BGES, INC.

ENVIRONMENTAL CONSULTANTS

2501 EAST 5th AVENUE
ANCHORAGE, ALASKA

ADEC FILE NUMBER 2100.26.129

2018 GROUNDWATER MONITORING ACTIVITIES

JANUARY 2019

Submitted to:

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Submitted by:

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ACRONYMS

AAC	-	Alaska Administrative Code
ADEC	-	Alaska Department of Environmental Conservation
AK	-	Alaska Method
bg	-	Below Grade
BGES	-	Braunstein Geological and Environmental Services
C	-	Celsius
CSM	-	Conceptual Site Model
DRO	-	Diesel Range Organics
EPA	-	Environmental Protection Agency
HCL	-	Hydrochloric Acid
IDW	-	Investigation-Derived Waste
LOQ	-	Limit of Quantitation
ml/min	-	Milliliters per Minute
PAH	-	Polynuclear Aromatic Hydrocarbons
PVC	-	Polyvinyl Chloride
QC	-	Quality Control
QEP	-	Qualified Environmental Professional
RPD	-	Relative Percent Difference
SGS	-	SGS North America, Inc.
UST	-	Underground Storage Tank
VOC	-	Volatile Organic Compounds

1.0 INTRODUCTION

BGES, Inc. (BGES) was retained by Corey Meyers of Anchorage Chrysler Dodge to conduct groundwater monitoring activities during the fall of 2018 at the property located at 2501 East 5th Avenue in Anchorage, Alaska (Figure 1); hereafter referred to as the subject property. The groundwater activities were performed as the result of a request by the Alaska Department of Environmental Conservation (ADEC) for conducting ongoing groundwater monitoring to evaluate the potential remaining contaminant concentrations in groundwater during seasonal changes associated with a previous release from an underground storage tank (UST) that was removed in 1989. These groundwater monitoring activities were conducted in accordance with the work plan dated September 20, 2016 and a work plan modification in an e-mail dated September 28, 2018. The work plan was conditionally approved by Robert Weimer, ADEC Project Manager, on September 21, 2016 and the work plan modification was conditionally approved by Mr. Weimer on September 28, 2018.

2.0 SITE BACKGROUND

The subject property is a Contaminated Site with a status of "Active" as listed in the ADEC Contaminated Sites Database (File Number 2100.26.129). Previous assessments conducted by BGES are summarized below.

***2014 Limited Phase II Environmental Site Assessment-Anchorage Chrysler Dodge (*February 2014, BGES).** Three soil borings (Soils Boring SB1, SB2, and SB3) were advanced within the area of excavation of the former USTs that were removed in 1989 from the subject property. The excavation area was approximately 30 to 60 feet to the north of the building on the subject property. A fourth boring (Soil Boring SB4) was advanced approximately 15 to 20 feet to the northwest of the former excavation area, in an approximate downgradient (with respect to groundwater flow) position from the contamination source area. A soil sample collected from a depth of 31.8 to 35 feet bg from Soil Boring SB2 exhibited a DRO concentration that exceeded the ADEC cleanup criterion.

***2015 Site Characterization Activities – Anchorage Chrysler Dodge* (March 2016, BGES).** Four soil borings (Soil Boring SB5, SB6, SB7 and SB8) were advanced adjacent to Soil Boring SB2, but within the area of the excavation of the former USTs (Figure 2). A soil sample collected from a depth of 35 to 40 feet bg from Soil Boring SB6 exhibited a DRO concentration that exceeded the ADEC cleanup criterion. Soil Boring SB6 was subsequently completed as Monitoring Well MW4. Water Samples (MW4-0721 and duplicate sample MW5-0721) exhibited concentrations of 1,2,4-trimethylbenzene and naphthalene that

exceeded the ADEC cleanup criteria. All other polynuclear aromatic hydrocarbon (PAH) and volatile organic compound (VOC) parameters were reported at concentrations below their applicable ADEC cleanup criteria.

2016 Additional Site Characterization Activities – Anchorage Chrysler Dodge **(February 2017, BGES).** Monitoring Wells MW1, MW2, and MW3 were repaired by replacing the flush-mount cover and trimming the polyvinyl chloride (PVC) to allow sufficient clearance for the well casing cap. Soil Borings SB9 and SB10 were advanced and completed as Monitoring Wells MW5 and MW6, respectively. Soil Boring Samples SB9-21-1129 and SB9-22-1129 exhibited concentrations of RRO below the ADEC cleanup criterion. Soil Boring Sample SB9-22-1129 exhibited a concentration of 2-methylnaphthalene that was below the ADEC cleanup criterion. Water Samples MW4-1026 and MW5-1026 (duplicate of MW4-1026) exhibited detectable concentrations of 1-methylnaphthalene, 2-methylnaphthalene, naphthalene, and DRO at concentrations below the ADEC cleanup criteria. Water Sample MW2-1026 exhibited concentrations of 1-methylnaphthalene and fluorene below the ADEC cleanup criteria. After installation of Monitoring Wells MW5 and MW6 in December of 2016, the DRO and PAH parameters for Water Samples MW5-1202, MW5B-1202, and MW6-1202 were non-detectable and the LOQs were below the ADEC cleanup criteria. The estimated groundwater flow direction for the October of 2016 sampling event was in a west-northwesterly direction and for the November, 2016 sampling event was in a northwesterly direction.

2017 Groundwater Monitoring Activities – Anchorage Chrysler Dodge **(August 2017, BGES).** Groundwater samples were collected from the six monitoring wells located on the subject property in June of 2017. These activities were performed to assess the seasonal contamination fluctuations and trends in groundwater at the subject property. Water Samples MW4-0608 and MW7-0608 (duplicate of MW4-0608) exhibited concentrations of 1-methylnaphthalene below the ADEC cleanup criteria. Water Sample MW7-0608 (duplicate of MW4-0608) exhibited a concentration of naphthalene below the ADEC cleanup criterion. All other analytes in the water samples were non-detectable. The estimated groundwater flow direction for this sampling event was in a northwesterly direction and the calculated hydraulic gradient was approximately 0.0063 foot per linear foot.

The following field work is the first of the two seasonal groundwater monitoring events requested by Robert Weimer and was conducted in accordance with the ADEC approved work plan (dated September 20, 2016) and the ADEC's request for additional groundwater monitoring for all wells. These groundwater monitoring activities are the subject of this report.

3.0 FIELD ACTIVITIES

Field work for these site characterization activities were performed by William Schmaltz, Environmental Scientist II of BGES and a Qualified Environmental Professional (QEP) as defined by the ADEC. The onsite activities were performed during November of 2018 in accordance with the approved work plan mentioned above. The following paragraphs present the field activities completed during the groundwater monitoring activities.

BGES personnel collected groundwater samples from Monitoring Wells MW1, MW2, MW3, MW4, MW5, and MW6 on November 14 and 15, 2018. Prior to sampling, the depth to water and the total depth of the wells were measured using an electronic water level indicator that was decontaminated prior to its use by washing it in an Alconox (laboratory-grade detergent) solution, followed by a potable water rise. The depth to water, the total depth of the wells, and the water quality parameters are presented in Table 1. Using this information, as well as the diameters of the well casings, the volume of water in each well was calculated. The low-flow purging and sampling activities were completed utilizing a submersible pump (positive-displacement bladder pump), polyethylene bladders, and bonded polyethylene tubing.

The wells were purged until at least three of the stabilization parameters were within acceptable ranges or at least three well volumes were removed from each well. During the purging activities, the stabilization parameters (pH, conductivity, oxidation-reduction potential, and temperature) were monitored, utilizing a YSI Professional Pro Multi-Parameter water quality meter and a flow-through cell. During the purging and sampling activities, the bladder pump intake was set within six inches of the groundwater surface and the pumping rate utilized during the purging and sampling activities was between 150 and 200 milliliters per minute (ml/min). The depth to water was monitored to verify that drawdown in excess of 0.3 foot did not occur.

Prior to collecting groundwater samples, the flow-through cell was removed from the sampling train in accordance with the ADEC Field Sampling Guidance (August 2017). The groundwater samples were collected with the submersible bladder pump utilizing low-flow sampling techniques. Groundwater was pumped directly into the laboratory-supplied sample jars, in which case the containers for volatile analyses were filled first by filling laboratory-supplied containers that were preserved with hydrochloric acid (HCL). Care was exercised during filling of the containers to ensure that no headspace was created and that none of the preservative was spilled from the containers destined for volatile analysis. As a quality control measure, duplicate groundwater samples were collected from monitoring wells MW2 and MW4, and were "blindly" identified as MW2-2-1115 and MW4-2-1114, respectively, and submitted to the laboratory for

analysis.

The sample containers were labeled, placed in chilled coolers, and transported by BGES personnel under chain of custody protocol to SGS North America, Inc. (SGS), an ADEC-approved laboratory, for analysis.

Investigation derived waste (IDW) included purge water and decontamination water. All IDW was placed into the 55-gallon drum currently onsite.

4.0 EVALUATION OF LABORATORY DATA

Laboratory analyses of the water samples collected during these sampling activities were performed by SGS, an ADEC-approved laboratory. Analytical results are presented in Table 2, and a copy of the laboratory data package is provided in Appendix B.

The water sample results are compared to 18 Alaska Administrative Code (AAC) 75.345 – Table C for groundwater, as revised on October 27, 2018. The water samples were analyzed for diesel range organics (DRO) by Alaska Method (AK) 102 and VOCs by Environmental Protection Agency (EPA) Method SW8260C.

The water samples collected from the subject property were labeled, for example, MW4-1114, where the prefix "MW4" indicates the monitoring well location from which the water sample was collected, and "-1114" indicates the month and the day the sample was collected.

The water samples collected in November of 2018 from MW1 through MW6 did not exhibit any constituents that were analyzed (DRO or VOCs) at concentrations exceeding the laboratory's LOQs, which were below the ADEC cleanup criteria except for 1,2,3-trichloropropane.

Analytical results for groundwater samples are summarized in Table 2; a copy of the laboratory analytical data package is included in Appendix B; and the monitoring well locations and sample results are shown on Figure 4.

5.0 LABORATORY DATA QUALITY REVIEW

Data quality was reviewed in accordance with ADEC guidance and standard industry practices. An ADEC laboratory data review checklist was completed for the laboratory work order, and is attached in Appendix C. The checklist provides an overview of the quality of the laboratory data. The following is a discussion of our evaluation of sample conditions and laboratory procedures for the water samples collected during the November 2018 field activities.

Analyses for groundwater samples were provided by SGS of Anchorage, which is approved to conduct the specified analyses by the ADEC. The groundwater samples were hand-delivered to SGS in Anchorage, Alaska by BGES personnel under chain of custody protocol.

Water Samples - Work Order 1186522

The samples contained the proper preservatives for the requested analyses and no unusual sample conditions were noted by the laboratory. The temperature within the sample cooler was measured at the laboratory at the time of receipt to be 2.4 degrees Celsius (C), which is within the ADEC-prescribed optimal range of 0° to 6° C. No data quality control (QC) failures were noted by the laboratory within the case narrative for this work order.

Water Sample MW2-2-1115 was a duplicate of Water Sample MW2-1-1115 and was collected to evaluate field sampling precision. Water Sample MW4-2-1114 was a duplicate of Water Sample MW4-1-1114 and was also collected to evaluate field sampling precision. The DRO and VOC parameters for the water samples and duplicates were non-detectable, therefore, the relative percent difference (RPD) could not be calculated. The LOQ for 1,2,3-trichloropropane exceeded the ADEC cleanup criterion in all samples on this work order. As such, it cannot be determined if the actual concentrations of 1,2,3-trichloropropane within these samples exceeds ADEC cleanup criterion. However, because 1,2,3-trichloropropane is not a contaminant of concern for this site and because no other analytes were detected in the field samples, it is our opinion that this elevated LOQ does not affect the interpretation of the data for their intended use. All other LOQs were below the ADEC cleanup criteria.

