b>	0.50	RSK 175	7-23-19	7-23-19	
Ethene	<b>ND</b>	0.50	RSK 175	7-23-19	7-23-19	



Date of Report: July 29, 2019  
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**DISSOLVED GASES  
 RSK 175  
 QUALITY CONTROL**

Matrix: Water  
 Units: ug/L (ppb)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>METHOD BLANK</b>						
Laboratory ID:	MB0723W1					
Methane	ND	1.0	RSK 175	7-23-19	7-23-19	
Ethane	ND	0.50	RSK 175	7-23-19	7-23-19	
Ethene	ND	0.50	RSK 175	7-23-19	7-23-19	

Analyte	Result		Spike Level		Source Result	Percent Recovery	Recovery Limits	RPD	RPD Limit	Flags
<b>MATRIX SPIKES</b>										
Laboratory ID:	01-123-01									
	MS	MSD	MS	MSD		MS	MSD			
Methane	9.41	9.08	4.42	4.42	4.20	118	110	75-125	4	25
Ethane	7.79	7.34	8.32	8.32	ND	94	88	75-125	6	25
Ethene	5.79	6.37	7.77	7.77	ND	75	82	75-125	10	25





### Data Qualifiers and Abbreviations

- A - Due to a high sample concentration, the amount spiked is insufficient for meaningful MS/MSD recovery data.
  - B - The analyte indicated was also found in the blank sample.
  - C - The duplicate RPD is outside control limits due to high result variability when analyte concentrations are within five times the quantitation limit.
  - E - The value reported exceeds the quantitation range and is an estimate.
  - F - Surrogate recovery data is not available due to the high concentration of coeluting target compounds.
  - H - The analyte indicated is a common laboratory solvent and may have been introduced during sample preparation, and be impacting the sample result.
  - I - Compound recovery is outside of the control limits.
  - J - The value reported was below the practical quantitation limit. The value is an estimate.
  - K - Sample duplicate RPD is outside control limits due to sample inhomogeneity. The sample was re-extracted and re-analyzed with similar results.
  - L - The RPD is outside of the control limits.
  - M - Hydrocarbons in the gasoline range are impacting the diesel range result.
  - M1 - Hydrocarbons in the gasoline range (toluene-naphthalene) are present in the sample.
  - N - Hydrocarbons in the lube oil range are impacting the diesel range result.
  - N1 - Hydrocarbons in diesel range are impacting lube oil range results.
  - O - Hydrocarbons indicative of heavier fuels are present in the sample and are impacting the gasoline result.
  - P - The RPD of the detected concentrations between the two columns is greater than 40.
  - Q - Surrogate recovery is outside of the control limits.
  - S - Surrogate recovery data is not available due to the necessary dilution of the sample.
  - T - The sample chromatogram is not similar to a typical \_\_\_\_\_.
  - U - The analyte was analyzed for, but was not detected above the reported sample quantitation limit.
  - U1 - The practical quantitation limit is elevated due to interferences present in the sample.
  - V - Matrix Spike/Matrix Spike Duplicate recoveries are outside control limits due to matrix effects.
  - W - Matrix Spike/Matrix Spike Duplicate RPD are outside control limits due to matrix effects.
  - X - Sample extract treated with a mercury cleanup procedure.
  - X1 - Sample extract treated with a sulfuric acid/silica gel cleanup procedure.
  - Y - The calibration verification for this analyte exceeded the 20% drift specified in methods 8260 & 8270, and therefore the reported result should be considered an estimate. The overall performance of the calibration verification standard met the acceptance criteria of the method.
  - Z -
- ND - Not Detected at PQL  
 PQL - Practical Quantitation Limit  
 RPD - Relative Percent Difference







14648 NE 95<sup>th</sup> Street, Redmond, WA 98052 • (425) 883-3881

July 29, 2019

Jeff Jensen  
Kane Environmental, Inc.  
4015 13th Avenue West  
Seattle, WA 98119

Re: Analytical Data for Project 82302-9.4  
Laboratory Reference No. 1907-190

Dear Jeff:

Enclosed are the analytical results and associated quality control data for samples submitted on July 17, 2019.

The standard policy of OnSite Environmental, Inc. is to store your samples for 30 days from the date of receipt. If you require longer storage, please contact the laboratory.

We appreciate the opportunity to be of service to you on this project. If you have any questions concerning the data, or need additional information, please feel free to call me.

Sincerely,

A handwritten signature in black ink, appearing to read "DB", with a long horizontal stroke extending to the right.

David Baumeister  
Project Manager

Enclosures



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OnSite Environmental, Inc. 14648 NE 95<sup>th</sup> Street, Redmond, WA 98052 (425) 883-3881

This report pertains to the samples analyzed in accordance with the chain of custody, and is intended only for the use of the individual or company to whom it is addressed.

Date of Report: July 29, 2019  
Samples Submitted: July 17, 2019  
Laboratory Reference: 1907-190  
Project: 82302-9.4

### Case Narrative

Samples were collected on July 17, 2019 and received by the laboratory on July 17, 2019. They were maintained at the laboratory at a temperature of 2°C to 6°C.

Please note that any and all soil sample results are reported on a dry-weight basis, unless otherwise noted below.

General QA/QC issues associated with the analytical data enclosed in this laboratory report will be indicated with a reference to a comment or explanation on the Data Qualifier page. More complex and involved QA/QC issues will be discussed in detail below.





Date of Report: July 29, 2019  
 Samples Submitted: July 17, 2019  
 Laboratory Reference: 1907-190  
 Project: 82302-9.4

**VOLATILE ORGANICS EPA 8260C**  
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Matrix: Water  
 Units: ug/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>Client ID:</b>	<b>HZ-MW-29:W</b>					
Laboratory ID:	07-190-01					
Dichlorodifluoromethane	ND	0.20	EPA 8260C	7-18-19	7-18-19	
Chloromethane	ND	1.0	EPA 8260C	7-18-19	7-18-19	
Vinyl Chloride	0.47	0.20	EPA 8260C	7-18-19	7-18-19	
Bromomethane	ND	0.20	EPA 8260C	7-18-19	7-18-19	
Chloroethane	ND	1.0	EPA 8260C	7-18-19	7-18-19	
Trichlorofluoromethane	ND	0.20	EPA 8260C	7-18-19	7-18-19	
1,1-Dichloroethene	ND	0.20	EPA 8260C	7-18-19	7-18-19	
Iodomethane	ND	1.0	EPA 8260C	7-18-19	7-18-19	
Methylene Chloride	ND	1.0	EPA 8260C	7-18-19	7-18-19	
(trans) 1,2-Dichloroethene	0.32	0.20	EPA 8260C	7-18-19	7-18-19	
1,1-Dichloroethane	ND	0.20	EPA 8260C	7-18-19	7-18-19	
2,2-Dichloropropane	ND	0.20	EPA 8260C	7-18-19	7-18-19	
(cis) 1,2-Dichloroethene	32	0.20	EPA 8260C	7-18-19	7-18-19	
Bromochloromethane	ND	0.20	EPA 8260C	7-18-19	7-18-19	
Chloroform	ND	0.20	EPA 8260C	7-18-19	7-18-19	
1,1,1-Trichloroethane	ND	0.20	EPA 8260C	7-18-19	7-18-19	
Carbon Tetrachloride	ND	0.20	EPA 8260C	7-18-19	7-18-19	
1,1-Dichloropropene	ND	0.20	EPA 8260C	7-18-19	7-18-19	
1,2-Dichloroethane	ND	0.20	EPA 8260C	7-18-19	7-18-19	
Trichloroethene	0.58	0.20	EPA 8260C	7-18-19	7-18-19	
1,2-Dichloropropane	ND	0.20	EPA 8260C	7-18-19	7-18-19	
Dibromomethane	ND	0.20	EPA 8260C	7-18-19	7-18-19	
Bromodichloromethane	ND	0.20	EPA 8260C	7-18-19	7-18-19	
2-Chloroethyl Vinyl Ether	ND	1.0	EPA 8260C	7-18-19	7-18-19	
(cis) 1,3-Dichloropropene	ND	0.20	EPA 8260C	7-18-19	7-18-19	
(trans) 1,3-Dichloropropene	ND	0.20	EPA 8260C	7-18-19	7-18-19	



Date of Report: July 29, 2019  
 Samples Submitted: July 17, 2019  
 Laboratory Reference: 1907-190  
 Project: 82302-9.4

**VOLATILE ORGANICS EPA 8260C**  
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Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>Client ID:</b>	<b>HZ-MW-29:W</b>					
<b>Laboratory ID:</b>	07-190-01					
1,1,2-Trichloroethane	ND	0.20	EPA 8260C	7-18-19	7-18-19	
Tetrachloroethene	1.2	0.20	EPA 8260C	7-18-19	7-18-19	
1,3-Dichloropropane	ND	0.20	EPA 8260C	7-18-19	7-18-19	
Dibromochloromethane	ND	0.20	EPA 8260C	7-18-19	7-18-19	
1,2-Dibromoethane	ND	0.20	EPA 8260C	7-18-19	7-18-19	
Chlorobenzene	ND	0.20	EPA 8260C	7-18-19	7-18-19	
1,1,1,2-Tetrachloroethane	ND	0.20	EPA 8260C	7-18-19	7-18-19	
Bromoform	ND	1.0	EPA 8260C	7-18-19	7-18-19	
Bromobenzene	ND	0.20	EPA 8260C	7-18-19	7-18-19	
1,1,2,2-Tetrachloroethane	ND	0.20	EPA 8260C	7-18-19	7-18-19	
1,2,3-Trichloropropane	ND	0.20	EPA 8260C	7-18-19	7-18-19	
2-Chlorotoluene	ND	0.20	EPA 8260C	7-18-19	7-18-19	
4-Chlorotoluene	ND	0.20	EPA 8260C	7-18-19	7-18-19	
1,3-Dichlorobenzene	ND	0.20	EPA 8260C	7-18-19	7-18-19	
1,4-Dichlorobenzene	ND	0.20	EPA 8260C	7-18-19	7-18-19	
1,2-Dichlorobenzene	ND	0.20	EPA 8260C	7-18-19	7-18-19	
1,2-Dibromo-3-chloropropane	ND	1.0	EPA 8260C	7-18-19	7-18-19	
1,2,4-Trichlorobenzene	ND	0.20	EPA 8260C	7-18-19	7-18-19	
Hexachlorobutadiene	ND	1.0	EPA 8260C	7-18-19	7-18-19	
1,2,3-Trichlorobenzene	ND	0.20	EPA 8260C	7-18-19	7-18-19	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Dibromofluoromethane</i>	<i>103</i>	<i>75-127</i>				
<i>Toluene-d8</i>	<i>98</i>	<i>80-127</i>				
<i>4-Bromofluorobenzene</i>	<i>87</i>	<i>78-125</i>				



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**VOLATILE ORGANICS EPA 8260C**  
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Matrix: Water  
 Units: ug/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>Client ID:</b>	<b>HZ-MW-34:W</b>					
Laboratory ID:	07-190-02					
Dichlorodifluoromethane	ND	0.20	EPA 8260C	7-18-19	7-18-19	
Chloromethane	ND	1.0	EPA 8260C	7-18-19	7-18-19	
Vinyl Chloride	0.28	0.20	EPA 8260C	7-18-19	7-18-19	
Bromomethane	ND	0.20	EPA 8260C	7-18-19	7-18-19	
Chloroethane	ND	1.0	EPA 8260C	7-18-19	7-18-19	
Trichlorofluoromethane	ND	0.20	EPA 8260C	7-18-19	7-18-19	
1,1-Dichloroethene	ND	0.20	EPA 8260C	7-18-19	7-18-19	
Iodomethane	ND	1.0	EPA 8260C	7-18-19	7-18-19	
Methylene Chloride	ND	1.0	EPA 8260C	7-18-19	7-18-19	
(trans) 1,2-Dichloroethene	0.27	0.20	EPA 8260C	7-18-19	7-18-19	
1,1-Dichloroethane	ND	0.20	EPA 8260C	7-18-19	7-18-19	
2,2-Dichloropropane	ND	0.20	EPA 8260C	7-18-19	7-18-19	
(cis) 1,2-Dichloroethene	20	0.20	EPA 8260C	7-18-19	7-18-19	
Bromochloromethane	ND	0.20	EPA 8260C	7-18-19	7-18-19	
Chloroform	ND	0.20	EPA 8260C	7-18-19	7-18-19	
1,1,1-Trichloroethane	ND	0.20	EPA 8260C	7-18-19	7-18-19	
Carbon Tetrachloride	ND	0.20	EPA 8260C	7-18-19	7-18-19	
1,1-Dichloropropene	ND	0.20	EPA 8260C	7-18-19	7-18-19	
1,2-Dichloroethane	ND	0.20	EPA 8260C	7-18-19	7-18-19	
Trichloroethene	3.3	0.20	EPA 8260C	7-18-19	7-18-19	
1,2-Dichloropropane	ND	0.20	EPA 8260C	7-18-19	7-18-19	
Dibromomethane	ND	0.20	EPA 8260C	7-18-19	7-18-19	
Bromodichloromethane	ND	0.20	EPA 8260C	7-18-19	7-18-19	
2-Chloroethyl Vinyl Ether	ND	1.0	EPA 8260C	7-18-19	7-18-19	
(cis) 1,3-Dichloropropene	ND	0.20	EPA 8260C	7-18-19	7-18-19	
(trans) 1,3-Dichloropropene	ND	0.20	EPA 8260C	7-18-19	7-18-19	



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**VOLATILE ORGANICS EPA 8260C**  
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Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>Client ID:</b>	<b>HZ-MW-34:W</b>					
Laboratory ID:	07-190-02					
1,1,2-Trichloroethane	ND	0.20	EPA 8260C	7-18-19	7-18-19	
Tetrachloroethene	1.4	0.20	EPA 8260C	7-18-19	7-18-19	
1,3-Dichloropropane	ND	0.20	EPA 8260C	7-18-19	7-18-19	
Dibromochloromethane	ND	0.20	EPA 8260C	7-18-19	7-18-19	
1,2-Dibromoethane	ND	0.20	EPA 8260C	7-18-19	7-18-19	
Chlorobenzene	ND	0.20	EPA 8260C	7-18-19	7-18-19	
1,1,1,2-Tetrachloroethane	ND	0.20	EPA 8260C	7-18-19	7-18-19	
Bromoform	ND	1.0	EPA 8260C	7-18-19	7-18-19	
Bromobenzene	ND	0.20	EPA 8260C	7-18-19	7-18-19	
1,1,2,2-Tetrachloroethane	ND	0.20	EPA 8260C	7-18-19	7-18-19	
1,2,3-Trichloropropane	ND	0.20	EPA 8260C	7-18-19	7-18-19	
2-Chlorotoluene	ND	0.20	EPA 8260C	7-18-19	7-18-19	
4-Chlorotoluene	ND	0.20	EPA 8260C	7-18-19	7-18-19	
1,3-Dichlorobenzene	ND	0.20	EPA 8260C	7-18-19	7-18-19	
1,4-Dichlorobenzene	ND	0.20	EPA 8260C	7-18-19	7-18-19	
1,2-Dichlorobenzene	ND	0.20	EPA 8260C	7-18-19	7-18-19	
1,2-Dibromo-3-chloropropane	ND	1.0	EPA 8260C	7-18-19	7-18-19	
1,2,4-Trichlorobenzene	ND	0.20	EPA 8260C	7-18-19	7-18-19	
Hexachlorobutadiene	ND	1.0	EPA 8260C	7-18-19	7-18-19	
1,2,3-Trichlorobenzene	ND	0.20	EPA 8260C	7-18-19	7-18-19	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Dibromofluoromethane</i>	98	75-127				
<i>Toluene-d8</i>	99	80-127				
<i>4-Bromofluorobenzene</i>	95	78-125				



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**VOLATILE ORGANICS EPA 8260C**  
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Matrix: Water  
 Units: ug/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>Client ID:</b>	<b>HZ-MW-24:W</b>					
Laboratory ID:	07-190-03					
Dichlorodifluoromethane	ND	0.20	EPA 8260C	7-18-19	7-18-19	
Chloromethane	ND	1.0	EPA 8260C	7-18-19	7-18-19	
Vinyl Chloride	0.58	0.20	EPA 8260C	7-18-19	7-18-19	
Bromomethane	ND	0.20	EPA 8260C	7-18-19	7-18-19	
Chloroethane	ND	1.0	EPA 8260C	7-18-19	7-18-19	
Trichlorofluoromethane	ND	0.20	EPA 8260C	7-18-19	7-18-19	
1,1-Dichloroethene	ND	0.20	EPA 8260C	7-18-19	7-18-19	
Iodomethane	ND	1.0	EPA 8260C	7-18-19	7-18-19	
Methylene Chloride	ND	1.0	EPA 8260C	7-18-19	7-18-19	
(trans) 1,2-Dichloroethene	ND	0.20	EPA 8260C	7-18-19	7-18-19	
1,1-Dichloroethane	ND	0.20	EPA 8260C	7-18-19	7-18-19	
2,2-Dichloropropane	ND	0.20	EPA 8260C	7-18-19	7-18-19	
(cis) 1,2-Dichloroethene	16	0.20	EPA 8260C	7-18-19	7-18-19	
Bromochloromethane	ND	0.20	EPA 8260C	7-18-19	7-18-19	
Chloroform	ND	0.20	EPA 8260C	7-18-19	7-18-19	
1,1,1-Trichloroethane	ND	0.20	EPA 8260C	7-18-19	7-18-19	
Carbon Tetrachloride	ND	0.20	EPA 8260C	7-18-19	7-18-19	
1,1-Dichloropropene	ND	0.20	EPA 8260C	7-18-19	7-18-19	
1,2-Dichloroethane	0.67	0.20	EPA 8260C	7-18-19	7-18-19	
Trichloroethene	1.1	0.20	EPA 8260C	7-18-19	7-18-19	
1,2-Dichloropropane	ND	0.20	EPA 8260C	7-18-19	7-18-19	
Dibromomethane	ND	0.20	EPA 8260C	7-18-19	7-18-19	
Bromodichloromethane	ND	0.20	EPA 8260C	7-18-19	7-18-19	
2-Chloroethyl Vinyl Ether	ND	1.0	EPA 8260C	7-18-19	7-18-19	
(cis) 1,3-Dichloropropene	ND	0.20	EPA 8260C	7-18-19	7-18-19	
(trans) 1,3-Dichloropropene	ND	0.20	EPA 8260C	7-18-19	7-18-19	



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**VOLATILE ORGANICS EPA 8260C**  
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Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>Client ID:</b>	<b>HZ-MW-24:W</b>					
<b>Laboratory ID:</b>	07-190-03					
1,1,2-Trichloroethane	ND	0.20	EPA 8260C	7-18-19	7-18-19	
Tetrachloroethene	2.7	0.20	EPA 8260C	7-18-19	7-18-19	
1,3-Dichloropropane	ND	0.20	EPA 8260C	7-18-19	7-18-19	
Dibromochloromethane	ND	0.20	EPA 8260C	7-18-19	7-18-19	
1,2-Dibromoethane	ND	0.20	EPA 8260C	7-18-19	7-18-19	
Chlorobenzene	ND	0.20	EPA 8260C	7-18-19	7-18-19	
1,1,1,2-Tetrachloroethane	ND	0.20	EPA 8260C	7-18-19	7-18-19	
Bromoform	ND	1.0	EPA 8260C	7-18-19	7-18-19	
Bromobenzene	ND	0.20	EPA 8260C	7-18-19	7-18-19	
1,1,2,2-Tetrachloroethane	ND	0.20	EPA 8260C	7-18-19	7-18-19	
1,2,3-Trichloropropane	ND	0.20	EPA 8260C	7-18-19	7-18-19	
2-Chlorotoluene	ND	0.20	EPA 8260C	7-18-19	7-18-19	
4-Chlorotoluene	ND	0.20	EPA 8260C	7-18-19	7-18-19	
1,3-Dichlorobenzene	ND	0.20	EPA 8260C	7-18-19	7-18-19	
1,4-Dichlorobenzene	ND	0.20	EPA 8260C	7-18-19	7-18-19	
1,2-Dichlorobenzene	ND	0.20	EPA 8260C	7-18-19	7-18-19	
1,2-Dibromo-3-chloropropane	ND	1.0	EPA 8260C	7-18-19	7-18-19	
1,2,4-Trichlorobenzene	ND	0.20	EPA 8260C	7-18-19	7-18-19	
Hexachlorobutadiene	ND	1.0	EPA 8260C	7-18-19	7-18-19	
1,2,3-Trichlorobenzene	ND	0.20	EPA 8260C	7-18-19	7-18-19	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Dibromofluoromethane</i>	97	75-127				
<i>Toluene-d8</i>	98	80-127				
<i>4-Bromofluorobenzene</i>	95	78-125				



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**VOLATILE ORGANICS EPA 8260C**  
**METHOD BLANK QUALITY CONTROL**  
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Matrix: Water  
 Units: ug/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Laboratory ID:	MB0718W2					
Dichlorodifluoromethane	ND	0.20	EPA 8260C	7-18-19	7-18-19	
Chloromethane	ND	1.0	EPA 8260C	7-18-19	7-18-19	
Vinyl Chloride	ND	0.20	EPA 8260C	7-18-19	7-18-19	
Bromomethane	ND	0.20	EPA 8260C	7-18-19	7-18-19	
Chloroethane	ND	1.0	EPA 8260C	7-18-19	7-18-19	
Trichlorofluoromethane	ND	0.20	EPA 8260C	7-18-19	7-18-19	
1,1-Dichloroethene	ND	0.20	EPA 8260C	7-18-19	7-18-19	
Iodomethane	ND	1.0	EPA 8260C	7-18-19	7-18-19	
Methylene Chloride	ND	1.0	EPA 8260C	7-18-19	7-18-19	
(trans) 1,2-Dichloroethene	ND	0.20	EPA 8260C	7-18-19	7-18-19	
1,1-Dichloroethane	ND	0.20	EPA 8260C	7-18-19	7-18-19	
2,2-Dichloropropane	ND	0.20	EPA 8260C	7-18-19	7-18-19	
(cis) 1,2-Dichloroethene	ND	0.20	EPA 8260C	7-18-19	7-18-19	
Bromochloromethane	ND	0.20	EPA 8260C	7-18-19	7-18-19	
Chloroform	ND	0.20	EPA 8260C	7-18-19	7-18-19	
1,1,1-Trichloroethane	ND	0.20	EPA 8260C	7-18-19	7-18-19	
Carbon Tetrachloride	ND	0.20	EPA 8260C	7-18-19	7-18-19	
1,1-Dichloropropene	ND	0.20	EPA 8260C	7-18-19	7-18-19	
1,2-Dichloroethane	ND	0.20	EPA 8260C	7-18-19	7-18-19	
Trichloroethene	ND	0.20	EPA 8260C	7-18-19	7-18-19	
1,2-Dichloropropane	ND	0.20	EPA 8260C	7-18-19	7-18-19	
Dibromomethane	ND	0.20	EPA 8260C	7-18-19	7-18-19	
Bromodichloromethane	ND	0.20	EPA 8260C	7-18-19	7-18-19	
2-Chloroethyl Vinyl Ether	ND	1.0	EPA 8260C	7-18-19	7-18-19	
(cis) 1,3-Dichloropropene	ND	0.20	EPA 8260C	7-18-19	7-18-19	
(trans) 1,3-Dichloropropene	ND	0.20	EPA 8260C	7-18-19	7-18-19	



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**VOLATILE ORGANICS EPA 8260C**  
**METHOD BLANK QUALITY CONTROL**  
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Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Laboratory ID:		MB0718W2				
1,1,2-Trichloroethane	ND	0.20	EPA 8260C	7-18-19	7-18-19	
Tetrachloroethene	ND	0.20	EPA 8260C	7-18-19	7-18-19	
1,3-Dichloropropane	ND	0.20	EPA 8260C	7-18-19	7-18-19	
Dibromochloromethane	ND	0.20	EPA 8260C	7-18-19	7-18-19	
1,2-Dibromoethane	ND	0.20	EPA 8260C	7-18-19	7-18-19	
Chlorobenzene	ND	0.20	EPA 8260C	7-18-19	7-18-19	
1,1,1,2-Tetrachloroethane	ND	0.20	EPA 8260C	7-18-19	7-18-19	
Bromoform	ND	1.0	EPA 8260C	7-18-19	7-18-19	
Bromobenzene	ND	0.20	EPA 8260C	7-18-19	7-18-19	
1,1,2,2-Tetrachloroethane	ND	0.20	EPA 8260C	7-18-19	7-18-19	
1,2,3-Trichloropropane	ND	0.20	EPA 8260C	7-18-19	7-18-19	
2-Chlorotoluene	ND	0.20	EPA 8260C	7-18-19	7-18-19	
4-Chlorotoluene	ND	0.20	EPA 8260C	7-18-19	7-18-19	
1,3-Dichlorobenzene	ND	0.20	EPA 8260C	7-18-19	7-18-19	
1,4-Dichlorobenzene	ND	0.20	EPA 8260C	7-18-19	7-18-19	
1,2-Dichlorobenzene	ND	0.20	EPA 8260C	7-18-19	7-18-19	
1,2-Dibromo-3-chloropropane	ND	1.0	EPA 8260C	7-18-19	7-18-19	
1,2,4-Trichlorobenzene	ND	0.20	EPA 8260C	7-18-19	7-18-19	
Hexachlorobutadiene	ND	1.0	EPA 8260C	7-18-19	7-18-19	
1,2,3-Trichlorobenzene	ND	0.20	EPA 8260C	7-18-19	7-18-19	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Dibromofluoromethane</i>	<i>96</i>	<i>75-127</i>				
<i>Toluene-d8</i>	<i>98</i>	<i>80-127</i>				
<i>4-Bromofluorobenzene</i>	<i>101</i>	<i>78-125</i>				





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**VOLATILE ORGANICS EPA 8260C  
 SB/SBD QUALITY CONTROL**

Matrix: Water  
 Units: ug/L

Analyte	Result		Spike Level		Percent Recovery		Recovery	RPD	RPD	Flags
					Recovery	Limits	RPD	Limit		
<b>SPIKE BLANKS</b>										
Laboratory ID:	SB0718W1									
	SB	SBD	SB	SBD	SB	SBD				
1,1-Dichloroethene	9.14	9.17	10.0	10.0	91	92	63-130	0	17	
Benzene	9.20	9.24	10.0	10.0	92	92	76-125	0	19	
Trichloroethene	10.5	10.7	10.0	10.0	105	107	76-121	2	18	
Toluene	9.75	9.91	10.0	10.0	98	99	80-124	2	18	
Chlorobenzene	10.1	10.4	10.0	10.0	101	104	75-120	3	19	
<i>Surrogate:</i>										
<i>Dibromofluoromethane</i>					101	99	75-127			
<i>Toluene-d8</i>					102	101	80-127			
<i>4-Bromofluorobenzene</i>					99	96	78-125			



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**TOTAL ORGANIC CARBON  
 SM 5310B**

Matrix: Water  
 Units: mg/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>Client ID:</b>	<b>HZ-MW-29:W</b>					
Laboratory ID:	07-190-01					
Total Organic Carbon	<b>15</b>	1.0	SM 5310B	7-23-19	7-23-19	

<b>Client ID:</b>	<b>HZ-MW-34:W</b>					
Laboratory ID:	07-190-02					
Total Organic Carbon	<b>24</b>	1.0	SM 5310B	7-23-19	7-23-19	

<b>Client ID:</b>	<b>HZ-MW-24:W</b>					
Laboratory ID:	07-190-03					
Total Organic Carbon	<b>3.8</b>	1.0	SM 5310B	7-23-19	7-23-19	



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**TOTAL ORGANIC CARBON  
 SM 5310B  
 QUALITY CONTROL**

Matrix: Water  
 Units: mg/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>METHOD BLANK</b>						
Laboratory ID:	MB0723W1					
Total Organic Carbon	<b>ND</b>	1.0	SM 5310B	7-23-19	7-23-19	

Analyte	Result	Spike Level	Source Result	Percent Recovery	Recovery Limits	RPD	RPD Limit	Flags
<b>DUPLICATE</b>								
Laboratory ID:	07-190-01							
	ORIG	DUP						
Total Organic Carbon	<b>15.2</b>	<b>7.0</b>	NA	NA	NA	NA	74	20

**MATRIX SPIKE**

Laboratory ID:	07-190-01							
	MS	MS		MS				
Total Organic Carbon	<b>26.3</b>		10.0	15.2	111	85-131	NA	NA

**SPIKE BLANK**

Laboratory ID:	SB0723W1							
	SB	SB		SB				
Total Organic Carbon	<b>9.76</b>		10.0	NA	98	88-127	NA	NA



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**DISSOLVED IRON**  
**EPA 6010D**

Matrix: Water  
 Units: ug/L (ppb)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>Client ID:</b>	<b>HZ-MW-29:W</b>					
Laboratory ID:	07-190-01					
Iron	<b>9300</b>	56	EPA 6010D	7-17-19	7-18-19	

<b>Client ID:</b>	<b>HZ-MW-34:W</b>					
Laboratory ID:	07-190-02					
Iron	<b>11000</b>	56	EPA 6010D	7-17-19	7-18-19	

<b>Client ID:</b>	<b>HZ-MW-24:W</b>					
Laboratory ID:	07-190-03					
Iron	<b>15000</b>	56	EPA 6010D	7-17-19	7-18-19	



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**DISSOLVED IRON  
 EPA 6010D  
 QUALITY CONTROL**

Matrix: Water  
 Units: ug/L (ppb)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>METHOD BLANK</b>						
Laboratory ID:	MB0717F1					
Iron	<b>ND</b>	56	EPA 6010D	7-17-19	7-18-19	

Analyte	Result	Spike Level	Source Result	Percent Recovery	Recovery Limits	RPD	RPD Limit	Flags
<b>DUPLICATE</b>								
Laboratory ID:	07-170-01							
	ORIG	DUP						
Iron	<b>ND</b>	<b>ND</b>	NA	NA	NA	NA	20	

**MATRIX SPIKES**

Laboratory ID:	07-170-01									
	MS	MSD	MS	MSD		MS	MSD			
Iron	<b>23600</b>	<b>23600</b>	22200	22200	ND	<b>107</b>	<b>107</b>	75-125	0	20



Date of Report: July 29, 2019  
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**CHLORIDE**  
**SM 4500-Cl E**

Matrix: Water  
 Units: mg/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>Client ID:</b>	<b>HZ-MW-29:W</b>					
Laboratory ID:	07-190-01					
Chloride	<b>16</b>	2.0	SM 4500-Cl E	7-18-19	7-18-19	

<b>Client ID:</b>	<b>HZ-MW-34:W</b>					
Laboratory ID:	07-190-02					
Chloride	<b>13</b>	2.0	SM 4500-Cl E	7-18-19	7-18-19	

<b>Client ID:</b>	<b>HZ-MW-24:W</b>					
Laboratory ID:	07-190-03					
Chloride	<b>13</b>	2.0	SM 4500-Cl E	7-18-19	7-18-19	



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**CHLORIDE  
 SM 4500-CI E  
 QUALITY CONTROL**

Matrix: Water  
 Units: mg/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>METHOD BLANK</b>						
Laboratory ID:	MB0718W1					
Chloride	<b>ND</b>	2.0	SM 4500-CI E	7-18-19	7-18-19	

Analyte	Result	Spike Level	Source Result	Percent Recovery	Recovery Limits	RPD	RPD Limit	Flags
<b>DUPLICATE</b>								
Laboratory ID:	07-190-01							
	ORIG	DUP						
Chloride	<b>15.6</b>	<b>15.9</b>	NA	NA	NA	2	17	

<b>MATRIX SPIKE</b>								
Laboratory ID:	07-190-01							
	MS	MS		MS				
Chloride	<b>61.2</b>	50.0	15.6	91	80-116	NA	NA	

<b>SPIKE BLANK</b>								
Laboratory ID:	SB0718W1							
	SB	SB		SB				
Chloride	<b>46.3</b>	50.0	NA	93	90-110	NA	NA	



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**SULFATE**  
**ASTM D516-11**

Matrix: Water  
 Units: mg/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>Client ID:</b>	<b>HZ-MW-29:W</b>					
Laboratory ID:	07-190-01					
Sulfate	<b>ND</b>	5.0	ASTM D516-11	7-23-19	7-23-19	

<b>Client ID:</b>	<b>HZ-MW-34:W</b>					
Laboratory ID:	07-190-02					
Sulfate	<b>5.2</b>	5.0	ASTM D516-11	7-23-19	7-23-19	

<b>Client ID:</b>	<b>HZ-MW-24:W</b>					
Laboratory ID:	07-190-03					
Sulfate	<b>7.8</b>	5.0	ASTM D516-11	7-23-19	7-23-19	





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**SULFATE  
 ASTM D516-11  
 QUALITY CONTROL**

Matrix: Water  
 Units: mg/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>METHOD BLANK</b>						
Laboratory ID:	MB0723W1					
Sulfate	ND	5.0	ASTM D516-11	7-23-19	7-23-19	

Analyte	Result	Spike Level	Source Result	Percent Recovery	Recovery Limits	RPD	RPD Limit	Flags
<b>DUPLICATE</b>								
Laboratory ID:	07-208-01							
	ORIG	DUP						
Sulfate	ND	ND	NA	NA	NA	NA	10	

<b>MATRIX SPIKE</b>								
Laboratory ID:	07-208-01							
	MS	MS		MS				
Sulfate	11.8	10.0	ND	118	73-134	NA	NA	

<b>SPIKE BLANK</b>								
Laboratory ID:	SB0723W1							
	SB	SB		SB				
Sulfate	10.2	10.0	NA	102	89-113	NA	NA	



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**AMMONIA (as Nitrogen)**  
**SM 4500-NH<sub>3</sub> D**

Matrix: Water  
 Units: mg NH<sub>3</sub>-N/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>Client ID:</b>	<b>HZ-MW-29:W</b>					
Laboratory ID:	07-190-01					
Ammonia	<b>0.76</b>	0.050	SM 4500-NH <sub>3</sub> D	7-19-19	7-19-19	
<b>Client ID:</b>	<b>HZ-MW-34:W</b>					
Laboratory ID:	07-190-02					
Ammonia	<b>ND</b>	0.050	SM 4500-NH <sub>3</sub> D	7-19-19	7-19-19	
<b>Client ID:</b>	<b>HZ-MW-24:W</b>					
Laboratory ID:	07-190-03					
Ammonia	<b>0.39</b>	0.050	SM 4500-NH <sub>3</sub> D	7-19-19	7-19-19	



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**AMMONIA (as Nitrogen)  
 SM 4500-NH<sub>3</sub> D  
 QUALITY CONTROL**

Matrix: Water  
 Units: mg NH<sub>3</sub>-N/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>METHOD BLANK</b>						
Laboratory ID:	MB0719W1					
Ammonia	ND	0.050	SM 4500-NH <sub>3</sub> D	7-19-19	7-19-19	

Analyte	Result	Spike Level	Source Result	Percent Recovery	Recovery Limits	RPD	RPD Limit	Flags
<b>DUPLICATE</b>								
Laboratory ID:	07-170-01							
	ORIG	DUP						
Ammonia	ND	ND	NA	NA	NA	NA	12	

<b>MATRIX SPIKE</b>								
Laboratory ID:	07-170-01							
	MS	MS		MS				
Ammonia	5.01	5.00	ND	100	75-121	NA	NA	

<b>SPIKE BLANK</b>								
Laboratory ID:	SB0719W1							
	SB	SB		SB				
Ammonia	5.01	5.00	NA	100	85-110	NA	NA	



Date of Report: July 29, 2019  
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 Laboratory Reference: 1907-190  
 Project: 82302-9.4

**DISSOLVED GASES  
 RSK 175**

Matrix: Water  
 Units: ug/L (ppb)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>Client ID:</b>	<b>HZ-MW-29:W</b>					
Laboratory ID:	07-190-01					
Methane	<b>9500</b>	1000	RSK 175	7-23-19	7-23-19	
Ethane	<b>ND</b>	0.50	RSK 175	7-23-19	7-23-19	
Ethene	<b>ND</b>	0.50	RSK 175	7-23-19	7-23-19	

<b>Client ID:</b>	<b>HZ-MW-34:W</b>					
Laboratory ID:	07-190-02					
Methane	<b>3100</b>	500	RSK 175	7-23-19	7-23-19	
Ethane	<b>ND</b>	0.50	RSK 175	7-23-19	7-23-19	
Ethene	<b>ND</b>	0.50	RSK 175	7-23-19	7-23-19	

<b>Client ID:</b>	<b>HZ-MW-24:W</b>					
Laboratory ID:	07-190-03					
Methane	<b>6300</b>	1000	RSK 175	7-23-19	7-23-19	
Ethane	<b>ND</b>	0.50	RSK 175	7-23-19	7-23-19	
Ethene	<b>ND</b>	0.50	RSK 175	7-23-19	7-23-19	



Date of Report: July 29, 2019  
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 Project: 82302-9.4

**DISSOLVED GASES  
 RSK 175  
 QUALITY CONTROL**

Matrix: Water  
 Units: ug/L (ppb)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>METHOD BLANK</b>						
Laboratory ID:	MB0723W1					
Methane	ND	1.0	RSK 175	7-23-19	7-23-19	
Ethane	ND	0.50	RSK 175	7-23-19	7-23-19	
Ethene	ND	0.50	RSK 175	7-23-19	7-23-19	

Analyte	Result		Spike Level		Source Result	Percent Recovery	Recovery Limits	RPD	RPD Limit	Flags
<b>MATRIX SPIKES</b>										
Laboratory ID:	01-123-01									
	MS	MSD	MS	MSD		MS	MSD			
Methane	9.41	9.08	4.42	4.42	4.20	118	110	75-125	4	25
Ethane	7.79	7.34	8.32	8.32	ND	94	88	75-125	6	25
Ethene	5.79	6.37	7.77	7.77	ND	75	82	75-125	10	25





### Data Qualifiers and Abbreviations

- A - Due to a high sample concentration, the amount spiked is insufficient for meaningful MS/MSD recovery data.
  - B - The analyte indicated was also found in the blank sample.
  - C - The duplicate RPD is outside control limits due to high result variability when analyte concentrations are within five times the quantitation limit.
  - E - The value reported exceeds the quantitation range and is an estimate.
  - F - Surrogate recovery data is not available due to the high concentration of coeluting target compounds.
  - H - The analyte indicated is a common laboratory solvent and may have been introduced during sample preparation, and be impacting the sample result.
  - I - Compound recovery is outside of the control limits.
  - J - The value reported was below the practical quantitation limit. The value is an estimate.
  - K - Sample duplicate RPD is outside control limits due to sample inhomogeneity. The sample was re-extracted and re-analyzed with similar results.
  - L - The RPD is outside of the control limits.
  - M - Hydrocarbons in the gasoline range are impacting the diesel range result.
  - M1 - Hydrocarbons in the gasoline range (toluene-naphthalene) are present in the sample.
  - N - Hydrocarbons in the lube oil range are impacting the diesel range result.
  - N1 - Hydrocarbons in diesel range are impacting lube oil range results.
  - O - Hydrocarbons indicative of heavier fuels are present in the sample and are impacting the gasoline result.
  - P - The RPD of the detected concentrations between the two columns is greater than 40.
  - Q - Surrogate recovery is outside of the control limits.
  - S - Surrogate recovery data is not available due to the necessary dilution of the sample.
  - T - The sample chromatogram is not similar to a typical \_\_\_\_\_.
  - U - The analyte was analyzed for, but was not detected above the reported sample quantitation limit.
  - U1 - The practical quantitation limit is elevated due to interferences present in the sample.
  - V - Matrix Spike/Matrix Spike Duplicate recoveries are outside control limits due to matrix effects.
  - W - Matrix Spike/Matrix Spike Duplicate RPD are outside control limits due to matrix effects.
  - X - Sample extract treated with a mercury cleanup procedure.
  - X1 - Sample extract treated with a sulfuric acid/silica gel cleanup procedure.
  - Y - The calibration verification for this analyte exceeded the 20% drift specified in methods 8260 & 8270, and therefore the reported result should be considered an estimate. The overall performance of the calibration verification standard met the acceptance criteria of the method.
  - Z -
- ND - Not Detected at PQL  
 PQL - Practical Quantitation Limit  
 RPD - Relative Percent Difference







14648 NE 95<sup>th</sup> Street, Redmond, WA 98052 • (425) 883-3881

July 31, 2019

Jeff Jensen  
Kane Environmental, Inc.  
4015 13th Avenue West  
Seattle, WA 98119

Re: Analytical Data for Project 82302-9.4  
Laboratory Reference No. 1907-244

Dear Jeff:

Enclosed are the analytical results and associated quality control data for samples submitted on July 22, 2019.

The standard policy of OnSite Environmental, Inc. is to store your samples for 30 days from the date of receipt. If you require longer storage, please contact the laboratory.

We appreciate the opportunity to be of service to you on this project. If you have any questions concerning the data, or need additional information, please feel free to call me.

Sincerely,

A handwritten signature in black ink, appearing to read "DB", with a long horizontal flourish extending to the right.

David Baumeister  
Project Manager

Enclosures



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OnSite Environmental, Inc. 14648 NE 95<sup>th</sup> Street, Redmond, WA 98052 (425) 883-3881

This report pertains to the samples analyzed in accordance with the chain of custody, and is intended only for the use of the individual or company to whom it is addressed.



Date of Report: July 31, 2019  
Samples Submitted: July 22, 2019  
Laboratory Reference: 1907-244  
Project: 82302-9.4

### Case Narrative

Samples were collected on July 22, 2019 and received by the laboratory on July 22, 2019. They were maintained at the laboratory at a temperature of 2°C to 6°C.

Please note that any and all soil sample results are reported on a dry-weight basis, unless otherwise noted below.

General QA/QC issues associated with the analytical data enclosed in this laboratory report will be indicated with a reference to a comment or explanation on the Data Qualifier page. More complex and involved QA/QC issues will be discussed in detail below.



Date of Report: July 31, 2019  
 Samples Submitted: July 22, 2019  
 Laboratory Reference: 1907-244  
 Project: 82302-9.4

**VOLATILE ORGANICS EPA 8260C/SIM**  
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Matrix: Water  
 Units: ug/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>Client ID:</b>	<b>MW-8:W</b>					
Laboratory ID:	07-244-01					
Dichlorodifluoromethane	ND	0.28	EPA 8260C	7-23-19	7-23-19	
Chloromethane	ND	1.0	EPA 8260C	7-23-19	7-23-19	
Vinyl Chloride	ND	0.020	EPA 8260C/SIM	7-23-19	7-23-19	
Bromomethane	ND	0.20	EPA 8260C	7-23-19	7-23-19	
Chloroethane	ND	1.0	EPA 8260C	7-23-19	7-23-19	
Trichlorofluoromethane	ND	0.20	EPA 8260C	7-23-19	7-23-19	
1,1-Dichloroethene	ND	0.20	EPA 8260C	7-23-19	7-23-19	
Iodomethane	ND	1.3	EPA 8260C	7-23-19	7-23-19	
Methylene Chloride	ND	1.0	EPA 8260C	7-23-19	7-23-19	
(trans) 1,2-Dichloroethene	ND	0.20	EPA 8260C	7-23-19	7-23-19	
1,1-Dichloroethane	ND	0.20	EPA 8260C	7-23-19	7-23-19	
2,2-Dichloropropane	ND	0.20	EPA 8260C	7-23-19	7-23-19	
(cis) 1,2-Dichloroethene	0.53	0.20	EPA 8260C	7-23-19	7-23-19	
Bromochloromethane	ND	0.20	EPA 8260C	7-23-19	7-23-19	
Chloroform	ND	0.20	EPA 8260C	7-23-19	7-23-19	
1,1,1-Trichloroethane	ND	0.20	EPA 8260C	7-23-19	7-23-19	
Carbon Tetrachloride	ND	0.20	EPA 8260C	7-23-19	7-23-19	
1,1-Dichloropropene	ND	0.20	EPA 8260C	7-23-19	7-23-19	
1,2-Dichloroethane	ND	0.20	EPA 8260C	7-23-19	7-23-19	
Trichloroethene	0.48	0.20	EPA 8260C	7-23-19	7-23-19	
1,2-Dichloropropane	ND	0.20	EPA 8260C	7-23-19	7-23-19	
Dibromomethane	ND	0.20	EPA 8260C	7-23-19	7-23-19	
Bromodichloromethane	ND	0.20	EPA 8260C	7-23-19	7-23-19	
2-Chloroethyl Vinyl Ether	ND	1.0	EPA 8260C	7-23-19	7-23-19	
(cis) 1,3-Dichloropropene	ND	0.20	EPA 8260C	7-23-19	7-23-19	
(trans) 1,3-Dichloropropene	ND	0.20	EPA 8260C	7-23-19	7-23-19	



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**VOLATILE ORGANICS EPA 8260C/SIM**  
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Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>Client ID:</b>	<b>MW-8:W</b>					
Laboratory ID:	07-244-01					
1,1,2-Trichloroethane	ND	0.20	EPA 8260C	7-23-19	7-23-19	
Tetrachloroethene	1.9	0.20	EPA 8260C	7-23-19	7-23-19	
1,3-Dichloropropane	ND	0.20	EPA 8260C	7-23-19	7-23-19	
Dibromochloromethane	ND	0.20	EPA 8260C	7-23-19	7-23-19	
1,2-Dibromoethane	ND	0.20	EPA 8260C	7-23-19	7-23-19	
Chlorobenzene	ND	0.20	EPA 8260C	7-23-19	7-23-19	
1,1,1,2-Tetrachloroethane	ND	0.20	EPA 8260C	7-23-19	7-23-19	
Bromoform	ND	1.0	EPA 8260C	7-23-19	7-23-19	
Bromobenzene	ND	0.20	EPA 8260C	7-23-19	7-23-19	
1,1,1,2,2-Tetrachloroethane	ND	0.20	EPA 8260C	7-23-19	7-23-19	
1,2,3-Trichloropropane	ND	0.20	EPA 8260C	7-23-19	7-23-19	
2-Chlorotoluene	ND	0.20	EPA 8260C	7-23-19	7-23-19	
4-Chlorotoluene	ND	0.20	EPA 8260C	7-23-19	7-23-19	
1,3-Dichlorobenzene	ND	0.20	EPA 8260C	7-23-19	7-23-19	
1,4-Dichlorobenzene	ND	0.20	EPA 8260C	7-23-19	7-23-19	
1,2-Dichlorobenzene	ND	0.20	EPA 8260C	7-23-19	7-23-19	
1,2-Dibromo-3-chloropropane	ND	1.0	EPA 8260C	7-23-19	7-23-19	
1,2,4-Trichlorobenzene	ND	0.20	EPA 8260C	7-23-19	7-23-19	
Hexachlorobutadiene	ND	1.0	EPA 8260C	7-23-19	7-23-19	
1,2,3-Trichlorobenzene	ND	0.20	EPA 8260C	7-23-19	7-23-19	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Dibromofluoromethane</i>	<i>103</i>	<i>75-127</i>				
<i>Toluene-d8</i>	<i>106</i>	<i>80-127</i>				
<i>4-Bromofluorobenzene</i>	<i>98</i>	<i>78-125</i>				



Date of Report: July 31, 2019  
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**VOLATILE ORGANICS EPA 8260C/SIM**  
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Matrix: Water  
 Units: ug/L

<b>Analyte</b>	<b>Result</b>	<b>PQL</b>	<b>Method</b>	<b>Date Prepared</b>	<b>Date Analyzed</b>	<b>Flags</b>
<b>Client ID:</b>	<b>MW-12:W</b>					
<b>Laboratory ID:</b>	<b>07-244-02</b>					
Dichlorodifluoromethane	ND	7.0	EPA 8260C	7-23-19	7-23-19	
Chloromethane	ND	25	EPA 8260C	7-23-19	7-23-19	
Vinyl Chloride	6.2	5.0	EPA 8260C	7-23-19	7-23-19	
Bromomethane	ND	5.0	EPA 8260C	7-23-19	7-23-19	
Chloroethane	ND	25	EPA 8260C	7-23-19	7-23-19	
Trichlorofluoromethane	ND	5.0	EPA 8260C	7-23-19	7-23-19	
1,1-Dichloroethene	ND	5.0	EPA 8260C	7-23-19	7-23-19	
Iodomethane	ND	33	EPA 8260C	7-23-19	7-23-19	
Methylene Chloride	ND	25	EPA 8260C	7-23-19	7-23-19	
(trans) 1,2-Dichloroethene	ND	5.0	EPA 8260C	7-23-19	7-23-19	
1,1-Dichloroethane	ND	5.0	EPA 8260C	7-23-19	7-23-19	
2,2-Dichloropropane	ND	5.0	EPA 8260C	7-23-19	7-23-19	
(cis) 1,2-Dichloroethene	630	5.0	EPA 8260C	7-23-19	7-23-19	
Bromochloromethane	ND	5.0	EPA 8260C	7-23-19	7-23-19	
Chloroform	ND	5.0	EPA 8260C	7-23-19	7-23-19	
1,1,1-Trichloroethane	ND	5.0	EPA 8260C	7-23-19	7-23-19	
Carbon Tetrachloride	ND	5.0	EPA 8260C	7-23-19	7-23-19	
1,1-Dichloropropene	ND	5.0	EPA 8260C	7-23-19	7-23-19	
1,2-Dichloroethane	ND	5.0	EPA 8260C	7-23-19	7-23-19	
Trichloroethene	240	5.0	EPA 8260C	7-23-19	7-23-19	
1,2-Dichloropropane	ND	5.0	EPA 8260C	7-23-19	7-23-19	
Dibromomethane	ND	5.0	EPA 8260C	7-23-19	7-23-19	
Bromodichloromethane	ND	5.0	EPA 8260C	7-23-19	7-23-19	
2-Chloroethyl Vinyl Ether	ND	25	EPA 8260C	7-23-19	7-23-19	
(cis) 1,3-Dichloropropene	ND	5.0	EPA 8260C	7-23-19	7-23-19	
(trans) 1,3-Dichloropropene	ND	5.0	EPA 8260C	7-23-19	7-23-19	



Date of Report: July 31, 2019  
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**VOLATILE ORGANICS EPA 8260C/SIM**  
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Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>Client ID:</b>	<b>MW-12:W</b>					
Laboratory ID:	07-244-02					
1,1,2-Trichloroethane	ND	5.0	EPA 8260C	7-23-19	7-23-19	
Tetrachloroethene	910	10	EPA 8260C	7-23-19	7-23-19	
1,3-Dichloropropane	ND	5.0	EPA 8260C	7-23-19	7-23-19	
Dibromochloromethane	ND	5.0	EPA 8260C	7-23-19	7-23-19	
1,2-Dibromoethane	ND	5.0	EPA 8260C	7-23-19	7-23-19	
Chlorobenzene	ND	5.0	EPA 8260C	7-23-19	7-23-19	
1,1,1,2-Tetrachloroethane	ND	5.0	EPA 8260C	7-23-19	7-23-19	
Bromoform	ND	25	EPA 8260C	7-23-19	7-23-19	
Bromobenzene	ND	5.0	EPA 8260C	7-23-19	7-23-19	
1,1,2,2-Tetrachloroethane	ND	5.0	EPA 8260C	7-23-19	7-23-19	
1,2,3-Trichloropropane	ND	5.0	EPA 8260C	7-23-19	7-23-19	
2-Chlorotoluene	ND	5.0	EPA 8260C	7-23-19	7-23-19	
4-Chlorotoluene	ND	5.0	EPA 8260C	7-23-19	7-23-19	
1,3-Dichlorobenzene	ND	5.0	EPA 8260C	7-23-19	7-23-19	
1,4-Dichlorobenzene	ND	5.0	EPA 8260C	7-23-19	7-23-19	
1,2-Dichlorobenzene	ND	5.0	EPA 8260C	7-23-19	7-23-19	
1,2-Dibromo-3-chloropropane	ND	25	EPA 8260C	7-23-19	7-23-19	
1,2,4-Trichlorobenzene	ND	5.0	EPA 8260C	7-23-19	7-23-19	
Hexachlorobutadiene	ND	25	EPA 8260C	7-23-19	7-23-19	
1,2,3-Trichlorobenzene	ND	5.0	EPA 8260C	7-23-19	7-23-19	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Dibromofluoromethane</i>	<i>105</i>	<i>75-127</i>				
<i>Toluene-d8</i>	<i>99</i>	<i>80-127</i>				
<i>4-Bromofluorobenzene</i>	<i>90</i>	<i>78-125</i>				



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**VOLATILE ORGANICS EPA 8260C/SIM**  
**METHOD BLANK QUALITY CONTROL**  
 page 1 of 2

Matrix: Water  
 Units: ug/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Laboratory ID:	MB0723W1					
Dichlorodifluoromethane	ND	0.28	EPA 8260C	7-23-19	7-23-19	
Chloromethane	ND	1.0	EPA 8260C	7-23-19	7-23-19	
Vinyl Chloride	ND	0.020	EPA 8260C/SIM	7-23-19	7-23-19	
Bromomethane	ND	0.20	EPA 8260C	7-23-19	7-23-19	
Chloroethane	ND	1.0	EPA 8260C	7-23-19	7-23-19	
Trichlorofluoromethane	ND	0.20	EPA 8260C	7-23-19	7-23-19	
1,1-Dichloroethene	ND	0.20	EPA 8260C	7-23-19	7-23-19	
Iodomethane	ND	1.3	EPA 8260C	7-23-19	7-23-19	
Methylene Chloride	ND	1.0	EPA 8260C	7-23-19	7-23-19	
(trans) 1,2-Dichloroethene	ND	0.20	EPA 8260C	7-23-19	7-23-19	
1,1-Dichloroethane	ND	0.20	EPA 8260C	7-23-19	7-23-19	
2,2-Dichloropropane	ND	0.20	EPA 8260C	7-23-19	7-23-19	
(cis) 1,2-Dichloroethene	ND	0.20	EPA 8260C	7-23-19	7-23-19	
Bromochloromethane	ND	0.20	EPA 8260C	7-23-19	7-23-19	
Chloroform	ND	0.20	EPA 8260C	7-23-19	7-23-19	
1,1,1-Trichloroethane	ND	0.20	EPA 8260C	7-23-19	7-23-19	
Carbon Tetrachloride	ND	0.20	EPA 8260C	7-23-19	7-23-19	
1,1-Dichloropropene	ND	0.20	EPA 8260C	7-23-19	7-23-19	
1,2-Dichloroethane	ND	0.20	EPA 8260C	7-23-19	7-23-19	
Trichloroethene	ND	0.20	EPA 8260C	7-23-19	7-23-19	
1,2-Dichloropropane	ND	0.20	EPA 8260C	7-23-19	7-23-19	
Dibromomethane	ND	0.20	EPA 8260C	7-23-19	7-23-19	
Bromodichloromethane	ND	0.20	EPA 8260C	7-23-19	7-23-19	
2-Chloroethyl Vinyl Ether	ND	1.0	EPA 8260C	7-23-19	7-23-19	
(cis) 1,3-Dichloropropene	ND	0.20	EPA 8260C	7-23-19	7-23-19	
(trans) 1,3-Dichloropropene	ND	0.20	EPA 8260C	7-23-19	7-23-19	



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**VOLATILE ORGANICS EPA 8260C/SIM  
 METHOD BLANK QUALITY CONTROL**  
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Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Laboratory ID:	MB0723W1					
1,1,2-Trichloroethane	ND	0.20	EPA 8260C	7-23-19	7-23-19	
Tetrachloroethene	ND	0.20	EPA 8260C	7-23-19	7-23-19	
1,3-Dichloropropane	ND	0.20	EPA 8260C	7-23-19	7-23-19	
Dibromochloromethane	ND	0.20	EPA 8260C	7-23-19	7-23-19	
1,2-Dibromoethane	ND	0.20	EPA 8260C	7-23-19	7-23-19	
Chlorobenzene	ND	0.20	EPA 8260C	7-23-19	7-23-19	
1,1,1,2-Tetrachloroethane	ND	0.20	EPA 8260C	7-23-19	7-23-19	
Bromoform	ND	1.0	EPA 8260C	7-23-19	7-23-19	
Bromobenzene	ND	0.20	EPA 8260C	7-23-19	7-23-19	
1,1,2,2-Tetrachloroethane	ND	0.20	EPA 8260C	7-23-19	7-23-19	
1,2,3-Trichloropropane	ND	0.20	EPA 8260C	7-23-19	7-23-19	
2-Chlorotoluene	ND	0.20	EPA 8260C	7-23-19	7-23-19	
4-Chlorotoluene	ND	0.20	EPA 8260C	7-23-19	7-23-19	
1,3-Dichlorobenzene	ND	0.20	EPA 8260C	7-23-19	7-23-19	
1,4-Dichlorobenzene	ND	0.20	EPA 8260C	7-23-19	7-23-19	
1,2-Dichlorobenzene	ND	0.20	EPA 8260C	7-23-19	7-23-19	
1,2-Dibromo-3-chloropropane	ND	1.0	EPA 8260C	7-23-19	7-23-19	
1,2,4-Trichlorobenzene	ND	0.20	EPA 8260C	7-23-19	7-23-19	
Hexachlorobutadiene	ND	1.0	EPA 8260C	7-23-19	7-23-19	
1,2,3-Trichlorobenzene	ND	0.20	EPA 8260C	7-23-19	7-23-19	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Dibromofluoromethane</i>	<i>106</i>	<i>75-127</i>				
<i>Toluene-d8</i>	<i>104</i>	<i>80-127</i>				
<i>4-Bromofluorobenzene</i>	<i>91</i>	<i>78-125</i>				



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**VOLATILE ORGANICS EPA 8260C/SIM  
 SB/SBD QUALITY CONTROL**

Matrix: Water  
 Units: ug/L

Analyte	Result		Spike Level		Percent Recovery		Recovery	RPD		Flags
					Recovery	Limits	RPD	Limit		
<b>SPIKE BLANKS</b>										
Laboratory ID:	SB0723W1									
	SB	SBD	SB	SBD	SB	SBD				
1,1-Dichloroethene	<b>7.68</b>	<b>8.30</b>	10.0	10.0	77	83	63-130	8	17	
Benzene	<b>8.16</b>	<b>8.69</b>	10.0	10.0	82	87	76-125	6	19	
Trichloroethene	<b>8.09</b>	<b>8.62</b>	10.0	10.0	81	86	76-121	6	18	
Toluene	<b>8.10</b>	<b>8.66</b>	10.0	10.0	81	87	80-124	7	18	
Chlorobenzene	<b>9.19</b>	<b>9.53</b>	10.0	10.0	92	95	75-120	4	19	
<i>Surrogate:</i>										
<i>Dibromofluoromethane</i>					<i>102</i>	<i>104</i>	<i>75-127</i>			
<i>Toluene-d8</i>					<i>98</i>	<i>99</i>	<i>80-127</i>			
<i>4-Bromofluorobenzene</i>					<i>87</i>	<i>88</i>	<i>78-125</i>			





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**TOTAL ORGANIC CARBON  
SM 5310B**

Matrix: Water  
Units: mg/L

<b>Analyte</b>	<b>Result</b>	<b>PQL</b>	<b>Method</b>	<b>Date Prepared</b>	<b>Date Analyzed</b>	<b>Flags</b>
<b>Client ID:</b>	<b>MW-8:W</b>					
Laboratory ID:	07-244-01					
Total Organic Carbon	<b>2.1</b>	1.0	SM 5310B	7-23-19	7-23-19	

<b>Client ID:</b>	<b>MW-12:W</b>					
Laboratory ID:	07-244-02					
Total Organic Carbon	<b>2.8</b>	1.0	SM 5310B	7-23-19	7-23-19	



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**TOTAL ORGANIC CARBON  
 SM 5310B  
 QUALITY CONTROL**

Matrix: Water  
 Units: mg/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>METHOD BLANK</b>						
Laboratory ID:	MB0723W1					
Total Organic Carbon	<b>ND</b>	1.0	SM 5310B	7-23-19	7-23-19	

Analyte	Result	Spike Level	Source Result	Percent Recovery	Recovery Limits	RPD	RPD Limit	Flags
<b>DUPLICATE</b>								
Laboratory ID:	07-190-01							
	ORIG	DUP						
Total Organic Carbon	<b>15.2</b>	<b>7.0</b>	NA	NA	NA	NA	74	20

**MATRIX SPIKE**

Laboratory ID:	07-190-01							
	MS	MS		MS				
Total Organic Carbon	<b>26.3</b>		10.0	15.2	111	85-131	NA	NA

**SPIKE BLANK**

Laboratory ID:	SB0723W1							
	SB	SB		SB				
Total Organic Carbon	<b>9.76</b>		10.0	NA	98	88-127	NA	NA



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**DISSOLVED IRON**  
**EPA 6010D**

Matrix: Water  
Units: ug/L (ppb)

<b>Analyte</b>	<b>Result</b>	<b>PQL</b>	<b>Method</b>	<b>Date Prepared</b>	<b>Date Analyzed</b>	<b>Flags</b>
<b>Client ID:</b>	<b>MW-8:W</b>					
Laboratory ID:	07-244-01					
Iron	<b>450</b>	56	EPA 6010D	7-22-19	7-24-19	

<b>Client ID:</b>	<b>MW-12:W</b>					
Laboratory ID:	07-244-02					
Iron	<b>3400</b>	56	EPA 6010D	7-22-19	7-24-19	



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**DISSOLVED IRON  
 EPA 6010D  
 QUALITY CONTROL**

Matrix: Water  
 Units: ug/L (ppb)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>METHOD BLANK</b>						
Laboratory ID:	MB0722F1					
Iron	<b>ND</b>	56	EPA 6010D	7-22-19	7-24-19	

Analyte	Result	Spike Level	Source Result	Percent Recovery	Recovery Limits	RPD	RPD Limit	Flags
<b>DUPLICATE</b>								
Laboratory ID:	07-234-03							
	ORIG	DUP						
Iron	<b>585</b>	<b>577</b>	NA	NA	NA	1	20	

**MATRIX SPIKES**

Laboratory ID:	MS	MSD	MS	MSD	MS	MSD	RPD	RPD Limit	Flags	
	07-234-03									
Iron	<b>22000</b>	<b>21900</b>	22200	22200	585	<b>97</b>	<b>96</b>	75-125	1	20



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**CHLORIDE**  
**SM 4500-Cl E**

Matrix: Water  
 Units: mg/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>Client ID:</b>	<b>MW-8:W</b>					
Laboratory ID:	07-244-01					
Chloride	<b>8.4</b>	2.0	SM 4500-Cl E	7-25-19	7-25-19	

<b>Client ID:</b>	<b>MW-12:W</b>					
Laboratory ID:	07-244-02					
Chloride	<b>42</b>	2.0	SM 4500-Cl E	7-25-19	7-25-19	



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**CHLORIDE  
 SM 4500-Cl E  
 QUALITY CONTROL**

Matrix: Water  
 Units: mg/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>METHOD BLANK</b>						
Laboratory ID:	MB0725W1					
Chloride	<b>ND</b>	2.0	SM 4500-Cl E	7-25-19	7-25-19	

Analyte	Result	Spike Level	Source Result	Percent Recovery	Recovery Limits	RPD	RPD Limit	Flags
<b>DUPLICATE</b>								
Laboratory ID:	07-274-05							
	ORIG	DUP						
Chloride	<b>3.57</b>	<b>4.09</b>	NA	NA	NA	14	17	

<b>MATRIX SPIKE</b>								
Laboratory ID:	07-274-05							
	MS	MS		MS				
Chloride	<b>56.0</b>	50.0	3.57	105	80-116	NA	NA	

<b>SPIKE BLANK</b>								
Laboratory ID:	SB0725W1							
	SB	SB		SB				
Chloride	<b>48.5</b>	50.0	NA	97	90-110	NA	NA	



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**SULFATE**  
**ASTM D516-11**

Matrix: Water  
Units: mg/L

<b>Analyte</b>	<b>Result</b>	<b>PQL</b>	<b>Method</b>	<b>Date Prepared</b>	<b>Date Analyzed</b>	<b>Flags</b>
<b>Client ID:</b>	<b>MW-8:W</b>					
Laboratory ID:	07-244-01					
Sulfate	<b>7.5</b>	5.0	ASTM D516-11	7-23-19	7-23-19	

<b>Client ID:</b>	<b>MW-12:W</b>					
Laboratory ID:	07-244-02					
Sulfate	<b>18</b>	5.0	ASTM D516-11	7-23-19	7-23-19	



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**SULFATE  
 ASTM D516-11  
 QUALITY CONTROL**

Matrix: Water  
 Units: mg/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>METHOD BLANK</b>						
Laboratory ID:	MB0723W1					
Sulfate	<b>ND</b>	5.0	ASTM D516-11	7-23-19	7-23-19	

Analyte	Result	Spike Level	Source Result	Percent Recovery	Recovery Limits	RPD	RPD Limit	Flags
<b>DUPLICATE</b>								
Laboratory ID:	07-208-01							
	ORIG	DUP						
Sulfate	<b>ND</b>	<b>ND</b>	NA	NA	NA	NA	10	

<b>MATRIX SPIKE</b>								
Laboratory ID:	07-208-01							
	MS	MS		MS				
Sulfate	<b>11.8</b>	10.0	ND	118	73-134	NA	NA	

<b>SPIKE BLANK</b>								
Laboratory ID:	SB0723W1							
	SB	SB		SB				
Sulfate	<b>10.2</b>	10.0	NA	102	89-113	NA	NA	





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**AMMONIA (as Nitrogen)**  
**SM 4500-NH<sub>3</sub> D**

Matrix: Water  
Units: mg NH<sub>3</sub>-N/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>Client ID:</b>	<b>MW-8:W</b>					
Laboratory ID:	07-244-01					
Ammonia	<b>ND</b>	0.050	SM 4500-NH <sub>3</sub> D	7-25-19	7-25-19	

<b>Client ID:</b>	<b>MW-12:W</b>					
Laboratory ID:	07-244-02					
Ammonia	<b>ND</b>	0.050	SM 4500-NH <sub>3</sub> D	7-25-19	7-25-19	



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**AMMONIA (as Nitrogen)  
 SM 4500-NH<sub>3</sub> D  
 QUALITY CONTROL**

Matrix: Water  
 Units: mg NH<sub>3</sub>-N/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>METHOD BLANK</b>						
Laboratory ID:	MB0725W1					
Ammonia	<b>ND</b>	0.050	SM 4500-NH <sub>3</sub> D	7-25-19	7-25-19	

Analyte	Result	Spike Level	Source Result	Percent Recovery	Recovery Limits	RPD	RPD Limit	Flags
<b>DUPLICATE</b>								
Laboratory ID:	07-274-05							
	ORIG	DUP						
Ammonia	<b>ND</b>	<b>ND</b>	NA	NA	NA	NA	12	

<b>MATRIX SPIKE</b>								
Laboratory ID:	07-274-05							
	MS	MS		MS				
Ammonia	<b>4.87</b>	5.00	ND	97	75-121	NA	NA	

<b>SPIKE BLANK</b>								
Laboratory ID:	SB0725W1							
	SB	SB		SB				
Ammonia	<b>4.89</b>	5.00	NA	98	85-110	NA	NA	



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**DISSOLVED GASES  
RSK 175**

Matrix: Water  
 Units: ug/L (ppb)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>Client ID:</b>	<b>MW-8:W</b>					
Laboratory ID:	07-244-01					
Methane	<b>140</b>	15	RSK 175	7-25-19	7-25-19	
Ethane	<b>ND</b>	0.50	RSK 175	7-25-19	7-25-19	
Ethene	<b>ND</b>	0.50	RSK 175	7-25-19	7-25-19	

<b>Client ID:</b>	<b>MW-12:W</b>					
Laboratory ID:	07-244-02					
Methane	<b>3200</b>	500	RSK 175	7-25-19	7-25-19	
Ethane	<b>ND</b>	0.50	RSK 175	7-25-19	7-25-19	
Ethene	<b>ND</b>	0.50	RSK 175	7-25-19	7-25-19	



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**DISSOLVED GASES  
 RSK 175  
 QUALITY CONTROL**

Matrix: Water  
 Units: ug/L (ppb)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>METHOD BLANK</b>						
Laboratory ID:	MB0725W1					
Methane	ND	1.0	RSK 175	7-25-19	7-25-19	
Ethane	ND	0.50	RSK 175	7-25-19	7-25-19	
Ethene	ND	0.50	RSK 175	7-25-19	7-25-19	

Analyte	Result		Spike Level		Source Result	Percent Recovery	Recovery Limits	RPD	RPD Limit	Flags
<b>MATRIX SPIKES</b>										
Laboratory ID:	01-123-01									
	MS	MSD	MS	MSD		MS	MSD			
Methane	9.41	9.08	4.42	4.42	4.20	118	110	75-125	4	25
Ethane	7.79	7.34	8.32	8.32	ND	94	88	75-125	6	25
Ethene	5.79	6.37	7.77	7.77	ND	75	82	75-125	10	25

**SPIKE BLANKS**

Laboratory ID:	SB0725W1									
	SB	SBD	SB	SBD		SB	SBD			
Methane	4.72	5.04	4.42	4.42	N/A	107	114	75-125	7	25
Ethane	8.53	9.35	8.32	8.32	N/A	103	112	75-125	9	25
Ethene	8.06	8.96	7.77	7.77	N/A	104	115	75-125	11	25





### Data Qualifiers and Abbreviations

- A - Due to a high sample concentration, the amount spiked is insufficient for meaningful MS/MSD recovery data.
  - B - The analyte indicated was also found in the blank sample.
  - C - The duplicate RPD is outside control limits due to high result variability when analyte concentrations are within five times the quantitation limit.
  - E - The value reported exceeds the quantitation range and is an estimate.
  - F - Surrogate recovery data is not available due to the high concentration of coeluting target compounds.
  - H - The analyte indicated is a common laboratory solvent and may have been introduced during sample preparation, and be impacting the sample result.
  - I - Compound recovery is outside of the control limits.
  - J - The value reported was below the practical quantitation limit. The value is an estimate.
  - K - Sample duplicate RPD is outside control limits due to sample inhomogeneity. The sample was re-extracted and re-analyzed with similar results.
  - L - The RPD is outside of the control limits.
  - M - Hydrocarbons in the gasoline range are impacting the diesel range result.
  - M1 - Hydrocarbons in the gasoline range (toluene-naphthalene) are present in the sample.
  - N - Hydrocarbons in the lube oil range are impacting the diesel range result.
  - N1 - Hydrocarbons in diesel range are impacting lube oil range results.
  - O - Hydrocarbons indicative of heavier fuels are present in the sample and are impacting the gasoline result.
  - P - The RPD of the detected concentrations between the two columns is greater than 40.
  - Q - Surrogate recovery is outside of the control limits.
  - S - Surrogate recovery data is not available due to the necessary dilution of the sample.
  - T - The sample chromatogram is not similar to a typical \_\_\_\_\_.
  - U - The analyte was analyzed for, but was not detected above the reported sample quantitation limit.
  - U1 - The practical quantitation limit is elevated due to interferences present in the sample.
  - V - Matrix Spike/Matrix Spike Duplicate recoveries are outside control limits due to matrix effects.
  - W - Matrix Spike/Matrix Spike Duplicate RPD are outside control limits due to matrix effects.
  - X - Sample extract treated with a mercury cleanup procedure.
  - X1 - Sample extract treated with a sulfuric acid/silica gel cleanup procedure.
  - Y - The calibration verification for this analyte exceeded the 20% drift specified in methods 8260 & 8270, and therefore the reported result should be considered an estimate. The overall performance of the calibration verification standard met the acceptance criteria of the method.
  - Z -
- ND - Not Detected at PQL  
 PQL - Practical Quantitation Limit  
 RPD - Relative Percent Difference





# MA Onsite Environmental Inc.

Analytical Laboratory Testing Services  
14648 NE 95th Street • Redmond, WA 98052  
Phone: (425) 833-3881 • www.onsite-env.com

## Chain of Custody

Turnaround Request  
(in working days)  
(Check One)

Same Day  1 Day

2 Days  3 Days

Standard (7 Days)

\_\_\_\_\_ (other)

Laboratory Number: **07-244**

Company: **KANE ENVIRONMENTAL**  
 Project Number: **82302-9.4**  
 Project Name: **BSCSS**  
 Project Manager: **JEFF JENSEN**  
 Sampled by: **EMMY KANE + BELLA GRAVES**

Lab ID	Sample Identification	Date Sampled	Time Sampled	Matrix
1	MW-8:W	7/22	1425	GW
2	MW-12:W	7/22	1440	GW

**Number of Containers**

<input type="checkbox"/>	NWTPH-HCID
<input type="checkbox"/>	NWTPH-Gx/BTEX
<input type="checkbox"/>	NWTPH-Gx
<input type="checkbox"/>	NWTPH-Dx ( <input type="checkbox"/> Acid / SG Clean-up)
<input type="checkbox"/>	Volatiles 8260C
<input checked="" type="checkbox"/>	Halogenated Volatiles 8260C
<input type="checkbox"/>	EDB EPA 8011 (Waters Only)
<input type="checkbox"/>	Semivolatiles 8270D/SIM (with low-level PAHs)
<input type="checkbox"/>	PAHs 8270D/SIM (low-level)
<input type="checkbox"/>	PCBs 8082A
<input type="checkbox"/>	Organochlorine Pesticides 8081B
<input type="checkbox"/>	Organophosphorus Pesticides 8270D/SIM
<input type="checkbox"/>	Chlorinated Acid Herbicides 8151A
<input type="checkbox"/>	Total RCRA Metals
<input type="checkbox"/>	Total MTCA Metals
<input type="checkbox"/>	TCLP Metals
<input checked="" type="checkbox"/>	NEM (Total gross) TOC
<input checked="" type="checkbox"/>	dissolved Fe
<input checked="" type="checkbox"/>	chloride
<input checked="" type="checkbox"/>	sulfate
<input checked="" type="checkbox"/>	ammonia - N
<input checked="" type="checkbox"/>	% Moisture RSK

Signature	Company	Date	Time	Comments/Special Instructions
	KANE ENVIRONMENTAL	7/22	1540	lab FTTV RSK = methane, ethane, ethene ↳ detection limit low (3-4 µg/L) low detection limit for vinyl chloride

Relinquished \_\_\_\_\_ Received \_\_\_\_\_  
 Relinquished \_\_\_\_\_ Received \_\_\_\_\_  
 Relinquished \_\_\_\_\_ Received \_\_\_\_\_  
 Relinquished \_\_\_\_\_ Received \_\_\_\_\_  
 Relinquished \_\_\_\_\_ Received \_\_\_\_\_

Reviewed/Date \_\_\_\_\_ Reviewed/Date \_\_\_\_\_

Data Package: Standard  Level III  Level IV

Chromatograms with final report  Electronic Data Deliverables (EDDs)



14648 NE 95<sup>th</sup> Street, Redmond, WA 98052 • (425) 883-3881

August 1, 2019

Jeff Jensen  
Kane Environmental, Inc.  
4015 13th Avenue West  
Seattle, WA 98119

Re: Analytical Data for Project 82302-9.4  
Laboratory Reference No. 1907-274

Dear Jeff:

Enclosed are the analytical results and associated quality control data for samples submitted on July 24, 2019.

The standard policy of OnSite Environmental, Inc. is to store your samples for 30 days from the date of receipt. If you require longer storage, please contact the laboratory.

We appreciate the opportunity to be of service to you on this project. If you have any questions concerning the data, or need additional information, please feel free to call me.

Sincerely,

A handwritten signature in black ink, appearing to read "DB", with a long horizontal flourish extending to the right.

David Baumeister  
Project Manager

Enclosures



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OnSite Environmental, Inc. 14648 NE 95<sup>th</sup> Street, Redmond, WA 98052 (425) 883-3881

This report pertains to the samples analyzed in accordance with the chain of custody, and is intended only for the use of the individual or company to whom it is addressed.

Date of Report: August 1, 2019  
Samples Submitted: July 24, 2019  
Laboratory Reference: 1907-274  
Project: 82302-9.4

### Case Narrative

Samples were collected on July 23 and 24, 2019 and received by the laboratory on July 24, 2019. They were maintained at the laboratory at a temperature of 2°C to 6°C.

Please note that any and all soil sample results are reported on a dry-weight basis, unless otherwise noted below.

General QA/QC issues associated with the analytical data enclosed in this laboratory report will be indicated with a reference to a comment or explanation on the Data Qualifier page. More complex and involved QA/QC issues will be discussed in detail below.

#### Volatiles EPA 8260C Analysis:

The client-requested PQL for Vinyl Chloride was not achievable for samples HZ-MW-15D:W and S-MW-5:W due to the necessary dilution of the samples.

Any other QA/QC issues associated with this extraction and analysis will be indicated with a footnote reference and discussed in detail on the Data Qualifier page.