A laboratory data review checklist was prepared for the SGS data package, and is included in Appendix C.

6.0 CONCEPTUAL SITE MODEL

The potential for identified contamination to affect human receptors through various exposure pathways was evaluated and presented in the report submitted by BGES titled “2016 Additional Site Characterization Activities”, dated February 2017. It is our opinion that the CSM is still valid for this site, and as such has not been modified based on our results of this sampling event.

7.0 CONCLUSIONS AND RECOMMENDATIONS

As described above, groundwater samples were collected from six monitoring wells located on the subject property in November 2018. In general, groundwater contaminant concentrations have declined from July of 2015 through November of 2018 (Table 3). All analytical results for the groundwater samples collected

during 2016, 2017, and 2018 were below the ADEC cleanup criteria (Table 3). The estimated groundwater flow direction for this sampling event was in a northwesterly direction (Figure 2) and the calculated hydraulic gradient was approximately 0.0072 foot per linear foot. The extent of soil and groundwater contamination has been defined at the subject property.

Based on this information, there are no potentially complete exposure pathways for known contamination at this site to impact human receptors. Therefore, we are recommending that the ADEC consider the status of the subject property to be changed to "Cleanup Complete". We recommend that a copy of this report be provided to the ADEC for review and approval of the recommendation for a change in site status.

8.0 EXCLUSIONS AND CONSIDERATIONS

This report presents facts, observations, and inferences based on conditions observed during the period of our project activities, and only those conditions that were evaluated as part of our scope of work. Our conclusions are based solely on our observations made and work conducted, and only apply to the immediate vicinities of the locations where samples were collected. In addition, changes to site conditions may have occurred since the completion of our project activities. These changes may be from the actions of man or nature. Changes in regulations may also impact the interpretation of site conditions. BGES will not disclose our findings to any parties other than our client as listed above, except as directed by our client, or as required by law.

The field work for this project was performed by William Schmaltz, Environmental Scientist II of BGES and a Qualified Environmental Professional (QEP) as defined by the ADEC. The report was prepared by Vanessa Crandell-Beck, Environmental Scientist I of BGES. Mr. Schmaltz has conducted numerous site characterization and remediation projects throughout Alaska. This report was reviewed by Robert Braunstein. Mr. Braunstein has more than 35 years of geological and environmental consulting experience and has conducted and managed thousands of site characterizations and remediation projects throughout Alaska and the lower 48 states.

Sincerely,

BGES, INC.

Prepared by:

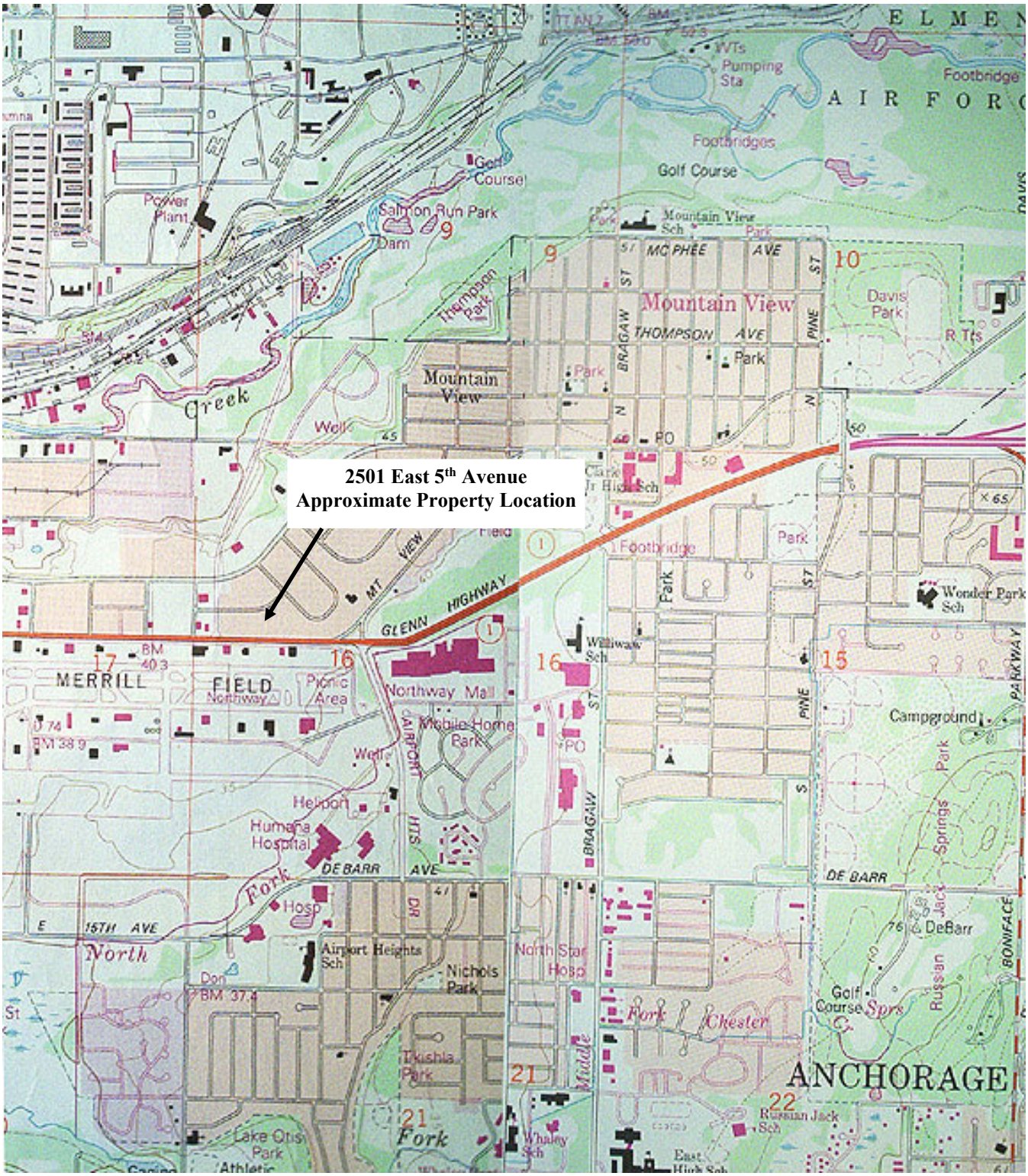
Vanessa Crandell-Beck

Vanessa Crandell-Beck
Environmental Scientist I

Reviewed by:

Robert A. Braunstein

Robert Braunstein, C.P.G.; P.G.
Principal Geologist



Source: USGS Map, Anchorage (A-8) NW, Alaska 1979, Revised 1994; and Anchorage (A-8) NE, Alaska 1979, Revised 1993