Date of Report: August 1, 2019  
 Samples Submitted: July 24, 2019  
 Laboratory Reference: 1907-274  
 Project: 82302-9.4

**VOLATILES EPA 8260C/SIM**  
 page 1 of 2

Matrix: Water  
 Units: ug/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>Client ID:</b>	<b>MW-39:W</b>					
Laboratory ID:	07-274-01					
Dichlorodifluoromethane	ND	0.20	EPA 8260C	7-26-19	7-26-19	
Chloromethane	ND	1.0	EPA 8260C	7-26-19	7-26-19	
Vinyl Chloride	ND	0.020	EPA 8260C/SIM	7-26-19	7-26-19	
Bromomethane	ND	0.20	EPA 8260C	7-26-19	7-26-19	
Chloroethane	ND	1.0	EPA 8260C	7-26-19	7-26-19	
Trichlorofluoromethane	ND	0.20	EPA 8260C	7-26-19	7-26-19	
1,1-Dichloroethene	ND	0.20	EPA 8260C	7-26-19	7-26-19	
Iodomethane	ND	4.2	EPA 8260C	7-26-19	7-26-19	
Methylene Chloride	ND	1.0	EPA 8260C	7-26-19	7-26-19	
(trans) 1,2-Dichloroethene	ND	0.20	EPA 8260C	7-26-19	7-26-19	
1,1-Dichloroethane	ND	0.20	EPA 8260C	7-26-19	7-26-19	
2,2-Dichloropropane	ND	0.20	EPA 8260C	7-26-19	7-26-19	
(cis) 1,2-Dichloroethene	1.3	0.20	EPA 8260C	7-26-19	7-26-19	
Bromochloromethane	ND	0.20	EPA 8260C	7-26-19	7-26-19	
Chloroform	ND	0.20	EPA 8260C	7-26-19	7-26-19	
1,1,1-Trichloroethane	ND	0.20	EPA 8260C	7-26-19	7-26-19	
Carbon Tetrachloride	ND	0.20	EPA 8260C	7-26-19	7-26-19	
1,1-Dichloropropene	ND	0.20	EPA 8260C	7-26-19	7-26-19	
1,2-Dichloroethane	ND	0.20	EPA 8260C	7-26-19	7-26-19	
Trichloroethene	0.63	0.20	EPA 8260C	7-26-19	7-26-19	
1,2-Dichloropropane	ND	0.20	EPA 8260C	7-26-19	7-26-19	
Dibromomethane	ND	0.20	EPA 8260C	7-26-19	7-26-19	
Bromodichloromethane	ND	0.20	EPA 8260C	7-26-19	7-26-19	
2-Chloroethyl Vinyl Ether	ND	1.0	EPA 8260C	7-26-19	7-26-19	
(cis) 1,3-Dichloropropene	ND	0.20	EPA 8260C	7-26-19	7-26-19	
(trans) 1,3-Dichloropropene	ND	0.20	EPA 8260C	7-26-19	7-26-19	



Date of Report: August 1, 2019  
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**VOLATILES EPA 8260C/SIM**  
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Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>Client ID:</b>	<b>MW-39:W</b>					
<b>Laboratory ID:</b>	<b>07-274-01</b>					
1,1,2-Trichloroethane	ND	0.20	EPA 8260C	7-26-19	7-26-19	
Tetrachloroethene	0.52	0.20	EPA 8260C	7-26-19	7-26-19	
1,3-Dichloropropane	ND	0.20	EPA 8260C	7-26-19	7-26-19	
Dibromochloromethane	ND	0.20	EPA 8260C	7-26-19	7-26-19	
1,2-Dibromoethane	ND	0.20	EPA 8260C	7-26-19	7-26-19	
Chlorobenzene	ND	0.20	EPA 8260C	7-26-19	7-26-19	
1,1,1,2-Tetrachloroethane	ND	0.20	EPA 8260C	7-26-19	7-26-19	
Bromoform	ND	1.0	EPA 8260C	7-26-19	7-26-19	
Bromobenzene	ND	0.20	EPA 8260C	7-26-19	7-26-19	
1,1,2,2-Tetrachloroethane	ND	0.20	EPA 8260C	7-26-19	7-26-19	
1,2,3-Trichloropropane	ND	0.20	EPA 8260C	7-26-19	7-26-19	
2-Chlorotoluene	ND	0.20	EPA 8260C	7-26-19	7-26-19	
4-Chlorotoluene	ND	0.20	EPA 8260C	7-26-19	7-26-19	
1,3-Dichlorobenzene	ND	0.20	EPA 8260C	7-26-19	7-26-19	
1,4-Dichlorobenzene	ND	0.20	EPA 8260C	7-26-19	7-26-19	
1,2-Dichlorobenzene	ND	0.20	EPA 8260C	7-26-19	7-26-19	
1,2-Dibromo-3-chloropropane	ND	1.0	EPA 8260C	7-26-19	7-26-19	
1,2,4-Trichlorobenzene	ND	0.20	EPA 8260C	7-26-19	7-26-19	
Hexachlorobutadiene	ND	1.0	EPA 8260C	7-26-19	7-26-19	
1,2,3-Trichlorobenzene	ND	0.20	EPA 8260C	7-26-19	7-26-19	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Dibromofluoromethane</i>	<i>98</i>	<i>75-127</i>				
<i>Toluene-d8</i>	<i>97</i>	<i>80-127</i>				
<i>4-Bromofluorobenzene</i>	<i>99</i>	<i>78-125</i>				



Date of Report: August 1, 2019  
 Samples Submitted: July 24, 2019  
 Laboratory Reference: 1907-274  
 Project: 82302-9.4

**VOLATILES EPA 8260C/SIM**  
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Matrix: Water  
 Units: ug/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>Client ID:</b>	<b>MW-40:W</b>					
Laboratory ID:	07-274-02					
Dichlorodifluoromethane	ND	20	EPA 8260C	7-26-19	7-26-19	
Chloromethane	ND	100	EPA 8260C	7-26-19	7-26-19	
Vinyl Chloride	11	2.0	EPA 8260C/SIM	7-26-19	7-26-19	
Bromomethane	ND	20	EPA 8260C	7-26-19	7-26-19	
Chloroethane	ND	100	EPA 8260C	7-26-19	7-26-19	
Trichlorofluoromethane	ND	20	EPA 8260C	7-26-19	7-26-19	
1,1-Dichloroethene	ND	20	EPA 8260C	7-26-19	7-26-19	
Iodomethane	ND	420	EPA 8260C	7-26-19	7-26-19	
Methylene Chloride	ND	100	EPA 8260C	7-26-19	7-26-19	
(trans) 1,2-Dichloroethene	ND	20	EPA 8260C	7-26-19	7-26-19	
1,1-Dichloroethane	ND	20	EPA 8260C	7-26-19	7-26-19	
2,2-Dichloropropane	ND	20	EPA 8260C	7-26-19	7-26-19	
(cis) 1,2-Dichloroethene	4700	20	EPA 8260C	7-26-19	7-26-19	
Bromochloromethane	ND	20	EPA 8260C	7-26-19	7-26-19	
Chloroform	ND	20	EPA 8260C	7-26-19	7-26-19	
1,1,1-Trichloroethane	ND	20	EPA 8260C	7-26-19	7-26-19	
Carbon Tetrachloride	ND	20	EPA 8260C	7-26-19	7-26-19	
1,1-Dichloropropene	ND	20	EPA 8260C	7-26-19	7-26-19	
1,2-Dichloroethane	ND	20	EPA 8260C	7-26-19	7-26-19	
Trichloroethene	380	20	EPA 8260C	7-26-19	7-26-19	
1,2-Dichloropropane	ND	20	EPA 8260C	7-26-19	7-26-19	
Dibromomethane	ND	20	EPA 8260C	7-26-19	7-26-19	
Bromodichloromethane	ND	20	EPA 8260C	7-26-19	7-26-19	
2-Chloroethyl Vinyl Ether	ND	100	EPA 8260C	7-26-19	7-26-19	
(cis) 1,3-Dichloropropene	ND	20	EPA 8260C	7-26-19	7-26-19	
(trans) 1,3-Dichloropropene	ND	20	EPA 8260C	7-26-19	7-26-19	



Date of Report: August 1, 2019  
 Samples Submitted: July 24, 2019  
 Laboratory Reference: 1907-274  
 Project: 82302-9.4

**VOLATILES EPA 8260C/SIM**  
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Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>Client ID:</b>	<b>MW-40:W</b>					
<b>Laboratory ID:</b>	<b>07-274-02</b>					
1,1,2-Trichloroethane	ND	20	EPA 8260C	7-26-19	7-26-19	
Tetrachloroethene	530	20	EPA 8260C	7-26-19	7-26-19	
1,3-Dichloropropane	ND	20	EPA 8260C	7-26-19	7-26-19	
Dibromochloromethane	ND	20	EPA 8260C	7-26-19	7-26-19	
1,2-Dibromoethane	ND	20	EPA 8260C	7-26-19	7-26-19	
Chlorobenzene	ND	20	EPA 8260C	7-26-19	7-26-19	
1,1,1,2-Tetrachloroethane	ND	20	EPA 8260C	7-26-19	7-26-19	
Bromoform	ND	100	EPA 8260C	7-26-19	7-26-19	
Bromobenzene	ND	20	EPA 8260C	7-26-19	7-26-19	
1,1,1,2,2-Tetrachloroethane	ND	20	EPA 8260C	7-26-19	7-26-19	
1,2,3-Trichloropropane	ND	20	EPA 8260C	7-26-19	7-26-19	
2-Chlorotoluene	ND	20	EPA 8260C	7-26-19	7-26-19	
4-Chlorotoluene	ND	20	EPA 8260C	7-26-19	7-26-19	
1,3-Dichlorobenzene	ND	20	EPA 8260C	7-26-19	7-26-19	
1,4-Dichlorobenzene	ND	20	EPA 8260C	7-26-19	7-26-19	
1,2-Dichlorobenzene	ND	20	EPA 8260C	7-26-19	7-26-19	
1,2-Dibromo-3-chloropropane	ND	100	EPA 8260C	7-26-19	7-26-19	
1,2,4-Trichlorobenzene	ND	20	EPA 8260C	7-26-19	7-26-19	
Hexachlorobutadiene	ND	100	EPA 8260C	7-26-19	7-26-19	
1,2,3-Trichlorobenzene	ND	20	EPA 8260C	7-26-19	7-26-19	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Dibromofluoromethane</i>	<i>99</i>	<i>75-127</i>				
<i>Toluene-d8</i>	<i>97</i>	<i>80-127</i>				
<i>4-Bromofluorobenzene</i>	<i>99</i>	<i>78-125</i>				



Date of Report: August 1, 2019  
 Samples Submitted: July 24, 2019  
 Laboratory Reference: 1907-274  
 Project: 82302-9.4

**VOLATILES EPA 8260C/SIM**  
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Matrix: Water  
 Units: ug/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>Client ID:</b>	<b>HZ-MW-31:W</b>					
Laboratory ID:	07-274-03					
Dichlorodifluoromethane	ND	0.20	EPA 8260C	7-26-19	7-26-19	
Chloromethane	ND	1.0	EPA 8260C	7-26-19	7-26-19	
Vinyl Chloride	0.048	0.020	EPA 8260C/SIM	7-26-19	7-26-19	
Bromomethane	ND	0.20	EPA 8260C	7-26-19	7-26-19	
Chloroethane	ND	1.0	EPA 8260C	7-26-19	7-26-19	
Trichlorofluoromethane	ND	0.20	EPA 8260C	7-26-19	7-26-19	
1,1-Dichloroethene	ND	0.20	EPA 8260C	7-26-19	7-26-19	
Iodomethane	ND	4.2	EPA 8260C	7-26-19	7-26-19	
Methylene Chloride	ND	1.0	EPA 8260C	7-26-19	7-26-19	
(trans) 1,2-Dichloroethene	ND	0.20	EPA 8260C	7-26-19	7-26-19	
1,1-Dichloroethane	ND	0.20	EPA 8260C	7-26-19	7-26-19	
2,2-Dichloropropane	ND	0.20	EPA 8260C	7-26-19	7-26-19	
(cis) 1,2-Dichloroethene	0.69	0.20	EPA 8260C	7-26-19	7-26-19	
Bromochloromethane	ND	0.20	EPA 8260C	7-26-19	7-26-19	
Chloroform	ND	0.20	EPA 8260C	7-26-19	7-26-19	
1,1,1-Trichloroethane	ND	0.20	EPA 8260C	7-26-19	7-26-19	
Carbon Tetrachloride	ND	0.20	EPA 8260C	7-26-19	7-26-19	
1,1-Dichloropropene	ND	0.20	EPA 8260C	7-26-19	7-26-19	
1,2-Dichloroethane	ND	0.20	EPA 8260C	7-26-19	7-26-19	
Trichloroethene	ND	0.20	EPA 8260C	7-26-19	7-26-19	
1,2-Dichloropropane	ND	0.20	EPA 8260C	7-26-19	7-26-19	
Dibromomethane	ND	0.20	EPA 8260C	7-26-19	7-26-19	
Bromodichloromethane	ND	0.20	EPA 8260C	7-26-19	7-26-19	
2-Chloroethyl Vinyl Ether	ND	1.0	EPA 8260C	7-26-19	7-26-19	
(cis) 1,3-Dichloropropene	ND	0.20	EPA 8260C	7-26-19	7-26-19	
(trans) 1,3-Dichloropropene	ND	0.20	EPA 8260C	7-26-19	7-26-19	



Date of Report: August 1, 2019  
 Samples Submitted: July 24, 2019  
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**VOLATILES EPA 8260C/SIM**  
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Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>Client ID:</b>	<b>HZ-MW-31:W</b>					
<b>Laboratory ID:</b>	<b>07-274-03</b>					
1,1,2-Trichloroethane	ND	0.20	EPA 8260C	7-26-19	7-26-19	
Tetrachloroethene	2.5	0.20	EPA 8260C	7-26-19	7-26-19	
1,3-Dichloropropane	ND	0.20	EPA 8260C	7-26-19	7-26-19	
Dibromochloromethane	ND	0.20	EPA 8260C	7-26-19	7-26-19	
1,2-Dibromoethane	ND	0.20	EPA 8260C	7-26-19	7-26-19	
Chlorobenzene	ND	0.20	EPA 8260C	7-26-19	7-26-19	
1,1,1,2-Tetrachloroethane	ND	0.20	EPA 8260C	7-26-19	7-26-19	
Bromoform	ND	1.0	EPA 8260C	7-26-19	7-26-19	
Bromobenzene	ND	0.20	EPA 8260C	7-26-19	7-26-19	
1,1,2,2-Tetrachloroethane	ND	0.20	EPA 8260C	7-26-19	7-26-19	
1,2,3-Trichloropropane	ND	0.20	EPA 8260C	7-26-19	7-26-19	
2-Chlorotoluene	ND	0.20	EPA 8260C	7-26-19	7-26-19	
4-Chlorotoluene	ND	0.20	EPA 8260C	7-26-19	7-26-19	
1,3-Dichlorobenzene	ND	0.20	EPA 8260C	7-26-19	7-26-19	
1,4-Dichlorobenzene	ND	0.20	EPA 8260C	7-26-19	7-26-19	
1,2-Dichlorobenzene	ND	0.20	EPA 8260C	7-26-19	7-26-19	
1,2-Dibromo-3-chloropropane	ND	1.0	EPA 8260C	7-26-19	7-26-19	
1,2,4-Trichlorobenzene	ND	0.20	EPA 8260C	7-26-19	7-26-19	
Hexachlorobutadiene	ND	1.0	EPA 8260C	7-26-19	7-26-19	
1,2,3-Trichlorobenzene	ND	0.20	EPA 8260C	7-26-19	7-26-19	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Dibromofluoromethane</i>	<i>99</i>	<i>75-127</i>				
<i>Toluene-d8</i>	<i>97</i>	<i>80-127</i>				
<i>4-Bromofluorobenzene</i>	<i>98</i>	<i>78-125</i>				



Date of Report: August 1, 2019  
 Samples Submitted: July 24, 2019  
 Laboratory Reference: 1907-274  
 Project: 82302-9.4

**VOLATILES EPA 8260C/SIM**  
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Matrix: Water  
 Units: ug/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>Client ID:</b>	<b>HZ-MW-15D:W</b>					
Laboratory ID:	07-274-04					
Dichlorodifluoromethane	ND	50	EPA 8260C	7-26-19	7-26-19	
Chloromethane	ND	250	EPA 8260C	7-26-19	7-26-19	
Vinyl Chloride	ND	5.0	EPA 8260C/SIM	7-26-19	7-26-19	
Bromomethane	ND	50	EPA 8260C	7-26-19	7-26-19	
Chloroethane	ND	250	EPA 8260C	7-26-19	7-26-19	
Trichlorofluoromethane	ND	50	EPA 8260C	7-26-19	7-26-19	
1,1-Dichloroethene	ND	50	EPA 8260C	7-26-19	7-26-19	
Iodomethane	ND	1100	EPA 8260C	7-26-19	7-26-19	
Methylene Chloride	ND	250	EPA 8260C	7-26-19	7-26-19	
(trans) 1,2-Dichloroethene	ND	50	EPA 8260C	7-26-19	7-26-19	
1,1-Dichloroethane	ND	50	EPA 8260C	7-26-19	7-26-19	
2,2-Dichloropropane	ND	50	EPA 8260C	7-26-19	7-26-19	
(cis) 1,2-Dichloroethene	340	50	EPA 8260C	7-26-19	7-26-19	
Bromochloromethane	ND	50	EPA 8260C	7-26-19	7-26-19	
Chloroform	ND	50	EPA 8260C	7-26-19	7-26-19	
1,1,1-Trichloroethane	ND	50	EPA 8260C	7-26-19	7-26-19	
Carbon Tetrachloride	ND	50	EPA 8260C	7-26-19	7-26-19	
1,1-Dichloropropene	ND	50	EPA 8260C	7-26-19	7-26-19	
1,2-Dichloroethane	ND	50	EPA 8260C	7-26-19	7-26-19	
Trichloroethene	390	50	EPA 8260C	7-26-19	7-26-19	
1,2-Dichloropropane	ND	50	EPA 8260C	7-26-19	7-26-19	
Dibromomethane	ND	50	EPA 8260C	7-26-19	7-26-19	
Bromodichloromethane	ND	50	EPA 8260C	7-26-19	7-26-19	
2-Chloroethyl Vinyl Ether	ND	250	EPA 8260C	7-26-19	7-26-19	
(cis) 1,3-Dichloropropene	ND	50	EPA 8260C	7-26-19	7-26-19	
(trans) 1,3-Dichloropropene	ND	50	EPA 8260C	7-26-19	7-26-19	



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Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>Client ID:</b>	<b>HZ-MW-15D:W</b>					
<b>Laboratory ID:</b>	<b>07-274-04</b>					
1,1,2-Trichloroethane	ND	50	EPA 8260C	7-26-19	7-26-19	
Tetrachloroethene	9200	50	EPA 8260C	7-26-19	7-26-19	
1,3-Dichloropropane	ND	50	EPA 8260C	7-26-19	7-26-19	
Dibromochloromethane	ND	50	EPA 8260C	7-26-19	7-26-19	
1,2-Dibromoethane	ND	50	EPA 8260C	7-26-19	7-26-19	
Chlorobenzene	ND	50	EPA 8260C	7-26-19	7-26-19	
1,1,1,2-Tetrachloroethane	ND	50	EPA 8260C	7-26-19	7-26-19	
Bromoform	ND	250	EPA 8260C	7-26-19	7-26-19	
Bromobenzene	ND	50	EPA 8260C	7-26-19	7-26-19	
1,1,1,2,2-Tetrachloroethane	ND	50	EPA 8260C	7-26-19	7-26-19	
1,2,3-Trichloropropane	ND	50	EPA 8260C	7-26-19	7-26-19	
2-Chlorotoluene	ND	50	EPA 8260C	7-26-19	7-26-19	
4-Chlorotoluene	ND	50	EPA 8260C	7-26-19	7-26-19	
1,3-Dichlorobenzene	ND	50	EPA 8260C	7-26-19	7-26-19	
1,4-Dichlorobenzene	ND	50	EPA 8260C	7-26-19	7-26-19	
1,2-Dichlorobenzene	ND	50	EPA 8260C	7-26-19	7-26-19	
1,2-Dibromo-3-chloropropane	ND	250	EPA 8260C	7-26-19	7-26-19	
1,2,4-Trichlorobenzene	ND	50	EPA 8260C	7-26-19	7-26-19	
Hexachlorobutadiene	ND	250	EPA 8260C	7-26-19	7-26-19	
1,2,3-Trichlorobenzene	ND	50	EPA 8260C	7-26-19	7-26-19	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Dibromofluoromethane</i>	<i>98</i>	<i>75-127</i>				
<i>Toluene-d8</i>	<i>97</i>	<i>80-127</i>				
<i>4-Bromofluorobenzene</i>	<i>97</i>	<i>78-125</i>				





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Matrix: Water  
 Units: ug/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>Client ID:</b>	<b>HZ-MW-15S:W</b>					
Laboratory ID:	07-274-05					
Dichlorodifluoromethane	ND	0.20	EPA 8260C	7-26-19	7-26-19	
Chloromethane	ND	1.0	EPA 8260C	7-26-19	7-26-19	
Vinyl Chloride	ND	0.020	EPA 8260C/SIM	7-26-19	7-26-19	
Bromomethane	ND	0.20	EPA 8260C	7-26-19	7-26-19	
Chloroethane	ND	1.0	EPA 8260C	7-26-19	7-26-19	
Trichlorofluoromethane	ND	0.20	EPA 8260C	7-26-19	7-26-19	
1,1-Dichloroethene	ND	0.20	EPA 8260C	7-26-19	7-26-19	
Iodomethane	ND	4.2	EPA 8260C	7-26-19	7-26-19	
Methylene Chloride	ND	1.0	EPA 8260C	7-26-19	7-26-19	
(trans) 1,2-Dichloroethene	ND	0.20	EPA 8260C	7-26-19	7-26-19	
1,1-Dichloroethane	ND	0.20	EPA 8260C	7-26-19	7-26-19	
2,2-Dichloropropane	ND	0.20	EPA 8260C	7-26-19	7-26-19	
(cis) 1,2-Dichloroethene	ND	0.20	EPA 8260C	7-26-19	7-26-19	
Bromochloromethane	ND	0.20	EPA 8260C	7-26-19	7-26-19	
Chloroform	ND	0.20	EPA 8260C	7-26-19	7-26-19	
1,1,1-Trichloroethane	ND	0.20	EPA 8260C	7-26-19	7-26-19	
Carbon Tetrachloride	ND	0.20	EPA 8260C	7-26-19	7-26-19	
1,1-Dichloropropene	ND	0.20	EPA 8260C	7-26-19	7-26-19	
1,2-Dichloroethane	ND	0.20	EPA 8260C	7-26-19	7-26-19	
Trichloroethene	0.41	0.20	EPA 8260C	7-26-19	7-26-19	
1,2-Dichloropropane	ND	0.20	EPA 8260C	7-26-19	7-26-19	
Dibromomethane	ND	0.20	EPA 8260C	7-26-19	7-26-19	
Bromodichloromethane	ND	0.20	EPA 8260C	7-26-19	7-26-19	
2-Chloroethyl Vinyl Ether	ND	1.0	EPA 8260C	7-26-19	7-26-19	
(cis) 1,3-Dichloropropene	ND	0.20	EPA 8260C	7-26-19	7-26-19	
(trans) 1,3-Dichloropropene	ND	0.20	EPA 8260C	7-26-19	7-26-19	



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<b>Client ID:</b>	<b>HZ-MW-15S:W</b>					
<b>Laboratory ID:</b>	07-274-05					
1,1,2-Trichloroethane	ND	0.20	EPA 8260C	7-26-19	7-26-19	
Tetrachloroethene	11	0.20	EPA 8260C	7-26-19	7-26-19	
1,3-Dichloropropane	ND	0.20	EPA 8260C	7-26-19	7-26-19	
Dibromochloromethane	ND	0.20	EPA 8260C	7-26-19	7-26-19	
1,2-Dibromoethane	ND	0.20	EPA 8260C	7-26-19	7-26-19	
Chlorobenzene	ND	0.20	EPA 8260C	7-26-19	7-26-19	
1,1,1,2-Tetrachloroethane	ND	0.20	EPA 8260C	7-26-19	7-26-19	
Bromoform	ND	1.0	EPA 8260C	7-26-19	7-26-19	
Bromobenzene	ND	0.20	EPA 8260C	7-26-19	7-26-19	
1,1,2,2-Tetrachloroethane	ND	0.20	EPA 8260C	7-26-19	7-26-19	
1,2,3-Trichloropropane	ND	0.20	EPA 8260C	7-26-19	7-26-19	
2-Chlorotoluene	ND	0.20	EPA 8260C	7-26-19	7-26-19	
4-Chlorotoluene	ND	0.20	EPA 8260C	7-26-19	7-26-19	
1,3-Dichlorobenzene	ND	0.20	EPA 8260C	7-26-19	7-26-19	
1,4-Dichlorobenzene	ND	0.20	EPA 8260C	7-26-19	7-26-19	
1,2-Dichlorobenzene	ND	0.20	EPA 8260C	7-26-19	7-26-19	
1,2-Dibromo-3-chloropropane	ND	1.0	EPA 8260C	7-26-19	7-26-19	
1,2,4-Trichlorobenzene	ND	0.20	EPA 8260C	7-26-19	7-26-19	
Hexachlorobutadiene	ND	1.0	EPA 8260C	7-26-19	7-26-19	
1,2,3-Trichlorobenzene	ND	0.20	EPA 8260C	7-26-19	7-26-19	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Dibromofluoromethane</i>	<i>101</i>	<i>75-127</i>				
<i>Toluene-d8</i>	<i>98</i>	<i>80-127</i>				
<i>4-Bromofluorobenzene</i>	<i>99</i>	<i>78-125</i>				



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Matrix: Water  
 Units: ug/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>Client ID:</b>	<b>S-MW-3:W</b>					
Laboratory ID:	07-274-06					
Dichlorodifluoromethane	ND	0.20	EPA 8260C	7-26-19	7-26-19	
Chloromethane	ND	1.0	EPA 8260C	7-26-19	7-26-19	
Vinyl Chloride	ND	0.020	EPA 8260C/SIM	7-26-19	7-26-19	
Bromomethane	ND	0.20	EPA 8260C	7-26-19	7-26-19	
Chloroethane	ND	1.0	EPA 8260C	7-26-19	7-26-19	
Trichlorofluoromethane	ND	0.20	EPA 8260C	7-26-19	7-26-19	
1,1-Dichloroethene	ND	0.20	EPA 8260C	7-26-19	7-26-19	
Iodomethane	ND	4.2	EPA 8260C	7-26-19	7-26-19	
Methylene Chloride	ND	1.0	EPA 8260C	7-26-19	7-26-19	
(trans) 1,2-Dichloroethene	ND	0.20	EPA 8260C	7-26-19	7-26-19	
1,1-Dichloroethane	ND	0.20	EPA 8260C	7-26-19	7-26-19	
2,2-Dichloropropane	ND	0.20	EPA 8260C	7-26-19	7-26-19	
(cis) 1,2-Dichloroethene	ND	0.20	EPA 8260C	7-26-19	7-26-19	
Bromochloromethane	ND	0.20	EPA 8260C	7-26-19	7-26-19	
Chloroform	ND	0.20	EPA 8260C	7-26-19	7-26-19	
1,1,1-Trichloroethane	ND	0.20	EPA 8260C	7-26-19	7-26-19	
Carbon Tetrachloride	ND	0.20	EPA 8260C	7-26-19	7-26-19	
1,1-Dichloropropene	ND	0.20	EPA 8260C	7-26-19	7-26-19	
1,2-Dichloroethane	ND	0.20	EPA 8260C	7-26-19	7-26-19	
Trichloroethene	ND	0.20	EPA 8260C	7-26-19	7-26-19	
1,2-Dichloropropane	ND	0.20	EPA 8260C	7-26-19	7-26-19	
Dibromomethane	ND	0.20	EPA 8260C	7-26-19	7-26-19	
Bromodichloromethane	ND	0.20	EPA 8260C	7-26-19	7-26-19	
2-Chloroethyl Vinyl Ether	ND	1.0	EPA 8260C	7-26-19	7-26-19	
(cis) 1,3-Dichloropropene	ND	0.20	EPA 8260C	7-26-19	7-26-19	
(trans) 1,3-Dichloropropene	ND	0.20	EPA 8260C	7-26-19	7-26-19	



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Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>Client ID:</b>	<b>S-MW-3:W</b>					
<b>Laboratory ID:</b>	<b>07-274-06</b>					
1,1,2-Trichloroethane	ND	0.20	EPA 8260C	7-26-19	7-26-19	
Tetrachloroethene	2.8	0.20	EPA 8260C	7-26-19	7-26-19	
1,3-Dichloropropane	ND	0.20	EPA 8260C	7-26-19	7-26-19	
Dibromochloromethane	ND	0.20	EPA 8260C	7-26-19	7-26-19	
1,2-Dibromoethane	ND	0.20	EPA 8260C	7-26-19	7-26-19	
Chlorobenzene	ND	0.20	EPA 8260C	7-26-19	7-26-19	
1,1,1,2-Tetrachloroethane	ND	0.20	EPA 8260C	7-26-19	7-26-19	
Bromoform	ND	1.0	EPA 8260C	7-26-19	7-26-19	
Bromobenzene	ND	0.20	EPA 8260C	7-26-19	7-26-19	
1,1,2,2-Tetrachloroethane	ND	0.20	EPA 8260C	7-26-19	7-26-19	
1,2,3-Trichloropropane	ND	0.20	EPA 8260C	7-26-19	7-26-19	
2-Chlorotoluene	ND	0.20	EPA 8260C	7-26-19	7-26-19	
4-Chlorotoluene	ND	0.20	EPA 8260C	7-26-19	7-26-19	
1,3-Dichlorobenzene	ND	0.20	EPA 8260C	7-26-19	7-26-19	
1,4-Dichlorobenzene	ND	0.20	EPA 8260C	7-26-19	7-26-19	
1,2-Dichlorobenzene	ND	0.20	EPA 8260C	7-26-19	7-26-19	
1,2-Dibromo-3-chloropropane	ND	1.0	EPA 8260C	7-26-19	7-26-19	
1,2,4-Trichlorobenzene	ND	0.20	EPA 8260C	7-26-19	7-26-19	
Hexachlorobutadiene	ND	1.0	EPA 8260C	7-26-19	7-26-19	
1,2,3-Trichlorobenzene	ND	0.20	EPA 8260C	7-26-19	7-26-19	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Dibromofluoromethane</i>	<i>98</i>	<i>75-127</i>				
<i>Toluene-d8</i>	<i>99</i>	<i>80-127</i>				
<i>4-Bromofluorobenzene</i>	<i>98</i>	<i>78-125</i>				



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Matrix: Water  
 Units: ug/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>Client ID:</b>	<b>S-MW-1:W</b>					
<b>Laboratory ID:</b>	<b>07-274-07</b>					
Dichlorodifluoromethane	0.31	0.20	EPA 8260C	7-26-19	7-26-19	Y
Chloromethane	ND	1.0	EPA 8260C	7-26-19	7-26-19	
Vinyl Chloride	ND	0.020	EPA 8260C/SIM	7-26-19	7-26-19	
Bromomethane	ND	0.20	EPA 8260C	7-26-19	7-26-19	
Chloroethane	ND	1.0	EPA 8260C	7-26-19	7-26-19	
Trichlorofluoromethane	0.21	0.20	EPA 8260C	7-26-19	7-26-19	
1,1-Dichloroethene	ND	0.20	EPA 8260C	7-26-19	7-26-19	
Iodomethane	ND	4.2	EPA 8260C	7-26-19	7-26-19	
Methylene Chloride	ND	1.0	EPA 8260C	7-26-19	7-26-19	
(trans) 1,2-Dichloroethene	ND	0.20	EPA 8260C	7-26-19	7-26-19	
1,1-Dichloroethane	ND	0.20	EPA 8260C	7-26-19	7-26-19	
2,2-Dichloropropane	ND	0.20	EPA 8260C	7-26-19	7-26-19	
(cis) 1,2-Dichloroethene	ND	0.20	EPA 8260C	7-26-19	7-26-19	
Bromochloromethane	ND	0.20	EPA 8260C	7-26-19	7-26-19	
Chloroform	ND	0.20	EPA 8260C	7-26-19	7-26-19	
1,1,1-Trichloroethane	ND	0.20	EPA 8260C	7-26-19	7-26-19	
Carbon Tetrachloride	ND	0.20	EPA 8260C	7-26-19	7-26-19	
1,1-Dichloropropene	ND	0.20	EPA 8260C	7-26-19	7-26-19	
1,2-Dichloroethane	ND	0.20	EPA 8260C	7-26-19	7-26-19	
Trichloroethene	ND	0.20	EPA 8260C	7-26-19	7-26-19	
1,2-Dichloropropane	ND	0.20	EPA 8260C	7-26-19	7-26-19	
Dibromomethane	ND	0.20	EPA 8260C	7-26-19	7-26-19	
Bromodichloromethane	ND	0.20	EPA 8260C	7-26-19	7-26-19	
2-Chloroethyl Vinyl Ether	ND	1.0	EPA 8260C	7-26-19	7-26-19	
(cis) 1,3-Dichloropropene	ND	0.20	EPA 8260C	7-26-19	7-26-19	
(trans) 1,3-Dichloropropene	ND	0.20	EPA 8260C	7-26-19	7-26-19	



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Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>Client ID:</b>	<b>S-MW-1:W</b>					
<b>Laboratory ID:</b>	<b>07-274-07</b>					
1,1,2-Trichloroethane	ND	0.20	EPA 8260C	7-26-19	7-26-19	
Tetrachloroethene	6.5	0.20	EPA 8260C	7-26-19	7-26-19	
1,3-Dichloropropane	ND	0.20	EPA 8260C	7-26-19	7-26-19	
Dibromochloromethane	ND	0.20	EPA 8260C	7-26-19	7-26-19	
1,2-Dibromoethane	ND	0.20	EPA 8260C	7-26-19	7-26-19	
Chlorobenzene	ND	0.20	EPA 8260C	7-26-19	7-26-19	
1,1,1,2-Tetrachloroethane	ND	0.20	EPA 8260C	7-26-19	7-26-19	
Bromoform	ND	1.0	EPA 8260C	7-26-19	7-26-19	
Bromobenzene	ND	0.20	EPA 8260C	7-26-19	7-26-19	
1,1,2,2-Tetrachloroethane	ND	0.20	EPA 8260C	7-26-19	7-26-19	
1,2,3-Trichloropropane	ND	0.20	EPA 8260C	7-26-19	7-26-19	
2-Chlorotoluene	ND	0.20	EPA 8260C	7-26-19	7-26-19	
4-Chlorotoluene	ND	0.20	EPA 8260C	7-26-19	7-26-19	
1,3-Dichlorobenzene	ND	0.20	EPA 8260C	7-26-19	7-26-19	
1,4-Dichlorobenzene	ND	0.20	EPA 8260C	7-26-19	7-26-19	
1,2-Dichlorobenzene	ND	0.20	EPA 8260C	7-26-19	7-26-19	
1,2-Dibromo-3-chloropropane	ND	1.0	EPA 8260C	7-26-19	7-26-19	
1,2,4-Trichlorobenzene	ND	0.20	EPA 8260C	7-26-19	7-26-19	
Hexachlorobutadiene	ND	1.0	EPA 8260C	7-26-19	7-26-19	
1,2,3-Trichlorobenzene	ND	0.20	EPA 8260C	7-26-19	7-26-19	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Dibromofluoromethane</i>	<i>100</i>	<i>75-127</i>				
<i>Toluene-d8</i>	<i>98</i>	<i>80-127</i>				
<i>4-Bromofluorobenzene</i>	<i>99</i>	<i>78-125</i>				



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Matrix: Water  
 Units: ug/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>Client ID:</b>	<b>S-MW-2:W</b>					
Laboratory ID:	07-274-08					
Dichlorodifluoromethane	ND	0.20	EPA 8260C	7-26-19	7-26-19	
Chloromethane	ND	1.0	EPA 8260C	7-26-19	7-26-19	
Vinyl Chloride	0.11	0.020	EPA 8260C/SIM	7-26-19	7-26-19	
Bromomethane	ND	0.20	EPA 8260C	7-26-19	7-26-19	
Chloroethane	ND	1.0	EPA 8260C	7-26-19	7-26-19	
Trichlorofluoromethane	ND	0.20	EPA 8260C	7-26-19	7-26-19	
1,1-Dichloroethene	ND	0.20	EPA 8260C	7-26-19	7-26-19	
Iodomethane	ND	4.2	EPA 8260C	7-26-19	7-26-19	
Methylene Chloride	ND	1.0	EPA 8260C	7-26-19	7-26-19	
(trans) 1,2-Dichloroethene	ND	0.20	EPA 8260C	7-26-19	7-26-19	
1,1-Dichloroethane	ND	0.20	EPA 8260C	7-26-19	7-26-19	
2,2-Dichloropropane	ND	0.20	EPA 8260C	7-26-19	7-26-19	
(cis) 1,2-Dichloroethene	4.1	0.20	EPA 8260C	7-26-19	7-26-19	
Bromochloromethane	ND	0.20	EPA 8260C	7-26-19	7-26-19	
Chloroform	0.28	0.20	EPA 8260C	7-26-19	7-26-19	
1,1,1-Trichloroethane	ND	0.20	EPA 8260C	7-26-19	7-26-19	
Carbon Tetrachloride	ND	0.20	EPA 8260C	7-26-19	7-26-19	
1,1-Dichloropropene	ND	0.20	EPA 8260C	7-26-19	7-26-19	
1,2-Dichloroethane	ND	0.20	EPA 8260C	7-26-19	7-26-19	
Trichloroethene	3.8	0.20	EPA 8260C	7-26-19	7-26-19	
1,2-Dichloropropane	ND	0.20	EPA 8260C	7-26-19	7-26-19	
Dibromomethane	ND	0.20	EPA 8260C	7-26-19	7-26-19	
Bromodichloromethane	ND	0.20	EPA 8260C	7-26-19	7-26-19	
2-Chloroethyl Vinyl Ether	ND	1.0	EPA 8260C	7-26-19	7-26-19	
(cis) 1,3-Dichloropropene	ND	0.20	EPA 8260C	7-26-19	7-26-19	
(trans) 1,3-Dichloropropene	ND	0.20	EPA 8260C	7-26-19	7-26-19	



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**VOLATILES EPA 8260C/SIM**  
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Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>Client ID:</b>	<b>S-MW-2:W</b>					
<b>Laboratory ID:</b>	<b>07-274-08</b>					
1,1,2-Trichloroethane	ND	0.20	EPA 8260C	7-26-19	7-26-19	
Tetrachloroethene	6.2	0.20	EPA 8260C	7-26-19	7-26-19	
1,3-Dichloropropane	ND	0.20	EPA 8260C	7-26-19	7-26-19	
Dibromochloromethane	ND	0.20	EPA 8260C	7-26-19	7-26-19	
1,2-Dibromoethane	ND	0.20	EPA 8260C	7-26-19	7-26-19	
Chlorobenzene	ND	0.20	EPA 8260C	7-26-19	7-26-19	
1,1,1,2-Tetrachloroethane	ND	0.20	EPA 8260C	7-26-19	7-26-19	
Bromoform	ND	1.0	EPA 8260C	7-26-19	7-26-19	
Bromobenzene	ND	0.20	EPA 8260C	7-26-19	7-26-19	
1,1,2,2-Tetrachloroethane	ND	0.20	EPA 8260C	7-26-19	7-26-19	
1,2,3-Trichloropropane	ND	0.20	EPA 8260C	7-26-19	7-26-19	
2-Chlorotoluene	ND	0.20	EPA 8260C	7-26-19	7-26-19	
4-Chlorotoluene	ND	0.20	EPA 8260C	7-26-19	7-26-19	
1,3-Dichlorobenzene	ND	0.20	EPA 8260C	7-26-19	7-26-19	
1,4-Dichlorobenzene	ND	0.20	EPA 8260C	7-26-19	7-26-19	
1,2-Dichlorobenzene	ND	0.20	EPA 8260C	7-26-19	7-26-19	
1,2-Dibromo-3-chloropropane	ND	1.0	EPA 8260C	7-26-19	7-26-19	
1,2,4-Trichlorobenzene	ND	0.20	EPA 8260C	7-26-19	7-26-19	
Hexachlorobutadiene	ND	1.0	EPA 8260C	7-26-19	7-26-19	
1,2,3-Trichlorobenzene	ND	0.20	EPA 8260C	7-26-19	7-26-19	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Dibromofluoromethane</i>	<i>102</i>	<i>75-127</i>				
<i>Toluene-d8</i>	<i>98</i>	<i>80-127</i>				
<i>4-Bromofluorobenzene</i>	<i>100</i>	<i>78-125</i>				





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Matrix: Water  
 Units: ug/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>Client ID:</b>	<b>S-MW-5:W</b>					
Laboratory ID:	07-274-09					
Dichlorodifluoromethane	ND	4.0	EPA 8260C	7-26-19	7-26-19	
Chloromethane	ND	20	EPA 8260C	7-26-19	7-26-19	
Vinyl Chloride	ND	0.40	EPA 8260C/SIM	7-26-19	7-26-19	
Bromomethane	ND	4.0	EPA 8260C	7-26-19	7-26-19	
Chloroethane	ND	20	EPA 8260C	7-26-19	7-26-19	
Trichlorofluoromethane	ND	4.0	EPA 8260C	7-26-19	7-26-19	
1,1-Dichloroethene	ND	4.0	EPA 8260C	7-26-19	7-26-19	
Iodomethane	ND	84	EPA 8260C	7-26-19	7-26-19	
Methylene Chloride	ND	20	EPA 8260C	7-26-19	7-26-19	
(trans) 1,2-Dichloroethene	ND	4.0	EPA 8260C	7-26-19	7-26-19	
1,1-Dichloroethane	ND	4.0	EPA 8260C	7-26-19	7-26-19	
2,2-Dichloropropane	ND	4.0	EPA 8260C	7-26-19	7-26-19	
(cis) 1,2-Dichloroethene	ND	4.0	EPA 8260C	7-26-19	7-26-19	
Bromochloromethane	ND	4.0	EPA 8260C	7-26-19	7-26-19	
Chloroform	ND	4.0	EPA 8260C	7-26-19	7-26-19	
1,1,1-Trichloroethane	ND	4.0	EPA 8260C	7-26-19	7-26-19	
Carbon Tetrachloride	ND	4.0	EPA 8260C	7-26-19	7-26-19	
1,1-Dichloropropene	ND	4.0	EPA 8260C	7-26-19	7-26-19	
1,2-Dichloroethane	ND	4.0	EPA 8260C	7-26-19	7-26-19	
Trichloroethene	ND	4.0	EPA 8260C	7-26-19	7-26-19	
1,2-Dichloropropane	ND	4.0	EPA 8260C	7-26-19	7-26-19	
Dibromomethane	ND	4.0	EPA 8260C	7-26-19	7-26-19	
Bromodichloromethane	ND	4.0	EPA 8260C	7-26-19	7-26-19	
2-Chloroethyl Vinyl Ether	ND	20	EPA 8260C	7-26-19	7-26-19	
(cis) 1,3-Dichloropropene	ND	4.0	EPA 8260C	7-26-19	7-26-19	
(trans) 1,3-Dichloropropene	ND	4.0	EPA 8260C	7-26-19	7-26-19	



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Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>Client ID:</b>	<b>S-MW-5:W</b>					
<b>Laboratory ID:</b>	<b>07-274-09</b>					
1,1,2-Trichloroethane	ND	4.0	EPA 8260C	7-26-19	7-26-19	
Tetrachloroethene	530	4.0	EPA 8260C	7-26-19	7-26-19	
1,3-Dichloropropane	ND	4.0	EPA 8260C	7-26-19	7-26-19	
Dibromochloromethane	ND	4.0	EPA 8260C	7-26-19	7-26-19	
1,2-Dibromoethane	ND	4.0	EPA 8260C	7-26-19	7-26-19	
Chlorobenzene	ND	4.0	EPA 8260C	7-26-19	7-26-19	
1,1,1,2-Tetrachloroethane	ND	4.0	EPA 8260C	7-26-19	7-26-19	
Bromoform	ND	20	EPA 8260C	7-26-19	7-26-19	
Bromobenzene	ND	4.0	EPA 8260C	7-26-19	7-26-19	
1,1,1,2,2-Tetrachloroethane	ND	4.0	EPA 8260C	7-26-19	7-26-19	
1,2,3-Trichloropropane	ND	4.0	EPA 8260C	7-26-19	7-26-19	
2-Chlorotoluene	ND	4.0	EPA 8260C	7-26-19	7-26-19	
4-Chlorotoluene	ND	4.0	EPA 8260C	7-26-19	7-26-19	
1,3-Dichlorobenzene	ND	4.0	EPA 8260C	7-26-19	7-26-19	
1,4-Dichlorobenzene	ND	4.0	EPA 8260C	7-26-19	7-26-19	
1,2-Dichlorobenzene	ND	4.0	EPA 8260C	7-26-19	7-26-19	
1,2-Dibromo-3-chloropropane	ND	20	EPA 8260C	7-26-19	7-26-19	
1,2,4-Trichlorobenzene	ND	4.0	EPA 8260C	7-26-19	7-26-19	
Hexachlorobutadiene	ND	20	EPA 8260C	7-26-19	7-26-19	
1,2,3-Trichlorobenzene	ND	4.0	EPA 8260C	7-26-19	7-26-19	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Dibromofluoromethane</i>	<i>99</i>	<i>75-127</i>				
<i>Toluene-d8</i>	<i>97</i>	<i>80-127</i>				
<i>4-Bromofluorobenzene</i>	<i>96</i>	<i>78-125</i>				



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**VOLATILES EPA 8260C/SIM**  
**METHOD BLANK QUALITY CONTROL**  
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Matrix: Water  
 Units: ug/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Laboratory ID:	MB0726W1					
Dichlorodifluoromethane	ND	0.20	EPA 8260C	7-26-19	7-26-19	
Chloromethane	ND	1.0	EPA 8260C	7-26-19	7-26-19	
Vinyl Chloride	ND	0.020	EPA 8260C/SIM	7-26-19	7-26-19	
Bromomethane	ND	0.20	EPA 8260C	7-26-19	7-26-19	
Chloroethane	ND	1.0	EPA 8260C	7-26-19	7-26-19	
Trichlorofluoromethane	ND	0.20	EPA 8260C	7-26-19	7-26-19	
1,1-Dichloroethene	ND	0.20	EPA 8260C	7-26-19	7-26-19	
Iodomethane	ND	4.2	EPA 8260C	7-26-19	7-26-19	
Methylene Chloride	ND	1.0	EPA 8260C	7-26-19	7-26-19	
(trans) 1,2-Dichloroethene	ND	0.20	EPA 8260C	7-26-19	7-26-19	
1,1-Dichloroethane	ND	0.20	EPA 8260C	7-26-19	7-26-19	
2,2-Dichloropropane	ND	0.20	EPA 8260C	7-26-19	7-26-19	
(cis) 1,2-Dichloroethene	ND	0.20	EPA 8260C	7-26-19	7-26-19	
Bromochloromethane	ND	0.20	EPA 8260C	7-26-19	7-26-19	
Chloroform	ND	0.20	EPA 8260C	7-26-19	7-26-19	
1,1,1-Trichloroethane	ND	0.20	EPA 8260C	7-26-19	7-26-19	
Carbon Tetrachloride	ND	0.20	EPA 8260C	7-26-19	7-26-19	
1,1-Dichloropropene	ND	0.20	EPA 8260C	7-26-19	7-26-19	
1,2-Dichloroethane	ND	0.20	EPA 8260C	7-26-19	7-26-19	
Trichloroethene	ND	0.20	EPA 8260C	7-26-19	7-26-19	
1,2-Dichloropropane	ND	0.20	EPA 8260C	7-26-19	7-26-19	
Dibromomethane	ND	0.20	EPA 8260C	7-26-19	7-26-19	
Bromodichloromethane	ND	0.20	EPA 8260C	7-26-19	7-26-19	
2-Chloroethyl Vinyl Ether	ND	1.0	EPA 8260C	7-26-19	7-26-19	
(cis) 1,3-Dichloropropene	ND	0.20	EPA 8260C	7-26-19	7-26-19	
(trans) 1,3-Dichloropropene	ND	0.20	EPA 8260C	7-26-19	7-26-19	



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**METHOD BLANK QUALITY CONTROL**  
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Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Laboratory ID:	MB0726W1					
1,1,2-Trichloroethane	ND	0.20	EPA 8260C	7-26-19	7-26-19	
Tetrachloroethene	ND	0.20	EPA 8260C	7-26-19	7-26-19	
1,3-Dichloropropane	ND	0.20	EPA 8260C	7-26-19	7-26-19	
Dibromochloromethane	ND	0.20	EPA 8260C	7-26-19	7-26-19	
1,2-Dibromoethane	ND	0.20	EPA 8260C	7-26-19	7-26-19	
Chlorobenzene	ND	0.20	EPA 8260C	7-26-19	7-26-19	
1,1,1,2-Tetrachloroethane	ND	0.20	EPA 8260C	7-26-19	7-26-19	
Bromoform	ND	1.0	EPA 8260C	7-26-19	7-26-19	
Bromobenzene	ND	0.20	EPA 8260C	7-26-19	7-26-19	
1,1,2,2-Tetrachloroethane	ND	0.20	EPA 8260C	7-26-19	7-26-19	
1,2,3-Trichloropropane	ND	0.20	EPA 8260C	7-26-19	7-26-19	
2-Chlorotoluene	ND	0.20	EPA 8260C	7-26-19	7-26-19	
4-Chlorotoluene	ND	0.20	EPA 8260C	7-26-19	7-26-19	
1,3-Dichlorobenzene	ND	0.20	EPA 8260C	7-26-19	7-26-19	
1,4-Dichlorobenzene	ND	0.20	EPA 8260C	7-26-19	7-26-19	
1,2-Dichlorobenzene	ND	0.20	EPA 8260C	7-26-19	7-26-19	
1,2-Dibromo-3-chloropropane	ND	1.0	EPA 8260C	7-26-19	7-26-19	
1,2,4-Trichlorobenzene	ND	0.20	EPA 8260C	7-26-19	7-26-19	
Hexachlorobutadiene	ND	1.0	EPA 8260C	7-26-19	7-26-19	
1,2,3-Trichlorobenzene	ND	0.20	EPA 8260C	7-26-19	7-26-19	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Dibromofluoromethane</i>	<i>100</i>	<i>75-127</i>				
<i>Toluene-d8</i>	<i>99</i>	<i>80-127</i>				
<i>4-Bromofluorobenzene</i>	<i>98</i>	<i>78-125</i>				



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**VOLATILES EPA 8260C/SIM  
 MS/MSD QUALITY CONTROL**

Matrix: Water  
 Units: ug/L

Analyte	Result		Spike Level		Source	Percent		Recovery	RPD		Flags
	MS	MSD	MS	MSD	Result	Recovery	Limits	RPD	Limit		
<b>MATRIX SPIKES</b>											
Laboratory ID:	07-274-05										
	MS	MSD	MS	MSD		MS	MSD				
1,1-Dichloroethene	<b>10.5</b>	<b>10.2</b>	10.0	10.0	ND	105	102	57-135	3	15	
Benzene	<b>9.99</b>	<b>9.83</b>	10.0	10.0	ND	100	98	73-131	2	16	
Trichloroethene	<b>10.9</b>	<b>10.4</b>	10.0	10.0	0.413	105	100	75-124	5	17	
Toluene	<b>9.94</b>	<b>9.59</b>	10.0	10.0	ND	99	96	84-123	4	19	
Chlorobenzene	<b>10.9</b>	<b>10.4</b>	10.0	10.0	ND	109	104	78-122	5	16	
<i>Surrogate:</i>											
Dibromofluoromethane						100	102	75-127			
Toluene-d8						98	97	80-127			
4-Bromofluorobenzene						98	99	78-125			



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**TOTAL ORGANIC CARBON  
 SM 5310B**

Matrix: Water  
 Units: mg/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>Client ID:</b>	<b>MW-39:W</b>					
Laboratory ID:	07-274-01					
Total Organic Carbon	<b>2.9</b>	1.0	SM 5310B	7-31-19	7-31-19	
<b>Client ID:</b>	<b>MW-40:W</b>					
Laboratory ID:	07-274-02					
Total Organic Carbon	<b>12</b>	1.0	SM 5310B	7-31-19	7-31-19	
<b>Client ID:</b>	<b>HZ-MW-31:W</b>					
Laboratory ID:	07-274-03					
Total Organic Carbon	<b>4.4</b>	1.0	SM 5310B	7-31-19	7-31-19	
<b>Client ID:</b>	<b>HZ-MW-15D:W</b>					
Laboratory ID:	07-274-04					
Total Organic Carbon	<b>1.6</b>	1.0	SM 5310B	7-31-19	7-31-19	
<b>Client ID:</b>	<b>HZ-MW-15S:W</b>					
Laboratory ID:	07-274-05					
Total Organic Carbon	<b>1.0</b>	1.0	SM 5310B	7-31-19	7-31-19	
<b>Client ID:</b>	<b>S-MW-3:W</b>					
Laboratory ID:	07-274-06					
Total Organic Carbon	<b>ND</b>	1.0	SM 5310B	7-31-19	7-31-19	
<b>Client ID:</b>	<b>S-MW-1:W</b>					
Laboratory ID:	07-274-07					
Total Organic Carbon	<b>ND</b>	1.0	SM 5310B	7-31-19	7-31-19	



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**TOTAL ORGANIC CARBON  
 SM 5310B**

Matrix: Water  
 Units: mg/L

<b>Analyte</b>	<b>Result</b>	<b>PQL</b>	<b>Method</b>	<b>Date Prepared</b>	<b>Date Analyzed</b>	<b>Flags</b>
<b>Client ID:</b>	<b>S-MW-2:W</b>					
Laboratory ID:	07-274-08					
Total Organic Carbon	<b>1.3</b>	1.0	SM 5310B	7-31-19	7-31-19	
<b>Client ID:</b>	<b>S-MW-5:W</b>					
Laboratory ID:	07-274-09					
Total Organic Carbon	<b>ND</b>	1.0	SM 5310B	7-31-19	7-31-19	



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**TOTAL ORGANIC CARBON  
 SM 5310B  
 QUALITY CONTROL**

Matrix: Water  
 Units: mg/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>METHOD BLANK</b>						
Laboratory ID:	MB0731W1					
Total Organic Carbon	<b>ND</b>	1.0	SM 5310B	7-31-19	7-31-19	

Analyte	Result	Spike Level	Source Result	Percent Recovery	Recovery Limits	RPD	RPD Limit	Flags
<b>DUPLICATE</b>								
Laboratory ID:	07-274-05							
	ORIG	DUP						
Total Organic Carbon	<b>1.05</b>	<b>1.01</b>	NA	NA	NA	NA	4	20

**MATRIX SPIKE**

Laboratory ID:	07-274-05							
	MS	MS		MS				
Total Organic Carbon	<b>10.8</b>	10.0	1.05	98	85-131	NA	NA	

**SPIKE BLANK**

Laboratory ID:	SB0731W1							
	SB	SB		SB				
Total Organic Carbon	<b>9.20</b>	10.0	NA	92	88-127	NA	NA	





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**DISSOLVED IRON  
 EPA 6010D**

Matrix: Water  
 Units: ug/L (ppb)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>Client ID:</b>	<b>MW-39:W</b>					
Laboratory ID:	07-274-01					
Iron	<b>4300</b>	56	EPA 6010D	7-24-19	7-29-19	
<b>Client ID:</b>	<b>MW-40:W</b>					
Laboratory ID:	07-274-02					
Iron	<b>19000</b>	56	EPA 6010D	7-24-19	7-29-19	
<b>Client ID:</b>	<b>HZ-MW-31:W</b>					
Laboratory ID:	07-274-03					
Iron	<b>19000</b>	56	EPA 6010D	7-24-19	7-29-19	
<b>Client ID:</b>	<b>HZ-MW-15D:W</b>					
Laboratory ID:	07-274-04					
Iron	<b>ND</b>	56	EPA 6010D	7-24-19	7-29-19	
<b>Client ID:</b>	<b>HZ-MW-15S:W</b>					
Laboratory ID:	07-274-05					
Iron	<b>ND</b>	56	EPA 6010D	7-24-19	7-29-19	
<b>Client ID:</b>	<b>S-MW-3:W</b>					
Laboratory ID:	07-274-06					
Iron	<b>ND</b>	56	EPA 6010D	7-24-19	7-29-19	
<b>Client ID:</b>	<b>S-MW-1:W</b>					
Laboratory ID:	07-274-07					
Iron	<b>ND</b>	56	EPA 6010D	7-24-19	7-29-19	
<b>Client ID:</b>	<b>S-MW-2:W</b>					
Laboratory ID:	07-274-08					
Iron	<b>ND</b>	56	EPA 6010D	7-24-19	7-29-19	



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**DISSOLVED IRON**  
**EPA 6010D**

Matrix: Water  
Units: ug/L (ppb)

<b>Analyte</b>	<b>Result</b>	<b>PQL</b>	<b>Method</b>	<b>Date Prepared</b>	<b>Date Analyzed</b>	<b>Flags</b>
<b>Client ID:</b>	<b>S-MW-5:W</b>					
Laboratory ID:	07-274-09					
Iron	<b>ND</b>	56	EPA 6010D	7-24-19	7-29-19	



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**DISSOLVED IRON  
 EPA 6010D  
 QUALITY CONTROL**

Matrix: Water  
 Units: ug/L (ppb)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>METHOD BLANK</b>						
Laboratory ID:	MB0724F1					
Iron	<b>ND</b>	56	EPA 6010D	7-24-19	7-29-19	

Analyte	Result	Spike Level	Source Result	Percent Recovery	Recovery Limits	RPD	RPD Limit	Flags
<b>DUPLICATE</b>								
Laboratory ID:	07-274-05							
	ORIG	DUP						
Iron	<b>ND</b>	<b>ND</b>	NA	NA	NA	NA	20	

Analyte	MS	MSD	MS	MSD	MS	MSD	RPD	RPD Limit	Flags	
<b>MATRIX SPIKES</b>										
Laboratory ID:	07-274-05									
	MS	MSD	MS	MSD	MS	MSD				
Iron	<b>22500</b>	<b>22800</b>	22200	22200	ND	<b>101</b>	<b>103</b>	75-125	1	20



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**CHLORIDE**  
**SM 4500-Cl E**

Matrix: Water  
 Units: mg/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>Client ID:</b>	<b>MW-39:W</b>					
Laboratory ID:	07-274-01					
Chloride	<b>4.3</b>	2.0	SM 4500-Cl E	7-25-19	7-25-19	

<b>Client ID:</b>	<b>MW-40:W</b>					
Laboratory ID:	07-274-02					
Chloride	<b>12</b>	2.0	SM 4500-Cl E	7-25-19	7-25-19	

<b>Client ID:</b>	<b>HZ-MW-31:W</b>					
Laboratory ID:	07-274-03					
Chloride	<b>8.3</b>	2.0	SM 4500-Cl E	7-25-19	7-25-19	

<b>Client ID:</b>	<b>HZ-MW-15D:W</b>					
Laboratory ID:	07-274-04					
Chloride	<b>13</b>	2.0	SM 4500-Cl E	7-25-19	7-25-19	

<b>Client ID:</b>	<b>HZ-MW-15S:W</b>					
Laboratory ID:	07-274-05					
Chloride	<b>3.6</b>	2.0	SM 4500-Cl E	7-25-19	7-25-19	

<b>Client ID:</b>	<b>S-MW-3:W</b>					
Laboratory ID:	07-274-06					
Chloride	<b>3.9</b>	2.0	SM 4500-Cl E	7-25-19	7-25-19	

<b>Client ID:</b>	<b>S-MW-1:W</b>					
Laboratory ID:	07-274-07					
Chloride	<b>4.8</b>	2.0	SM 4500-Cl E	7-25-19	7-25-19	



Date of Report: August 1, 2019  
Samples Submitted: July 24, 2019  
Laboratory Reference: 1907-274  
Project: 82302-9.4

**CHLORIDE**  
**SM 4500-Cl E**

Matrix: Water  
Units: mg/L

<b>Analyte</b>	<b>Result</b>	<b>PQL</b>	<b>Method</b>	<b>Date Prepared</b>	<b>Date Analyzed</b>	<b>Flags</b>
<b>Client ID:</b>	<b>S-MW-2:W</b>					
Laboratory ID:	07-274-08					
Chloride	<b>7.4</b>	2.0	SM 4500-Cl E	7-25-19	7-25-19	

<b>Client ID:</b>	<b>S-MW-5:W</b>					
Laboratory ID:	07-274-09					
Chloride	<b>7.5</b>	2.0	SM 4500-Cl E	7-25-19	7-25-19	



Date of Report: August 1, 2019  
 Samples Submitted: July 24, 2019  
 Laboratory Reference: 1907-274  
 Project: 82302-9.4

**CHLORIDE  
 SM 4500-Cl E  
 QUALITY CONTROL**

Matrix: Water  
 Units: mg/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>METHOD BLANK</b>						
Laboratory ID:	MB0725W1					
Chloride	<b>ND</b>	2.0	SM 4500-Cl E	7-25-19	7-25-19	

Analyte	Result	Spike Level	Source Result	Percent Recovery	Recovery Limits	RPD	RPD Limit	Flags
<b>DUPLICATE</b>								
Laboratory ID:	07-274-05							
	ORIG	DUP						
Chloride	<b>3.57</b>	<b>4.09</b>	NA	NA	NA	14	17	

<b>MATRIX SPIKE</b>								
Laboratory ID:	07-274-05							
	MS	MS		MS				
Chloride	<b>56.0</b>	50.0	3.57	105	80-116	NA	NA	

<b>SPIKE BLANK</b>								
Laboratory ID:	SB0725W1							
	SB	SB		SB				
Chloride	<b>48.5</b>	50.0	NA	97	90-110	NA	NA	



Date of Report: August 1, 2019  
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 Laboratory Reference: 1907-274  
 Project: 82302-9.4

**SULFATE**  
**ASTM D516-11**

Matrix: Water  
 Units: mg/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>Client ID:</b>	<b>MW-39:W</b>					
Laboratory ID:	07-274-01					
Sulfate	<b>ND</b>	5.0	ASTM D516-11	7-30-19	7-30-19	

<b>Client ID:</b>	<b>MW-40:W</b>					
Laboratory ID:	07-274-02					
Sulfate	<b>ND</b>	5.0	ASTM D516-11	7-30-19	7-30-19	

<b>Client ID:</b>	<b>HZ-MW-31:W</b>					
Laboratory ID:	07-274-03					
Sulfate	<b>ND</b>	5.0	ASTM D516-11	7-30-19	7-30-19	

<b>Client ID:</b>	<b>HZ-MW-15D:W</b>					
Laboratory ID:	07-274-04					
Sulfate	<b>21</b>	5.0	ASTM D516-11	7-30-19	7-30-19	

<b>Client ID:</b>	<b>HZ-MW-15S:W</b>					
Laboratory ID:	07-274-05					
Sulfate	<b>13</b>	5.0	ASTM D516-11	7-30-19	7-30-19	

<b>Client ID:</b>	<b>S-MW-3:W</b>					
Laboratory ID:	07-274-06					
Sulfate	<b>12</b>	5.0	ASTM D516-11	7-30-19	7-30-19	

<b>Client ID:</b>	<b>S-MW-1:W</b>					
Laboratory ID:	07-274-07					
Sulfate	<b>26</b>	10	ASTM D516-11	7-30-19	7-30-19	



Date of Report: August 1, 2019  
Samples Submitted: July 24, 2019  
Laboratory Reference: 1907-274  
Project: 82302-9.4

**SULFATE**  
**ASTM D516-11**

Matrix: Water  
Units: mg/L

<b>Analyte</b>	<b>Result</b>	<b>PQL</b>	<b>Method</b>	<b>Date Prepared</b>	<b>Date Analyzed</b>	<b>Flags</b>
<b>Client ID:</b>	<b>S-MW-2:W</b>					
Laboratory ID:	07-274-08					
Sulfate	<b>21</b>	5.0	ASTM D516-11	7-30-19	7-30-19	

<b>Client ID:</b>	<b>S-MW-5:W</b>					
Laboratory ID:	07-274-09					
Sulfate	<b>15</b>	5.0	ASTM D516-11	7-30-19	7-30-19	





Date of Report: August 1, 2019  
 Samples Submitted: July 24, 2019  
 Laboratory Reference: 1907-274  
 Project: 82302-9.4

**SULFATE  
 ASTM D516-11  
 QUALITY CONTROL**

Matrix: Water  
 Units: mg/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>METHOD BLANK</b>						
Laboratory ID:	MB0723W1					
Sulfate	<b>ND</b>	5.0	ASTM D516-11	7-30-19	7-30-19	

Analyte	Result	Spike Level	Source Result	Percent Recovery	Recovery Limits	RPD	RPD Limit	Flags
<b>DUPLICATE</b>								
Laboratory ID:	07-274-05							
	ORIG	DUP						
Sulfate	<b>12.8</b>	<b>14.1</b>	NA	NA	NA	10	10	

<b>MATRIX SPIKE</b>								
Laboratory ID:	07-274-05							
	MS	MS		MS				
Sulfate	<b>33.2</b>	20.0	12.8	102	73-134	NA	NA	

<b>SPIKE BLANK</b>								
Laboratory ID:	SB0723W1							
	SB	SB		SB				
Sulfate	<b>9.00</b>	10.0	NA	90	89-113	NA	NA	



Date of Report: August 1, 2019  
 Samples Submitted: July 24, 2019  
 Laboratory Reference: 1907-274  
 Project: 82302-9.4

**AMMONIA (as Nitrogen)**  
**SM 4500-NH<sub>3</sub> D**

Matrix: Water  
 Units: mg NH<sub>3</sub>-N/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>Client ID:</b>	<b>MW-39:W</b>					
Laboratory ID:	07-274-01					
Ammonia	<b>0.44</b>	0.050	SM 4500-NH <sub>3</sub> D	7-25-19	7-25-19	
<b>Client ID:</b>	<b>MW-40:W</b>					
Laboratory ID:	07-274-02					
Ammonia	<b>0.39</b>	0.050	SM 4500-NH <sub>3</sub> D	7-25-19	7-25-19	
<b>Client ID:</b>	<b>HZ-MW-31:W</b>					
Laboratory ID:	07-274-03					
Ammonia	<b>0.27</b>	0.050	SM 4500-NH <sub>3</sub> D	7-25-19	7-25-19	
<b>Client ID:</b>	<b>HZ-MW-15D:W</b>					
Laboratory ID:	07-274-04					
Ammonia	<b>ND</b>	0.050	SM 4500-NH <sub>3</sub> D	7-25-19	7-25-19	
<b>Client ID:</b>	<b>HZ-MW-15S:W</b>					
Laboratory ID:	07-274-05					
Ammonia	<b>ND</b>	0.050	SM 4500-NH <sub>3</sub> D	7-25-19	7-25-19	
<b>Client ID:</b>	<b>S-MW-3:W</b>					
Laboratory ID:	07-274-06					
Ammonia	<b>ND</b>	0.050	SM 4500-NH <sub>3</sub> D	7-25-19	7-25-19	
<b>Client ID:</b>	<b>S-MW-1:W</b>					
Laboratory ID:	07-274-07					
Ammonia	<b>0.15</b>	0.050	SM 4500-NH <sub>3</sub> D	7-25-19	7-25-19	



Date of Report: August 1, 2019  
 Samples Submitted: July 24, 2019  
 Laboratory Reference: 1907-274  
 Project: 82302-9.4

**AMMONIA (as Nitrogen)**  
**SM 4500-NH<sub>3</sub> D**

Matrix: Water  
 Units: mg NH<sub>3</sub>-N/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>Client ID:</b>	<b>S-MW-2:W</b>					
Laboratory ID:	07-274-08					
Ammonia	<b>ND</b>	0.050	SM 4500-NH <sub>3</sub> D	7-25-19	7-25-19	

<b>Client ID:</b>	<b>S-MW-5:W</b>					
Laboratory ID:	07-274-09					
Ammonia	<b>ND</b>	0.050	SM 4500-NH <sub>3</sub> D	7-25-19	7-25-19	



Date of Report: August 1, 2019  
 Samples Submitted: July 24, 2019  
 Laboratory Reference: 1907-274  
 Project: 82302-9.4

**AMMONIA (as Nitrogen)  
 SM 4500-NH<sub>3</sub> D  
 QUALITY CONTROL**

Matrix: Water  
 Units: mg NH<sub>3</sub>-N/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>METHOD BLANK</b>						
Laboratory ID:	MB0725W1					
Ammonia	<b>ND</b>	0.050	SM 4500-NH <sub>3</sub> D	7-25-19	7-25-19	

Analyte	Result	Spike Level	Source Result	Percent Recovery	Recovery Limits	RPD	RPD Limit	Flags
<b>DUPLICATE</b>								
Laboratory ID:	07-274-05							
	ORIG	DUP						
Ammonia	<b>ND</b>	<b>ND</b>	NA	NA	NA	NA	12	

<b>MATRIX SPIKE</b>								
Laboratory ID:	07-274-05							
	MS	MS		MS				
Ammonia	<b>4.87</b>	5.00	ND	97	75-121	NA	NA	

<b>SPIKE BLANK</b>								
Laboratory ID:	SB0725W1							
	SB	SB		SB				
Ammonia	<b>4.89</b>	5.00	NA	98	85-110	NA	NA	



Date of Report: August 1, 2019  
 Samples Submitted: July 24, 2019  
 Laboratory Reference: 1907-274  
 Project: 82302-9.4

**DISSOLVED GASES**  
**RSK 175**

Matrix: Water  
 Units: ug/L (ppb)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>Client ID:</b>	<b>MW-39:W</b>					
Laboratory ID:	07-274-01					
Methane	<b>1000</b>	150	RSK 175	7-31-19	7-31-19	
Ethane	<b>ND</b>	0.50	RSK 175	7-31-19	7-31-19	
Ethene	<b>ND</b>	0.50	RSK 175	7-31-19	7-31-19	

<b>Client ID:</b>	<b>MW-40:W</b>					
Laboratory ID:	07-274-02					
Methane	<b>490</b>	75	RSK 175	7-31-19	7-31-19	
Ethane	<b>8.2</b>	0.50	RSK 175	7-31-19	7-31-19	
Ethene	<b>ND</b>	0.50	RSK 175	7-31-19	7-31-19	

<b>Client ID:</b>	<b>HZ-MW-31:W</b>					
Laboratory ID:	07-274-03					
Methane	<b>620</b>	75	RSK 175	7-31-19	7-31-19	
Ethane	<b>ND</b>	0.50	RSK 175	7-31-19	7-31-19	
Ethene	<b>ND</b>	0.50	RSK 175	7-31-19	7-31-19	

<b>Client ID:</b>	<b>HZ-MW-15D:W</b>					
Laboratory ID:	07-274-04					
Methane	<b>5000</b>	500	RSK 175	7-31-19	7-31-19	
Ethane	<b>ND</b>	0.50	RSK 175	7-31-19	7-31-19	
Ethene	<b>ND</b>	0.50	RSK 175	7-31-19	7-31-19	

<b>Client ID:</b>	<b>HZ-MW-15S:W</b>					
Laboratory ID:	07-274-05					
Methane	<b>20</b>	2.0	RSK 175	7-31-19	7-31-19	
Ethane	<b>ND</b>	0.50	RSK 175	7-31-19	7-31-19	
Ethene	<b>ND</b>	0.50	RSK 175	7-31-19	7-31-19	

<b>Client ID:</b>	<b>S-MW-3:W</b>					
Laboratory ID:	07-274-06					
Methane	<b>470</b>	75	RSK 175	7-31-19	7-31-19	
Ethane	<b>ND</b>	0.50	RSK 175	7-31-19	7-31-19	
Ethene	<b>ND</b>	0.50	RSK 175	7-31-19	7-31-19	



Date of Report: August 1, 2019  
 Samples Submitted: July 24, 2019  
 Laboratory Reference: 1907-274  
 Project: 82302-9.4

**DISSOLVED GASES  
 RSK 175**

Matrix: Water  
 Units: ug/L (ppb)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>Client ID:</b>	<b>S-MW-1:W</b>					
Laboratory ID:	07-274-07					
Methane	<b>ND</b>	1.0	RSK 175	7-31-19	7-31-19	
Ethane	<b>ND</b>	0.50	RSK 175	7-31-19	7-31-19	
Ethene	<b>ND</b>	0.50	RSK 175	7-31-19	7-31-19	

<b>Client ID:</b>	<b>S-MW-2:W</b>					
Laboratory ID:	07-274-08					
Methane	<b>27</b>	3.0	RSK 175	7-31-19	7-31-19	
Ethane	<b>ND</b>	0.50	RSK 175	7-31-19	7-31-19	
Ethene	<b>ND</b>	0.50	RSK 175	7-31-19	7-31-19	

<b>Client ID:</b>	<b>S-MW-5:W</b>					
Laboratory ID:	07-274-09					
Methane	<b>ND</b>	1.0	RSK 175	7-31-19	7-31-19	
Ethane	<b>ND</b>	0.50	RSK 175	7-31-19	7-31-19	
Ethene	<b>ND</b>	0.50	RSK 175	7-31-19	7-31-19	



Date of Report: August 1, 2019  
 Samples Submitted: July 24, 2019  
 Laboratory Reference: 1907-274  
 Project: 82302-9.4

**DISSOLVED GASES  
 RSK 175  
 QUALITY CONTROL**

Matrix: Water  
 Units: ug/L (ppb)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>METHOD BLANK</b>						
Laboratory ID:	MB0731W1					
Methane	ND	1.0	RSK 175	7-31-19	7-31-19	
Ethane	ND	0.50	RSK 175	7-31-19	7-31-19	
Ethene	ND	0.50	RSK 175	7-31-19	7-31-19	

Analyte	Result		Spike Level		Source Result	Percent Recovery	Recovery Limits	RPD	RPD Limit	Flags
<b>MATRIX SPIKES</b>										
Laboratory ID:	01-123-01									
	MS	MSD	MS	MSD		MS	MSD			
Methane	9.41	9.08	4.42	4.42	4.20	118	110	75-125	4	25
Ethane	7.79	7.34	8.32	8.32	ND	94	88	75-125	6	25
Ethene	5.79	6.37	7.77	7.77	ND	75	82	75-125	10	25

<b>SPIKE BLANKS</b>										
Laboratory ID:	SB0731W1									
	SB	SBD	SB	SBD		SB	SBD			
Methane	4.77	4.63	4.42	4.42	N/A	108	105	75-125	3	25
Ethane	8.65	8.16	8.32	8.32	N/A	104	98	75-125	6	25
Ethene	8.71	8.74	7.77	7.77	N/A	112	113	75-125	0	25





### Data Qualifiers and Abbreviations

- A - Due to a high sample concentration, the amount spiked is insufficient for meaningful MS/MSD recovery data.
  - B - The analyte indicated was also found in the blank sample.
  - C - The duplicate RPD is outside control limits due to high result variability when analyte concentrations are within five times the quantitation limit.
  - E - The value reported exceeds the quantitation range and is an estimate.
  - F - Surrogate recovery data is not available due to the high concentration of coeluting target compounds.
  - H - The analyte indicated is a common laboratory solvent and may have been introduced during sample preparation, and be impacting the sample result.
  - I - Compound recovery is outside of the control limits.
  - J - The value reported was below the practical quantitation limit. The value is an estimate.
  - K - Sample duplicate RPD is outside control limits due to sample inhomogeneity. The sample was re-extracted and re-analyzed with similar results.
  - L - The RPD is outside of the control limits.
  - M - Hydrocarbons in the gasoline range are impacting the diesel range result.
  - M1 - Hydrocarbons in the gasoline range (toluene-naphthalene) are present in the sample.
  - N - Hydrocarbons in the lube oil range are impacting the diesel range result.
  - N1 - Hydrocarbons in diesel range are impacting lube oil range results.
  - O - Hydrocarbons indicative of heavier fuels are present in the sample and are impacting the gasoline result.
  - P - The RPD of the detected concentrations between the two columns is greater than 40.
  - Q - Surrogate recovery is outside of the control limits.
  - S - Surrogate recovery data is not available due to the necessary dilution of the sample.
  - T - The sample chromatogram is not similar to a typical \_\_\_\_\_.
  - U - The analyte was analyzed for, but was not detected above the reported sample quantitation limit.
  - U1 - The practical quantitation limit is elevated due to interferences present in the sample.
  - V - Matrix Spike/Matrix Spike Duplicate recoveries are outside control limits due to matrix effects.
  - W - Matrix Spike/Matrix Spike Duplicate RPD are outside control limits due to matrix effects.
  - X - Sample extract treated with a mercury cleanup procedure.
  - X1 - Sample extract treated with a sulfuric acid/silica gel cleanup procedure.
  - Y - The calibration verification for this analyte exceeded the 20% drift specified in methods 8260 & 8270, and therefore the reported result should be considered an estimate. The overall performance of the calibration verification standard met the acceptance criteria of the method.
  - Z -
- ND - Not Detected at PQL  
 PQL - Practical Quantitation Limit  
 RPD - Relative Percent Difference







# Onsite Environmental Inc.

Analytical Laboratory Testing Services  
14848 NE 95th Street • Redmond, WA 98052  
Phone: (425) 883-3881 • www.onsite-env.com

## Chain of Custody

Laboratory Number: **07-274**

Company: **KANE ENVIRONMENTAL**  
Project Number: **82302-9.4**  
Project Name: **BSCSS**

Project Manager: **JEFF JOHNSON**  
Sampled by: **AKUA GRAVES and EMMY KANE**

Turnaround Request (in working days)  
(Check One)  
 Same Day  1 Day  
 2 Days  3 Days  
 Standard (7 Days)  
 \_\_\_\_\_ (other)

Lab ID	Sample Identification	Date Sampled	Time Sampled	Matrix	Number of Containers
1	MW-39:W	7/23	1130	GW	9
2	MW-40:W	7/23	1144	GW	9
3	H2-MW-31:W	7/23	1215	GNW	9
4	H2-MW-15D:W	7/24	1050	GNW	9
5	H2-MW-15S:W	7/24	1155	GNW	14
6	S-MW-3:W	7/24	1225	GNW	9
7	S-MW-1:W	7/24	1320	GNW	9
8	S-MW-2:W	7/24	1342	GNW	9
9	S-MW-5:W	7/24	1425	GNW	9

Number of Containers	NWTPH-HCID	NWTPH-Gx/BTEX	NWTPH-Gx	NWTPH-Dx (Acid / SG Clean-up)	Volatiles 8260C	Halogenated Volatiles 8260C	EDB EPA 8011 (Waters Only)	Semivolatiles 8270D/SIM (with low-level PAHs)	PAHs 8270D/SIM (low-level)	PCBs 8082A	Organochlorine Pesticides 8081B	Organophosphorus Pesticides 8270D/SIM	Chlorinated Acid Herbicides 8151A	Total RCRA Metals	Total MTCA Metals	TCLP Metals	<del>Mercury and Grease</del> TOC	dissolved Fe	chloride	sulfate	ammonia-N	<del>Mercury</del> RSK
9						X												X	X	X	X	X
9						X												X	X	X	X	X
9						X												X	X	X	X	X
9						X												X	X	X	X	X
14						X												X	X	X	X	X
9						X												X	X	X	X	X
9						X												X	X	X	X	X
9						X												X	X	X	X	X
9						X												X	X	X	X	X

Relinquished  
Received  
Relinquished  
Received  
Relinquished  
Received  
Reviewed/Date

Signature: *[Handwritten Signature]*  
Company: **KANE ENVIRONMENTAL**  
Reviewed/Date

Date: **7/24**  
Time: **1500**

Comments/Special Instructions:  
RSK = methane, ethane, ethene  
↳ detection limit low (3-4 mg/l)  
low detection limit for vinyl chloride  
LOW FILTER  
H2-MW-15S:W = QC (EXTRA VOLUME)

Data Package: Standard  Level III  Level IV   
Chromatograms with final report  Electronic Data Deliverables (EDDs)



14648 NE 95<sup>th</sup> Street, Redmond, WA 98052 • (425) 883-3881

August 5, 2019

Jeff Jensen  
Kane Environmental, Inc.  
4015 13th Avenue West  
Seattle, WA 98119

Re: Analytical Data for Project 82302-9.4  
Laboratory Reference No. 1907-296

Dear Jeff:

Enclosed are the analytical results and associated quality control data for samples submitted on July 25, 2019.