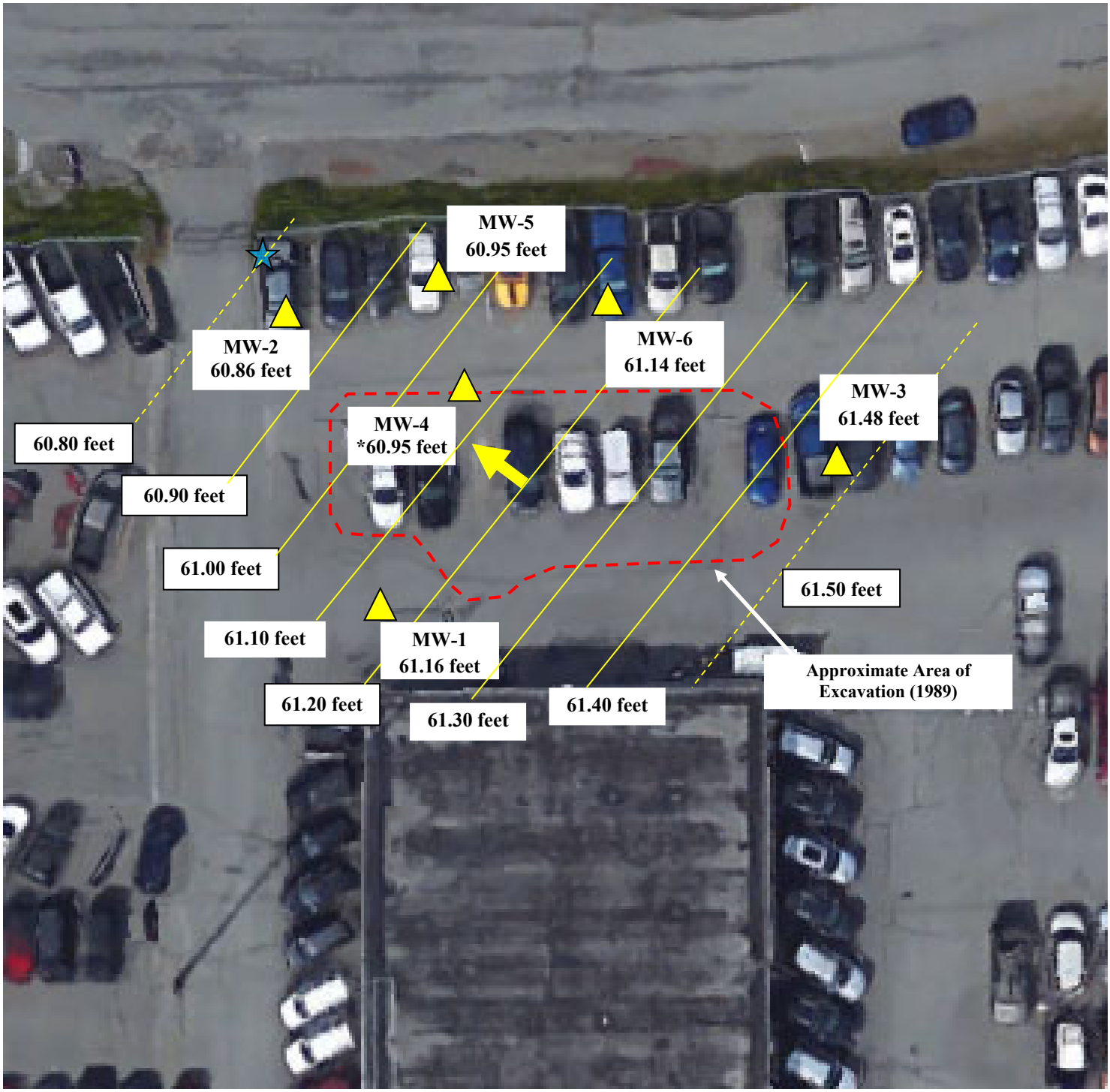
0 ¼ ½ ¾ 1

Approximate Scale in Miles

N

2501 East 5th Avenue
Anchorage, Alaska
Property Vicinity Map

BGES, INC.	**January 2019**	**Figure 1**



Source: Google Earth Pro ©

0 30 60

Approximate Scale in Feet

N

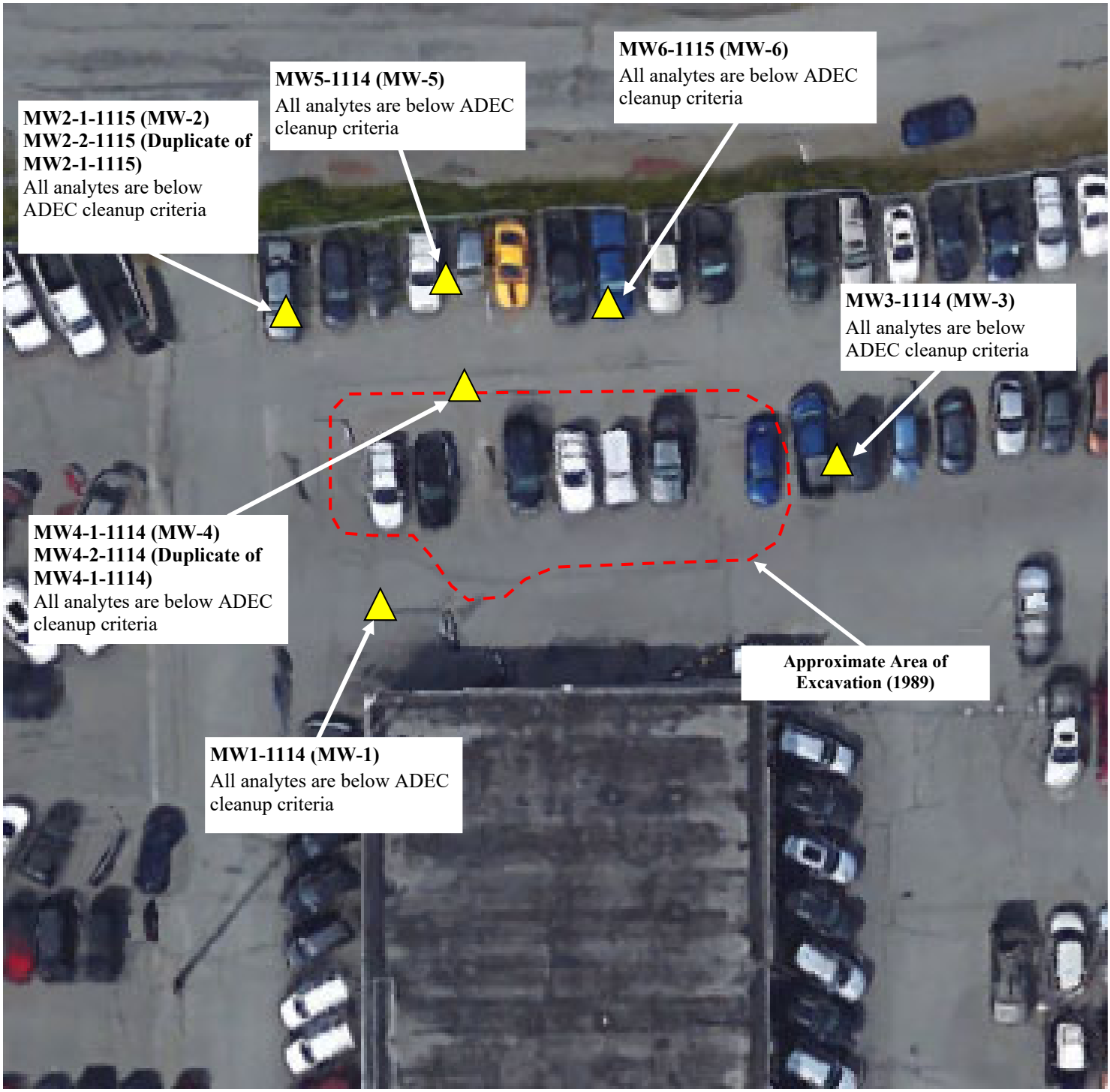
LEGEND

- = Monitoring Well Location
- = Survey Reference Point (Western Gate Post)
- = Approximate Groundwater Flow Direction

Notes: Values represent groundwater elevations.
* = The groundwater elevation for MW4 was not used in development of the groundwater flow map because the groundwater elevation appears to be an anomaly.
The contour interval is 0.10 foot and the calculated hydraulic gradient was approximately 0.0072 foot per linear foot

2501 East 5th Avenue
Anchorage, Alaska
Groundwater Flow Direction Map
November 14, 2018

BGES, INC. | **January 2019** | **Figure 2**



Source: Google Earth Pro

0 30 60

Approximate Scale in Feet

N

LEGEND

△ = Monitoring Well Location (Groundwater concentrations are below ADEC Cleanup Criteria)

ADEC = Alaska Department of Environmental Conservation

2501 East 5th Avenue
Anchorage, Alaska
2018 Groundwater Sample Results

BGES, INC. | **January 2019** | **Figure 3**

TABLE 1 **BGES, INC.**

2501 EAST 5th AVENUE

ANCHORAGE, ALASKA

MONITORING WELL SAMPLING DATA (NOVEMBER 2018)

Well Number	MW-1	MW-2	MW-3	MW-4	MW-5	MW-6
Date Sampled	11/14/18	11/15/18	11/14/18	11/14/18	11/14/18	11/15/18
Date of Depth and Elevation Measurement	11/14/18	11/14/18	11/14/18	11/14/18	11/14/18	11/14/18
Time of Depth to Water Measurement	8:35	8:49	9:10	9:23	9:51	10:20
Time Sample Collected	18:11	15:58	14:11	12:06	16:13	13:44
Top of Casing Elevation (feet)	100.84	99.91	100.16	99.76	99.93	100.27
Depth to Water (feet below top of casing)	39.68	39.05	38.68	38.81	38.98	39.13
Water Elevation (feet)	61.16	60.86	61.48	60.95	60.95	61.14
Total Depth of Well (feet below top of casing)	47.49	47.13	49.50	43.18	44.51	44.79
Ground Elevation	101.03	100.32	100.92	100.51	100.34	100.65
Depth to Water (feet below top of ground surface)	39.87	39.46	39.44	39.56	39.39	39.51
Well Casing Diameter (Inches)	2	2	2	2	2	2
Standing Water Well Volume (gallons)	1.27	1.32	1.77	0.71	0.90	0.92
Actual Purge Volume (gallons)	4.0	4.0	5.5	2.5	3.0	3.0
Temperature (degrees Celsius)	6.9/6.5/6.1/5.5/5.1	6.2/5.9/5.4/4.9/4.1	7.1/6.3/5.5/5.1/4.8	7.7/6.2/5.8/5.5	7.1/6.4/6.0/5.4	6.8/6.3/5.7/4.4
pH (standard units)	6.41/6.32/6.18/6.11/6.15	6.47/6.40/6.38/6.37/6.38	6.24/6.11/6.09/6.01/6.05	6.65/6.11/5.87/6.22	6.41/6.28/6.25/6.11	6.25/6.23/6.13/6.19
Conductivity (millisiemans per centimeter)	277.3/251.1/233.0/206.8/185.5	130.9/141.2/149.6/160.8/160.3	221.3/203.4/209.7/224.9/206.6	251.8/227.3/237.1/254.4	230.8/222.6/241.6/221.6	121.2/136.6/151.6/145.1
Oxidation Reduction Potential (millivolts)	43.6/61.2/79.2/92.2/98.3	70.8/80.1/96.6/56.0/75.5	92.9/76.1/63.6/41.0/19.7	184.5/165.9/141.9/112.3	74.5/61.7/71.4/71.8	123.1/110.0/78.8/120.3

Notes:
Sampler: W. Schmaltz
Field parameters measured with a YSI Pro +
water quality meter and flow-through cell.
Weather conditions on November 14-15, 2018 were
partly cloudy to clear with ambient temperatures ranging
from approximately 20 to 33 degrees Fahrenheit.

TABLE 2
2501 EAST 5TH AVENUE
ANCHORAGE, ALASKA
ANALYTICAL RESULTS - GROUNDWATER SAMPLES (NOVEMBER 2018)

Sample No.	Parameter	Results (µg/L)	LOQ (µg/L)	ADEC Cleanup Criteria (µg/L)[1]	Analytical Method
MW1-1114	DRO	ND	566	1,500	AK 102
	1,2,3-Trichloropropane	ND	*1.00*	0.0075	SW8260C
	Benzene	ND	0.400	4.6	SW8260C
	Ethylbenzene	ND	1.00	15	SW8260C
	Toluene	ND	1.00	1,100	SW8260C
	Total Xylenes	ND	3.00	190	SW8260C
	All other VOCs	ND	varies	varies	SW8260C
MW2-1-1115	DRO	ND	566	1,500	AK 102
	1,2,3-Trichloropropane	ND	*1.00*	0.0075	SW8260C
	Benzene	ND	0.400	4.6	SW8260C
	Ethylbenzene	ND	1.00	15	SW8260C
	Toluene	ND	1.00	1,100	SW8260C
	Total Xylenes	ND	3.00	190	SW8260C
	All other VOCs	ND	varies	varies	SW8260C
MW2-2-1115	DRO	ND	566	1,500	AK 102
Duplicate of MW2-1-1115	*1,2,3-Trichloropropane*	ND	*1.00*	0.0075	SW8260C
	Benzene	ND	0.400	4.6	SW8260C
	Ethylbenzene	ND	1.00	15	SW8260C
	Toluene	ND	1.00	1,100	SW8260C
	Total Xylenes	ND	3.00	190	SW8260C
	All other VOCs	ND	varies	varies	SW8260C
MW3-1114	DRO	ND	566	1,500	AK 102
	1,2,3-Trichloropropane	ND	*1.00*	0.0075	SW8260C
	Benzene	ND	0.400	4.6	SW8260C
	Ethylbenzene	ND	1.00	15	SW8260C
	Toluene	ND	1.00	1,100	SW8260C
	Total Xylenes	ND	3.00	190	SW8260C
	All other VOCs	ND	varies	varies	SW8260C
MW4-1-1114	DRO	ND	577	1,500	AK 102
	1,2,3-Trichloropropane	ND	*1.00*	0.0075	SW8260C
	Benzene	ND	0.400	4.6	SW8260C
	Ethylbenzene	ND	1.00	15	SW8260C
	Toluene	ND	1.00	1,100	SW8260C
	Total Xylenes	ND	3.00	190	SW8260C
	All other VOCs	ND	varies	varies	SW8260C
MW4-2-1114	DRO	ND	577	1,500	AK 102
Duplicate of MW4-1-1114	*1,2,3-Trichloropropane*	ND	*1.00*	0.0075	SW8260C
	Benzene	ND	0.400	4.6	SW8260C
	Ethylbenzene	ND	1.00	15	SW8260C
	Toluene	ND	1.00	1,100	SW8260C
	Total Xylenes	ND	3.00	190	SW8260C
	All other VOCs	ND	varies	varies	SW8260C
MW5-1114	DRO	ND	566	1,500	AK 102
	1,2,3-Trichloropropane	ND	*1.00*	0.0075	SW8260C
	Benzene	ND	0.400	4.6	SW8260C
	Ethylbenzene	ND	1.00	15	SW8260C
	Toluene	ND	1.00	1,100	SW8260C
	Total Xylenes	ND	3.00	190	SW8260C
	All other VOCs	ND	varies	varies	SW8260C

TABLE 2
2501 EAST 5TH AVENUE
ANCHORAGE, ALASKA
ANALYTICAL RESULTS - GROUNDWATER SAMPLES (NOVEMBER 2018)

MW6-1115	DRO	ND	600	1,500	AK 102
	1,2,3-Trichloropropane	ND	*1.00*	0.0075	SW8260C
	Benzene	ND	0.400	4.6	SW8260C
	Ethylbenzene	ND	1.00	15	SW8260C
	Toluene	ND	1.00	1,100	SW8260C
	Total Xylenes	ND	3.00	190	SW8260C
	All other VOCs	ND	varies	varies	SW8260C

[1] Water cleanup criteria are obtained from ADEC 18 AAC 75.341, Table C (October 27, 2018).
AAC = Alaska Administrative Code; AK = Alaska Method; ADEC = Alaska Department of Environmental Conservation;
µg/L = micrograms per liter; DRO = diesel range organics
VOC = volatile organic compounds; LOQ = limit of quantitation; ND = not detectable;
Italics = The LOQ exceeds the applicable ADEC cleanup criterion.