The standard policy of OnSite Environmental, Inc. is to store your samples for 30 days from the date of receipt. If you require longer storage, please contact the laboratory.

We appreciate the opportunity to be of service to you on this project. If you have any questions concerning the data, or need additional information, please feel free to call me.

Sincerely,

A handwritten signature in black ink, appearing to read "DB", with a long horizontal flourish extending to the right.

David Baumeister  
Project Manager

Enclosures



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OnSite Environmental, Inc. 14648 NE 95<sup>th</sup> Street, Redmond, WA 98052 (425) 883-3881

This report pertains to the samples analyzed in accordance with the chain of custody, and is intended only for the use of the individual or company to whom it is addressed.

Date of Report: August 5, 2019  
Samples Submitted: July 25, 2019  
Laboratory Reference: 1907-296  
Project: 82302-9.4

### Case Narrative

Samples were collected on July 25, 2019 and received by the laboratory on July 25, 2019. They were maintained at the laboratory at a temperature of 2°C to 6°C.

Please note that any and all soil sample results are reported on a dry-weight basis, unless otherwise noted below.

General QA/QC issues associated with the analytical data enclosed in this laboratory report will be indicated with a reference to a comment or explanation on the Data Qualifier page. More complex and involved QA/QC issues will be discussed in detail below.

#### Volatiles EPA 8260C Analysis:

The client-requested PQL for Vinyl Chloride was not achievable for sample HZ-MW-14S:W due to the necessary dilution of the sample.

**Please note that any other QA/QC issues associated with these extractions and analyses will be indicated with a footnote reference and discussed in detail on the Data Qualifier page.**



Date of Report: August 5, 2019  
 Samples Submitted: July 25, 2019  
 Laboratory Reference: 1907-296  
 Project: 82302-9.4

**VOLATILE ORGANICS EPA 8260C/SIM**  
 page 1 of 2

Matrix: Water  
 Units: ug/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>Client ID:</b>	<b>MW-44:W</b>					
Laboratory ID:	07-296-01					
Dichlorodifluoromethane	ND	0.20	EPA 8260C	7-26-19	7-26-19	
Chloromethane	ND	1.0	EPA 8260C	7-26-19	7-26-19	
Vinyl Chloride	0.047	0.020	EPA 8260C/SIM	7-26-19	7-26-19	
Bromomethane	ND	0.20	EPA 8260C	7-26-19	7-26-19	
Chloroethane	ND	1.0	EPA 8260C	7-26-19	7-26-19	
Trichlorofluoromethane	ND	0.20	EPA 8260C	7-26-19	7-26-19	
1,1-Dichloroethene	ND	0.20	EPA 8260C	7-26-19	7-26-19	
Iodomethane	ND	4.2	EPA 8260C	7-26-19	7-26-19	
Methylene Chloride	17	1.0	EPA 8260C	7-26-19	7-26-19	
(trans) 1,2-Dichloroethene	0.20	0.20	EPA 8260C	7-26-19	7-26-19	
1,1-Dichloroethane	ND	0.20	EPA 8260C	7-26-19	7-26-19	
2,2-Dichloropropane	ND	0.20	EPA 8260C	7-26-19	7-26-19	
(cis) 1,2-Dichloroethene	2.7	0.20	EPA 8260C	7-26-19	7-26-19	
Bromochloromethane	ND	0.20	EPA 8260C	7-26-19	7-26-19	
Chloroform	ND	0.20	EPA 8260C	7-26-19	7-26-19	
1,1,1-Trichloroethane	ND	0.20	EPA 8260C	7-26-19	7-26-19	
Carbon Tetrachloride	ND	0.20	EPA 8260C	7-26-19	7-26-19	
1,1-Dichloropropene	ND	0.20	EPA 8260C	7-26-19	7-26-19	
1,2-Dichloroethane	1.5	0.20	EPA 8260C	7-26-19	7-26-19	
Trichloroethene	ND	0.20	EPA 8260C	7-26-19	7-26-19	
1,2-Dichloropropane	ND	0.20	EPA 8260C	7-26-19	7-26-19	
Dibromomethane	ND	0.20	EPA 8260C	7-26-19	7-26-19	
Bromodichloromethane	ND	0.20	EPA 8260C	7-26-19	7-26-19	
2-Chloroethyl Vinyl Ether	ND	1.0	EPA 8260C	7-26-19	7-26-19	
(cis) 1,3-Dichloropropene	ND	0.20	EPA 8260C	7-26-19	7-26-19	
(trans) 1,3-Dichloropropene	ND	0.20	EPA 8260C	7-26-19	7-26-19	



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Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>Client ID:</b>	<b>MW-44:W</b>					
<b>Laboratory ID:</b>	<b>07-296-01</b>					
1,1,2-Trichloroethane	ND	0.20	EPA 8260C	7-26-19	7-26-19	
Tetrachloroethene	ND	0.20	EPA 8260C	7-26-19	7-26-19	
1,3-Dichloropropane	ND	0.20	EPA 8260C	7-26-19	7-26-19	
Dibromochloromethane	ND	0.20	EPA 8260C	7-26-19	7-26-19	
1,2-Dibromoethane	ND	0.20	EPA 8260C	7-26-19	7-26-19	
Chlorobenzene	ND	0.20	EPA 8260C	7-26-19	7-26-19	
1,1,1,2-Tetrachloroethane	ND	0.20	EPA 8260C	7-26-19	7-26-19	
Bromoform	ND	1.0	EPA 8260C	7-26-19	7-26-19	
Bromobenzene	ND	0.20	EPA 8260C	7-26-19	7-26-19	
1,1,2,2-Tetrachloroethane	ND	0.20	EPA 8260C	7-26-19	7-26-19	
1,2,3-Trichloropropane	ND	0.20	EPA 8260C	7-26-19	7-26-19	
2-Chlorotoluene	ND	0.20	EPA 8260C	7-26-19	7-26-19	
4-Chlorotoluene	ND	0.20	EPA 8260C	7-26-19	7-26-19	
1,3-Dichlorobenzene	ND	0.20	EPA 8260C	7-26-19	7-26-19	
1,4-Dichlorobenzene	ND	0.20	EPA 8260C	7-26-19	7-26-19	
1,2-Dichlorobenzene	ND	0.20	EPA 8260C	7-26-19	7-26-19	
1,2-Dibromo-3-chloropropane	ND	1.0	EPA 8260C	7-26-19	7-26-19	
1,2,4-Trichlorobenzene	ND	0.20	EPA 8260C	7-26-19	7-26-19	
Hexachlorobutadiene	ND	1.0	EPA 8260C	7-26-19	7-26-19	
1,2,3-Trichlorobenzene	ND	0.20	EPA 8260C	7-26-19	7-26-19	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Dibromofluoromethane</i>	<i>102</i>	<i>75-127</i>				
<i>Toluene-d8</i>	<i>97</i>	<i>80-127</i>				
<i>4-Bromofluorobenzene</i>	<i>97</i>	<i>78-125</i>				



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Matrix: Water  
 Units: ug/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>Client ID:</b>	<b>MW-6:W</b>					
Laboratory ID:	07-296-02					
Dichlorodifluoromethane	ND	20	EPA 8260C	7-26-19	7-26-19	
Chloromethane	ND	100	EPA 8260C	7-26-19	7-26-19	
Vinyl Chloride	7.4	2.0	EPA 8260C/SIM	7-26-19	7-26-19	
Bromomethane	ND	20	EPA 8260C	7-26-19	7-26-19	
Chloroethane	ND	100	EPA 8260C	7-26-19	7-26-19	
Trichlorofluoromethane	ND	20	EPA 8260C	7-26-19	7-26-19	
1,1-Dichloroethene	ND	20	EPA 8260C	7-26-19	7-26-19	
Iodomethane	ND	420	EPA 8260C	7-26-19	7-26-19	
Methylene Chloride	ND	100	EPA 8260C	7-26-19	7-26-19	
(trans) 1,2-Dichloroethene	ND	20	EPA 8260C	7-26-19	7-26-19	
1,1-Dichloroethane	ND	20	EPA 8260C	7-26-19	7-26-19	
2,2-Dichloropropane	ND	20	EPA 8260C	7-26-19	7-26-19	
(cis) 1,2-Dichloroethene	490	20	EPA 8260C	7-26-19	7-26-19	
Bromochloromethane	ND	20	EPA 8260C	7-26-19	7-26-19	
Chloroform	ND	20	EPA 8260C	7-26-19	7-26-19	
1,1,1-Trichloroethane	ND	20	EPA 8260C	7-26-19	7-26-19	
Carbon Tetrachloride	ND	20	EPA 8260C	7-26-19	7-26-19	
1,1-Dichloropropene	ND	20	EPA 8260C	7-26-19	7-26-19	
1,2-Dichloroethane	ND	20	EPA 8260C	7-26-19	7-26-19	
Trichloroethene	1100	20	EPA 8260C	7-26-19	7-26-19	
1,2-Dichloropropane	ND	20	EPA 8260C	7-26-19	7-26-19	
Dibromomethane	ND	20	EPA 8260C	7-26-19	7-26-19	
Bromodichloromethane	ND	20	EPA 8260C	7-26-19	7-26-19	
2-Chloroethyl Vinyl Ether	ND	100	EPA 8260C	7-26-19	7-26-19	
(cis) 1,3-Dichloropropene	ND	20	EPA 8260C	7-26-19	7-26-19	
(trans) 1,3-Dichloropropene	ND	20	EPA 8260C	7-26-19	7-26-19	



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<b>Client ID:</b>	<b>MW-6:W</b>					
<b>Laboratory ID:</b>	<b>07-296-02</b>					
1,1,2-Trichloroethane	ND	20	EPA 8260C	7-26-19	7-26-19	
Tetrachloroethene	3600	20	EPA 8260C	7-26-19	7-26-19	
1,3-Dichloropropane	ND	20	EPA 8260C	7-26-19	7-26-19	
Dibromochloromethane	ND	20	EPA 8260C	7-26-19	7-26-19	
1,2-Dibromoethane	ND	20	EPA 8260C	7-26-19	7-26-19	
Chlorobenzene	ND	20	EPA 8260C	7-26-19	7-26-19	
1,1,1,2-Tetrachloroethane	ND	20	EPA 8260C	7-26-19	7-26-19	
Bromoform	ND	100	EPA 8260C	7-26-19	7-26-19	
Bromobenzene	ND	20	EPA 8260C	7-26-19	7-26-19	
1,1,1,2,2-Tetrachloroethane	ND	20	EPA 8260C	7-26-19	7-26-19	
1,2,3-Trichloropropane	ND	20	EPA 8260C	7-26-19	7-26-19	
2-Chlorotoluene	ND	20	EPA 8260C	7-26-19	7-26-19	
4-Chlorotoluene	ND	20	EPA 8260C	7-26-19	7-26-19	
1,3-Dichlorobenzene	ND	20	EPA 8260C	7-26-19	7-26-19	
1,4-Dichlorobenzene	ND	20	EPA 8260C	7-26-19	7-26-19	
1,2-Dichlorobenzene	ND	20	EPA 8260C	7-26-19	7-26-19	
1,2-Dibromo-3-chloropropane	ND	100	EPA 8260C	7-26-19	7-26-19	
1,2,4-Trichlorobenzene	ND	20	EPA 8260C	7-26-19	7-26-19	
Hexachlorobutadiene	ND	100	EPA 8260C	7-26-19	7-26-19	
1,2,3-Trichlorobenzene	ND	20	EPA 8260C	7-26-19	7-26-19	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Dibromofluoromethane</i>	<i>98</i>	<i>75-127</i>				
<i>Toluene-d8</i>	<i>98</i>	<i>80-127</i>				
<i>4-Bromofluorobenzene</i>	<i>97</i>	<i>78-125</i>				



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Matrix: Water  
 Units: ug/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>Client ID:</b>	<b>MW-45:W</b>					
Laboratory ID:	07-296-03					
Dichlorodifluoromethane	ND	0.20	EPA 8260C	7-26-19	7-26-19	
Chloromethane	ND	1.0	EPA 8260C	7-26-19	7-26-19	
Vinyl Chloride	0.043	0.020	EPA 8260C/SIM	7-26-19	7-26-19	
Bromomethane	ND	0.20	EPA 8260C	7-26-19	7-26-19	
Chloroethane	ND	1.0	EPA 8260C	7-26-19	7-26-19	
Trichlorofluoromethane	ND	0.20	EPA 8260C	7-26-19	7-26-19	
1,1-Dichloroethene	ND	0.20	EPA 8260C	7-26-19	7-26-19	
Iodomethane	ND	4.2	EPA 8260C	7-26-19	7-26-19	
Methylene Chloride	15	1.0	EPA 8260C	7-26-19	7-26-19	
(trans) 1,2-Dichloroethene	ND	0.20	EPA 8260C	7-26-19	7-26-19	
1,1-Dichloroethane	ND	0.20	EPA 8260C	7-26-19	7-26-19	
2,2-Dichloropropane	ND	0.20	EPA 8260C	7-26-19	7-26-19	
(cis) 1,2-Dichloroethene	0.75	0.20	EPA 8260C	7-26-19	7-26-19	
Bromochloromethane	ND	0.20	EPA 8260C	7-26-19	7-26-19	
Chloroform	ND	0.20	EPA 8260C	7-26-19	7-26-19	
1,1,1-Trichloroethane	ND	0.20	EPA 8260C	7-26-19	7-26-19	
Carbon Tetrachloride	ND	0.20	EPA 8260C	7-26-19	7-26-19	
1,1-Dichloropropene	ND	0.20	EPA 8260C	7-26-19	7-26-19	
1,2-Dichloroethane	1.5	0.20	EPA 8260C	7-26-19	7-26-19	
Trichloroethene	ND	0.20	EPA 8260C	7-26-19	7-26-19	
1,2-Dichloropropane	ND	0.20	EPA 8260C	7-26-19	7-26-19	
Dibromomethane	ND	0.20	EPA 8260C	7-26-19	7-26-19	
Bromodichloromethane	ND	0.20	EPA 8260C	7-26-19	7-26-19	
2-Chloroethyl Vinyl Ether	ND	1.0	EPA 8260C	7-26-19	7-26-19	
(cis) 1,3-Dichloropropene	ND	0.20	EPA 8260C	7-26-19	7-26-19	
(trans) 1,3-Dichloropropene	ND	0.20	EPA 8260C	7-26-19	7-26-19	





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Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>Client ID:</b>	<b>MW-45:W</b>					
<b>Laboratory ID:</b>	<b>07-296-03</b>					
1,1,2-Trichloroethane	ND	0.20	EPA 8260C	7-26-19	7-26-19	
Tetrachloroethene	ND	0.20	EPA 8260C	7-26-19	7-26-19	
1,3-Dichloropropane	ND	0.20	EPA 8260C	7-26-19	7-26-19	
Dibromochloromethane	ND	0.20	EPA 8260C	7-26-19	7-26-19	
1,2-Dibromoethane	ND	0.20	EPA 8260C	7-26-19	7-26-19	
Chlorobenzene	ND	0.20	EPA 8260C	7-26-19	7-26-19	
1,1,1,2-Tetrachloroethane	ND	0.20	EPA 8260C	7-26-19	7-26-19	
Bromoform	ND	1.0	EPA 8260C	7-26-19	7-26-19	
Bromobenzene	ND	0.20	EPA 8260C	7-26-19	7-26-19	
1,1,2,2-Tetrachloroethane	ND	0.20	EPA 8260C	7-26-19	7-26-19	
1,2,3-Trichloropropane	ND	0.20	EPA 8260C	7-26-19	7-26-19	
2-Chlorotoluene	ND	0.20	EPA 8260C	7-26-19	7-26-19	
4-Chlorotoluene	ND	0.20	EPA 8260C	7-26-19	7-26-19	
1,3-Dichlorobenzene	ND	0.20	EPA 8260C	7-26-19	7-26-19	
1,4-Dichlorobenzene	ND	0.20	EPA 8260C	7-26-19	7-26-19	
1,2-Dichlorobenzene	ND	0.20	EPA 8260C	7-26-19	7-26-19	
1,2-Dibromo-3-chloropropane	ND	1.0	EPA 8260C	7-26-19	7-26-19	
1,2,4-Trichlorobenzene	ND	0.20	EPA 8260C	7-26-19	7-26-19	
Hexachlorobutadiene	ND	1.0	EPA 8260C	7-26-19	7-26-19	
1,2,3-Trichlorobenzene	ND	0.20	EPA 8260C	7-26-19	7-26-19	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Dibromofluoromethane</i>	<i>101</i>	<i>75-127</i>				
<i>Toluene-d8</i>	<i>98</i>	<i>80-127</i>				
<i>4-Bromofluorobenzene</i>	<i>100</i>	<i>78-125</i>				



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Matrix: Water  
 Units: ug/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>Client ID:</b>	<b>MW-11:W</b>					
Laboratory ID:	07-296-04					
Dichlorodifluoromethane	ND	0.40	EPA 8260C	7-26-19	7-26-19	
Chloromethane	ND	2.0	EPA 8260C	7-26-19	7-26-19	
Vinyl Chloride	0.34	0.040	EPA 8260C/SIM	7-26-19	7-26-19	
Bromomethane	ND	0.40	EPA 8260C	7-26-19	7-26-19	
Chloroethane	ND	2.0	EPA 8260C	7-26-19	7-26-19	
Trichlorofluoromethane	ND	0.40	EPA 8260C	7-26-19	7-26-19	
1,1-Dichloroethene	1.9	0.40	EPA 8260C	7-26-19	7-26-19	
Iodomethane	ND	8.4	EPA 8260C	7-26-19	7-26-19	
Methylene Chloride	ND	2.0	EPA 8260C	7-26-19	7-26-19	
(trans) 1,2-Dichloroethene	0.46	0.40	EPA 8260C	7-26-19	7-26-19	
1,1-Dichloroethane	ND	0.40	EPA 8260C	7-26-19	7-26-19	
2,2-Dichloropropane	ND	0.40	EPA 8260C	7-26-19	7-26-19	
(cis) 1,2-Dichloroethene	7.7	0.40	EPA 8260C	7-26-19	7-26-19	
Bromochloromethane	ND	0.40	EPA 8260C	7-26-19	7-26-19	
Chloroform	ND	0.40	EPA 8260C	7-26-19	7-26-19	
1,1,1-Trichloroethane	ND	0.40	EPA 8260C	7-26-19	7-26-19	
Carbon Tetrachloride	ND	0.40	EPA 8260C	7-26-19	7-26-19	
1,1-Dichloropropene	ND	0.40	EPA 8260C	7-26-19	7-26-19	
1,2-Dichloroethane	ND	0.40	EPA 8260C	7-26-19	7-26-19	
Trichloroethene	41	0.40	EPA 8260C	7-26-19	7-26-19	
1,2-Dichloropropane	ND	0.40	EPA 8260C	7-26-19	7-26-19	
Dibromomethane	ND	0.40	EPA 8260C	7-26-19	7-26-19	
Bromodichloromethane	ND	0.40	EPA 8260C	7-26-19	7-26-19	
2-Chloroethyl Vinyl Ether	ND	2.0	EPA 8260C	7-26-19	7-26-19	
(cis) 1,3-Dichloropropene	ND	0.40	EPA 8260C	7-26-19	7-26-19	
(trans) 1,3-Dichloropropene	ND	0.40	EPA 8260C	7-26-19	7-26-19	



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Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>Client ID:</b>	<b>MW-11:W</b>					
<b>Laboratory ID:</b>	<b>07-296-04</b>					
1,1,2-Trichloroethane	ND	0.40	EPA 8260C	7-26-19	7-26-19	
Tetrachloroethene	39	0.40	EPA 8260C	7-26-19	7-26-19	
1,3-Dichloropropane	ND	0.40	EPA 8260C	7-26-19	7-26-19	
Dibromochloromethane	ND	0.40	EPA 8260C	7-26-19	7-26-19	
1,2-Dibromoethane	ND	0.40	EPA 8260C	7-26-19	7-26-19	
Chlorobenzene	ND	0.40	EPA 8260C	7-26-19	7-26-19	
1,1,1,2-Tetrachloroethane	ND	0.40	EPA 8260C	7-26-19	7-26-19	
Bromoform	ND	2.0	EPA 8260C	7-26-19	7-26-19	
Bromobenzene	ND	0.40	EPA 8260C	7-26-19	7-26-19	
1,1,2,2-Tetrachloroethane	ND	0.40	EPA 8260C	7-26-19	7-26-19	
1,2,3-Trichloropropane	ND	0.40	EPA 8260C	7-26-19	7-26-19	
2-Chlorotoluene	ND	0.40	EPA 8260C	7-26-19	7-26-19	
4-Chlorotoluene	ND	0.40	EPA 8260C	7-26-19	7-26-19	
1,3-Dichlorobenzene	ND	0.40	EPA 8260C	7-26-19	7-26-19	
1,4-Dichlorobenzene	ND	0.40	EPA 8260C	7-26-19	7-26-19	
1,2-Dichlorobenzene	ND	0.40	EPA 8260C	7-26-19	7-26-19	
1,2-Dibromo-3-chloropropane	ND	2.0	EPA 8260C	7-26-19	7-26-19	
1,2,4-Trichlorobenzene	ND	0.40	EPA 8260C	7-26-19	7-26-19	
Hexachlorobutadiene	ND	2.0	EPA 8260C	7-26-19	7-26-19	
1,2,3-Trichlorobenzene	ND	0.40	EPA 8260C	7-26-19	7-26-19	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Dibromofluoromethane</i>	<i>98</i>	<i>75-127</i>				
<i>Toluene-d8</i>	<i>97</i>	<i>80-127</i>				
<i>4-Bromofluorobenzene</i>	<i>96</i>	<i>78-125</i>				



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Matrix: Water  
 Units: ug/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>Client ID:</b>	<b>MW-20:W</b>					
Laboratory ID:	07-296-05					
Dichlorodifluoromethane	ND	0.20	EPA 8260C	7-26-19	7-26-19	
Chloromethane	ND	1.0	EPA 8260C	7-26-19	7-26-19	
Vinyl Chloride	0.052	0.020	EPA 8260C/SIM	7-26-19	7-26-19	
Bromomethane	ND	0.20	EPA 8260C	7-26-19	7-26-19	
Chloroethane	ND	1.0	EPA 8260C	7-26-19	7-26-19	
Trichlorofluoromethane	ND	0.20	EPA 8260C	7-26-19	7-26-19	
1,1-Dichloroethene	ND	0.20	EPA 8260C	7-26-19	7-26-19	
Iodomethane	ND	4.2	EPA 8260C	7-26-19	7-26-19	
Methylene Chloride	ND	1.0	EPA 8260C	7-26-19	7-26-19	
(trans) 1,2-Dichloroethene	1.6	0.20	EPA 8260C	7-26-19	7-26-19	
1,1-Dichloroethane	ND	0.20	EPA 8260C	7-26-19	7-26-19	
2,2-Dichloropropane	ND	0.20	EPA 8260C	7-26-19	7-26-19	
(cis) 1,2-Dichloroethene	27	0.20	EPA 8260C	7-26-19	7-26-19	
Bromochloromethane	ND	0.20	EPA 8260C	7-26-19	7-26-19	
Chloroform	ND	0.20	EPA 8260C	7-26-19	7-26-19	
1,1,1-Trichloroethane	ND	0.20	EPA 8260C	7-26-19	7-26-19	
Carbon Tetrachloride	ND	0.20	EPA 8260C	7-26-19	7-26-19	
1,1-Dichloropropene	ND	0.20	EPA 8260C	7-26-19	7-26-19	
1,2-Dichloroethane	ND	0.20	EPA 8260C	7-26-19	7-26-19	
Trichloroethene	36	0.20	EPA 8260C	7-26-19	7-26-19	
1,2-Dichloropropane	ND	0.20	EPA 8260C	7-26-19	7-26-19	
Dibromomethane	ND	0.20	EPA 8260C	7-26-19	7-26-19	
Bromodichloromethane	ND	0.20	EPA 8260C	7-26-19	7-26-19	
2-Chloroethyl Vinyl Ether	ND	1.0	EPA 8260C	7-26-19	7-26-19	
(cis) 1,3-Dichloropropene	ND	0.20	EPA 8260C	7-26-19	7-26-19	
(trans) 1,3-Dichloropropene	ND	0.20	EPA 8260C	7-26-19	7-26-19	



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**VOLATILE ORGANICS EPA 8260C/SIM**  
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Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>Client ID:</b>	<b>MW-20:W</b>					
<b>Laboratory ID:</b>	<b>07-296-05</b>					
1,1,2-Trichloroethane	ND	0.20	EPA 8260C	7-26-19	7-26-19	
Tetrachloroethene	0.82	0.20	EPA 8260C	7-26-19	7-26-19	
1,3-Dichloropropane	ND	0.20	EPA 8260C	7-26-19	7-26-19	
Dibromochloromethane	ND	0.20	EPA 8260C	7-26-19	7-26-19	
1,2-Dibromoethane	ND	0.20	EPA 8260C	7-26-19	7-26-19	
Chlorobenzene	ND	0.20	EPA 8260C	7-26-19	7-26-19	
1,1,1,2-Tetrachloroethane	ND	0.20	EPA 8260C	7-26-19	7-26-19	
Bromoform	ND	1.0	EPA 8260C	7-26-19	7-26-19	
Bromobenzene	ND	0.20	EPA 8260C	7-26-19	7-26-19	
1,1,2,2-Tetrachloroethane	ND	0.20	EPA 8260C	7-26-19	7-26-19	
1,2,3-Trichloropropane	ND	0.20	EPA 8260C	7-26-19	7-26-19	
2-Chlorotoluene	ND	0.20	EPA 8260C	7-26-19	7-26-19	
4-Chlorotoluene	ND	0.20	EPA 8260C	7-26-19	7-26-19	
1,3-Dichlorobenzene	ND	0.20	EPA 8260C	7-26-19	7-26-19	
1,4-Dichlorobenzene	ND	0.20	EPA 8260C	7-26-19	7-26-19	
1,2-Dichlorobenzene	ND	0.20	EPA 8260C	7-26-19	7-26-19	
1,2-Dibromo-3-chloropropane	ND	1.0	EPA 8260C	7-26-19	7-26-19	
1,2,4-Trichlorobenzene	ND	0.20	EPA 8260C	7-26-19	7-26-19	
Hexachlorobutadiene	ND	1.0	EPA 8260C	7-26-19	7-26-19	
1,2,3-Trichlorobenzene	ND	0.20	EPA 8260C	7-26-19	7-26-19	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Dibromofluoromethane</i>	<i>100</i>	<i>75-127</i>				
<i>Toluene-d8</i>	<i>98</i>	<i>80-127</i>				
<i>4-Bromofluorobenzene</i>	<i>101</i>	<i>78-125</i>				



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**VOLATILE ORGANICS EPA 8260C/SIM**  
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Matrix: Water  
 Units: ug/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>Client ID:</b>	<b>MW-35:W</b>					
Laboratory ID:	07-296-06					
Dichlorodifluoromethane	ND	0.20	EPA 8260C	7-26-19	7-26-19	
Chloromethane	ND	1.0	EPA 8260C	7-26-19	7-26-19	
Vinyl Chloride	ND	0.020	EPA 8260C/SIM	7-26-19	7-26-19	
Bromomethane	ND	0.20	EPA 8260C	7-26-19	7-26-19	
Chloroethane	ND	1.0	EPA 8260C	7-26-19	7-26-19	
Trichlorofluoromethane	ND	0.20	EPA 8260C	7-26-19	7-26-19	
1,1-Dichloroethene	ND	0.20	EPA 8260C	7-26-19	7-26-19	
Iodomethane	ND	4.2	EPA 8260C	7-26-19	7-26-19	
Methylene Chloride	ND	1.0	EPA 8260C	7-26-19	7-26-19	
(trans) 1,2-Dichloroethene	ND	0.20	EPA 8260C	7-26-19	7-26-19	
1,1-Dichloroethane	ND	0.20	EPA 8260C	7-26-19	7-26-19	
2,2-Dichloropropane	ND	0.20	EPA 8260C	7-26-19	7-26-19	
(cis) 1,2-Dichloroethene	ND	0.20	EPA 8260C	7-26-19	7-26-19	
Bromochloromethane	ND	0.20	EPA 8260C	7-26-19	7-26-19	
Chloroform	ND	0.20	EPA 8260C	7-26-19	7-26-19	
1,1,1-Trichloroethane	ND	0.20	EPA 8260C	7-26-19	7-26-19	
Carbon Tetrachloride	ND	0.20	EPA 8260C	7-26-19	7-26-19	
1,1-Dichloropropene	ND	0.20	EPA 8260C	7-26-19	7-26-19	
1,2-Dichloroethane	ND	0.20	EPA 8260C	7-26-19	7-26-19	
Trichloroethene	ND	0.20	EPA 8260C	7-26-19	7-26-19	
1,2-Dichloropropane	ND	0.20	EPA 8260C	7-26-19	7-26-19	
Dibromomethane	ND	0.20	EPA 8260C	7-26-19	7-26-19	
Bromodichloromethane	ND	0.20	EPA 8260C	7-26-19	7-26-19	
2-Chloroethyl Vinyl Ether	ND	1.0	EPA 8260C	7-26-19	7-26-19	
(cis) 1,3-Dichloropropene	ND	0.20	EPA 8260C	7-26-19	7-26-19	
(trans) 1,3-Dichloropropene	ND	0.20	EPA 8260C	7-26-19	7-26-19	



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Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>Client ID:</b>	<b>MW-35:W</b>					
<b>Laboratory ID:</b>	<b>07-296-06</b>					
1,1,2-Trichloroethane	ND	0.20	EPA 8260C	7-26-19	7-26-19	
Tetrachloroethene	ND	0.20	EPA 8260C	7-26-19	7-26-19	
1,3-Dichloropropane	ND	0.20	EPA 8260C	7-26-19	7-26-19	
Dibromochloromethane	ND	0.20	EPA 8260C	7-26-19	7-26-19	
1,2-Dibromoethane	ND	0.20	EPA 8260C	7-26-19	7-26-19	
Chlorobenzene	ND	0.20	EPA 8260C	7-26-19	7-26-19	
1,1,1,2-Tetrachloroethane	ND	0.20	EPA 8260C	7-26-19	7-26-19	
Bromoform	ND	1.0	EPA 8260C	7-26-19	7-26-19	
Bromobenzene	ND	0.20	EPA 8260C	7-26-19	7-26-19	
1,1,2,2-Tetrachloroethane	ND	0.20	EPA 8260C	7-26-19	7-26-19	
1,2,3-Trichloropropane	ND	0.20	EPA 8260C	7-26-19	7-26-19	
2-Chlorotoluene	ND	0.20	EPA 8260C	7-26-19	7-26-19	
4-Chlorotoluene	ND	0.20	EPA 8260C	7-26-19	7-26-19	
1,3-Dichlorobenzene	ND	0.20	EPA 8260C	7-26-19	7-26-19	
1,4-Dichlorobenzene	ND	0.20	EPA 8260C	7-26-19	7-26-19	
1,2-Dichlorobenzene	ND	0.20	EPA 8260C	7-26-19	7-26-19	
1,2-Dibromo-3-chloropropane	ND	1.0	EPA 8260C	7-26-19	7-26-19	
1,2,4-Trichlorobenzene	ND	0.20	EPA 8260C	7-26-19	7-26-19	
Hexachlorobutadiene	ND	1.0	EPA 8260C	7-26-19	7-26-19	
1,2,3-Trichlorobenzene	ND	0.20	EPA 8260C	7-26-19	7-26-19	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Dibromofluoromethane</i>	<i>102</i>	<i>75-127</i>				
<i>Toluene-d8</i>	<i>99</i>	<i>80-127</i>				
<i>4-Bromofluorobenzene</i>	<i>99</i>	<i>78-125</i>				



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**VOLATILE ORGANICS EPA 8260C/SIM**  
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Matrix: Water  
 Units: ug/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>Client ID:</b>	<b>HZ-MW-14S:W</b>					
Laboratory ID:	07-296-07					
Dichlorodifluoromethane	ND	1.0	EPA 8260C	7-26-19	7-26-19	
Chloromethane	ND	5.0	EPA 8260C	7-26-19	7-26-19	
Vinyl Chloride	ND	0.10	EPA 8260C/SIM	7-26-19	7-26-19	
Bromomethane	ND	1.0	EPA 8260C	7-26-19	7-26-19	
Chloroethane	ND	5.0	EPA 8260C	7-26-19	7-26-19	
Trichlorofluoromethane	ND	1.0	EPA 8260C	7-26-19	7-26-19	
1,1-Dichloroethene	ND	1.0	EPA 8260C	7-26-19	7-26-19	
Iodomethane	ND	21	EPA 8260C	7-26-19	7-26-19	
Methylene Chloride	ND	5.0	EPA 8260C	7-26-19	7-26-19	
(trans) 1,2-Dichloroethene	ND	1.0	EPA 8260C	7-26-19	7-26-19	
1,1-Dichloroethane	ND	1.0	EPA 8260C	7-26-19	7-26-19	
2,2-Dichloropropane	ND	1.0	EPA 8260C	7-26-19	7-26-19	
(cis) 1,2-Dichloroethene	7.0	1.0	EPA 8260C	7-26-19	7-26-19	
Bromochloromethane	ND	1.0	EPA 8260C	7-26-19	7-26-19	
Chloroform	ND	1.0	EPA 8260C	7-26-19	7-26-19	
1,1,1-Trichloroethane	ND	1.0	EPA 8260C	7-26-19	7-26-19	
Carbon Tetrachloride	ND	1.0	EPA 8260C	7-26-19	7-26-19	
1,1-Dichloropropene	ND	1.0	EPA 8260C	7-26-19	7-26-19	
1,2-Dichloroethane	ND	1.0	EPA 8260C	7-26-19	7-26-19	
Trichloroethene	6.8	1.0	EPA 8260C	7-26-19	7-26-19	
1,2-Dichloropropane	ND	1.0	EPA 8260C	7-26-19	7-26-19	
Dibromomethane	ND	1.0	EPA 8260C	7-26-19	7-26-19	
Bromodichloromethane	ND	1.0	EPA 8260C	7-26-19	7-26-19	
2-Chloroethyl Vinyl Ether	ND	5.0	EPA 8260C	7-26-19	7-26-19	
(cis) 1,3-Dichloropropene	ND	1.0	EPA 8260C	7-26-19	7-26-19	
(trans) 1,3-Dichloropropene	ND	1.0	EPA 8260C	7-26-19	7-26-19	





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Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>Client ID:</b>	<b>HZ-MW-14S:W</b>					
<b>Laboratory ID:</b>	<b>07-296-07</b>					
1,1,2-Trichloroethane	ND	1.0	EPA 8260C	7-26-19	7-26-19	
Tetrachloroethene	160	1.0	EPA 8260C	7-26-19	7-26-19	
1,3-Dichloropropane	ND	1.0	EPA 8260C	7-26-19	7-26-19	
Dibromochloromethane	ND	1.0	EPA 8260C	7-26-19	7-26-19	
1,2-Dibromoethane	ND	1.0	EPA 8260C	7-26-19	7-26-19	
Chlorobenzene	ND	1.0	EPA 8260C	7-26-19	7-26-19	
1,1,1,2-Tetrachloroethane	ND	1.0	EPA 8260C	7-26-19	7-26-19	
Bromoform	ND	5.0	EPA 8260C	7-26-19	7-26-19	
Bromobenzene	ND	1.0	EPA 8260C	7-26-19	7-26-19	
1,1,1,2,2-Tetrachloroethane	ND	1.0	EPA 8260C	7-26-19	7-26-19	
1,2,3-Trichloropropane	ND	1.0	EPA 8260C	7-26-19	7-26-19	
2-Chlorotoluene	ND	1.0	EPA 8260C	7-26-19	7-26-19	
4-Chlorotoluene	ND	1.0	EPA 8260C	7-26-19	7-26-19	
1,3-Dichlorobenzene	ND	1.0	EPA 8260C	7-26-19	7-26-19	
1,4-Dichlorobenzene	ND	1.0	EPA 8260C	7-26-19	7-26-19	
1,2-Dichlorobenzene	ND	1.0	EPA 8260C	7-26-19	7-26-19	
1,2-Dibromo-3-chloropropane	ND	5.0	EPA 8260C	7-26-19	7-26-19	
1,2,4-Trichlorobenzene	ND	1.0	EPA 8260C	7-26-19	7-26-19	
Hexachlorobutadiene	ND	5.0	EPA 8260C	7-26-19	7-26-19	
1,2,3-Trichlorobenzene	ND	1.0	EPA 8260C	7-26-19	7-26-19	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Dibromofluoromethane</i>	<i>99</i>	<i>75-127</i>				
<i>Toluene-d8</i>	<i>99</i>	<i>80-127</i>				
<i>4-Bromofluorobenzene</i>	<i>98</i>	<i>78-125</i>				



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**VOLATILE ORGANICS EPA 8260C/SIM**  
**METHOD BLANK QUALITY CONTROL**  
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Matrix: Water  
 Units: ug/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Laboratory ID:	MB0726W1					
Dichlorodifluoromethane	ND	0.20	EPA 8260C	7-26-19	7-26-19	
Chloromethane	ND	1.0	EPA 8260C	7-26-19	7-26-19	
Vinyl Chloride	ND	0.020	EPA 8260C/SIM	7-26-19	7-26-19	
Bromomethane	ND	0.20	EPA 8260C	7-26-19	7-26-19	
Chloroethane	ND	1.0	EPA 8260C	7-26-19	7-26-19	
Trichlorofluoromethane	ND	0.20	EPA 8260C	7-26-19	7-26-19	
1,1-Dichloroethene	ND	0.20	EPA 8260C	7-26-19	7-26-19	
Iodomethane	ND	4.2	EPA 8260C	7-26-19	7-26-19	
Methylene Chloride	ND	1.0	EPA 8260C	7-26-19	7-26-19	
(trans) 1,2-Dichloroethene	ND	0.20	EPA 8260C	7-26-19	7-26-19	
1,1-Dichloroethane	ND	0.20	EPA 8260C	7-26-19	7-26-19	
2,2-Dichloropropane	ND	0.20	EPA 8260C	7-26-19	7-26-19	
(cis) 1,2-Dichloroethene	ND	0.20	EPA 8260C	7-26-19	7-26-19	
Bromochloromethane	ND	0.20	EPA 8260C	7-26-19	7-26-19	
Chloroform	ND	0.20	EPA 8260C	7-26-19	7-26-19	
1,1,1-Trichloroethane	ND	0.20	EPA 8260C	7-26-19	7-26-19	
Carbon Tetrachloride	ND	0.20	EPA 8260C	7-26-19	7-26-19	
1,1-Dichloropropene	ND	0.20	EPA 8260C	7-26-19	7-26-19	
1,2-Dichloroethane	ND	0.20	EPA 8260C	7-26-19	7-26-19	
Trichloroethene	ND	0.20	EPA 8260C	7-26-19	7-26-19	
1,2-Dichloropropane	ND	0.20	EPA 8260C	7-26-19	7-26-19	
Dibromomethane	ND	0.20	EPA 8260C	7-26-19	7-26-19	
Bromodichloromethane	ND	0.20	EPA 8260C	7-26-19	7-26-19	
2-Chloroethyl Vinyl Ether	ND	1.0	EPA 8260C	7-26-19	7-26-19	
(cis) 1,3-Dichloropropene	ND	0.20	EPA 8260C	7-26-19	7-26-19	
(trans) 1,3-Dichloropropene	ND	0.20	EPA 8260C	7-26-19	7-26-19	



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**VOLATILE ORGANICS EPA 8260C/SIM**  
**METHOD BLANK QUALITY CONTROL**  
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Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Laboratory ID:	MB0726W1					
1,1,2-Trichloroethane	ND	0.20	EPA 8260C	7-26-19	7-26-19	
Tetrachloroethene	ND	0.20	EPA 8260C	7-26-19	7-26-19	
1,3-Dichloropropane	ND	0.20	EPA 8260C	7-26-19	7-26-19	
Dibromochloromethane	ND	0.20	EPA 8260C	7-26-19	7-26-19	
1,2-Dibromoethane	ND	0.20	EPA 8260C	7-26-19	7-26-19	
Chlorobenzene	ND	0.20	EPA 8260C	7-26-19	7-26-19	
1,1,1,2-Tetrachloroethane	ND	0.20	EPA 8260C	7-26-19	7-26-19	
Bromoform	ND	1.0	EPA 8260C	7-26-19	7-26-19	
Bromobenzene	ND	0.20	EPA 8260C	7-26-19	7-26-19	
1,1,2,2-Tetrachloroethane	ND	0.20	EPA 8260C	7-26-19	7-26-19	
1,2,3-Trichloropropane	ND	0.20	EPA 8260C	7-26-19	7-26-19	
2-Chlorotoluene	ND	0.20	EPA 8260C	7-26-19	7-26-19	
4-Chlorotoluene	ND	0.20	EPA 8260C	7-26-19	7-26-19	
1,3-Dichlorobenzene	ND	0.20	EPA 8260C	7-26-19	7-26-19	
1,4-Dichlorobenzene	ND	0.20	EPA 8260C	7-26-19	7-26-19	
1,2-Dichlorobenzene	ND	0.20	EPA 8260C	7-26-19	7-26-19	
1,2-Dibromo-3-chloropropane	ND	1.0	EPA 8260C	7-26-19	7-26-19	
1,2,4-Trichlorobenzene	ND	0.20	EPA 8260C	7-26-19	7-26-19	
Hexachlorobutadiene	ND	1.0	EPA 8260C	7-26-19	7-26-19	
1,2,3-Trichlorobenzene	ND	0.20	EPA 8260C	7-26-19	7-26-19	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Dibromofluoromethane</i>	<i>100</i>	<i>75-127</i>				
<i>Toluene-d8</i>	<i>99</i>	<i>80-127</i>				
<i>4-Bromofluorobenzene</i>	<i>98</i>	<i>78-125</i>				



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**VOLATILE ORGANICS EPA 8260C/SIM  
 MS/MSD QUALITY CONTROL**

Matrix: Water  
 Units: ug/L

Analyte	Result		Spike Level		Source	Percent		Recovery	RPD		Flags
	MS	MSD	MS	MSD	Result	Recovery	Limits	RPD	Limit		
<b>MATRIX SPIKES</b>											
Laboratory ID:	07-274-05										
	MS	MSD	MS	MSD		MS	MSD				
1,1-Dichloroethene	<b>10.5</b>	<b>10.2</b>	10.0	10.0	ND	105	102	57-135	3	15	
Benzene	<b>9.99</b>	<b>9.83</b>	10.0	10.0	ND	100	98	73-131	2	16	
Trichloroethene	<b>10.9</b>	<b>10.4</b>	10.0	10.0	0.413	105	100	75-124	5	17	
Toluene	<b>9.94</b>	<b>9.59</b>	10.0	10.0	ND	99	96	84-123	4	19	
Chlorobenzene	<b>10.9</b>	<b>10.4</b>	10.0	10.0	ND	109	104	78-122	5	16	
<i>Surrogate:</i>											
Dibromofluoromethane						100	102	75-127			
Toluene-d8						98	97	80-127			
4-Bromofluorobenzene						98	99	78-125			



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**TOTAL ORGANIC CARBON  
 SM 5310B**

Matrix: Water  
 Units: mg/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>Client ID:</b>	<b>MW-44:W</b>					
Laboratory ID:	07-296-01					
Total Organic Carbon	<b>20</b>	1.0	SM 5310B	7-31-19	7-31-19	
<b>Client ID:</b>	<b>MW-6:W</b>					
Laboratory ID:	07-296-02					
Total Organic Carbon	<b>22</b>	1.0	SM 5310B	7-31-19	7-31-19	
<b>Client ID:</b>	<b>MW-45:W</b>					
Laboratory ID:	07-296-03					
Total Organic Carbon	<b>88</b>	1.0	SM 5310B	7-31-19	7-31-19	
<b>Client ID:</b>	<b>MW-11:W</b>					
Laboratory ID:	07-296-04					
Total Organic Carbon	<b>26</b>	1.0	SM 5310B	7-31-19	7-31-19	
<b>Client ID:</b>	<b>MW-20:W</b>					
Laboratory ID:	07-296-05					
Total Organic Carbon	<b>8.0</b>	1.0	SM 5310B	7-31-19	7-31-19	
<b>Client ID:</b>	<b>MW-35:W</b>					
Laboratory ID:	07-296-06					
Total Organic Carbon	<b>1.9</b>	1.0	SM 5310B	7-31-19	7-31-19	
<b>Client ID:</b>	<b>HZ-MW-14S:W</b>					
Laboratory ID:	07-296-07					
Total Organic Carbon	<b>1.8</b>	1.0	SM 5310B	7-31-19	7-31-19	



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**TOTAL ORGANIC CARBON  
 SM 5310B  
 QUALITY CONTROL**

Matrix: Water  
 Units: mg/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>METHOD BLANK</b>						
Laboratory ID:	MB0731W1					
Total Organic Carbon	<b>ND</b>	1.0	SM 5310B	7-31-19	7-31-19	

Analyte	Result	Spike Level	Source Result	Percent Recovery	Recovery Limits	RPD	RPD Limit	Flags
<b>DUPLICATE</b>								
Laboratory ID:	07-274-05							
	ORIG	DUP						
Total Organic Carbon	<b>1.05</b>	<b>1.01</b>	NA	NA	NA	4	20	

**MATRIX SPIKE**

Laboratory ID:	07-274-05							
	MS	MS		MS				
Total Organic Carbon	<b>10.8</b>	10.0	1.05	98	85-131	NA	NA	

**SPIKE BLANK**

Laboratory ID:	SB0731W1							
	SB	SB		SB				
Total Organic Carbon	<b>9.20</b>	10.0	NA	92	88-127	NA	NA	



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**DISSOLVED IRON  
 EPA 6010D**

Matrix: Water  
 Units: ug/L (ppb)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>Client ID:</b>	<b>MW-44:W</b>					
Laboratory ID:	07-296-01					
Iron	<b>2200</b>	56	EPA 6010D	7-25-19	7-29-19	
<b>Client ID:</b>	<b>MW-6:W</b>					
Laboratory ID:	07-296-02					
Iron	<b>9200</b>	56	EPA 6010D	7-25-19	7-29-19	
<b>Client ID:</b>	<b>MW-45:W</b>					
Laboratory ID:	07-296-03					
Iron	<b>2000</b>	56	EPA 6010D	7-25-19	7-29-19	
<b>Client ID:</b>	<b>MW-11:W</b>					
Laboratory ID:	07-296-04					
Iron	<b>660</b>	56	EPA 6010D	7-25-19	7-29-19	
<b>Client ID:</b>	<b>MW-20:W</b>					
Laboratory ID:	07-296-05					
Iron	<b>800</b>	56	EPA 6010D	7-25-19	7-29-19	
<b>Client ID:</b>	<b>MW-35:W</b>					
Laboratory ID:	07-296-06					
Iron	<b>2700</b>	56	EPA 6010D	7-25-19	7-29-19	
<b>Client ID:</b>	<b>HZ-MW-14S:W</b>					
Laboratory ID:	07-296-07					
Iron	<b>160</b>	56	EPA 6010D	7-25-19	7-29-19	



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**DISSOLVED IRON  
 EPA 6010D  
 QUALITY CONTROL**

Matrix: Water  
 Units: ug/L (ppb)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>METHOD BLANK</b>						
Laboratory ID:	MB0725F1					
Iron	<b>ND</b>	56	EPA 6010D	7-25-19	7-29-19	

Analyte	Result	Spike Level	Source Result	Percent Recovery	Recovery Limits	RPD	RPD Limit	Flags
<b>DUPLICATE</b>								
Laboratory ID:	07-274-05							
	ORIG	DUP						
Iron	<b>ND</b>	<b>ND</b>	NA	NA	NA	NA	20	

Analyte	MS	MSD	MS	MSD	MS	MSD	RPD	RPD Limit	Flags	
<b>MATRIX SPIKES</b>										
Laboratory ID:	07-274-05									
	MS	MSD	MS	MSD	MS	MSD				
Iron	<b>22500</b>	<b>22800</b>	22200	22200	ND	<b>101</b>	<b>103</b>	75-125	1	20





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**CHLORIDE  
 SM 4500-Cl E**

Matrix: Water  
 Units: mg/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>Client ID:</b>	<b>MW-44:W</b>					
Laboratory ID:	07-296-01					
Chloride	<b>6.6</b>	2.0	SM 4500-Cl E	8-1-19	8-1-19	

<b>Client ID:</b>	<b>MW-6:W</b>					
Laboratory ID:	07-296-02					
Chloride	<b>14</b>	2.0	SM 4500-Cl E	8-1-19	8-1-19	

<b>Client ID:</b>	<b>MW-45:W</b>					
Laboratory ID:	07-296-03					
Chloride	<b>21</b>	2.0	SM 4500-Cl E	8-1-19	8-1-19	

<b>Client ID:</b>	<b>MW-11:W</b>					
Laboratory ID:	07-296-04					
Chloride	<b>11</b>	2.0	SM 4500-Cl E	8-1-19	8-1-19	

<b>Client ID:</b>	<b>MW-20:W</b>					
Laboratory ID:	07-296-05					
Chloride	<b>6.4</b>	2.0	SM 4500-Cl E	8-1-19	8-1-19	

<b>Client ID:</b>	<b>MW-35:W</b>					
Laboratory ID:	07-296-06					
Chloride	<b>12</b>	2.0	SM 4500-Cl E	8-1-19	8-1-19	

<b>Client ID:</b>	<b>HZ-MW-14S:W</b>					
Laboratory ID:	07-296-07					
Chloride	<b>7.8</b>	2.0	SM 4500-Cl E	8-1-19	8-1-19	



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**CHLORIDE  
 SM 4500-Cl E  
 QUALITY CONTROL**

Matrix: Water  
 Units: mg/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>METHOD BLANK</b>						
Laboratory ID:	MB0801W1					
Chloride	<b>ND</b>	2.0	SM 4500-Cl E	8-1-19	8-1-19	

Analyte	Result	Spike Level	Source Result	Percent Recovery	Recovery Limits	RPD	RPD Limit	Flags
<b>DUPLICATE</b>								
Laboratory ID:	07-296-01							
	ORIG	DUP						
Chloride	<b>6.62</b>	<b>6.56</b>	NA	NA	NA	1	17	

<b>MATRIX SPIKE</b>								
Laboratory ID:	07-296-01							
	MS	MS		MS				
Chloride	<b>54.8</b>	50.0	6.62	96	80-116	NA	NA	

<b>SPIKE BLANK</b>								
Laboratory ID:	SB0801W1							
	SB	SB		SB				
Chloride	<b>48.2</b>	50.0	NA	96	90-110	NA	NA	



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**SULFATE**  
**ASTM D516-11**

Matrix: Water  
 Units: mg/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>Client ID:</b>	<b>MW-44:W</b>					
Laboratory ID:	07-296-01					
Sulfate	<b>ND</b>	5.0	ASTM D516-11	8-1-19	8-1-19	

<b>Client ID:</b>	<b>MW-6:W</b>					
Laboratory ID:	07-296-02					
Sulfate	<b>ND</b>	5.0	ASTM D516-11	8-1-19	8-1-19	

<b>Client ID:</b>	<b>MW-45:W</b>					
Laboratory ID:	07-296-03					
Sulfate	<b>ND</b>	5.0	ASTM D516-11	8-1-19	8-1-19	

<b>Client ID:</b>	<b>MW-11:W</b>					
Laboratory ID:	07-296-04					
Sulfate	<b>10</b>	5.0	ASTM D516-11	8-1-19	8-1-19	

<b>Client ID:</b>	<b>MW-20:W</b>					
Laboratory ID:	07-296-05					
Sulfate	<b>ND</b>	5.0	ASTM D516-11	8-1-19	8-1-19	

<b>Client ID:</b>	<b>MW-35:W</b>					
Laboratory ID:	07-296-06					
Sulfate	<b>5.2</b>	5.0	ASTM D516-11	8-1-19	8-1-19	

<b>Client ID:</b>	<b>HZ-MW-14S:W</b>					
Laboratory ID:	07-296-07					
Sulfate	<b>18</b>	5.0	ASTM D516-11	8-1-19	8-1-19	



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**SULFATE  
 ASTM D516-11  
 QUALITY CONTROL**

Matrix: Water  
 Units: mg/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>METHOD BLANK</b>						
Laboratory ID:	MB0801W1					
Sulfate	<b>ND</b>	5.0	ASTM D516-11	8-1-19	8-1-19	

Analyte	Result	Spike Level	Source Result	Percent Recovery	Recovery Limits	RPD	RPD Limit	Flags
<b>DUPLICATE</b>								
Laboratory ID:	07-307-02							
	ORIG	DUP						
Sulfate	<b>1730</b>	<b>1810</b>	NA	NA	NA	5	10	

<b>MATRIX SPIKE</b>								
Laboratory ID:	07-307-02							
	MS	MS		MS				
Sulfate	<b>3940</b>	2000	1730	111	73-134	NA	NA	

<b>SPIKE BLANK</b>								
Laboratory ID:	SB0801W1							
	SB	SB		SB				
Sulfate	<b>9.15</b>	10.0	NA	92	89-113	NA	NA	



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**AMMONIA (as Nitrogen)**  
**SM 4500-NH<sub>3</sub> D**

Matrix: Water  
 Units: mg NH<sub>3</sub>-N/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>Client ID:</b>	<b>MW-44:W</b>					
Laboratory ID:	07-296-01					
Ammonia	<b>0.71</b>	0.050	SM 4500-NH <sub>3</sub> D	7-31-19	7-31-19	

<b>Client ID:</b>	<b>MW-6:W</b>					
Laboratory ID:	07-296-02					
Ammonia	<b>0.18</b>	0.050	SM 4500-NH <sub>3</sub> D	7-31-19	7-31-19	

<b>Client ID:</b>	<b>MW-45:W</b>					
Laboratory ID:	07-296-03					
Ammonia	<b>0.63</b>	0.050	SM 4500-NH <sub>3</sub> D	7-31-19	7-31-19	

<b>Client ID:</b>	<b>MW-11:W</b>					
Laboratory ID:	07-296-04					
Ammonia	<b>0.068</b>	0.050	SM 4500-NH <sub>3</sub> D	7-31-19	7-31-19	

<b>Client ID:</b>	<b>MW-20:W</b>					
Laboratory ID:	07-296-05					
Ammonia	<b>0.89</b>	0.050	SM 4500-NH <sub>3</sub> D	7-31-19	7-31-19	

<b>Client ID:</b>	<b>MW-35:W</b>					
Laboratory ID:	07-296-06					
Ammonia	<b>0.23</b>	0.050	SM 4500-NH <sub>3</sub> D	7-31-19	7-31-19	

<b>Client ID:</b>	<b>HZ-MW-14S:W</b>					
Laboratory ID:	07-296-07					
Ammonia	<b>0.53</b>	0.050	SM 4500-NH <sub>3</sub> D	7-31-19	7-31-19	



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**AMMONIA (as Nitrogen)  
 SM 4500-NH<sub>3</sub> D  
 QUALITY CONTROL**

Matrix: Water  
 Units: mg NH<sub>3</sub>-N/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>METHOD BLANK</b>						
Laboratory ID:	MB0731W1					
Ammonia	<b>ND</b>	0.050	SM 4500-NH <sub>3</sub> D	7-31-19	7-31-19	

Analyte	Result	Spike Level	Source Result	Percent Recovery	Recovery Limits	RPD	RPD Limit	Flags
<b>DUPLICATE</b>								
Laboratory ID:	07-296-04							
	ORIG	DUP						
Ammonia	<b>0.0677</b>	<b>0.0539</b>	NA	NA	NA	23	12	C

Analyte	Result	Spike Level	Source Result	Percent Recovery	Recovery Limits	RPD	RPD Limit	Flags
<b>MATRIX SPIKE</b>								
Laboratory ID:	07-296-04							
	MS	MS		MS				
Ammonia	<b>4.83</b>	5.00	0.0677	95	75-121	NA	NA	

Analyte	Result	Spike Level	Source Result	Percent Recovery	Recovery Limits	RPD	RPD Limit	Flags
<b>SPIKE BLANK</b>								
Laboratory ID:	SB0731W1							
	SB	SB		SB				
Ammonia	<b>4.81</b>	5.00	NA	96	85-110	NA	NA	



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**DISSOLVED GASES  
RSK 175**

Matrix: Water  
 Units: ug/L (ppb)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>Client ID:</b>	<b>MW-44:W</b>					
Laboratory ID:	07-296-01					
Methane	<b>130</b>	15	RSK 175	8-1-19	8-1-19	
Ethane	<b>ND</b>	0.50	RSK 175	8-1-19	8-1-19	
Ethene	<b>3.9</b>	0.50	RSK 175	8-1-19	8-1-19	

<b>Client ID:</b>	<b>MW-6:W</b>					
Laboratory ID:	07-296-02					
Methane	<b>730</b>	150	RSK 175	8-1-19	8-1-19	
Ethane	<b>ND</b>	0.50	RSK 175	8-1-19	8-1-19	
Ethene	<b>19</b>	0.50	RSK 175	8-1-19	8-1-19	

<b>Client ID:</b>	<b>MW-45:W</b>					
Laboratory ID:	07-296-03					
Methane	<b>1200</b>	200	RSK 175	8-1-19	8-1-19	
Ethane	<b>ND</b>	0.50	RSK 175	8-1-19	8-1-19	
Ethene	<b>ND</b>	0.50	RSK 175	8-1-19	8-1-19	

<b>Client ID:</b>	<b>MW-11:W</b>					
Laboratory ID:	07-296-04					
Methane	<b>1100</b>	150	RSK 175	8-1-19	8-1-19	
Ethane	<b>ND</b>	0.50	RSK 175	8-1-19	8-1-19	
Ethene	<b>ND</b>	0.50	RSK 175	8-1-19	8-1-19	

<b>Client ID:</b>	<b>MW-20:W</b>					
Laboratory ID:	07-296-05					
Methane	<b>670</b>	75	RSK 175	8-1-19	8-1-19	
Ethane	<b>ND</b>	0.50	RSK 175	8-1-19	8-1-19	
Ethene	<b>ND</b>	0.50	RSK 175	8-1-19	8-1-19	

<b>Client ID:</b>	<b>MW-35:W</b>					
Laboratory ID:	07-296-06					
Methane	<b>210</b>	30	RSK 175	8-1-19	8-1-19	
Ethane	<b>ND</b>	0.50	RSK 175	8-1-19	8-1-19	
Ethene	<b>ND</b>	0.50	RSK 175	8-1-19	8-1-19	



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**DISSOLVED GASES**  
**RSK 175**

Matrix: Water  
 Units: ug/L (ppb)

<b>Analyte</b>	<b>Result</b>	<b>PQL</b>	<b>Method</b>	<b>Date Prepared</b>	<b>Date Analyzed</b>	<b>Flags</b>
<b>Client ID:</b>	<b>HZ-MW-14S:W</b>					
<b>Laboratory ID:</b>	07-296-07					
Methane	<b>18</b>	2.0	RSK 175	8-1-19	8-1-19	
Ethane	<b>ND</b>	0.50	RSK 175	8-1-19	8-1-19	
Ethene	<b>ND</b>	0.50	RSK 175	8-1-19	8-1-19	





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**DISSOLVED GASES  
 RSK 175  
 QUALITY CONTROL**

Matrix: Water  
 Units: ug/L (ppb)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>METHOD BLANK</b>						
Laboratory ID:	MB0801W1					
Methane	ND	1.0	RSK 175	8-1-19	8-1-19	
Ethane	ND	0.50	RSK 175	8-1-19	8-1-19	
Ethene	ND	0.50	RSK 175	8-1-19	8-1-19	

Analyte	Result		Spike Level		Source Result	Percent Recovery	Recovery Limits	RPD	RPD Limit	Flags
<b>MATRIX SPIKES</b>										
Laboratory ID:	01-123-01									
	MS	MSD	MS	MSD		MS	MSD			
Methane	9.41	9.08	4.42	4.42	4.20	118	110	75-125	4	25
Ethane	7.79	7.34	8.32	8.32	ND	94	88	75-125	6	25
Ethene	5.79	6.37	7.77	7.77	ND	75	82	75-125	10	25

**SPIKE BLANKS**

Analyte	Result		Spike Level		Source Result	Percent Recovery	Recovery Limits	RPD	RPD Limit	Flags
<b>SPIKE BLANKS</b>										
Laboratory ID:	SB0801W1									
	SB	SBD	SB	SBD		SB	SBD			
Methane	4.39	4.61	4.42	4.42	N/A	99	104	75-125	5	25
Ethane	7.71	8.22	8.32	8.32	N/A	93	99	75-125	6	25
Ethene	7.60	8.72	7.77	7.77	N/A	98	112	75-125	14	25





### Data Qualifiers and Abbreviations

- A - Due to a high sample concentration, the amount spiked is insufficient for meaningful MS/MSD recovery data.
  - B - The analyte indicated was also found in the blank sample.
  - C - The duplicate RPD is outside control limits due to high result variability when analyte concentrations are within five times the quantitation limit.
  - E - The value reported exceeds the quantitation range and is an estimate.
  - F - Surrogate recovery data is not available due to the high concentration of coeluting target compounds.
  - H - The analyte indicated is a common laboratory solvent and may have been introduced during sample preparation, and be impacting the sample result.
  - I - Compound recovery is outside of the control limits.
  - J - The value reported was below the practical quantitation limit. The value is an estimate.
  - K - Sample duplicate RPD is outside control limits due to sample inhomogeneity. The sample was re-extracted and re-analyzed with similar results.
  - L - The RPD is outside of the control limits.
  - M - Hydrocarbons in the gasoline range are impacting the diesel range result.
  - M1 - Hydrocarbons in the gasoline range (toluene-naphthalene) are present in the sample.
  - N - Hydrocarbons in the lube oil range are impacting the diesel range result.
  - N1 - Hydrocarbons in diesel range are impacting lube oil range results.
  - O - Hydrocarbons indicative of heavier fuels are present in the sample and are impacting the gasoline result.
  - P - The RPD of the detected concentrations between the two columns is greater than 40.
  - Q - Surrogate recovery is outside of the control limits.
  - S - Surrogate recovery data is not available due to the necessary dilution of the sample.
  - T - The sample chromatogram is not similar to a typical \_\_\_\_\_.
  - U - The analyte was analyzed for, but was not detected above the reported sample quantitation limit.
  - U1 - The practical quantitation limit is elevated due to interferences present in the sample.
  - V - Matrix Spike/Matrix Spike Duplicate recoveries are outside control limits due to matrix effects.
  - W - Matrix Spike/Matrix Spike Duplicate RPD are outside control limits due to matrix effects.
  - X - Sample extract treated with a mercury cleanup procedure.
  - X1 - Sample extract treated with a sulfuric acid/silica gel cleanup procedure.
  - Y - The calibration verification for this analyte exceeded the 20% drift specified in methods 8260 & 8270, and therefore the reported result should be considered an estimate. The overall performance of the calibration verification standard met the acceptance criteria of the method.
  - Z -
- ND - Not Detected at PQL  
 PQL - Practical Quantitation Limit  
 RPD - Relative Percent Difference





# MVA Onsite Environmental Inc.

Analytical Laboratory Testing Services  
14648 NE 95th Street • Redmond, WA 98052  
Phone: (425) 883-3881 • www.onsite-env.com

## Chain of Custody

Company: **KANE ENVIRONMENTAL**

Project Number: **02002-9.4**

Project Name: **BSCSS**

Project Manager: **JEFF JOHNSON**

Sampled By: **KIM GAVRI + EMMY KANE**

### Turnaround Request (in working days)

(Check One)

Same Day  1 Day

2 Days  3 Days

Standard (7 Days)

\_\_\_\_\_ (other)

### Laboratory Number: **07-296**

Lab ID

Date Sampled

Time Sampled

Matrix

Number of Containers

NWTPH-HCID

NWTPH-Gx/BTEX

NWTPH-Gx

NWTPH-Dx (  Acid / SG Clean-up)

Volatiles 8260C

Halogenated Volatiles 8260C

EDB EPA 8011 (Waters Only)

Semivolatiles 8270D/SIM (with low-level PAHs)

PAHs 8270D/SIM (low-level)

PCBs 8082A

Organochlorine Pesticides 8081B

Organophosphorus Pesticides 8270D/SIM

Chlorinated Acid Herbicides 8151A

Total RCRA Metals

Total MTCA Metals

TCLP Metals

HCM (oil and grease) 1662

TOC

dissolved Fe

chloride

sulfate

ammonia - N

moisture RSK

Lab ID	Sample Identification	Date Sampled	Time Sampled	Matrix	Number of Containers	NWTPH-HCID	NWTPH-Gx/BTEX	NWTPH-Gx	NWTPH-Dx ( <input type="checkbox"/> Acid / SG Clean-up)	Volatiles 8260C	Halogenated Volatiles 8260C	EDB EPA 8011 (Waters Only)	Semivolatiles 8270D/SIM (with low-level PAHs)	PAHs 8270D/SIM (low-level)	PCBs 8082A	Organochlorine Pesticides 8081B	Organophosphorus Pesticides 8270D/SIM	Chlorinated Acid Herbicides 8151A	Total RCRA Metals	Total MTCA Metals	TCLP Metals	HCM (oil and grease) 1662	TOC	dissolved Fe	chloride	sulfate	ammonia - N	moisture RSK	
1	MW-44:W	7/15	1040	GW	9						X																		
2	MW-U:W	7/15	1050	GW	9						X																		
3	MW-45:W	7/15	1150	GW	9						X																		
4	MW-11:W	7/15	1205	GW	9						X																		
5	MW-20:W	7/15	1255	GW	9						X																		
6	MW-35:W	7/15	1450	GW	9						X																		
7	H2-MW-14S:W	7/15	1405	GW	9						X																		

Signature

Company

Date

Time

Comments/Special Instructions

*[Handwritten Signature]*

KANE ENVIRONMENTAL

7/15/19

1535

LAB FILTER  
RSK = methanol, ethanol, acetone  
↳ low detection limit (3-4 mg/L)  
low detection limit for many chloride

*[Handwritten Signature]*

OSE

7/15/19

1535

low detection limit for many chloride

Received

*[Handwritten Signature]*

Received

Data Package: Standard  Level III  Level IV

Reviewed/Date

*[Handwritten Signature]*

Reviewed/Date

Chromatograms with final report  Electronic Data Deliverables (EDDs)



14648 NE 95<sup>th</sup> Street, Redmond, WA 98052 • (425) 883-3881

August 9, 2019

Jeff Jensen  
Kane Environmental, Inc.  
4015 13th Avenue West  
Seattle, WA 98119

Re: Analytical Data for Project 82302-9.4  
Laboratory Reference No. 1907-337

Dear Jeff:

Enclosed are the analytical results and associated quality control data for samples submitted on July 30, 2019.

The standard policy of OnSite Environmental, Inc. is to store your samples for 30 days from the date of receipt. If you require longer storage, please contact the laboratory.

We appreciate the opportunity to be of service to you on this project. If you have any questions concerning the data, or need additional information, please feel free to call me.

Sincerely,

David Baumeister  
Project Manager

Enclosures



Date of Report: August 9, 2019  
Samples Submitted: July 30, 2019  
Laboratory Reference: 1907-337  
Project: 82302-9.4

### Case Narrative

Samples were collected on July 29 and 30, 2019 and received by the laboratory on July 30, 2019. They were maintained at the laboratory at a temperature of 2°C to 6°C.

Please note that any and all soil sample results are reported on a dry-weight basis, unless otherwise noted below.

General QA/QC issues associated with the analytical data enclosed in this laboratory report will be indicated with a reference to a comment or explanation on the Data Qualifier page. More complex and involved QA/QC issues will be discussed in detail below.