TABLE 3
2501 EAST 5TH AVENUE
ANCHORAGE, ALASKA
HISTORICAL GROUNDWATER SAMPLING ANALYTICAL RESULTS

Well No.	Date Collected: / Parameter	Jul-15 (µg/L)	Oct-16 (µg/L)	Dec-16 (µg/L)	Jun-17 (µg/L)	Nov-18 (µg/L)	Analytical Method	ADEC Method Two Groundwater Cleanup Level (µg/L)[1, 2]
MW1	DRO	NS	ND	NS	ND	ND	AK102	1,500
	All PAHs	NS	ND	NS	ND	NS	8270D SIMS	varies
	All VOCs	NS	NS	NS	NS	ND	SW 8260	varies
MW2	DRO	NS	ND	NS	ND	ND	AK102	1,500
	1-Methylnaphthalene	NS	0.0605	NS	ND	NS	8270D SIMS	11
	Fluorene	NS	0.0638	NS	ND	NS	8270D SIMS	290
	All Other PAHs	NS	ND	ND	ND	NS	8270D SIMS	varies
	All VOCs	NS	NS	NS	NS	ND	SW 8260	varies
MW3	DRO	NS	ND	ND	ND	ND	AK102	1,500
	All PAHs	NS	ND	ND	ND	NS	8270D SIMS	varies
	All VOCs	NS	NS	NS	NS	ND	SW 8260	varies
MW4	GRO	637	NS	NS	NS	NS	AK101	2,200
	DRO	784	767	NS	ND	ND	AK102	1,500
	RRO	ND	NS	NS	NS	NS	AK103	1,100
	1-Methylnaphthalene	4.24	1.01	NS	0.168	NS	8270D SIMS	11
	2-Methylnaphthalene	3.52 J	0.523	NS	ND	NS	8270D SIMS	36
	Acenaphthene	0.0717	ND	ND	ND	NS	8270D SIMS	530
	Acenaphthylene	0.0674	ND	ND	ND	NS	8270D SIMS	260
	Fluorene	0.0766	ND	ND	ND	NS	8270D SIMS	290
	Naphthalene	ND	1.63	NS	0.0968	NS	8270D SIMS	1.7
	All Other PAHs	ND	ND	ND	ND	NS	8270D SIMS	varies
	1,2,4-Trimethylbenzene	**117**	NS	NS	NS	5.96	SW 8260	56
	1,3,5-Trimethylbenzene	**89.1**	NS	NS	NS	16.1	SW 8260	60
	4-Isopropyltoluene	14.7	NS	NS	NS	2.18	SW 8260	N/A
	Benzene	ND	NS	NS	NS	ND	SW 8260	4.6
	Ethylbenzene	4.56	NS	NS	NS	ND	SW 8260	15
	Isopropylbenzene (Cumene)	7.08	NS	NS	NS	ND	SW 8260	450
	Naphthalene	**13.9**	NS	NS	NS	ND	SW 8260	1.7
	n-Propylbenzene	17.2	NS	NS	NS	2.04	SW 8260	660
	sec-Butylbenzene	3.37	NS	NS	NS	ND	SW 8260	2,000
	tert-Butylbenzene	2.98	NS	NS	NS	ND	SW 8260	690
	Toluene	ND	NS	NS	NS	ND	SW 8260	1,100
	Total Xylenes	54.2	NS	NS	NS	ND	SW 8260	190
	All Other VOCs	ND	NS	NS	NS	ND	SW 8260	varies
MW5	DRO	NS	NS	ND	ND	ND	AK102	1,500
	All PAHs	NS	NS	ND	ND	NS	8270D SIMS	varies
	All VOCs	NS	NS	NS	NS	ND	SW 8260	varies
MW6	DRO	NS	NS	ND	ND	ND	AK102	1,500
	All PAHs	NS	NS	ND	ND	NS	8270D SIMS	varies
	All VOCs	NS	NS	NS	NS	ND	SW 8260	varies

[1]Current water cleanup criteria are obtained from ADEC 18 AAC 75.341, Table C (October 27, 2018).

[2]The analytical data for all water samples are compared to the current cleanup criteria.

AAC = Alaska Administration Code; GRO = Gasoline Range Organics; DRO = Diesel Range Organics; RRO = Residual Range Organics;
NS = Not Sampled; J = Estimated Quantity; ND = Not Detected; VOC = Volatile Organic Compound; N/A = Not Available
ADEC = Alaska Department of Environmental Conservation; PAH = Polynuclear Aromatic Hydrocarbon; µg/L = miligrams per Liter;
Note: The concentrations presented in this table reflect the greatest concentration reported for each sample/duplicate pair.

APPENDIX A
WATER SAMPLING LOGS AND FIELD NOTES

BGES, INC.
ENVIRONMENTAL CONSULTANTS

GROUNDWATER MONITORING LOG

Well Number: MW 1
Date of Sampling Event: 11-14-18

Weather Conditions: 30°F Clear
Time of Depth to Water Measurement: 16:01
Date of Depth to Water Measurement: 11-14-18

Total Depth of Well (feet below TOC): 47.49
Depth to Water (feet below TOC): 39.68
Water Column (feet): 7.81

Type of Sampling Equipment: MP 50; 1.75" Bladder Pump; YSI Pro Plus w/ Flow Through Cell

Volume of well (gals): 1.27

=0.1632 X Water Column (For 2-inch well)
=0.6528 X Water Column (For 4-inch well)
=1.4688 X Water Column (For 6-inch well)

Time Purging Began: 16:37
Time of Sampling: 18:11
Volume purged: 4 gal

PURGE A MINIMUM OF THREE WELL VOLUMES

Temperature (°C)	6.9	Temperature (°C)	5.1
Conductivity	277.3	Conductivity	185.5
pH	6.41	pH	6.15
ORP	43.6	ORP	98.3
Volume Purged	0.1	Volume Purged	3.5
Depth To Water	-	Depth To Water	-
Time of Measurement	16:39	Time of Measurement	18:01
Temperature (°C)	6.5	Temperature (°C)	
Conductivity	251.1	Conductivity	
pH	6.32	pH	
ORP	61.2	ORP	
Volume Purged	1 gal	Volume Purged	
Depth To Water	-	Depth To Water	
Time of Measurement	17:01	Time of Measurement	
Temperature (°C)	6.1	Temperature (°C)	
Conductivity	233.0	Conductivity	
pH	6.18	pH	
ORP	79.2	ORP	
Volume Purged	2 gal	Volume Purged	
Depth To Water	-	Depth To Water	
Time of Measurement	17:26	Time of Measurement	
Temperature (°C)	5.5	Temperature (°C)	
Conductivity	206.8	Conductivity	
pH	6.11	pH	
ORP	92.2	ORP	
Volume Purged	3 gal	Volume Purged	
Depth To Water	-	Depth To Water	
Time of Measurement	17:49	Time of Measurement	

Depth of Bladder intake: ~~39~~ 40.1 ft

Purge Rate: ~ 200 mL/min

Sample Rate: ~ 200mL/min

Sample ID: MW1-1114

Additional Notes:

BGES, INC.
ENVIRONMENTAL CONSULTANTS

GROUNDWATER MONITORING LOG

BGES, INC.

Well Number: MW2
Date of Sampling Event: 11-15-18

Weather Conditions: 29°F Clear
Time of Depth to Water Measurement: 13:41
Date of Depth to Water Measurement: 11-15-18

Total Depth of Well (feet below TOC): 47.13
Depth to Water (feet below TOC): 39.05
Water Column (feet): 8.08

Type of Sampling Equipment: MP50; 1.75" Bladder Pump; YSI Pro Plus w/ Flow Through Cell

Volume of well (gals): 1.32

=0.1632 X Water Column (For 2-inch well)
=0.6528 X Water Column (For 4-inch well)
=1.4688 X Water Column (For 6-inch well)

Time Purging Began: 14:05
Time of Sampling: 15:58
Volume purged: 4 gal

PURGE A MINIMUM OF THREE WELL VOLUMES

Temperature (°C)	6.2	Temperature (°C)	4.1
Conductivity	130.9	Conductivity	160.3
pH	6.47	pH	6.38
ORP	70.8	ORP	75.5
Volume Purged	0.1	Volume Purged	4 gal
Depth To Water	-	Depth To Water	-
Time of Measurement	14:08	Time of Measurement	15:49
Temperature (°C)	5.9	Temperature (°C)	
Conductivity	141.2	Conductivity	
pH	6.40	pH	
ORP	80.1	ORP	
Volume Purged	1 gal	Volume Purged	
Depth To Water	-	Depth To Water	
Time of Measurement	14:33	Time of Measurement	
Temperature (°C)	5.4	Temperature (°C)	
Conductivity	149.6	Conductivity	
pH	6.38	pH	
ORP	96.6	ORP	
Volume Purged	2 gal	Volume Purged	
Depth To Water	-	Depth To Water	
Time of Measurement	14:59	Time of Measurement	
Temperature (°C)	4.9	Temperature (°C)	
Conductivity	160.8	Conductivity	
pH	6.37	pH	
ORP	56.0	ORP	
Volume Purged	3 gal	Volume Purged	
Depth To Water	-	Depth To Water	
Time of Measurement	15:23	Time of Measurement	

Depth of Bladder intake: ~39.5 ft

Purge Rate: 150 mL/min

Sample Rate: 150 mL/min

Sample ID: MW2-1-1115

Additional Notes:
Duplicate collected MW2-2-1115

BGES, INC.
ENVIRONMENTAL CONSULTANTS

GROUNDWATER MONITORING LOG

Well Number: MW3
Date of Sampling Event: 11-14-18

Weather Conditions: 32°F Partly Cloudy
Time of Depth to Water Measurement:
Date of Depth to Water Measurement: 11-14-18

Total Depth of Well (feet below TOC): 49.50
Depth to Water (feet below TOC): 38.68
Water Column (feet): 10.82

Type of Sampling Equipment: MP50; 1.75" Bladder Pump; YSI Pro Plus w/ Flow Through Cell

Volume of well (gals): 1.77

=0.1632 X Water Column (For 2-inch well)
=0.6528 X Water Column (For 4-inch well)
=1.4688 X Water Column (For 6-inch well)

Time Purging Began: 12:29
Time of Sampling: 14:11
Volume purged: ~6.5 gal (lbs.) **PURGE A MINIMUM OF THREE WELL VOLUMES**

Temperature (°C)	7.1	Temperature (°C)	4.8
Conductivity	221.3	Conductivity	206.6
pH	6.24	pH	6.05
ORP	92.9	ORP	19.7
Volume Purged	1 gal	Volume Purged	5 gal
Depth To Water	-	Depth To Water	-
Time of Measurement	12:31	Time of Measurement	13:52

Temperature (°C)	6.3	Temperature (°C)	
Conductivity	203.4	Conductivity	
pH	6.11	pH	
ORP	76.1	ORP	
Volume Purged	2 gal	Volume Purged	
Depth To Water	-	Depth To Water	
Time of Measurement	12:50	Time of Measurement	

Temperature (°C)	5.5	Temperature (°C)	
Conductivity	209.7	Conductivity	
pH	6.09	pH	
ORP	63.6	ORP	
Volume Purged	3 gal	Volume Purged	
Depth To Water	-	Depth To Water	
Time of Measurement	13:09	Time of Measurement	

Temperature (°C)	5.1	Temperature (°C)	
Conductivity	224.9	Conductivity	
pH	6.01	pH	
ORP	41.0	ORP	
Volume Purged	4 gal	Volume Purged	
Depth To Water	-	Depth To Water	
Time of Measurement	13:34	Time of Measurement	

Depth of Bladder intake: ~39.18

Purge Rate: ~200 mL/min

Sample Rate: ~200 mL/min

Sample ID: MW3-1114

Additional Notes:

BGES, INC.
ENVIRONMENTAL CONSULTANTS

GROUNDWATER MONITORING LOG

BGES, INC.