Date of Report: August 9, 2019  
 Samples Submitted: July 30, 2019  
 Laboratory Reference: 1907-337  
 Project: 82302-9.4

**VOLATILE ORGANICS EPA 8260C/SIM**  
 page 1 of 2

Matrix: Water  
 Units: ug/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>Client ID:</b>	<b>HZ-MW-14D:W</b>					
Laboratory ID:	07-337-01					
Dichlorodifluoromethane	ND	0.80	EPA 8260C	7-31-19	7-31-19	
Chloromethane	ND	4.0	EPA 8260C	7-31-19	7-31-19	
Vinyl Chloride	0.30	0.080	EPA 8260C/SIM	7-31-19	7-31-19	
Bromomethane	ND	0.80	EPA 8260C	7-31-19	7-31-19	
Chloroethane	ND	4.0	EPA 8260C	7-31-19	7-31-19	
Trichlorofluoromethane	ND	0.80	EPA 8260C	7-31-19	7-31-19	
1,1-Dichloroethene	ND	0.80	EPA 8260C	7-31-19	7-31-19	
Iodomethane	ND	12	EPA 8260C	7-31-19	7-31-19	
Methylene Chloride	ND	4.0	EPA 8260C	7-31-19	7-31-19	
(trans) 1,2-Dichloroethene	ND	0.80	EPA 8260C	7-31-19	7-31-19	
1,1-Dichloroethane	ND	0.80	EPA 8260C	7-31-19	7-31-19	
2,2-Dichloropropane	ND	0.80	EPA 8260C	7-31-19	7-31-19	
(cis) 1,2-Dichloroethene	28	0.80	EPA 8260C	7-31-19	7-31-19	
Bromochloromethane	ND	0.80	EPA 8260C	7-31-19	7-31-19	
Chloroform	ND	0.80	EPA 8260C	7-31-19	7-31-19	
1,1,1-Trichloroethane	ND	0.80	EPA 8260C	7-31-19	7-31-19	
Carbon Tetrachloride	ND	0.80	EPA 8260C	7-31-19	7-31-19	
1,1-Dichloropropene	ND	0.80	EPA 8260C	7-31-19	7-31-19	
1,2-Dichloroethane	ND	0.80	EPA 8260C	7-31-19	7-31-19	
Trichloroethene	4.7	0.80	EPA 8260C	7-31-19	7-31-19	
1,2-Dichloropropane	ND	0.80	EPA 8260C	7-31-19	7-31-19	
Dibromomethane	ND	0.80	EPA 8260C	7-31-19	7-31-19	
Bromodichloromethane	ND	0.80	EPA 8260C	7-31-19	7-31-19	
2-Chloroethyl Vinyl Ether	ND	4.0	EPA 8260C	7-31-19	7-31-19	
(cis) 1,3-Dichloropropene	ND	0.80	EPA 8260C	7-31-19	7-31-19	
(trans) 1,3-Dichloropropene	ND	1.0	EPA 8260C	7-31-19	7-31-19	



Date of Report: August 9, 2019  
 Samples Submitted: July 30, 2019  
 Laboratory Reference: 1907-337  
 Project: 82302-9.4

**VOLATILE ORGANICS EPA 8260C/SIM**  
 page 2 of 2

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>Client ID:</b>	<b>HZ-MW-14D:W</b>					
<b>Laboratory ID:</b>	<b>07-337-01</b>					
1,1,2-Trichloroethane	ND	0.80	EPA 8260C	7-31-19	7-31-19	
Tetrachloroethene	100	0.80	EPA 8260C	7-31-19	7-31-19	
1,3-Dichloropropane	ND	0.80	EPA 8260C	7-31-19	7-31-19	
Dibromochloromethane	ND	0.80	EPA 8260C	7-31-19	7-31-19	
1,2-Dibromoethane	ND	0.80	EPA 8260C	7-31-19	7-31-19	
Chlorobenzene	ND	0.80	EPA 8260C	7-31-19	7-31-19	
1,1,1,2-Tetrachloroethane	ND	0.80	EPA 8260C	7-31-19	7-31-19	
Bromoform	ND	4.0	EPA 8260C	7-31-19	7-31-19	
Bromobenzene	ND	0.80	EPA 8260C	7-31-19	7-31-19	
1,1,2,2-Tetrachloroethane	ND	0.80	EPA 8260C	7-31-19	7-31-19	
1,2,3-Trichloropropane	ND	0.80	EPA 8260C	7-31-19	7-31-19	
2-Chlorotoluene	ND	0.80	EPA 8260C	7-31-19	7-31-19	
4-Chlorotoluene	ND	0.80	EPA 8260C	7-31-19	7-31-19	
1,3-Dichlorobenzene	ND	0.80	EPA 8260C	7-31-19	7-31-19	
1,4-Dichlorobenzene	ND	0.80	EPA 8260C	7-31-19	7-31-19	
1,2-Dichlorobenzene	ND	0.80	EPA 8260C	7-31-19	7-31-19	
1,2-Dibromo-3-chloropropane	ND	4.0	EPA 8260C	7-31-19	7-31-19	
1,2,4-Trichlorobenzene	ND	0.80	EPA 8260C	7-31-19	7-31-19	
Hexachlorobutadiene	ND	4.0	EPA 8260C	7-31-19	7-31-19	
1,2,3-Trichlorobenzene	ND	0.80	EPA 8260C	7-31-19	7-31-19	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Dibromofluoromethane</i>	<i>105</i>	<i>75-127</i>				
<i>Toluene-d8</i>	<i>99</i>	<i>80-127</i>				
<i>4-Bromofluorobenzene</i>	<i>96</i>	<i>78-125</i>				



Date of Report: August 9, 2019  
 Samples Submitted: July 30, 2019  
 Laboratory Reference: 1907-337  
 Project: 82302-9.4

**VOLATILE ORGANICS EPA 8260C/SIM**  
 page 1 of 2

Matrix: Water  
 Units: ug/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>Client ID:</b>	<b>HZ-MW-23:W</b>					
Laboratory ID:	07-337-02					
Dichlorodifluoromethane	ND	0.20	EPA 8260C	7-31-19	7-31-19	
Chloromethane	ND	1.0	EPA 8260C	7-31-19	7-31-19	
Vinyl Chloride	ND	0.020	EPA 8260C/SIM	7-31-19	7-31-19	
Bromomethane	ND	0.20	EPA 8260C	7-31-19	7-31-19	
Chloroethane	ND	1.0	EPA 8260C	7-31-19	7-31-19	
Trichlorofluoromethane	ND	0.20	EPA 8260C	7-31-19	7-31-19	
1,1-Dichloroethene	ND	0.20	EPA 8260C	7-31-19	7-31-19	
Iodomethane	ND	3.0	EPA 8260C	7-31-19	7-31-19	
Methylene Chloride	ND	1.0	EPA 8260C	7-31-19	7-31-19	
(trans) 1,2-Dichloroethene	ND	0.20	EPA 8260C	7-31-19	7-31-19	
1,1-Dichloroethane	ND	0.20	EPA 8260C	7-31-19	7-31-19	
2,2-Dichloropropane	ND	0.20	EPA 8260C	7-31-19	7-31-19	
(cis) 1,2-Dichloroethene	ND	0.20	EPA 8260C	7-31-19	7-31-19	
Bromochloromethane	ND	0.20	EPA 8260C	7-31-19	7-31-19	
Chloroform	ND	0.20	EPA 8260C	7-31-19	7-31-19	
1,1,1-Trichloroethane	ND	0.20	EPA 8260C	7-31-19	7-31-19	
Carbon Tetrachloride	ND	0.20	EPA 8260C	7-31-19	7-31-19	
1,1-Dichloropropene	ND	0.20	EPA 8260C	7-31-19	7-31-19	
1,2-Dichloroethane	ND	0.20	EPA 8260C	7-31-19	7-31-19	
Trichloroethene	ND	0.20	EPA 8260C	7-31-19	7-31-19	
1,2-Dichloropropane	ND	0.20	EPA 8260C	7-31-19	7-31-19	
Dibromomethane	ND	0.20	EPA 8260C	7-31-19	7-31-19	
Bromodichloromethane	ND	0.20	EPA 8260C	7-31-19	7-31-19	
2-Chloroethyl Vinyl Ether	ND	1.0	EPA 8260C	7-31-19	7-31-19	
(cis) 1,3-Dichloropropene	ND	0.20	EPA 8260C	7-31-19	7-31-19	
(trans) 1,3-Dichloropropene	ND	0.25	EPA 8260C	7-31-19	7-31-19	





Date of Report: August 9, 2019  
 Samples Submitted: July 30, 2019  
 Laboratory Reference: 1907-337  
 Project: 82302-9.4

**VOLATILE ORGANICS EPA 8260C/SIM**  
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Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>Client ID:</b>	<b>HZ-MW-23:W</b>					
<b>Laboratory ID:</b>	<b>07-337-02</b>					
1,1,2-Trichloroethane	ND	0.20	EPA 8260C	7-31-19	7-31-19	
Tetrachloroethene	ND	0.20	EPA 8260C	7-31-19	7-31-19	
1,3-Dichloropropane	ND	0.20	EPA 8260C	7-31-19	7-31-19	
Dibromochloromethane	ND	0.20	EPA 8260C	7-31-19	7-31-19	
1,2-Dibromoethane	ND	0.20	EPA 8260C	7-31-19	7-31-19	
Chlorobenzene	ND	0.20	EPA 8260C	7-31-19	7-31-19	
1,1,1,2-Tetrachloroethane	ND	0.20	EPA 8260C	7-31-19	7-31-19	
Bromoform	ND	1.0	EPA 8260C	7-31-19	7-31-19	
Bromobenzene	ND	0.20	EPA 8260C	7-31-19	7-31-19	
1,1,2,2-Tetrachloroethane	ND	0.20	EPA 8260C	7-31-19	7-31-19	
1,2,3-Trichloropropane	ND	0.20	EPA 8260C	7-31-19	7-31-19	
2-Chlorotoluene	ND	0.20	EPA 8260C	7-31-19	7-31-19	
4-Chlorotoluene	ND	0.20	EPA 8260C	7-31-19	7-31-19	
1,3-Dichlorobenzene	ND	0.20	EPA 8260C	7-31-19	7-31-19	
1,4-Dichlorobenzene	ND	0.20	EPA 8260C	7-31-19	7-31-19	
1,2-Dichlorobenzene	ND	0.20	EPA 8260C	7-31-19	7-31-19	
1,2-Dibromo-3-chloropropane	ND	1.0	EPA 8260C	7-31-19	7-31-19	
1,2,4-Trichlorobenzene	ND	0.20	EPA 8260C	7-31-19	7-31-19	
Hexachlorobutadiene	ND	1.0	EPA 8260C	7-31-19	7-31-19	
1,2,3-Trichlorobenzene	ND	0.20	EPA 8260C	7-31-19	7-31-19	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Dibromofluoromethane</i>	<i>105</i>	<i>75-127</i>				
<i>Toluene-d8</i>	<i>99</i>	<i>80-127</i>				
<i>4-Bromofluorobenzene</i>	<i>97</i>	<i>78-125</i>				



Date of Report: August 9, 2019  
 Samples Submitted: July 30, 2019  
 Laboratory Reference: 1907-337  
 Project: 82302-9.4

**VOLATILE ORGANICS EPA 8260C/SIM**  
 page 1 of 2

Matrix: Water  
 Units: ug/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>Client ID:</b>	<b>MW-42:W</b>					
Laboratory ID:	07-337-03					
Dichlorodifluoromethane	ND	0.20	EPA 8260C	7-31-19	7-31-19	
Chloromethane	ND	1.0	EPA 8260C	7-31-19	7-31-19	
Vinyl Chloride	0.053	0.020	EPA 8260C/SIM	7-31-19	7-31-19	
Bromomethane	ND	0.20	EPA 8260C	7-31-19	7-31-19	
Chloroethane	ND	1.0	EPA 8260C	7-31-19	7-31-19	
Trichlorofluoromethane	ND	0.20	EPA 8260C	7-31-19	7-31-19	
1,1-Dichloroethene	ND	0.20	EPA 8260C	7-31-19	7-31-19	
Iodomethane	ND	3.0	EPA 8260C	7-31-19	7-31-19	
Methylene Chloride	ND	1.0	EPA 8260C	7-31-19	7-31-19	
(trans) 1,2-Dichloroethene	ND	0.20	EPA 8260C	7-31-19	7-31-19	
1,1-Dichloroethane	ND	0.20	EPA 8260C	7-31-19	7-31-19	
2,2-Dichloropropane	ND	0.20	EPA 8260C	7-31-19	7-31-19	
(cis) 1,2-Dichloroethene	0.72	0.20	EPA 8260C	7-31-19	7-31-19	
Bromochloromethane	ND	0.20	EPA 8260C	7-31-19	7-31-19	
Chloroform	ND	0.20	EPA 8260C	7-31-19	7-31-19	
1,1,1-Trichloroethane	ND	0.20	EPA 8260C	7-31-19	7-31-19	
Carbon Tetrachloride	ND	0.20	EPA 8260C	7-31-19	7-31-19	
1,1-Dichloropropene	ND	0.20	EPA 8260C	7-31-19	7-31-19	
1,2-Dichloroethane	1.0	0.20	EPA 8260C	7-31-19	7-31-19	
Trichloroethene	ND	0.20	EPA 8260C	7-31-19	7-31-19	
1,2-Dichloropropane	ND	0.20	EPA 8260C	7-31-19	7-31-19	
Dibromomethane	ND	0.20	EPA 8260C	7-31-19	7-31-19	
Bromodichloromethane	ND	0.20	EPA 8260C	7-31-19	7-31-19	
2-Chloroethyl Vinyl Ether	ND	1.0	EPA 8260C	7-31-19	7-31-19	
(cis) 1,3-Dichloropropene	ND	0.20	EPA 8260C	7-31-19	7-31-19	
(trans) 1,3-Dichloropropene	ND	0.25	EPA 8260C	7-31-19	7-31-19	



Date of Report: August 9, 2019  
 Samples Submitted: July 30, 2019  
 Laboratory Reference: 1907-337  
 Project: 82302-9.4

**VOLATILE ORGANICS EPA 8260C/SIM**  
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Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>Client ID:</b>	<b>MW-42:W</b>					
<b>Laboratory ID:</b>	<b>07-337-03</b>					
1,1,2-Trichloroethane	ND	0.20	EPA 8260C	7-31-19	7-31-19	
Tetrachloroethene	ND	0.20	EPA 8260C	7-31-19	7-31-19	
1,3-Dichloropropane	ND	0.20	EPA 8260C	7-31-19	7-31-19	
Dibromochloromethane	ND	0.20	EPA 8260C	7-31-19	7-31-19	
1,2-Dibromoethane	ND	0.20	EPA 8260C	7-31-19	7-31-19	
Chlorobenzene	ND	0.20	EPA 8260C	7-31-19	7-31-19	
1,1,1,2-Tetrachloroethane	ND	0.20	EPA 8260C	7-31-19	7-31-19	
Bromoform	ND	1.0	EPA 8260C	7-31-19	7-31-19	
Bromobenzene	ND	0.20	EPA 8260C	7-31-19	7-31-19	
1,1,2,2-Tetrachloroethane	ND	0.20	EPA 8260C	7-31-19	7-31-19	
1,2,3-Trichloropropane	ND	0.20	EPA 8260C	7-31-19	7-31-19	
2-Chlorotoluene	ND	0.20	EPA 8260C	7-31-19	7-31-19	
4-Chlorotoluene	ND	0.20	EPA 8260C	7-31-19	7-31-19	
1,3-Dichlorobenzene	ND	0.20	EPA 8260C	7-31-19	7-31-19	
1,4-Dichlorobenzene	ND	0.20	EPA 8260C	7-31-19	7-31-19	
1,2-Dichlorobenzene	ND	0.20	EPA 8260C	7-31-19	7-31-19	
1,2-Dibromo-3-chloropropane	ND	1.0	EPA 8260C	7-31-19	7-31-19	
1,2,4-Trichlorobenzene	ND	0.20	EPA 8260C	7-31-19	7-31-19	
Hexachlorobutadiene	ND	1.0	EPA 8260C	7-31-19	7-31-19	
1,2,3-Trichlorobenzene	ND	0.20	EPA 8260C	7-31-19	7-31-19	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Dibromofluoromethane</i>	<i>102</i>	<i>75-127</i>				
<i>Toluene-d8</i>	<i>98</i>	<i>80-127</i>				
<i>4-Bromofluorobenzene</i>	<i>95</i>	<i>78-125</i>				



Date of Report: August 9, 2019  
 Samples Submitted: July 30, 2019  
 Laboratory Reference: 1907-337  
 Project: 82302-9.4

**VOLATILE ORGANICS EPA 8260C/SIM**  
 page 1 of 2

Matrix: Water  
 Units: ug/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>Client ID:</b>	<b>MW-43:W</b>					
Laboratory ID:	07-337-04					
Dichlorodifluoromethane	ND	0.20	EPA 8260C	7-31-19	7-31-19	
Chloromethane	ND	1.0	EPA 8260C	7-31-19	7-31-19	
Vinyl Chloride	ND	0.020	EPA 8260C/SIM	7-31-19	7-31-19	
Bromomethane	ND	0.20	EPA 8260C	7-31-19	7-31-19	
Chloroethane	ND	1.0	EPA 8260C	7-31-19	7-31-19	
Trichlorofluoromethane	ND	0.20	EPA 8260C	7-31-19	7-31-19	
1,1-Dichloroethene	ND	0.20	EPA 8260C	7-31-19	7-31-19	
Iodomethane	ND	3.0	EPA 8260C	7-31-19	7-31-19	
Methylene Chloride	1.5	1.0	EPA 8260C	7-31-19	7-31-19	
(trans) 1,2-Dichloroethene	ND	0.20	EPA 8260C	7-31-19	7-31-19	
1,1-Dichloroethane	ND	0.20	EPA 8260C	7-31-19	7-31-19	
2,2-Dichloropropane	ND	0.20	EPA 8260C	7-31-19	7-31-19	
(cis) 1,2-Dichloroethene	2.0	0.20	EPA 8260C	7-31-19	7-31-19	
Bromochloromethane	ND	0.20	EPA 8260C	7-31-19	7-31-19	
Chloroform	0.60	0.20	EPA 8260C	7-31-19	7-31-19	
1,1,1-Trichloroethane	ND	0.20	EPA 8260C	7-31-19	7-31-19	
Carbon Tetrachloride	ND	0.20	EPA 8260C	7-31-19	7-31-19	
1,1-Dichloropropene	ND	0.20	EPA 8260C	7-31-19	7-31-19	
1,2-Dichloroethane	2.8	0.20	EPA 8260C	7-31-19	7-31-19	
Trichloroethene	0.23	0.20	EPA 8260C	7-31-19	7-31-19	
1,2-Dichloropropane	ND	0.20	EPA 8260C	7-31-19	7-31-19	
Dibromomethane	ND	0.20	EPA 8260C	7-31-19	7-31-19	
Bromodichloromethane	ND	0.20	EPA 8260C	7-31-19	7-31-19	
2-Chloroethyl Vinyl Ether	ND	1.0	EPA 8260C	7-31-19	7-31-19	
(cis) 1,3-Dichloropropene	ND	0.20	EPA 8260C	7-31-19	7-31-19	
(trans) 1,3-Dichloropropene	ND	0.25	EPA 8260C	7-31-19	7-31-19	



Date of Report: August 9, 2019  
 Samples Submitted: July 30, 2019  
 Laboratory Reference: 1907-337  
 Project: 82302-9.4

**VOLATILE ORGANICS EPA 8260C/SIM**  
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Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>Client ID:</b>	<b>MW-43:W</b>					
<b>Laboratory ID:</b>	<b>07-337-04</b>					
1,1,2-Trichloroethane	ND	0.20	EPA 8260C	7-31-19	7-31-19	
Tetrachloroethene	ND	0.20	EPA 8260C	7-31-19	7-31-19	
1,3-Dichloropropane	ND	0.20	EPA 8260C	7-31-19	7-31-19	
Dibromochloromethane	ND	0.20	EPA 8260C	7-31-19	7-31-19	
1,2-Dibromoethane	ND	0.20	EPA 8260C	7-31-19	7-31-19	
Chlorobenzene	ND	0.20	EPA 8260C	7-31-19	7-31-19	
1,1,1,2-Tetrachloroethane	ND	0.20	EPA 8260C	7-31-19	7-31-19	
Bromoform	ND	1.0	EPA 8260C	7-31-19	7-31-19	
Bromobenzene	ND	0.20	EPA 8260C	7-31-19	7-31-19	
1,1,2,2-Tetrachloroethane	ND	0.20	EPA 8260C	7-31-19	7-31-19	
1,2,3-Trichloropropane	ND	0.20	EPA 8260C	7-31-19	7-31-19	
2-Chlorotoluene	ND	0.20	EPA 8260C	7-31-19	7-31-19	
4-Chlorotoluene	ND	0.20	EPA 8260C	7-31-19	7-31-19	
1,3-Dichlorobenzene	ND	0.20	EPA 8260C	7-31-19	7-31-19	
1,4-Dichlorobenzene	ND	0.20	EPA 8260C	7-31-19	7-31-19	
1,2-Dichlorobenzene	ND	0.20	EPA 8260C	7-31-19	7-31-19	
1,2-Dibromo-3-chloropropane	ND	1.0	EPA 8260C	7-31-19	7-31-19	
1,2,4-Trichlorobenzene	ND	0.20	EPA 8260C	7-31-19	7-31-19	
Hexachlorobutadiene	ND	1.0	EPA 8260C	7-31-19	7-31-19	
1,2,3-Trichlorobenzene	ND	0.20	EPA 8260C	7-31-19	7-31-19	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Dibromofluoromethane</i>	<i>104</i>	<i>75-127</i>				
<i>Toluene-d8</i>	<i>100</i>	<i>80-127</i>				
<i>4-Bromofluorobenzene</i>	<i>96</i>	<i>78-125</i>				



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**VOLATILE ORGANICS EPA 8260C/SIM**  
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Matrix: Water  
 Units: ug/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>Client ID:</b>	<b>HZ-MW-26:W</b>					
Laboratory ID:	07-337-05					
Dichlorodifluoromethane	ND	0.20	EPA 8260C	7-31-19	7-31-19	
Chloromethane	ND	1.0	EPA 8260C	7-31-19	7-31-19	
Vinyl Chloride	0.053	0.020	EPA 8260C/SIM	7-31-19	7-31-19	
Bromomethane	ND	0.20	EPA 8260C	7-31-19	7-31-19	
Chloroethane	ND	1.0	EPA 8260C	7-31-19	7-31-19	
Trichlorofluoromethane	ND	0.20	EPA 8260C	7-31-19	7-31-19	
1,1-Dichloroethene	ND	0.20	EPA 8260C	7-31-19	7-31-19	
Iodomethane	ND	3.0	EPA 8260C	7-31-19	7-31-19	
Methylene Chloride	ND	1.0	EPA 8260C	7-31-19	7-31-19	
(trans) 1,2-Dichloroethene	ND	0.20	EPA 8260C	7-31-19	7-31-19	
1,1-Dichloroethane	ND	0.20	EPA 8260C	7-31-19	7-31-19	
2,2-Dichloropropane	ND	0.20	EPA 8260C	7-31-19	7-31-19	
(cis) 1,2-Dichloroethene	1.0	0.20	EPA 8260C	7-31-19	7-31-19	
Bromochloromethane	ND	0.20	EPA 8260C	7-31-19	7-31-19	
Chloroform	ND	0.20	EPA 8260C	7-31-19	7-31-19	
1,1,1-Trichloroethane	ND	0.20	EPA 8260C	7-31-19	7-31-19	
Carbon Tetrachloride	ND	0.20	EPA 8260C	7-31-19	7-31-19	
1,1-Dichloropropene	ND	0.20	EPA 8260C	7-31-19	7-31-19	
1,2-Dichloroethane	ND	0.20	EPA 8260C	7-31-19	7-31-19	
Trichloroethene	ND	0.20	EPA 8260C	7-31-19	7-31-19	
1,2-Dichloropropane	ND	0.20	EPA 8260C	7-31-19	7-31-19	
Dibromomethane	ND	0.20	EPA 8260C	7-31-19	7-31-19	
Bromodichloromethane	ND	0.20	EPA 8260C	7-31-19	7-31-19	
2-Chloroethyl Vinyl Ether	ND	1.0	EPA 8260C	7-31-19	7-31-19	
(cis) 1,3-Dichloropropene	ND	0.20	EPA 8260C	7-31-19	7-31-19	
(trans) 1,3-Dichloropropene	ND	0.25	EPA 8260C	7-31-19	7-31-19	



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**VOLATILE ORGANICS EPA 8260C/SIM**  
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Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>Client ID:</b>	<b>HZ-MW-26:W</b>					
<b>Laboratory ID:</b>	<b>07-337-05</b>					
1,1,2-Trichloroethane	ND	0.20	EPA 8260C	7-31-19	7-31-19	
Tetrachloroethene	5.0	0.20	EPA 8260C	7-31-19	7-31-19	
1,3-Dichloropropane	ND	0.20	EPA 8260C	7-31-19	7-31-19	
Dibromochloromethane	ND	0.20	EPA 8260C	7-31-19	7-31-19	
1,2-Dibromoethane	ND	0.20	EPA 8260C	7-31-19	7-31-19	
Chlorobenzene	ND	0.20	EPA 8260C	7-31-19	7-31-19	
1,1,1,2-Tetrachloroethane	ND	0.20	EPA 8260C	7-31-19	7-31-19	
Bromoform	ND	1.0	EPA 8260C	7-31-19	7-31-19	
Bromobenzene	ND	0.20	EPA 8260C	7-31-19	7-31-19	
1,1,2,2-Tetrachloroethane	ND	0.20	EPA 8260C	7-31-19	7-31-19	
1,2,3-Trichloropropane	ND	0.20	EPA 8260C	7-31-19	7-31-19	
2-Chlorotoluene	ND	0.20	EPA 8260C	7-31-19	7-31-19	
4-Chlorotoluene	ND	0.20	EPA 8260C	7-31-19	7-31-19	
1,3-Dichlorobenzene	ND	0.20	EPA 8260C	7-31-19	7-31-19	
1,4-Dichlorobenzene	ND	0.20	EPA 8260C	7-31-19	7-31-19	
1,2-Dichlorobenzene	ND	0.20	EPA 8260C	7-31-19	7-31-19	
1,2-Dibromo-3-chloropropane	ND	1.0	EPA 8260C	7-31-19	7-31-19	
1,2,4-Trichlorobenzene	ND	0.20	EPA 8260C	7-31-19	7-31-19	
Hexachlorobutadiene	ND	1.0	EPA 8260C	7-31-19	7-31-19	
1,2,3-Trichlorobenzene	ND	0.20	EPA 8260C	7-31-19	7-31-19	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Dibromofluoromethane</i>	<i>104</i>	<i>75-127</i>				
<i>Toluene-d8</i>	<i>100</i>	<i>80-127</i>				
<i>4-Bromofluorobenzene</i>	<i>98</i>	<i>78-125</i>				



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**VOLATILE ORGANICS EPA 8260C/SIM**  
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Matrix: Water  
 Units: ug/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>Client ID:</b>	<b>HZ-MW-1:W</b>					
Laboratory ID:	07-337-06					
Dichlorodifluoromethane	ND	0.20	EPA 8260C	7-31-19	7-31-19	
Chloromethane	ND	1.0	EPA 8260C	7-31-19	7-31-19	
Vinyl Chloride	ND	0.020	EPA 8260C/SIM	7-31-19	7-31-19	
Bromomethane	ND	0.20	EPA 8260C	7-31-19	7-31-19	
Chloroethane	ND	1.0	EPA 8260C	7-31-19	7-31-19	
Trichlorofluoromethane	ND	0.20	EPA 8260C	7-31-19	7-31-19	
1,1-Dichloroethene	ND	0.20	EPA 8260C	7-31-19	7-31-19	
Iodomethane	ND	3.0	EPA 8260C	7-31-19	7-31-19	
Methylene Chloride	ND	1.0	EPA 8260C	7-31-19	7-31-19	
(trans) 1,2-Dichloroethene	ND	0.20	EPA 8260C	7-31-19	7-31-19	
1,1-Dichloroethane	ND	0.20	EPA 8260C	7-31-19	7-31-19	
2,2-Dichloropropane	ND	0.20	EPA 8260C	7-31-19	7-31-19	
(cis) 1,2-Dichloroethene	1.1	0.20	EPA 8260C	7-31-19	7-31-19	
Bromochloromethane	ND	0.20	EPA 8260C	7-31-19	7-31-19	
Chloroform	ND	0.20	EPA 8260C	7-31-19	7-31-19	
1,1,1-Trichloroethane	ND	0.20	EPA 8260C	7-31-19	7-31-19	
Carbon Tetrachloride	ND	0.20	EPA 8260C	7-31-19	7-31-19	
1,1-Dichloropropene	ND	0.20	EPA 8260C	7-31-19	7-31-19	
1,2-Dichloroethane	ND	0.20	EPA 8260C	7-31-19	7-31-19	
Trichloroethene	ND	0.20	EPA 8260C	7-31-19	7-31-19	
1,2-Dichloropropane	ND	0.20	EPA 8260C	7-31-19	7-31-19	
Dibromomethane	ND	0.20	EPA 8260C	7-31-19	7-31-19	
Bromodichloromethane	ND	0.20	EPA 8260C	7-31-19	7-31-19	
2-Chloroethyl Vinyl Ether	ND	1.0	EPA 8260C	7-31-19	7-31-19	
(cis) 1,3-Dichloropropene	ND	0.20	EPA 8260C	7-31-19	7-31-19	
(trans) 1,3-Dichloropropene	ND	0.25	EPA 8260C	7-31-19	7-31-19	





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**VOLATILE ORGANICS EPA 8260C/SIM**  
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Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>Client ID:</b>	<b>HZ-MW-1:W</b>					
<b>Laboratory ID:</b>	<b>07-337-06</b>					
1,1,2-Trichloroethane	ND	0.20	EPA 8260C	7-31-19	7-31-19	
Tetrachloroethene	14	0.20	EPA 8260C	7-31-19	7-31-19	
1,3-Dichloropropane	ND	0.20	EPA 8260C	7-31-19	7-31-19	
Dibromochloromethane	ND	0.20	EPA 8260C	7-31-19	7-31-19	
1,2-Dibromoethane	ND	0.20	EPA 8260C	7-31-19	7-31-19	
Chlorobenzene	ND	0.20	EPA 8260C	7-31-19	7-31-19	
1,1,1,2-Tetrachloroethane	ND	0.20	EPA 8260C	7-31-19	7-31-19	
Bromoform	ND	1.0	EPA 8260C	7-31-19	7-31-19	
Bromobenzene	ND	0.20	EPA 8260C	7-31-19	7-31-19	
1,1,2,2-Tetrachloroethane	ND	0.20	EPA 8260C	7-31-19	7-31-19	
1,2,3-Trichloropropane	ND	0.20	EPA 8260C	7-31-19	7-31-19	
2-Chlorotoluene	ND	0.20	EPA 8260C	7-31-19	7-31-19	
4-Chlorotoluene	ND	0.20	EPA 8260C	7-31-19	7-31-19	
1,3-Dichlorobenzene	ND	0.20	EPA 8260C	7-31-19	7-31-19	
1,4-Dichlorobenzene	ND	0.20	EPA 8260C	7-31-19	7-31-19	
1,2-Dichlorobenzene	ND	0.20	EPA 8260C	7-31-19	7-31-19	
1,2-Dibromo-3-chloropropane	ND	1.0	EPA 8260C	7-31-19	7-31-19	
1,2,4-Trichlorobenzene	ND	0.20	EPA 8260C	7-31-19	7-31-19	
Hexachlorobutadiene	ND	1.0	EPA 8260C	7-31-19	7-31-19	
1,2,3-Trichlorobenzene	ND	0.20	EPA 8260C	7-31-19	7-31-19	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Dibromofluoromethane</i>	<i>104</i>	<i>75-127</i>				
<i>Toluene-d8</i>	<i>98</i>	<i>80-127</i>				
<i>4-Bromofluorobenzene</i>	<i>98</i>	<i>78-125</i>				



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**VOLATILE ORGANICS EPA 8260C/SIM**  
**METHOD BLANK QUALITY CONTROL**  
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Matrix: Water  
 Units: ug/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Laboratory ID:	MB0731W1					
Dichlorodifluoromethane	ND	0.20	EPA 8260C	7-31-19	7-31-19	
Chloromethane	ND	1.0	EPA 8260C	7-31-19	7-31-19	
Vinyl Chloride	ND	0.020	EPA 8260C/SIM	7-31-19	7-31-19	
Bromomethane	ND	0.20	EPA 8260C	7-31-19	7-31-19	
Chloroethane	ND	1.0	EPA 8260C	7-31-19	7-31-19	
Trichlorofluoromethane	ND	0.20	EPA 8260C	7-31-19	7-31-19	
1,1-Dichloroethene	ND	0.20	EPA 8260C	7-31-19	7-31-19	
Iodomethane	ND	3.0	EPA 8260C	7-31-19	7-31-19	
Methylene Chloride	ND	1.0	EPA 8260C	7-31-19	7-31-19	
(trans) 1,2-Dichloroethene	ND	0.20	EPA 8260C	7-31-19	7-31-19	
1,1-Dichloroethane	ND	0.20	EPA 8260C	7-31-19	7-31-19	
2,2-Dichloropropane	ND	0.20	EPA 8260C	7-31-19	7-31-19	
(cis) 1,2-Dichloroethene	ND	0.20	EPA 8260C	7-31-19	7-31-19	
Bromochloromethane	ND	0.20	EPA 8260C	7-31-19	7-31-19	
Chloroform	ND	0.20	EPA 8260C	7-31-19	7-31-19	
1,1,1-Trichloroethane	ND	0.20	EPA 8260C	7-31-19	7-31-19	
Carbon Tetrachloride	ND	0.20	EPA 8260C	7-31-19	7-31-19	
1,1-Dichloropropene	ND	0.20	EPA 8260C	7-31-19	7-31-19	
1,2-Dichloroethane	ND	0.20	EPA 8260C	7-31-19	7-31-19	
Trichloroethene	ND	0.20	EPA 8260C	7-31-19	7-31-19	
1,2-Dichloropropane	ND	0.20	EPA 8260C	7-31-19	7-31-19	
Dibromomethane	ND	0.20	EPA 8260C	7-31-19	7-31-19	
Bromodichloromethane	ND	0.20	EPA 8260C	7-31-19	7-31-19	
2-Chloroethyl Vinyl Ether	ND	1.0	EPA 8260C	7-31-19	7-31-19	
(cis) 1,3-Dichloropropene	ND	0.20	EPA 8260C	7-31-19	7-31-19	
(trans) 1,3-Dichloropropene	ND	0.25	EPA 8260C	7-31-19	7-31-19	



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**VOLATILE ORGANICS EPA 8260C/SIM  
 METHOD BLANK QUALITY CONTROL**  
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Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Laboratory ID:	MB0731W1					
1,1,2-Trichloroethane	ND	0.20	EPA 8260C	7-31-19	7-31-19	
Tetrachloroethene	ND	0.20	EPA 8260C	7-31-19	7-31-19	
1,3-Dichloropropane	ND	0.20	EPA 8260C	7-31-19	7-31-19	
Dibromochloromethane	ND	0.20	EPA 8260C	7-31-19	7-31-19	
1,2-Dibromoethane	ND	0.20	EPA 8260C	7-31-19	7-31-19	
Chlorobenzene	ND	0.20	EPA 8260C	7-31-19	7-31-19	
1,1,1,2-Tetrachloroethane	ND	0.20	EPA 8260C	7-31-19	7-31-19	
Bromoform	ND	1.0	EPA 8260C	7-31-19	7-31-19	
Bromobenzene	ND	0.20	EPA 8260C	7-31-19	7-31-19	
1,1,2,2-Tetrachloroethane	ND	0.20	EPA 8260C	7-31-19	7-31-19	
1,2,3-Trichloropropane	ND	0.20	EPA 8260C	7-31-19	7-31-19	
2-Chlorotoluene	ND	0.20	EPA 8260C	7-31-19	7-31-19	
4-Chlorotoluene	ND	0.20	EPA 8260C	7-31-19	7-31-19	
1,3-Dichlorobenzene	ND	0.20	EPA 8260C	7-31-19	7-31-19	
1,4-Dichlorobenzene	ND	0.20	EPA 8260C	7-31-19	7-31-19	
1,2-Dichlorobenzene	ND	0.20	EPA 8260C	7-31-19	7-31-19	
1,2-Dibromo-3-chloropropane	ND	1.0	EPA 8260C	7-31-19	7-31-19	
1,2,4-Trichlorobenzene	ND	0.20	EPA 8260C	7-31-19	7-31-19	
Hexachlorobutadiene	ND	1.0	EPA 8260C	7-31-19	7-31-19	
1,2,3-Trichlorobenzene	ND	0.20	EPA 8260C	7-31-19	7-31-19	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Dibromofluoromethane</i>	<i>104</i>	<i>75-127</i>				
<i>Toluene-d8</i>	<i>100</i>	<i>80-127</i>				
<i>4-Bromofluorobenzene</i>	<i>97</i>	<i>78-125</i>				



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**VOLATILE ORGANICS EPA 8260C/SIM  
 SB/SBD QUALITY CONTROL**

Matrix: Water  
 Units: ug/L

Analyte	Result		Spike Level		Percent Recovery		Recovery	RPD	RPD	Flags
					SB	SBD	Limits	RPD	Limit	
<b>SPIKE BLANKS</b>										
Laboratory ID:	SB0731W1									
	SB	SBD	SB	SBD	SB	SBD				
1,1-Dichloroethene	10.9	10.5	10.0	10.0	109	105	63-130	4	17	
Benzene	10.6	10.4	10.0	10.0	106	104	76-125	2	19	
Trichloroethene	10.9	10.6	10.0	10.0	109	106	76-121	3	18	
Toluene	10.2	9.97	10.0	10.0	102	100	80-124	2	18	
Chlorobenzene	10.9	10.6	10.0	10.0	109	106	75-120	3	19	
<i>Surrogate:</i>										
<i>Dibromofluoromethane</i>					107	107	75-127			
<i>Toluene-d8</i>					100	100	80-127			
<i>4-Bromofluorobenzene</i>					99	99	78-125			



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**TOTAL ORGANIC CARBON  
 SM 5310B**

Matrix: Water  
 Units: mg/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>Client ID:</b>	<b>HZ-MW-14D:W</b>					
Laboratory ID:	07-337-01					
Total Organic Carbon	<b>1.0</b>	1.0	SM 5310B	8-8-19	8-8-19	
<b>Client ID:</b>	<b>HZ-MW-23:W</b>					
Laboratory ID:	07-337-02					
Total Organic Carbon	<b>3.4</b>	1.0	SM 5310B	8-8-19	8-8-19	
<b>Client ID:</b>	<b>MW-42:W</b>					
Laboratory ID:	07-337-03					
Total Organic Carbon	<b>1.7</b>	1.0	SM 5310B	8-8-19	8-8-19	
<b>Client ID:</b>	<b>MW-43:W</b>					
Laboratory ID:	07-337-04					
Total Organic Carbon	<b>4.7</b>	1.0	SM 5310B	8-8-19	8-8-19	
<b>Client ID:</b>	<b>HZ-MW-26:W</b>					
Laboratory ID:	07-337-05					
Total Organic Carbon	<b>ND</b>	1.0	SM 5310B	8-8-19	8-8-19	
<b>Client ID:</b>	<b>HZ-MW-1:W</b>					
Laboratory ID:	07-337-06					
Total Organic Carbon	<b>1.0</b>	1.0	SM 5310B	8-8-19	8-8-19	



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**TOTAL ORGANIC CARBON  
 SM 5310B  
 QUALITY CONTROL**

Matrix: Water  
 Units: mg/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>METHOD BLANK</b>						
Laboratory ID:	MB0808W1					
Total Organic Carbon	<b>ND</b>	1.0	SM 5310B	8-8-19	8-8-19	

Analyte	Result	Spike Level	Source Result	Percent Recovery	Recovery Limits	RPD	RPD Limit	Flags
<b>DUPLICATE</b>								
Laboratory ID:	07-337-05							
	ORIG	DUP						
Total Organic Carbon	<b>ND</b>	<b>ND</b>	NA	NA	NA	NA	20	

**MATRIX SPIKE**

Laboratory ID:	07-337-05							
	MS	MS		MS				
Total Organic Carbon	<b>11.1</b>	10.0	ND	111	85-131	NA	NA	

**SPIKE BLANK**

Laboratory ID:	SB0808W1							
	SB	SB		SB				
Total Organic Carbon	<b>10.7</b>	10.0	NA	107	88-127	NA	NA	



Date of Report: August 9, 2019  
 Samples Submitted: July 30, 2019  
 Laboratory Reference: 1907-337  
 Project: 82302-9.4

**DISSOLVED IRON  
 EPA 6010D**

Matrix: Water  
 Units: ug/L (ppb)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>Client ID:</b>	<b>HZ-MW-14D:W</b>					
Laboratory ID:	07-337-01					
Iron	<b>ND</b>	56	EPA 6010D	7-30-19	7-30-19	
<b>Client ID:</b>	<b>HZ-MW-23:W</b>					
Laboratory ID:	07-337-02					
Iron	<b>4900</b>	56	EPA 6010D	7-30-19	7-30-19	
<b>Client ID:</b>	<b>MW-42:W</b>					
Laboratory ID:	07-337-03					
Iron	<b>5300</b>	56	EPA 6010D	7-30-19	7-30-19	
<b>Client ID:</b>	<b>MW-43:W</b>					
Laboratory ID:	07-337-04					
Iron	<b>280</b>	56	EPA 6010D	7-30-19	7-30-19	
<b>Client ID:</b>	<b>HZ-MW-26:W</b>					
Laboratory ID:	07-337-05					
Iron	<b>ND</b>	56	EPA 6010D	7-30-19	7-30-19	
<b>Client ID:</b>	<b>HZ-MW-1:W</b>					
Laboratory ID:	07-337-06					
Iron	<b>ND</b>	56	EPA 6010D	7-30-19	7-30-19	



Date of Report: August 9, 2019  
 Samples Submitted: July 30, 2019  
 Laboratory Reference: 1907-337  
 Project: 82302-9.4

**DISSOLVED IRON  
 EPA 6010D  
 QUALITY CONTROL**

Matrix: Water  
 Units: ug/L (ppb)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>METHOD BLANK</b>						
Laboratory ID:	MB0730F1					
Iron	<b>ND</b>	56	EPA 6010D	7-30-19	7-30-19	

Analyte	Result	Spike Level	Source Result	Percent Recovery	Recovery Limits	RPD	RPD Limit	Flags
<b>DUPLICATE</b>								
Laboratory ID:	07-337-01							
	ORIG	DUP						
Iron	<b>ND</b>	<b>ND</b>	NA	NA	NA	NA	20	

Analyte	MS	MSD	MS	MSD	MS	MSD	RPD	RPD Limit	Flags	
<b>MATRIX SPIKES</b>										
Laboratory ID:	07-337-01									
	MS	MSD	MS	MSD	MS	MSD				
Iron	<b>23000</b>	<b>23000</b>	22200	22200	ND	<b>104</b>	<b>103</b>	75-125	0	20





Date of Report: August 9, 2019  
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 Laboratory Reference: 1907-337  
 Project: 82302-9.4

**CHLORIDE**  
**SM 4500-Cl E**

Matrix: Water  
 Units: mg/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>Client ID:</b>	<b>HZ-MW-14D:W</b>					
Laboratory ID:	07-337-01					
Chloride	<b>69</b>	2.0	SM 4500-Cl E	8-1-19	8-1-19	

<b>Client ID:</b>	<b>HZ-MW-23:W</b>					
Laboratory ID:	07-337-02					
Chloride	<b>6.8</b>	2.0	SM 4500-Cl E	8-1-19	8-1-19	

<b>Client ID:</b>	<b>MW-42:W</b>					
Laboratory ID:	07-337-03					
Chloride	<b>8.1</b>	2.0	SM 4500-Cl E	8-1-19	8-1-19	

<b>Client ID:</b>	<b>MW-43:W</b>					
Laboratory ID:	07-337-04					
Chloride	<b>5.7</b>	2.0	SM 4500-Cl E	8-1-19	8-1-19	

<b>Client ID:</b>	<b>HZ-MW-26:W</b>					
Laboratory ID:	07-337-05					
Chloride	<b>9.3</b>	2.0	SM 4500-Cl E	8-1-19	8-1-19	

<b>Client ID:</b>	<b>HZ-MW-1:W</b>					
Laboratory ID:	07-337-06					
Chloride	<b>4.4</b>	2.0	SM 4500-Cl E	8-1-19	8-1-19	



Date of Report: August 9, 2019  
 Samples Submitted: July 30, 2019  
 Laboratory Reference: 1907-337  
 Project: 82302-9.4

**CHLORIDE  
 SM 4500-Cl E  
 QUALITY CONTROL**

Matrix: Water  
 Units: mg/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>METHOD BLANK</b>						
Laboratory ID:	MB0801W2					
Chloride	<b>ND</b>	2.0	SM 4500-Cl E	8-1-19	8-1-19	

Analyte	Result	Spike Level	Source Result	Percent Recovery	Recovery Limits	RPD	RPD Limit	Flags
<b>DUPLICATE</b>								
Laboratory ID:	07-346-01							
	ORIG	DUP						
Chloride	<b>ND</b>	<b>ND</b>	NA	NA	NA	NA	17	

<b>MATRIX SPIKE</b>								
Laboratory ID:	07-346-01							
	MS	MS		MS				
Chloride	<b>50.9</b>	50.0	ND	102	80-116	NA	NA	

<b>SPIKE BLANK</b>								
Laboratory ID:	SB0801W2							
	SB	SB		SB				
Chloride	<b>48.9</b>	50.0	NA	98	90-110	NA	NA	



Date of Report: August 9, 2019  
 Samples Submitted: July 30, 2019  
 Laboratory Reference: 1907-337  
 Project: 82302-9.4

**SULFATE**  
**ASTM D516-11**

Matrix: Water  
 Units: mg/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>Client ID:</b>	<b>HZ-MW-14D:W</b>					
Laboratory ID:	07-337-01					
Sulfate	11	5.0	ASTM D516-11	8-5-19	8-5-19	

<b>Client ID:</b>	<b>HZ-MW-23:W</b>					
Laboratory ID:	07-337-02					
Sulfate	11	5.0	ASTM D516-11	8-5-19	8-5-19	

<b>Client ID:</b>	<b>MW-42:W</b>					
Laboratory ID:	07-337-03					
Sulfate	8.0	5.0	ASTM D516-11	8-5-19	8-5-19	

<b>Client ID:</b>	<b>MW-43:W</b>					
Laboratory ID:	07-337-04					
Sulfate	11	5.0	ASTM D516-11	8-5-19	8-5-19	

<b>Client ID:</b>	<b>HZ-MW-26:W</b>					
Laboratory ID:	07-337-05					
Sulfate	23	5.0	ASTM D516-11	8-5-19	8-5-19	

<b>Client ID:</b>	<b>HZ-MW-1:W</b>					
Laboratory ID:	07-337-06					
Sulfate	6.6	5.0	ASTM D516-11	8-5-19	8-5-19	



Date of Report: August 9, 2019  
 Samples Submitted: July 30, 2019  
 Laboratory Reference: 1907-337  
 Project: 82302-9.4

**SULFATE  
 ASTM D516-11  
 QUALITY CONTROL**

Matrix: Water  
 Units: mg/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>METHOD BLANK</b>						
Laboratory ID:	MB0805W1					
Sulfate	<b>ND</b>	5.0	ASTM D516-11	8-5-19	8-5-19	

Analyte	Result	Spike Level	Source Result	Percent Recovery	Recovery Limits	RPD	RPD Limit	Flags
<b>DUPLICATE</b>								
Laboratory ID:	07-337-01							
	ORIG	DUP						
Sulfate	<b>11.0</b>	<b>11.4</b>	NA	NA	NA	4	10	

<b>MATRIX SPIKE</b>								
Laboratory ID:	07-337-01							
	MS	MS		MS				
Sulfate	<b>19.1</b>	10.0	11.0	81	73-134	NA	NA	

<b>SPIKE BLANK</b>								
Laboratory ID:	SB0805W1							
	SB	SB		SB				
Sulfate	<b>10.3</b>	10.0	NA	103	89-113	NA	NA	



Date of Report: August 9, 2019  
 Samples Submitted: July 30, 2019  
 Laboratory Reference: 1907-337  
 Project: 82302-9.4

**AMMONIA (as Nitrogen)**  
**SM 4500-NH<sub>3</sub> D**

Matrix: Water  
 Units: mg NH<sub>3</sub>-N/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>Client ID:</b>	<b>HZ-MW-14D:W</b>					
Laboratory ID:	07-337-01					
Ammonia	<b>ND</b>	0.050	SM 4500-NH <sub>3</sub> D	7-31-19	7-31-19	

<b>Client ID:</b>	<b>HZ-MW-23:W</b>					
Laboratory ID:	07-337-02					
Ammonia	<b>ND</b>	0.050	SM 4500-NH <sub>3</sub> D	7-31-19	7-31-19	

<b>Client ID:</b>	<b>MW-42:W</b>					
Laboratory ID:	07-337-03					
Ammonia	<b>0.27</b>	0.050	SM 4500-NH <sub>3</sub> D	7-31-19	7-31-19	

<b>Client ID:</b>	<b>MW-43:W</b>					
Laboratory ID:	07-337-04					
Ammonia	<b>0.11</b>	0.050	SM 4500-NH <sub>3</sub> D	7-31-19	7-31-19	

<b>Client ID:</b>	<b>HZ-MW-26:W</b>					
Laboratory ID:	07-337-05					
Ammonia	<b>0.063</b>	0.050	SM 4500-NH <sub>3</sub> D	7-31-19	7-31-19	

<b>Client ID:</b>	<b>HZ-MW-1:W</b>					
Laboratory ID:	07-337-06					
Ammonia	<b>ND</b>	0.050	SM 4500-NH <sub>3</sub> D	7-31-19	7-31-19	



Date of Report: August 9, 2019  
 Samples Submitted: July 30, 2019  
 Laboratory Reference: 1907-337  
 Project: 82302-9.4

**AMMONIA (as Nitrogen)  
 SM 4500-NH<sub>3</sub> D  
 QUALITY CONTROL**

Matrix: Water  
 Units: mg NH<sub>3</sub>-N/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>METHOD BLANK</b>						
Laboratory ID:	MB0731W1					
Ammonia	<b>ND</b>	0.050	SM 4500-NH <sub>3</sub> D	7-31-19	7-31-19	

Analyte	Result	Spike Level	Source Result	Percent Recovery	Recovery Limits	RPD	RPD Limit	Flags
<b>DUPLICATE</b>								
Laboratory ID:	07-296-04							
	ORIG	DUP						
Ammonia	<b>0.0677</b>	<b>0.0539</b>	NA	NA	NA	23	12	C

<b>MATRIX SPIKE</b>								
Laboratory ID:	07-296-04							
	MS	MS		MS				
Ammonia	<b>4.83</b>	5.00	0.0677	95	75-121	NA	NA	

<b>SPIKE BLANK</b>								
Laboratory ID:	SB0731W1							
	SB	SB		SB				
Ammonia	<b>4.81</b>	5.00	NA	96	85-110	NA	NA	



Date of Report: August 9, 2019  
 Samples Submitted: July 30, 2019  
 Laboratory Reference: 1907-337  
 Project: 82302-9.4

**DISSOLVED GASES  
 RSK 175**

Matrix: Water  
 Units: ug/L (ppb)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>Client ID:</b>	<b>HZ-MW-14D:W</b>					
Laboratory ID:	07-337-01					
Methane	<b>920</b>	100	RSK 175	8-2-19	8-2-19	
Ethane	<b>ND</b>	0.50	RSK 175	8-2-19	8-2-19	
Ethene	<b>ND</b>	0.50	RSK 175	8-2-19	8-2-19	

<b>Client ID:</b>	<b>HZ-MW-23:W</b>					
Laboratory ID:	07-337-02					
Methane	<b>210</b>	25	RSK 175	8-2-19	8-2-19	
Ethane	<b>ND</b>	0.50	RSK 175	8-2-19	8-2-19	
Ethene	<b>ND</b>	0.50	RSK 175	8-2-19	8-2-19	

<b>Client ID:</b>	<b>MW-42:W</b>					
Laboratory ID:	07-337-03					
Methane	<b>2500</b>	500	RSK 175	8-2-19	8-2-19	
Ethane	<b>ND</b>	0.50	RSK 175	8-2-19	8-2-19	
Ethene	<b>ND</b>	0.50	RSK 175	8-2-19	8-2-19	

<b>Client ID:</b>	<b>MW-43:W</b>					
Laboratory ID:	07-337-04					
Methane	<b>440</b>	50	RSK 175	8-2-19	8-2-19	
Ethane	<b>ND</b>	0.50	RSK 175	8-2-19	8-2-19	
Ethene	<b>ND</b>	0.50	RSK 175	8-2-19	8-2-19	

<b>Client ID:</b>	<b>HZ-MW-26:W</b>					
Laboratory ID:	07-337-05					
Methane	<b>10</b>	1.0	RSK 175	8-2-19	8-2-19	
Ethane	<b>ND</b>	0.50	RSK 175	8-2-19	8-2-19	
Ethene	<b>ND</b>	0.50	RSK 175	8-2-19	8-2-19	

<b>Client ID:</b>	<b>HZ-MW-1:W</b>					
Laboratory ID:	07-337-06					
Methane	<b>ND</b>	1.0	RSK 175	8-2-19	8-2-19	
Ethane	<b>ND</b>	0.50	RSK 175	8-2-19	8-2-19	
Ethene	<b>ND</b>	0.50	RSK 175	8-2-19	8-2-19	



Date of Report: August 9, 2019  
 Samples Submitted: July 30, 2019  
 Laboratory Reference: 1907-337  
 Project: 82302-9.4

**DISSOLVED GASES  
 RSK 175  
 QUALITY CONTROL**

Matrix: Water  
 Units: ug/L (ppb)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>METHOD BLANK</b>						
Laboratory ID:	MB0802W1					
Methane	ND	1.0	RSK 175	8-2-19	8-2-19	
Ethane	ND	0.50	RSK 175	8-2-19	8-2-19	
Ethene	ND	0.50	RSK 175	8-2-19	8-2-19	

Analyte	Result		Spike Level		Source Result	Percent Recovery		Recovery Limits	RPD	RPD Limit	Flags
<b>MATRIX SPIKES</b>											
Laboratory ID:	01-123-01										
	MS	MSD	MS	MSD		MS	MSD				
Methane	9.41	9.08	4.42	4.42	4.20	118	110	75-125	4	25	
Ethane	7.79	7.34	8.32	8.32	ND	94	88	75-125	6	25	
Ethene	5.79	6.37	7.77	7.77	ND	75	82	75-125	10	25	

**SPIKE BLANKS**

Laboratory ID:	SB0802W1										
	SB	SBD	SB	SBD		SB	SBD				
Methane	4.44	4.08	4.42	4.42	N/A	100	92	75-125	8	25	
Ethane	8.80	8.09	8.32	8.32	N/A	106	97	75-125	8	25	
Ethene	9.07	8.58	7.77	7.77	N/A	117	110	75-125	6	25	







### Data Qualifiers and Abbreviations

- A - Due to a high sample concentration, the amount spiked is insufficient for meaningful MS/MSD recovery data.
  - B - The analyte indicated was also found in the blank sample.
  - C - The duplicate RPD is outside control limits due to high result variability when analyte concentrations are within five times the quantitation limit.
  - E - The value reported exceeds the quantitation range and is an estimate.
  - F - Surrogate recovery data is not available due to the high concentration of coeluting target compounds.
  - H - The analyte indicated is a common laboratory solvent and may have been introduced during sample preparation, and be impacting the sample result.
  - I - Compound recovery is outside of the control limits.
  - J - The value reported was below the practical quantitation limit. The value is an estimate.
  - K - Sample duplicate RPD is outside control limits due to sample inhomogeneity. The sample was re-extracted and re-analyzed with similar results.
  - L - The RPD is outside of the control limits.
  - M - Hydrocarbons in the gasoline range are impacting the diesel range result.
  - M1 - Hydrocarbons in the gasoline range (toluene-naphthalene) are present in the sample.
  - N - Hydrocarbons in the lube oil range are impacting the diesel range result.
  - N1 - Hydrocarbons in diesel range are impacting lube oil range results.
  - O - Hydrocarbons indicative of heavier fuels are present in the sample and are impacting the gasoline result.
  - P - The RPD of the detected concentrations between the two columns is greater than 40.
  - Q - Surrogate recovery is outside of the control limits.
  - S - Surrogate recovery data is not available due to the necessary dilution of the sample.
  - T - The sample chromatogram is not similar to a typical \_\_\_\_\_.
  - U - The analyte was analyzed for, but was not detected above the reported sample quantitation limit.
  - U1 - The practical quantitation limit is elevated due to interferences present in the sample.
  - V - Matrix Spike/Matrix Spike Duplicate recoveries are outside control limits due to matrix effects.
  - W - Matrix Spike/Matrix Spike Duplicate RPD are outside control limits due to matrix effects.
  - X - Sample extract treated with a mercury cleanup procedure.
  - X1 - Sample extract treated with a sulfuric acid/silica gel cleanup procedure.
  - Y - The calibration verification for this analyte exceeded the 20% drift specified in methods 8260 & 8270, and therefore the reported result should be considered an estimate. The overall performance of the calibration verification standard met the acceptance criteria of the method.
  - Z -
- ND - Not Detected at PQL  
 PQL - Practical Quantitation Limit  
 RPD - Relative Percent Difference





# Onsite Environmental Inc.

Analytical Laboratory Testing Services  
14648 NE 95th Street • Redmond, WA 98052  
Phone: (425) 893-3881 • www.onsite-env.com

## Chain of Custody

**Turnaround Request**  
(In working days)

(Check One)

Same Day  1 Day

2 Days  3 Days

Standard (7 Days)

\_\_\_\_\_ (other)

**Laboratory Number:**

**07-337**

Company: **KANE ENVIRONMENTAL**

Project Number: **82302-94**

Project Name: **BSCS**

Project Manager: **JEFF JOHNSON**

Sampled by: **MVA GRANTS + EMILY KANE**

Lab ID	Sample Identification	Date Sampled	Time Sampled	Matrix	Number of Containers
1	HZ-MW-14D:W	7/29	1320	GW	9
2	HZ-MW-23:W	7/29	1440	GW	9
3	MW-42:W	7/29	1430	GW	9
4	MW-43:W	7/29	1000	GW	9
5	HZ-MW-20:W	7/29	1415	GW	9
6	HZ-MW-1:W	7/30	1150	GW	9

Signature	Company	Reviewed/Date
	KANE ENVIRONMENTAL	
	DSC	
Received		
Relinquished		
Received		
Relinquished		
Received		
Relinquished		
Reviewed/Date		

Number of Containers	Date	Time	Comments/Special Instructions
	7/30	1300	LAB FILTER
	7/30/19	1300	RSE = METADNE, ETHANE, ETHYLENE ↳ DETECTION LIMIT 100 (3-4 µg/L) LOW DETECTION LIMIT FOR VINYL CHLORIDE

NWTPH-HCID	NWTPH-Gx/BTEX	NWTPH-Gx	NWTPH-Dx ( <input type="checkbox"/> Acid / SG Clean-up)	Volatiles 8260C	Halogenated Volatiles 8260C	EDB EPA 8011 (Waters Only)	Semivolatiles 8270D/SIM (with low-level PAHs)	PAHs 8270D/SIM (low-level)	PCBs 8082A	Organochlorine Pesticides 8081B	Organophosphorus Pesticides 8270D/SIM	Chlorinated Acid Herbicides 8151A	Total RCRA Metals	Total MTCA Metals	TCLP Metals	MEM (oil and grease) 1064A	TDG	dissolved Fe	chloride	sulfate	ammonia-N	Moisture RSK
					X													X	X	X	X	X
					X													X	X	X	X	X
					X													X	X	X	X	X
					X													X	X	X	X	X
					X													X	X	X	X	X
					X													X	X	X	X	X

Data Package: Standard  Level III  Level IV

Chromatograms with final report  Electronic Data Deliverables (EDDs)



14648 NE 95<sup>th</sup> Street, Redmond, WA 98052 • (425) 883-3881

October 24, 2019

Jeff Jensen  
Kane Environmental, Inc.  
4015 13th Avenue West  
Seattle, WA 98119

Re: Analytical Data for Project 82302-9.4  
Laboratory Reference No. 1910-215

Dear Jeff:

Enclosed are the analytical results and associated quality control data for samples submitted on October 16, 2019.

The standard policy of OnSite Environmental, Inc. is to store your samples for 30 days from the date of receipt. If you require longer storage, please contact the laboratory.

We appreciate the opportunity to be of service to you on this project. If you have any questions concerning the data, or need additional information, please feel free to call me.

Sincerely,

A handwritten signature in black ink, appearing to read "DB", with a long horizontal flourish extending to the right.

David Baumeister  
Project Manager

Enclosures



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OnSite Environmental, Inc. 14648 NE 95<sup>th</sup> Street, Redmond, WA 98052 (425) 883-3881

This report pertains to the samples analyzed in accordance with the chain of custody, and is intended only for the use of the individual or company to whom it is addressed.

Date of Report: October 24, 2019  
Samples Submitted: October 16, 2019  
Laboratory Reference: 1910-215  
Project: 82302-9.4

### Case Narrative

Samples were collected on October 16, 2019 and received by the laboratory on October 16, 2019. They were maintained at the laboratory at a temperature of 2°C to 6°C.

Please note that any and all soil sample results are reported on a dry-weight basis, unless otherwise noted below.

General QA/QC issues associated with the analytical data enclosed in this laboratory report will be indicated with a reference to a comment or explanation on the Data Qualifier page. More complex and involved QA/QC issues will be discussed in detail below.



Date of Report: October 24, 2019  
 Samples Submitted: October 16, 2019  
 Laboratory Reference: 1910-215  
 Project: 82302-9.4

**VOLATILE ORGANICS EPA 8260D/SIM**  
 page 1 of 2

Matrix: Water  
 Units: ug/L

<b>Analyte</b>	<b>Result</b>	<b>PQL</b>	<b>Method</b>	<b>Date Prepared</b>	<b>Date Analyzed</b>	<b>Flags</b>
<b>Client ID:</b>	<b>HZ-MW-14S:W</b>					
<b>Laboratory ID:</b>	10-215-01					
Dichlorodifluoromethane	ND	0.40	EPA 8260D	10-21-19	10-21-19	
Chloromethane	ND	2.6	EPA 8260D	10-21-19	10-21-19	
Vinyl Chloride	ND	0.040	EPA 8260D/SIM	10-21-19	10-21-19	
Bromomethane	ND	0.40	EPA 8260D	10-21-19	10-21-19	
Chloroethane	ND	2.0	EPA 8260D	10-21-19	10-21-19	
Trichlorofluoromethane	ND	0.40	EPA 8260D	10-21-19	10-21-19	
1,1-Dichloroethene	ND	0.40	EPA 8260D	10-21-19	10-21-19	
Iodomethane	ND	2.8	EPA 8260D	10-21-19	10-21-19	
Methylene Chloride	ND	2.0	EPA 8260D	10-21-19	10-21-19	
(trans) 1,2-Dichloroethene	ND	0.40	EPA 8260D	10-21-19	10-21-19	
1,1-Dichloroethane	ND	0.40	EPA 8260D	10-21-19	10-21-19	
2,2-Dichloropropane	ND	0.40	EPA 8260D	10-21-19	10-21-19	
(cis) 1,2-Dichloroethene	3.6	0.40	EPA 8260D	10-21-19	10-21-19	
Bromochloromethane	ND	0.40	EPA 8260D	10-21-19	10-21-19	
Chloroform	ND	0.40	EPA 8260D	10-21-19	10-21-19	
1,1,1-Trichloroethane	ND	0.40	EPA 8260D	10-21-19	10-21-19	
Carbon Tetrachloride	ND	0.40	EPA 8260D	10-21-19	10-21-19	
1,1-Dichloropropene	ND	0.40	EPA 8260D	10-21-19	10-21-19	
1,2-Dichloroethane	ND	0.40	EPA 8260D	10-21-19	10-21-19	
Trichloroethene	5.9	0.40	EPA 8260D	10-21-19	10-21-19	
1,2-Dichloropropane	ND	0.40	EPA 8260D	10-21-19	10-21-19	
Dibromomethane	ND	0.40	EPA 8260D	10-21-19	10-21-19	
Bromodichloromethane	ND	0.40	EPA 8260D	10-21-19	10-21-19	
2-Chloroethyl Vinyl Ether	ND	2.0	EPA 8260D	10-21-19	10-21-19	
(cis) 1,3-Dichloropropene	ND	0.40	EPA 8260D	10-21-19	10-21-19	
(trans) 1,3-Dichloropropene	ND	0.40	EPA 8260D	10-21-19	10-21-19	



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Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>Client ID:</b>	<b>HZ-MW-14S:W</b>					
<b>Laboratory ID:</b>	10-215-01					
1,1,2-Trichloroethane	ND	0.40	EPA 8260D	10-21-19	10-21-19	
Tetrachloroethene	78	0.40	EPA 8260D	10-21-19	10-21-19	
1,3-Dichloropropane	ND	0.40	EPA 8260D	10-21-19	10-21-19	
Dibromochloromethane	ND	0.40	EPA 8260D	10-21-19	10-21-19	
1,2-Dibromoethane	ND	0.40	EPA 8260D	10-21-19	10-21-19	
Chlorobenzene	ND	0.40	EPA 8260D	10-21-19	10-21-19	
1,1,1,2-Tetrachloroethane	ND	0.40	EPA 8260D	10-21-19	10-21-19	
Bromoform	ND	2.0	EPA 8260D	10-21-19	10-21-19	
Bromobenzene	ND	0.40	EPA 8260D	10-21-19	10-21-19	
1,1,1,2-Tetrachloroethane	ND	0.40	EPA 8260D	10-21-19	10-21-19	
1,2,3-Trichloropropane	ND	0.40	EPA 8260D	10-21-19	10-21-19	
2-Chlorotoluene	ND	0.40	EPA 8260D	10-21-19	10-21-19	
4-Chlorotoluene	ND	0.40	EPA 8260D	10-21-19	10-21-19	
1,3-Dichlorobenzene	ND	0.40	EPA 8260D	10-21-19	10-21-19	
1,4-Dichlorobenzene	ND	0.40	EPA 8260D	10-21-19	10-21-19	
1,2-Dichlorobenzene	ND	0.40	EPA 8260D	10-21-19	10-21-19	
1,2-Dibromo-3-chloropropane	ND	2.0	EPA 8260D	10-21-19	10-21-19	
1,2,4-Trichlorobenzene	ND	0.40	EPA 8260D	10-21-19	10-21-19	
Hexachlorobutadiene	ND	2.0	EPA 8260D	10-21-19	10-21-19	
1,2,3-Trichlorobenzene	ND	0.40	EPA 8260D	10-21-19	10-21-19	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Dibromofluoromethane</i>	<i>111</i>	<i>75-127</i>				
<i>Toluene-d8</i>	<i>102</i>	<i>80-127</i>				
<i>4-Bromofluorobenzene</i>	<i>100</i>	<i>78-125</i>				



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Matrix: Water  
 Units: ug/L

<b>Analyte</b>	<b>Result</b>	<b>PQL</b>	<b>Method</b>	<b>Date Prepared</b>	<b>Date Analyzed</b>	<b>Flags</b>
<b>Client ID:</b>	<b>HZ-MW-14D:W</b>					
<b>Laboratory ID:</b>	10-215-02					
Dichlorodifluoromethane	ND	1.0	EPA 8260D	10-21-19	10-21-19	
Chloromethane	ND	6.5	EPA 8260D	10-21-19	10-21-19	
Vinyl Chloride	0.51	0.10	EPA 8260D/SIM	10-21-19	10-21-19	
Bromomethane	ND	1.0	EPA 8260D	10-21-19	10-21-19	
Chloroethane	ND	5.0	EPA 8260D	10-21-19	10-21-19	
Trichlorofluoromethane	ND	1.0	EPA 8260D	10-21-19	10-21-19	
1,1-Dichloroethene	ND	1.0	EPA 8260D	10-21-19	10-21-19	
Iodomethane	ND	7.0	EPA 8260D	10-21-19	10-21-19	
Methylene Chloride	ND	5.0	EPA 8260D	10-21-19	10-21-19	
(trans) 1,2-Dichloroethene	ND	1.0	EPA 8260D	10-21-19	10-21-19	
1,1-Dichloroethane	ND	1.0	EPA 8260D	10-21-19	10-21-19	
2,2-Dichloropropane	ND	1.0	EPA 8260D	10-21-19	10-21-19	
(cis) 1,2-Dichloroethene	48	1.0	EPA 8260D	10-21-19	10-21-19	
Bromochloromethane	ND	1.0	EPA 8260D	10-21-19	10-21-19	
Chloroform	ND	1.0	EPA 8260D	10-21-19	10-21-19	
1,1,1-Trichloroethane	ND	1.0	EPA 8260D	10-21-19	10-21-19	
Carbon Tetrachloride	ND	1.0	EPA 8260D	10-21-19	10-21-19	
1,1-Dichloropropene	ND	1.0	EPA 8260D	10-21-19	10-21-19	
1,2-Dichloroethane	ND	1.0	EPA 8260D	10-21-19	10-21-19	
Trichloroethene	7.9	1.0	EPA 8260D	10-21-19	10-21-19	
1,2-Dichloropropane	ND	1.0	EPA 8260D	10-21-19	10-21-19	
Dibromomethane	ND	1.0	EPA 8260D	10-21-19	10-21-19	
Bromodichloromethane	ND	1.0	EPA 8260D	10-21-19	10-21-19	
2-Chloroethyl Vinyl Ether	ND	5.0	EPA 8260D	10-21-19	10-21-19	
(cis) 1,3-Dichloropropene	ND	1.0	EPA 8260D	10-21-19	10-21-19	
(trans) 1,3-Dichloropropene	ND	1.0	EPA 8260D	10-21-19	10-21-19	



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**VOLATILE ORGANICS EPA 8260D/SIM**  
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Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>Client ID:</b>	<b>HZ-MW-14D:W</b>					
Laboratory ID:	10-215-02					
1,1,2-Trichloroethane	ND	1.0	EPA 8260D	10-21-19	10-21-19	
Tetrachloroethene	190	1.0	EPA 8260D	10-21-19	10-21-19	
1,3-Dichloropropane	ND	1.0	EPA 8260D	10-21-19	10-21-19	
Dibromochloromethane	ND	1.0	EPA 8260D	10-21-19	10-21-19	
1,2-Dibromoethane	ND	1.0	EPA 8260D	10-21-19	10-21-19	
Chlorobenzene	ND	1.0	EPA 8260D	10-21-19	10-21-19	
1,1,1,2-Tetrachloroethane	ND	1.0	EPA 8260D	10-21-19	10-21-19	
Bromoform	ND	5.0	EPA 8260D	10-21-19	10-21-19	
Bromobenzene	ND	1.0	EPA 8260D	10-21-19	10-21-19	
1,1,2,2-Tetrachloroethane	ND	1.0	EPA 8260D	10-21-19	10-21-19	
1,2,3-Trichloropropane	ND	1.0	EPA 8260D	10-21-19	10-21-19	
2-Chlorotoluene	ND	1.0	EPA 8260D	10-21-19	10-21-19	
4-Chlorotoluene	ND	1.0	EPA 8260D	10-21-19	10-21-19	
1,3-Dichlorobenzene	ND	1.0	EPA 8260D	10-21-19	10-21-19	
1,4-Dichlorobenzene	ND	1.0	EPA 8260D	10-21-19	10-21-19	
1,2-Dichlorobenzene	ND	1.0	EPA 8260D	10-21-19	10-21-19	
1,2-Dibromo-3-chloropropane	ND	5.0	EPA 8260D	10-21-19	10-21-19	
1,2,4-Trichlorobenzene	ND	1.0	EPA 8260D	10-21-19	10-21-19	
Hexachlorobutadiene	ND	5.0	EPA 8260D	10-21-19	10-21-19	
1,2,3-Trichlorobenzene	ND	1.0	EPA 8260D	10-21-19	10-21-19	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Dibromofluoromethane</i>	<i>111</i>	<i>75-127</i>				
<i>Toluene-d8</i>	<i>102</i>	<i>80-127</i>				
<i>4-Bromofluorobenzene</i>	<i>100</i>	<i>78-125</i>				





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**VOLATILE ORGANICS EPA 8260D/SIM**  
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Matrix: Water  
 Units: ug/L

<b>Analyte</b>	<b>Result</b>	<b>PQL</b>	<b>Method</b>	<b>Date Prepared</b>	<b>Date Analyzed</b>	<b>Flags</b>
<b>Client ID:</b>	<b>HZ-MW-26:W</b>					
<b>Laboratory ID:</b>	10-215-03					
Dichlorodifluoromethane	ND	0.20	EPA 8260D	10-21-19	10-21-19	
Chloromethane	ND	1.3	EPA 8260D	10-21-19	10-21-19	
Vinyl Chloride	0.055	0.020	EPA 8260D/SIM	10-21-19	10-21-19	
Bromomethane	ND	0.20	EPA 8260D	10-21-19	10-21-19	
Chloroethane	ND	1.0	EPA 8260D	10-21-19	10-21-19	
Trichlorofluoromethane	ND	0.20	EPA 8260D	10-21-19	10-21-19	
1,1-Dichloroethene	ND	0.20	EPA 8260D	10-21-19	10-21-19	
Iodomethane	ND	1.4	EPA 8260D	10-21-19	10-21-19	
Methylene Chloride	ND	1.0	EPA 8260D	10-21-19	10-21-19	
(trans) 1,2-Dichloroethene	ND	0.20	EPA 8260D	10-21-19	10-21-19	
1,1-Dichloroethane	ND	0.20	EPA 8260D	10-21-19	10-21-19	
2,2-Dichloropropane	ND	0.20	EPA 8260D	10-21-19	10-21-19	
(cis) 1,2-Dichloroethene	0.53	0.20	EPA 8260D	10-21-19	10-21-19	
Bromochloromethane	ND	0.20	EPA 8260D	10-21-19	10-21-19	
Chloroform	ND	0.20	EPA 8260D	10-21-19	10-21-19	
1,1,1-Trichloroethane	ND	0.20	EPA 8260D	10-21-19	10-21-19	
Carbon Tetrachloride	ND	0.20	EPA 8260D	10-21-19	10-21-19	
1,1-Dichloropropene	ND	0.20	EPA 8260D	10-21-19	10-21-19	
1,2-Dichloroethane	ND	0.20	EPA 8260D	10-21-19	10-21-19	
Trichloroethene	ND	0.20	EPA 8260D	10-21-19	10-21-19	
1,2-Dichloropropane	ND	0.20	EPA 8260D	10-21-19	10-21-19	
Dibromomethane	ND	0.20	EPA 8260D	10-21-19	10-21-19	
Bromodichloromethane	ND	0.20	EPA 8260D	10-21-19	10-21-19	
2-Chloroethyl Vinyl Ether	ND	1.0	EPA 8260D	10-21-19	10-21-19	
(cis) 1,3-Dichloropropene	ND	0.20	EPA 8260D	10-21-19	10-21-19	
(trans) 1,3-Dichloropropene	ND	0.20	EPA 8260D	10-21-19	10-21-19	



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Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>Client ID:</b>	<b>HZ-MW-26:W</b>					
<b>Laboratory ID:</b>	10-215-03					
1,1,2-Trichloroethane	ND	0.20	EPA 8260D	10-21-19	10-21-19	
Tetrachloroethene	2.8	0.20	EPA 8260D	10-21-19	10-21-19	
1,3-Dichloropropane	ND	0.20	EPA 8260D	10-21-19	10-21-19	
Dibromochloromethane	ND	0.20	EPA 8260D	10-21-19	10-21-19	
1,2-Dibromoethane	ND	0.20	EPA 8260D	10-21-19	10-21-19	
Chlorobenzene	ND	0.20	EPA 8260D	10-21-19	10-21-19	
1,1,1,2-Tetrachloroethane	ND	0.20	EPA 8260D	10-21-19	10-21-19	
Bromoform	ND	1.0	EPA 8260D	10-21-19	10-21-19	
Bromobenzene	ND	0.20	EPA 8260D	10-21-19	10-21-19	
1,1,1,2-Tetrachloroethane	ND	0.20	EPA 8260D	10-21-19	10-21-19	
1,2,3-Trichloropropane	ND	0.20	EPA 8260D	10-21-19	10-21-19	
2-Chlorotoluene	ND	0.20	EPA 8260D	10-21-19	10-21-19	
4-Chlorotoluene	ND	0.20	EPA 8260D	10-21-19	10-21-19	
1,3-Dichlorobenzene	ND	0.20	EPA 8260D	10-21-19	10-21-19	
1,4-Dichlorobenzene	ND	0.20	EPA 8260D	10-21-19	10-21-19	
1,2-Dichlorobenzene	ND	0.20	EPA 8260D	10-21-19	10-21-19	
1,2-Dibromo-3-chloropropane	ND	1.0	EPA 8260D	10-21-19	10-21-19	
1,2,4-Trichlorobenzene	ND	0.20	EPA 8260D	10-21-19	10-21-19	
Hexachlorobutadiene	ND	1.0	EPA 8260D	10-21-19	10-21-19	
1,2,3-Trichlorobenzene	ND	0.20	EPA 8260D	10-21-19	10-21-19	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Dibromofluoromethane</i>	<i>110</i>	<i>75-127</i>				
<i>Toluene-d8</i>	<i>102</i>	<i>80-127</i>				
<i>4-Bromofluorobenzene</i>	<i>100</i>	<i>78-125</i>				



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 Project: 82302-9.4

**VOLATILE ORGANICS EPA 8260D/SIM  
 QUALITY CONTROL**

Matrix: Water  
 Units: ug/L

<b>Analyte</b>	<b>Result</b>	<b>PQL</b>	<b>Method</b>	<b>Date Prepared</b>	<b>Date Analyzed</b>	<b>Flags</b>
<b>METHOD BLANK</b>						
Laboratory ID:	MB1021W1					
Vinyl Chloride	ND	0.020	EPA 8260D/SIM	10-21-19	10-21-19	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Dibromofluoromethane</i>	99	75-127				
<i>Toluene-d8</i>	98	80-127				
<i>4-Bromofluorobenzene</i>	98	78-125				



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**VOLATILE ORGANICS EPA 8260D**  
**QUALITY CONTROL**  
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Matrix: Water  
 Units: ug/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>METHOD BLANK</b>						
Laboratory ID:	MB1021W2					
Dichlorodifluoromethane	ND	0.20	EPA 8260D	10-21-19	10-21-19	
Chloromethane	ND	1.3	EPA 8260D	10-21-19	10-21-19	
Vinyl Chloride	ND	0.20	EPA 8260D	10-21-19	10-21-19	
Bromomethane	ND	0.20	EPA 8260D	10-21-19	10-21-19	
Chloroethane	ND	1.0	EPA 8260D	10-21-19	10-21-19	
Trichlorofluoromethane	ND	0.20	EPA 8260D	10-21-19	10-21-19	
1,1-Dichloroethene	ND	0.20	EPA 8260D	10-21-19	10-21-19	
Iodomethane	ND	1.4	EPA 8260D	10-21-19	10-21-19	
Methylene Chloride	ND	1.0	EPA 8260D	10-21-19	10-21-19	
(trans) 1,2-Dichloroethene	ND	0.20	EPA 8260D	10-21-19	10-21-19	
1,1-Dichloroethane	ND	0.20	EPA 8260D	10-21-19	10-21-19	
2,2-Dichloropropane	ND	0.20	EPA 8260D	10-21-19	10-21-19	
(cis) 1,2-Dichloroethene	ND	0.20	EPA 8260D	10-21-19	10-21-19	
Bromochloromethane	ND	0.20	EPA 8260D	10-21-19	10-21-19	
Chloroform	ND	0.20	EPA 8260D	10-21-19	10-21-19	
1,1,1-Trichloroethane	ND	0.20	EPA 8260D	10-21-19	10-21-19	
Carbon Tetrachloride	ND	0.20	EPA 8260D	10-21-19	10-21-19	
1,1-Dichloropropene	ND	0.20	EPA 8260D	10-21-19	10-21-19	
1,2-Dichloroethane	ND	0.20	EPA 8260D	10-21-19	10-21-19	
Trichloroethene	ND	0.20	EPA 8260D	10-21-19	10-21-19	
1,2-Dichloropropane	ND	0.20	EPA 8260D	10-21-19	10-21-19	
Dibromomethane	ND	0.20	EPA 8260D	10-21-19	10-21-19	
Bromodichloromethane	ND	0.20	EPA 8260D	10-21-19	10-21-19	
2-Chloroethyl Vinyl Ether	ND	1.0	EPA 8260D	10-21-19	10-21-19	
(cis) 1,3-Dichloropropene	ND	0.20	EPA 8260D	10-21-19	10-21-19	
(trans) 1,3-Dichloropropene	ND	0.20	EPA 8260D	10-21-19	10-21-19	



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**VOLATILE ORGANICS EPA 8260D**  
**QUALITY CONTROL**  
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Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>METHOD BLANK</b>						
Laboratory ID:	MB1021W2					
1,1,2-Trichloroethane	ND	0.20	EPA 8260D	10-21-19	10-21-19	
Tetrachloroethene	ND	0.20	EPA 8260D	10-21-19	10-21-19	
1,3-Dichloropropane	ND	0.20	EPA 8260D	10-21-19	10-21-19	
Dibromochloromethane	ND	0.20	EPA 8260D	10-21-19	10-21-19	
1,2-Dibromoethane	ND	0.20	EPA 8260D	10-21-19	10-21-19	
Chlorobenzene	ND	0.20	EPA 8260D	10-21-19	10-21-19	
1,1,1,2-Tetrachloroethane	ND	0.20	EPA 8260D	10-21-19	10-21-19	
Bromoform	ND	1.0	EPA 8260D	10-21-19	10-21-19	
Bromobenzene	ND	0.20	EPA 8260D	10-21-19	10-21-19	
1,1,2,2-Tetrachloroethane	ND	0.20	EPA 8260D	10-21-19	10-21-19	
1,2,3-Trichloropropane	ND	0.20	EPA 8260D	10-21-19	10-21-19	
2-Chlorotoluene	ND	0.20	EPA 8260D	10-21-19	10-21-19	
4-Chlorotoluene	ND	0.20	EPA 8260D	10-21-19	10-21-19	
1,3-Dichlorobenzene	ND	0.20	EPA 8260D	10-21-19	10-21-19	
1,4-Dichlorobenzene	ND	0.20	EPA 8260D	10-21-19	10-21-19	
1,2-Dichlorobenzene	ND	0.20	EPA 8260D	10-21-19	10-21-19	
1,2-Dibromo-3-chloropropane	ND	1.0	EPA 8260D	10-21-19	10-21-19	
1,2,4-Trichlorobenzene	ND	0.20	EPA 8260D	10-21-19	10-21-19	
Hexachlorobutadiene	ND	1.0	EPA 8260D	10-21-19	10-21-19	
1,2,3-Trichlorobenzene	ND	0.20	EPA 8260D	10-21-19	10-21-19	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Dibromofluoromethane</i>	<i>111</i>	<i>75-127</i>				
<i>Toluene-d8</i>	<i>103</i>	<i>80-127</i>				
<i>4-Bromofluorobenzene</i>	<i>99</i>	<i>78-125</i>				



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 Laboratory Reference: 1910-215  
 Project: 82302-9.4

**VOLATILE ORGANICS EPA 8260D/SIM  
 QUALITY CONTROL**

Matrix: Water  
 Units: ug/L

Analyte	Result		Spike Level		Percent Recovery		Recovery	RPD		Flags
					Recovery	Limits	RPD	Limit		
<b>SPIKE BLANKS</b>										
Laboratory ID:	SB1021W1									
	SB	SBD	SB	SBD	SB	SBD				
1,1-Dichloroethene	8.62	8.51	10.0	10.0	86	85	63-130	1	17	
Benzene	9.29	9.02	10.0	10.0	93	90	76-125	3	19	
Trichloroethene	9.62	9.46	10.0	10.0	96	95	76-121	2	18	
Toluene	9.56	9.41	10.0	10.0	96	94	80-124	2	18	
Chlorobenzene	10.0	9.57	10.0	10.0	100	96	75-120	4	19	
<i>Surrogate:</i>										
Dibromofluoromethane					109	109	75-127			
Toluene-d8					103	102	80-127			
4-Bromofluorobenzene					100	99	78-125			



Date of Report: October 24, 2019  
 Samples Submitted: October 16, 2019  
 Laboratory Reference: 1910-215  
 Project: 82302-9.4

**TOTAL ORGANIC CARBON  
 SM 5310B**

Matrix: Water  
 Units: mg/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>Client ID:</b>	<b>HZ-MW-14S:W</b>					
Laboratory ID:	10-215-01					
Total Organic Carbon	<b>1.9</b>	1.0	SM 5310B	10-21-19	10-21-19	

<b>Client ID:</b>	<b>HZ-MW-14D:W</b>					
Laboratory ID:	10-215-02					
Total Organic Carbon	<b>ND</b>	1.0	SM 5310B	10-21-19	10-21-19	

<b>Client ID:</b>	<b>HZ-MW-26:W</b>					
Laboratory ID:	10-215-03					
Total Organic Carbon	<b>ND</b>	1.0	SM 5310B	10-21-19	10-21-19	