Well Number: MW4
Date of Sampling Event: 11-14-18

Weather Conditions: 33°F Partly Cloudy
Time of Depth to Water Measurement:
Date of Depth to Water Measurement: 11-14-18

Total Depth of Well (feet below TOC): 43.18
Depth to Water (feet below TOC): 38.81
Water Column (feet): 4.37

Type of Sampling Equipment: MP50; 1.75" Bladder Pump; YSI Pro Plus w/ Flow Through Cell

Volume of well (gals): 0.71

=0.1632 X Water Column (For 2-inch well)
=0.6528 X Water Column (For 4-inch well)
=1.4688 X Water Column (For 6-inch well)

Time Purging Began: 10:54
Time of Sampling: 12:06
Volume purged ~2.5 gal **PURGE A MINIMUM OF THREE WELL VOLUMES**

Temperature (°C)	7.7	Temperature (°C)	
Conductivity	251.8	Conductivity	
pH	6.65	pH	
ORP	184.5	ORP	
Volume Purged	0.1	Volume Purged	
Depth To Water	-	Depth To Water	
Time of Measurement	10:55	Time of Measurement	
Temperature (°C)	6.2	Temperature (°C)	
Conductivity	227.3	Conductivity	
pH	6.11	pH	
ORP	165.9	ORP	
Volume Purged	0.7	Volume Purged	
Depth To Water	-	Depth To Water	
Time of Measurement	11:13	Time of Measurement	
Temperature (°C)	5.8	Temperature (°C)	
Conductivity	237.1	Conductivity	
pH	5.87	pH	
ORP	141.9	ORP	
Volume Purged	1.5	Volume Purged	
Depth To Water	-	Depth To Water	
Time of Measurement	11:36	Time of Measurement	
Temperature (°C)	5.5	Temperature (°C)	
Conductivity	254.4	Conductivity	
pH	6.22	pH	
ORP	112.3	ORP	
Volume Purged	2.0	Volume Purged	
Depth To Water	-	Depth To Water	
Time of Measurement	11:58	Time of Measurement	

Depth of Bladder intake: ~39.31

Purge Rate: ~150 mL/min

Sample Rate: ~150 mL/min

Sample ID: MW4-1-1114

Additional Notes:
Duplicate collected. MW4-2-1114

BGES, INC.
ENVIRONMENTAL CONSULTANTS

GROUNDWATER MONITORING LOG

BGES, INC.

Well Number: MW5
Date of Sampling Event: 11-14-18

Weather Conditions: 33°F Partly Cloudy
Time of Depth to Water Measurement:
Date of Depth to Water Measurement: 11-14-18

Total Depth of Well (feet below TOC): 44.51
Depth to Water (feet below TOC): 38.98
Water Column (feet): 5.53

Type of Sampling Equipment: MP 50; 1.75" Bladder Pump; YSI Pro Plus

Volume of well (gals): 0.90

=0.1632 X Water Column (For 2-inch well)
=0.6528 X Water Column (For 4-inch well)
=1.4688 X Water Column (For 6-inch well)

Time Purging Began: 14:59
Time of Sampling: 16:13
Volume purged: 3 gal

PURGE A MINIMUM OF THREE WELL VOLUMES

Temperature (°C)	7.1	Temperature (°C)	
Conductivity	230.8	Conductivity	
pH	6.41	pH	
ORP	74.5	ORP	
Volume Purged	0.1	Volume Purged	
Depth To Water	-	Depth To Water	
Time of Measurement	15:01	Time of Measurement	

Temperature (°C)	6.4	Temperature (°C)	
Conductivity	222.6	Conductivity	
pH	6.28	pH	
ORP	61.7	ORP	
Volume Purged	0.9	Volume Purged	
Depth To Water	-	Depth To Water	
Time of Measurement	15:22	Time of Measurement	

Temperature (°C)	6.0	Temperature (°C)	
Conductivity	241.6	Conductivity	
pH	6.25	pH	
ORP	71.4	ORP	
Volume Purged	2.0	Volume Purged	
Depth To Water	-	Depth To Water	
Time of Measurement	15:43	Time of Measurement	

Temperature (°C)	5.4	Temperature (°C)	
Conductivity	221.6	Conductivity	
pH	6.11	pH	
ORP	71.8	ORP	
Volume Purged	3.0	Volume Purged	
Depth To Water	-	Depth To Water	
Time of Measurement	16:05	Time of Measurement	

Depth of Bladder intake: ~ 39.5 feet

Purge Rate: 150 mL/min

Sample Rate: 150 mL/min.

Sample ID: MW5-1114

Additional Notes:

BGES, INC.
ENVIRONMENTAL CONSULTANTS

GROUNDWATER MONITORING LOG

BGES, INC.

Well Number: MW6
Date of Sampling Event: 11-15-18

Weather Conditions: 26°F Clear
Time of Depth to Water Measurement: 11:56
Date of Depth to Water Measurement: 11-15-18

Total Depth of Well (feet below TOC): 44.79
Depth to Water (feet below TOC): 39.13
Water Column (feet): 5.66

Type of Sampling Equipment: MP 50; 1.75" Bladder Pump; YSI Pro Plus w/ Flow Through Cell

Volume of well (gals): 0.92

=0.1632 X Water Column (For 2-inch well)
=0.6528 X Water Column (For 4-inch well)
=1.4688 X Water Column (For 6-inch well)

Time Purging Began: 12:20
Time of Sampling: 13:44
Volume purged: 3 gal

PURGE A MINIMUM OF THREE WELL VOLUMES

Temperature (°C)	6.8	Temperature (°C)	
Conductivity	121.2	Conductivity	
pH	6.25	pH	
ORP	123.1	ORP	
Volume Purged	0.1	Volume Purged	
Depth To Water	-	Depth To Water	
Time of Measurement	12:21	Time of Measurement	
Temperature (°C)	6.3	Temperature (°C)	
Conductivity	136.6	Conductivity	
pH	6.23	pH	
ORP	110.0	ORP	
Volume Purged	1 gal	Volume Purged	
Depth To Water	-	Depth To Water	
Time of Measurement	12:46	Time of Measurement	
Temperature (°C)	5.7	Temperature (°C)	
Conductivity	151.6	Conductivity	
pH	6.13	pH	
ORP	78.8	ORP	
Volume Purged	2 gal	Volume Purged	
Depth To Water	-	Depth To Water	
Time of Measurement	13:10	Time of Measurement	
Temperature (°C)	4.4	Temperature (°C)	
Conductivity	145.1	Conductivity	
pH	6.19	pH	
ORP	120.3	ORP	
Volume Purged	3 gal	Volume Purged	
Depth To Water	-	Depth To Water	
Time of Measurement	13:36	Time of Measurement	

Depth of Bladder intake: ~39.6 feet

Purge Rate: ~150 mL/min

Sample Rate: ~150 mL/min

Sample ID: MW6-1115

Additional Notes:

11-14-2018 28°F Partly Cloudy

8:10 BGES on site.
Locating and opening wells.
Cannot locate MW5 & MW6. Malloy of BGES delivered metal detector.

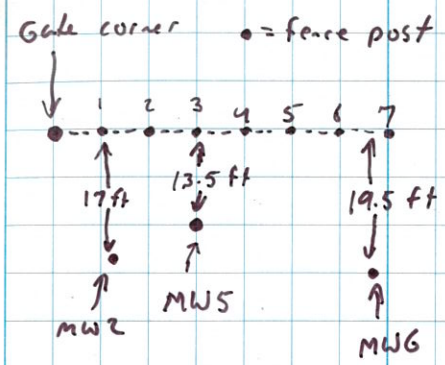
Well	Depth to H2O	Total Depth	Time
MW1	39.68	42.49	8:35
MW2	39.05	47.13	8:49
WW3	38.68	49.50	9:10
MW4	38.81	43.18	9:23
MW5	38.98	44.51	9:51
MW6	39.13	44.79	10:20

Plug in MW1 is crusted against steel cover. Unknown if PVC lifted or if cover was pushed down.

12:06 Collected sample from MW4 labeled MW4-1-111114. Collected duplicate and labeled MW4-2-111114. Moving equipment to MW3.

12:29 Began purging MW3.

11-14-2018 Clear



14:11 Collected sample from MW3.
Began moving equipment to MW5.

14:59 Began purging MW5
16:13 Collected sample from MW5
Moved equipment to MW1

16:37 Began purging MW1

18:11 Collected water sample from MW1. Cleaning gear.
18:25 BGES off site.

WJS

11-15-2018 29°F Clear

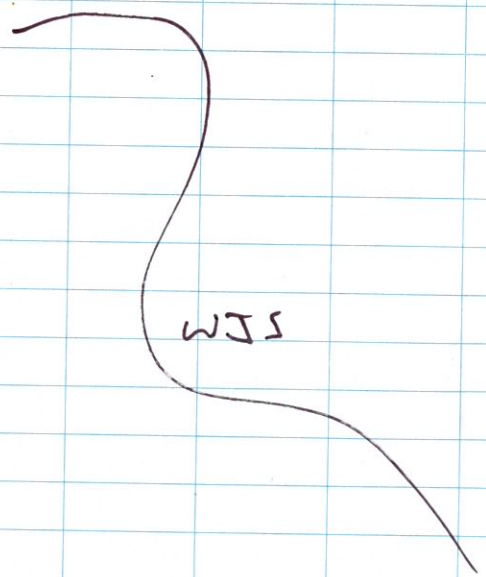
11:48 BGES on site. Preparing gear to sample MW6

13:44 Collected sample from MW6

14:05 Began Purging MW2

15:58 Collected sample from MW2
Cleaning up gear. Water in drum on site.

16:34 BGES off site.



APPENDIX B
LABORATORY ANALYTICAL DATA

Laboratory Report of Analysis

To: BGES Inc.
1042 E. 6th Ave.,
Anchorage, AK 99501
(907)644-2900

Report Number: **1186522**

Client Project: **East 5th Ave**

Dear Jayne Martin,

Enclosed are the results of the analytical services performed under the referenced project for the received samples and associated QC as applicable. The samples are certified to meet the requirements of the National Environmental Laboratory Accreditation Conference Standards. Copies of this report and supporting data will be retained in our files for a period of ten years in the event they are required for future reference. All results are intended to be used in their entirety and SGS is not responsible for use of less than the complete report. Any samples submitted to our laboratory will be retained for a maximum of fourteen (14) days from the date of this report unless other archiving requirements were included in the quote.

If there are any questions about the report or services performed during this project, please call Jillian at (907) 562-2343. We will be happy to answer any questions or concerns which you may have.

Thank you for using SGS North America Inc. for your analytical services. We look forward to working with you again on any additional analytical needs.

Sincerely,
SGS North America Inc.

SGS North America Inc.
Environmental Services - Alaska Division
Project Manager

Jillian Vlahovich
2018.11.29
12:14:06 -09'00'

Jillian Vlahovich Date
Project Manager
Jillian.Vlahovich@sgs.com

SGS North America Inc. 200 West Potter Drive, Anchorage, AK 99518
t 907.562.2343 f 907.561.5301 www.us.sgs.com

Case Narrative

SGS Client: **BGES Inc.**
SGS Project: **1186522**
Project Name/Site: **East 5th Ave**
Project Contact: **Jayne Martin**

Refer to sample receipt form for information on sample condition.

*QC comments may be associated with the field samples found in this report. When applicable, comments will be applied to associated field samples.

SGS North America Inc.
200 West Potter Drive, Anchorage, AK 99518
t 907.562.2343 **f** 907.561.5301 www.us.sgs.com

Laboratory Qualifiers

Enclosed are the analytical results associated with the above work order. All results are intended to be used in their entirety and SGS is not responsible for use of less than the complete report. This document is issued by the Company under its General Conditions of Service accessible at <http://www.sgs.com/en/Terms-and-Conditions.aspx>. Attention is drawn to the limitation of liability, indenmification and jurisdiction issues defined therein.

Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. Any unauthorized alteration, forgery or falsification of the context or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law.

SGS maintains a formal Quality Assurance/Quality Control (QA/QC) program. A copy of our Quality Assurance Plan (QAP), which outlines this program, is available at your request. The laboratory certification numbers are AK00971 (DW Chemistry & Microbiology) & 17-021 (CS) for ADEC and 2944.01 for DOD ELAP/ISO17025 (RCRA methods: 1020B, 1311, 3010A, 3050B, 3520C, 3550C, 5030B, 5035A, 6020A, 7470A, 7471B, 8015C, 8021B, 8082A, 8260C, 8270D, 8270D-SIM, 9040C, 9045D, 9056A, 9060A, AK101 and AK102/103). Except as specifically noted, all statements and data in this report are in conformance to the provisions set forth by the SGS QAP and, when applicable, other regulatory authorities.