Date of Report: October 24, 2019  
 Samples Submitted: October 16, 2019  
 Laboratory Reference: 1910-215  
 Project: 82302-9.4

**TOTAL ORGANIC CARBON  
 SM 5310B  
 QUALITY CONTROL**

Matrix: Water  
 Units: mg/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>METHOD BLANK</b>						
Laboratory ID:	MB1021W1					
Total Organic Carbon	<b>ND</b>	1.0	SM 5310B	10-21-19	10-21-19	

Analyte	Result	Spike Level	Source Result	Percent Recovery	Recovery Limits	RPD	RPD Limit	Flags
<b>DUPLICATE</b>								
Laboratory ID:	10-255-06							
	ORIG	DUP						
Total Organic Carbon	<b>8.71</b>	<b>8.60</b>	NA	NA	NA	1	20	

**MATRIX SPIKE**

Laboratory ID:	10-255-06							
	MS	MS		MS				
Total Organic Carbon	<b>18.5</b>	10.0	8.71	98	85-131	NA	NA	

**SPIKE BLANK**

Laboratory ID:	SB1021W1							
	SB	SB		SB				
Total Organic Carbon	<b>10.2</b>	10.0	NA	102	88-127	NA	NA	





Date of Report: October 24, 2019  
 Samples Submitted: October 16, 2019  
 Laboratory Reference: 1910-215  
 Project: 82302-9.4

**DISSOLVED IRON  
 EPA 6010D**

Matrix: Water  
 Units: ug/L (ppb)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>Client ID:</b>	<b>HZ-MW-14S:W</b>					
Laboratory ID:	10-215-01					
Iron	<b>ND</b>	56	EPA 6010D	10-16-19	10-23-19	

<b>Client ID:</b>	<b>HZ-MW-14D:W</b>					
Laboratory ID:	10-215-02					
Iron	<b>ND</b>	56	EPA 6010D	10-16-19	10-23-19	

<b>Client ID:</b>	<b>HZ-MW-26:W</b>					
Laboratory ID:	10-215-03					
Iron	<b>ND</b>	56	EPA 6010D	10-16-19	10-23-19	



Date of Report: October 24, 2019  
 Samples Submitted: October 16, 2019  
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**DISSOLVED IRON  
 EPA 6010D  
 QUALITY CONTROL**

Matrix: Water  
 Units: ug/L (ppb)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>METHOD BLANK</b>						
Laboratory ID:	MB1016F1					
Iron	<b>ND</b>	56	EPA 6010D	10-16-19	10-23-19	

Analyte	Result	Spike Level	Source Result	Percent Recovery	Recovery Limits	RPD	RPD Limit	Flags
<b>DUPLICATE</b>								
Laboratory ID:	10-255-06							
	ORIG	DUP						
Iron	<b>ND</b>	<b>ND</b>	NA	NA	NA	NA	20	

**MATRIX SPIKES**

Laboratory ID:	10-255-06									
	MS	MSD	MS	MSD		MS	MSD			
Iron	<b>22700</b>	<b>22700</b>	22200	22200	ND	<b>102</b>	<b>102</b>	75-125	0	20



Date of Report: October 24, 2019  
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 Laboratory Reference: 1910-215  
 Project: 82302-9.4

**CHLORIDE**  
**SM 4500-Cl E**

Matrix: Water  
 Units: mg/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>Client ID:</b>	<b>HZ-MW-14S:W</b>					
Laboratory ID:	10-215-01					
Chloride	<b>8.0</b>	2.0	SM 4500-Cl E	10-18-19	10-18-19	

<b>Client ID:</b>	<b>HZ-MW-14D:W</b>					
Laboratory ID:	10-215-02					
Chloride	<b>75</b>	2.0	SM 4500-Cl E	10-18-19	10-18-19	

<b>Client ID:</b>	<b>HZ-MW-26:W</b>					
Laboratory ID:	10-215-03					
Chloride	<b>11</b>	2.0	SM 4500-Cl E	10-18-19	10-18-19	



Date of Report: October 24, 2019  
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**CHLORIDE  
 SM 4500-CI E  
 QUALITY CONTROL**

Matrix: Water  
 Units: mg/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>METHOD BLANK</b>						
Laboratory ID:	MB1018W1					
Chloride	<b>ND</b>	2.0	SM 4500-CI E	10-18-19	10-18-19	

Analyte	Result	Spike Level	Source Result	Percent Recovery	Recovery Limits	RPD	RPD Limit	Flags
<b>DUPLICATE</b>								
Laboratory ID:	10-238-02							
	ORIG	DUP						
Chloride	<b>3.13</b>	<b>3.57</b>	NA	NA	NA	13	17	

<b>MATRIX SPIKE</b>								
Laboratory ID:	10-238-02							
	MS	MS		MS				
Chloride	<b>52.8</b>	50.0	3.13	99	80-116	NA	NA	

<b>SPIKE BLANK</b>								
Laboratory ID:	SB1018W1							
	SB	SB		SB				
Chloride	<b>46.7</b>	50.0	NA	93	90-110	NA	NA	



Date of Report: October 24, 2019  
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**SULFATE**  
**ASTM D516-11**

Matrix: Water  
 Units: mg/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>Client ID:</b>	<b>HZ-MW-14S:W</b>					
Laboratory ID:	10-215-01					
Sulfate	<b>17</b>	5.0	ASTM D516-11	10-18-19	10-18-19	

<b>Client ID:</b>	<b>HZ-MW-14D:W</b>					
Laboratory ID:	10-215-02					
Sulfate	<b>9.3</b>	5.0	ASTM D516-11	10-18-19	10-18-19	

<b>Client ID:</b>	<b>HZ-MW-26:W</b>					
Laboratory ID:	10-215-03					
Sulfate	<b>24</b>	5.0	ASTM D516-11	10-18-19	10-18-19	



Date of Report: October 24, 2019  
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**SULFATE  
 ASTM D516-11  
 QUALITY CONTROL**

Matrix: Water  
 Units: mg/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>METHOD BLANK</b>						
Laboratory ID:	MB1018W1					
Sulfate	<b>ND</b>	5.0	ASTM D516-11	10-18-19	10-18-19	

Analyte	Result	Spike Level	Source Result	Percent Recovery	Recovery Limits	RPD	RPD Limit	Flags
<b>DUPLICATE</b>								
Laboratory ID:	10-216-02							
	ORIG	DUP						
Sulfate	<b>48.3</b>	<b>45.8</b>	NA	NA	NA	5	10	

<b>MATRIX SPIKE</b>								
Laboratory ID:	10-216-02							
	MS	MS		MS				
Sulfate	<b>96.8</b>	50.0	48.3	97	73-134	NA	NA	

<b>SPIKE BLANK</b>								
Laboratory ID:	SB1018W1							
	SB	SB		SB				
Sulfate	<b>10.8</b>	10.0	NA	108	89-113	NA	NA	



Date of Report: October 24, 2019  
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**AMMONIA (as Nitrogen)**  
**SM 4500-NH<sub>3</sub> D**

Matrix: Water  
 Units: mg NH<sub>3</sub>-N/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>Client ID:</b>	<b>HZ-MW-14S:W</b>					
Laboratory ID:	10-215-01					
Ammonia	<b>ND</b>	0.050	SM 4500-NH <sub>3</sub> D	10-17-19	10-17-19	

<b>Client ID:</b>	<b>HZ-MW-14D:W</b>					
Laboratory ID:	10-215-02					
Ammonia	<b>ND</b>	0.050	SM 4500-NH <sub>3</sub> D	10-17-19	10-17-19	

<b>Client ID:</b>	<b>HZ-MW-26:W</b>					
Laboratory ID:	10-215-03					
Ammonia	<b>ND</b>	0.050	SM 4500-NH <sub>3</sub> D	10-17-19	10-17-19	



Date of Report: October 24, 2019  
 Samples Submitted: October 16, 2019  
 Laboratory Reference: 1910-215  
 Project: 82302-9.4

**AMMONIA (as Nitrogen)**  
**SM 4500-NH<sub>3</sub> D**  
**QUALITY CONTROL**

Matrix: Water  
 Units: mg NH<sub>3</sub>-N/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>METHOD BLANK</b>						
Laboratory ID:	MB1017W1					
Ammonia	<b>ND</b>	0.050	SM 4500-NH <sub>3</sub> D	10-17-19	10-17-19	

Analyte	Result	Spike Level	Source Result	Percent Recovery	Recovery Limits	RPD	RPD Limit	Flags
<b>DUPLICATE</b>								
Laboratory ID:	10-156-06							
	ORIG	DUP						
Ammonia	<b>0.0592</b>	<b>0.0592</b>	NA	NA	NA	0	12	

<b>MATRIX SPIKE</b>								
Laboratory ID:	10-156-06							
	MS	MS		MS				
Ammonia	<b>4.99</b>	5.00	0.0592	99	75-121	NA	NA	

<b>SPIKE BLANK</b>								
Laboratory ID:	SB1017W1							
	SB	SB		SB				
Ammonia	<b>4.89</b>	5.00	NA	98	85-110	NA	NA	





Date of Report: October 24, 2019  
 Samples Submitted: October 16, 2019  
 Laboratory Reference: 1910-215  
 Project: 82302-9.4

**DISSOLVED GASES  
 RSK 175**

Matrix: Water  
 Units: ug/L (ppb)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>Client ID:</b>	<b>HZ-MW-14S:W</b>					
Laboratory ID:	10-215-01					
Methane	<b>290</b>	4.0	RSK 175	10-22-19	10-22-19	
Ethane	<b>ND</b>	0.50	RSK 175	10-22-19	10-22-19	
Ethene	<b>ND</b>	0.50	RSK 175	10-22-19	10-22-19	

<b>Client ID:</b>	<b>HZ-MW-14D:W</b>					
Laboratory ID:	10-215-02					
Methane	<b>1500</b>	15	RSK 175	10-22-19	10-22-19	
Ethane	<b>ND</b>	0.50	RSK 175	10-22-19	10-22-19	
Ethene	<b>ND</b>	0.50	RSK 175	10-22-19	10-22-19	

<b>Client ID:</b>	<b>HZ-MW-26:W</b>					
Laboratory ID:	10-215-03					
Methane	<b>22</b>	1.0	RSK 175	10-22-19	10-22-19	
Ethane	<b>ND</b>	0.50	RSK 175	10-22-19	10-22-19	
Ethene	<b>ND</b>	0.50	RSK 175	10-22-19	10-22-19	



Date of Report: October 24, 2019  
 Samples Submitted: October 16, 2019  
 Laboratory Reference: 1910-215  
 Project: 82302-9.4

**DISSOLVED GASES  
 RSK 175  
 QUALITY CONTROL**

Matrix: Water  
 Units: ug/L (ppb)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>METHOD BLANK</b>						
Laboratory ID:	MB1022W1					
Methane	ND	1.0	RSK 175	10-22-19	10-22-19	
Ethane	ND	0.50	RSK 175	10-22-19	10-22-19	
Ethene	ND	0.50	RSK 175	10-22-19	10-22-19	

Analyte	Result		Spike Level		Source Result	Percent Recovery	Recovery Limits	RPD	RPD Limit	Flags	
<b>MATRIX SPIKES</b>											
Laboratory ID:	10-216-02										
	MS	MSD	MS	MSD		MS	MSD				
Methane	32.1	32.3	22.1	22.1	18.3	62	63	75-125	1	25	A
Ethane	33.3	34.5	41.6	41.6	ND	80	83	75-125	4	25	
Ethene	32.7	37.1	38.8	38.8	ND	84	95	75-125	13	25	





### Data Qualifiers and Abbreviations

- A - Due to a high sample concentration, the amount spiked is insufficient for meaningful MS/MSD recovery data.
  - B - The analyte indicated was also found in the blank sample.
  - C - The duplicate RPD is outside control limits due to high result variability when analyte concentrations are within five times the quantitation limit.
  - E - The value reported exceeds the quantitation range and is an estimate.
  - F - Surrogate recovery data is not available due to the high concentration of coeluting target compounds.
  - H - The analyte indicated is a common laboratory solvent and may have been introduced during sample preparation, and be impacting the sample result.
  - I - Compound recovery is outside of the control limits.
  - J - The value reported was below the practical quantitation limit. The value is an estimate.
  - K - Sample duplicate RPD is outside control limits due to sample inhomogeneity. The sample was re-extracted and re-analyzed with similar results.
  - L - The RPD is outside of the control limits.
  - M - Hydrocarbons in the gasoline range are impacting the diesel range result.
  - M1 - Hydrocarbons in the gasoline range (toluene-naphthalene) are present in the sample.
  - N - Hydrocarbons in the lube oil range are impacting the diesel range result.
  - N1 - Hydrocarbons in diesel range are impacting lube oil range results.
  - O - Hydrocarbons indicative of heavier fuels are present in the sample and are impacting the gasoline result.
  - P - The RPD of the detected concentrations between the two columns is greater than 40.
  - Q - Surrogate recovery is outside of the control limits.
  - S - Surrogate recovery data is not available due to the necessary dilution of the sample.
  - T - The sample chromatogram is not similar to a typical \_\_\_\_\_.
  - U - The analyte was analyzed for, but was not detected above the reported sample quantitation limit.
  - U1 - The practical quantitation limit is elevated due to interferences present in the sample.
  - V - Matrix Spike/Matrix Spike Duplicate recoveries are outside control limits due to matrix effects.
  - W - Matrix Spike/Matrix Spike Duplicate RPD are outside control limits due to matrix effects.
  - X - Sample extract treated with a mercury cleanup procedure.
  - X1 - Sample extract treated with a sulfuric acid/silica gel cleanup procedure.
  - Y - The calibration verification for this analyte exceeded the 20% drift specified in methods 8260 & 8270, and therefore the reported result should be considered an estimate. The overall performance of the calibration verification standard met the acceptance criteria of the method.
  - Z -
- ND - Not Detected at PQL  
 PQL - Practical Quantitation Limit  
 RPD - Relative Percent Difference





**OnSite Environmental Inc.**  
Analytical Laboratory Testing Services  
14648 NE 95th Street • Redmond, WA 98052  
Phone: (425) 883-3881 • www.onsite-env.com

# Chain of Custody

Turnaround Request  
(in working days)  
(Check One)

- Same Day
- 1 Day
- 2 Days
- 3 Days
- Standard (7 Days)

Date Sampled: \_\_\_\_\_ (other)

Laboratory Number: **10-215**

Page 1 of 1

Company: **Kane Environmental**

Project Number: **62302-9.4**

Project Name: **BSCSS**

Project Manager: **Jeff Jensen**

Sampled by: **Bella Graves**

Lab ID: **Sample Identification**

1 #2-MW-14S:W  
2 #2-MW-14D:W  
3 #2-MW-20:W

Date Sampled: 10/10/19  
Time Sampled: 1225  
Matrix: GW  
Number of Containers: 10

Lab ID	Date Sampled	Time Sampled	Matrix	Number of Containers	NWTPH-HCID	NWTPH-Gx/BTEX	NWTPH-Gx	NWTPH-Dx ( <input type="checkbox"/> Acid / SG Clean-up)	Volatiles 8260C	Halogenated Volatiles 8260C	EDB EPA 8011 (Waters Only)	Semivolatiles 8270D/SIM (with low-level PAHs)	PAHs 8270D/SIM (low-level)	PCBs 8082A	Organochlorine Pesticides 8081B	Organophosphorus Pesticides 8270D/SIM	Chlorinated Acid Herbicides 8151A	Total RCRA Metals	Total MTCA Metals	TCLP Metals	HEM (oil and grease) 1661A	TDC	dissolved Fe	chloride	sulfate	ammonia-N	% Moisture RSK
1	10/10/19	1225	GW	10						X											X		X	X	X	X	X
2	10/10/19	1315	GW	10						X											X		X	X	X	X	X
3	10/10/19	1420	GW	10						X											X		X	X	X	X	X

Signature

*[Handwritten Signature]*

Company

Kane Environmental

Date

10/10/19

Time

1510

Comments/Special Instructions

LAB F111V  
RSP = water, ethanol, ethene  
↳ low detection limit (3-4 µg/L)  
vinyl chloride: low detection limit

Received

*[Signature]*

Company

Kane Environmental

Date

10/10/19

Time

1510

Comments/Special Instructions

LAB F111V  
RSP = water, ethanol, ethene  
↳ low detection limit (3-4 µg/L)  
vinyl chloride: low detection limit

Reviewed/Date

Reviewed/Date

Data Package: Standard  Level III  Level IV   
Chromatograms with final report  Electronic Data Deliverables (EDDs)



14648 NE 95<sup>th</sup> Street, Redmond, WA 98052 • (425) 883-3881

October 29, 2019

Jeff Jensen  
Kane Environmental, Inc.  
4015 13th Avenue West  
Seattle, WA 98119

Re: Analytical Data for Project 82302-9.4  
Laboratory Reference No. 1910-255

Dear Jeff:

Enclosed are the analytical results and associated quality control data for samples submitted on October 18, 2019.

The standard policy of OnSite Environmental, Inc. is to store your samples for 30 days from the date of receipt. If you require longer storage, please contact the laboratory.

We appreciate the opportunity to be of service to you on this project. If you have any questions concerning the data, or need additional information, please feel free to call me.

Sincerely,

A handwritten signature in black ink, appearing to read "DB", with a long horizontal flourish extending to the right.

David Baumeister  
Project Manager

Enclosures



---

OnSite Environmental, Inc. 14648 NE 95<sup>th</sup> Street, Redmond, WA 98052 (425) 883-3881

This report pertains to the samples analyzed in accordance with the chain of custody, and is intended only for the use of the individual or company to whom it is addressed.

Date of Report: October 29, 2019  
Samples Submitted: October 18, 2019  
Laboratory Reference: 1910-255  
Project: 82302-9.4

### Case Narrative

Samples were collected on October 17 and 18, 2019 and received by the laboratory on October 18, 2019. They were maintained at the laboratory at a temperature of 2°C to 6°C.

Please note that any and all soil sample results are reported on a dry-weight basis, unless otherwise noted below.

General QA/QC issues associated with the analytical data enclosed in this laboratory report will be indicated with a reference to a comment or explanation on the Data Qualifier page. More complex and involved QA/QC issues will be discussed in detail below.



Date of Report: October 29, 2019  
 Samples Submitted: October 18, 2019  
 Laboratory Reference: 1910-255  
 Project: 82302-9.4

**VOLATILE ORGANICS EPA 8260D**  
 page 1 of 2

Matrix: Water  
 Units: ug/L

<b>Analyte</b>	<b>Result</b>	<b>PQL</b>	<b>Method</b>	<b>Date Prepared</b>	<b>Date Analyzed</b>	<b>Flags</b>
<b>Client ID:</b>	<b>HZ-MW-15S:W</b>					
<b>Laboratory ID:</b>	10-255-01					
Dichlorodifluoromethane	ND	0.20	EPA 8260D	10-24-19	10-24-19	
Chloromethane	ND	1.0	EPA 8260D	10-24-19	10-24-19	
Vinyl Chloride	ND	0.020	EPA 8260D/SIM	10-24-19	10-24-19	
Bromomethane	ND	0.20	EPA 8260D	10-24-19	10-24-19	
Chloroethane	ND	1.0	EPA 8260D	10-24-19	10-24-19	
Trichlorofluoromethane	ND	0.20	EPA 8260D	10-24-19	10-24-19	
1,1-Dichloroethene	ND	0.20	EPA 8260D	10-24-19	10-24-19	
Iodomethane	ND	1.0	EPA 8260D	10-24-19	10-24-19	
Methylene Chloride	ND	1.0	EPA 8260D	10-24-19	10-24-19	
(trans) 1,2-Dichloroethene	ND	0.20	EPA 8260D	10-24-19	10-24-19	
1,1-Dichloroethane	ND	0.20	EPA 8260D	10-24-19	10-24-19	
2,2-Dichloropropane	ND	0.20	EPA 8260D	10-24-19	10-24-19	
(cis) 1,2-Dichloroethene	ND	0.20	EPA 8260D	10-24-19	10-24-19	
Bromochloromethane	ND	0.20	EPA 8260D	10-24-19	10-24-19	
Chloroform	ND	0.20	EPA 8260D	10-24-19	10-24-19	
1,1,1-Trichloroethane	ND	0.20	EPA 8260D	10-24-19	10-24-19	
Carbon Tetrachloride	ND	0.20	EPA 8260D	10-24-19	10-24-19	
1,1-Dichloropropene	ND	0.20	EPA 8260D	10-24-19	10-24-19	
1,2-Dichloroethane	ND	0.20	EPA 8260D	10-24-19	10-24-19	
Trichloroethene	0.39	0.20	EPA 8260D	10-24-19	10-24-19	
1,2-Dichloropropane	ND	0.20	EPA 8260D	10-24-19	10-24-19	
Dibromomethane	ND	0.20	EPA 8260D	10-24-19	10-24-19	
Bromodichloromethane	ND	0.20	EPA 8260D	10-24-19	10-24-19	
2-Chloroethyl Vinyl Ether	ND	1.0	EPA 8260D	10-24-19	10-24-19	
(cis) 1,3-Dichloropropene	ND	0.20	EPA 8260D	10-24-19	10-24-19	
(trans) 1,3-Dichloropropene	ND	0.20	EPA 8260D	10-24-19	10-24-19	



Date of Report: October 29, 2019  
 Samples Submitted: October 18, 2019  
 Laboratory Reference: 1910-255  
 Project: 82302-9.4

**VOLATILE ORGANICS EPA 8260D**  
 page 2 of 2

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>Client ID:</b>	<b>HZ-MW-15S:W</b>					
Laboratory ID:	10-255-01					
1,1,2-Trichloroethane	ND	0.20	EPA 8260D	10-24-19	10-24-19	
Tetrachloroethene	9.8	0.20	EPA 8260D	10-24-19	10-24-19	
1,3-Dichloropropane	ND	0.20	EPA 8260D	10-24-19	10-24-19	
Dibromochloromethane	ND	0.20	EPA 8260D	10-24-19	10-24-19	
1,2-Dibromoethane	ND	0.20	EPA 8260D	10-24-19	10-24-19	
Chlorobenzene	ND	0.20	EPA 8260D	10-24-19	10-24-19	
1,1,1,2-Tetrachloroethane	ND	0.20	EPA 8260D	10-24-19	10-24-19	
Bromoform	ND	1.0	EPA 8260D	10-24-19	10-24-19	
Bromobenzene	ND	0.20	EPA 8260D	10-24-19	10-24-19	
1,1,2,2-Tetrachloroethane	ND	0.20	EPA 8260D	10-24-19	10-24-19	
1,2,3-Trichloropropane	ND	0.20	EPA 8260D	10-24-19	10-24-19	
2-Chlorotoluene	ND	0.20	EPA 8260D	10-24-19	10-24-19	
4-Chlorotoluene	ND	0.20	EPA 8260D	10-24-19	10-24-19	
1,3-Dichlorobenzene	ND	0.20	EPA 8260D	10-24-19	10-24-19	
1,4-Dichlorobenzene	ND	0.20	EPA 8260D	10-24-19	10-24-19	
1,2-Dichlorobenzene	ND	0.20	EPA 8260D	10-24-19	10-24-19	
1,2-Dibromo-3-chloropropane	ND	1.0	EPA 8260D	10-24-19	10-24-19	
1,2,4-Trichlorobenzene	ND	0.20	EPA 8260D	10-24-19	10-24-19	
Hexachlorobutadiene	ND	1.0	EPA 8260D	10-24-19	10-24-19	
1,2,3-Trichlorobenzene	ND	0.20	EPA 8260D	10-24-19	10-24-19	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Dibromofluoromethane</i>	96	75-127				
<i>Toluene-d8</i>	96	80-127				
<i>4-Bromofluorobenzene</i>	91	78-125				





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Matrix: Water  
 Units: ug/L

<b>Analyte</b>	<b>Result</b>	<b>PQL</b>	<b>Method</b>	<b>Date Prepared</b>	<b>Date Analyzed</b>	<b>Flags</b>
<b>Client ID:</b>	<b>HZ-MW-15D:W</b>					
<b>Laboratory ID:</b>	10-255-02					
Dichlorodifluoromethane	ND	50	EPA 8260D	10-24-19	10-24-19	
Chloromethane	ND	250	EPA 8260D	10-24-19	10-24-19	
Vinyl Chloride	ND	5.0	EPA 8260D/SIM	10-24-19	10-24-19	
Bromomethane	ND	50	EPA 8260D	10-24-19	10-24-19	
Chloroethane	ND	250	EPA 8260D	10-24-19	10-24-19	
Trichlorofluoromethane	ND	50	EPA 8260D	10-24-19	10-24-19	
1,1-Dichloroethene	ND	50	EPA 8260D	10-24-19	10-24-19	
Iodomethane	ND	250	EPA 8260D	10-24-19	10-24-19	
Methylene Chloride	ND	250	EPA 8260D	10-24-19	10-24-19	
(trans) 1,2-Dichloroethene	ND	50	EPA 8260D	10-24-19	10-24-19	
1,1-Dichloroethane	ND	50	EPA 8260D	10-24-19	10-24-19	
2,2-Dichloropropane	ND	50	EPA 8260D	10-24-19	10-24-19	
(cis) 1,2-Dichloroethene	360	50	EPA 8260D	10-24-19	10-24-19	
Bromochloromethane	ND	50	EPA 8260D	10-24-19	10-24-19	
Chloroform	ND	50	EPA 8260D	10-24-19	10-24-19	
1,1,1-Trichloroethane	ND	50	EPA 8260D	10-24-19	10-24-19	
Carbon Tetrachloride	ND	50	EPA 8260D	10-24-19	10-24-19	
1,1-Dichloropropene	ND	50	EPA 8260D	10-24-19	10-24-19	
1,2-Dichloroethane	ND	50	EPA 8260D	10-24-19	10-24-19	
Trichloroethene	410	50	EPA 8260D	10-24-19	10-24-19	
1,2-Dichloropropane	ND	50	EPA 8260D	10-24-19	10-24-19	
Dibromomethane	ND	50	EPA 8260D	10-24-19	10-24-19	
Bromodichloromethane	ND	50	EPA 8260D	10-24-19	10-24-19	
2-Chloroethyl Vinyl Ether	ND	250	EPA 8260D	10-24-19	10-24-19	
(cis) 1,3-Dichloropropene	ND	50	EPA 8260D	10-24-19	10-24-19	
(trans) 1,3-Dichloropropene	ND	50	EPA 8260D	10-24-19	10-24-19	



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Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>Client ID:</b>	<b>HZ-MW-15D:W</b>					
Laboratory ID:	10-255-02					
1,1,2-Trichloroethane	ND	50	EPA 8260D	10-24-19	10-24-19	
Tetrachloroethene	7700	50	EPA 8260D	10-24-19	10-24-19	
1,3-Dichloropropane	ND	50	EPA 8260D	10-24-19	10-24-19	
Dibromochloromethane	ND	50	EPA 8260D	10-24-19	10-24-19	
1,2-Dibromoethane	ND	50	EPA 8260D	10-24-19	10-24-19	
Chlorobenzene	ND	50	EPA 8260D	10-24-19	10-24-19	
1,1,1,2-Tetrachloroethane	ND	50	EPA 8260D	10-24-19	10-24-19	
Bromoform	ND	250	EPA 8260D	10-24-19	10-24-19	
Bromobenzene	ND	50	EPA 8260D	10-24-19	10-24-19	
1,1,2,2-Tetrachloroethane	ND	50	EPA 8260D	10-24-19	10-24-19	
1,2,3-Trichloropropane	ND	50	EPA 8260D	10-24-19	10-24-19	
2-Chlorotoluene	ND	50	EPA 8260D	10-24-19	10-24-19	
4-Chlorotoluene	ND	50	EPA 8260D	10-24-19	10-24-19	
1,3-Dichlorobenzene	ND	50	EPA 8260D	10-24-19	10-24-19	
1,4-Dichlorobenzene	ND	50	EPA 8260D	10-24-19	10-24-19	
1,2-Dichlorobenzene	ND	50	EPA 8260D	10-24-19	10-24-19	
1,2-Dibromo-3-chloropropane	ND	250	EPA 8260D	10-24-19	10-24-19	
1,2,4-Trichlorobenzene	ND	50	EPA 8260D	10-24-19	10-24-19	
Hexachlorobutadiene	ND	250	EPA 8260D	10-24-19	10-24-19	
1,2,3-Trichlorobenzene	ND	50	EPA 8260D	10-24-19	10-24-19	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Dibromofluoromethane</i>	<i>95</i>	<i>75-127</i>				
<i>Toluene-d8</i>	<i>97</i>	<i>80-127</i>				
<i>4-Bromofluorobenzene</i>	<i>100</i>	<i>78-125</i>				



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Matrix: Water  
 Units: ug/L

<b>Analyte</b>	<b>Result</b>	<b>PQL</b>	<b>Method</b>	<b>Date Prepared</b>	<b>Date Analyzed</b>	<b>Flags</b>
<b>Client ID:</b>	<b>S-MW-5:W</b>					
Laboratory ID:	10-255-03					
Dichlorodifluoromethane	ND	4.0	EPA 8260D	10-24-19	10-24-19	
Chloromethane	ND	20	EPA 8260D	10-24-19	10-24-19	
Vinyl Chloride	ND	0.40	EPA 8260D/SIM	10-24-19	10-24-19	
Bromomethane	ND	4.0	EPA 8260D	10-24-19	10-24-19	
Chloroethane	ND	20	EPA 8260D	10-24-19	10-24-19	
Trichlorofluoromethane	ND	4.0	EPA 8260D	10-24-19	10-24-19	
1,1-Dichloroethene	ND	4.0	EPA 8260D	10-24-19	10-24-19	
Iodomethane	ND	20	EPA 8260D	10-24-19	10-24-19	
Methylene Chloride	ND	20	EPA 8260D	10-24-19	10-24-19	
(trans) 1,2-Dichloroethene	ND	4.0	EPA 8260D	10-24-19	10-24-19	
1,1-Dichloroethane	ND	4.0	EPA 8260D	10-24-19	10-24-19	
2,2-Dichloropropane	ND	4.0	EPA 8260D	10-24-19	10-24-19	
(cis) 1,2-Dichloroethene	ND	4.0	EPA 8260D	10-24-19	10-24-19	
Bromochloromethane	ND	4.0	EPA 8260D	10-24-19	10-24-19	
Chloroform	ND	4.0	EPA 8260D	10-24-19	10-24-19	
1,1,1-Trichloroethane	ND	4.0	EPA 8260D	10-24-19	10-24-19	
Carbon Tetrachloride	ND	4.0	EPA 8260D	10-24-19	10-24-19	
1,1-Dichloropropene	ND	4.0	EPA 8260D	10-24-19	10-24-19	
1,2-Dichloroethane	ND	4.0	EPA 8260D	10-24-19	10-24-19	
Trichloroethene	ND	4.0	EPA 8260D	10-24-19	10-24-19	
1,2-Dichloropropane	ND	4.0	EPA 8260D	10-24-19	10-24-19	
Dibromomethane	ND	4.0	EPA 8260D	10-24-19	10-24-19	
Bromodichloromethane	ND	4.0	EPA 8260D	10-24-19	10-24-19	
2-Chloroethyl Vinyl Ether	ND	20	EPA 8260D	10-24-19	10-24-19	
(cis) 1,3-Dichloropropene	ND	4.0	EPA 8260D	10-24-19	10-24-19	
(trans) 1,3-Dichloropropene	ND	4.0	EPA 8260D	10-24-19	10-24-19	



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Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>Client ID:</b>	<b>S-MW-5:W</b>					
Laboratory ID:	10-255-03					
1,1,2-Trichloroethane	ND	4.0	EPA 8260D	10-24-19	10-24-19	
Tetrachloroethene	820	4.0	EPA 8260D	10-24-19	10-24-19	
1,3-Dichloropropane	ND	4.0	EPA 8260D	10-24-19	10-24-19	
Dibromochloromethane	ND	4.0	EPA 8260D	10-24-19	10-24-19	
1,2-Dibromoethane	ND	4.0	EPA 8260D	10-24-19	10-24-19	
Chlorobenzene	ND	4.0	EPA 8260D	10-24-19	10-24-19	
1,1,1,2-Tetrachloroethane	ND	4.0	EPA 8260D	10-24-19	10-24-19	
Bromoform	ND	20	EPA 8260D	10-24-19	10-24-19	
Bromobenzene	ND	4.0	EPA 8260D	10-24-19	10-24-19	
1,1,2,2-Tetrachloroethane	ND	4.0	EPA 8260D	10-24-19	10-24-19	
1,2,3-Trichloropropane	ND	4.0	EPA 8260D	10-24-19	10-24-19	
2-Chlorotoluene	ND	4.0	EPA 8260D	10-24-19	10-24-19	
4-Chlorotoluene	ND	4.0	EPA 8260D	10-24-19	10-24-19	
1,3-Dichlorobenzene	ND	4.0	EPA 8260D	10-24-19	10-24-19	
1,4-Dichlorobenzene	ND	4.0	EPA 8260D	10-24-19	10-24-19	
1,2-Dichlorobenzene	ND	4.0	EPA 8260D	10-24-19	10-24-19	
1,2-Dibromo-3-chloropropane	ND	20	EPA 8260D	10-24-19	10-24-19	
1,2,4-Trichlorobenzene	ND	4.0	EPA 8260D	10-24-19	10-24-19	
Hexachlorobutadiene	ND	20	EPA 8260D	10-24-19	10-24-19	
1,2,3-Trichlorobenzene	ND	4.0	EPA 8260D	10-24-19	10-24-19	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Dibromofluoromethane</i>	98	75-127				
<i>Toluene-d8</i>	98	80-127				
<i>4-Bromofluorobenzene</i>	98	78-125				



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Matrix: Water  
 Units: ug/L

<b>Analyte</b>	<b>Result</b>	<b>PQL</b>	<b>Method</b>	<b>Date Prepared</b>	<b>Date Analyzed</b>	<b>Flags</b>
<b>Client ID:</b>	<b>S-MW-2:W</b>					
Laboratory ID:	10-255-04					
Dichlorodifluoromethane	ND	0.20	EPA 8260D	10-24-19	10-24-19	
Chloromethane	ND	1.0	EPA 8260D	10-24-19	10-24-19	
Vinyl Chloride	0.11	0.020	EPA 8260D/SIM	10-24-19	10-24-19	
Bromomethane	ND	0.20	EPA 8260D	10-24-19	10-24-19	
Chloroethane	ND	1.0	EPA 8260D	10-24-19	10-24-19	
Trichlorofluoromethane	ND	0.20	EPA 8260D	10-24-19	10-24-19	
1,1-Dichloroethene	ND	0.20	EPA 8260D	10-24-19	10-24-19	
Iodomethane	ND	1.0	EPA 8260D	10-24-19	10-24-19	
Methylene Chloride	ND	1.0	EPA 8260D	10-24-19	10-24-19	
(trans) 1,2-Dichloroethene	ND	0.20	EPA 8260D	10-24-19	10-24-19	
1,1-Dichloroethane	ND	0.20	EPA 8260D	10-24-19	10-24-19	
2,2-Dichloropropane	ND	0.20	EPA 8260D	10-24-19	10-24-19	
(cis) 1,2-Dichloroethene	4.2	0.20	EPA 8260D	10-24-19	10-24-19	
Bromochloromethane	ND	0.20	EPA 8260D	10-24-19	10-24-19	
Chloroform	ND	0.20	EPA 8260D	10-24-19	10-24-19	
1,1,1-Trichloroethane	ND	0.20	EPA 8260D	10-24-19	10-24-19	
Carbon Tetrachloride	ND	0.20	EPA 8260D	10-24-19	10-24-19	
1,1-Dichloropropene	ND	0.20	EPA 8260D	10-24-19	10-24-19	
1,2-Dichloroethane	ND	0.20	EPA 8260D	10-24-19	10-24-19	
Trichloroethene	3.7	0.20	EPA 8260D	10-24-19	10-24-19	
1,2-Dichloropropane	ND	0.20	EPA 8260D	10-24-19	10-24-19	
Dibromomethane	ND	0.20	EPA 8260D	10-24-19	10-24-19	
Bromodichloromethane	ND	0.20	EPA 8260D	10-24-19	10-24-19	
2-Chloroethyl Vinyl Ether	ND	1.0	EPA 8260D	10-24-19	10-24-19	
(cis) 1,3-Dichloropropene	ND	0.20	EPA 8260D	10-24-19	10-24-19	
(trans) 1,3-Dichloropropene	ND	0.20	EPA 8260D	10-24-19	10-24-19	



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Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>Client ID:</b>	<b>S-MW-2:W</b>					
Laboratory ID:	10-255-04					
1,1,2-Trichloroethane	ND	0.20	EPA 8260D	10-24-19	10-24-19	
Tetrachloroethene	5.8	0.20	EPA 8260D	10-24-19	10-24-19	
1,3-Dichloropropane	ND	0.20	EPA 8260D	10-24-19	10-24-19	
Dibromochloromethane	ND	0.20	EPA 8260D	10-24-19	10-24-19	
1,2-Dibromoethane	ND	0.20	EPA 8260D	10-24-19	10-24-19	
Chlorobenzene	ND	0.20	EPA 8260D	10-24-19	10-24-19	
1,1,1,2-Tetrachloroethane	ND	0.20	EPA 8260D	10-24-19	10-24-19	
Bromoform	ND	1.0	EPA 8260D	10-24-19	10-24-19	
Bromobenzene	ND	0.20	EPA 8260D	10-24-19	10-24-19	
1,1,2,2-Tetrachloroethane	ND	0.20	EPA 8260D	10-24-19	10-24-19	
1,2,3-Trichloropropane	ND	0.20	EPA 8260D	10-24-19	10-24-19	
2-Chlorotoluene	ND	0.20	EPA 8260D	10-24-19	10-24-19	
4-Chlorotoluene	ND	0.20	EPA 8260D	10-24-19	10-24-19	
1,3-Dichlorobenzene	ND	0.20	EPA 8260D	10-24-19	10-24-19	
1,4-Dichlorobenzene	ND	0.20	EPA 8260D	10-24-19	10-24-19	
1,2-Dichlorobenzene	ND	0.20	EPA 8260D	10-24-19	10-24-19	
1,2-Dibromo-3-chloropropane	ND	1.0	EPA 8260D	10-24-19	10-24-19	
1,2,4-Trichlorobenzene	ND	0.20	EPA 8260D	10-24-19	10-24-19	
Hexachlorobutadiene	ND	1.0	EPA 8260D	10-24-19	10-24-19	
1,2,3-Trichlorobenzene	ND	0.20	EPA 8260D	10-24-19	10-24-19	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Dibromofluoromethane</i>	<i>98</i>	<i>75-127</i>				
<i>Toluene-d8</i>	<i>97</i>	<i>80-127</i>				
<i>4-Bromofluorobenzene</i>	<i>95</i>	<i>78-125</i>				



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Matrix: Water  
 Units: ug/L

<b>Analyte</b>	<b>Result</b>	<b>PQL</b>	<b>Method</b>	<b>Date Prepared</b>	<b>Date Analyzed</b>	<b>Flags</b>
<b>Client ID:</b>	<b>S-MW-3:W</b>					
Laboratory ID:	10-255-05					
Dichlorodifluoromethane	ND	0.20	EPA 8260D	10-24-19	10-24-19	
Chloromethane	ND	1.0	EPA 8260D	10-24-19	10-24-19	
Vinyl Chloride	ND	0.020	EPA 8260D/SIM	10-24-19	10-24-19	
Bromomethane	ND	0.20	EPA 8260D	10-24-19	10-24-19	
Chloroethane	ND	1.0	EPA 8260D	10-24-19	10-24-19	
Trichlorofluoromethane	ND	0.20	EPA 8260D	10-24-19	10-24-19	
1,1-Dichloroethene	ND	0.20	EPA 8260D	10-24-19	10-24-19	
Iodomethane	ND	1.0	EPA 8260D	10-24-19	10-24-19	
Methylene Chloride	ND	1.0	EPA 8260D	10-24-19	10-24-19	
(trans) 1,2-Dichloroethene	ND	0.20	EPA 8260D	10-24-19	10-24-19	
1,1-Dichloroethane	ND	0.20	EPA 8260D	10-24-19	10-24-19	
2,2-Dichloropropane	ND	0.20	EPA 8260D	10-24-19	10-24-19	
(cis) 1,2-Dichloroethene	ND	0.20	EPA 8260D	10-24-19	10-24-19	
Bromochloromethane	ND	0.20	EPA 8260D	10-24-19	10-24-19	
Chloroform	ND	0.20	EPA 8260D	10-24-19	10-24-19	
1,1,1-Trichloroethane	ND	0.20	EPA 8260D	10-24-19	10-24-19	
Carbon Tetrachloride	ND	0.20	EPA 8260D	10-24-19	10-24-19	
1,1-Dichloropropene	ND	0.20	EPA 8260D	10-24-19	10-24-19	
1,2-Dichloroethane	ND	0.20	EPA 8260D	10-24-19	10-24-19	
Trichloroethene	ND	0.20	EPA 8260D	10-24-19	10-24-19	
1,2-Dichloropropane	ND	0.20	EPA 8260D	10-24-19	10-24-19	
Dibromomethane	ND	0.20	EPA 8260D	10-24-19	10-24-19	
Bromodichloromethane	ND	0.20	EPA 8260D	10-24-19	10-24-19	
2-Chloroethyl Vinyl Ether	ND	1.0	EPA 8260D	10-24-19	10-24-19	
(cis) 1,3-Dichloropropene	ND	0.20	EPA 8260D	10-24-19	10-24-19	
(trans) 1,3-Dichloropropene	ND	0.20	EPA 8260D	10-24-19	10-24-19	



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Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>Client ID:</b>	<b>S-MW-3:W</b>					
Laboratory ID:	10-255-05					
1,1,2-Trichloroethane	ND	0.20	EPA 8260D	10-24-19	10-24-19	
Tetrachloroethene	3.7	0.20	EPA 8260D	10-24-19	10-24-19	
1,3-Dichloropropane	ND	0.20	EPA 8260D	10-24-19	10-24-19	
Dibromochloromethane	ND	0.20	EPA 8260D	10-24-19	10-24-19	
1,2-Dibromoethane	ND	0.20	EPA 8260D	10-24-19	10-24-19	
Chlorobenzene	ND	0.20	EPA 8260D	10-24-19	10-24-19	
1,1,1,2-Tetrachloroethane	ND	0.20	EPA 8260D	10-24-19	10-24-19	
Bromoform	ND	1.0	EPA 8260D	10-24-19	10-24-19	
Bromobenzene	ND	0.20	EPA 8260D	10-24-19	10-24-19	
1,1,2,2-Tetrachloroethane	ND	0.20	EPA 8260D	10-24-19	10-24-19	
1,2,3-Trichloropropane	ND	0.20	EPA 8260D	10-24-19	10-24-19	
2-Chlorotoluene	ND	0.20	EPA 8260D	10-24-19	10-24-19	
4-Chlorotoluene	ND	0.20	EPA 8260D	10-24-19	10-24-19	
1,3-Dichlorobenzene	ND	0.20	EPA 8260D	10-24-19	10-24-19	
1,4-Dichlorobenzene	ND	0.20	EPA 8260D	10-24-19	10-24-19	
1,2-Dichlorobenzene	ND	0.20	EPA 8260D	10-24-19	10-24-19	
1,2-Dibromo-3-chloropropane	ND	1.0	EPA 8260D	10-24-19	10-24-19	
1,2,4-Trichlorobenzene	ND	0.20	EPA 8260D	10-24-19	10-24-19	
Hexachlorobutadiene	ND	1.0	EPA 8260D	10-24-19	10-24-19	
1,2,3-Trichlorobenzene	ND	0.20	EPA 8260D	10-24-19	10-24-19	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Dibromofluoromethane</i>	<i>100</i>	<i>75-127</i>				
<i>Toluene-d8</i>	<i>99</i>	<i>80-127</i>				
<i>4-Bromofluorobenzene</i>	<i>94</i>	<i>78-125</i>				





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Matrix: Water  
 Units: ug/L

<b>Analyte</b>	<b>Result</b>	<b>PQL</b>	<b>Method</b>	<b>Date Prepared</b>	<b>Date Analyzed</b>	<b>Flags</b>
<b>Client ID:</b>	<b>MW-27:W</b>					
Laboratory ID:	10-255-06					
Dichlorodifluoromethane	ND	1.0	EPA 8260D	10-24-19	10-24-19	
Chloromethane	ND	5.0	EPA 8260D	10-24-19	10-24-19	
Vinyl Chloride	ND	0.10	EPA 8260D/SIM	10-24-19	10-24-19	
Bromomethane	ND	1.0	EPA 8260D	10-24-19	10-24-19	
Chloroethane	ND	5.0	EPA 8260D	10-24-19	10-24-19	
Trichlorofluoromethane	ND	1.0	EPA 8260D	10-24-19	10-24-19	
1,1-Dichloroethene	ND	1.0	EPA 8260D	10-24-19	10-24-19	
Iodomethane	ND	5.0	EPA 8260D	10-24-19	10-24-19	
Methylene Chloride	ND	5.0	EPA 8260D	10-24-19	10-24-19	
(trans) 1,2-Dichloroethene	ND	1.0	EPA 8260D	10-24-19	10-24-19	
1,1-Dichloroethane	ND	1.0	EPA 8260D	10-24-19	10-24-19	
2,2-Dichloropropane	ND	1.0	EPA 8260D	10-24-19	10-24-19	
(cis) 1,2-Dichloroethene	ND	1.0	EPA 8260D	10-24-19	10-24-19	
Bromochloromethane	ND	1.0	EPA 8260D	10-24-19	10-24-19	
Chloroform	ND	1.0	EPA 8260D	10-24-19	10-24-19	
1,1,1-Trichloroethane	ND	1.0	EPA 8260D	10-24-19	10-24-19	
Carbon Tetrachloride	ND	1.0	EPA 8260D	10-24-19	10-24-19	
1,1-Dichloropropene	ND	1.0	EPA 8260D	10-24-19	10-24-19	
1,2-Dichloroethane	ND	1.0	EPA 8260D	10-24-19	10-24-19	
Trichloroethene	ND	1.0	EPA 8260D	10-24-19	10-24-19	
1,2-Dichloropropane	ND	1.0	EPA 8260D	10-24-19	10-24-19	
Dibromomethane	ND	1.0	EPA 8260D	10-24-19	10-24-19	
Bromodichloromethane	ND	1.0	EPA 8260D	10-24-19	10-24-19	
2-Chloroethyl Vinyl Ether	ND	5.0	EPA 8260D	10-24-19	10-24-19	
(cis) 1,3-Dichloropropene	ND	1.0	EPA 8260D	10-24-19	10-24-19	
(trans) 1,3-Dichloropropene	ND	1.0	EPA 8260D	10-24-19	10-24-19	



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Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>Client ID:</b>	<b>MW-27:W</b>					
Laboratory ID:	10-255-06					
1,1,2-Trichloroethane	ND	1.0	EPA 8260D	10-24-19	10-24-19	
Tetrachloroethene	130	1.0	EPA 8260D	10-24-19	10-24-19	
1,3-Dichloropropane	ND	1.0	EPA 8260D	10-24-19	10-24-19	
Dibromochloromethane	ND	1.0	EPA 8260D	10-24-19	10-24-19	
1,2-Dibromoethane	ND	1.0	EPA 8260D	10-24-19	10-24-19	
Chlorobenzene	ND	1.0	EPA 8260D	10-24-19	10-24-19	
1,1,1,2-Tetrachloroethane	ND	1.0	EPA 8260D	10-24-19	10-24-19	
Bromoform	ND	5.0	EPA 8260D	10-24-19	10-24-19	
Bromobenzene	ND	1.0	EPA 8260D	10-24-19	10-24-19	
1,1,2,2-Tetrachloroethane	ND	1.0	EPA 8260D	10-24-19	10-24-19	
1,2,3-Trichloropropane	ND	1.0	EPA 8260D	10-24-19	10-24-19	
2-Chlorotoluene	ND	1.0	EPA 8260D	10-24-19	10-24-19	
4-Chlorotoluene	ND	1.0	EPA 8260D	10-24-19	10-24-19	
1,3-Dichlorobenzene	ND	1.0	EPA 8260D	10-24-19	10-24-19	
1,4-Dichlorobenzene	ND	1.0	EPA 8260D	10-24-19	10-24-19	
1,2-Dichlorobenzene	ND	1.0	EPA 8260D	10-24-19	10-24-19	
1,2-Dibromo-3-chloropropane	ND	5.0	EPA 8260D	10-24-19	10-24-19	
1,2,4-Trichlorobenzene	ND	1.0	EPA 8260D	10-24-19	10-24-19	
Hexachlorobutadiene	ND	5.0	EPA 8260D	10-24-19	10-24-19	
1,2,3-Trichlorobenzene	ND	1.0	EPA 8260D	10-24-19	10-24-19	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Dibromofluoromethane</i>	<i>96</i>	<i>75-127</i>				
<i>Toluene-d8</i>	<i>98</i>	<i>80-127</i>				
<i>4-Bromofluorobenzene</i>	<i>101</i>	<i>78-125</i>				



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Matrix: Water  
 Units: ug/L

<b>Analyte</b>	<b>Result</b>	<b>PQL</b>	<b>Method</b>	<b>Date Prepared</b>	<b>Date Analyzed</b>	<b>Flags</b>
<b>Client ID:</b>	<b>MW-29:W</b>					
Laboratory ID:	10-255-07					
Dichlorodifluoromethane	ND	0.20	EPA 8260D	10-24-19	10-24-19	
Chloromethane	ND	1.0	EPA 8260D	10-24-19	10-24-19	
Vinyl Chloride	ND	0.020	EPA 8260D/SIM	10-24-19	10-24-19	
Bromomethane	ND	0.20	EPA 8260D	10-24-19	10-24-19	
Chloroethane	ND	1.0	EPA 8260D	10-24-19	10-24-19	
Trichlorofluoromethane	ND	0.20	EPA 8260D	10-24-19	10-24-19	
1,1-Dichloroethene	ND	0.20	EPA 8260D	10-24-19	10-24-19	
Iodomethane	ND	1.0	EPA 8260D	10-24-19	10-24-19	
Methylene Chloride	ND	1.0	EPA 8260D	10-24-19	10-24-19	
(trans) 1,2-Dichloroethene	ND	0.20	EPA 8260D	10-24-19	10-24-19	
1,1-Dichloroethane	ND	0.20	EPA 8260D	10-24-19	10-24-19	
2,2-Dichloropropane	ND	0.20	EPA 8260D	10-24-19	10-24-19	
(cis) 1,2-Dichloroethene	ND	0.20	EPA 8260D	10-24-19	10-24-19	
Bromochloromethane	ND	0.20	EPA 8260D	10-24-19	10-24-19	
Chloroform	ND	0.20	EPA 8260D	10-24-19	10-24-19	
1,1,1-Trichloroethane	ND	0.20	EPA 8260D	10-24-19	10-24-19	
Carbon Tetrachloride	ND	0.20	EPA 8260D	10-24-19	10-24-19	
1,1-Dichloropropene	ND	0.20	EPA 8260D	10-24-19	10-24-19	
1,2-Dichloroethane	ND	0.20	EPA 8260D	10-24-19	10-24-19	
Trichloroethene	ND	0.20	EPA 8260D	10-24-19	10-24-19	
1,2-Dichloropropane	ND	0.20	EPA 8260D	10-24-19	10-24-19	
Dibromomethane	ND	0.20	EPA 8260D	10-24-19	10-24-19	
Bromodichloromethane	ND	0.20	EPA 8260D	10-24-19	10-24-19	
2-Chloroethyl Vinyl Ether	ND	1.0	EPA 8260D	10-24-19	10-24-19	
(cis) 1,3-Dichloropropene	ND	0.20	EPA 8260D	10-24-19	10-24-19	
(trans) 1,3-Dichloropropene	ND	0.20	EPA 8260D	10-24-19	10-24-19	



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Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>Client ID:</b>	<b>MW-29:W</b>					
Laboratory ID:	10-255-07					
1,1,2-Trichloroethane	ND	0.20	EPA 8260D	10-24-19	10-24-19	
Tetrachloroethene	ND	0.20	EPA 8260D	10-24-19	10-24-19	
1,3-Dichloropropane	ND	0.20	EPA 8260D	10-24-19	10-24-19	
Dibromochloromethane	ND	0.20	EPA 8260D	10-24-19	10-24-19	
1,2-Dibromoethane	ND	0.20	EPA 8260D	10-24-19	10-24-19	
Chlorobenzene	ND	0.20	EPA 8260D	10-24-19	10-24-19	
1,1,1,2-Tetrachloroethane	ND	0.20	EPA 8260D	10-24-19	10-24-19	
Bromoform	ND	1.0	EPA 8260D	10-24-19	10-24-19	
Bromobenzene	ND	0.20	EPA 8260D	10-24-19	10-24-19	
1,1,1,2-Tetrachloroethane	ND	0.20	EPA 8260D	10-24-19	10-24-19	
1,2,3-Trichloropropane	ND	0.20	EPA 8260D	10-24-19	10-24-19	
2-Chlorotoluene	ND	0.20	EPA 8260D	10-24-19	10-24-19	
4-Chlorotoluene	ND	0.20	EPA 8260D	10-24-19	10-24-19	
1,3-Dichlorobenzene	ND	0.20	EPA 8260D	10-24-19	10-24-19	
1,4-Dichlorobenzene	ND	0.20	EPA 8260D	10-24-19	10-24-19	
1,2-Dichlorobenzene	ND	0.20	EPA 8260D	10-24-19	10-24-19	
1,2-Dibromo-3-chloropropane	ND	1.0	EPA 8260D	10-24-19	10-24-19	
1,2,4-Trichlorobenzene	ND	0.20	EPA 8260D	10-24-19	10-24-19	
Hexachlorobutadiene	ND	1.0	EPA 8260D	10-24-19	10-24-19	
1,2,3-Trichlorobenzene	ND	0.20	EPA 8260D	10-24-19	10-24-19	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Dibromofluoromethane</i>	<i>101</i>	<i>75-127</i>				
<i>Toluene-d8</i>	<i>101</i>	<i>80-127</i>				
<i>4-Bromofluorobenzene</i>	<i>98</i>	<i>78-125</i>				



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Matrix: Water  
 Units: ug/L

<b>Analyte</b>	<b>Result</b>	<b>PQL</b>	<b>Method</b>	<b>Date Prepared</b>	<b>Date Analyzed</b>	<b>Flags</b>
<b>Client ID:</b>	<b>MW-4:W</b>					
Laboratory ID:	10-255-08					
Dichlorodifluoromethane	ND	10	EPA 8260D	10-24-19	10-24-19	
Chloromethane	ND	50	EPA 8260D	10-24-19	10-24-19	
Vinyl Chloride	7.5	1.0	EPA 8260D/SIM	10-24-19	10-24-19	
Bromomethane	ND	10	EPA 8260D	10-24-19	10-24-19	
Chloroethane	ND	50	EPA 8260D	10-24-19	10-24-19	
Trichlorofluoromethane	ND	10	EPA 8260D	10-24-19	10-24-19	
1,1-Dichloroethene	ND	10	EPA 8260D	10-24-19	10-24-19	
Iodomethane	ND	50	EPA 8260D	10-24-19	10-24-19	
Methylene Chloride	ND	50	EPA 8260D	10-24-19	10-24-19	
(trans) 1,2-Dichloroethene	ND	10	EPA 8260D	10-24-19	10-24-19	
1,1-Dichloroethane	ND	10	EPA 8260D	10-24-19	10-24-19	
2,2-Dichloropropane	ND	10	EPA 8260D	10-24-19	10-24-19	
(cis) 1,2-Dichloroethene	940	10	EPA 8260D	10-24-19	10-24-19	
Bromochloromethane	ND	10	EPA 8260D	10-24-19	10-24-19	
Chloroform	ND	10	EPA 8260D	10-24-19	10-24-19	
1,1,1-Trichloroethane	ND	10	EPA 8260D	10-24-19	10-24-19	
Carbon Tetrachloride	ND	10	EPA 8260D	10-24-19	10-24-19	
1,1-Dichloropropene	ND	10	EPA 8260D	10-24-19	10-24-19	
1,2-Dichloroethane	ND	10	EPA 8260D	10-24-19	10-24-19	
Trichloroethene	390	10	EPA 8260D	10-24-19	10-24-19	
1,2-Dichloropropane	ND	10	EPA 8260D	10-24-19	10-24-19	
Dibromomethane	ND	10	EPA 8260D	10-24-19	10-24-19	
Bromodichloromethane	ND	10	EPA 8260D	10-24-19	10-24-19	
2-Chloroethyl Vinyl Ether	ND	50	EPA 8260D	10-24-19	10-24-19	
(cis) 1,3-Dichloropropene	ND	10	EPA 8260D	10-24-19	10-24-19	
(trans) 1,3-Dichloropropene	ND	10	EPA 8260D	10-24-19	10-24-19	



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Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>Client ID:</b>	<b>MW-4:W</b>					
Laboratory ID:	10-255-08					
1,1,2-Trichloroethane	ND	10	EPA 8260D	10-24-19	10-24-19	
Tetrachloroethene	1900	10	EPA 8260D	10-24-19	10-24-19	
1,3-Dichloropropane	ND	10	EPA 8260D	10-24-19	10-24-19	
Dibromochloromethane	ND	10	EPA 8260D	10-24-19	10-24-19	
1,2-Dibromoethane	ND	10	EPA 8260D	10-24-19	10-24-19	
Chlorobenzene	ND	10	EPA 8260D	10-24-19	10-24-19	
1,1,1,2-Tetrachloroethane	ND	10	EPA 8260D	10-24-19	10-24-19	
Bromoform	ND	50	EPA 8260D	10-24-19	10-24-19	
Bromobenzene	ND	10	EPA 8260D	10-24-19	10-24-19	
1,1,2,2-Tetrachloroethane	ND	10	EPA 8260D	10-24-19	10-24-19	
1,2,3-Trichloropropane	ND	10	EPA 8260D	10-24-19	10-24-19	
2-Chlorotoluene	ND	10	EPA 8260D	10-24-19	10-24-19	
4-Chlorotoluene	ND	10	EPA 8260D	10-24-19	10-24-19	
1,3-Dichlorobenzene	ND	10	EPA 8260D	10-24-19	10-24-19	
1,4-Dichlorobenzene	ND	10	EPA 8260D	10-24-19	10-24-19	
1,2-Dichlorobenzene	ND	10	EPA 8260D	10-24-19	10-24-19	
1,2-Dibromo-3-chloropropane	ND	50	EPA 8260D	10-24-19	10-24-19	
1,2,4-Trichlorobenzene	ND	10	EPA 8260D	10-24-19	10-24-19	
Hexachlorobutadiene	ND	50	EPA 8260D	10-24-19	10-24-19	
1,2,3-Trichlorobenzene	ND	10	EPA 8260D	10-24-19	10-24-19	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Dibromofluoromethane</i>	<i>103</i>	<i>75-127</i>				
<i>Toluene-d8</i>	<i>101</i>	<i>80-127</i>				
<i>4-Bromofluorobenzene</i>	<i>95</i>	<i>78-125</i>				



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Matrix: Water  
 Units: ug/L

<b>Analyte</b>	<b>Result</b>	<b>PQL</b>	<b>Method</b>	<b>Date Prepared</b>	<b>Date Analyzed</b>	<b>Flags</b>
<b>Client ID:</b>	<b>MW-12:W</b>					
<b>Laboratory ID:</b>	<b>10-255-09</b>					
Dichlorodifluoromethane	ND	2.0	EPA 8260D	10-24-19	10-24-19	
Chloromethane	ND	10	EPA 8260D	10-24-19	10-24-19	
Vinyl Chloride	0.84	0.20	EPA 8260D/SIM	10-24-19	10-24-19	
Bromomethane	ND	2.0	EPA 8260D	10-24-19	10-24-19	
Chloroethane	ND	10	EPA 8260D	10-24-19	10-24-19	
Trichlorofluoromethane	ND	2.0	EPA 8260D	10-24-19	10-24-19	
1,1-Dichloroethene	ND	2.0	EPA 8260D	10-24-19	10-24-19	
Iodomethane	ND	10	EPA 8260D	10-24-19	10-24-19	
Methylene Chloride	ND	10	EPA 8260D	10-24-19	10-24-19	
(trans) 1,2-Dichloroethene	ND	2.0	EPA 8260D	10-24-19	10-24-19	
1,1-Dichloroethane	ND	2.0	EPA 8260D	10-24-19	10-24-19	
2,2-Dichloropropane	ND	2.0	EPA 8260D	10-24-19	10-24-19	
(cis) 1,2-Dichloroethene	240	2.0	EPA 8260D	10-24-19	10-24-19	
Bromochloromethane	ND	2.0	EPA 8260D	10-24-19	10-24-19	
Chloroform	ND	2.0	EPA 8260D	10-24-19	10-24-19	
1,1,1-Trichloroethane	ND	2.0	EPA 8260D	10-24-19	10-24-19	
Carbon Tetrachloride	ND	2.0	EPA 8260D	10-24-19	10-24-19	
1,1-Dichloropropene	ND	2.0	EPA 8260D	10-24-19	10-24-19	
1,2-Dichloroethane	ND	2.0	EPA 8260D	10-24-19	10-24-19	
Trichloroethene	68	2.0	EPA 8260D	10-24-19	10-24-19	
1,2-Dichloropropane	ND	2.0	EPA 8260D	10-24-19	10-24-19	
Dibromomethane	ND	2.0	EPA 8260D	10-24-19	10-24-19	
Bromodichloromethane	ND	2.0	EPA 8260D	10-24-19	10-24-19	
2-Chloroethyl Vinyl Ether	ND	10	EPA 8260D	10-24-19	10-24-19	
(cis) 1,3-Dichloropropene	ND	2.0	EPA 8260D	10-24-19	10-24-19	
(trans) 1,3-Dichloropropene	ND	2.0	EPA 8260D	10-24-19	10-24-19	



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Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>Client ID:</b>	<b>MW-12:W</b>					
Laboratory ID:	10-255-09					
1,1,2-Trichloroethane	ND	2.0	EPA 8260D	10-24-19	10-24-19	
Tetrachloroethene	360	2.0	EPA 8260D	10-24-19	10-24-19	
1,3-Dichloropropane	ND	2.0	EPA 8260D	10-24-19	10-24-19	
Dibromochloromethane	ND	2.0	EPA 8260D	10-24-19	10-24-19	
1,2-Dibromoethane	ND	2.0	EPA 8260D	10-24-19	10-24-19	
Chlorobenzene	ND	2.0	EPA 8260D	10-24-19	10-24-19	
1,1,1,2-Tetrachloroethane	ND	2.0	EPA 8260D	10-24-19	10-24-19	
Bromoform	ND	10	EPA 8260D	10-24-19	10-24-19	
Bromobenzene	ND	2.0	EPA 8260D	10-24-19	10-24-19	
1,1,2,2-Tetrachloroethane	ND	2.0	EPA 8260D	10-24-19	10-24-19	
1,2,3-Trichloropropane	ND	2.0	EPA 8260D	10-24-19	10-24-19	
2-Chlorotoluene	ND	2.0	EPA 8260D	10-24-19	10-24-19	
4-Chlorotoluene	ND	2.0	EPA 8260D	10-24-19	10-24-19	
1,3-Dichlorobenzene	ND	2.0	EPA 8260D	10-24-19	10-24-19	
1,4-Dichlorobenzene	ND	2.0	EPA 8260D	10-24-19	10-24-19	
1,2-Dichlorobenzene	ND	2.0	EPA 8260D	10-24-19	10-24-19	
1,2-Dibromo-3-chloropropane	ND	10	EPA 8260D	10-24-19	10-24-19	
1,2,4-Trichlorobenzene	ND	2.0	EPA 8260D	10-24-19	10-24-19	
Hexachlorobutadiene	ND	10	EPA 8260D	10-24-19	10-24-19	
1,2,3-Trichlorobenzene	ND	2.0	EPA 8260D	10-24-19	10-24-19	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Dibromofluoromethane</i>	<i>100</i>	<i>75-127</i>				
<i>Toluene-d8</i>	<i>99</i>	<i>80-127</i>				
<i>4-Bromofluorobenzene</i>	<i>98</i>	<i>78-125</i>				





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**VOLATILE ORGANICS EPA 8260D**  
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Matrix: Water  
 Units: ug/L

<b>Analyte</b>	<b>Result</b>	<b>PQL</b>	<b>Method</b>	<b>Date Prepared</b>	<b>Date Analyzed</b>	<b>Flags</b>
<b>Client ID:</b>	<b>MW-35:W</b>					
Laboratory ID:	10-255-10					
Dichlorodifluoromethane	ND	0.20	EPA 8260D	10-24-19	10-24-19	
Chloromethane	ND	1.0	EPA 8260D	10-24-19	10-24-19	
Vinyl Chloride	ND	0.020	EPA 8260D/SIM	10-24-19	10-24-19	
Bromomethane	ND	0.20	EPA 8260D	10-24-19	10-24-19	
Chloroethane	ND	1.0	EPA 8260D	10-24-19	10-24-19	
Trichlorofluoromethane	ND	0.20	EPA 8260D	10-24-19	10-24-19	
1,1-Dichloroethene	ND	0.20	EPA 8260D	10-24-19	10-24-19	
Iodomethane	ND	1.0	EPA 8260D	10-24-19	10-24-19	
Methylene Chloride	ND	1.0	EPA 8260D	10-24-19	10-24-19	
(trans) 1,2-Dichloroethene	ND	0.20	EPA 8260D	10-24-19	10-24-19	
1,1-Dichloroethane	ND	0.20	EPA 8260D	10-24-19	10-24-19	
2,2-Dichloropropane	ND	0.20	EPA 8260D	10-24-19	10-24-19	
(cis) 1,2-Dichloroethene	0.44	0.20	EPA 8260D	10-24-19	10-24-19	
Bromochloromethane	ND	0.20	EPA 8260D	10-24-19	10-24-19	
Chloroform	ND	0.20	EPA 8260D	10-24-19	10-24-19	
1,1,1-Trichloroethane	ND	0.20	EPA 8260D	10-24-19	10-24-19	
Carbon Tetrachloride	ND	0.20	EPA 8260D	10-24-19	10-24-19	
1,1-Dichloropropene	ND	0.20	EPA 8260D	10-24-19	10-24-19	
1,2-Dichloroethane	ND	0.20	EPA 8260D	10-24-19	10-24-19	
Trichloroethene	ND	0.20	EPA 8260D	10-24-19	10-24-19	
1,2-Dichloropropane	ND	0.20	EPA 8260D	10-24-19	10-24-19	
Dibromomethane	ND	0.20	EPA 8260D	10-24-19	10-24-19	
Bromodichloromethane	ND	0.20	EPA 8260D	10-24-19	10-24-19	
2-Chloroethyl Vinyl Ether	ND	1.0	EPA 8260D	10-24-19	10-24-19	
(cis) 1,3-Dichloropropene	ND	0.20	EPA 8260D	10-24-19	10-24-19	
(trans) 1,3-Dichloropropene	ND	0.20	EPA 8260D	10-24-19	10-24-19	



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Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>Client ID:</b>	<b>MW-35:W</b>					
Laboratory ID:	10-255-10					
1,1,2-Trichloroethane	ND	0.20	EPA 8260D	10-24-19	10-24-19	
Tetrachloroethene	4.0	0.20	EPA 8260D	10-24-19	10-24-19	
1,3-Dichloropropane	ND	0.20	EPA 8260D	10-24-19	10-24-19	
Dibromochloromethane	ND	0.20	EPA 8260D	10-24-19	10-24-19	
1,2-Dibromoethane	ND	0.20	EPA 8260D	10-24-19	10-24-19	
Chlorobenzene	ND	0.20	EPA 8260D	10-24-19	10-24-19	
1,1,1,2-Tetrachloroethane	ND	0.20	EPA 8260D	10-24-19	10-24-19	
Bromoform	ND	1.0	EPA 8260D	10-24-19	10-24-19	
Bromobenzene	ND	0.20	EPA 8260D	10-24-19	10-24-19	
1,1,1,2-Tetrachloroethane	ND	0.20	EPA 8260D	10-24-19	10-24-19	
1,2,3-Trichloropropane	ND	0.20	EPA 8260D	10-24-19	10-24-19	
2-Chlorotoluene	ND	0.20	EPA 8260D	10-24-19	10-24-19	
4-Chlorotoluene	ND	0.20	EPA 8260D	10-24-19	10-24-19	
1,3-Dichlorobenzene	ND	0.20	EPA 8260D	10-24-19	10-24-19	
1,4-Dichlorobenzene	ND	0.20	EPA 8260D	10-24-19	10-24-19	
1,2-Dichlorobenzene	ND	0.20	EPA 8260D	10-24-19	10-24-19	
1,2-Dibromo-3-chloropropane	ND	1.0	EPA 8260D	10-24-19	10-24-19	
1,2,4-Trichlorobenzene	ND	0.20	EPA 8260D	10-24-19	10-24-19	
Hexachlorobutadiene	ND	1.0	EPA 8260D	10-24-19	10-24-19	
1,2,3-Trichlorobenzene	ND	0.20	EPA 8260D	10-24-19	10-24-19	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Dibromofluoromethane</i>	<i>95</i>	<i>75-127</i>				
<i>Toluene-d8</i>	<i>95</i>	<i>80-127</i>				
<i>4-Bromofluorobenzene</i>	<i>91</i>	<i>78-125</i>				



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**QUALITY CONTROL**  
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Matrix: Water  
 Units: ug/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>METHOD BLANK</b>						
Laboratory ID:	MB1024W1					
Dichlorodifluoromethane	ND	0.20	EPA 8260D	10-24-19	10-24-19	
Chloromethane	ND	1.0	EPA 8260D	10-24-19	10-24-19	
Vinyl Chloride	ND	0.020	EPA 8260D/SIM	10-24-19	10-24-19	
Bromomethane	ND	0.20	EPA 8260D	10-24-19	10-24-19	
Chloroethane	ND	1.0	EPA 8260D	10-24-19	10-24-19	
Trichlorofluoromethane	ND	0.20	EPA 8260D	10-24-19	10-24-19	
1,1-Dichloroethene	ND	0.20	EPA 8260D	10-24-19	10-24-19	
Iodomethane	ND	1.0	EPA 8260D	10-24-19	10-24-19	
Methylene Chloride	ND	1.0	EPA 8260D	10-24-19	10-24-19	
(trans) 1,2-Dichloroethene	ND	0.20	EPA 8260D	10-24-19	10-24-19	
1,1-Dichloroethane	ND	0.20	EPA 8260D	10-24-19	10-24-19	
2,2-Dichloropropane	ND	0.20	EPA 8260D	10-24-19	10-24-19	
(cis) 1,2-Dichloroethene	ND	0.20	EPA 8260D	10-24-19	10-24-19	
Bromochloromethane	ND	0.20	EPA 8260D	10-24-19	10-24-19	
Chloroform	ND	0.20	EPA 8260D	10-24-19	10-24-19	
1,1,1-Trichloroethane	ND	0.20	EPA 8260D	10-24-19	10-24-19	
Carbon Tetrachloride	ND	0.20	EPA 8260D	10-24-19	10-24-19	
1,1-Dichloropropene	ND	0.20	EPA 8260D	10-24-19	10-24-19	
1,2-Dichloroethane	ND	0.20	EPA 8260D	10-24-19	10-24-19	
Trichloroethene	ND	0.20	EPA 8260D	10-24-19	10-24-19	
1,2-Dichloropropane	ND	0.20	EPA 8260D	10-24-19	10-24-19	
Dibromomethane	ND	0.20	EPA 8260D	10-24-19	10-24-19	
Bromodichloromethane	ND	0.20	EPA 8260D	10-24-19	10-24-19	
2-Chloroethyl Vinyl Ether	ND	1.0	EPA 8260D	10-24-19	10-24-19	
(cis) 1,3-Dichloropropene	ND	0.20	EPA 8260D	10-24-19	10-24-19	
(trans) 1,3-Dichloropropene	ND	0.20	EPA 8260D	10-24-19	10-24-19	



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**QUALITY CONTROL**  
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Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>METHOD BLANK</b>						
Laboratory ID:	MB1024W1					
1,1,2-Trichloroethane	ND	0.20	EPA 8260D	10-24-19	10-24-19	
Tetrachloroethene	ND	0.20	EPA 8260D	10-24-19	10-24-19	
1,3-Dichloropropane	ND	0.20	EPA 8260D	10-24-19	10-24-19	
Dibromochloromethane	ND	0.20	EPA 8260D	10-24-19	10-24-19	
1,2-Dibromoethane	ND	0.20	EPA 8260D	10-24-19	10-24-19	
Chlorobenzene	ND	0.20	EPA 8260D	10-24-19	10-24-19	
1,1,1,2-Tetrachloroethane	ND	0.20	EPA 8260D	10-24-19	10-24-19	
Bromoform	ND	1.0	EPA 8260D	10-24-19	10-24-19	
Bromobenzene	ND	0.20	EPA 8260D	10-24-19	10-24-19	
1,1,2,2-Tetrachloroethane	ND	0.20	EPA 8260D	10-24-19	10-24-19	
1,2,3-Trichloropropane	ND	0.20	EPA 8260D	10-24-19	10-24-19	
2-Chlorotoluene	ND	0.20	EPA 8260D	10-24-19	10-24-19	
4-Chlorotoluene	ND	0.20	EPA 8260D	10-24-19	10-24-19	
1,3-Dichlorobenzene	ND	0.20	EPA 8260D	10-24-19	10-24-19	
1,4-Dichlorobenzene	ND	0.20	EPA 8260D	10-24-19	10-24-19	
1,2-Dichlorobenzene	ND	0.20	EPA 8260D	10-24-19	10-24-19	
1,2-Dibromo-3-chloropropane	ND	1.0	EPA 8260D	10-24-19	10-24-19	
1,2,4-Trichlorobenzene	ND	0.20	EPA 8260D	10-24-19	10-24-19	
Hexachlorobutadiene	ND	1.0	EPA 8260D	10-24-19	10-24-19	
1,2,3-Trichlorobenzene	ND	0.20	EPA 8260D	10-24-19	10-24-19	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Dibromofluoromethane</i>	<i>96</i>	<i>75-127</i>				
<i>Toluene-d8</i>	<i>99</i>	<i>80-127</i>				
<i>4-Bromofluorobenzene</i>	<i>94</i>	<i>78-125</i>				



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**VOLATILE ORGANICS EPA 8260D  
 QUALITY CONTROL**

Matrix: Water  
 Units: ug/L

Analyte	Result		Spike Level		Source	Percent	Recovery	RPD		Flags
					Result	Recovery	Limits	RPD	Limit	
<b>MATRIX SPIKES</b>										
Laboratory ID:	10-255-06									
	MS	MSD	MS	MSD		MS	MSD			
1,1-Dichloroethene	<b>48.2</b>	<b>47.5</b>	50.0	50.0	ND	96	95	57-135	1	15
Benzene	<b>47.3</b>	<b>46.3</b>	50.0	50.0	ND	95	93	73-131	2	16
Trichloroethene	<b>50.3</b>	<b>49.7</b>	50.0	50.0	ND	101	99	75-124	1	17
Toluene	<b>48.8</b>	<b>48.1</b>	50.0	50.0	ND	98	96	84-123	1	19
Chlorobenzene	<b>52.3</b>	<b>49.8</b>	50.0	50.0	ND	105	100	78-122	5	16
<i>Surrogate:</i>										
<i>Dibromofluoromethane</i>						95	98	75-127		
<i>Toluene-d8</i>						97	97	80-127		
<i>4-Bromofluorobenzene</i>						94	92	78-125		



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**TOTAL ORGANIC CARBON  
 SM 5310B**

Matrix: Water  
 Units: mg/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>Client ID:</b>	<b>HZ-MW-15S:W</b>					
Laboratory ID:	10-255-01					
Total Organic Carbon	<b>1.2</b>	1.0	SM 5310B	10-21-19	10-21-19	
<b>Client ID:</b>	<b>HZ-MW-15D:W</b>					
Laboratory ID:	10-255-02					
Total Organic Carbon	<b>1.3</b>	1.0	SM 5310B	10-21-19	10-21-19	
<b>Client ID:</b>	<b>S-MW-5:W</b>					
Laboratory ID:	10-255-03					
Total Organic Carbon	<b>ND</b>	1.0	SM 5310B	10-21-19	10-21-19	
<b>Client ID:</b>	<b>S-MW-2:W</b>					
Laboratory ID:	10-255-04					
Total Organic Carbon	<b>1.6</b>	1.0	SM 5310B	10-21-19	10-21-19	
<b>Client ID:</b>	<b>S-MW-3:W</b>					
Laboratory ID:	10-255-05					
Total Organic Carbon	<b>ND</b>	1.0	SM 5310B	10-21-19	10-21-19	
<b>Client ID:</b>	<b>MW-27:W</b>					
Laboratory ID:	10-255-06					
Total Organic Carbon	<b>8.7</b>	1.0	SM 5310B	10-21-19	10-21-19	
<b>Client ID:</b>	<b>MW-29:W</b>					
Laboratory ID:	10-255-07					
Total Organic Carbon	<b>2.2</b>	1.0	SM 5310B	10-21-19	10-21-19	



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**TOTAL ORGANIC CARBON  
 SM 5310B**

Matrix: Water  
 Units: mg/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>Client ID:</b>	<b>MW-4:W</b>					
Laboratory ID:	10-255-08					
Total Organic Carbon	<b>3.7</b>	1.0	SM 5310B	10-21-19	10-21-19	
<b>Client ID:</b>	<b>MW-12:W</b>					
Laboratory ID:	10-255-09					
Total Organic Carbon	<b>2.1</b>	1.0	SM 5310B	10-21-19	10-21-19	
<b>Client ID:</b>	<b>MW-35:W</b>					
Laboratory ID:	10-255-10					
Total Organic Carbon	<b>ND</b>	1.0	SM 5310B	10-21-19	10-21-19	