The following descriptors or qualifiers may be found in your report:

*	The analyte has exceeded allowable regulatory or control limits.
!	Surrogate out of control limits.
B	Indicates the analyte is found in a blank associated with the sample.
CCV/CVA/CVB	Continuing Calibration Verification
CCCV/CVC/CVCA/CVCB	Closing Continuing Calibration Verification
CL	Control Limit
DF	Analytical Dilution Factor
DL	Detection Limit (i.e., maximum method detection limit)
E	The analyte result is above the calibrated range.
GT	Greater Than
IB	Instrument Blank
ICV	Initial Calibration Verification
J	The quantitation is an estimation.
LCS(D)	Laboratory Control Spike (Duplicate)
LLQC/LLIQC	Low Level Quantitation Check
LOD	Limit of Detection (i.e., 1/2 of the LOQ)
LOQ	Limit of Quantitation (i.e., reporting or practical quantitation limit)
LT	Less Than
MB	Method Blank
MS(D)	Matrix Spike (Duplicate)
ND	Indicates the analyte is not detected.
RPD	Relative Percent Difference
U	Indicates the analyte was analyzed for but not detected.

Note: Sample summaries which include a result for "Total Solids" have already been adjusted for moisture content. All DRO/RRO analyses are integrated per SOP.

SGS North America Inc. 200 West Potter Drive, Anchorage, AK 99518
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Sample Summary

Client Sample ID	Lab Sample ID	Collected	Received	Matrix
MW1-1114	1186522001	11/14/2018	11/16/2018	Water (Surface, Eff., Ground)
MW2-1-1115	1186522002	11/15/2018	11/16/2018	Water (Surface, Eff., Ground)
MW2-2-1115	1186522003	11/15/2018	11/16/2018	Water (Surface, Eff., Ground)
MW3-1114	1186522004	11/14/2018	11/16/2018	Water (Surface, Eff., Ground)
MW4-1-1114	1186522005	11/14/2018	11/16/2018	Water (Surface, Eff., Ground)
MW4-2-1114	1186522006	11/14/2018	11/16/2018	Water (Surface, Eff., Ground)
MW5-1114	1186522007	11/14/2018	11/16/2018	Water (Surface, Eff., Ground)
MW6-1115	1186522008	11/15/2018	11/16/2018	Water (Surface, Eff., Ground)
Trip Blank	1186522009	11/14/2018	11/16/2018	Water (Surface, Eff., Ground)

Method	Method Description
AK102	DRO Low Volume (W)
SW8260C	Volatile Organic Compounds (W) FULL

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Detectable Results Summary

Client Sample ID: **MW4-1-1114**
Lab Sample ID: 1186522005
Volatile GC/MS

Parameter	Result	Units
1,2,4-Trimethylbenzene	5.91	ug/L
1,3,5-Trimethylbenzene	15.7	ug/L
4-Isopropyltoluene	2.13	ug/L
n-Propylbenzene	2.00	ug/L

Client Sample ID: **MW4-2-1114**
Lab Sample ID: 1186522006
Volatile GC/MS

Parameter	Result	Units
1,2,4-Trimethylbenzene	5.96	ug/L
1,3,5-Trimethylbenzene	16.1	ug/L
4-Isopropyltoluene	2.18	ug/L
n-Propylbenzene	2.04	ug/L

SGS North America Inc.
200 West Potter Drive, Anchorage, AK 99518
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Results of **MW1-1114**

Client Sample ID: **MW1-1114**
Client Project ID: **East 5th Ave**
Lab Sample ID: 1186522001
Lab Project ID: 1186522

Collection Date: 11/14/18 18:11
Received Date: 11/16/18 10:19
Matrix: Water (Surface, Eff., Ground)
Solids (%):
Location:

Results by **Semivolatile Organic Fuels**

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Diesel Range Organics	0.566	U	0.566	0.170	mg/L	1		11/27/18 12:20
Surrogates								
5a Androstane (surr)	83.1		50-150		%	1		11/27/18 12:20

Batch Information

Analytical Batch: XFC14817
Analytical Method: AK102
Analyst: CMS
Analytical Date/Time: 11/27/18 12:20
Container ID: 1186522001-D

Prep Batch: XXX40945
Prep Method: SW3520C
Prep Date/Time: 11/26/18 08:35
Prep Initial Wt./Vol.: 265 mL
Prep Extract Vol: 1 mL

Print Date: 11/28/2018 2:21:36PM

Results of **MW1-1114**

Client Sample ID: **MW1-1114**
Client Project ID: **East 5th Ave**
Lab Sample ID: 1186522001
Lab Project ID: 1186522

Collection Date: 11/14/18 18:11
Received Date: 11/16/18 10:19
Matrix: Water (Surface, Eff., Ground)
Solids (%):
Location:

Results by **Volatile GC/MS**

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
1,1,1,2-Tetrachloroethane	0.500	U	0.500	0.150	ug/L	1		11/19/18 19:26
1,1,1-Trichloroethane	1.00	U	1.00	0.310	ug/L	1		11/19/18 19:26
1,1,2,2-Tetrachloroethane	0.500	U	0.500	0.150	ug/L	1		11/19/18 19:26
1,1,2-Trichloroethane	0.400	U	0.400	0.120	ug/L	1		11/19/18 19:26
1,1-Dichloroethane	1.00	U	1.00	0.310	ug/L	1		11/19/18 19:26
1,1-Dichloroethene	1.00	U	1.00	0.310	ug/L	1		11/19/18 19:26
1,1-Dichloropropene	1.00	U	1.00	0.310	ug/L	1		11/19/18 19:26
1,2,3-Trichlorobenzene	1.00	U	1.00	0.310	ug/L	1		11/19/18 19:26
1,2,3-Trichloropropane	1.00	U	1.00	0.310	ug/L	1		11/19/18 19:26
1,2,4-Trichlorobenzene	1.00	U	1.00	0.310	ug/L	1		11/19/18 19:26
1,2,4-Trimethylbenzene	1.00	U	1.00	0.310	ug/L	1		11/19/18 19:26
1,2-Dibromo-3-chloropropane	10.0	U	10.0	3.10	ug/L	1		11/19/18 19:26
1,2-Dibromoethane	0.0750	U	0.0750	0.0180	ug/L	1		11/19/18 19:26
1,2-Dichlorobenzene	1.00	U	1.00	0.310	ug/L	1		11/19/18 19:26
1,2-Dichloroethane	0.500	U	0.500	0.150	ug/L	1		11/19/18 19:26
1,2-Dichloropropane	1.00	U	1.00	0.310	ug/L	1		11/19/18 19:26
1,3,5-Trimethylbenzene	1.00	U	1.00	0.310	ug/L	1		11/19/18 19:26
1,3-Dichlorobenzene	1.00	U	1.00	0.310	ug/L	1		11/19/18 19:26
1,3-Dichloropropane	0.500	U	0.500	0.150	ug/L	1		11/19/18 19:26
1,4-Dichlorobenzene	0.500	U	0.500	0.150	ug/L	1		11/19/18 19:26
2,2-Dichloropropane	1.00	U	1.00	0.310	ug/L	1		11/19/18 19:26
2-Butanone (MEK)	10.0	U	10.0	3.10	ug/L	1		11/19/18 19:26
2-Chlorotoluene	1.00	U	1.00	0.310	ug/L	1		11/19/18 19:26
2-Hexanone	10.0	U	10.0	3.10	ug/L	1		11/19/18 19:26
4-Chlorotoluene	1.00	U	1.00	0.310	ug/L	1		11/19/18 19:26
4-Isopropyltoluene	1.00	U	1.00	0.310	ug/L	1		11/19/18 19:26
4-Methyl-2-pentanone (MIBK)	10.0	U	10.0	3.10	ug/L	1		11/19/18 19:26
Benzene	0.400	U	0.400	0.120	ug/L	1		11/19/18 19:26
Bromobenzene	1.00	U	1.00	0.310	ug/L	1		11/19/18 19:26
Bromochloromethane	1.00	U	1.00	0.310	ug/L	1		11/19/18 19:26
Bromodichloromethane	0.500	U	0.500	0.150	ug/L	1		11/19/18 19:26
Bromoform	1.00	U	1.00	0.310	ug/L	1		11/19/18 19:26
Bromomethane	5.00	U	5.00	1.50	ug/L	1		11/19/18 19:26
Carbon disulfide	10.0	U	10.0	3.10	ug/L	1		11/19/18 19:26
Carbon tetrachloride	1.00	U	1.00	0.310	ug/L	1		11/19/18 19:26
Chlorobenzene	0.500	U	0.500	0.150	ug/L	1		11/19/18 19:26
Chloroethane	1.00	U	1.00	0.310	ug/L	1		11/19/18 19:26

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Results of **MW1-1114**

Client Sample ID: **MW1-1114**
Client Project ID: **East 5th Ave**
Lab Sample ID: 1186522001
Lab Project ID: 1186522

Collection Date: 11/14/18 18:11
Received Date: 11/16/18 10:19
Matrix: Water (Surface, Eff., Ground)
Solids (%):
Location:

Results by **Volatile GC/MS**

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Chloroform	1.00 U		1.00	0.310	ug/L	1		11/19/18 19:26
Chloromethane	1.00 U		1.00	0.310	ug/L	1		11/19/18 19:26
cis-1,2-Dichloroethene	1.00 U		1.00	0.310	ug/L	1		11/19/18 19:26
cis-1,3-Dichloropropene	0.500 U		0.500	0.150	ug/L	1		11/19/18 19:26
Dibromochloromethane	0.500 U		0.500	0.150	ug/L	1		11/19/18 19:26
Dibromomethane	1.00 U		1.00	0.310	ug/L	1		11/19/18 19:26
Dichlorodifluoromethane	1.00 U		1.00	0.310	ug/L	1		11/22/18 20:44
Ethylbenzene	1.00 U		1.00	0.310	ug/L	1		11/19/18 19:26
Freon-113	10.0 U		10.0	3.10	ug/L	1		11/19/18 19:26
Hexachlorobutadiene	1.00 U		1.00	0.310	ug/L	1		11/19/18 19:26
Isopropylbenzene (Cumene)	1.00 U		1.00	0.310	ug/L	1		11/19/18 19:26
Methylene chloride	5.00 U		5.00	1.00	ug/L	1		11/19/18 19:26
Methyl-t-butyl ether	10.0 U		10.0	3.10	ug/L	1		11/19/18 19:26
Naphthalene	1.00 U		1.00	0.310	ug/L	1		11/19/18 19:26
n-Butylbenzene	1.00 U		1.00	0.310	ug/L	1		11/19/18 19:26
n-Propylbenzene	1.00 U		1.00	0.310	ug/L	1		11/19/18 19:26
o-Xylene	1.00 U		1.00	0.310	ug/L	1		11/19/18 19:26
P & M -Xylene	2.00 U		2.00	0.620	ug/L	1		11/19/18 19:26
sec-Butylbenzene	1.00 U		1.00	0.310	ug/L	1		11/19/18 19:26
Styrene	1.00 U		1.00	0.310	ug/L	1		11/19/18 19:26
tert-Butylbenzene	1.00 U		1.00	0.310	ug/L	1		11/19/18 19:26
Tetrachloroethene	1.00 U		1.00	0.310	ug/L	1		11/19/18 19:26
Toluene	1.00 U		1.00	0.310	ug/L	1		11/19/18 19:26
trans-1,2-Dichloroethene	1.00 U		1.00	0.310	ug/L	1		11/19/18 19:26
trans-1,3-Dichloropropene	1.00 U		1.00	0.310	ug/L	1		11/19/18 19:26
Trichloroethene	1.00 U		1.00	0.310	ug/L	1		11/19/18 19:26
Trichlorofluoromethane	1.00 U		1.00	0.310	ug/L	1		11/19/18 19:26
Vinyl acetate	10.0 U		10.0	3.10	ug/L	1		11/19/18 19:26
Vinyl chloride	0.150 U		0.150	0.0500	ug/L	1		11/19/18 19:26
Xylenes (total)	3.00 U		3.00	1.00	ug/L	1		11/19/18 19:26
Surrogates								
1,2-Dichloroethane-D4 (surr)	103		81-118		%	1		11/19/18 19:26
4-Bromofluorobenzene (surr)	104		85-114		%	1		11/19/18 19:26
Toluene-d8 (surr)	102		89-112		%	1		11/19/18 19:26