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**TOTAL ORGANIC CARBON  
 SM 5310B  
 QUALITY CONTROL**

Matrix: Water  
 Units: mg/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>METHOD BLANK</b>						
Laboratory ID:	MB1021W1					
Total Organic Carbon	<b>ND</b>	1.0	SM 5310B	10-21-19	10-21-19	

Analyte	Result	Spike Level	Source Result	Percent Recovery	Recovery Limits	RPD	RPD Limit	Flags
<b>DUPLICATE</b>								
Laboratory ID:	10-255-06							
	ORIG	DUP						
Total Organic Carbon	<b>8.71</b>	<b>8.60</b>	NA	NA	NA	1	20	

**MATRIX SPIKE**

Laboratory ID:	10-255-06							
	MS	MS		MS				
Total Organic Carbon	<b>18.5</b>	10.0	8.71	98	85-131	NA	NA	

**SPIKE BLANK**

Laboratory ID:	SB1021W1							
	SB	SB		SB				
Total Organic Carbon	<b>10.2</b>	10.0	NA	102	88-127	NA	NA	





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**DISSOLVED IRON  
 EPA 6010D**

Matrix: Water  
 Units: ug/L (ppb)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>Client ID:</b>	<b>HZ-MW-15S:W</b>					
Laboratory ID:	10-255-01					
Iron	<b>ND</b>	56	EPA 6010D	10-18-19	10-25-19	
<b>Client ID:</b>	<b>HZ-MW-15D:W</b>					
Laboratory ID:	10-255-02					
Iron	<b>100</b>	56	EPA 6010D	10-18-19	10-25-19	
<b>Client ID:</b>	<b>S-MW-5:W</b>					
Laboratory ID:	10-255-03					
Iron	<b>ND</b>	56	EPA 6010D	10-18-19	10-25-19	
<b>Client ID:</b>	<b>S-MW-2:W</b>					
Laboratory ID:	10-255-04					
Iron	<b>ND</b>	56	EPA 6010D	10-18-19	10-25-19	
<b>Client ID:</b>	<b>S-MW-3:W</b>					
Laboratory ID:	10-255-05					
Iron	<b>ND</b>	56	EPA 6010D	10-18-19	10-25-19	
<b>Client ID:</b>	<b>MW-27:W</b>					
Laboratory ID:	10-255-06					
Iron	<b>ND</b>	56	EPA 6010D	10-18-19	10-25-19	
<b>Client ID:</b>	<b>MW-29:W</b>					
Laboratory ID:	10-255-07					
Iron	<b>610</b>	56	EPA 6010D	10-18-19	10-25-19	
<b>Client ID:</b>	<b>MW-4:W</b>					
Laboratory ID:	10-255-08					
Iron	<b>5400</b>	56	EPA 6010D	10-18-19	10-25-19	



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**DISSOLVED IRON**  
**EPA 6010D**

Matrix: Water  
 Units: ug/L (ppb)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>Client ID:</b>	<b>MW-12:W</b>					
Laboratory ID:	10-255-09					
Iron	<b>6000</b>	56	EPA 6010D	10-18-19	10-25-19	

<b>Client ID:</b>	<b>MW-35:W</b>					
Laboratory ID:	10-255-10					
Iron	<b>ND</b>	56	EPA 6010D	10-18-19	10-25-19	



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**DISSOLVED IRON  
 EPA 6010D  
 QUALITY CONTROL**

Matrix: Water  
 Units: ug/L (ppb)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>METHOD BLANK</b>						
Laboratory ID:	MB1018F1					
Iron	<b>ND</b>	56	EPA 6010D	10-18-19	10-25-19	

Analyte	Result	Spike Level	Source Result	Percent Recovery	Recovery Limits	RPD	RPD Limit	Flags
<b>DUPLICATE</b>								
Laboratory ID:	10-255-06							
	ORIG	DUP						
Iron	<b>ND</b>	<b>ND</b>	NA	NA	NA	NA	20	

**MATRIX SPIKES**

Laboratory ID:	10-255-06									
	MS	MSD	MS	MSD		MS	MSD			
Iron	<b>22900</b>	<b>22700</b>	22200	22200	ND	<b>103</b>	<b>102</b>	75-125	1	20



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**CHLORIDE**  
**SM 4500-Cl E**

Matrix: Water  
 Units: mg/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>Client ID:</b>	<b>HZ-MW-15S:W</b>					
Laboratory ID:	10-255-01					
Chloride	<b>5.1</b>	2.0	SM 4500-Cl E	10-24-19	10-24-19	
<b>Client ID:</b>	<b>HZ-MW-15D:W</b>					
Laboratory ID:	10-255-02					
Chloride	<b>13</b>	2.0	SM 4500-Cl E	10-24-19	10-24-19	
<b>Client ID:</b>	<b>S-MW-5:W</b>					
Laboratory ID:	10-255-03					
Chloride	<b>5.3</b>	2.0	SM 4500-Cl E	10-24-19	10-24-19	
<b>Client ID:</b>	<b>S-MW-2:W</b>					
Laboratory ID:	10-255-04					
Chloride	<b>6.9</b>	2.0	SM 4500-Cl E	10-24-19	10-24-19	
<b>Client ID:</b>	<b>S-MW-3:W</b>					
Laboratory ID:	10-255-05					
Chloride	<b>4.4</b>	2.0	SM 4500-Cl E	10-24-19	10-24-19	
<b>Client ID:</b>	<b>MW-27:W</b>					
Laboratory ID:	10-255-06					
Chloride	<b>4.5</b>	2.0	SM 4500-Cl E	10-24-19	10-24-19	
<b>Client ID:</b>	<b>MW-29:W</b>					
Laboratory ID:	10-255-07					
Chloride	<b>6.4</b>	2.0	SM 4500-Cl E	10-24-19	10-24-19	



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**CHLORIDE**  
**SM 4500-Cl E**

Matrix: Water  
 Units: mg/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>Client ID:</b>	<b>MW-4:W</b>					
Laboratory ID:	10-255-08					
Chloride	<b>15</b>	2.0	SM 4500-Cl E	10-24-19	10-24-19	

<b>Client ID:</b>	<b>MW-12:W</b>					
Laboratory ID:	10-255-09					
Chloride	<b>36</b>	2.0	SM 4500-Cl E	10-24-19	10-24-19	

<b>Client ID:</b>	<b>MW-35:W</b>					
Laboratory ID:	10-255-10					
Chloride	<b>14</b>	2.0	SM 4500-Cl E	10-24-19	10-24-19	



Date of Report: October 29, 2019  
 Samples Submitted: October 18, 2019  
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 Project: 82302-9.4

**CHLORIDE  
 SM 4500-Cl E  
 QUALITY CONTROL**

Matrix: Water  
 Units: mg/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>METHOD BLANK</b>						
Laboratory ID:	MB1024W1					
Chloride	<b>ND</b>	2.0	SM 4500-Cl E	10-24-19	10-24-19	

Analyte	Result	Spike Level	Source Result	Percent Recovery	Recovery Limits	RPD	RPD Limit	Flags
<b>DUPLICATE</b>								
Laboratory ID:	10-255-06							
	ORIG	DUP						
Chloride	<b>4.52</b>	<b>4.31</b>	NA	NA	NA	5	17	

<b>MATRIX SPIKE</b>								
Laboratory ID:	10-255-06							
	MS	MS		MS				
Chloride	<b>52.7</b>	50.0	4.52	96	80-116	NA	NA	

<b>SPIKE BLANK</b>								
Laboratory ID:	SB1024W1							
	SB	SB		SB				
Chloride	<b>47.6</b>	50.0	NA	95	90-110	NA	NA	



Date of Report: October 29, 2019  
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 Laboratory Reference: 1910-255  
 Project: 82302-9.4

**SULFATE**  
**ASTM D516-11**

Matrix: Water  
 Units: mg/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>Client ID:</b>	<b>HZ-MW-15S:W</b>					
Laboratory ID:	10-255-01					
Sulfate	<b>13</b>	5.0	ASTM D516-11	10-22-19	10-22-19	

<b>Client ID:</b>	<b>HZ-MW-15D:W</b>					
Laboratory ID:	10-255-02					
Sulfate	<b>18</b>	5.0	ASTM D516-11	10-22-19	10-22-19	

<b>Client ID:</b>	<b>S-MW-5:W</b>					
Laboratory ID:	10-255-03					
Sulfate	<b>17</b>	5.0	ASTM D516-11	10-22-19	10-22-19	

<b>Client ID:</b>	<b>S-MW-2:W</b>					
Laboratory ID:	10-255-04					
Sulfate	<b>26</b>	10	ASTM D516-11	10-22-19	10-22-19	

<b>Client ID:</b>	<b>S-MW-3:W</b>					
Laboratory ID:	10-255-05					
Sulfate	<b>13</b>	5.0	ASTM D516-11	10-22-19	10-22-19	

<b>Client ID:</b>	<b>MW-27:W</b>					
Laboratory ID:	10-255-06					
Sulfate	<b>24</b>	10	ASTM D516-11	10-22-19	10-22-19	

<b>Client ID:</b>	<b>MW-29:W</b>					
Laboratory ID:	10-255-07					
Sulfate	<b>ND</b>	5.0	ASTM D516-11	10-22-19	10-22-19	



Date of Report: October 29, 2019  
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**SULFATE**  
**ASTM D516-11**

Matrix: Water  
 Units: mg/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>Client ID:</b>	<b>MW-4:W</b>					
Laboratory ID:	10-255-08					
Sulfate	<b>12</b>	5.0	ASTM D516-11	10-22-19	10-22-19	

<b>Client ID:</b>	<b>MW-12:W</b>					
Laboratory ID:	10-255-09					
Sulfate	<b>14</b>	5.0	ASTM D516-11	10-22-19	10-22-19	

<b>Client ID:</b>	<b>MW-35:W</b>					
Laboratory ID:	10-255-10					
Sulfate	<b>14</b>	5.0	ASTM D516-11	10-22-19	10-22-19	





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**SULFATE  
 ASTM D516-11  
 QUALITY CONTROL**

Matrix: Water  
 Units: mg/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>METHOD BLANK</b>						
Laboratory ID:	MB1022W1					
Sulfate	<b>ND</b>	5.0	ASTM D516-11	10-22-19	10-22-19	

Analyte	Result	Spike Level	Source Result	Percent Recovery	Recovery Limits	RPD	RPD Limit	Flags
<b>DUPLICATE</b>								
Laboratory ID:	10-255-06							
	ORIG	DUP						
Sulfate	<b>24.2</b>	<b>23.3</b>	NA	NA	NA	4	10	

<b>MATRIX SPIKE</b>								
Laboratory ID:	10-255-06							
	MS	MS		MS				
Sulfate	<b>43.9</b>	20.0	24.2	99	73-134	NA	NA	

<b>SPIKE BLANK</b>								
Laboratory ID:	SB1022W1							
	SB	SB		SB				
Sulfate	<b>10.1</b>	10.0	NA	101	89-113	NA	NA	



Date of Report: October 29, 2019  
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 Project: 82302-9.4

**AMMONIA (as Nitrogen)**  
**SM 4500-NH<sub>3</sub> D**

Matrix: Water  
 Units: mg NH<sub>3</sub>-N/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>Client ID:</b>	<b>HZ-MW-15S:W</b>					
Laboratory ID:	10-255-01					
Ammonia	<b>ND</b>	0.050	SM 4500-NH <sub>3</sub> D	10-24-19	10-24-19	
<b>Client ID:</b>	<b>HZ-MW-15D:W</b>					
Laboratory ID:	10-255-02					
Ammonia	<b>ND</b>	0.050	SM 4500-NH <sub>3</sub> D	10-24-19	10-24-19	
<b>Client ID:</b>	<b>S-MW-5:W</b>					
Laboratory ID:	10-255-03					
Ammonia	<b>ND</b>	0.050	SM 4500-NH <sub>3</sub> D	10-24-19	10-24-19	
<b>Client ID:</b>	<b>S-MW-2:W</b>					
Laboratory ID:	10-255-04					
Ammonia	<b>ND</b>	0.050	SM 4500-NH <sub>3</sub> D	10-24-19	10-24-19	
<b>Client ID:</b>	<b>S-MW-3:W</b>					
Laboratory ID:	10-255-05					
Ammonia	<b>ND</b>	0.050	SM 4500-NH <sub>3</sub> D	10-24-19	10-24-19	
<b>Client ID:</b>	<b>MW-27:W</b>					
Laboratory ID:	10-255-06					
Ammonia	<b>ND</b>	0.050	SM 4500-NH <sub>3</sub> D	10-24-19	10-24-19	
<b>Client ID:</b>	<b>MW-29:W</b>					
Laboratory ID:	10-255-07					
Ammonia	<b>0.29</b>	0.050	SM 4500-NH <sub>3</sub> D	10-24-19	10-24-19	



Date of Report: October 29, 2019  
 Samples Submitted: October 18, 2019  
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**AMMONIA (as Nitrogen)**  
**SM 4500-NH<sub>3</sub> D**

Matrix: Water  
 Units: mg NH<sub>3</sub>-N/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>Client ID:</b>	<b>MW-4:W</b>					
Laboratory ID:	10-255-08					
Ammonia	<b>ND</b>	0.050	SM 4500-NH <sub>3</sub> D	10-24-19	10-24-19	

<b>Client ID:</b>	<b>MW-12:W</b>					
Laboratory ID:	10-255-09					
Ammonia	<b>ND</b>	0.050	SM 4500-NH <sub>3</sub> D	10-24-19	10-24-19	

<b>Client ID:</b>	<b>MW-35:W</b>					
Laboratory ID:	10-255-10					
Ammonia	<b>ND</b>	0.050	SM 4500-NH <sub>3</sub> D	10-24-19	10-24-19	



Date of Report: October 29, 2019  
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**AMMONIA (as Nitrogen)**  
**SM 4500-NH<sub>3</sub> D**  
**QUALITY CONTROL**

Matrix: Water  
 Units: mg NH<sub>3</sub>-N/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>METHOD BLANK</b>						
Laboratory ID:	MB1024W1					
Ammonia	<b>ND</b>	0.050	SM 4500-NH <sub>3</sub> D	10-24-19	10-24-19	

Analyte	Result	Spike Level	Source Result	Percent Recovery	Recovery Limits	RPD	RPD Limit	Flags
<b>DUPLICATE</b>								
Laboratory ID:	10-255-06							
	ORIG	DUP						
Ammonia	<b>ND</b>	<b>ND</b>	NA	NA	NA	NA	12	

<b>MATRIX SPIKE</b>								
Laboratory ID:	10-255-06							
	MS	MS		MS				
Ammonia	<b>4.91</b>	5.00	ND	98	75-121	NA	NA	

<b>SPIKE BLANK</b>								
Laboratory ID:	SB1024W1							
	SB	SB		SB				
Ammonia	<b>5.05</b>	5.00	NA	101	85-110	NA	NA	



Date of Report: October 29, 2019  
 Samples Submitted: October 18, 2019  
 Laboratory Reference: 1910-255  
 Project: 82302-9.4

**DISSOLVED GASES  
 RSK 175**

Matrix: Water  
 Units: ug/L (ppb)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>Client ID:</b>	<b>HZ-MW-15S:W</b>					
Laboratory ID:	10-255-01					
Methane	<b>7.6</b>	1.0	RSK 175	10-24-19	10-24-19	
Ethane	<b>ND</b>	0.50	RSK 175	10-24-19	10-24-19	
Ethene	<b>ND</b>	0.50	RSK 175	10-24-19	10-24-19	

<b>Client ID:</b>	<b>HZ-MW-15D:W</b>					
Laboratory ID:	10-255-02					
Methane	<b>5000</b>	50	RSK 175	10-24-19	10-24-19	
Ethane	<b>ND</b>	0.50	RSK 175	10-24-19	10-24-19	
Ethene	<b>ND</b>	0.50	RSK 175	10-24-19	10-24-19	

<b>Client ID:</b>	<b>S-MW-5:W</b>					
Laboratory ID:	10-255-03					
Methane	<b>ND</b>	1.0	RSK 175	10-24-19	10-24-19	
Ethane	<b>ND</b>	0.50	RSK 175	10-24-19	10-24-19	
Ethene	<b>ND</b>	0.50	RSK 175	10-24-19	10-24-19	

<b>Client ID:</b>	<b>S-MW-2:W</b>					
Laboratory ID:	10-255-04					
Methane	<b>23</b>	1.0	RSK 175	10-24-19	10-24-19	
Ethane	<b>ND</b>	0.50	RSK 175	10-24-19	10-24-19	
Ethene	<b>ND</b>	0.50	RSK 175	10-24-19	10-24-19	

<b>Client ID:</b>	<b>S-MW-3:W</b>					
Laboratory ID:	10-255-05					
Methane	<b>510</b>	5.0	RSK 175	10-24-19	10-24-19	
Ethane	<b>ND</b>	0.50	RSK 175	10-24-19	10-24-19	
Ethene	<b>ND</b>	0.50	RSK 175	10-24-19	10-24-19	

<b>Client ID:</b>	<b>MW-27:W</b>					
Laboratory ID:	10-255-06					
Methane	<b>ND</b>	1.0	RSK 175	10-24-19	10-24-19	
Ethane	<b>ND</b>	0.50	RSK 175	10-24-19	10-24-19	
Ethene	<b>ND</b>	0.50	RSK 175	10-24-19	10-24-19	



Date of Report: October 29, 2019  
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 Laboratory Reference: 1910-255  
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**DISSOLVED GASES  
RSK 175**

Matrix: Water  
 Units: ug/L (ppb)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>Client ID:</b>	<b>MW-29:W</b>					
Laboratory ID:	10-255-07					
Methane	<b>390</b>	5.0	RSK 175	10-24-19	10-24-19	
Ethane	<b>ND</b>	0.50	RSK 175	10-24-19	10-24-19	
Ethene	<b>ND</b>	0.50	RSK 175	10-24-19	10-24-19	

<b>Client ID:</b>	<b>MW-4:W</b>					
Laboratory ID:	10-255-08					
Methane	<b>11000</b>	150	RSK 175	10-24-19	10-24-19	
Ethane	<b>ND</b>	0.50	RSK 175	10-24-19	10-24-19	
Ethene	<b>ND</b>	0.50	RSK 175	10-24-19	10-24-19	

<b>Client ID:</b>	<b>MW-12:W</b>					
Laboratory ID:	10-255-09					
Methane	<b>3300</b>	50	RSK 175	10-24-19	10-24-19	
Ethane	<b>ND</b>	0.50	RSK 175	10-24-19	10-24-19	
Ethene	<b>ND</b>	0.50	RSK 175	10-24-19	10-24-19	

<b>Client ID:</b>	<b>MW-35:W</b>					
Laboratory ID:	10-255-10					
Methane	<b>1.6</b>	1.0	RSK 175	10-24-19	10-24-19	
Ethane	<b>ND</b>	0.50	RSK 175	10-24-19	10-24-19	
Ethene	<b>ND</b>	0.50	RSK 175	10-24-19	10-24-19	



Date of Report: October 29, 2019  
 Samples Submitted: October 18, 2019  
 Laboratory Reference: 1910-255  
 Project: 82302-9.4

**DISSOLVED GASES  
 RSK 175  
 QUALITY CONTROL**

Matrix: Water  
 Units: ug/L (ppb)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>METHOD BLANK</b>						
Laboratory ID:	MB1024W1					
Methane	<b>ND</b>	1.0	RSK 175	10-24-19	10-24-19	
Ethane	<b>ND</b>	0.50	RSK 175	10-24-19	10-24-19	
Ethene	<b>ND</b>	0.50	RSK 175	10-24-19	10-24-19	

Analyte	Result		Spike Level		Source Result	Percent Recovery	Recovery Limits	RPD	RPD Limit	Flags
<b>MATRIX SPIKES</b>										
Laboratory ID:	10-255-06									
	MS	MSD	MS	MSD		MS	MSD			
Methane	<b>23.1</b>	<b>21.5</b>	22.1	22.1	ND	<b>104</b>	<b>97</b>	75-125	7	25
Ethane	<b>42.9</b>	<b>41.6</b>	41.6	41.6	ND	<b>103</b>	<b>100</b>	75-125	3	25
Ethene	<b>45.2</b>	<b>48.5</b>	38.8	38.8	ND	<b>116</b>	<b>125</b>	75-125	7	25





### Data Qualifiers and Abbreviations

- A - Due to a high sample concentration, the amount spiked is insufficient for meaningful MS/MSD recovery data.
  - B - The analyte indicated was also found in the blank sample.
  - C - The duplicate RPD is outside control limits due to high result variability when analyte concentrations are within five times the quantitation limit.
  - E - The value reported exceeds the quantitation range and is an estimate.
  - F - Surrogate recovery data is not available due to the high concentration of coeluting target compounds.
  - H - The analyte indicated is a common laboratory solvent and may have been introduced during sample preparation, and be impacting the sample result.
  - I - Compound recovery is outside of the control limits.
  - J - The value reported was below the practical quantitation limit. The value is an estimate.
  - K - Sample duplicate RPD is outside control limits due to sample inhomogeneity. The sample was re-extracted and re-analyzed with similar results.
  - L - The RPD is outside of the control limits.
  - M - Hydrocarbons in the gasoline range are impacting the diesel range result.
  - M1 - Hydrocarbons in the gasoline range (toluene-naphthalene) are present in the sample.
  - N - Hydrocarbons in the lube oil range are impacting the diesel range result.
  - N1 - Hydrocarbons in diesel range are impacting lube oil range results.
  - O - Hydrocarbons indicative of heavier fuels are present in the sample and are impacting the gasoline result.
  - P - The RPD of the detected concentrations between the two columns is greater than 40.
  - Q - Surrogate recovery is outside of the control limits.
  - S - Surrogate recovery data is not available due to the necessary dilution of the sample.
  - T - The sample chromatogram is not similar to a typical \_\_\_\_\_.
  - U - The analyte was analyzed for, but was not detected above the reported sample quantitation limit.
  - U1 - The practical quantitation limit is elevated due to interferences present in the sample.
  - V - Matrix Spike/Matrix Spike Duplicate recoveries are outside control limits due to matrix effects.
  - W - Matrix Spike/Matrix Spike Duplicate RPD are outside control limits due to matrix effects.
  - X - Sample extract treated with a mercury cleanup procedure.
  - X1 - Sample extract treated with a sulfuric acid/silica gel cleanup procedure.
  - Y - The calibration verification for this analyte exceeded the 20% drift specified in methods 8260 & 8270, and therefore the reported result should be considered an estimate. The overall performance of the calibration verification standard met the acceptance criteria of the method.
  - Z -
- ND - Not Detected at PQL  
 PQL - Practical Quantitation Limit  
 RPD - Relative Percent Difference









14648 NE 95<sup>th</sup> Street, Redmond, WA 98052 • (425) 883-3881

October 29, 2019

Jeff Jensen  
Kane Environmental, Inc.  
4015 13th Avenue West  
Seattle, WA 98119

Re: Analytical Data for Project 82302-9.4  
Laboratory Reference No. 1910-275

Dear Jeff:

Enclosed are the analytical results and associated quality control data for samples submitted on October 21, 2019.

The standard policy of OnSite Environmental, Inc. is to store your samples for 30 days from the date of receipt. If you require longer storage, please contact the laboratory.

We appreciate the opportunity to be of service to you on this project. If you have any questions concerning the data, or need additional information, please feel free to call me.

Sincerely,

A handwritten signature in black ink, appearing to read "DB", with a long horizontal flourish extending to the right.

David Baumeister  
Project Manager

Enclosures



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OnSite Environmental, Inc. 14648 NE 95<sup>th</sup> Street, Redmond, WA 98052 (425) 883-3881

This report pertains to the samples analyzed in accordance with the chain of custody, and is intended only for the use of the individual or company to whom it is addressed.

Date of Report: October 29, 2019  
Samples Submitted: October 21, 2019  
Laboratory Reference: 1910-275  
Project: 82302-9.4

### Case Narrative

Samples were collected on October 21, 2019 and received by the laboratory on October 21, 2019. They were maintained at the laboratory at a temperature of 2°C to 6°C.

Please note that any and all soil sample results are reported on a dry-weight basis, unless otherwise noted below.

General QA/QC issues associated with the analytical data enclosed in this laboratory report will be indicated with a reference to a comment or explanation on the Data Qualifier page. More complex and involved QA/QC issues will be discussed in detail below.



Date of Report: October 29, 2019  
 Samples Submitted: October 21, 2019  
 Laboratory Reference: 1910-275  
 Project: 82302-9.4

**VOLATILE ORGANICS EPA 8260D**  
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Matrix: Water  
 Units: ug/L

<b>Analyte</b>	<b>Result</b>	<b>PQL</b>	<b>Method</b>	<b>Date Prepared</b>	<b>Date Analyzed</b>	<b>Flags</b>
<b>Client ID:</b>	<b>HZ-MW-1:W</b>					
Laboratory ID:	10-275-01					
Dichlorodifluoromethane	ND	0.20	EPA 8260D	10-24-19	10-24-19	
Chloromethane	ND	1.0	EPA 8260D	10-24-19	10-24-19	
Vinyl Chloride	ND	0.020	EPA 8260D/SIM	10-24-19	10-24-19	
Bromomethane	ND	0.20	EPA 8260D	10-24-19	10-24-19	
Chloroethane	ND	1.0	EPA 8260D	10-24-19	10-24-19	
Trichlorofluoromethane	ND	0.20	EPA 8260D	10-24-19	10-24-19	
1,1-Dichloroethene	ND	0.20	EPA 8260D	10-24-19	10-24-19	
Iodomethane	ND	1.0	EPA 8260D	10-24-19	10-24-19	
Methylene Chloride	ND	1.0	EPA 8260D	10-24-19	10-24-19	
(trans) 1,2-Dichloroethene	ND	0.20	EPA 8260D	10-24-19	10-24-19	
1,1-Dichloroethane	ND	0.20	EPA 8260D	10-24-19	10-24-19	
2,2-Dichloropropane	ND	0.20	EPA 8260D	10-24-19	10-24-19	
(cis) 1,2-Dichloroethene	0.61	0.20	EPA 8260D	10-24-19	10-24-19	
Bromochloromethane	ND	0.20	EPA 8260D	10-24-19	10-24-19	
Chloroform	ND	0.20	EPA 8260D	10-24-19	10-24-19	
1,1,1-Trichloroethane	ND	0.20	EPA 8260D	10-24-19	10-24-19	
Carbon Tetrachloride	ND	0.20	EPA 8260D	10-24-19	10-24-19	
1,1-Dichloropropene	ND	0.20	EPA 8260D	10-24-19	10-24-19	
1,2-Dichloroethane	ND	0.20	EPA 8260D	10-24-19	10-24-19	
Trichloroethene	ND	0.20	EPA 8260D	10-24-19	10-24-19	
1,2-Dichloropropane	ND	0.20	EPA 8260D	10-24-19	10-24-19	
Dibromomethane	ND	0.20	EPA 8260D	10-24-19	10-24-19	
Bromodichloromethane	ND	0.20	EPA 8260D	10-24-19	10-24-19	
2-Chloroethyl Vinyl Ether	ND	1.0	EPA 8260D	10-24-19	10-24-19	
(cis) 1,3-Dichloropropene	ND	0.20	EPA 8260D	10-24-19	10-24-19	
(trans) 1,3-Dichloropropene	ND	0.20	EPA 8260D	10-24-19	10-24-19	



Date of Report: October 29, 2019  
 Samples Submitted: October 21, 2019  
 Laboratory Reference: 1910-275  
 Project: 82302-9.4

**VOLATILE ORGANICS EPA 8260D**  
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Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>Client ID:</b>	<b>HZ-MW-1:W</b>					
<b>Laboratory ID:</b>	10-275-01					
1,1,2-Trichloroethane	ND	0.20	EPA 8260D	10-24-19	10-24-19	
Tetrachloroethene	15	0.20	EPA 8260D	10-24-19	10-24-19	
1,3-Dichloropropane	ND	0.20	EPA 8260D	10-24-19	10-24-19	
Dibromochloromethane	ND	0.20	EPA 8260D	10-24-19	10-24-19	
1,2-Dibromoethane	ND	0.20	EPA 8260D	10-24-19	10-24-19	
Chlorobenzene	ND	0.20	EPA 8260D	10-24-19	10-24-19	
1,1,1,2-Tetrachloroethane	ND	0.20	EPA 8260D	10-24-19	10-24-19	
Bromoform	ND	1.0	EPA 8260D	10-24-19	10-24-19	
Bromobenzene	ND	0.20	EPA 8260D	10-24-19	10-24-19	
1,1,2,2-Tetrachloroethane	ND	0.20	EPA 8260D	10-24-19	10-24-19	
1,2,3-Trichloropropane	ND	0.20	EPA 8260D	10-24-19	10-24-19	
2-Chlorotoluene	ND	0.20	EPA 8260D	10-24-19	10-24-19	
4-Chlorotoluene	ND	0.20	EPA 8260D	10-24-19	10-24-19	
1,3-Dichlorobenzene	ND	0.20	EPA 8260D	10-24-19	10-24-19	
1,4-Dichlorobenzene	ND	0.20	EPA 8260D	10-24-19	10-24-19	
1,2-Dichlorobenzene	ND	0.20	EPA 8260D	10-24-19	10-24-19	
1,2-Dibromo-3-chloropropane	ND	1.0	EPA 8260D	10-24-19	10-24-19	
1,2,4-Trichlorobenzene	ND	0.20	EPA 8260D	10-24-19	10-24-19	
Hexachlorobutadiene	ND	1.0	EPA 8260D	10-24-19	10-24-19	
1,2,3-Trichlorobenzene	ND	0.20	EPA 8260D	10-24-19	10-24-19	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Dibromofluoromethane</i>	<i>98</i>	<i>75-127</i>				
<i>Toluene-d8</i>	<i>101</i>	<i>80-127</i>				
<i>4-Bromofluorobenzene</i>	<i>94</i>	<i>78-125</i>				



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Matrix: Water  
 Units: ug/L

<b>Analyte</b>	<b>Result</b>	<b>PQL</b>	<b>Method</b>	<b>Date Prepared</b>	<b>Date Analyzed</b>	<b>Flags</b>
<b>Client ID:</b>	<b>MW-8:W</b>					
<b>Laboratory ID:</b>	<b>10-275-02</b>					
Dichlorodifluoromethane	ND	0.20	EPA 8260D	10-24-19	10-24-19	
Chloromethane	ND	1.0	EPA 8260D	10-24-19	10-24-19	
Vinyl Chloride	ND	0.020	EPA 8260D/SIM	10-24-19	10-24-19	
Bromomethane	ND	0.20	EPA 8260D	10-24-19	10-24-19	
Chloroethane	ND	1.0	EPA 8260D	10-24-19	10-24-19	
Trichlorofluoromethane	ND	0.20	EPA 8260D	10-24-19	10-24-19	
1,1-Dichloroethene	ND	0.20	EPA 8260D	10-24-19	10-24-19	
Iodomethane	ND	1.0	EPA 8260D	10-24-19	10-24-19	
Methylene Chloride	ND	1.0	EPA 8260D	10-24-19	10-24-19	
(trans) 1,2-Dichloroethene	ND	0.20	EPA 8260D	10-24-19	10-24-19	
1,1-Dichloroethane	ND	0.20	EPA 8260D	10-24-19	10-24-19	
2,2-Dichloropropane	ND	0.20	EPA 8260D	10-24-19	10-24-19	
(cis) 1,2-Dichloroethene	0.41	0.20	EPA 8260D	10-24-19	10-24-19	
Bromochloromethane	ND	0.20	EPA 8260D	10-24-19	10-24-19	
Chloroform	ND	0.20	EPA 8260D	10-24-19	10-24-19	
1,1,1-Trichloroethane	ND	0.20	EPA 8260D	10-24-19	10-24-19	
Carbon Tetrachloride	ND	0.20	EPA 8260D	10-24-19	10-24-19	
1,1-Dichloropropene	ND	0.20	EPA 8260D	10-24-19	10-24-19	
1,2-Dichloroethane	ND	0.20	EPA 8260D	10-24-19	10-24-19	
Trichloroethene	0.35	0.20	EPA 8260D	10-24-19	10-24-19	
1,2-Dichloropropane	ND	0.20	EPA 8260D	10-24-19	10-24-19	
Dibromomethane	ND	0.20	EPA 8260D	10-24-19	10-24-19	
Bromodichloromethane	ND	0.20	EPA 8260D	10-24-19	10-24-19	
2-Chloroethyl Vinyl Ether	ND	1.0	EPA 8260D	10-24-19	10-24-19	
(cis) 1,3-Dichloropropene	ND	0.20	EPA 8260D	10-24-19	10-24-19	
(trans) 1,3-Dichloropropene	ND	0.20	EPA 8260D	10-24-19	10-24-19	



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Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>Client ID:</b>	<b>MW-8:W</b>					
Laboratory ID:	10-275-02					
1,1,2-Trichloroethane	ND	0.20	EPA 8260D	10-24-19	10-24-19	
Tetrachloroethene	1.0	0.20	EPA 8260D	10-24-19	10-24-19	
1,3-Dichloropropane	ND	0.20	EPA 8260D	10-24-19	10-24-19	
Dibromochloromethane	ND	0.20	EPA 8260D	10-24-19	10-24-19	
1,2-Dibromoethane	ND	0.20	EPA 8260D	10-24-19	10-24-19	
Chlorobenzene	ND	0.20	EPA 8260D	10-24-19	10-24-19	
1,1,1,2-Tetrachloroethane	ND	0.20	EPA 8260D	10-24-19	10-24-19	
Bromoform	ND	1.0	EPA 8260D	10-24-19	10-24-19	
Bromobenzene	ND	0.20	EPA 8260D	10-24-19	10-24-19	
1,1,2,2-Tetrachloroethane	ND	0.20	EPA 8260D	10-24-19	10-24-19	
1,2,3-Trichloropropane	ND	0.20	EPA 8260D	10-24-19	10-24-19	
2-Chlorotoluene	ND	0.20	EPA 8260D	10-24-19	10-24-19	
4-Chlorotoluene	ND	0.20	EPA 8260D	10-24-19	10-24-19	
1,3-Dichlorobenzene	ND	0.20	EPA 8260D	10-24-19	10-24-19	
1,4-Dichlorobenzene	ND	0.20	EPA 8260D	10-24-19	10-24-19	
1,2-Dichlorobenzene	ND	0.20	EPA 8260D	10-24-19	10-24-19	
1,2-Dibromo-3-chloropropane	ND	1.0	EPA 8260D	10-24-19	10-24-19	
1,2,4-Trichlorobenzene	ND	0.20	EPA 8260D	10-24-19	10-24-19	
Hexachlorobutadiene	ND	1.0	EPA 8260D	10-24-19	10-24-19	
1,2,3-Trichlorobenzene	ND	0.20	EPA 8260D	10-24-19	10-24-19	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Dibromofluoromethane</i>	<i>97</i>	<i>75-127</i>				
<i>Toluene-d8</i>	<i>98</i>	<i>80-127</i>				
<i>4-Bromofluorobenzene</i>	<i>96</i>	<i>78-125</i>				



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Matrix: Water  
 Units: ug/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>Client ID:</b>	<b>MW-11:W</b>					
Laboratory ID:	10-275-03					
Dichlorodifluoromethane	ND	1.0	EPA 8260D	10-24-19	10-24-19	
Chloromethane	ND	5.0	EPA 8260D	10-24-19	10-24-19	
Vinyl Chloride	1.5	1.0	EPA 8260D	10-24-19	10-24-19	
Bromomethane	ND	1.0	EPA 8260D	10-24-19	10-24-19	
Chloroethane	ND	5.0	EPA 8260D	10-24-19	10-24-19	
Trichlorofluoromethane	ND	1.0	EPA 8260D	10-24-19	10-24-19	
1,1-Dichloroethene	ND	1.0	EPA 8260D	10-24-19	10-24-19	
Iodomethane	ND	5.0	EPA 8260D	10-24-19	10-24-19	
Methylene Chloride	ND	5.0	EPA 8260D	10-24-19	10-24-19	
(trans) 1,2-Dichloroethene	ND	1.0	EPA 8260D	10-24-19	10-24-19	
1,1-Dichloroethane	ND	1.0	EPA 8260D	10-24-19	10-24-19	
2,2-Dichloropropane	ND	1.0	EPA 8260D	10-24-19	10-24-19	
(cis) 1,2-Dichloroethene	220	1.0	EPA 8260D	10-24-19	10-24-19	
Bromochloromethane	ND	1.0	EPA 8260D	10-24-19	10-24-19	
Chloroform	ND	1.0	EPA 8260D	10-24-19	10-24-19	
1,1,1-Trichloroethane	ND	1.0	EPA 8260D	10-24-19	10-24-19	
Carbon Tetrachloride	ND	1.0	EPA 8260D	10-24-19	10-24-19	
1,1-Dichloropropene	ND	1.0	EPA 8260D	10-24-19	10-24-19	
1,2-Dichloroethane	ND	1.0	EPA 8260D	10-24-19	10-24-19	
Trichloroethene	3.8	1.0	EPA 8260D	10-24-19	10-24-19	
1,2-Dichloropropane	ND	1.0	EPA 8260D	10-24-19	10-24-19	
Dibromomethane	ND	1.0	EPA 8260D	10-24-19	10-24-19	
Bromodichloromethane	ND	1.0	EPA 8260D	10-24-19	10-24-19	
2-Chloroethyl Vinyl Ether	ND	5.0	EPA 8260D	10-24-19	10-24-19	
(cis) 1,3-Dichloropropene	ND	1.0	EPA 8260D	10-24-19	10-24-19	
(trans) 1,3-Dichloropropene	ND	1.0	EPA 8260D	10-24-19	10-24-19	





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Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>Client ID:</b>	<b>MW-11:W</b>					
Laboratory ID:	10-275-03					
1,1,2-Trichloroethane	ND	1.0	EPA 8260D	10-24-19	10-24-19	
Tetrachloroethene	3.5	1.0	EPA 8260D	10-24-19	10-24-19	
1,3-Dichloropropane	ND	1.0	EPA 8260D	10-24-19	10-24-19	
Dibromochloromethane	ND	1.0	EPA 8260D	10-24-19	10-24-19	
1,2-Dibromoethane	ND	1.0	EPA 8260D	10-24-19	10-24-19	
Chlorobenzene	ND	1.0	EPA 8260D	10-24-19	10-24-19	
1,1,1,2-Tetrachloroethane	ND	1.0	EPA 8260D	10-24-19	10-24-19	
Bromoform	ND	5.0	EPA 8260D	10-24-19	10-24-19	
Bromobenzene	ND	1.0	EPA 8260D	10-24-19	10-24-19	
1,1,2,2-Tetrachloroethane	ND	1.0	EPA 8260D	10-24-19	10-24-19	
1,2,3-Trichloropropane	ND	1.0	EPA 8260D	10-24-19	10-24-19	
2-Chlorotoluene	ND	1.0	EPA 8260D	10-24-19	10-24-19	
4-Chlorotoluene	ND	1.0	EPA 8260D	10-24-19	10-24-19	
1,3-Dichlorobenzene	ND	1.0	EPA 8260D	10-24-19	10-24-19	
1,4-Dichlorobenzene	ND	1.0	EPA 8260D	10-24-19	10-24-19	
1,2-Dichlorobenzene	ND	1.0	EPA 8260D	10-24-19	10-24-19	
1,2-Dibromo-3-chloropropane	ND	5.0	EPA 8260D	10-24-19	10-24-19	
1,2,4-Trichlorobenzene	ND	1.0	EPA 8260D	10-24-19	10-24-19	
Hexachlorobutadiene	ND	5.0	EPA 8260D	10-24-19	10-24-19	
1,2,3-Trichlorobenzene	ND	1.0	EPA 8260D	10-24-19	10-24-19	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Dibromofluoromethane</i>	96	75-127				
<i>Toluene-d8</i>	96	80-127				
<i>4-Bromofluorobenzene</i>	96	78-125				



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Matrix: Water  
 Units: ug/L

<b>Analyte</b>	<b>Result</b>	<b>PQL</b>	<b>Method</b>	<b>Date Prepared</b>	<b>Date Analyzed</b>	<b>Flags</b>
<b>Client ID:</b>	<b>MW-6:W</b>					
<b>Laboratory ID:</b>	10-275-04					
Dichlorodifluoromethane	ND	10	EPA 8260D	10-24-19	10-24-19	
Chloromethane	ND	50	EPA 8260D	10-24-19	10-24-19	
Vinyl Chloride	3.2	1.0	EPA 8260D/SIM	10-24-19	10-24-19	
Bromomethane	ND	10	EPA 8260D	10-24-19	10-24-19	
Chloroethane	ND	50	EPA 8260D	10-24-19	10-24-19	
Trichlorofluoromethane	ND	10	EPA 8260D	10-24-19	10-24-19	
1,1-Dichloroethene	ND	10	EPA 8260D	10-24-19	10-24-19	
Iodomethane	ND	50	EPA 8260D	10-24-19	10-24-19	
Methylene Chloride	ND	50	EPA 8260D	10-24-19	10-24-19	
(trans) 1,2-Dichloroethene	ND	10	EPA 8260D	10-24-19	10-24-19	
1,1-Dichloroethane	ND	10	EPA 8260D	10-24-19	10-24-19	
2,2-Dichloropropane	ND	10	EPA 8260D	10-24-19	10-24-19	
(cis) 1,2-Dichloroethene	1200	10	EPA 8260D	10-24-19	10-24-19	
Bromochloromethane	ND	10	EPA 8260D	10-24-19	10-24-19	
Chloroform	ND	10	EPA 8260D	10-24-19	10-24-19	
1,1,1-Trichloroethane	ND	10	EPA 8260D	10-24-19	10-24-19	
Carbon Tetrachloride	ND	10	EPA 8260D	10-24-19	10-24-19	
1,1-Dichloropropene	ND	10	EPA 8260D	10-24-19	10-24-19	
1,2-Dichloroethane	ND	10	EPA 8260D	10-24-19	10-24-19	
Trichloroethene	38	10	EPA 8260D	10-24-19	10-24-19	
1,2-Dichloropropane	ND	10	EPA 8260D	10-24-19	10-24-19	
Dibromomethane	ND	10	EPA 8260D	10-24-19	10-24-19	
Bromodichloromethane	ND	10	EPA 8260D	10-24-19	10-24-19	
2-Chloroethyl Vinyl Ether	ND	50	EPA 8260D	10-24-19	10-24-19	
(cis) 1,3-Dichloropropene	ND	10	EPA 8260D	10-24-19	10-24-19	
(trans) 1,3-Dichloropropene	ND	10	EPA 8260D	10-24-19	10-24-19	



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Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>Client ID:</b>	<b>MW-6:W</b>					
Laboratory ID:	10-275-04					
1,1,2-Trichloroethane	ND	10	EPA 8260D	10-24-19	10-24-19	
Tetrachloroethene	74	10	EPA 8260D	10-24-19	10-24-19	
1,3-Dichloropropane	ND	10	EPA 8260D	10-24-19	10-24-19	
Dibromochloromethane	ND	10	EPA 8260D	10-24-19	10-24-19	
1,2-Dibromoethane	ND	10	EPA 8260D	10-24-19	10-24-19	
Chlorobenzene	ND	10	EPA 8260D	10-24-19	10-24-19	
1,1,1,2-Tetrachloroethane	ND	10	EPA 8260D	10-24-19	10-24-19	
Bromoform	ND	50	EPA 8260D	10-24-19	10-24-19	
Bromobenzene	ND	10	EPA 8260D	10-24-19	10-24-19	
1,1,2,2-Tetrachloroethane	ND	10	EPA 8260D	10-24-19	10-24-19	
1,2,3-Trichloropropane	ND	10	EPA 8260D	10-24-19	10-24-19	
2-Chlorotoluene	ND	10	EPA 8260D	10-24-19	10-24-19	
4-Chlorotoluene	ND	10	EPA 8260D	10-24-19	10-24-19	
1,3-Dichlorobenzene	ND	10	EPA 8260D	10-24-19	10-24-19	
1,4-Dichlorobenzene	ND	10	EPA 8260D	10-24-19	10-24-19	
1,2-Dichlorobenzene	ND	10	EPA 8260D	10-24-19	10-24-19	
1,2-Dibromo-3-chloropropane	ND	50	EPA 8260D	10-24-19	10-24-19	
1,2,4-Trichlorobenzene	ND	10	EPA 8260D	10-24-19	10-24-19	
Hexachlorobutadiene	ND	50	EPA 8260D	10-24-19	10-24-19	
1,2,3-Trichlorobenzene	ND	10	EPA 8260D	10-24-19	10-24-19	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Dibromofluoromethane</i>	<i>97</i>	<i>75-127</i>				
<i>Toluene-d8</i>	<i>96</i>	<i>80-127</i>				
<i>4-Bromofluorobenzene</i>	<i>97</i>	<i>78-125</i>				



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**VOLATILE ORGANICS EPA 8260D**  
**QUALITY CONTROL**  
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Matrix: Water  
 Units: ug/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>METHOD BLANK</b>						
Laboratory ID:	MB1024W1					
Dichlorodifluoromethane	ND	0.20	EPA 8260D	10-24-19	10-24-19	
Chloromethane	ND	1.0	EPA 8260D	10-24-19	10-24-19	
Vinyl Chloride	ND	0.020	EPA 8260D/SIM	10-24-19	10-24-19	
Bromomethane	ND	0.20	EPA 8260D	10-24-19	10-24-19	
Chloroethane	ND	1.0	EPA 8260D	10-24-19	10-24-19	
Trichlorofluoromethane	ND	0.20	EPA 8260D	10-24-19	10-24-19	
1,1-Dichloroethene	ND	0.20	EPA 8260D	10-24-19	10-24-19	
Iodomethane	ND	1.0	EPA 8260D	10-24-19	10-24-19	
Methylene Chloride	ND	1.0	EPA 8260D	10-24-19	10-24-19	
(trans) 1,2-Dichloroethene	ND	0.20	EPA 8260D	10-24-19	10-24-19	
1,1-Dichloroethane	ND	0.20	EPA 8260D	10-24-19	10-24-19	
2,2-Dichloropropane	ND	0.20	EPA 8260D	10-24-19	10-24-19	
(cis) 1,2-Dichloroethene	ND	0.20	EPA 8260D	10-24-19	10-24-19	
Bromochloromethane	ND	0.20	EPA 8260D	10-24-19	10-24-19	
Chloroform	ND	0.20	EPA 8260D	10-24-19	10-24-19	
1,1,1-Trichloroethane	ND	0.20	EPA 8260D	10-24-19	10-24-19	
Carbon Tetrachloride	ND	0.20	EPA 8260D	10-24-19	10-24-19	
1,1-Dichloropropene	ND	0.20	EPA 8260D	10-24-19	10-24-19	
1,2-Dichloroethane	ND	0.20	EPA 8260D	10-24-19	10-24-19	
Trichloroethene	ND	0.20	EPA 8260D	10-24-19	10-24-19	
1,2-Dichloropropane	ND	0.20	EPA 8260D	10-24-19	10-24-19	
Dibromomethane	ND	0.20	EPA 8260D	10-24-19	10-24-19	
Bromodichloromethane	ND	0.20	EPA 8260D	10-24-19	10-24-19	
2-Chloroethyl Vinyl Ether	ND	1.0	EPA 8260D	10-24-19	10-24-19	
(cis) 1,3-Dichloropropene	ND	0.20	EPA 8260D	10-24-19	10-24-19	
(trans) 1,3-Dichloropropene	ND	0.20	EPA 8260D	10-24-19	10-24-19	



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**VOLATILE ORGANICS EPA 8260D**  
**QUALITY CONTROL**  
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Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>METHOD BLANK</b>						
Laboratory ID:	MB1024W1					
1,1,2-Trichloroethane	ND	0.20	EPA 8260D	10-24-19	10-24-19	
Tetrachloroethene	ND	0.20	EPA 8260D	10-24-19	10-24-19	
1,3-Dichloropropane	ND	0.20	EPA 8260D	10-24-19	10-24-19	
Dibromochloromethane	ND	0.20	EPA 8260D	10-24-19	10-24-19	
1,2-Dibromoethane	ND	0.20	EPA 8260D	10-24-19	10-24-19	
Chlorobenzene	ND	0.20	EPA 8260D	10-24-19	10-24-19	
1,1,1,2-Tetrachloroethane	ND	0.20	EPA 8260D	10-24-19	10-24-19	
Bromoform	ND	1.0	EPA 8260D	10-24-19	10-24-19	
Bromobenzene	ND	0.20	EPA 8260D	10-24-19	10-24-19	
1,1,2,2-Tetrachloroethane	ND	0.20	EPA 8260D	10-24-19	10-24-19	
1,2,3-Trichloropropane	ND	0.20	EPA 8260D	10-24-19	10-24-19	
2-Chlorotoluene	ND	0.20	EPA 8260D	10-24-19	10-24-19	
4-Chlorotoluene	ND	0.20	EPA 8260D	10-24-19	10-24-19	
1,3-Dichlorobenzene	ND	0.20	EPA 8260D	10-24-19	10-24-19	
1,4-Dichlorobenzene	ND	0.20	EPA 8260D	10-24-19	10-24-19	
1,2-Dichlorobenzene	ND	0.20	EPA 8260D	10-24-19	10-24-19	
1,2-Dibromo-3-chloropropane	ND	1.0	EPA 8260D	10-24-19	10-24-19	
1,2,4-Trichlorobenzene	ND	0.20	EPA 8260D	10-24-19	10-24-19	
Hexachlorobutadiene	ND	1.0	EPA 8260D	10-24-19	10-24-19	
1,2,3-Trichlorobenzene	ND	0.20	EPA 8260D	10-24-19	10-24-19	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Dibromofluoromethane</i>	<i>96</i>	<i>75-127</i>				
<i>Toluene-d8</i>	<i>99</i>	<i>80-127</i>				
<i>4-Bromofluorobenzene</i>	<i>94</i>	<i>78-125</i>				



Date of Report: October 29, 2019  
 Samples Submitted: October 21, 2019  
 Laboratory Reference: 1910-275  
 Project: 82302-9.4

**VOLATILE ORGANICS EPA 8260D  
 QUALITY CONTROL**

Matrix: Water  
 Units: ug/L

Analyte	Result		Spike Level		Source	Percent	Recovery	RPD		Flags
					Result	Recovery	Limits	RPD	Limit	
<b>MATRIX SPIKES</b>										
Laboratory ID:	10-255-06									
	MS	MSD	MS	MSD		MS	MSD			
1,1-Dichloroethene	<b>48.2</b>	<b>47.5</b>	50.0	50.0	ND	96	95	57-135	1	15
Benzene	<b>47.3</b>	<b>46.3</b>	50.0	50.0	ND	95	93	73-131	2	16
Trichloroethene	<b>50.3</b>	<b>49.7</b>	50.0	50.0	ND	101	99	75-124	1	17
Toluene	<b>48.8</b>	<b>48.1</b>	50.0	50.0	ND	98	96	84-123	1	19
Chlorobenzene	<b>52.3</b>	<b>49.8</b>	50.0	50.0	ND	105	100	78-122	5	16
<i>Surrogate:</i>										
<i>Dibromofluoromethane</i>						95	98	75-127		
<i>Toluene-d8</i>						97	97	80-127		
<i>4-Bromofluorobenzene</i>						94	92	78-125		



Date of Report: October 29, 2019  
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 Project: 82302-9.4

**TOTAL ORGANIC CARBON  
 SM 5310B**

Matrix: Water  
 Units: mg/L

<b>Analyte</b>	<b>Result</b>	<b>PQL</b>	<b>Method</b>	<b>Date Prepared</b>	<b>Date Analyzed</b>	<b>Flags</b>
<b>Client ID:</b>	<b>HZ-MW-1:W</b>					
Laboratory ID:	10-275-01					
Total Organic Carbon	<b>1.1</b>	1.0	SM 5310B	10-28-19	10-28-19	
<b>Client ID:</b>	<b>MW-8:W</b>					
Laboratory ID:	10-275-02					
Total Organic Carbon	<b>2.6</b>	1.0	SM 5310B	10-28-19	10-28-19	
<b>Client ID:</b>	<b>MW-11:W</b>					
Laboratory ID:	10-275-03					
Total Organic Carbon	<b>34</b>	1.0	SM 5310B	10-28-19	10-28-19	
<b>Client ID:</b>	<b>MW-6:W</b>					
Laboratory ID:	10-275-04					
Total Organic Carbon	<b>19</b>	1.0	SM 5310B	10-28-19	10-28-19	



Date of Report: October 29, 2019  
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 Project: 82302-9.4

**TOTAL ORGANIC CARBON  
 SM 5310B  
 QUALITY CONTROL**

Matrix: Water  
 Units: mg/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>METHOD BLANK</b>						
Laboratory ID:	MB1028W1					
Total Organic Carbon	<b>ND</b>	1.0	SM 5310B	10-28-19	10-28-19	

Analyte	Result	Spike Level	Source Result	Percent Recovery	Recovery Limits	RPD	RPD Limit	Flags
<b>DUPLICATE</b>								
Laboratory ID:	10-275-01							
	ORIG	DUP						
Total Organic Carbon	<b>1.09</b>	<b>1.04</b>	NA	NA	NA	5	20	

**MATRIX SPIKE**

Laboratory ID:	10-275-01							
	MS	MS		MS				
Total Organic Carbon	<b>11.8</b>	10.0	1.09	107	85-131	NA	NA	

**SPIKE BLANK**

Laboratory ID:	SB1028W1							
	SB	SB		SB				
Total Organic Carbon	<b>10.3</b>	10.0	NA	103	88-127	NA	NA	





Date of Report: October 29, 2019  
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**DISSOLVED IRON  
 EPA 6010D**

Matrix: Water  
 Units: ug/L (ppb)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>Client ID:</b>	<b>HZ-MW-1:W</b>					
Laboratory ID:	10-275-01					
Iron	<b>ND</b>	56	EPA 6010D	10-21-19	10-25-19	
<b>Client ID:</b>	<b>MW-8:W</b>					
Laboratory ID:	10-275-02					
Iron	<b>460</b>	56	EPA 6010D	10-21-19	10-25-19	
<b>Client ID:</b>	<b>MW-11:W</b>					
Laboratory ID:	10-275-03					
Iron	<b>1500</b>	56	EPA 6010D	10-21-19	10-25-19	
<b>Client ID:</b>	<b>MW-6:W</b>					
Laboratory ID:	10-275-04					
Iron	<b>13000</b>	56	EPA 6010D	10-21-19	10-25-19	



Date of Report: October 29, 2019  
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**DISSOLVED IRON  
 EPA 6010D  
 QUALITY CONTROL**

Matrix: Water  
 Units: ug/L (ppb)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>METHOD BLANK</b>						
Laboratory ID:	MB1021F1					
Iron	<b>ND</b>	56	EPA 6010D	10-21-19	10-25-19	

Analyte	Result	Spike Level	Source Result	Percent Recovery	Recovery Limits	RPD	RPD Limit	Flags
<b>DUPLICATE</b>								
Laboratory ID:	10-255-06							
	ORIG	DUP						
Iron	<b>ND</b>	<b>ND</b>	NA	NA	NA	NA	20	

**MATRIX SPIKES**

Laboratory ID:	10-255-06									
	MS	MSD	MS	MSD		MS	MSD			
Iron	<b>22900</b>	<b>22700</b>	22200	22200	ND	<b>103</b>	<b>102</b>	75-125	1	20



Date of Report: October 29, 2019  
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**CHLORIDE**  
**SM 4500-Cl E**

Matrix: Water  
 Units: mg/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>Client ID:</b>	<b>HZ-MW-1:W</b>					
Laboratory ID:	10-275-01					
Chloride	<b>5.1</b>	2.0	SM 4500-Cl E	10-24-19	10-24-19	

<b>Client ID:</b>	<b>MW-8:W</b>					
Laboratory ID:	10-275-02					
Chloride	<b>9.4</b>	2.0	SM 4500-Cl E	10-24-19	10-24-19	

<b>Client ID:</b>	<b>MW-11:W</b>					
Laboratory ID:	10-275-03					
Chloride	<b>15</b>	2.0	SM 4500-Cl E	10-24-19	10-24-19	

<b>Client ID:</b>	<b>MW-6:W</b>					
Laboratory ID:	10-275-04					
Chloride	<b>16</b>	2.0	SM 4500-Cl E	10-24-19	10-24-19	



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**CHLORIDE  
 SM 4500-Cl E  
 QUALITY CONTROL**

Matrix: Water  
 Units: mg/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>METHOD BLANK</b>						
Laboratory ID:	MB1024W1					
Chloride	<b>ND</b>	2.0	SM 4500-Cl E	10-24-19	10-24-19	

Analyte	Result	Spike Level	Source Result	Percent Recovery	Recovery Limits	RPD	RPD Limit	Flags
<b>DUPLICATE</b>								
Laboratory ID:	10-255-06							
	ORIG	DUP						
Chloride	<b>4.52</b>	<b>4.31</b>	NA	NA	NA	5	17	

<b>MATRIX SPIKE</b>								
Laboratory ID:	10-255-06							
	MS	MS		MS				
Chloride	<b>52.7</b>	50.0	4.52	96	80-116	NA	NA	

<b>SPIKE BLANK</b>								
Laboratory ID:	SB1024W1							
	SB	SB		SB				
Chloride	<b>47.6</b>	50.0	NA	95	90-110	NA	NA	



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**SULFATE**  
**ASTM D516-11**

Matrix: Water  
 Units: mg/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>Client ID:</b>	<b>HZ-MW-1:W</b>					
Laboratory ID:	10-275-01					
Sulfate	<b>6.5</b>	5.0	ASTM D516-11	10-25-19	10-25-19	

<b>Client ID:</b>	<b>MW-8:W</b>					
Laboratory ID:	10-275-02					
Sulfate	<b>9.6</b>	5.0	ASTM D516-11	10-25-19	10-25-19	

<b>Client ID:</b>	<b>MW-11:W</b>					
Laboratory ID:	10-275-03					
Sulfate	<b>ND</b>	5.0	ASTM D516-11	10-25-19	10-25-19	

<b>Client ID:</b>	<b>MW-6:W</b>					
Laboratory ID:	10-275-04					
Sulfate	<b>ND</b>	5.0	ASTM D516-11	10-25-19	10-25-19	



Date of Report: October 29, 2019  
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**SULFATE  
 ASTM D516-11  
 QUALITY CONTROL**

Matrix: Water  
 Units: mg/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>METHOD BLANK</b>						
Laboratory ID:	MB1025W1					
Sulfate	<b>ND</b>	5.0	ASTM D516-11	10-25-19	10-25-19	

Analyte	Result	Spike Level	Source Result	Percent Recovery	Recovery Limits	RPD	RPD Limit	Flags
<b>DUPLICATE</b>								
Laboratory ID:	10-326-01							
	ORIG	DUP						
Sulfate	<b>ND</b>	<b>ND</b>	NA	NA	NA	NA	10	

<b>MATRIX SPIKE</b>								
Laboratory ID:	10-326-01							
	MS	MS		MS				
Sulfate	<b>10.4</b>	10.0	ND	104	73-134	NA	NA	

<b>SPIKE BLANK</b>								
Laboratory ID:	SB1025W1							
	SB	SB		SB				
Sulfate	<b>10.2</b>	10.0	NA	102	89-113	NA	NA	



Date of Report: October 29, 2019  
 Samples Submitted: October 21, 2019  
 Laboratory Reference: 1910-275  
 Project: 82302-9.4

**AMMONIA (as Nitrogen)**  
**SM 4500-NH<sub>3</sub> D**

Matrix: Water  
 Units: mg NH<sub>3</sub>-N/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>Client ID:</b>	<b>HZ-MW-1:W</b>					
Laboratory ID:	10-275-01					
Ammonia	<b>ND</b>	0.050	SM 4500-NH <sub>3</sub> D	10-24-19	10-24-19	
<b>Client ID:</b>	<b>MW-8:W</b>					
Laboratory ID:	10-275-02					
Ammonia	<b>ND</b>	0.050	SM 4500-NH <sub>3</sub> D	10-24-19	10-24-19	
<b>Client ID:</b>	<b>MW-11:W</b>					
Laboratory ID:	10-275-03					
Ammonia	<b>ND</b>	0.050	SM 4500-NH <sub>3</sub> D	10-24-19	10-24-19	
<b>Client ID:</b>	<b>MW-6:W</b>					
Laboratory ID:	10-275-04					
Ammonia	<b>0.12</b>	0.050	SM 4500-NH <sub>3</sub> D	10-24-19	10-24-19	



Date of Report: October 29, 2019  
 Samples Submitted: October 21, 2019  
 Laboratory Reference: 1910-275  
 Project: 82302-9.4

**AMMONIA (as Nitrogen)**  
**SM 4500-NH<sub>3</sub> D**  
**QUALITY CONTROL**

Matrix: Water  
 Units: mg NH<sub>3</sub>-N/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>METHOD BLANK</b>						
Laboratory ID:	MB1024W1					
Ammonia	<b>ND</b>	0.050	SM 4500-NH <sub>3</sub> D	10-24-19	10-24-19	

Analyte	Result	Spike Level	Source Result	Percent Recovery	Recovery Limits	RPD	RPD Limit	Flags
<b>DUPLICATE</b>								
Laboratory ID:	10-255-06							
	ORIG	DUP						
Ammonia	<b>ND</b>	<b>ND</b>	NA	NA	NA	NA	12	

<b>MATRIX SPIKE</b>								
Laboratory ID:	10-255-06							
	MS	MS		MS				
Ammonia	<b>4.91</b>	5.00	ND	98	75-121	NA	NA	

<b>SPIKE BLANK</b>								
Laboratory ID:	SB1024W1							
	SB	SB		SB				
Ammonia	<b>5.05</b>	5.00	NA	101	85-110	NA	NA	





Date of Report: October 29, 2019  
 Samples Submitted: October 21, 2019  
 Laboratory Reference: 1910-275  
 Project: 82302-9.4

**DISSOLVED GASES  
 RSK 175**

Matrix: Water  
 Units: ug/L (ppb)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>Client ID:</b>	<b>HZ-MW-1:W</b>					
Laboratory ID:	10-275-01					
Methane	<b>ND</b>	1.0	RSK 175	10-23-19	10-23-19	
Ethane	<b>ND</b>	0.50	RSK 175	10-23-19	10-23-19	
Ethene	<b>ND</b>	0.50	RSK 175	10-23-19	10-23-19	

<b>Client ID:</b>	<b>MW-8:W</b>					
Laboratory ID:	10-275-02					
Methane	<b>490</b>	10	RSK 175	10-23-19	10-23-19	
Ethane	<b>ND</b>	0.50	RSK 175	10-23-19	10-23-19	
Ethene	<b>ND</b>	0.50	RSK 175	10-23-19	10-23-19	

<b>Client ID:</b>	<b>MW-11:W</b>					
Laboratory ID:	10-275-03					
Methane	<b>1000</b>	10	RSK 175	10-23-19	10-23-19	
Ethane	<b>ND</b>	0.50	RSK 175	10-23-19	10-23-19	
Ethene	<b>ND</b>	0.50	RSK 175	10-23-19	10-23-19	

<b>Client ID:</b>	<b>MW-6:W</b>					
Laboratory ID:	10-275-04					
Methane	<b>2300</b>	30	RSK 175	10-23-19	10-23-19	
Ethane	<b>ND</b>	0.50	RSK 175	10-23-19	10-23-19	
Ethene	<b>0.94</b>	0.50	RSK 175	10-23-19	10-23-19	



Date of Report: October 29, 2019  
 Samples Submitted: October 21, 2019  
 Laboratory Reference: 1910-275  
 Project: 82302-9.4

**DISSOLVED GASES  
 RSK 175  
 QUALITY CONTROL**

Matrix: Water  
 Units: ug/L (ppb)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>METHOD BLANK</b>						
Laboratory ID:	MB1023W1					
Methane	<b>ND</b>	1.0	RSK 175	10-23-19	10-23-19	
Ethane	<b>ND</b>	0.50	RSK 175	10-23-19	10-23-19	
Ethene	<b>ND</b>	0.50	RSK 175	10-23-19	10-23-19	

Analyte	Result		Spike Level		Source Result	Percent Recovery	Recovery Limits	RPD	RPD Limit	Flags
<b>MATRIX SPIKES</b>										
Laboratory ID:	10-144-03									
	MS	MSD	MS	MSD		MS	MSD			
Methane	<b>21.46</b>	<b>21.89</b>	22.11	22.11	ND	<b>97</b>	<b>99</b>	75-125	2	25
Ethane	<b>40.85</b>	<b>41.34</b>	41.59	41.59	ND	<b>98</b>	<b>99</b>	75-125	1	25
Ethene	<b>39.05</b>	<b>41.83</b>	38.83	38.83	ND	<b>101</b>	<b>108</b>	75-125	7	25





### Data Qualifiers and Abbreviations

- A - Due to a high sample concentration, the amount spiked is insufficient for meaningful MS/MSD recovery data.
  - B - The analyte indicated was also found in the blank sample.
  - C - The duplicate RPD is outside control limits due to high result variability when analyte concentrations are within five times the quantitation limit.
  - E - The value reported exceeds the quantitation range and is an estimate.
  - F - Surrogate recovery data is not available due to the high concentration of coeluting target compounds.
  - H - The analyte indicated is a common laboratory solvent and may have been introduced during sample preparation, and be impacting the sample result.
  - I - Compound recovery is outside of the control limits.
  - J - The value reported was below the practical quantitation limit. The value is an estimate.
  - K - Sample duplicate RPD is outside control limits due to sample inhomogeneity. The sample was re-extracted and re-analyzed with similar results.
  - L - The RPD is outside of the control limits.
  - M - Hydrocarbons in the gasoline range are impacting the diesel range result.
  - M1 - Hydrocarbons in the gasoline range (toluene-naphthalene) are present in the sample.
  - N - Hydrocarbons in the lube oil range are impacting the diesel range result.
  - N1 - Hydrocarbons in diesel range are impacting lube oil range results.
  - O - Hydrocarbons indicative of heavier fuels are present in the sample and are impacting the gasoline result.
  - P - The RPD of the detected concentrations between the two columns is greater than 40.
  - Q - Surrogate recovery is outside of the control limits.
  - S - Surrogate recovery data is not available due to the necessary dilution of the sample.
  - T - The sample chromatogram is not similar to a typical \_\_\_\_\_.
  - U - The analyte was analyzed for, but was not detected above the reported sample quantitation limit.
  - U1 - The practical quantitation limit is elevated due to interferences present in the sample.
  - V - Matrix Spike/Matrix Spike Duplicate recoveries are outside control limits due to matrix effects.
  - W - Matrix Spike/Matrix Spike Duplicate RPD are outside control limits due to matrix effects.
  - X - Sample extract treated with a mercury cleanup procedure.
  - X1 - Sample extract treated with a sulfuric acid/silica gel cleanup procedure.
  - Y - The calibration verification for this analyte exceeded the 20% drift specified in methods 8260 & 8270, and therefore the reported result should be considered an estimate. The overall performance of the calibration verification standard met the acceptance criteria of the method.
  - Z -
- ND - Not Detected at PQL  
 PQL - Practical Quantitation Limit  
 RPD - Relative Percent Difference







14648 NE 95<sup>th</sup> Street, Redmond, WA 98052 • (425) 883-3881

November 1, 2019

Jeff Jensen  
Kane Environmental, Inc.  
4015 13th Avenue West  
Seattle, WA 98119

Re: Analytical Data for Project 82302-9.4  
Laboratory Reference No. 1910-295

Dear Jeff:

Enclosed are the analytical results and associated quality control data for samples submitted on October 23, 2019.

The standard policy of OnSite Environmental, Inc. is to store your samples for 30 days from the date of receipt. If you require longer storage, please contact the laboratory.

We appreciate the opportunity to be of service to you on this project. If you have any questions concerning the data, or need additional information, please feel free to call me.

Sincerely,

A handwritten signature in black ink, appearing to read "DB", with a long horizontal stroke extending to the right.

David Baumeister  
Project Manager

Enclosures



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OnSite Environmental, Inc. 14648 NE 95<sup>th</sup> Street, Redmond, WA 98052 (425) 883-3881

This report pertains to the samples analyzed in accordance with the chain of custody, and is intended only for the use of the individual or company to whom it is addressed.

Date of Report: November 1, 2019  
Samples Submitted: October 23, 2019  
Laboratory Reference: 1910-295  
Project: 82302-9.4

### Case Narrative

Samples were collected on October 22, 2019 and received by the laboratory on October 23, 2019. They were maintained at the laboratory at a temperature of 2°C to 6°C.

Please note that any and all soil sample results are reported on a dry-weight basis, unless otherwise noted below.

General QA/QC issues associated with the analytical data enclosed in this laboratory report will be indicated with a reference to a comment or explanation on the Data Qualifier page. More complex and involved QA/QC issues will be discussed in detail below.