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Results of **MW1-1114**

Client Sample ID: **MW1-1114**
Client Project ID: **East 5th Ave**
Lab Sample ID: 1186522001
Lab Project ID: 1186522

Collection Date: 11/14/18 18:11
Received Date: 11/16/18 10:19
Matrix: Water (Surface, Eff., Ground)
Solids (%):
Location:

Results by **Volatile GC/MS**

Batch Information

Analytical Batch: VMS18586
Analytical Method: SW8260C
Analyst: NRO
Analytical Date/Time: 11/19/18 19:26
Container ID: 1186522001-A

Prep Batch: VXX33567
Prep Method: SW5030B
Prep Date/Time: 11/19/18 06:00
Prep Initial Wt./Vol.: 5 mL
Prep Extract Vol: 5 mL

Analytical Batch: VMS18592
Analytical Method: SW8260C
Analyst: NRO
Analytical Date/Time: 11/22/18 20:44
Container ID: 1186522001-A

Prep Batch: VXX33575
Prep Method: SW5030B
Prep Date/Time: 11/22/18 06:00
Prep Initial Wt./Vol.: 5 mL
Prep Extract Vol: 5 mL

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Results of **MW2-1-1115**

Client Sample ID: **MW2-1-1115**
Client Project ID: **East 5th Ave**
Lab Sample ID: 1186522002
Lab Project ID: 1186522

Collection Date: 11/15/18 15:58
Received Date: 11/16/18 10:19
Matrix: Water (Surface, Eff., Ground)
Solids (%):
Location:

Results by **Semivolatile Organic Fuels**

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Diesel Range Organics	0.566	U	0.566	0.170	mg/L	1		11/27/18 12:31
Surrogates								
5a Androstane (surr)	83.7		50-150		%	1		11/27/18 12:31

Batch Information

Analytical Batch: XFC14817
Analytical Method: AK102
Analyst: CMS
Analytical Date/Time: 11/27/18 12:31
Container ID: 1186522002-D

Prep Batch: XXX40945
Prep Method: SW3520C
Prep Date/Time: 11/26/18 08:35
Prep Initial Wt./Vol.: 265 mL
Prep Extract Vol: 1 mL

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Results of **MW2-1-1115**

Client Sample ID: **MW2-1-1115**
Client Project ID: **East 5th Ave**
Lab Sample ID: 1186522002
Lab Project ID: 1186522

Collection Date: 11/15/18 15:58
Received Date: 11/16/18 10:19
Matrix: Water (Surface, Eff., Ground)
Solids (%):
Location:

Results by **Volatile GC/MS**

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
1,1,1,2-Tetrachloroethane	0.500	U	0.500	0.150	ug/L	1		11/19/18 19:42
1,1,1-Trichloroethane	1.00	U	1.00	0.310	ug/L	1		11/19/18 19:42
1,1,2,2-Tetrachloroethane	0.500	U	0.500	0.150	ug/L	1		11/19/18 19:42
1,1,2-Trichloroethane	0.400	U	0.400	0.120	ug/L	1		11/19/18 19:42
1,1-Dichloroethane	1.00	U	1.00	0.310	ug/L	1		11/19/18 19:42
1,1-Dichloroethene	1.00	U	1.00	0.310	ug/L	1		11/19/18 19:42
1,1-Dichloropropene	1.00	U	1.00	0.310	ug/L	1		11/19/18 19:42
1,2,3-Trichlorobenzene	1.00	U	1.00	0.310	ug/L	1		11/19/18 19:42
1,2,3-Trichloropropane	1.00	U	1.00	0.310	ug/L	1		11/19/18 19:42
1,2,4-Trichlorobenzene	1.00	U	1.00	0.310	ug/L	1		11/19/18 19:42
1,2,4-Trimethylbenzene	1.00	U	1.00	0.310	ug/L	1		11/19/18 19:42
1,2-Dibromo-3-chloropropane	10.0	U	10.0	3.10	ug/L	1		11/19/18 19:42
1,2-Dibromoethane	0.0750	U	0.0750	0.0180	ug/L	1		11/19/18 19:42
1,2-Dichlorobenzene	1.00	U	1.00	0.310	ug/L	1		11/19/18 19:42
1,2-Dichloroethane	0.500	U	0.500	0.150	ug/L	1		11/19/18 19:42
1,2-Dichloropropane	1.00	U	1.00	0.310	ug/L	1		11/19/18 19:42
1,3,5-Trimethylbenzene	1.00	U	1.00	0.310	ug/L	1		11/19/18 19:42
1,3-Dichlorobenzene	1.00	U	1.00	0.310	ug/L	1		11/19/18 19:42
1,3-Dichloropropane	0.500	U	0.500	0.150	ug/L	1		11/19/18 19:42
1,4-Dichlorobenzene	0.500	U	0.500	0.150	ug/L	1		11/19/18 19:42
2,2-Dichloropropane	1.00	U	1.00	0.310	ug/L	1		11/19/18 19:42
2-Butanone (MEK)	10.0	U	10.0	3.10	ug/L	1		11/19/18 19:42
2-Chlorotoluene	1.00	U	1.00	0.310	ug/L	1		11/19/18 19:42
2-Hexanone	10.0	U	10.0	3.10	ug/L	1		11/19/18 19:42
4-Chlorotoluene	1.00	U	1.00	0.310	ug/L	1		11/19/18 19:42
4-Isopropyltoluene	1.00	U	1.00	0.310	ug/L	1		11/19/18 19:42
4-Methyl-2-pentanone (MIBK)	10.0	U	10.0	3.10	ug/L	1		11/19/18 19:42
Benzene	0.400	U	0.400	0.120	ug/L	1		11/19/18 19:42
Bromobenzene	1.00	U	1.00	0.310	ug/L	1		11/19/18 19:42
Bromochloromethane	1.00	U	1.00	0.310	ug/L	1		11/19/18 19:42
Bromodichloromethane	0.500	U	0.500	0.150	ug/L	1		11/19/18 19:42
Bromoform	1.00	U	1.00	0.310	ug/L	1		11/19/18 19:42
Bromomethane	5.00	U	5.00	1.50	ug/L	1		11/19/18 19:42
Carbon disulfide	10.0	U	10.0	3.10	ug/L	1		11/19/18 19:42
Carbon tetrachloride	1.00	U	1.00	0.310	ug/L	1		11/19/18 19:42
Chlorobenzene	0.500	U	0.500	0.150	ug/L	1		11/19/18 19:42
Chloroethane	1.00	U	1.00	0.310	ug/L	1		11/19/18 19:42

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Results of **MW2-1-1115**

Client Sample ID: **MW2-1-1115**
Client Project ID: **East 5th Ave**
Lab Sample ID: 1186522002
Lab Project ID: 1186522

Collection Date: 11/15/18 15:58
Received Date: 11/16/18 10:19
Matrix: Water (Surface, Eff., Ground)
Solids (%):
Location:

Results by **Volatile GC/MS**

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Chloroform	1.00 U		1.00	0.310	ug/L	1		11/19/18 19:42
Chloromethane	1.00 U		1.00	0.310	ug/L	1		11/19/18 19:42
cis-1,2-Dichloroethene	1.00 U		1.00	0.310	ug/L	1		11/19/18 19:42
cis-1,3-Dichloropropene	0.500 U		0.500	0.150	ug/L	1		11/19/18 19:42
Dibromochloromethane	0.500 U		0.500	0.150	ug/L	1		11/19/18 19:42
Dibromomethane	1.00 U		1.00	0.310	ug/L	1		11/19/18 19:42
Dichlorodifluoromethane	1.00 U		1.00	0.310	ug/L	1		11/22/18 21:00
Ethylbenzene	1.00 U		1.00	0.310	ug/L	1		11/19/18 19:42
Freon-113	10.0 U		10.0	3.10	ug/L	1		11/19/18 19:42
Hexachlorobutadiene	1.00 U		1.00	0.310	ug/L	1		11/19/18 19:42
Isopropylbenzene (Cumene)	1.00 U		1.00	0.310	ug/L	1		11/19/18 19:42
Methylene chloride	5.00 U		5.00	1.00	ug/L	1		11/19/18 19:42
Methyl-t-butyl ether	10.0 U		10.0	3.10	ug/L	1		11/19/18 19:42
Naphthalene	1.00 U		1.00	0.310	ug/L	1		11/19/18 19:42
n-Butylbenzene	1.00 U		1.00	0.310	ug/L	1		11/19/18 19:42
n-Propylbenzene	1.00 U		1.00	0.310	ug/L	1		11/19/18 19:42
o-Xylene	1.00 U		1.00	0.310	ug/L	1		11/19/18 19:42
P & M -Xylene	2.00 U		2.00	0.620	ug/L	1		11/19/18 19:42
sec-Butylbenzene	1.00 U		1.00	0.310	ug/L	1		11/19/18 19:42
Styrene	1.00 U		1.00	0.310	ug/L	1		11/19/18 19:42
tert-Butylbenzene	1.00 U		1.00	0.310	ug/L	1		11/19/18 19:42
Tetrachloroethene	1.00 U		1.00	0.310	ug/L	1		11/19/18 19:42
Toluene	1.00 U		1.00	0.310	ug/L	1		11/19/18 19:42
trans-1,2-Dichloroethene	1.00 U		1.00	0.310	ug/L	1		11/19/18 19:42
trans-1,3-Dichloropropene	1.00 U		1.00	0.310	ug/L	1		11/19/18 19:42
Trichloroethene	1.00 U		1.00	0.310	ug/L	1		11/19/18 19:42
Trichlorofluoromethane	1.00 U		1.00	0.310	ug/L	1		11/19/18 19:42
Vinyl acetate	10.0 U		10.0	3.10	ug/L	1		11/19/18 19:42
Vinyl chloride	0.150 U		0.150	0.0500	ug/L	1		11/19/18 19:42
Xylenes (total)	3.00 U		3.00	1.00	ug/L	1		11/19/18 19:42
Surrogates								
1,2-Dichloroethane-D4 (surr)	104		81-118		%	1		11/19/18 19:42
4-Bromofluorobenzene (surr)	105		85-114		%	1		11/19/18 19:42
Toluene-d8 (surr)	101		89-112		%	1		11/19/18 19:42

Print Date: 11/28/2018 2:21:36PM

Results of **MW2-1-1115**

Client Sample ID: **MW2-1-1115**
Client Project ID: **East 5th Ave**
Lab Sample ID: 1186522002
Lab Project ID: 1186522

Collection Date: 11/15/18 15:58
Received Date: 11/16/18 10:19
Matrix: Water (Surface, Eff., Ground)
Solids (%):
Location:

Results by **Volatile GC/MS**

Batch Information

Analytical Batch: VMS18586
Analytical Method: SW8260C
Analyst: NRO
Analytical Date/Time: 11/19/18 19:42
Container ID: 1186522002-A

Prep Batch: VXX33567
Prep Method: SW5030B
Prep Date/Time: 11/19/18 06:00
Prep Initial Wt./Vol.: 5 mL
Prep Extract Vol: 5 mL

Analytical Batch: VMS18592
Analytical Method: SW8260C
Analyst: NRO
Analytical Date/Time: 11/22/18 21:00
Container ID: 1186522002-A