Date of Report: November 1, 2019  
 Samples Submitted: October 23, 2019  
 Laboratory Reference: 1910-295  
 Project: 82302-9.4

**VOLATILE ORGANICS EPA 8260D/SIM**  
 page 1 of 2

Matrix: Water  
 Units: ug/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>Client ID:</b>	<b>MW-44:W</b>					
Laboratory ID:	10-295-01					
Dichlorodifluoromethane	ND	0.20	EPA 8260D	10-24-19	10-24-19	
Chloromethane	ND	1.0	EPA 8260D	10-24-19	10-24-19	
Vinyl Chloride	0.29	0.20	EPA 8260D	10-24-19	10-24-19	
Bromomethane	ND	0.20	EPA 8260D	10-24-19	10-24-19	
Chloroethane	ND	1.0	EPA 8260D	10-24-19	10-24-19	
Trichlorofluoromethane	ND	0.20	EPA 8260D	10-24-19	10-24-19	
1,1-Dichloroethene	ND	0.20	EPA 8260D	10-24-19	10-24-19	
Iodomethane	ND	1.0	EPA 8260D	10-24-19	10-24-19	
Methylene Chloride	5.5	1.0	EPA 8260D	10-24-19	10-24-19	
(trans) 1,2-Dichloroethene	0.53	0.20	EPA 8260D	10-24-19	10-24-19	
1,1-Dichloroethane	ND	0.20	EPA 8260D	10-24-19	10-24-19	
2,2-Dichloropropane	ND	0.20	EPA 8260D	10-24-19	10-24-19	
(cis) 1,2-Dichloroethene	14	0.20	EPA 8260D	10-24-19	10-24-19	
Bromochloromethane	ND	0.20	EPA 8260D	10-24-19	10-24-19	
Chloroform	ND	0.20	EPA 8260D	10-24-19	10-24-19	
1,1,1-Trichloroethane	ND	0.20	EPA 8260D	10-24-19	10-24-19	
Carbon Tetrachloride	ND	0.20	EPA 8260D	10-24-19	10-24-19	
1,1-Dichloropropene	ND	0.20	EPA 8260D	10-24-19	10-24-19	
1,2-Dichloroethane	0.77	0.20	EPA 8260D	10-24-19	10-24-19	
Trichloroethene	ND	0.20	EPA 8260D	10-24-19	10-24-19	
1,2-Dichloropropane	ND	0.20	EPA 8260D	10-24-19	10-24-19	
Dibromomethane	ND	0.20	EPA 8260D	10-24-19	10-24-19	
Bromodichloromethane	ND	0.20	EPA 8260D	10-24-19	10-24-19	
2-Chloroethyl Vinyl Ether	ND	1.0	EPA 8260D	10-24-19	10-24-19	
(cis) 1,3-Dichloropropene	ND	0.20	EPA 8260D	10-24-19	10-24-19	
(trans) 1,3-Dichloropropene	ND	0.20	EPA 8260D	10-24-19	10-24-19	



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Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>Client ID:</b>	<b>MW-44:W</b>					
Laboratory ID:	10-295-01					
1,1,2-Trichloroethane	ND	0.20	EPA 8260D	10-24-19	10-24-19	
Tetrachloroethene	ND	0.20	EPA 8260D	10-24-19	10-24-19	
1,3-Dichloropropane	ND	0.20	EPA 8260D	10-24-19	10-24-19	
Dibromochloromethane	ND	0.20	EPA 8260D	10-24-19	10-24-19	
1,2-Dibromoethane	ND	0.20	EPA 8260D	10-24-19	10-24-19	
Chlorobenzene	ND	0.20	EPA 8260D	10-24-19	10-24-19	
1,1,1,2-Tetrachloroethane	ND	0.20	EPA 8260D	10-24-19	10-24-19	
Bromoform	ND	1.0	EPA 8260D	10-24-19	10-24-19	
Bromobenzene	ND	0.20	EPA 8260D	10-24-19	10-24-19	
1,1,2,2-Tetrachloroethane	ND	0.20	EPA 8260D	10-24-19	10-24-19	
1,2,3-Trichloropropane	ND	0.20	EPA 8260D	10-24-19	10-24-19	
2-Chlorotoluene	ND	0.20	EPA 8260D	10-24-19	10-24-19	
4-Chlorotoluene	ND	0.20	EPA 8260D	10-24-19	10-24-19	
1,3-Dichlorobenzene	ND	0.20	EPA 8260D	10-24-19	10-24-19	
1,4-Dichlorobenzene	ND	0.20	EPA 8260D	10-24-19	10-24-19	
1,2-Dichlorobenzene	ND	0.20	EPA 8260D	10-24-19	10-24-19	
1,2-Dibromo-3-chloropropane	ND	1.0	EPA 8260D	10-24-19	10-24-19	
1,2,4-Trichlorobenzene	ND	0.20	EPA 8260D	10-24-19	10-24-19	
Hexachlorobutadiene	ND	1.0	EPA 8260D	10-24-19	10-24-19	
1,2,3-Trichlorobenzene	ND	0.20	EPA 8260D	10-24-19	10-24-19	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Dibromofluoromethane</i>	<i>97</i>	<i>75-127</i>				
<i>Toluene-d8</i>	<i>99</i>	<i>80-127</i>				
<i>4-Bromofluorobenzene</i>	<i>98</i>	<i>78-125</i>				





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Matrix: Water  
 Units: ug/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>Client ID:</b>	<b>MW-45:W</b>					
Laboratory ID:	10-295-02					
Dichlorodifluoromethane	ND	0.20	EPA 8260D	10-24-19	10-24-19	
Chloromethane	ND	1.0	EPA 8260D	10-24-19	10-24-19	
Vinyl Chloride	ND	0.020	EPA 8260D/SIM	10-24-19	10-24-19	
Bromomethane	ND	0.20	EPA 8260D	10-24-19	10-24-19	
Chloroethane	ND	1.0	EPA 8260D	10-24-19	10-24-19	
Trichlorofluoromethane	ND	0.20	EPA 8260D	10-24-19	10-24-19	
1,1-Dichloroethene	ND	0.20	EPA 8260D	10-24-19	10-24-19	
Iodomethane	ND	1.0	EPA 8260D	10-24-19	10-24-19	
Methylene Chloride	12	1.0	EPA 8260D	10-24-19	10-24-19	
(trans) 1,2-Dichloroethene	ND	0.20	EPA 8260D	10-24-19	10-24-19	
1,1-Dichloroethane	ND	0.20	EPA 8260D	10-24-19	10-24-19	
2,2-Dichloropropane	ND	0.20	EPA 8260D	10-24-19	10-24-19	
(cis) 1,2-Dichloroethene	0.88	0.20	EPA 8260D	10-24-19	10-24-19	
Bromochloromethane	ND	0.20	EPA 8260D	10-24-19	10-24-19	
Chloroform	ND	0.20	EPA 8260D	10-24-19	10-24-19	
1,1,1-Trichloroethane	ND	0.20	EPA 8260D	10-24-19	10-24-19	
Carbon Tetrachloride	ND	0.20	EPA 8260D	10-24-19	10-24-19	
1,1-Dichloropropene	ND	0.20	EPA 8260D	10-24-19	10-24-19	
1,2-Dichloroethane	0.92	0.20	EPA 8260D	10-24-19	10-24-19	
Trichloroethene	ND	0.20	EPA 8260D	10-24-19	10-24-19	
1,2-Dichloropropane	ND	0.20	EPA 8260D	10-24-19	10-24-19	
Dibromomethane	ND	0.20	EPA 8260D	10-24-19	10-24-19	
Bromodichloromethane	ND	0.20	EPA 8260D	10-24-19	10-24-19	
2-Chloroethyl Vinyl Ether	ND	1.0	EPA 8260D	10-24-19	10-24-19	
(cis) 1,3-Dichloropropene	ND	0.20	EPA 8260D	10-24-19	10-24-19	
(trans) 1,3-Dichloropropene	ND	0.20	EPA 8260D	10-24-19	10-24-19	



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<b>Client ID:</b>	<b>MW-45:W</b>					
Laboratory ID:	10-295-02					
1,1,2-Trichloroethane	ND	0.20	EPA 8260D	10-24-19	10-24-19	
Tetrachloroethene	ND	0.20	EPA 8260D	10-24-19	10-24-19	
1,3-Dichloropropane	ND	0.20	EPA 8260D	10-24-19	10-24-19	
Dibromochloromethane	ND	0.20	EPA 8260D	10-24-19	10-24-19	
1,2-Dibromoethane	ND	0.20	EPA 8260D	10-24-19	10-24-19	
Chlorobenzene	ND	0.20	EPA 8260D	10-24-19	10-24-19	
1,1,1,2-Tetrachloroethane	ND	0.20	EPA 8260D	10-24-19	10-24-19	
Bromoform	ND	1.0	EPA 8260D	10-24-19	10-24-19	
Bromobenzene	ND	0.20	EPA 8260D	10-24-19	10-24-19	
1,1,2,2-Tetrachloroethane	ND	0.20	EPA 8260D	10-24-19	10-24-19	
1,2,3-Trichloropropane	ND	0.20	EPA 8260D	10-24-19	10-24-19	
2-Chlorotoluene	ND	0.20	EPA 8260D	10-24-19	10-24-19	
4-Chlorotoluene	ND	0.20	EPA 8260D	10-24-19	10-24-19	
1,3-Dichlorobenzene	ND	0.20	EPA 8260D	10-24-19	10-24-19	
1,4-Dichlorobenzene	ND	0.20	EPA 8260D	10-24-19	10-24-19	
1,2-Dichlorobenzene	ND	0.20	EPA 8260D	10-24-19	10-24-19	
1,2-Dibromo-3-chloropropane	ND	1.0	EPA 8260D	10-24-19	10-24-19	
1,2,4-Trichlorobenzene	ND	0.20	EPA 8260D	10-24-19	10-24-19	
Hexachlorobutadiene	ND	1.0	EPA 8260D	10-24-19	10-24-19	
1,2,3-Trichlorobenzene	ND	0.20	EPA 8260D	10-24-19	10-24-19	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Dibromofluoromethane</i>	<i>102</i>	<i>75-127</i>				
<i>Toluene-d8</i>	<i>105</i>	<i>80-127</i>				
<i>4-Bromofluorobenzene</i>	<i>102</i>	<i>78-125</i>				



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 Units: ug/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>Client ID:</b>	<b>MW-20:W</b>					
Laboratory ID:	10-295-03					
Dichlorodifluoromethane	ND	0.40	EPA 8260D	10-24-19	10-24-19	
Chloromethane	ND	2.0	EPA 8260D	10-24-19	10-24-19	
Vinyl Chloride	0.15	0.040	EPA 8260D/SIM	10-24-19	10-24-19	
Bromomethane	ND	0.40	EPA 8260D	10-24-19	10-24-19	
Chloroethane	ND	2.0	EPA 8260D	10-24-19	10-24-19	
Trichlorofluoromethane	ND	0.40	EPA 8260D	10-24-19	10-24-19	
1,1-Dichloroethene	ND	0.40	EPA 8260D	10-24-19	10-24-19	
Iodomethane	ND	2.0	EPA 8260D	10-24-19	10-24-19	
Methylene Chloride	ND	2.0	EPA 8260D	10-24-19	10-24-19	
(trans) 1,2-Dichloroethene	3.7	0.40	EPA 8260D	10-24-19	10-24-19	
1,1-Dichloroethane	ND	0.40	EPA 8260D	10-24-19	10-24-19	
2,2-Dichloropropane	ND	0.40	EPA 8260D	10-24-19	10-24-19	
(cis) 1,2-Dichloroethene	68	0.40	EPA 8260D	10-24-19	10-24-19	
Bromochloromethane	ND	0.40	EPA 8260D	10-24-19	10-24-19	
Chloroform	ND	0.40	EPA 8260D	10-24-19	10-24-19	
1,1,1-Trichloroethane	ND	0.40	EPA 8260D	10-24-19	10-24-19	
Carbon Tetrachloride	ND	0.40	EPA 8260D	10-24-19	10-24-19	
1,1-Dichloropropene	ND	0.40	EPA 8260D	10-24-19	10-24-19	
1,2-Dichloroethane	ND	0.40	EPA 8260D	10-24-19	10-24-19	
Trichloroethene	19	0.40	EPA 8260D	10-24-19	10-24-19	
1,2-Dichloropropane	ND	0.40	EPA 8260D	10-24-19	10-24-19	
Dibromomethane	ND	0.40	EPA 8260D	10-24-19	10-24-19	
Bromodichloromethane	ND	0.40	EPA 8260D	10-24-19	10-24-19	
2-Chloroethyl Vinyl Ether	ND	2.0	EPA 8260D	10-24-19	10-24-19	
(cis) 1,3-Dichloropropene	ND	0.40	EPA 8260D	10-24-19	10-24-19	
(trans) 1,3-Dichloropropene	ND	0.40	EPA 8260D	10-24-19	10-24-19	



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<b>Client ID:</b>	<b>MW-20:W</b>					
Laboratory ID:	10-295-03					
1,1,2-Trichloroethane	ND	0.40	EPA 8260D	10-24-19	10-24-19	
Tetrachloroethene	0.46	0.40	EPA 8260D	10-24-19	10-24-19	
1,3-Dichloropropane	ND	0.40	EPA 8260D	10-24-19	10-24-19	
Dibromochloromethane	ND	0.40	EPA 8260D	10-24-19	10-24-19	
1,2-Dibromoethane	ND	0.40	EPA 8260D	10-24-19	10-24-19	
Chlorobenzene	ND	0.40	EPA 8260D	10-24-19	10-24-19	
1,1,1,2-Tetrachloroethane	ND	0.40	EPA 8260D	10-24-19	10-24-19	
Bromoform	ND	2.0	EPA 8260D	10-24-19	10-24-19	
Bromobenzene	ND	0.40	EPA 8260D	10-24-19	10-24-19	
1,1,2,2-Tetrachloroethane	ND	0.40	EPA 8260D	10-24-19	10-24-19	
1,2,3-Trichloropropane	ND	0.40	EPA 8260D	10-24-19	10-24-19	
2-Chlorotoluene	ND	0.40	EPA 8260D	10-24-19	10-24-19	
4-Chlorotoluene	ND	0.40	EPA 8260D	10-24-19	10-24-19	
1,3-Dichlorobenzene	ND	0.40	EPA 8260D	10-24-19	10-24-19	
1,4-Dichlorobenzene	ND	0.40	EPA 8260D	10-24-19	10-24-19	
1,2-Dichlorobenzene	ND	0.40	EPA 8260D	10-24-19	10-24-19	
1,2-Dibromo-3-chloropropane	ND	2.0	EPA 8260D	10-24-19	10-24-19	
1,2,4-Trichlorobenzene	ND	0.40	EPA 8260D	10-24-19	10-24-19	
Hexachlorobutadiene	ND	2.0	EPA 8260D	10-24-19	10-24-19	
1,2,3-Trichlorobenzene	ND	0.40	EPA 8260D	10-24-19	10-24-19	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Dibromofluoromethane</i>	<i>96</i>	<i>75-127</i>				
<i>Toluene-d8</i>	<i>98</i>	<i>80-127</i>				
<i>4-Bromofluorobenzene</i>	<i>94</i>	<i>78-125</i>				



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Matrix: Water  
 Units: ug/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>Client ID:</b>	<b>MW-42:W</b>					
Laboratory ID:	10-295-04					
Dichlorodifluoromethane	ND	0.20	EPA 8260D	10-24-19	10-24-19	
Chloromethane	ND	1.0	EPA 8260D	10-24-19	10-24-19	
Vinyl Chloride	0.056	0.020	EPA 8260D/SIM	10-24-19	10-24-19	
Bromomethane	ND	0.20	EPA 8260D	10-24-19	10-24-19	
Chloroethane	ND	1.0	EPA 8260D	10-24-19	10-24-19	
Trichlorofluoromethane	ND	0.20	EPA 8260D	10-24-19	10-24-19	
1,1-Dichloroethene	ND	0.20	EPA 8260D	10-24-19	10-24-19	
Iodomethane	ND	1.0	EPA 8260D	10-24-19	10-24-19	
Methylene Chloride	3.1	1.0	EPA 8260D	10-24-19	10-24-19	
(trans) 1,2-Dichloroethene	ND	0.20	EPA 8260D	10-24-19	10-24-19	
1,1-Dichloroethane	ND	0.20	EPA 8260D	10-24-19	10-24-19	
2,2-Dichloropropane	ND	0.20	EPA 8260D	10-24-19	10-24-19	
(cis) 1,2-Dichloroethene	1.9	0.20	EPA 8260D	10-24-19	10-24-19	
Bromochloromethane	ND	0.20	EPA 8260D	10-24-19	10-24-19	
Chloroform	ND	0.20	EPA 8260D	10-24-19	10-24-19	
1,1,1-Trichloroethane	ND	0.20	EPA 8260D	10-24-19	10-24-19	
Carbon Tetrachloride	ND	0.20	EPA 8260D	10-24-19	10-24-19	
1,1-Dichloropropene	ND	0.20	EPA 8260D	10-24-19	10-24-19	
1,2-Dichloroethane	0.42	0.20	EPA 8260D	10-24-19	10-24-19	
Trichloroethene	ND	0.20	EPA 8260D	10-24-19	10-24-19	
1,2-Dichloropropane	ND	0.20	EPA 8260D	10-24-19	10-24-19	
Dibromomethane	ND	0.20	EPA 8260D	10-24-19	10-24-19	
Bromodichloromethane	ND	0.20	EPA 8260D	10-24-19	10-24-19	
2-Chloroethyl Vinyl Ether	ND	1.0	EPA 8260D	10-24-19	10-24-19	
(cis) 1,3-Dichloropropene	ND	0.20	EPA 8260D	10-24-19	10-24-19	
(trans) 1,3-Dichloropropene	ND	0.20	EPA 8260D	10-24-19	10-24-19	



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Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>Client ID:</b>	<b>MW-42:W</b>					
Laboratory ID:	10-295-04					
1,1,2-Trichloroethane	ND	0.20	EPA 8260D	10-24-19	10-24-19	
Tetrachloroethene	ND	0.20	EPA 8260D	10-24-19	10-24-19	
1,3-Dichloropropane	ND	0.20	EPA 8260D	10-24-19	10-24-19	
Dibromochloromethane	ND	0.20	EPA 8260D	10-24-19	10-24-19	
1,2-Dibromoethane	ND	0.20	EPA 8260D	10-24-19	10-24-19	
Chlorobenzene	ND	0.20	EPA 8260D	10-24-19	10-24-19	
1,1,1,2-Tetrachloroethane	ND	0.20	EPA 8260D	10-24-19	10-24-19	
Bromoform	ND	1.0	EPA 8260D	10-24-19	10-24-19	
Bromobenzene	ND	0.20	EPA 8260D	10-24-19	10-24-19	
1,1,2,2-Tetrachloroethane	ND	0.20	EPA 8260D	10-24-19	10-24-19	
1,2,3-Trichloropropane	ND	0.20	EPA 8260D	10-24-19	10-24-19	
2-Chlorotoluene	ND	0.20	EPA 8260D	10-24-19	10-24-19	
4-Chlorotoluene	ND	0.20	EPA 8260D	10-24-19	10-24-19	
1,3-Dichlorobenzene	ND	0.20	EPA 8260D	10-24-19	10-24-19	
1,4-Dichlorobenzene	ND	0.20	EPA 8260D	10-24-19	10-24-19	
1,2-Dichlorobenzene	ND	0.20	EPA 8260D	10-24-19	10-24-19	
1,2-Dibromo-3-chloropropane	ND	1.0	EPA 8260D	10-24-19	10-24-19	
1,2,4-Trichlorobenzene	ND	0.20	EPA 8260D	10-24-19	10-24-19	
Hexachlorobutadiene	ND	1.0	EPA 8260D	10-24-19	10-24-19	
1,2,3-Trichlorobenzene	ND	0.20	EPA 8260D	10-24-19	10-24-19	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Dibromofluoromethane</i>	<i>94</i>	<i>75-127</i>				
<i>Toluene-d8</i>	<i>96</i>	<i>80-127</i>				
<i>4-Bromofluorobenzene</i>	<i>92</i>	<i>78-125</i>				



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Matrix: Water  
 Units: ug/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>Client ID:</b>	<b>MW-43:W</b>					
Laboratory ID:	10-295-05					
Dichlorodifluoromethane	ND	0.20	EPA 8260D	10-24-19	10-24-19	
Chloromethane	ND	1.0	EPA 8260D	10-24-19	10-24-19	
Vinyl Chloride	0.29	0.20	EPA 8260D	10-24-19	10-24-19	
Bromomethane	ND	0.20	EPA 8260D	10-24-19	10-24-19	
Chloroethane	ND	1.0	EPA 8260D	10-24-19	10-24-19	
Trichlorofluoromethane	ND	0.20	EPA 8260D	10-24-19	10-24-19	
1,1-Dichloroethene	ND	0.20	EPA 8260D	10-24-19	10-24-19	
Iodomethane	ND	1.0	EPA 8260D	10-24-19	10-24-19	
Methylene Chloride	7.1	1.0	EPA 8260D	10-24-19	10-24-19	
(trans) 1,2-Dichloroethene	ND	0.20	EPA 8260D	10-24-19	10-24-19	
1,1-Dichloroethane	ND	0.20	EPA 8260D	10-24-19	10-24-19	
2,2-Dichloropropane	ND	0.20	EPA 8260D	10-24-19	10-24-19	
(cis) 1,2-Dichloroethene	24	0.20	EPA 8260D	10-24-19	10-24-19	
Bromochloromethane	ND	0.20	EPA 8260D	10-24-19	10-24-19	
Chloroform	ND	0.20	EPA 8260D	10-24-19	10-24-19	
1,1,1-Trichloroethane	ND	0.20	EPA 8260D	10-24-19	10-24-19	
Carbon Tetrachloride	ND	0.20	EPA 8260D	10-24-19	10-24-19	
1,1-Dichloropropene	ND	0.20	EPA 8260D	10-24-19	10-24-19	
1,2-Dichloroethane	0.44	0.20	EPA 8260D	10-24-19	10-24-19	
Trichloroethene	ND	0.20	EPA 8260D	10-24-19	10-24-19	
1,2-Dichloropropane	ND	0.20	EPA 8260D	10-24-19	10-24-19	
Dibromomethane	ND	0.20	EPA 8260D	10-24-19	10-24-19	
Bromodichloromethane	ND	0.20	EPA 8260D	10-24-19	10-24-19	
2-Chloroethyl Vinyl Ether	ND	1.0	EPA 8260D	10-24-19	10-24-19	
(cis) 1,3-Dichloropropene	ND	0.20	EPA 8260D	10-24-19	10-24-19	
(trans) 1,3-Dichloropropene	ND	0.20	EPA 8260D	10-24-19	10-24-19	



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Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>Client ID:</b>	<b>MW-43:W</b>					
Laboratory ID:	10-295-05					
1,1,2-Trichloroethane	ND	0.20	EPA 8260D	10-24-19	10-24-19	
Tetrachloroethene	0.80	0.20	EPA 8260D	10-24-19	10-24-19	
1,3-Dichloropropane	ND	0.20	EPA 8260D	10-24-19	10-24-19	
Dibromochloromethane	ND	0.20	EPA 8260D	10-24-19	10-24-19	
1,2-Dibromoethane	ND	0.20	EPA 8260D	10-24-19	10-24-19	
Chlorobenzene	ND	0.20	EPA 8260D	10-24-19	10-24-19	
1,1,1,2-Tetrachloroethane	ND	0.20	EPA 8260D	10-24-19	10-24-19	
Bromoform	ND	1.0	EPA 8260D	10-24-19	10-24-19	
Bromobenzene	ND	0.20	EPA 8260D	10-24-19	10-24-19	
1,1,2,2-Tetrachloroethane	ND	0.20	EPA 8260D	10-24-19	10-24-19	
1,2,3-Trichloropropane	ND	0.20	EPA 8260D	10-24-19	10-24-19	
2-Chlorotoluene	ND	0.20	EPA 8260D	10-24-19	10-24-19	
4-Chlorotoluene	ND	0.20	EPA 8260D	10-24-19	10-24-19	
1,3-Dichlorobenzene	ND	0.20	EPA 8260D	10-24-19	10-24-19	
1,4-Dichlorobenzene	ND	0.20	EPA 8260D	10-24-19	10-24-19	
1,2-Dichlorobenzene	ND	0.20	EPA 8260D	10-24-19	10-24-19	
1,2-Dibromo-3-chloropropane	ND	1.0	EPA 8260D	10-24-19	10-24-19	
1,2,4-Trichlorobenzene	ND	0.20	EPA 8260D	10-24-19	10-24-19	
Hexachlorobutadiene	ND	1.0	EPA 8260D	10-24-19	10-24-19	
1,2,3-Trichlorobenzene	ND	0.20	EPA 8260D	10-24-19	10-24-19	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Dibromofluoromethane</i>	<i>92</i>	<i>75-127</i>				
<i>Toluene-d8</i>	<i>100</i>	<i>80-127</i>				
<i>4-Bromofluorobenzene</i>	<i>105</i>	<i>78-125</i>				





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**VOLATILE ORGANICS EPA 8260D/SIM**  
**QUALITY CONTROL**  
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Matrix: Water  
 Units: ug/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>METHOD BLANK</b>						
Laboratory ID:	MB1024W1					
Dichlorodifluoromethane	ND	0.20	EPA 8260D	10-24-19	10-24-19	
Chloromethane	ND	1.0	EPA 8260D	10-24-19	10-24-19	
Vinyl Chloride	ND	0.020	EPA 8260D/SIM	10-24-19	10-24-19	
Bromomethane	ND	0.20	EPA 8260D	10-24-19	10-24-19	
Chloroethane	ND	1.0	EPA 8260D	10-24-19	10-24-19	
Trichlorofluoromethane	ND	0.20	EPA 8260D	10-24-19	10-24-19	
1,1-Dichloroethene	ND	0.20	EPA 8260D	10-24-19	10-24-19	
Iodomethane	ND	1.0	EPA 8260D	10-24-19	10-24-19	
Methylene Chloride	ND	1.0	EPA 8260D	10-24-19	10-24-19	
(trans) 1,2-Dichloroethene	ND	0.20	EPA 8260D	10-24-19	10-24-19	
1,1-Dichloroethane	ND	0.20	EPA 8260D	10-24-19	10-24-19	
2,2-Dichloropropane	ND	0.20	EPA 8260D	10-24-19	10-24-19	
(cis) 1,2-Dichloroethene	ND	0.20	EPA 8260D	10-24-19	10-24-19	
Bromochloromethane	ND	0.20	EPA 8260D	10-24-19	10-24-19	
Chloroform	ND	0.20	EPA 8260D	10-24-19	10-24-19	
1,1,1-Trichloroethane	ND	0.20	EPA 8260D	10-24-19	10-24-19	
Carbon Tetrachloride	ND	0.20	EPA 8260D	10-24-19	10-24-19	
1,1-Dichloropropene	ND	0.20	EPA 8260D	10-24-19	10-24-19	
1,2-Dichloroethane	ND	0.20	EPA 8260D	10-24-19	10-24-19	
Trichloroethene	ND	0.20	EPA 8260D	10-24-19	10-24-19	
1,2-Dichloropropane	ND	0.20	EPA 8260D	10-24-19	10-24-19	
Dibromomethane	ND	0.20	EPA 8260D	10-24-19	10-24-19	
Bromodichloromethane	ND	0.20	EPA 8260D	10-24-19	10-24-19	
2-Chloroethyl Vinyl Ether	ND	1.0	EPA 8260D	10-24-19	10-24-19	
(cis) 1,3-Dichloropropene	ND	0.20	EPA 8260D	10-24-19	10-24-19	
(trans) 1,3-Dichloropropene	ND	0.20	EPA 8260D	10-24-19	10-24-19	



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**VOLATILE ORGANICS EPA 8260D/SIM**  
**QUALITY CONTROL**  
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Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>METHOD BLANK</b>						
Laboratory ID:	MB1024W1					
1,1,2-Trichloroethane	ND	0.20	EPA 8260D	10-24-19	10-24-19	
Tetrachloroethene	ND	0.20	EPA 8260D	10-24-19	10-24-19	
1,3-Dichloropropane	ND	0.20	EPA 8260D	10-24-19	10-24-19	
Dibromochloromethane	ND	0.20	EPA 8260D	10-24-19	10-24-19	
1,2-Dibromoethane	ND	0.20	EPA 8260D	10-24-19	10-24-19	
Chlorobenzene	ND	0.20	EPA 8260D	10-24-19	10-24-19	
1,1,1,2-Tetrachloroethane	ND	0.20	EPA 8260D	10-24-19	10-24-19	
Bromoform	ND	1.0	EPA 8260D	10-24-19	10-24-19	
Bromobenzene	ND	0.20	EPA 8260D	10-24-19	10-24-19	
1,1,2,2-Tetrachloroethane	ND	0.20	EPA 8260D	10-24-19	10-24-19	
1,2,3-Trichloropropane	ND	0.20	EPA 8260D	10-24-19	10-24-19	
2-Chlorotoluene	ND	0.20	EPA 8260D	10-24-19	10-24-19	
4-Chlorotoluene	ND	0.20	EPA 8260D	10-24-19	10-24-19	
1,3-Dichlorobenzene	ND	0.20	EPA 8260D	10-24-19	10-24-19	
1,4-Dichlorobenzene	ND	0.20	EPA 8260D	10-24-19	10-24-19	
1,2-Dichlorobenzene	ND	0.20	EPA 8260D	10-24-19	10-24-19	
1,2-Dibromo-3-chloropropane	ND	1.0	EPA 8260D	10-24-19	10-24-19	
1,2,4-Trichlorobenzene	ND	0.20	EPA 8260D	10-24-19	10-24-19	
Hexachlorobutadiene	ND	1.0	EPA 8260D	10-24-19	10-24-19	
1,2,3-Trichlorobenzene	ND	0.20	EPA 8260D	10-24-19	10-24-19	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Dibromofluoromethane</i>	96	75-127				
<i>Toluene-d8</i>	99	80-127				
<i>4-Bromofluorobenzene</i>	94	78-125				



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**VOLATILE ORGANICS EPA 8260D/SIM  
 QUALITY CONTROL**

Matrix: Water  
 Units: ug/L

Analyte	Result		Spike Level		Source	Percent	Recovery	RPD		Flags
					Result	Recovery	Limits	RPD	Limit	
<b>MATRIX SPIKES</b>										
Laboratory ID:	10-255-06									
	MS	MSD	MS	MSD		MS	MSD			
1,1-Dichloroethene	<b>48.2</b>	<b>47.5</b>	50.0	50.0	ND	96	95	57-135	1	15
Benzene	<b>47.3</b>	<b>46.3</b>	50.0	50.0	ND	95	93	73-131	2	16
Trichloroethene	<b>50.3</b>	<b>49.7</b>	50.0	50.0	ND	101	99	75-124	1	17
Toluene	<b>48.8</b>	<b>48.1</b>	50.0	50.0	ND	98	96	84-123	1	19
Chlorobenzene	<b>52.3</b>	<b>49.8</b>	50.0	50.0	ND	105	100	78-122	5	16
<i>Surrogate:</i>										
<i>Dibromofluoromethane</i>						95	98	75-127		
<i>Toluene-d8</i>						97	97	80-127		
<i>4-Bromofluorobenzene</i>						94	92	78-125		



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**TOTAL ORGANIC CARBON  
 SM 5310B**

Matrix: Water  
 Units: mg/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>Client ID:</b>	<b>MW-44:W</b>					
Laboratory ID:	10-295-01					
Total Organic Carbon	<b>22</b>	1.0	SM 5310B	10-29-19	10-29-19	
<b>Client ID:</b>	<b>MW-45:W</b>					
Laboratory ID:	10-295-02					
Total Organic Carbon	<b>33</b>	1.0	SM 5310B	10-29-19	10-29-19	
<b>Client ID:</b>	<b>MW-20:W</b>					
Laboratory ID:	10-295-03					
Total Organic Carbon	<b>9.8</b>	1.0	SM 5310B	10-29-19	10-29-19	
<b>Client ID:</b>	<b>MW-42:W</b>					
Laboratory ID:	10-295-04					
Total Organic Carbon	<b>3.9</b>	1.0	SM 5310B	10-29-19	10-29-19	
<b>Client ID:</b>	<b>MW-43:W</b>					
Laboratory ID:	10-295-05					
Total Organic Carbon	<b>110</b>	2.0	SM 5310B	10-29-19	10-29-19	



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**TOTAL ORGANIC CARBON  
 SM 5310B  
 QUALITY CONTROL**

Matrix: Water  
 Units: mg/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>METHOD BLANK</b>						
Laboratory ID:	MB1029W1					
Total Organic Carbon	<b>ND</b>	1.0	SM 5310B	10-29-19	10-29-19	

Analyte	Result	Spike Level	Source Result	Percent Recovery	Recovery Limits	RPD	RPD Limit	Flags
<b>DUPLICATE</b>								
Laboratory ID:	10-302-01							
	ORIG	DUP						
Total Organic Carbon	<b>ND</b>	<b>ND</b>	NA	NA	NA	NA	20	

**MATRIX SPIKE**

Laboratory ID:	10-302-01							
	MS	MS		MS				
Total Organic Carbon	<b>11.3</b>	10.0	ND	113	85-131	NA	NA	

**SPIKE BLANK**

Laboratory ID:	SB1029W1							
	SB	SB		SB				
Total Organic Carbon	<b>11.5</b>	10.0	NA	115	88-127	NA	NA	



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**DISSOLVED IRON  
 EPA 6010D**

Matrix: Water  
 Units: ug/L (ppb)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>Client ID:</b>	<b>MW-44:W</b>					
Laboratory ID:	10-295-01					
Iron	<b>3900</b>	56	EPA 6010D	10-23-19	10-31-19	

<b>Client ID:</b>	<b>MW-45:W</b>					
Laboratory ID:	10-295-02					
Iron	<b>1600</b>	56	EPA 6010D	10-23-19	10-30-19	

<b>Client ID:</b>	<b>MW-20:W</b>					
Laboratory ID:	10-295-03					
Iron	<b>1200</b>	56	EPA 6010D	10-23-19	10-30-19	

<b>Client ID:</b>	<b>MW-42:W</b>					
Laboratory ID:	10-295-04					
Iron	<b>7600</b>	56	EPA 6010D	10-23-19	10-30-19	

<b>Client ID:</b>	<b>MW-43:W</b>					
Laboratory ID:	10-295-05					
Iron	<b>18000</b>	56	EPA 6010D	10-23-19	10-30-19	



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**DISSOLVED IRON  
 EPA 6010D  
 QUALITY CONTROL**

Matrix: Water  
 Units: ug/L (ppb)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>METHOD BLANK</b>						
Laboratory ID:	MB1023F1					
Iron	<b>ND</b>	56	EPA 6010D	10-23-19	10-30-19	

Analyte	Result	Spike Level	Source Result	Percent Recovery	Recovery Limits	RPD	RPD Limit	Flags
<b>DUPLICATE</b>								
Laboratory ID:	10-295-03							
	ORIG	DUP						
Iron	<b>1180</b>	<b>1170</b>	NA	NA	NA	NA	0	20

**MATRIX SPIKES**

Laboratory ID:	10-295-03									
	MS	MSD	MS	MSD		MS	MSD			
Iron	<b>23900</b>	<b>23700</b>	22200	22200	1180	<b>102</b>	<b>102</b>	75-125	1	20



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**CHLORIDE**  
**SM 4500-Cl E**

Matrix: Water  
 Units: mg/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>Client ID:</b>	<b>MW-44:W</b>					
Laboratory ID:	10-295-01					
Chloride	<b>12</b>	2.0	SM 4500-Cl E	10-24-19	10-24-19	

<b>Client ID:</b>	<b>MW-45:W</b>					
Laboratory ID:	10-295-02					
Chloride	<b>15</b>	2.0	SM 4500-Cl E	10-24-19	10-24-19	

<b>Client ID:</b>	<b>MW-20:W</b>					
Laboratory ID:	10-295-03					
Chloride	<b>13</b>	2.0	SM 4500-Cl E	10-24-19	10-24-19	

<b>Client ID:</b>	<b>MW-42:W</b>					
Laboratory ID:	10-295-04					
Chloride	<b>13</b>	2.0	SM 4500-Cl E	10-24-19	10-24-19	

<b>Client ID:</b>	<b>MW-43:W</b>					
Laboratory ID:	10-295-05					
Chloride	<b>10</b>	2.0	SM 4500-Cl E	10-24-19	10-24-19	





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**CHLORIDE  
 SM 4500-Cl E  
 QUALITY CONTROL**

Matrix: Water  
 Units: mg/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>METHOD BLANK</b>						
Laboratory ID:	MB1024W1					
Chloride	<b>ND</b>	2.0	SM 4500-Cl E	10-24-19	10-24-19	

Analyte	Result	Spike Level	Source Result	Percent Recovery	Recovery Limits	RPD	RPD Limit	Flags
<b>DUPLICATE</b>								
Laboratory ID:	10-255-06							
	ORIG	DUP						
Chloride	<b>4.52</b>	<b>4.31</b>	NA	NA	NA	5	17	

<b>MATRIX SPIKE</b>								
Laboratory ID:	10-255-06							
	MS	MS		MS				
Chloride	<b>52.7</b>	50.0	4.52	96	80-116	NA	NA	

<b>SPIKE BLANK</b>								
Laboratory ID:	SB1024W1							
	SB	SB		SB				
Chloride	<b>47.6</b>	50.0	NA	95	90-110	NA	NA	



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**SULFATE**  
**ASTM D516-11**

Matrix: Water  
 Units: mg/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>Client ID:</b>	<b>MW-44:W</b>					
Laboratory ID:	10-295-01					
Sulfate	<b>ND</b>	5.0	ASTM D516-11	10-25-19	10-25-19	

<b>Client ID:</b>	<b>MW-45:W</b>					
Laboratory ID:	10-295-02					
Sulfate	<b>12</b>	5.0	ASTM D516-11	10-25-19	10-25-19	

<b>Client ID:</b>	<b>MW-20:W</b>					
Laboratory ID:	10-295-03					
Sulfate	<b>ND</b>	5.0	ASTM D516-11	10-25-19	10-25-19	

<b>Client ID:</b>	<b>MW-42:W</b>					
Laboratory ID:	10-295-04					
Sulfate	<b>7.3</b>	5.0	ASTM D516-11	10-25-19	10-25-19	

<b>Client ID:</b>	<b>MW-43:W</b>					
Laboratory ID:	10-295-05					
Sulfate	<b>9.3</b>	5.0	ASTM D516-11	10-25-19	10-25-19	



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**SULFATE  
 ASTM D516-11  
 QUALITY CONTROL**

Matrix: Water  
 Units: mg/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>METHOD BLANK</b>						
Laboratory ID:	MB1025W1					
Sulfate	<b>ND</b>	5.0	ASTM D516-11	10-25-19	10-25-19	

Analyte	Result	Spike Level	Source Result	Percent Recovery	Recovery Limits	RPD	RPD Limit	Flags
<b>DUPLICATE</b>								
Laboratory ID:	10-326-01							
	ORIG	DUP						
Sulfate	<b>ND</b>	<b>ND</b>	NA	NA	NA	NA	10	

<b>MATRIX SPIKE</b>								
Laboratory ID:	10-326-01							
	MS	MS		MS				
Sulfate	<b>10.4</b>	10.0	ND	104	73-134	NA	NA	

<b>SPIKE BLANK</b>								
Laboratory ID:	SB1025W1							
	SB	SB		SB				
Sulfate	<b>10.2</b>	10.0	NA	102	89-113	NA	NA	



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**AMMONIA (as Nitrogen)**  
**SM 4500-NH<sub>3</sub> D**

Matrix: Water  
 Units: mg NH<sub>3</sub>-N/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>Client ID:</b>	<b>MW-44:W</b>					
Laboratory ID:	10-295-01					
Ammonia	<b>0.73</b>	0.050	SM 4500-NH <sub>3</sub> D	10-24-19	10-24-19	

<b>Client ID:</b>	<b>MW-45:W</b>					
Laboratory ID:	10-295-02					
Ammonia	<b>0.75</b>	0.050	SM 4500-NH <sub>3</sub> D	10-24-19	10-24-19	

<b>Client ID:</b>	<b>MW-20:W</b>					
Laboratory ID:	10-295-03					
Ammonia	<b>0.81</b>	0.050	SM 4500-NH <sub>3</sub> D	10-24-19	10-24-19	

<b>Client ID:</b>	<b>MW-42:W</b>					
Laboratory ID:	10-295-04					
Ammonia	<b>0.28</b>	0.050	SM 4500-NH <sub>3</sub> D	10-24-19	10-24-19	

<b>Client ID:</b>	<b>MW-43:W</b>					
Laboratory ID:	10-295-05					
Ammonia	<b>0.43</b>	0.050	SM 4500-NH <sub>3</sub> D	10-24-19	10-24-19	



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**AMMONIA (as Nitrogen)  
 SM 4500-NH<sub>3</sub> D  
 QUALITY CONTROL**

Matrix: Water  
 Units: mg NH<sub>3</sub>-N/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>METHOD BLANK</b>						
Laboratory ID:	MB1024W2					
Ammonia	<b>ND</b>	0.050	SM 4500-NH <sub>3</sub> D	10-24-19	10-24-19	

Analyte	Result	Spike Level	Source Result	Percent Recovery	Recovery Limits	RPD	RPD Limit	Flags
<b>DUPLICATE</b>								
Laboratory ID:	10-302-02							
	ORIG	DUP						
Ammonia	<b>0.687</b>	<b>0.717</b>	NA	NA	NA	NA	4	12

<b>MATRIX SPIKE</b>								
Laboratory ID:	10-302-02							
	MS	MS		MS				
Ammonia	<b>5.57</b>	5.00	0.687	98	75-121	NA	NA	

<b>SPIKE BLANK</b>								
Laboratory ID:	SB1024W2							
	SB	SB		SB				
Ammonia	<b>5.01</b>	5.00	NA	100	85-110	NA	NA	



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**DISSOLVED GASES  
 RSK 175**

Matrix: Water  
 Units: ug/L (ppb)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>Client ID:</b>	<b>MW-44:W</b>					
Laboratory ID:	10-295-01					
Methane	<b>1400</b>	15	RSK 175	10-28-19	10-28-19	
Ethane	<b>ND</b>	0.50	RSK 175	10-28-19	10-28-19	
Ethene	<b>1.1</b>	0.50	RSK 175	10-28-19	10-28-19	

<b>Client ID:</b>	<b>MW-45:W</b>					
Laboratory ID:	10-295-02					
Methane	<b>1500</b>	20	RSK 175	10-28-19	10-28-19	
Ethane	<b>ND</b>	0.50	RSK 175	10-28-19	10-28-19	
Ethene	<b>ND</b>	0.50	RSK 175	10-28-19	10-28-19	

<b>Client ID:</b>	<b>MW-20:W</b>					
Laboratory ID:	10-295-03					
Methane	<b>3100</b>	50	RSK 175	10-28-19	10-28-19	
Ethane	<b>ND</b>	0.50	RSK 175	10-28-19	10-28-19	
Ethene	<b>ND</b>	0.50	RSK 175	10-28-19	10-28-19	

<b>Client ID:</b>	<b>MW-42:W</b>					
Laboratory ID:	10-295-04					
Methane	<b>3200</b>	50	RSK 175	10-28-19	10-28-19	
Ethane	<b>ND</b>	0.50	RSK 175	10-28-19	10-28-19	
Ethene	<b>ND</b>	0.50	RSK 175	10-28-19	10-28-19	

<b>Client ID:</b>	<b>MW-43:W</b>					
Laboratory ID:	10-295-05					
Methane	<b>320</b>	5.0	RSK 175	10-28-19	10-28-19	
Ethane	<b>ND</b>	0.50	RSK 175	10-28-19	10-28-19	
Ethene	<b>ND</b>	0.50	RSK 175	10-28-19	10-28-19	



Date of Report: November 1, 2019  
 Samples Submitted: October 23, 2019  
 Laboratory Reference: 1910-295  
 Project: 82302-9.4

**DISSOLVED GASES  
 RSK 175  
 QUALITY CONTROL**

Matrix: Water  
 Units: ug/L (ppb)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>METHOD BLANK</b>						
Laboratory ID:	MB1028W1					
Methane	ND	1.0	RSK 175	10-28-19	10-28-19	
Ethane	ND	0.50	RSK 175	10-28-19	10-28-19	
Ethene	ND	0.50	RSK 175	10-28-19	10-28-19	

Analyte	Result		Spike Level		Source Result	Percent Recovery	Recovery Limits	RPD	RPD Limit	Flags
<b>MATRIX SPIKES</b>										
Laboratory ID:	10-144-03									
	MS	MSD	MS	MSD		MS	MSD			
Methane	21.46	21.89	22.11	22.11	ND	97	99	75-125	2	25
Ethane	40.85	41.34	41.59	41.59	ND	98	99	75-125	1	25
Ethene	39.05	41.83	38.83	38.83	ND	101	108	75-125	7	25





### Data Qualifiers and Abbreviations

- A - Due to a high sample concentration, the amount spiked is insufficient for meaningful MS/MSD recovery data.
  - B - The analyte indicated was also found in the blank sample.
  - C - The duplicate RPD is outside control limits due to high result variability when analyte concentrations are within five times the quantitation limit.
  - E - The value reported exceeds the quantitation range and is an estimate.
  - F - Surrogate recovery data is not available due to the high concentration of coeluting target compounds.
  - H - The analyte indicated is a common laboratory solvent and may have been introduced during sample preparation, and be impacting the sample result.
  - I - Compound recovery is outside of the control limits.
  - J - The value reported was below the practical quantitation limit. The value is an estimate.
  - K - Sample duplicate RPD is outside control limits due to sample inhomogeneity. The sample was re-extracted and re-analyzed with similar results.
  - L - The RPD is outside of the control limits.
  - M - Hydrocarbons in the gasoline range are impacting the diesel range result.
  - M1 - Hydrocarbons in the gasoline range (toluene-naphthalene) are present in the sample.
  - N - Hydrocarbons in the lube oil range are impacting the diesel range result.
  - N1 - Hydrocarbons in diesel range are impacting lube oil range results.
  - O - Hydrocarbons indicative of heavier fuels are present in the sample and are impacting the gasoline result.
  - P - The RPD of the detected concentrations between the two columns is greater than 40.
  - Q - Surrogate recovery is outside of the control limits.
  - S - Surrogate recovery data is not available due to the necessary dilution of the sample.
  - T - The sample chromatogram is not similar to a typical \_\_\_\_\_.
  - U - The analyte was analyzed for, but was not detected above the reported sample quantitation limit.
  - U1 - The practical quantitation limit is elevated due to interferences present in the sample.
  - V - Matrix Spike/Matrix Spike Duplicate recoveries are outside control limits due to matrix effects.
  - W - Matrix Spike/Matrix Spike Duplicate RPD are outside control limits due to matrix effects.
  - X - Sample extract treated with a mercury cleanup procedure.
  - X1 - Sample extract treated with a sulfuric acid/silica gel cleanup procedure.
  - Y - The calibration verification for this analyte exceeded the 20% drift specified in methods 8260 & 8270, and therefore the reported result should be considered an estimate. The overall performance of the calibration verification standard met the acceptance criteria of the method.
  - Z -
- ND - Not Detected at PQL  
 PQL - Practical Quantitation Limit  
 RPD - Relative Percent Difference









14648 NE 95<sup>th</sup> Street, Redmond, WA 98052 • (425) 883-3881

November 1, 2019

Jeff Jensen  
Kane Environmental, Inc.  
4015 13th Avenue West  
Seattle, WA 98119

Re: Analytical Data for Project 82302-9.4  
Laboratory Reference No. 1910-302

Dear Jeff:

Enclosed are the analytical results and associated quality control data for samples submitted on October 23, 2019.

The standard policy of OnSite Environmental, Inc. is to store your samples for 30 days from the date of receipt. If you require longer storage, please contact the laboratory.

We appreciate the opportunity to be of service to you on this project. If you have any questions concerning the data, or need additional information, please feel free to call me.

Sincerely,

A handwritten signature in black ink, appearing to read "DB", with a long horizontal stroke extending to the right.

David Baumeister  
Project Manager

Enclosures



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OnSite Environmental, Inc. 14648 NE 95<sup>th</sup> Street, Redmond, WA 98052 (425) 883-3881

This report pertains to the samples analyzed in accordance with the chain of custody, and is intended only for the use of the individual or company to whom it is addressed.

Date of Report: November 1, 2019  
Samples Submitted: October 23, 2019  
Laboratory Reference: 1910-302  
Project: 82302-9.4

### Case Narrative

Samples were collected on October 23, 2019 and received by the laboratory on October 23, 2019. They were maintained at the laboratory at a temperature of 2°C to 6°C.

Please note that any and all soil sample results are reported on a dry-weight basis, unless otherwise noted below.

General QA/QC issues associated with the analytical data enclosed in this laboratory report will be indicated with a reference to a comment or explanation on the Data Qualifier page. More complex and involved QA/QC issues will be discussed in detail below.



Date of Report: November 1, 2019  
 Samples Submitted: October 23, 2019  
 Laboratory Reference: 1910-302  
 Project: 82302-9.4

**VOLATILE ORGANICS EPA 8260D/SIM**  
 page 1 of 2

Matrix: Water  
 Units: ug/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>Client ID:</b>	<b>S-MW-1:W</b>					
Laboratory ID:	10-302-01					
Dichlorodifluoromethane	0.61	0.20	EPA 8260D	10-25-19	10-25-19	Y
Chloromethane	ND	1.0	EPA 8260D	10-25-19	10-25-19	
Vinyl Chloride	ND	0.020	EPA 8260D/SIM	10-25-19	10-25-19	
Bromomethane	ND	0.30	EPA 8260D	10-25-19	10-25-19	
Chloroethane	ND	1.0	EPA 8260D	10-25-19	10-25-19	
Trichlorofluoromethane	0.44	0.20	EPA 8260D	10-25-19	10-25-19	
1,1-Dichloroethene	ND	0.20	EPA 8260D	10-25-19	10-25-19	
Iodomethane	ND	1.6	EPA 8260D	10-25-19	10-25-19	
Methylene Chloride	ND	1.0	EPA 8260D	10-25-19	10-25-19	
(trans) 1,2-Dichloroethene	ND	0.20	EPA 8260D	10-25-19	10-25-19	
1,1-Dichloroethane	ND	0.20	EPA 8260D	10-25-19	10-25-19	
2,2-Dichloropropane	ND	0.20	EPA 8260D	10-25-19	10-25-19	
(cis) 1,2-Dichloroethene	ND	0.20	EPA 8260D	10-25-19	10-25-19	
Bromochloromethane	ND	0.20	EPA 8260D	10-25-19	10-25-19	
Chloroform	ND	0.20	EPA 8260D	10-25-19	10-25-19	
1,1,1-Trichloroethane	ND	0.20	EPA 8260D	10-25-19	10-25-19	
Carbon Tetrachloride	ND	0.20	EPA 8260D	10-25-19	10-25-19	
1,1-Dichloropropene	ND	0.20	EPA 8260D	10-25-19	10-25-19	
1,2-Dichloroethane	ND	0.20	EPA 8260D	10-25-19	10-25-19	
Trichloroethene	ND	0.20	EPA 8260D	10-25-19	10-25-19	
1,2-Dichloropropane	ND	0.20	EPA 8260D	10-25-19	10-25-19	
Dibromomethane	ND	0.20	EPA 8260D	10-25-19	10-25-19	
Bromodichloromethane	ND	0.20	EPA 8260D	10-25-19	10-25-19	
2-Chloroethyl Vinyl Ether	ND	1.8	EPA 8260D	10-25-19	10-25-19	
(cis) 1,3-Dichloropropene	ND	0.20	EPA 8260D	10-25-19	10-25-19	
(trans) 1,3-Dichloropropene	ND	0.20	EPA 8260D	10-25-19	10-25-19	



Date of Report: November 1, 2019  
 Samples Submitted: October 23, 2019  
 Laboratory Reference: 1910-302  
 Project: 82302-9.4

**VOLATILE ORGANICS EPA 8260D/SIM**  
 page 2 of 2

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>Client ID:</b>	<b>S-MW-1:W</b>					
Laboratory ID:	10-302-01					
1,1,2-Trichloroethane	ND	0.20	EPA 8260D	10-25-19	10-25-19	
Tetrachloroethene	7.3	0.20	EPA 8260D	10-25-19	10-25-19	
1,3-Dichloropropane	ND	0.20	EPA 8260D	10-25-19	10-25-19	
Dibromochloromethane	ND	0.20	EPA 8260D	10-25-19	10-25-19	
1,2-Dibromoethane	ND	0.20	EPA 8260D	10-25-19	10-25-19	
Chlorobenzene	ND	0.20	EPA 8260D	10-25-19	10-25-19	
1,1,1,2-Tetrachloroethane	ND	0.20	EPA 8260D	10-25-19	10-25-19	
Bromoform	ND	1.0	EPA 8260D	10-25-19	10-25-19	
Bromobenzene	ND	0.20	EPA 8260D	10-25-19	10-25-19	
1,1,2,2-Tetrachloroethane	ND	0.20	EPA 8260D	10-25-19	10-25-19	
1,2,3-Trichloropropane	ND	0.20	EPA 8260D	10-25-19	10-25-19	
2-Chlorotoluene	ND	0.20	EPA 8260D	10-25-19	10-25-19	
4-Chlorotoluene	ND	0.20	EPA 8260D	10-25-19	10-25-19	
1,3-Dichlorobenzene	ND	0.20	EPA 8260D	10-25-19	10-25-19	
1,4-Dichlorobenzene	ND	0.20	EPA 8260D	10-25-19	10-25-19	
1,2-Dichlorobenzene	ND	0.20	EPA 8260D	10-25-19	10-25-19	
1,2-Dibromo-3-chloropropane	ND	1.0	EPA 8260D	10-25-19	10-25-19	
1,2,4-Trichlorobenzene	ND	0.20	EPA 8260D	10-25-19	10-25-19	
Hexachlorobutadiene	ND	1.0	EPA 8260D	10-25-19	10-25-19	
1,2,3-Trichlorobenzene	ND	0.20	EPA 8260D	10-25-19	10-25-19	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Dibromofluoromethane</i>	<i>96</i>	<i>75-127</i>				
<i>Toluene-d8</i>	<i>100</i>	<i>80-127</i>				
<i>4-Bromofluorobenzene</i>	<i>95</i>	<i>78-125</i>				



Date of Report: November 1, 2019  
 Samples Submitted: October 23, 2019  
 Laboratory Reference: 1910-302  
 Project: 82302-9.4

**VOLATILE ORGANICS EPA 8260D/SIM**  
 page 1 of 2

Matrix: Water  
 Units: ug/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>Client ID:</b>	<b>HZ-MW-34:W</b>					
Laboratory ID:	10-302-02					
Dichlorodifluoromethane	ND	1.0	EPA 8260D	10-25-19	10-25-19	
Chloromethane	ND	5.0	EPA 8260D	10-25-19	10-25-19	
Vinyl Chloride	0.97	0.10	EPA 8260D/SIM	10-25-19	10-25-19	
Bromomethane	ND	1.5	EPA 8260D	10-25-19	10-25-19	
Chloroethane	ND	5.0	EPA 8260D	10-25-19	10-25-19	
Trichlorofluoromethane	ND	1.0	EPA 8260D	10-25-19	10-25-19	
1,1-Dichloroethene	ND	1.0	EPA 8260D	10-25-19	10-25-19	
Iodomethane	ND	8.0	EPA 8260D	10-25-19	10-25-19	
Methylene Chloride	ND	5.0	EPA 8260D	10-25-19	10-25-19	
(trans) 1,2-Dichloroethene	ND	1.0	EPA 8260D	10-25-19	10-25-19	
1,1-Dichloroethane	ND	1.0	EPA 8260D	10-25-19	10-25-19	
2,2-Dichloropropane	ND	1.0	EPA 8260D	10-25-19	10-25-19	
(cis) 1,2-Dichloroethene	110	1.0	EPA 8260D	10-25-19	10-25-19	
Bromochloromethane	ND	1.0	EPA 8260D	10-25-19	10-25-19	
Chloroform	ND	1.0	EPA 8260D	10-25-19	10-25-19	
1,1,1-Trichloroethane	ND	1.0	EPA 8260D	10-25-19	10-25-19	
Carbon Tetrachloride	ND	1.0	EPA 8260D	10-25-19	10-25-19	
1,1-Dichloropropene	ND	1.0	EPA 8260D	10-25-19	10-25-19	
1,2-Dichloroethane	ND	1.0	EPA 8260D	10-25-19	10-25-19	
Trichloroethene	ND	1.0	EPA 8260D	10-25-19	10-25-19	
1,2-Dichloropropane	ND	1.0	EPA 8260D	10-25-19	10-25-19	
Dibromomethane	ND	1.0	EPA 8260D	10-25-19	10-25-19	
Bromodichloromethane	ND	1.0	EPA 8260D	10-25-19	10-25-19	
2-Chloroethyl Vinyl Ether	ND	9.0	EPA 8260D	10-25-19	10-25-19	
(cis) 1,3-Dichloropropene	ND	1.0	EPA 8260D	10-25-19	10-25-19	
(trans) 1,3-Dichloropropene	ND	1.0	EPA 8260D	10-25-19	10-25-19	



Date of Report: November 1, 2019  
 Samples Submitted: October 23, 2019  
 Laboratory Reference: 1910-302  
 Project: 82302-9.4

**VOLATILE ORGANICS EPA 8260D/SIM**  
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Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>Client ID:</b>	<b>HZ-MW-34:W</b>					
<b>Laboratory ID:</b>	10-302-02					
1,1,2-Trichloroethane	ND	1.0	EPA 8260D	10-25-19	10-25-19	
Tetrachloroethene	ND	1.0	EPA 8260D	10-25-19	10-25-19	
1,3-Dichloropropane	ND	1.0	EPA 8260D	10-25-19	10-25-19	
Dibromochloromethane	ND	1.0	EPA 8260D	10-25-19	10-25-19	
1,2-Dibromoethane	ND	1.0	EPA 8260D	10-25-19	10-25-19	
Chlorobenzene	ND	1.0	EPA 8260D	10-25-19	10-25-19	
1,1,1,2-Tetrachloroethane	ND	1.0	EPA 8260D	10-25-19	10-25-19	
Bromoform	ND	5.0	EPA 8260D	10-25-19	10-25-19	
Bromobenzene	ND	1.0	EPA 8260D	10-25-19	10-25-19	
1,1,2,2-Tetrachloroethane	ND	1.0	EPA 8260D	10-25-19	10-25-19	
1,2,3-Trichloropropane	ND	1.0	EPA 8260D	10-25-19	10-25-19	
2-Chlorotoluene	ND	1.0	EPA 8260D	10-25-19	10-25-19	
4-Chlorotoluene	ND	1.0	EPA 8260D	10-25-19	10-25-19	
1,3-Dichlorobenzene	ND	1.0	EPA 8260D	10-25-19	10-25-19	
1,4-Dichlorobenzene	ND	1.0	EPA 8260D	10-25-19	10-25-19	
1,2-Dichlorobenzene	ND	1.0	EPA 8260D	10-25-19	10-25-19	
1,2-Dibromo-3-chloropropane	ND	5.0	EPA 8260D	10-25-19	10-25-19	
1,2,4-Trichlorobenzene	ND	1.0	EPA 8260D	10-25-19	10-25-19	
Hexachlorobutadiene	ND	5.0	EPA 8260D	10-25-19	10-25-19	
1,2,3-Trichlorobenzene	ND	1.0	EPA 8260D	10-25-19	10-25-19	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Dibromofluoromethane</i>	91	75-127				
<i>Toluene-d8</i>	95	80-127				
<i>4-Bromofluorobenzene</i>	93	78-125				



Date of Report: November 1, 2019  
 Samples Submitted: October 23, 2019  
 Laboratory Reference: 1910-302  
 Project: 82302-9.4

**VOLATILE ORGANICS EPA 8260D/SIM**  
**QUALITY CONTROL**  
 page 1 of 2

Matrix: Water  
 Units: ug/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>METHOD BLANK</b>						
Laboratory ID:	MB1025W1					
Dichlorodifluoromethane	ND	0.20	EPA 8260D	10-25-19	10-25-19	
Chloromethane	ND	1.0	EPA 8260D	10-25-19	10-25-19	
Vinyl Chloride	ND	0.020	EPA 8260D/SIM	10-25-19	10-25-19	
Bromomethane	ND	0.30	EPA 8260D	10-25-19	10-25-19	
Chloroethane	ND	1.0	EPA 8260D	10-25-19	10-25-19	
Trichlorofluoromethane	ND	0.20	EPA 8260D	10-25-19	10-25-19	
1,1-Dichloroethene	ND	0.20	EPA 8260D	10-25-19	10-25-19	
Iodomethane	ND	1.6	EPA 8260D	10-25-19	10-25-19	
Methylene Chloride	ND	1.0	EPA 8260D	10-25-19	10-25-19	
(trans) 1,2-Dichloroethene	ND	0.20	EPA 8260D	10-25-19	10-25-19	
1,1-Dichloroethane	ND	0.20	EPA 8260D	10-25-19	10-25-19	
2,2-Dichloropropane	ND	0.20	EPA 8260D	10-25-19	10-25-19	
(cis) 1,2-Dichloroethene	ND	0.20	EPA 8260D	10-25-19	10-25-19	
Bromochloromethane	ND	0.20	EPA 8260D	10-25-19	10-25-19	
Chloroform	ND	0.20	EPA 8260D	10-25-19	10-25-19	
1,1,1-Trichloroethane	ND	0.20	EPA 8260D	10-25-19	10-25-19	
Carbon Tetrachloride	ND	0.20	EPA 8260D	10-25-19	10-25-19	
1,1-Dichloropropene	ND	0.20	EPA 8260D	10-25-19	10-25-19	
1,2-Dichloroethane	ND	0.20	EPA 8260D	10-25-19	10-25-19	
Trichloroethene	ND	0.20	EPA 8260D	10-25-19	10-25-19	
1,2-Dichloropropane	ND	0.20	EPA 8260D	10-25-19	10-25-19	
Dibromomethane	ND	0.20	EPA 8260D	10-25-19	10-25-19	
Bromodichloromethane	ND	0.20	EPA 8260D	10-25-19	10-25-19	
2-Chloroethyl Vinyl Ether	ND	1.8	EPA 8260D	10-25-19	10-25-19	
(cis) 1,3-Dichloropropene	ND	0.20	EPA 8260D	10-25-19	10-25-19	
(trans) 1,3-Dichloropropene	ND	0.20	EPA 8260D	10-25-19	10-25-19	





Date of Report: November 1, 2019  
 Samples Submitted: October 23, 2019  
 Laboratory Reference: 1910-302  
 Project: 82302-9.4

**VOLATILE ORGANICS EPA 8260D/SIM  
 QUALITY CONTROL**  
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Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>METHOD BLANK</b>						
Laboratory ID:	MB1025W1					
1,1,2-Trichloroethane	ND	0.20	EPA 8260D	10-25-19	10-25-19	
Tetrachloroethene	ND	0.20	EPA 8260D	10-25-19	10-25-19	
1,3-Dichloropropane	ND	0.20	EPA 8260D	10-25-19	10-25-19	
Dibromochloromethane	ND	0.20	EPA 8260D	10-25-19	10-25-19	
1,2-Dibromoethane	ND	0.20	EPA 8260D	10-25-19	10-25-19	
Chlorobenzene	ND	0.20	EPA 8260D	10-25-19	10-25-19	
1,1,1,2-Tetrachloroethane	ND	0.20	EPA 8260D	10-25-19	10-25-19	
Bromoform	ND	1.0	EPA 8260D	10-25-19	10-25-19	
Bromobenzene	ND	0.20	EPA 8260D	10-25-19	10-25-19	
1,1,2,2-Tetrachloroethane	ND	0.20	EPA 8260D	10-25-19	10-25-19	
1,2,3-Trichloropropane	ND	0.20	EPA 8260D	10-25-19	10-25-19	
2-Chlorotoluene	ND	0.20	EPA 8260D	10-25-19	10-25-19	
4-Chlorotoluene	ND	0.20	EPA 8260D	10-25-19	10-25-19	
1,3-Dichlorobenzene	ND	0.20	EPA 8260D	10-25-19	10-25-19	
1,4-Dichlorobenzene	ND	0.20	EPA 8260D	10-25-19	10-25-19	
1,2-Dichlorobenzene	ND	0.20	EPA 8260D	10-25-19	10-25-19	
1,2-Dibromo-3-chloropropane	ND	1.0	EPA 8260D	10-25-19	10-25-19	
1,2,4-Trichlorobenzene	ND	0.20	EPA 8260D	10-25-19	10-25-19	
Hexachlorobutadiene	ND	1.0	EPA 8260D	10-25-19	10-25-19	
1,2,3-Trichlorobenzene	ND	0.20	EPA 8260D	10-25-19	10-25-19	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Dibromofluoromethane</i>	<i>93</i>	<i>75-127</i>				
<i>Toluene-d8</i>	<i>97</i>	<i>80-127</i>				
<i>4-Bromofluorobenzene</i>	<i>94</i>	<i>78-125</i>				



Date of Report: November 1, 2019  
 Samples Submitted: October 23, 2019  
 Laboratory Reference: 1910-302  
 Project: 82302-9.4

**VOLATILE ORGANICS EPA 8260D/SIM  
 QUALITY CONTROL**

Matrix: Water  
 Units: ug/L

Analyte	Result		Spike Level		Percent Recovery		Recovery	RPD	RPD	Flags
					Recovery	Limits	RPD	Limit		
<b>SPIKE BLANKS</b>										
Laboratory ID:	SB1025W1									
	SB	SBD	SB	SBD	SB	SBD				
1,1-Dichloroethene	9.37	9.48	10.0	10.0	94	95	63-130	1	17	
Benzene	9.21	9.36	10.0	10.0	92	94	76-125	2	19	
Trichloroethene	10.2	10.2	10.0	10.0	102	102	76-121	0	18	
Toluene	9.98	9.92	10.0	10.0	100	99	80-124	1	18	
Chlorobenzene	10.8	10.8	10.0	10.0	108	108	75-120	0	19	
<i>Surrogate:</i>										
Dibromofluoromethane					93	98	75-127			
Toluene-d8					100	99	80-127			
4-Bromofluorobenzene					99	98	78-125			



Date of Report: November 1, 2019  
Samples Submitted: October 23, 2019  
Laboratory Reference: 1910-302  
Project: 82302-9.4

**TOTAL ORGANIC CARBON  
SM 5310B**

Matrix: Water  
Units: mg/L

<b>Analyte</b>	<b>Result</b>	<b>PQL</b>	<b>Method</b>	<b>Date Prepared</b>	<b>Date Analyzed</b>	<b>Flags</b>
<b>Client ID:</b>	<b>S-MW-1:W</b>					
Laboratory ID:	10-302-01					
Total Organic Carbon	<b>ND</b>	1.0	SM 5310B	10-29-19	10-29-19	
<b>Client ID:</b>	<b>HZ-MW-34:W</b>					
Laboratory ID:	10-302-02					
Total Organic Carbon	<b>5.8</b>	1.0	SM 5310B	10-29-19	10-29-19	



Date of Report: November 1, 2019  
 Samples Submitted: October 23, 2019  
 Laboratory Reference: 1910-302  
 Project: 82302-9.4

**TOTAL ORGANIC CARBON  
 SM 5310B  
 QUALITY CONTROL**

Matrix: Water  
 Units: mg/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>METHOD BLANK</b>						
Laboratory ID:	MB1029W1					
Total Organic Carbon	<b>ND</b>	1.0	SM 5310B	10-29-19	10-29-19	

Analyte	Result	Spike Level	Source Result	Percent Recovery	Recovery Limits	RPD	RPD Limit	Flags
<b>DUPLICATE</b>								
Laboratory ID:	10-302-01							
	ORIG	DUP						
Total Organic Carbon	<b>ND</b>	<b>ND</b>	NA	NA	NA	NA	20	

**MATRIX SPIKE**

Laboratory ID:	10-302-01							
	MS	MS		MS				
Total Organic Carbon	<b>11.3</b>	10.0	ND	113	85-131	NA	NA	

**SPIKE BLANK**

Laboratory ID:	SB1029W1							
	SB	SB		SB				
Total Organic Carbon	<b>11.5</b>	10.0	NA	115	88-127	NA	NA	



Date of Report: November 1, 2019  
 Samples Submitted: October 23, 2019  
 Laboratory Reference: 1910-302  
 Project: 82302-9.4

**DISSOLVED IRON  
 EPA 6010D**

Matrix: Water  
 Units: ug/L (ppb)

<b>Analyte</b>	<b>Result</b>	<b>PQL</b>	<b>Method</b>	<b>Date Prepared</b>	<b>Date Analyzed</b>	<b>Flags</b>
<b>Client ID:</b>	<b>S-MW-1:W</b>					
Laboratory ID:	10-302-01					
Iron	<b>ND</b>	56	EPA 6010D	10-23-19	10-30-19	

<b>Client ID:</b>	<b>HZ-MW-34:W</b>					
Laboratory ID:	10-302-02					
Iron	<b>4900</b>	56	EPA 6010D	10-23-19	10-30-19	



Date of Report: November 1, 2019  
 Samples Submitted: October 23, 2019  
 Laboratory Reference: 1910-302  
 Project: 82302-9.4

**DISSOLVED IRON  
 EPA 6010D  
 QUALITY CONTROL**

Matrix: Water  
 Units: ug/L (ppb)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>METHOD BLANK</b>						
Laboratory ID:	MB1023F1					
Iron	<b>ND</b>	56	EPA 6010D	10-23-19	10-30-19	

Analyte	Result	Spike Level	Source Result	Percent Recovery	Recovery Limits	RPD	RPD Limit	Flags
<b>DUPLICATE</b>								
Laboratory ID:	10-295-03							
	ORIG	DUP						
Iron	<b>1180</b>	<b>1170</b>	NA	NA	NA	NA	0	20

**MATRIX SPIKES**

Laboratory ID:	10-295-03									
	MS	MSD	MS	MSD		MS	MSD			
Iron	<b>23900</b>	<b>23700</b>	22200	22200	1180	<b>102</b>	<b>102</b>	75-125	1	20



Date of Report: November 1, 2019  
 Samples Submitted: October 23, 2019  
 Laboratory Reference: 1910-302  
 Project: 82302-9.4

**CHLORIDE**  
**SM 4500-Cl E**

Matrix: Water  
 Units: mg/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>Client ID:</b>	<b>S-MW-1:W</b>					
Laboratory ID:	10-302-01					
Chloride	<b>4.2</b>	2.0	SM 4500-Cl E	10-24-19	10-24-19	

<b>Client ID:</b>	<b>HZ-MW-34:W</b>					
Laboratory ID:	10-302-02					
Chloride	<b>9.0</b>	2.0	SM 4500-Cl E	10-24-19	10-24-19	



Date of Report: November 1, 2019  
 Samples Submitted: October 23, 2019  
 Laboratory Reference: 1910-302  
 Project: 82302-9.4

**CHLORIDE  
 SM 4500-Cl E  
 QUALITY CONTROL**

Matrix: Water  
 Units: mg/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>METHOD BLANK</b>						
Laboratory ID:	MB1024W2					
Chloride	<b>ND</b>	2.0	SM 4500-Cl E	10-24-19	10-24-19	

Analyte	Result	Spike Level	Source Result	Percent Recovery	Recovery Limits	RPD	RPD Limit	Flags
<b>DUPLICATE</b>								
Laboratory ID:	10-302-01							
	ORIG	DUP						
Chloride	<b>4.23</b>	<b>4.08</b>	NA	NA	NA	4	17	

<b>MATRIX SPIKE</b>								
Laboratory ID:	10-302-01							
	MS	MS		MS				
Chloride	<b>51.3</b>	50.0	4.23	94	80-116	NA	NA	

<b>SPIKE BLANK</b>								
Laboratory ID:	SB1024W2							
	SB	SB		SB				
Chloride	<b>46.4</b>	50.0	NA	93	90-110	NA	NA	





Date of Report: November 1, 2019  
Samples Submitted: October 23, 2019  
Laboratory Reference: 1910-302  
Project: 82302-9.4

**SULFATE**  
**ASTM D516-11**

Matrix: Water  
Units: mg/L

<b>Analyte</b>	<b>Result</b>	<b>PQL</b>	<b>Method</b>	<b>Date Prepared</b>	<b>Date Analyzed</b>	<b>Flags</b>
<b>Client ID:</b>	<b>S-MW-1:W</b>					
Laboratory ID:	10-302-01					
Sulfate	<b>23</b>	5.0	ASTM D516-11	10-25-19	10-25-19	

<b>Client ID:</b>	<b>HZ-MW-34:W</b>					
Laboratory ID:	10-302-02					
Sulfate	<b>17</b>	5.0	ASTM D516-11	10-25-19	10-25-19	



Date of Report: November 1, 2019  
 Samples Submitted: October 23, 2019  
 Laboratory Reference: 1910-302  
 Project: 82302-9.4

**SULFATE  
 ASTM D516-11  
 QUALITY CONTROL**

Matrix: Water  
 Units: mg/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>METHOD BLANK</b>						
Laboratory ID:	MB1025W1					
Sulfate	<b>ND</b>	5.0	ASTM D516-11	10-25-19	10-25-19	

Analyte	Result	Spike Level	Source Result	Percent Recovery	Recovery Limits	RPD	RPD Limit	Flags
<b>DUPLICATE</b>								
Laboratory ID:	10-326-01							
	ORIG	DUP						
Sulfate	<b>ND</b>	<b>ND</b>	NA	NA	NA	NA	10	

<b>MATRIX SPIKE</b>								
Laboratory ID:	10-326-01							
	MS	MS		MS				
Sulfate	<b>10.4</b>	10.0	ND	104	73-134	NA	NA	

<b>SPIKE BLANK</b>								
Laboratory ID:	SB1025W1							
	SB	SB		SB				
Sulfate	<b>10.2</b>	10.0	NA	102	89-113	NA	NA	



Date of Report: November 1, 2019  
 Samples Submitted: October 23, 2019  
 Laboratory Reference: 1910-302  
 Project: 82302-9.4

**AMMONIA (as Nitrogen)**  
**SM 4500-NH<sub>3</sub> D**

Matrix: Water  
 Units: mg NH<sub>3</sub>-N/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>Client ID:</b>	<b>S-MW-1:W</b>					
Laboratory ID:	10-302-01					
Ammonia	<b>ND</b>	0.050	SM 4500-NH <sub>3</sub> D	10-24-19	10-24-19	

<b>Client ID:</b>	<b>HZ-MW-34:W</b>					
Laboratory ID:	10-302-02					
Ammonia	<b>0.69</b>	0.050	SM 4500-NH <sub>3</sub> D	10-24-19	10-24-19	



Date of Report: November 1, 2019  
 Samples Submitted: October 23, 2019  
 Laboratory Reference: 1910-302  
 Project: 82302-9.4

**AMMONIA (as Nitrogen)  
 SM 4500-NH<sub>3</sub> D  
 QUALITY CONTROL**

Matrix: Water  
 Units: mg NH<sub>3</sub>-N/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>METHOD BLANK</b>						
Laboratory ID:	MB1024W2					
Ammonia	<b>ND</b>	0.050	SM 4500-NH <sub>3</sub> D	10-24-19	10-24-19	

Analyte	Result	Spike Level	Source Result	Percent Recovery	Recovery Limits	RPD	RPD Limit	Flags
<b>DUPLICATE</b>								
Laboratory ID:	10-302-02							
	ORIG	DUP						
Ammonia	<b>0.687</b>	<b>0.717</b>	NA	NA	NA	4	12	

<b>MATRIX SPIKE</b>								
Laboratory ID:	10-302-02							
	MS	MS		MS				
Ammonia	<b>5.57</b>	5.00	0.687	98	75-121	NA	NA	

<b>SPIKE BLANK</b>								
Laboratory ID:	SB1024W2							
	SB	SB		SB				
Ammonia	<b>5.01</b>	5.00	NA	100	85-110	NA	NA	



Date of Report: November 1, 2019  
 Samples Submitted: October 23, 2019  
 Laboratory Reference: 1910-302  
 Project: 82302-9.4

**DISSOLVED GASES  
 RSK 175**

Matrix: Water  
 Units: ug/L (ppb)

<b>Analyte</b>	<b>Result</b>	<b>PQL</b>	<b>Method</b>	<b>Date Prepared</b>	<b>Date Analyzed</b>	<b>Flags</b>
<b>Client ID:</b>	<b>S-MW-1:W</b>					
Laboratory ID:	10-302-01					
Methane	<b>ND</b>	1.0	RSK 175	10-28-19	10-28-19	
Ethane	<b>ND</b>	0.50	RSK 175	10-28-19	10-28-19	
Ethene	<b>ND</b>	0.50	RSK 175	10-28-19	10-28-19	

<b>Client ID:</b>	<b>HZ-MW-34:W</b>					
Laboratory ID:	10-302-02					
Methane	<b>7700</b>	100	RSK 175	10-28-19	10-28-19	
Ethane	<b>ND</b>	0.50	RSK 175	10-28-19	10-28-19	
Ethene	<b>ND</b>	0.50	RSK 175	10-28-19	10-28-19	



Date of Report: November 1, 2019  
 Samples Submitted: October 23, 2019  
 Laboratory Reference: 1910-302  
 Project: 82302-9.4

**DISSOLVED GASES  
 RSK 175  
 QUALITY CONTROL**

Matrix: Water  
 Units: ug/L (ppb)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>METHOD BLANK</b>						
Laboratory ID:	MB1028W1					
Methane	<b>ND</b>	1.0	RSK 175	10-28-19	10-28-19	
Ethane	<b>ND</b>	0.50	RSK 175	10-28-19	10-28-19	
Ethene	<b>ND</b>	0.50	RSK 175	10-28-19	10-28-19	

Analyte	Result		Spike Level		Source Result	Percent Recovery	Recovery Limits	RPD	RPD Limit	Flags
<b>MATRIX SPIKES</b>										
Laboratory ID:	10-144-03									
	MS	MSD	MS	MSD		MS	MSD			
Methane	<b>21.46</b>	<b>21.89</b>	22.11	22.11	ND	<b>97</b>	<b>99</b>	75-125	2	25
Ethane	<b>40.85</b>	<b>41.34</b>	41.59	41.59	ND	<b>98</b>	<b>99</b>	75-125	1	25
Ethene	<b>39.05</b>	<b>41.83</b>	38.83	38.83	ND	<b>101</b>	<b>108</b>	75-125	7	25





### Data Qualifiers and Abbreviations

- A - Due to a high sample concentration, the amount spiked is insufficient for meaningful MS/MSD recovery data.
  - B - The analyte indicated was also found in the blank sample.
  - C - The duplicate RPD is outside control limits due to high result variability when analyte concentrations are within five times the quantitation limit.
  - E - The value reported exceeds the quantitation range and is an estimate.
  - F - Surrogate recovery data is not available due to the high concentration of coeluting target compounds.
  - H - The analyte indicated is a common laboratory solvent and may have been introduced during sample preparation, and be impacting the sample result.
  - I - Compound recovery is outside of the control limits.
  - J - The value reported was below the practical quantitation limit. The value is an estimate.
  - K - Sample duplicate RPD is outside control limits due to sample inhomogeneity. The sample was re-extracted and re-analyzed with similar results.
  - L - The RPD is outside of the control limits.
  - M - Hydrocarbons in the gasoline range are impacting the diesel range result.
  - M1 - Hydrocarbons in the gasoline range (toluene-naphthalene) are present in the sample.
  - N - Hydrocarbons in the lube oil range are impacting the diesel range result.
  - N1 - Hydrocarbons in diesel range are impacting lube oil range results.
  - O - Hydrocarbons indicative of heavier fuels are present in the sample and are impacting the gasoline result.
  - P - The RPD of the detected concentrations between the two columns is greater than 40.
  - Q - Surrogate recovery is outside of the control limits.
  - S - Surrogate recovery data is not available due to the necessary dilution of the sample.
  - T - The sample chromatogram is not similar to a typical \_\_\_\_\_.
  - U - The analyte was analyzed for, but was not detected above the reported sample quantitation limit.
  - U1 - The practical quantitation limit is elevated due to interferences present in the sample.
  - V - Matrix Spike/Matrix Spike Duplicate recoveries are outside control limits due to matrix effects.
  - W - Matrix Spike/Matrix Spike Duplicate RPD are outside control limits due to matrix effects.
  - X - Sample extract treated with a mercury cleanup procedure.
  - X1 - Sample extract treated with a sulfuric acid/silica gel cleanup procedure.
  - Y - The calibration verification for this analyte exceeded the 20% drift specified in methods 8260 & 8270, and therefore the reported result should be considered an estimate. The overall performance of the calibration verification standard met the acceptance criteria of the method.
  - Z -
- ND - Not Detected at PQL  
 PQL - Practical Quantitation Limit  
 RPD - Relative Percent Difference





# OnSite Environmental Inc.

Analytical Laboratory Testing Services  
14648 NE 95th Street • Redmond, WA 98052  
Phone: (425) 883-3881 • www.onsite-env.com

## Chain of Custody

### Turnaround Request (in working days)

(Check One)

Same Day  1 Day

2 Days  3 Days

Standard (7 Days)

\_\_\_\_\_ (other)

### Laboratory Number: 10-302

Company: Kane Environmental  
 Project Number: 82302-9.4  
 Project Name: BSCSS  
 Project Manager: Jeff Jensen  
 Sampled by: Bella Graves

Lab ID	Sample Identification	Date Sampled	Time Sampled	Matrix	Number of Containers
1	S-MW-1:W	10/23/19	0955	GW	10
2	#2-MW-34:W	10/23/19	1145	GW	10

Number of Containers	NWTPH-HCID	NWTPH-Gx/BTEX	NWTPH-Gx	NWTPH-Dx ( <input type="checkbox"/> Acid / SG Clean-up)	Volatiles 8260C	Halogenated Volatiles 8260C	EDB EPA 8011 (Waters Only)	Semivolatiles 8270D/SIM (with low-level PAHs)	PAHs 8270D/SIM (low-level)	PCBs 8082A	Organochlorine Pesticides 8081B	Organophosphorus Pesticides 8270D/SIM	Chlorinated Acid Herbicides 8151A	Total RCRA Metals	Total MTCA Metals	TCLP Metals	Heavy Metals (EPA 8210) TDC	dissolved Fe	chloride	sulfate	ammonia-N	ammonia-RSK
10						X												X	X	X	X	X
10						X												X	X	X	X	X

Signature	Company	Date	Time	Comments/Special Instructions
	Kane Environmental	10/23/19	1300	RSK = methanol, ethanol, acetone ↳ low det c'n limit + vinyl chloride → low detection limit + low filter

Received/Date: \_\_\_\_\_

Received/Date: \_\_\_\_\_

Received/Date: \_\_\_\_\_

Received/Date: \_\_\_\_\_

Reviewed/Date: \_\_\_\_\_

Reviewed/Date: \_\_\_\_\_

Data Package: Standard  Level III  Level IV

Chromatograms with final report  Electronic Data Deliverables (EDDs)





14648 NE 95<sup>th</sup> Street, Redmond, WA 98052 • (425) 883-3881

November 1, 2019

Jeff Jensen  
Kane Environmental, Inc.  
4015 13th Avenue West  
Seattle, WA 98119

Re: Analytical Data for Project 82302-9.4  
Laboratory Reference No. 1910-335

Dear Jeff:

Enclosed are the analytical results and associated quality control data for samples submitted on October 24, 2019.

The standard policy of OnSite Environmental, Inc. is to store your samples for 30 days from the date of receipt. If you require longer storage, please contact the laboratory.

We appreciate the opportunity to be of service to you on this project. If you have any questions concerning the data, or need additional information, please feel free to call me.

Sincerely,

A handwritten signature in black ink, appearing to read "DB", with a long horizontal stroke extending to the right.

David Baumeister  
Project Manager

Enclosures



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OnSite Environmental, Inc. 14648 NE 95<sup>th</sup> Street, Redmond, WA 98052 (425) 883-3881

This report pertains to the samples analyzed in accordance with the chain of custody, and is intended only for the use of the individual or company to whom it is addressed.

Date of Report: November 1, 2019  
Samples Submitted: October 24, 2019  
Laboratory Reference: 1910-335  
Project: 82302-9.4

### Case Narrative

Samples were collected on October 24, 2019 and received by the laboratory on October 24, 2019. They were maintained at the laboratory at a temperature of 2°C to 6°C.

Please note that any and all soil sample results are reported on a dry-weight basis, unless otherwise noted below.

General QA/QC issues associated with the analytical data enclosed in this laboratory report will be indicated with a reference to a comment or explanation on the Data Qualifier page. More complex and involved QA/QC issues will be discussed in detail below.



Date of Report: November 1, 2019  
 Samples Submitted: October 24, 2019  
 Laboratory Reference: 1910-335  
 Project: 82302-9.4

**VOLATILE ORGANICS EPA 8260D**  
 page 1 of 2

Matrix: Water  
 Units: ug/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>Client ID:</b>	<b>HZ-MW-24:W</b>					
Laboratory ID:	10-335-01					
Dichlorodifluoromethane	ND	0.40	EPA 8260D	10-25-19	10-25-19	
Chloromethane	ND	2.0	EPA 8260D	10-25-19	10-25-19	
Vinyl Chloride	0.76	0.40	EPA 8260D	10-25-19	10-25-19	
Bromomethane	ND	0.60	EPA 8260D	10-25-19	10-25-19	
Chloroethane	ND	2.0	EPA 8260D	10-25-19	10-25-19	
Trichlorofluoromethane	ND	0.40	EPA 8260D	10-25-19	10-25-19	
1,1-Dichloroethene	ND	0.40	EPA 8260D	10-25-19	10-25-19	
Iodomethane	ND	3.2	EPA 8260D	10-25-19	10-25-19	
Methylene Chloride	ND	2.0	EPA 8260D	10-25-19	10-25-19	
(trans) 1,2-Dichloroethene	ND	0.40	EPA 8260D	10-25-19	10-25-19	
1,1-Dichloroethane	ND	0.40	EPA 8260D	10-25-19	10-25-19	
2,2-Dichloropropane	ND	0.40	EPA 8260D	10-25-19	10-25-19	
(cis) 1,2-Dichloroethene	93	0.40	EPA 8260D	10-25-19	10-25-19	
Bromochloromethane	ND	0.40	EPA 8260D	10-25-19	10-25-19	
Chloroform	ND	0.40	EPA 8260D	10-25-19	10-25-19	
1,1,1-Trichloroethane	ND	0.40	EPA 8260D	10-25-19	10-25-19	
Carbon Tetrachloride	ND	0.40	EPA 8260D	10-25-19	10-25-19	
1,1-Dichloropropene	ND	0.40	EPA 8260D	10-25-19	10-25-19	
1,2-Dichloroethane	ND	0.40	EPA 8260D	10-25-19	10-25-19	
Trichloroethene	ND	0.40	EPA 8260D	10-25-19	10-25-19	
1,2-Dichloropropane	ND	0.40	EPA 8260D	10-25-19	10-25-19	
Dibromomethane	ND	0.40	EPA 8260D	10-25-19	10-25-19	
Bromodichloromethane	ND	0.40	EPA 8260D	10-25-19	10-25-19	
2-Chloroethyl Vinyl Ether	ND	3.6	EPA 8260D	10-25-19	10-25-19	
(cis) 1,3-Dichloropropene	ND	0.40	EPA 8260D	10-25-19	10-25-19	
(trans) 1,3-Dichloropropene	ND	0.40	EPA 8260D	10-25-19	10-25-19	



Date of Report: November 1, 2019  
 Samples Submitted: October 24, 2019  
 Laboratory Reference: 1910-335  
 Project: 82302-9.4

**VOLATILE ORGANICS EPA 8260D**  
 page 2 of 2

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>Client ID:</b>	<b>HZ-MW-24:W</b>					
<b>Laboratory ID:</b>	10-335-01					
1,1,2-Trichloroethane	ND	0.40	EPA 8260D	10-25-19	10-25-19	
Tetrachloroethene	ND	0.40	EPA 8260D	10-25-19	10-25-19	
1,3-Dichloropropane	ND	0.40	EPA 8260D	10-25-19	10-25-19	
Dibromochloromethane	ND	0.40	EPA 8260D	10-25-19	10-25-19	
1,2-Dibromoethane	ND	0.40	EPA 8260D	10-25-19	10-25-19	
Chlorobenzene	ND	0.40	EPA 8260D	10-25-19	10-25-19	
1,1,1,2-Tetrachloroethane	ND	0.40	EPA 8260D	10-25-19	10-25-19	
Bromoform	ND	2.0	EPA 8260D	10-25-19	10-25-19	
Bromobenzene	ND	0.40	EPA 8260D	10-25-19	10-25-19	
1,1,1,2-Tetrachloroethane	ND	0.40	EPA 8260D	10-25-19	10-25-19	
1,2,3-Trichloropropane	ND	0.40	EPA 8260D	10-25-19	10-25-19	
2-Chlorotoluene	ND	0.40	EPA 8260D	10-25-19	10-25-19	
4-Chlorotoluene	ND	0.40	EPA 8260D	10-25-19	10-25-19	
1,3-Dichlorobenzene	ND	0.40	EPA 8260D	10-25-19	10-25-19	
1,4-Dichlorobenzene	ND	0.40	EPA 8260D	10-25-19	10-25-19	
1,2-Dichlorobenzene	ND	0.40	EPA 8260D	10-25-19	10-25-19	
1,2-Dibromo-3-chloropropane	ND	2.0	EPA 8260D	10-25-19	10-25-19	
1,2,4-Trichlorobenzene	ND	0.40	EPA 8260D	10-25-19	10-25-19	
Hexachlorobutadiene	ND	2.0	EPA 8260D	10-25-19	10-25-19	
1,2,3-Trichlorobenzene	ND	0.40	EPA 8260D	10-25-19	10-25-19	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Dibromofluoromethane</i>	<i>97</i>	<i>75-127</i>				
<i>Toluene-d8</i>	<i>99</i>	<i>80-127</i>				
<i>4-Bromofluorobenzene</i>	<i>94</i>	<i>78-125</i>				



Date of Report: November 1, 2019  
 Samples Submitted: October 24, 2019  
 Laboratory Reference: 1910-335  
 Project: 82302-9.4

**VOLATILE ORGANICS EPA 8260D**  
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Matrix: Water  
 Units: ug/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>Client ID:</b>	<b>HZ-MW-29:W</b>					
Laboratory ID:	10-335-02					
Dichlorodifluoromethane	ND	1.0	EPA 8260D	10-25-19	10-25-19	
Chloromethane	ND	5.0	EPA 8260D	10-25-19	10-25-19	
Vinyl Chloride	0.94	0.10	EPA 8260D/SIM	10-25-19	10-25-19	
Bromomethane	ND	1.5	EPA 8260D	10-25-19	10-25-19	
Chloroethane	ND	5.0	EPA 8260D	10-25-19	10-25-19	
Trichlorofluoromethane	ND	1.0	EPA 8260D	10-25-19	10-25-19	
1,1-Dichloroethene	ND	1.0	EPA 8260D	10-25-19	10-25-19	
Iodomethane	ND	8.0	EPA 8260D	10-25-19	10-25-19	
Methylene Chloride	ND	5.0	EPA 8260D	10-25-19	10-25-19	
(trans) 1,2-Dichloroethene	ND	1.0	EPA 8260D	10-25-19	10-25-19	
1,1-Dichloroethane	ND	1.0	EPA 8260D	10-25-19	10-25-19	
2,2-Dichloropropane	ND	1.0	EPA 8260D	10-25-19	10-25-19	
(cis) 1,2-Dichloroethene	100	1.0	EPA 8260D	10-25-19	10-25-19	
Bromochloromethane	ND	1.0	EPA 8260D	10-25-19	10-25-19	
Chloroform	ND	1.0	EPA 8260D	10-25-19	10-25-19	
1,1,1-Trichloroethane	ND	1.0	EPA 8260D	10-25-19	10-25-19	
Carbon Tetrachloride	ND	1.0	EPA 8260D	10-25-19	10-25-19	
1,1-Dichloropropene	ND	1.0	EPA 8260D	10-25-19	10-25-19	
1,2-Dichloroethane	ND	1.0	EPA 8260D	10-25-19	10-25-19	
Trichloroethene	ND	1.0	EPA 8260D	10-25-19	10-25-19	
1,2-Dichloropropane	ND	1.0	EPA 8260D	10-25-19	10-25-19	
Dibromomethane	ND	1.0	EPA 8260D	10-25-19	10-25-19	
Bromodichloromethane	ND	1.0	EPA 8260D	10-25-19	10-25-19	
2-Chloroethyl Vinyl Ether	ND	9.0	EPA 8260D	10-25-19	10-25-19	
(cis) 1,3-Dichloropropene	ND	1.0	EPA 8260D	10-25-19	10-25-19	
(trans) 1,3-Dichloropropene	ND	1.0	EPA 8260D	10-25-19	10-25-19	



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Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>Client ID:</b>	<b>HZ-MW-29:W</b>					
<b>Laboratory ID:</b>	10-335-02					
1,1,2-Trichloroethane	ND	1.0	EPA 8260D	10-25-19	10-25-19	
Tetrachloroethene	ND	1.0	EPA 8260D	10-25-19	10-25-19	
1,3-Dichloropropane	ND	1.0	EPA 8260D	10-25-19	10-25-19	
Dibromochloromethane	ND	1.0	EPA 8260D	10-25-19	10-25-19	
1,2-Dibromoethane	ND	1.0	EPA 8260D	10-25-19	10-25-19	
Chlorobenzene	ND	1.0	EPA 8260D	10-25-19	10-25-19	
1,1,1,2-Tetrachloroethane	ND	1.0	EPA 8260D	10-25-19	10-25-19	
Bromoform	ND	5.0	EPA 8260D	10-25-19	10-25-19	
Bromobenzene	ND	1.0	EPA 8260D	10-25-19	10-25-19	
1,1,2,2-Tetrachloroethane	ND	1.0	EPA 8260D	10-25-19	10-25-19	
1,2,3-Trichloropropane	ND	1.0	EPA 8260D	10-25-19	10-25-19	
2-Chlorotoluene	ND	1.0	EPA 8260D	10-25-19	10-25-19	
4-Chlorotoluene	ND	1.0	EPA 8260D	10-25-19	10-25-19	
1,3-Dichlorobenzene	ND	1.0	EPA 8260D	10-25-19	10-25-19	
1,4-Dichlorobenzene	ND	1.0	EPA 8260D	10-25-19	10-25-19	
1,2-Dichlorobenzene	ND	1.0	EPA 8260D	10-25-19	10-25-19	
1,2-Dibromo-3-chloropropane	ND	5.0	EPA 8260D	10-25-19	10-25-19	
1,2,4-Trichlorobenzene	ND	1.0	EPA 8260D	10-25-19	10-25-19	
Hexachlorobutadiene	ND	5.0	EPA 8260D	10-25-19	10-25-19	
1,2,3-Trichlorobenzene	ND	1.0	EPA 8260D	10-25-19	10-25-19	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Dibromofluoromethane</i>	96	75-127				
<i>Toluene-d8</i>	98	80-127				
<i>4-Bromofluorobenzene</i>	98	78-125				



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**VOLATILE ORGANICS EPA 8260D**  
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Matrix: Water  
 Units: ug/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>Client ID:</b>	<b>HZ-MW-23:W</b>					
Laboratory ID:	10-335-03					
Dichlorodifluoromethane	ND	0.20	EPA 8260D	10-25-19	10-25-19	
Chloromethane	ND	1.0	EPA 8260D	10-25-19	10-25-19	
Vinyl Chloride	ND	0.020	EPA 8260D/SIM	10-25-19	10-25-19	
Bromomethane	ND	0.30	EPA 8260D	10-25-19	10-25-19	
Chloroethane	ND	1.0	EPA 8260D	10-25-19	10-25-19	
Trichlorofluoromethane	ND	0.20	EPA 8260D	10-25-19	10-25-19	
1,1-Dichloroethene	ND	0.20	EPA 8260D	10-25-19	10-25-19	
Iodomethane	ND	1.6	EPA 8260D	10-25-19	10-25-19	
Methylene Chloride	ND	1.0	EPA 8260D	10-25-19	10-25-19	
(trans) 1,2-Dichloroethene	ND	0.20	EPA 8260D	10-25-19	10-25-19	
1,1-Dichloroethane	ND	0.20	EPA 8260D	10-25-19	10-25-19	
2,2-Dichloropropane	ND	0.20	EPA 8260D	10-25-19	10-25-19	
(cis) 1,2-Dichloroethene	ND	0.20	EPA 8260D	10-25-19	10-25-19	
Bromochloromethane	ND	0.20	EPA 8260D	10-25-19	10-25-19	
Chloroform	ND	0.20	EPA 8260D	10-25-19	10-25-19	
1,1,1-Trichloroethane	ND	0.20	EPA 8260D	10-25-19	10-25-19	
Carbon Tetrachloride	ND	0.20	EPA 8260D	10-25-19	10-25-19	
1,1-Dichloropropene	ND	0.20	EPA 8260D	10-25-19	10-25-19	
1,2-Dichloroethane	ND	0.20	EPA 8260D	10-25-19	10-25-19	
Trichloroethene	ND	0.20	EPA 8260D	10-25-19	10-25-19	
1,2-Dichloropropane	ND	0.20	EPA 8260D	10-25-19	10-25-19	
Dibromomethane	ND	0.20	EPA 8260D	10-25-19	10-25-19	
Bromodichloromethane	ND	0.20	EPA 8260D	10-25-19	10-25-19	
2-Chloroethyl Vinyl Ether	ND	1.8	EPA 8260D	10-25-19	10-25-19	
(cis) 1,3-Dichloropropene	ND	0.20	EPA 8260D	10-25-19	10-25-19	
(trans) 1,3-Dichloropropene	ND	0.20	EPA 8260D	10-25-19	10-25-19	



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Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>Client ID:</b>	<b>HZ-MW-23:W</b>					
<b>Laboratory ID:</b>	10-335-03					
1,1,2-Trichloroethane	ND	0.20	EPA 8260D	10-25-19	10-25-19	
Tetrachloroethene	ND	0.20	EPA 8260D	10-25-19	10-25-19	
1,3-Dichloropropane	ND	0.20	EPA 8260D	10-25-19	10-25-19	
Dibromochloromethane	ND	0.20	EPA 8260D	10-25-19	10-25-19	
1,2-Dibromoethane	ND	0.20	EPA 8260D	10-25-19	10-25-19	
Chlorobenzene	ND	0.20	EPA 8260D	10-25-19	10-25-19	
1,1,1,2-Tetrachloroethane	ND	0.20	EPA 8260D	10-25-19	10-25-19	
Bromoform	ND	1.0	EPA 8260D	10-25-19	10-25-19	
Bromobenzene	ND	0.20	EPA 8260D	10-25-19	10-25-19	
1,1,1,2-Tetrachloroethane	ND	0.20	EPA 8260D	10-25-19	10-25-19	
1,2,3-Trichloropropane	ND	0.20	EPA 8260D	10-25-19	10-25-19	
2-Chlorotoluene	ND	0.20	EPA 8260D	10-25-19	10-25-19	
4-Chlorotoluene	ND	0.20	EPA 8260D	10-25-19	10-25-19	
1,3-Dichlorobenzene	ND	0.20	EPA 8260D	10-25-19	10-25-19	
1,4-Dichlorobenzene	ND	0.20	EPA 8260D	10-25-19	10-25-19	
1,2-Dichlorobenzene	ND	0.20	EPA 8260D	10-25-19	10-25-19	
1,2-Dibromo-3-chloropropane	ND	1.0	EPA 8260D	10-25-19	10-25-19	
1,2,4-Trichlorobenzene	ND	0.20	EPA 8260D	10-25-19	10-25-19	
Hexachlorobutadiene	ND	1.0	EPA 8260D	10-25-19	10-25-19	
1,2,3-Trichlorobenzene	ND	0.20	EPA 8260D	10-25-19	10-25-19	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Dibromofluoromethane</i>	<i>97</i>	<i>75-127</i>				
<i>Toluene-d8</i>	<i>102</i>	<i>80-127</i>				
<i>4-Bromofluorobenzene</i>	<i>100</i>	<i>78-125</i>				





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**VOLATILE ORGANICS EPA 8260D**  
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Matrix: Water  
 Units: ug/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>Client ID:</b>	<b>MW-39:W</b>					
Laboratory ID:	10-335-04					
Dichlorodifluoromethane	ND	0.20	EPA 8260D	10-25-19	10-25-19	
Chloromethane	ND	1.0	EPA 8260D	10-25-19	10-25-19	
Vinyl Chloride	ND	0.020	EPA 8260D/SIM	10-25-19	10-25-19	
Bromomethane	ND	0.30	EPA 8260D	10-25-19	10-25-19	
Chloroethane	ND	1.0	EPA 8260D	10-25-19	10-25-19	
Trichlorofluoromethane	ND	0.20	EPA 8260D	10-25-19	10-25-19	
1,1-Dichloroethene	ND	0.20	EPA 8260D	10-25-19	10-25-19	
Iodomethane	ND	1.6	EPA 8260D	10-25-19	10-25-19	
Methylene Chloride	ND	1.0	EPA 8260D	10-25-19	10-25-19	
(trans) 1,2-Dichloroethene	ND	0.20	EPA 8260D	10-25-19	10-25-19	
1,1-Dichloroethane	ND	0.20	EPA 8260D	10-25-19	10-25-19	
2,2-Dichloropropane	ND	0.20	EPA 8260D	10-25-19	10-25-19	
(cis) 1,2-Dichloroethene	1.6	0.20	EPA 8260D	10-25-19	10-25-19	
Bromochloromethane	ND	0.20	EPA 8260D	10-25-19	10-25-19	
Chloroform	ND	0.20	EPA 8260D	10-25-19	10-25-19	
1,1,1-Trichloroethane	ND	0.20	EPA 8260D	10-25-19	10-25-19	
Carbon Tetrachloride	ND	0.20	EPA 8260D	10-25-19	10-25-19	
1,1-Dichloropropene	ND	0.20	EPA 8260D	10-25-19	10-25-19	
1,2-Dichloroethane	ND	0.20	EPA 8260D	10-25-19	10-25-19	
Trichloroethene	0.52	0.20	EPA 8260D	10-25-19	10-25-19	
1,2-Dichloropropane	ND	0.20	EPA 8260D	10-25-19	10-25-19	
Dibromomethane	ND	0.20	EPA 8260D	10-25-19	10-25-19	
Bromodichloromethane	ND	0.20	EPA 8260D	10-25-19	10-25-19	
2-Chloroethyl Vinyl Ether	ND	1.8	EPA 8260D	10-25-19	10-25-19	
(cis) 1,3-Dichloropropene	ND	0.20	EPA 8260D	10-25-19	10-25-19	
(trans) 1,3-Dichloropropene	ND	0.20	EPA 8260D	10-25-19	10-25-19	



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Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>Client ID:</b>	<b>MW-39:W</b>					
Laboratory ID:	10-335-04					
1,1,2-Trichloroethane	ND	0.20	EPA 8260D	10-25-19	10-25-19	
Tetrachloroethene	0.52	0.20	EPA 8260D	10-25-19	10-25-19	
1,3-Dichloropropane	ND	0.20	EPA 8260D	10-25-19	10-25-19	
Dibromochloromethane	ND	0.20	EPA 8260D	10-25-19	10-25-19	
1,2-Dibromoethane	ND	0.20	EPA 8260D	10-25-19	10-25-19	
Chlorobenzene	ND	0.20	EPA 8260D	10-25-19	10-25-19	
1,1,1,2-Tetrachloroethane	ND	0.20	EPA 8260D	10-25-19	10-25-19	
Bromoform	ND	1.0	EPA 8260D	10-25-19	10-25-19	
Bromobenzene	ND	0.20	EPA 8260D	10-25-19	10-25-19	
1,1,1,2-Tetrachloroethane	ND	0.20	EPA 8260D	10-25-19	10-25-19	
1,2,3-Trichloropropane	ND	0.20	EPA 8260D	10-25-19	10-25-19	
2-Chlorotoluene	ND	0.20	EPA 8260D	10-25-19	10-25-19	
4-Chlorotoluene	ND	0.20	EPA 8260D	10-25-19	10-25-19	
1,3-Dichlorobenzene	ND	0.20	EPA 8260D	10-25-19	10-25-19	
1,4-Dichlorobenzene	ND	0.20	EPA 8260D	10-25-19	10-25-19	
1,2-Dichlorobenzene	ND	0.20	EPA 8260D	10-25-19	10-25-19	
1,2-Dibromo-3-chloropropane	ND	1.0	EPA 8260D	10-25-19	10-25-19	
1,2,4-Trichlorobenzene	ND	0.20	EPA 8260D	10-25-19	10-25-19	
Hexachlorobutadiene	ND	1.0	EPA 8260D	10-25-19	10-25-19	
1,2,3-Trichlorobenzene	ND	0.20	EPA 8260D	10-25-19	10-25-19	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Dibromofluoromethane</i>	<i>97</i>	<i>75-127</i>				
<i>Toluene-d8</i>	<i>101</i>	<i>80-127</i>				
<i>4-Bromofluorobenzene</i>	<i>97</i>	<i>78-125</i>				



Date of Report: November 1, 2019  
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**VOLATILE ORGANICS EPA 8260D**  
**QUALITY CONTROL**  
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Matrix: Water  
 Units: ug/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>METHOD BLANK</b>						
Laboratory ID:	MB1025W1					
Dichlorodifluoromethane	ND	0.20	EPA 8260D	10-25-19	10-25-19	
Chloromethane	ND	1.0	EPA 8260D	10-25-19	10-25-19	
Vinyl Chloride	ND	0.020	EPA 8260D/SIM	10-25-19	10-25-19	
Bromomethane	ND	0.30	EPA 8260D	10-25-19	10-25-19	
Chloroethane	ND	1.0	EPA 8260D	10-25-19	10-25-19	
Trichlorofluoromethane	ND	0.20	EPA 8260D	10-25-19	10-25-19	
1,1-Dichloroethene	ND	0.20	EPA 8260D	10-25-19	10-25-19	
Iodomethane	ND	1.6	EPA 8260D	10-25-19	10-25-19	
Methylene Chloride	ND	1.0	EPA 8260D	10-25-19	10-25-19	
(trans) 1,2-Dichloroethene	ND	0.20	EPA 8260D	10-25-19	10-25-19	
1,1-Dichloroethane	ND	0.20	EPA 8260D	10-25-19	10-25-19	
2,2-Dichloropropane	ND	0.20	EPA 8260D	10-25-19	10-25-19	
(cis) 1,2-Dichloroethene	ND	0.20	EPA 8260D	10-25-19	10-25-19	
Bromochloromethane	ND	0.20	EPA 8260D	10-25-19	10-25-19	
Chloroform	ND	0.20	EPA 8260D	10-25-19	10-25-19	
1,1,1-Trichloroethane	ND	0.20	EPA 8260D	10-25-19	10-25-19	
Carbon Tetrachloride	ND	0.20	EPA 8260D	10-25-19	10-25-19	
1,1-Dichloropropene	ND	0.20	EPA 8260D	10-25-19	10-25-19	
1,2-Dichloroethane	ND	0.20	EPA 8260D	10-25-19	10-25-19	
Trichloroethene	ND	0.20	EPA 8260D	10-25-19	10-25-19	
1,2-Dichloropropane	ND	0.20	EPA 8260D	10-25-19	10-25-19	
Dibromomethane	ND	0.20	EPA 8260D	10-25-19	10-25-19	
Bromodichloromethane	ND	0.20	EPA 8260D	10-25-19	10-25-19	
2-Chloroethyl Vinyl Ether	ND	1.8	EPA 8260D	10-25-19	10-25-19	
(cis) 1,3-Dichloropropene	ND	0.20	EPA 8260D	10-25-19	10-25-19	
(trans) 1,3-Dichloropropene	ND	0.20	EPA 8260D	10-25-19	10-25-19	



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**VOLATILE ORGANICS EPA 8260D**  
**QUALITY CONTROL**  
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Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>METHOD BLANK</b>						
Laboratory ID:	MB1025W1					
1,1,2-Trichloroethane	ND	0.20	EPA 8260D	10-25-19	10-25-19	
Tetrachloroethene	ND	0.20	EPA 8260D	10-25-19	10-25-19	
1,3-Dichloropropane	ND	0.20	EPA 8260D	10-25-19	10-25-19	
Dibromochloromethane	ND	0.20	EPA 8260D	10-25-19	10-25-19	
1,2-Dibromoethane	ND	0.20	EPA 8260D	10-25-19	10-25-19	
Chlorobenzene	ND	0.20	EPA 8260D	10-25-19	10-25-19	
1,1,1,2-Tetrachloroethane	ND	0.20	EPA 8260D	10-25-19	10-25-19	
Bromoform	ND	1.0	EPA 8260D	10-25-19	10-25-19	
Bromobenzene	ND	0.20	EPA 8260D	10-25-19	10-25-19	
1,1,2,2-Tetrachloroethane	ND	0.20	EPA 8260D	10-25-19	10-25-19	
1,2,3-Trichloropropane	ND	0.20	EPA 8260D	10-25-19	10-25-19	
2-Chlorotoluene	ND	0.20	EPA 8260D	10-25-19	10-25-19	
4-Chlorotoluene	ND	0.20	EPA 8260D	10-25-19	10-25-19	
1,3-Dichlorobenzene	ND	0.20	EPA 8260D	10-25-19	10-25-19	
1,4-Dichlorobenzene	ND	0.20	EPA 8260D	10-25-19	10-25-19	
1,2-Dichlorobenzene	ND	0.20	EPA 8260D	10-25-19	10-25-19	
1,2-Dibromo-3-chloropropane	ND	1.0	EPA 8260D	10-25-19	10-25-19	
1,2,4-Trichlorobenzene	ND	0.20	EPA 8260D	10-25-19	10-25-19	
Hexachlorobutadiene	ND	1.0	EPA 8260D	10-25-19	10-25-19	
1,2,3-Trichlorobenzene	ND	0.20	EPA 8260D	10-25-19	10-25-19	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Dibromofluoromethane</i>	<i>93</i>	<i>75-127</i>				
<i>Toluene-d8</i>	<i>97</i>	<i>80-127</i>				
<i>4-Bromofluorobenzene</i>	<i>94</i>	<i>78-125</i>				



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**VOLATILE ORGANICS EPA 8260D  
 QUALITY CONTROL**

Matrix: Water  
 Units: ug/L

Analyte	Result		Spike Level		Percent Recovery		Recovery	RPD	RPD	Flags
					Recovery	Limits	RPD	Limit		
<b>SPIKE BLANKS</b>										
Laboratory ID:	SB1025W1									
	SB	SBD	SB	SBD	SB	SBD				
1,1-Dichloroethene	<b>9.37</b>	<b>9.48</b>	10.0	10.0	94	95	63-130	1	17	
Benzene	<b>9.21</b>	<b>9.36</b>	10.0	10.0	92	94	76-125	2	19	
Trichloroethene	<b>10.2</b>	<b>10.2</b>	10.0	10.0	102	102	76-121	0	18	
Toluene	<b>9.98</b>	<b>9.92</b>	10.0	10.0	100	99	80-124	1	18	
Chlorobenzene	<b>10.8</b>	<b>10.8</b>	10.0	10.0	108	108	75-120	0	19	
<i>Surrogate:</i>										
<i>Dibromofluoromethane</i>					93	98	75-127			
<i>Toluene-d8</i>					100	99	80-127			
<i>4-Bromofluorobenzene</i>					99	98	78-125			



Date of Report: November 1, 2019  
 Samples Submitted: October 24, 2019  
 Laboratory Reference: 1910-335  
 Project: 82302-9.4

**TOTAL ORGANIC CARBON  
 SM 5310B**

Matrix: Water  
 Units: mg/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>Client ID:</b>	<b>HZ-MW-24:W</b>					
Laboratory ID:	10-335-01					
Total Organic Carbon	<b>4.7</b>	1.0	SM 5310B	10-29-19	10-29-19	
<b>Client ID:</b>	<b>HZ-MW-29:W</b>					
Laboratory ID:	10-335-02					
Total Organic Carbon	<b>2.1</b>	1.0	SM 5310B	10-29-19	10-29-19	
<b>Client ID:</b>	<b>HZ-MW-23:W</b>					
Laboratory ID:	10-335-03					
Total Organic Carbon	<b>24</b>	1.0	SM 5310B	10-29-19	10-29-19	
<b>Client ID:</b>	<b>MW-39:W</b>					
Laboratory ID:	10-335-04					
Total Organic Carbon	<b>3.1</b>	1.0	SM 5310B	10-29-19	10-29-19	



Date of Report: November 1, 2019  
 Samples Submitted: October 24, 2019  
 Laboratory Reference: 1910-335  
 Project: 82302-9.4

**TOTAL ORGANIC CARBON  
 SM 5310B  
 QUALITY CONTROL**

Matrix: Water  
 Units: mg/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>METHOD BLANK</b>						
Laboratory ID:	MB1029W1					
Total Organic Carbon	<b>ND</b>	1.0	SM 5310B	10-29-19	10-29-19	

Analyte	Result	Spike Level	Source Result	Percent Recovery	Recovery Limits	RPD	RPD Limit	Flags
<b>DUPLICATE</b>								
Laboratory ID:	10-302-01							
	ORIG	DUP						
Total Organic Carbon	<b>ND</b>	<b>ND</b>	NA	NA	NA	NA	20	

**MATRIX SPIKE**

Laboratory ID:	10-302-01							
	MS	MS		MS				
Total Organic Carbon	<b>11.3</b>	10.0	ND	113	85-131	NA	NA	

**SPIKE BLANK**

Laboratory ID:	SB1029W1							
	SB	SB		SB				
Total Organic Carbon	<b>11.5</b>	10.0	NA	115	88-127	NA	NA	



Date of Report: November 1, 2019  
 Samples Submitted: October 24, 2019  
 Laboratory Reference: 1910-335  
 Project: 82302-9.4

**DISSOLVED IRON  
 EPA 6010D**

Matrix: Water  
 Units: ug/L (ppb)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>Client ID:</b>	<b>HZ-MW-24:W</b>					
Laboratory ID:	10-335-01					
Iron	<b>20000</b>	56	EPA 6010D	10-24-19	10-30-19	

<b>Client ID:</b>	<b>HZ-MW-29:W</b>					
Laboratory ID:	10-335-02					
Iron	<b>9500</b>	56	EPA 6010D	10-24-19	10-30-19	

<b>Client ID:</b>	<b>HZ-MW-23:W</b>					
Laboratory ID:	10-335-03					
Iron	<b>8700</b>	56	EPA 6010D	10-24-19	10-30-19	

<b>Client ID:</b>	<b>MW-39:W</b>					
Laboratory ID:	10-335-04					
Iron	<b>4600</b>	56	EPA 6010D	10-24-19	10-30-19	





Date of Report: November 1, 2019  
 Samples Submitted: October 24, 2019  
 Laboratory Reference: 1910-335  
 Project: 82302-9.4

**DISSOLVED IRON  
 EPA 6010D  
 QUALITY CONTROL**

Matrix: Water  
 Units: ug/L (ppb)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>METHOD BLANK</b>						
Laboratory ID:	MB1024F1					
Iron	<b>ND</b>	56	EPA 6010D	10-24-19	10-30-19	

Analyte	Result	Spike Level	Source Result	Percent Recovery	Recovery Limits	RPD	RPD Limit	Flags
<b>DUPLICATE</b>								
Laboratory ID:	10-295-03							
	ORIG	DUP						
Iron	<b>1180</b>	<b>1170</b>	NA	NA	NA	NA	0	20

**MATRIX SPIKES**

Laboratory ID:	10-295-03									
	MS	MSD	MS	MSD		MS	MSD			
Iron	<b>23900</b>	<b>23700</b>	22200	22200	1180	<b>102</b>	<b>102</b>	75-125	1	20



Date of Report: November 1, 2019  
 Samples Submitted: October 24, 2019  
 Laboratory Reference: 1910-335  
 Project: 82302-9.4

**CHLORIDE**  
**SM 4500-Cl E**

Matrix: Water  
 Units: mg/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>Client ID:</b>	<b>HZ-MW-24:W</b>					
Laboratory ID:	10-335-01					
Chloride	<b>14</b>	2.0	SM 4500-Cl E	10-28-19	10-28-19	

<b>Client ID:</b>	<b>HZ-MW-29:W</b>					
Laboratory ID:	10-335-02					
Chloride	<b>13</b>	2.0	SM 4500-Cl E	10-28-19	10-28-19	

<b>Client ID:</b>	<b>HZ-MW-23:W</b>					
Laboratory ID:	10-335-03					
Chloride	<b>7.1</b>	2.0	SM 4500-Cl E	10-28-19	10-28-19	

<b>Client ID:</b>	<b>MW-39:W</b>					
Laboratory ID:	10-335-04					
Chloride	<b>4.5</b>	2.0	SM 4500-Cl E	10-28-19	10-28-19	



Date of Report: November 1, 2019  
 Samples Submitted: October 24, 2019  
 Laboratory Reference: 1910-335  
 Project: 82302-9.4

**CHLORIDE  
 SM 4500-Cl E  
 QUALITY CONTROL**

Matrix: Water  
 Units: mg/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>METHOD BLANK</b>						
Laboratory ID:	MB1028W1					
Chloride	<b>ND</b>	2.0	SM 4500-Cl E	10-28-19	10-28-19	

Analyte	Result	Spike Level	Source Result	Percent Recovery	Recovery Limits	RPD	RPD Limit	Flags
<b>DUPLICATE</b>								
Laboratory ID:	10-335-01							
	ORIG	DUP						
Chloride	<b>13.6</b>	<b>13.5</b>	NA	NA	NA	1	17	

<b>MATRIX SPIKE</b>								
Laboratory ID:	10-335-01							
	MS	MS		MS				
Chloride	<b>65.8</b>	50.0	13.6	104	80-116	NA	NA	

<b>SPIKE BLANK</b>								
Laboratory ID:	SB1028W1							
	SB	SB		SB				
Chloride	<b>48.5</b>	50.0	NA	97	90-110	NA	NA	



Date of Report: November 1, 2019  
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**SULFATE**  
**ASTM D516-11**

Matrix: Water  
 Units: mg/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>Client ID:</b>	<b>HZ-MW-24:W</b>					
Laboratory ID:	10-335-01					
Sulfate	<b>ND</b>	5.0	ASTM D516-11	10-25-19	10-25-19	

<b>Client ID:</b>	<b>HZ-MW-29:W</b>					
Laboratory ID:	10-335-02					
Sulfate	<b>ND</b>	5.0	ASTM D516-11	10-25-19	10-25-19	

<b>Client ID:</b>	<b>HZ-MW-23:W</b>					
Laboratory ID:	10-335-03					
Sulfate	<b>8.1</b>	5.0	ASTM D516-11	10-25-19	10-25-19	

<b>Client ID:</b>	<b>MW-39:W</b>					
Laboratory ID:	10-335-04					
Sulfate	<b>ND</b>	5.0	ASTM D516-11	10-25-19	10-25-19	



Date of Report: November 1, 2019  
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 Laboratory Reference: 1910-335  
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**SULFATE  
 ASTM D516-11  
 QUALITY CONTROL**

Matrix: Water  
 Units: mg/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>METHOD BLANK</b>						
Laboratory ID:	MB1025W1					
Sulfate	<b>ND</b>	5.0	ASTM D516-11	10-25-19	10-25-19	

Analyte	Result	Spike Level	Source Result	Percent Recovery	Recovery Limits	RPD	RPD Limit	Flags
<b>DUPLICATE</b>								
Laboratory ID:	10-326-01							
	ORIG	DUP						
Sulfate	<b>ND</b>	<b>ND</b>	NA	NA	NA	NA	10	

<b>MATRIX SPIKE</b>								
Laboratory ID:	10-326-01							
	MS	MS		MS				
Sulfate	<b>10.4</b>	10.0	ND	104	73-134	NA	NA	

<b>SPIKE BLANK</b>								
Laboratory ID:	SB1025W1							
	SB	SB		SB				
Sulfate	<b>10.2</b>	10.0	NA	102	89-113	NA	NA	



Date of Report: November 1, 2019  
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 Laboratory Reference: 1910-335  
 Project: 82302-9.4

**AMMONIA (as Nitrogen)**  
**SM 4500-NH<sub>3</sub> D**

Matrix: Water  
 Units: mg NH<sub>3</sub>-N/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>Client ID:</b>	<b>HZ-MW-24:W</b>					
Laboratory ID:	10-335-01					
Ammonia	<b>1.1</b>	0.050	SM 4500-NH <sub>3</sub> D	10-29-19	10-29-19	
<b>Client ID:</b>	<b>HZ-MW-29:W</b>					
Laboratory ID:	10-335-02					
Ammonia	<b>1.6</b>	0.050	SM 4500-NH <sub>3</sub> D	10-29-19	10-29-19	
<b>Client ID:</b>	<b>HZ-MW-23:W</b>					
Laboratory ID:	10-335-03					
Ammonia	<b>ND</b>	0.050	SM 4500-NH <sub>3</sub> D	10-29-19	10-29-19	
<b>Client ID:</b>	<b>MW-39:W</b>					
Laboratory ID:	10-335-04					
Ammonia	<b>0.48</b>	0.050	SM 4500-NH <sub>3</sub> D	10-29-19	10-29-19	



Date of Report: November 1, 2019  
 Samples Submitted: October 24, 2019  
 Laboratory Reference: 1910-335  
 Project: 82302-9.4

**AMMONIA (as Nitrogen)  
 SM 4500-NH<sub>3</sub> D  
 QUALITY CONTROL**

Matrix: Water  
 Units: mg NH<sub>3</sub>-N/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>METHOD BLANK</b>						
Laboratory ID:	MB1029W1					
Ammonia	<b>ND</b>	0.050	SM 4500-NH <sub>3</sub> D	10-29-19	10-29-19	

Analyte	Result	Spike Level	Source Result	Percent Recovery	Recovery Limits	RPD	RPD Limit	Flags
<b>DUPLICATE</b>								
Laboratory ID:	10-335-01							
	ORIG	DUP						
Ammonia	<b>1.14</b>	<b>1.16</b>	NA	NA	NA	2	12	

<b>MATRIX SPIKE</b>								
Laboratory ID:	10-335-01							
	MS	MS		MS				
Ammonia	<b>5.53</b>	5.00	1.14	88	75-121	NA	NA	

<b>SPIKE BLANK</b>								
Laboratory ID:	SB1029W1							
	SB	SB		SB				
Ammonia	<b>4.78</b>	5.00	NA	96	85-110	NA	NA	



Date of Report: November 1, 2019  
 Samples Submitted: October 24, 2019  
 Laboratory Reference: 1910-335  
 Project: 82302-9.4

**DISSOLVED GASES  
 RSK 175**

Matrix: Water  
 Units: ug/L (ppb)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>Client ID:</b>	<b>HZ-MW-24:W</b>					
Laboratory ID:	10-335-01					
Methane	<b>9700</b>	100	RSK 175	10-29-19	10-29-19	
Ethane	<b>ND</b>	0.50	RSK 175	10-29-19	10-29-19	
Ethene	<b>ND</b>	0.50	RSK 175	10-29-19	10-29-19	

<b>Client ID:</b>	<b>HZ-MW-29:W</b>					
Laboratory ID:	10-335-02					
Methane	<b>9900</b>	150	RSK 175	10-29-19	10-29-19	
Ethane	<b>ND</b>	0.50	RSK 175	10-29-19	10-29-19	
Ethene	<b>ND</b>	0.50	RSK 175	10-29-19	10-29-19	

<b>Client ID:</b>	<b>HZ-MW-23:W</b>					
Laboratory ID:	10-335-03					
Methane	<b>920</b>	10	RSK 175	10-29-19	10-29-19	
Ethane	<b>ND</b>	0.50	RSK 175	10-29-19	10-29-19	
Ethene	<b>ND</b>	0.50	RSK 175	10-29-19	10-29-19	

<b>Client ID:</b>	<b>MW-39:W</b>					
Laboratory ID:	10-335-04					
Methane	<b>910</b>	10	RSK 175	10-29-19	10-29-19	
Ethane	<b>ND</b>	0.50	RSK 175	10-29-19	10-29-19	
Ethene	<b>ND</b>	0.50	RSK 175	10-29-19	10-29-19	





Date of Report: November 1, 2019  
 Samples Submitted: October 24, 2019  
 Laboratory Reference: 1910-335  
 Project: 82302-9.4

**DISSOLVED GASES  
 RSK 175  
 QUALITY CONTROL**

Matrix: Water  
 Units: ug/L (ppb)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>METHOD BLANK</b>						
Laboratory ID:	MB1029W1					
Methane	ND	1.0	RSK 175	10-29-19	10-29-19	
Ethane	ND	0.50	RSK 175	10-29-19	10-29-19	
Ethene	ND	0.50	RSK 175	10-29-19	10-29-19	

Analyte	Result		Spike Level		Source Result	Percent Recovery	Recovery Limits	RPD	RPD Limit	Flags
<b>MATRIX SPIKES</b>										
Laboratory ID:	10-144-03									
	MS	MSD	MS	MSD		MS	MSD			
Methane	21.46	21.89	22.11	22.11	ND	97	99	75-125	2	25
Ethane	40.85	41.34	41.59	41.59	ND	98	99	75-125	1	25
Ethene	39.05	41.83	38.83	38.83	ND	101	108	75-125	7	25





### Data Qualifiers and Abbreviations

- A - Due to a high sample concentration, the amount spiked is insufficient for meaningful MS/MSD recovery data.
  - B - The analyte indicated was also found in the blank sample.
  - C - The duplicate RPD is outside control limits due to high result variability when analyte concentrations are within five times the quantitation limit.
  - E - The value reported exceeds the quantitation range and is an estimate.
  - F - Surrogate recovery data is not available due to the high concentration of coeluting target compounds.
  - H - The analyte indicated is a common laboratory solvent and may have been introduced during sample preparation, and be impacting the sample result.
  - I - Compound recovery is outside of the control limits.
  - J - The value reported was below the practical quantitation limit. The value is an estimate.
  - K - Sample duplicate RPD is outside control limits due to sample inhomogeneity. The sample was re-extracted and re-analyzed with similar results.
  - L - The RPD is outside of the control limits.
  - M - Hydrocarbons in the gasoline range are impacting the diesel range result.
  - M1 - Hydrocarbons in the gasoline range (toluene-naphthalene) are present in the sample.
  - N - Hydrocarbons in the lube oil range are impacting the diesel range result.
  - N1 - Hydrocarbons in diesel range are impacting lube oil range results.
  - O - Hydrocarbons indicative of heavier fuels are present in the sample and are impacting the gasoline result.
  - P - The RPD of the detected concentrations between the two columns is greater than 40.
  - Q - Surrogate recovery is outside of the control limits.
  - S - Surrogate recovery data is not available due to the necessary dilution of the sample.
  - T - The sample chromatogram is not similar to a typical \_\_\_\_\_.
  - U - The analyte was analyzed for, but was not detected above the reported sample quantitation limit.
  - U1 - The practical quantitation limit is elevated due to interferences present in the sample.
  - V - Matrix Spike/Matrix Spike Duplicate recoveries are outside control limits due to matrix effects.
  - W - Matrix Spike/Matrix Spike Duplicate RPD are outside control limits due to matrix effects.
  - X - Sample extract treated with a mercury cleanup procedure.
  - X1 - Sample extract treated with a sulfuric acid/silica gel cleanup procedure.
  - Y - The calibration verification for this analyte exceeded the 20% drift specified in methods 8260 & 8270, and therefore the reported result should be considered an estimate. The overall performance of the calibration verification standard met the acceptance criteria of the method.
  - Z -
- ND - Not Detected at PQL  
 PQL - Practical Quantitation Limit  
 RPD - Relative Percent Difference





**MA Onsite Environmental Inc.**  
 Analytical Laboratory Testing Services  
 14648 NE 95th Street • Redmond, WA 98052  
 Phone: (425) 883-3881 • www.onsite-env.com

# Chain of Custody

Turnaround Request  
 (in working days)  
 (Check One)

- Same Day  1 Day
- 2 Days  3 Days
- Standard (7 Days)
- \_\_\_\_\_ (other)

Laboratory Number: **10-335**

Company: Kane Environmental  
 Project Number: 82302-9.4  
 Project Name: BSISS  
 Project Manager: SEH TANKIN  
 Sampled by: RYMA GRAVES

Lab ID | Sample Identification | Date Sampled | Time Sampled | Matrix | Number of Containers

Lab ID	Sample Identification	Date Sampled	Time Sampled	Matrix	Number of Containers
1	#7- MW-24:W	10/24/19	0915	GW	9
2	#7- MW-29:W		1020	GW	9
3	#7- MW-23:W		1125	GW	9
4	MW-29:W		1410	GW	9

Parameter	1	2	3	4
NWTPH-HCID				
NWTPH-Gx/BTEX				
NWTPH-Gx				
NWTPH-Dx ( <input type="checkbox"/> Acid / SG Clean-up)				
Volatiles 8260C				
Halogenated Volatiles 8260C	X	X	X	X
EDB EPA 8011 (Waters Only)				
Semivolatiles 8270D/SIM (with low-level PAHs)				
PAHs 8270D/SIM (low-level)				
PCBs 8082A				
Organochlorine Pesticides 8081B				
Organophosphorus Pesticides 8270D/SIM				
Chlorinated Acid Herbicides 8151A				
Total RCRA Metals				
Total MTCA Metals				
TCLP Metals				
HEM (oil and grease) 1664A	X	X	X	X
TOC				
dissolved Fe	X	X	X	X
chloride	X	X	X	X
sulfate	X	X	X	X
ammonia-N	X	X	X	X
% moisture RSK	X	X	X	X

Signature: [Signature]

Company: KANE ENVIRONMENTAL

Date: 10/24/19 Time: 1510

Comments/Special Instructions: LAB FILTER  
RSK = methane, ethane, propane  
Low detection limit (3-4 µg/L)  
vinyl chloride → low detection limit

Received/Date: \_\_\_\_\_

Received/Date: \_\_\_\_\_

Reviewed/Date: \_\_\_\_\_

Reviewed/Date: \_\_\_\_\_

Data Package: Standard  Level III  Level IV

Chromatograms with final report  Electronic Data Deliverables (EDDs)



14648 NE 95<sup>th</sup> Street, Redmond, WA 98052 • (425) 883-3881

November 4, 2019

Jeff Jensen  
Kane Environmental, Inc.  
4015 13th Avenue West  
Seattle, WA 98119

Re: Analytical Data for Project 82302-9.4  
Laboratory Reference No. 1910-353

Dear Jeff:

Enclosed are the analytical results and associated quality control data for samples submitted on October 25, 2019.

The standard policy of OnSite Environmental, Inc. is to store your samples for 30 days from the date of receipt. If you require longer storage, please contact the laboratory.

We appreciate the opportunity to be of service to you on this project. If you have any questions concerning the data, or need additional information, please feel free to call me.

Sincerely,

A handwritten signature in black ink, appearing to read "DB", with a long horizontal stroke extending to the right.

David Baumeister  
Project Manager

Enclosures



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OnSite Environmental, Inc. 14648 NE 95<sup>th</sup> Street, Redmond, WA 98052 (425) 883-3881

This report pertains to the samples analyzed in accordance with the chain of custody, and is intended only for the use of the individual or company to whom it is addressed.

Date of Report: November 4, 2019  
Samples Submitted: October 25, 2019  
Laboratory Reference: 1910-353  
Project: 82302-9.4

### Case Narrative

Samples were collected on October 25, 2019 and received by the laboratory on October 25, 2019. They were maintained at the laboratory at a temperature of 2°C to 6°C.

Please note that any and all soil sample results are reported on a dry-weight basis, unless otherwise noted below.

General QA/QC issues associated with the analytical data enclosed in this laboratory report will be indicated with a reference to a comment or explanation on the Data Qualifier page. More complex and involved QA/QC issues will be discussed in detail below.



Date of Report: November 4, 2019  
 Samples Submitted: October 25, 2019  
 Laboratory Reference: 1910-353  
 Project: 82302-9.4

**VOLATILE ORGANICS EPA 8260D**  
 page 1 of 2

Matrix: Water  
 Units: ug/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>Client ID:</b>	<b>HZ-MW-31:W</b>					
Laboratory ID:	10-353-01					
Dichlorodifluoromethane	ND	0.20	EPA 8260D	10-31-19	10-31-19	
Chloromethane	ND	1.0	EPA 8260D	10-31-19	10-31-19	
Vinyl Chloride	0.048	0.020	EPA 8260D/SIM	10-31-19	10-31-19	
Bromomethane	ND	0.20	EPA 8260D	10-31-19	10-31-19	
Chloroethane	ND	1.0	EPA 8260D	10-31-19	10-31-19	
Trichlorofluoromethane	ND	0.20	EPA 8260D	10-31-19	10-31-19	
1,1-Dichloroethene	ND	0.20	EPA 8260D	10-31-19	10-31-19	
Iodomethane	ND	1.0	EPA 8260D	10-31-19	10-31-19	
Methylene Chloride	ND	1.0	EPA 8260D	10-31-19	10-31-19	
(trans) 1,2-Dichloroethene	ND	0.20	EPA 8260D	10-31-19	10-31-19	
1,1-Dichloroethane	ND	0.20	EPA 8260D	10-31-19	10-31-19	
2,2-Dichloropropane	ND	0.20	EPA 8260D	10-31-19	10-31-19	
(cis) 1,2-Dichloroethene	ND	0.20	EPA 8260D	10-31-19	10-31-19	
Bromochloromethane	ND	0.20	EPA 8260D	10-31-19	10-31-19	
Chloroform	ND	0.20	EPA 8260D	10-31-19	10-31-19	
1,1,1-Trichloroethane	ND	0.20	EPA 8260D	10-31-19	10-31-19	
Carbon Tetrachloride	ND	0.20	EPA 8260D	10-31-19	10-31-19	
1,1-Dichloropropene	ND	0.20	EPA 8260D	10-31-19	10-31-19	
1,2-Dichloroethane	ND	0.20	EPA 8260D	10-31-19	10-31-19	
Trichloroethene	ND	0.20	EPA 8260D	10-31-19	10-31-19	
1,2-Dichloropropane	ND	0.20	EPA 8260D	10-31-19	10-31-19	
Dibromomethane	ND	0.20	EPA 8260D	10-31-19	10-31-19	
Bromodichloromethane	ND	0.20	EPA 8260D	10-31-19	10-31-19	
2-Chloroethyl Vinyl Ether	ND	1.0	EPA 8260D	10-31-19	10-31-19	
(cis) 1,3-Dichloropropene	ND	0.20	EPA 8260D	10-31-19	10-31-19	
(trans) 1,3-Dichloropropene	ND	0.20	EPA 8260D	10-31-19	10-31-19	



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Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>Client ID:</b>	<b>HZ-MW-31:W</b>					
<b>Laboratory ID:</b>	10-353-01					
1,1,2-Trichloroethane	ND	0.20	EPA 8260D	10-31-19	10-31-19	
Tetrachloroethene	ND	0.20	EPA 8260D	10-31-19	10-31-19	
1,3-Dichloropropane	ND	0.20	EPA 8260D	10-31-19	10-31-19	
Dibromochloromethane	ND	0.20	EPA 8260D	10-31-19	10-31-19	
1,2-Dibromoethane	ND	0.20	EPA 8260D	10-31-19	10-31-19	
Chlorobenzene	ND	0.20	EPA 8260D	10-31-19	10-31-19	
1,1,1,2-Tetrachloroethane	ND	0.20	EPA 8260D	10-31-19	10-31-19	
Bromoform	ND	1.0	EPA 8260D	10-31-19	10-31-19	
Bromobenzene	ND	0.20	EPA 8260D	10-31-19	10-31-19	
1,1,2,2-Tetrachloroethane	ND	0.20	EPA 8260D	10-31-19	10-31-19	
1,2,3-Trichloropropane	ND	0.20	EPA 8260D	10-31-19	10-31-19	
2-Chlorotoluene	ND	0.20	EPA 8260D	10-31-19	10-31-19	
4-Chlorotoluene	ND	0.20	EPA 8260D	10-31-19	10-31-19	
1,3-Dichlorobenzene	ND	0.20	EPA 8260D	10-31-19	10-31-19	
1,4-Dichlorobenzene	ND	0.20	EPA 8260D	10-31-19	10-31-19	
1,2-Dichlorobenzene	ND	0.20	EPA 8260D	10-31-19	10-31-19	
1,2-Dibromo-3-chloropropane	ND	1.0	EPA 8260D	10-31-19	10-31-19	
1,2,4-Trichlorobenzene	ND	0.20	EPA 8260D	10-31-19	10-31-19	
Hexachlorobutadiene	ND	1.0	EPA 8260D	10-31-19	10-31-19	
1,2,3-Trichlorobenzene	ND	0.20	EPA 8260D	10-31-19	10-31-19	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Dibromofluoromethane</i>	92	75-127				
<i>Toluene-d8</i>	96	80-127				
<i>4-Bromofluorobenzene</i>	81	78-125				



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Matrix: Water  
 Units: ug/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>Client ID:</b>	<b>MW-40:W</b>					
Laboratory ID:	10-353-02					
Dichlorodifluoromethane	ND	10	EPA 8260D	10-31-19	10-31-19	
Chloromethane	ND	50	EPA 8260D	10-31-19	10-31-19	
Vinyl Chloride	1.6	1.0	EPA 8260D/SIM	10-31-19	10-31-19	
Bromomethane	ND	10	EPA 8260D	10-31-19	10-31-19	
Chloroethane	ND	50	EPA 8260D	10-31-19	10-31-19	
Trichlorofluoromethane	ND	10	EPA 8260D	10-31-19	10-31-19	
1,1-Dichloroethene	ND	10	EPA 8260D	10-31-19	10-31-19	
Iodomethane	ND	50	EPA 8260D	10-31-19	10-31-19	
Methylene Chloride	ND	50	EPA 8260D	10-31-19	10-31-19	
(trans) 1,2-Dichloroethene	ND	10	EPA 8260D	10-31-19	10-31-19	
1,1-Dichloroethane	ND	10	EPA 8260D	10-31-19	10-31-19	
2,2-Dichloropropane	ND	10	EPA 8260D	10-31-19	10-31-19	
(cis) 1,2-Dichloroethene	1500	10	EPA 8260D	10-31-19	10-31-19	
Bromochloromethane	ND	10	EPA 8260D	10-31-19	10-31-19	
Chloroform	ND	10	EPA 8260D	10-31-19	10-31-19	
1,1,1-Trichloroethane	ND	10	EPA 8260D	10-31-19	10-31-19	
Carbon Tetrachloride	ND	10	EPA 8260D	10-31-19	10-31-19	
1,1-Dichloropropene	ND	10	EPA 8260D	10-31-19	10-31-19	
1,2-Dichloroethane	ND	10	EPA 8260D	10-31-19	10-31-19	
Trichloroethene	84	10	EPA 8260D	10-31-19	10-31-19	
1,2-Dichloropropane	ND	10	EPA 8260D	10-31-19	10-31-19	
Dibromomethane	ND	10	EPA 8260D	10-31-19	10-31-19	
Bromodichloromethane	ND	10	EPA 8260D	10-31-19	10-31-19	
2-Chloroethyl Vinyl Ether	ND	50	EPA 8260D	10-31-19	10-31-19	
(cis) 1,3-Dichloropropene	ND	10	EPA 8260D	10-31-19	10-31-19	
(trans) 1,3-Dichloropropene	ND	10	EPA 8260D	10-31-19	10-31-19	





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Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>Client ID:</b>	<b>MW-40:W</b>					
Laboratory ID:	10-353-02					
1,1,2-Trichloroethane	ND	10	EPA 8260D	10-31-19	10-31-19	
Tetrachloroethene	65	10	EPA 8260D	10-31-19	10-31-19	
1,3-Dichloropropane	ND	10	EPA 8260D	10-31-19	10-31-19	
Dibromochloromethane	ND	10	EPA 8260D	10-31-19	10-31-19	
1,2-Dibromoethane	ND	10	EPA 8260D	10-31-19	10-31-19	
Chlorobenzene	ND	10	EPA 8260D	10-31-19	10-31-19	
1,1,1,2-Tetrachloroethane	ND	10	EPA 8260D	10-31-19	10-31-19	
Bromoform	ND	50	EPA 8260D	10-31-19	10-31-19	
Bromobenzene	ND	10	EPA 8260D	10-31-19	10-31-19	
1,1,2,2-Tetrachloroethane	ND	10	EPA 8260D	10-31-19	10-31-19	
1,2,3-Trichloropropane	ND	10	EPA 8260D	10-31-19	10-31-19	
2-Chlorotoluene	ND	10	EPA 8260D	10-31-19	10-31-19	
4-Chlorotoluene	ND	10	EPA 8260D	10-31-19	10-31-19	
1,3-Dichlorobenzene	ND	10	EPA 8260D	10-31-19	10-31-19	
1,4-Dichlorobenzene	ND	10	EPA 8260D	10-31-19	10-31-19	
1,2-Dichlorobenzene	ND	10	EPA 8260D	10-31-19	10-31-19	
1,2-Dibromo-3-chloropropane	ND	50	EPA 8260D	10-31-19	10-31-19	
1,2,4-Trichlorobenzene	ND	10	EPA 8260D	10-31-19	10-31-19	
Hexachlorobutadiene	ND	50	EPA 8260D	10-31-19	10-31-19	
1,2,3-Trichlorobenzene	ND	10	EPA 8260D	10-31-19	10-31-19	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Dibromofluoromethane</i>	<i>92</i>	<i>75-127</i>				
<i>Toluene-d8</i>	<i>94</i>	<i>80-127</i>				
<i>4-Bromofluorobenzene</i>	<i>90</i>	<i>78-125</i>				



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**QUALITY CONTROL**  
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Matrix: Water  
 Units: ug/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>METHOD BLANK</b>						
Laboratory ID:	MB1031W1					
Dichlorodifluoromethane	ND	0.20	EPA 8260D	10-31-19	10-31-19	
Chloromethane	ND	1.0	EPA 8260D	10-31-19	10-31-19	
Vinyl Chloride	ND	0.020	EPA 8260D/SIM	10-31-19	10-31-19	
Bromomethane	ND	0.20	EPA 8260D	10-31-19	10-31-19	
Chloroethane	ND	1.0	EPA 8260D	10-31-19	10-31-19	
Trichlorofluoromethane	ND	0.20	EPA 8260D	10-31-19	10-31-19	
1,1-Dichloroethene	ND	0.20	EPA 8260D	10-31-19	10-31-19	
Iodomethane	ND	1.0	EPA 8260D	10-31-19	10-31-19	
Methylene Chloride	ND	1.0	EPA 8260D	10-31-19	10-31-19	
(trans) 1,2-Dichloroethene	ND	0.20	EPA 8260D	10-31-19	10-31-19	
1,1-Dichloroethane	ND	0.20	EPA 8260D	10-31-19	10-31-19	
2,2-Dichloropropane	ND	0.20	EPA 8260D	10-31-19	10-31-19	
(cis) 1,2-Dichloroethene	ND	0.20	EPA 8260D	10-31-19	10-31-19	
Bromochloromethane	ND	0.20	EPA 8260D	10-31-19	10-31-19	
Chloroform	ND	0.20	EPA 8260D	10-31-19	10-31-19	
1,1,1-Trichloroethane	ND	0.20	EPA 8260D	10-31-19	10-31-19	
Carbon Tetrachloride	ND	0.20	EPA 8260D	10-31-19	10-31-19	
1,1-Dichloropropene	ND	0.20	EPA 8260D	10-31-19	10-31-19	
1,2-Dichloroethane	ND	0.20	EPA 8260D	10-31-19	10-31-19	
Trichloroethene	ND	0.20	EPA 8260D	10-31-19	10-31-19	
1,2-Dichloropropane	ND	0.20	EPA 8260D	10-31-19	10-31-19	
Dibromomethane	ND	0.20	EPA 8260D	10-31-19	10-31-19	
Bromodichloromethane	ND	0.20	EPA 8260D	10-31-19	10-31-19	
2-Chloroethyl Vinyl Ether	ND	1.0	EPA 8260D	10-31-19	10-31-19	
(cis) 1,3-Dichloropropene	ND	0.20	EPA 8260D	10-31-19	10-31-19	
(trans) 1,3-Dichloropropene	ND	0.20	EPA 8260D	10-31-19	10-31-19	



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**VOLATILE ORGANICS EPA 8260D**  
**QUALITY CONTROL**  
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Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>METHOD BLANK</b>						
Laboratory ID:	MB1031W1					
1,1,2-Trichloroethane	ND	0.20	EPA 8260D	10-31-19	10-31-19	
Tetrachloroethene	ND	0.20	EPA 8260D	10-31-19	10-31-19	
1,3-Dichloropropane	ND	0.20	EPA 8260D	10-31-19	10-31-19	
Dibromochloromethane	ND	0.20	EPA 8260D	10-31-19	10-31-19	
1,2-Dibromoethane	ND	0.20	EPA 8260D	10-31-19	10-31-19	
Chlorobenzene	ND	0.20	EPA 8260D	10-31-19	10-31-19	
1,1,1,2-Tetrachloroethane	ND	0.20	EPA 8260D	10-31-19	10-31-19	
Bromoform	ND	1.0	EPA 8260D	10-31-19	10-31-19	
Bromobenzene	ND	0.20	EPA 8260D	10-31-19	10-31-19	
1,1,2,2-Tetrachloroethane	ND	0.20	EPA 8260D	10-31-19	10-31-19	
1,2,3-Trichloropropane	ND	0.20	EPA 8260D	10-31-19	10-31-19	
2-Chlorotoluene	ND	0.20	EPA 8260D	10-31-19	10-31-19	
4-Chlorotoluene	ND	0.20	EPA 8260D	10-31-19	10-31-19	
1,3-Dichlorobenzene	ND	0.20	EPA 8260D	10-31-19	10-31-19	
1,4-Dichlorobenzene	ND	0.20	EPA 8260D	10-31-19	10-31-19	
1,2-Dichlorobenzene	ND	0.20	EPA 8260D	10-31-19	10-31-19	
1,2-Dibromo-3-chloropropane	ND	1.0	EPA 8260D	10-31-19	10-31-19	
1,2,4-Trichlorobenzene	ND	0.20	EPA 8260D	10-31-19	10-31-19	
Hexachlorobutadiene	ND	1.0	EPA 8260D	10-31-19	10-31-19	
1,2,3-Trichlorobenzene	ND	0.20	EPA 8260D	10-31-19	10-31-19	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Dibromofluoromethane</i>	<i>98</i>	<i>75-127</i>				
<i>Toluene-d8</i>	<i>98</i>	<i>80-127</i>				
<i>4-Bromofluorobenzene</i>	<i>95</i>	<i>78-125</i>				



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**VOLATILE ORGANICS EPA 8260D  
 QUALITY CONTROL**

Matrix: Water  
 Units: ug/L

Analyte	Result		Spike Level		Percent Recovery		Recovery	RPD	RPD	Flags
					Recovery	Limits	RPD	Limit		
<b>SPIKE BLANKS</b>										
Laboratory ID:	SB1031W1									
	SB	SBD	SB	SBD	SB	SBD				
1,1-Dichloroethene	8.22	8.89	10.0	10.0	82	89	63-130	8	17	
Benzene	8.38	9.33	10.0	10.0	84	93	76-125	11	19	
Trichloroethene	9.22	9.63	10.0	10.0	92	96	76-121	4	18	
Toluene	9.02	9.21	10.0	10.0	90	92	80-124	2	18	
Chlorobenzene	9.71	10.4	10.0	10.0	97	104	75-120	7	19	
<i>Surrogate:</i>										
<i>Dibromofluoromethane</i>					90	96	75-127			
<i>Toluene-d8</i>					94	92	80-127			
<i>4-Bromofluorobenzene</i>					84	92	78-125			



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**TOTAL ORGANIC CARBON  
 SM 5310B**

Matrix: Water  
 Units: mg/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>Client ID:</b>	<b>HZ-MW-31:W</b>					
Laboratory ID:	10-353-01					
Total Organic Carbon	<b>4.8</b>	1.0	SM 5310B	10-29-19	10-29-19	

<b>Client ID:</b>	<b>MW-40:W</b>					
Laboratory ID:	10-353-02					
Total Organic Carbon	<b>13</b>	1.0	SM 5310B	10-29-19	10-29-19	



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**TOTAL ORGANIC CARBON  
 SM 5310B  
 QUALITY CONTROL**

Matrix: Water  
 Units: mg/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>METHOD BLANK</b>						
Laboratory ID:	MB1029W1					
Total Organic Carbon	<b>ND</b>	1.0	SM 5310B	10-29-19	10-29-19	

Analyte	Result	Spike Level	Source Result	Percent Recovery	Recovery Limits	RPD	RPD Limit	Flags
<b>DUPLICATE</b>								
Laboratory ID:	10-302-01							
	ORIG	DUP						
Total Organic Carbon	<b>ND</b>	<b>ND</b>	NA	NA	NA	NA	20	

<b>MATRIX SPIKE</b>								
Laboratory ID:	10-302-01							
	MS	MS		MS				
Total Organic Carbon	<b>11.3</b>	10.0	ND	113	85-131	NA	NA	

<b>SPIKE BLANK</b>								
Laboratory ID:	SB1029W1							
	SB	SB		SB				
Total Organic Carbon	<b>11.5</b>	10.0	NA	115	88-127	NA	NA	



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**DISSOLVED IRON**  
**EPA 6010D**

Matrix: Water  
 Units: ug/L (ppb)

<b>Analyte</b>	<b>Result</b>	<b>PQL</b>	<b>Method</b>	<b>Date Prepared</b>	<b>Date Analyzed</b>	<b>Flags</b>
<b>Client ID:</b>	<b>HZ-MW-31:W</b>					
Laboratory ID:	10-353-01					
Iron	<b>19000</b>	56	EPA 6010D	10-25-19	10-30-19	

<b>Client ID:</b>	<b>MW-40:W</b>					
Laboratory ID:	10-353-02					
Iron	<b>4600</b>	56	EPA 6010D	10-25-19	10-30-19	



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**DISSOLVED IRON  
 EPA 6010D  
 QUALITY CONTROL**

Matrix: Water  
 Units: ug/L (ppb)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>METHOD BLANK</b>						
Laboratory ID:	MB1025F1					
Iron	<b>ND</b>	56	EPA 6010D	10-25-19	10-30-19	

Analyte	Result	Spike Level	Source Result	Percent Recovery	Recovery Limits	RPD	RPD Limit	Flags
<b>DUPLICATE</b>								
Laboratory ID:	10-295-03							
	ORIG	DUP						
Iron	<b>1180</b>	<b>1170</b>	NA	NA	NA	NA	0	20

**MATRIX SPIKES**

Laboratory ID:	10-295-03									
	MS	MSD	MS	MSD		MS	MSD			
Iron	<b>23900</b>	<b>23700</b>	22200	22200	1180	<b>102</b>	<b>102</b>	75-125	1	20





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**CHLORIDE**  
**SM 4500-CI E**

Matrix: Water  
Units: mg/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>Client ID:</b>	<b>HZ-MW-31:W</b>					
Laboratory ID:	10-353-01					
Chloride	<b>6.3</b>	2.0	SM 4500-CI E	10-28-19	10-28-19	

<b>Client ID:</b>	<b>MW-40:W</b>					
Laboratory ID:	10-353-02					
Chloride	<b>4.9</b>	2.0	SM 4500-CI E	10-28-19	10-28-19	



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**CHLORIDE  
 SM 4500-Cl E  
 QUALITY CONTROL**

Matrix: Water  
 Units: mg/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>METHOD BLANK</b>						
Laboratory ID:	MB1028W1					
Chloride	<b>ND</b>	2.0	SM 4500-Cl E	10-28-19	10-28-19	

Analyte	Result	Spike Level	Source Result	Percent Recovery	Recovery Limits	RPD	RPD Limit	Flags
<b>DUPLICATE</b>								
Laboratory ID:	10-335-01							
	ORIG	DUP						
Chloride	<b>13.6</b>	<b>13.5</b>	NA	NA	NA	1	17	

<b>MATRIX SPIKE</b>								
Laboratory ID:	10-335-01							
	MS	MS		MS				
Chloride	<b>65.8</b>	50.0	13.6	104	80-116	NA	NA	

<b>SPIKE BLANK</b>								
Laboratory ID:	SB1028W1							
	SB	SB		SB				
Chloride	<b>48.5</b>	50.0	NA	97	90-110	NA	NA	



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**SULFATE**  
**ASTM D516-11**

Matrix: Water  
Units: mg/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>Client ID:</b>	<b>HZ-MW-31:W</b>					
Laboratory ID:	10-353-01					
Sulfate	<b>ND</b>	5.0	ASTM D516-11	10-31-19	10-31-19	

<b>Client ID:</b>	<b>MW-40:W</b>					
Laboratory ID:	10-353-02					
Sulfate	<b>ND</b>	5.0	ASTM D516-11	10-31-19	10-31-19	



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**SULFATE  
 ASTM D516-11  
 QUALITY CONTROL**

Matrix: Water  
 Units: mg/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>METHOD BLANK</b>						
Laboratory ID:	MB1031W1					
Sulfate	<b>ND</b>	5.0	ASTM D516-11	10-31-19	10-31-19	

Analyte	Result	Spike Level	Source Result	Percent Recovery	Recovery Limits	RPD	RPD Limit	Flags
<b>DUPLICATE</b>								
Laboratory ID:	10-353-01							
	ORIG	DUP						
Sulfate	<b>ND</b>	<b>ND</b>	NA	NA	NA	NA	10	

<b>MATRIX SPIKE</b>								
Laboratory ID:	10-353-01							
	MS	MS		MS				
Sulfate	<b>10.9</b>	10.0	ND	109	73-134	NA	NA	

<b>SPIKE BLANK</b>								
Laboratory ID:	SB1031W1							
	SB	SB		SB				
Sulfate	<b>10.4</b>	10.0	NA	104	89-113	NA	NA	



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**AMMONIA (as Nitrogen)**  
**SM 4500-NH<sub>3</sub> D**

Matrix: Water  
Units: mg NH<sub>3</sub>-N/L

<b>Analyte</b>	<b>Result</b>	<b>PQL</b>	<b>Method</b>	<b>Date Prepared</b>	<b>Date Analyzed</b>	<b>Flags</b>
<b>Client ID:</b>	<b>HZ-MW-31:W</b>					
Laboratory ID:	10-353-01					
Ammonia	<b>0.30</b>	0.050	SM 4500-NH <sub>3</sub> D	10-29-19	10-29-19	

<b>Client ID:</b>	<b>MW-40:W</b>					
Laboratory ID:	10-353-02					
Ammonia	<b>0.14</b>	0.050	SM 4500-NH <sub>3</sub> D	10-29-19	10-29-19	



Date of Report: November 4, 2019  
 Samples Submitted: October 25, 2019  
 Laboratory Reference: 1910-353  
 Project: 82302-9.4

**AMMONIA (as Nitrogen)  
 SM 4500-NH<sub>3</sub> D  
 QUALITY CONTROL**

Matrix: Water  
 Units: mg NH<sub>3</sub>-N/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>METHOD BLANK</b>						
Laboratory ID:	MB1029W1					
Ammonia	<b>ND</b>	0.050	SM 4500-NH <sub>3</sub> D	10-29-19	10-29-19	

Analyte	Result	Spike Level	Source Result	Percent Recovery	Recovery Limits	RPD	RPD Limit	Flags
<b>DUPLICATE</b>								
Laboratory ID:	10-335-01							
	ORIG	DUP						
Ammonia	<b>1.14</b>	<b>1.16</b>	NA	NA	NA	2	12	

<b>MATRIX SPIKE</b>								
Laboratory ID:	10-335-01							
	MS	MS		MS				
Ammonia	<b>5.53</b>	5.00	1.14	88	75-121	NA	NA	

<b>SPIKE BLANK</b>								
Laboratory ID:	SB1029W1							
	SB	SB		SB				
Ammonia	<b>4.78</b>	5.00	NA	96	85-110	NA	NA	



Date of Report: November 4, 2019  
 Samples Submitted: October 25, 2019  
 Laboratory Reference: 1910-353  
 Project: 82302-9.4

**DISSOLVED GASES  
 RSK 175**

Matrix: Water  
 Units: ug/L (ppb)

<b>Analyte</b>	<b>Result</b>	<b>PQL</b>	<b>Method</b>	<b>Date Prepared</b>	<b>Date Analyzed</b>	<b>Flags</b>
<b>Client ID:</b>	<b>HZ-MW-31:W</b>					
Laboratory ID:	10-353-01					
Methane	<b>900</b>	10	RSK 175	10-29-19	10-29-19	
Ethane	<b>ND</b>	0.50	RSK 175	10-29-19	10-29-19	
Ethene	<b>ND</b>	0.50	RSK 175	10-29-19	10-29-19	

<b>Client ID:</b>	<b>MW-40:W</b>					
Laboratory ID:	10-353-02					
Methane	<b>510</b>	10	RSK 175	10-29-19	10-29-19	
Ethane	<b>ND</b>	0.50	RSK 175	10-29-19	10-29-19	
Ethene	<b>1.6</b>	0.50	RSK 175	10-29-19	10-29-19	



Date of Report: November 4, 2019  
 Samples Submitted: October 25, 2019  
 Laboratory Reference: 1910-353  
 Project: 82302-9.4

**DISSOLVED GASES  
 RSK 175  
 QUALITY CONTROL**

Matrix: Water  
 Units: ug/L (ppb)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>METHOD BLANK</b>						
Laboratory ID:	MB1029W1					
Methane	<b>ND</b>	1.0	RSK 175	10-29-19	10-29-19	
Ethane	<b>ND</b>	0.50	RSK 175	10-29-19	10-29-19	
Ethene	<b>ND</b>	0.50	RSK 175	10-29-19	10-29-19	

Analyte	Result		Spike Level		Source Result	Percent Recovery	Recovery Limits	RPD	RPD Limit	Flags
<b>MATRIX SPIKES</b>										
Laboratory ID:	10-144-03									
	MS	MSD	MS	MSD		MS	MSD			
Methane	<b>21.46</b>	<b>21.89</b>	22.11	22.11	ND	<b>97</b>	<b>99</b>	75-125	2	25
Ethane	<b>40.85</b>	<b>41.34</b>	41.59	41.59	ND	<b>98</b>	<b>99</b>	75-125	1	25
Ethene	<b>39.05</b>	<b>41.83</b>	38.83	38.83	ND	<b>101</b>	<b>108</b>	75-125	7	25







### Data Qualifiers and Abbreviations

- A - Due to a high sample concentration, the amount spiked is insufficient for meaningful MS/MSD recovery data.
  - B - The analyte indicated was also found in the blank sample.
  - C - The duplicate RPD is outside control limits due to high result variability when analyte concentrations are within five times the quantitation limit.
  - E - The value reported exceeds the quantitation range and is an estimate.
  - F - Surrogate recovery data is not available due to the high concentration of coeluting target compounds.
  - H - The analyte indicated is a common laboratory solvent and may have been introduced during sample preparation, and be impacting the sample result.
  - I - Compound recovery is outside of the control limits.
  - J - The value reported was below the practical quantitation limit. The value is an estimate.
  - K - Sample duplicate RPD is outside control limits due to sample inhomogeneity. The sample was re-extracted and re-analyzed with similar results.
  - L - The RPD is outside of the control limits.
  - M - Hydrocarbons in the gasoline range are impacting the diesel range result.
  - M1 - Hydrocarbons in the gasoline range (toluene-naphthalene) are present in the sample.
  - N - Hydrocarbons in the lube oil range are impacting the diesel range result.
  - N1 - Hydrocarbons in diesel range are impacting lube oil range results.
  - O - Hydrocarbons indicative of heavier fuels are present in the sample and are impacting the gasoline result.
  - P - The RPD of the detected concentrations between the two columns is greater than 40.
  - Q - Surrogate recovery is outside of the control limits.
  - S - Surrogate recovery data is not available due to the necessary dilution of the sample.
  - T - The sample chromatogram is not similar to a typical \_\_\_\_\_.
  - U - The analyte was analyzed for, but was not detected above the reported sample quantitation limit.
  - U1 - The practical quantitation limit is elevated due to interferences present in the sample.
  - V - Matrix Spike/Matrix Spike Duplicate recoveries are outside control limits due to matrix effects.
  - W - Matrix Spike/Matrix Spike Duplicate RPD are outside control limits due to matrix effects.
  - X - Sample extract treated with a mercury cleanup procedure.
  - X1 - Sample extract treated with a sulfuric acid/silica gel cleanup procedure.
  - Y - The calibration verification for this analyte exceeded the 20% drift specified in methods 8260 & 8270, and therefore the reported result should be considered an estimate. The overall performance of the calibration verification standard met the acceptance criteria of the method.
  - Z -
- ND - Not Detected at PQL  
 PQL - Practical Quantitation Limit  
 RPD - Relative Percent Difference





**OnSite Environmental Inc.**  
 Analytical Laboratory Testing Services  
 14648 NE 95th Street • Redmond, WA 98052  
 Phone: (425) 883-3881 • www.onsite-env.com

# Chain of Custody

Company: **Kane Environmental**

Project Number: **82302-9.4**

Project Name: **BSCS**

Project Manager: **Jeff Jensen**

Sampled by: **Bella Graves**

Turnaround Request (in working days)  
 (Check One)  
 Same Day  1 Day  
 2 Days  3 Days  
 Standard (7 Days)  
 \_\_\_\_\_ (other)

Laboratory Number: **10-353**

Lab ID	Sample Identification	Date Sampled	Time Sampled	Matrix	Number of Containers
1	H2-MW-31:W	10/5/19	0953	GMW	9
2	MW-40:W	10/25/19	1130	GMW	9

Lab ID	Sample Identification	Date Sampled	Time Sampled	Matrix	Number of Containers
1	H2-MW-31:W	10/5/19	0953	GMW	9
2	MW-40:W	10/25/19	1130	GMW	9

Lab ID	Sample Identification	Date Sampled	Time Sampled	Matrix	Number of Containers	NWTPH-HCID	NWTPH-Gx/BTEX	NWTPH-Gx	NWTPH-Dx ( <input type="checkbox"/> Acid / SG Clean-up )	Volatiles 8260C	Halogenated Volatiles 8260C	EDB EPA 8011 (Waters Only)	Semivolatiles 8270D/SIM (with low-level PAHs)	PAHs 8270D/SIM (low-level)	PCBs 8082A	Organochlorine Pesticides 8081B	Organophosphorus Pesticides 8270D/SIM	Chlorinated Acid Herbicides 8151A	Total RCRA Metals	Total MTCA Metals	TCLP Metals	Heavy Metals (As, Cd, Cr, Cu, Pb, Mn, Ni, Se, Zn)	TBC	dissolved Fe	chloride	sulfate	ammonia-N	nitrate	
1	H2-MW-31:W	10/5/19	0953	GMW	9						X												X	X	X	X	X	X	X
2	MW-40:W	10/25/19	1130	GMW	9						X												X	X	X	X	X	X	X

Signature	Company	Date	Time	Comments/Special Instructions
	Kane Environmental	10/5/19	1248	lab filter RSK = methane, ethane, ethene ↳ low detection limit (3-4 mg/L) vinyl chloride → low detection limit
	Kane Environmental	10/25/19	1248	

Received \_\_\_\_\_

Relinquished \_\_\_\_\_

Received \_\_\_\_\_

Relinquished \_\_\_\_\_

Received \_\_\_\_\_

Relinquished \_\_\_\_\_

Reviewed/Date \_\_\_\_\_

Reviewed/Date \_\_\_\_\_

Data Package: Standard  Level III  Level IV

Chromatograms with final report  Electronic Data Deliverables (EDDs)