Prep Batch: VXX33575
Prep Method: SW5030B
Prep Date/Time: 11/22/18 06:00
Prep Initial Wt./Vol.: 5 mL
Prep Extract Vol: 5 mL

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Results of **MW2-2-1115**

Client Sample ID: **MW2-2-1115**
Client Project ID: **East 5th Ave**
Lab Sample ID: 1186522003
Lab Project ID: 1186522

Collection Date: 11/15/18 15:58
Received Date: 11/16/18 10:19
Matrix: Water (Surface, Eff., Ground)
Solids (%):
Location:

Results by **Semivolatile Organic Fuels**

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Diesel Range Organics	0.556	U	0.556	0.167	mg/L	1		11/27/18 12:40
Surrogates								
5a Androstane (surr)	85.5		50-150		%	1		11/27/18 12:40

Batch Information

Analytical Batch: XFC14817
Analytical Method: AK102
Analyst: CMS
Analytical Date/Time: 11/27/18 12:40
Container ID: 1186522003-D

Prep Batch: XXX40945
Prep Method: SW3520C
Prep Date/Time: 11/26/18 08:35
Prep Initial Wt./Vol.: 270 mL
Prep Extract Vol: 1 mL

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Results of **MW2-2-1115**

Client Sample ID: **MW2-2-1115**
Client Project ID: **East 5th Ave**
Lab Sample ID: 1186522003
Lab Project ID: 1186522

Collection Date: 11/15/18 15:58
Received Date: 11/16/18 10:19
Matrix: Water (Surface, Eff., Ground)
Solids (%):
Location:

Results by **Volatile GC/MS**

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
1,1,1,2-Tetrachloroethane	0.500	U	0.500	0.150	ug/L	1		11/19/18 19:57
1,1,1-Trichloroethane	1.00	U	1.00	0.310	ug/L	1		11/19/18 19:57
1,1,2,2-Tetrachloroethane	0.500	U	0.500	0.150	ug/L	1		11/19/18 19:57
1,1,2-Trichloroethane	0.400	U	0.400	0.120	ug/L	1		11/19/18 19:57
1,1-Dichloroethane	1.00	U	1.00	0.310	ug/L	1		11/19/18 19:57
1,1-Dichloroethene	1.00	U	1.00	0.310	ug/L	1		11/19/18 19:57
1,1-Dichloropropene	1.00	U	1.00	0.310	ug/L	1		11/19/18 19:57
1,2,3-Trichlorobenzene	1.00	U	1.00	0.310	ug/L	1		11/19/18 19:57
1,2,3-Trichloropropane	1.00	U	1.00	0.310	ug/L	1		11/19/18 19:57
1,2,4-Trichlorobenzene	1.00	U	1.00	0.310	ug/L	1		11/19/18 19:57
1,2,4-Trimethylbenzene	1.00	U	1.00	0.310	ug/L	1		11/19/18 19:57
1,2-Dibromo-3-chloropropane	10.0	U	10.0	3.10	ug/L	1		11/19/18 19:57
1,2-Dibromoethane	0.0750	U	0.0750	0.0180	ug/L	1		11/19/18 19:57
1,2-Dichlorobenzene	1.00	U	1.00	0.310	ug/L	1		11/19/18 19:57
1,2-Dichloroethane	0.500	U	0.500	0.150	ug/L	1		11/19/18 19:57
1,2-Dichloropropane	1.00	U	1.00	0.310	ug/L	1		11/19/18 19:57
1,3,5-Trimethylbenzene	1.00	U	1.00	0.310	ug/L	1		11/19/18 19:57
1,3-Dichlorobenzene	1.00	U	1.00	0.310	ug/L	1		11/19/18 19:57
1,3-Dichloropropane	0.500	U	0.500	0.150	ug/L	1		11/19/18 19:57
1,4-Dichlorobenzene	0.500	U	0.500	0.150	ug/L	1		11/19/18 19:57
2,2-Dichloropropane	1.00	U	1.00	0.310	ug/L	1		11/19/18 19:57
2-Butanone (MEK)	10.0	U	10.0	3.10	ug/L	1		11/19/18 19:57
2-Chlorotoluene	1.00	U	1.00	0.310	ug/L	1		11/19/18 19:57
2-Hexanone	10.0	U	10.0	3.10	ug/L	1		11/19/18 19:57
4-Chlorotoluene	1.00	U	1.00	0.310	ug/L	1		11/19/18 19:57
4-Isopropyltoluene	1.00	U	1.00	0.310	ug/L	1		11/19/18 19:57
4-Methyl-2-pentanone (MIBK)	10.0	U	10.0	3.10	ug/L	1		11/19/18 19:57
Benzene	0.400	U	0.400	0.120	ug/L	1		11/19/18 19:57
Bromobenzene	1.00	U	1.00	0.310	ug/L	1		11/19/18 19:57
Bromochloromethane	1.00	U	1.00	0.310	ug/L	1		11/19/18 19:57
Bromodichloromethane	0.500	U	0.500	0.150	ug/L	1		11/19/18 19:57
Bromoform	1.00	U	1.00	0.310	ug/L	1		11/19/18 19:57
Bromomethane	5.00	U	5.00	1.50	ug/L	1		11/19/18 19:57
Carbon disulfide	10.0	U	10.0	3.10	ug/L	1		11/19/18 19:57
Carbon tetrachloride	1.00	U	1.00	0.310	ug/L	1		11/19/18 19:57
Chlorobenzene	0.500	U	0.500	0.150	ug/L	1		11/19/18 19:57
Chloroethane	1.00	U	1.00	0.310	ug/L	1		11/19/18 19:57

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Results of **MW2-2-1115**

Client Sample ID: **MW2-2-1115**
Client Project ID: **East 5th Ave**
Lab Sample ID: 1186522003
Lab Project ID: 1186522

Collection Date: 11/15/18 15:58
Received Date: 11/16/18 10:19
Matrix: Water (Surface, Eff., Ground)
Solids (%):
Location:

Results by **Volatile GC/MS**

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Chloroform	1.00 U		1.00	0.310	ug/L	1		11/19/18 19:57
Chloromethane	1.00 U		1.00	0.310	ug/L	1		11/19/18 19:57
cis-1,2-Dichloroethene	1.00 U		1.00	0.310	ug/L	1		11/19/18 19:57
cis-1,3-Dichloropropene	0.500 U		0.500	0.150	ug/L	1		11/19/18 19:57
Dibromochloromethane	0.500 U		0.500	0.150	ug/L	1		11/19/18 19:57
Dibromomethane	1.00 U		1.00	0.310	ug/L	1		11/19/18 19:57
Dichlorodifluoromethane	1.00 U		1.00	0.310	ug/L	1		11/22/18 21:16
Ethylbenzene	1.00 U		1.00	0.310	ug/L	1		11/19/18 19:57
Freon-113	10.0 U		10.0	3.10	ug/L	1		11/19/18 19:57
Hexachlorobutadiene	1.00 U		1.00	0.310	ug/L	1		11/19/18 19:57
Isopropylbenzene (Cumene)	1.00 U		1.00	0.310	ug/L	1		11/19/18 19:57
Methylene chloride	5.00 U		5.00	1.00	ug/L	1		11/19/18 19:57
Methyl-t-butyl ether	10.0 U		10.0	3.10	ug/L	1		11/19/18 19:57
Naphthalene	1.00 U		1.00	0.310	ug/L	1		11/19/18 19:57
n-Butylbenzene	1.00 U		1.00	0.310	ug/L	1		11/19/18 19:57
n-Propylbenzene	1.00 U		1.00	0.310	ug/L	1		11/19/18 19:57
o-Xylene	1.00 U		1.00	0.310	ug/L	1		11/19/18 19:57
P & M -Xylene	2.00 U		2.00	0.620	ug/L	1		11/19/18 19:57
sec-Butylbenzene	1.00 U		1.00	0.310	ug/L	1		11/19/18 19:57
Styrene	1.00 U		1.00	0.310	ug/L	1		11/19/18 19:57
tert-Butylbenzene	1.00 U		1.00	0.310	ug/L	1		11/19/18 19:57
Tetrachloroethene	1.00 U		1.00	0.310	ug/L	1		11/19/18 19:57
Toluene	1.00 U		1.00	0.310	ug/L	1		11/19/18 19:57
trans-1,2-Dichloroethene	1.00 U		1.00	0.310	ug/L	1		11/19/18 19:57
trans-1,3-Dichloropropene	1.00 U		1.00	0.310	ug/L	1		11/19/18 19:57
Trichloroethene	1.00 U		1.00	0.310	ug/L	1		11/19/18 19:57
Trichlorofluoromethane	1.00 U		1.00	0.310	ug/L	1		11/19/18 19:57
Vinyl acetate	10.0 U		10.0	3.10	ug/L	1		11/19/18 19:57
Vinyl chloride	0.150 U		0.150	0.0500	ug/L	1		11/19/18 19:57
Xylenes (total)	3.00 U		3.00	1.00	ug/L	1		11/19/18 19:57
Surrogates								
1,2-Dichloroethane-D4 (surr)	106		81-118		%	1		11/19/18 19:57
4-Bromofluorobenzene (surr)	106		85-114		%	1		11/19/18 19:57
Toluene-d8 (surr)	104		89-112		%	1		11/19/18 19:57

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Results of **MW2-2-1115**

Client Sample ID: **MW2-2-1115**
Client Project ID: **East 5th Ave**
Lab Sample ID: 1186522003
Lab Project ID: 1186522

Collection Date: 11/15/18 15:58
Received Date: 11/16/18 10:19
Matrix: Water (Surface, Eff., Ground)
Solids (%):
Location:

Results by **Volatile GC/MS**

Batch Information

Analytical Batch: VMS18586
Analytical Method: SW8260C
Analyst: NRO
Analytical Date/Time: 11/19/18 19:57
Container ID: 1186522003-A

Prep Batch: VXX33567
Prep Method: SW5030B
Prep Date/Time: 11/19/18 06:00
Prep Initial Wt./Vol.: 5 mL
Prep Extract Vol: 5 mL

Analytical Batch: VMS18592
Analytical Method: SW8260C
Analyst: NRO
Analytical Date/Time: 11/22/18 21:16
Container ID: 1186522003-A

Prep Batch: VXX33575
Prep Method: SW5030B
Prep Date/Time: 11/22/18 06:00
Prep Initial Wt./Vol.: 5 mL
Prep Extract Vol: 5 mL

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Results of **MW3-1114**

Client Sample ID: **MW3-1114**
Client Project ID: **East 5th Ave**
Lab Sample ID: 1186522004
Lab Project ID: 1186522

Collection Date: 11/14/18 14:11
Received Date: 11/16/18 10:19
Matrix: Water (Surface, Eff., Ground)
Solids (%):
Location:

Results by **Semivolatile Organic Fuels**

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Diesel Range Organics	0.566	U	0.566	0.170	mg/L	1		11/27/18 12:51
Surrogates								
5a Androstane (surr)	85.2		50-150		%	1		11/27/18 12:51

Batch Information

Analytical Batch: XFC14817
Analytical Method: AK102
Analyst: CMS
Analytical Date/Time: 11/27/18 12:51
Container ID: 1186522004-D

Prep Batch: XXX40945
Prep Method: SW3520C
Prep Date/Time: 11/26/18 08:35
Prep Initial Wt./Vol.: 265 mL
Prep Extract Vol: 1 mL

Print Date: 11/28/2018 2:21:36PM

Results of **MW3-1114**

Client Sample ID: **MW3-1114**
Client Project ID: **East 5th Ave**
Lab Sample ID: 1186522004
Lab Project ID: 1186522

Collection Date: 11/14/18 14:11
Received Date: 11/16/18 10:19
Matrix: Water (Surface, Eff., Ground)
Solids (%):
Location:

Results by **Volatile GC/MS**

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
1,1,1,2-Tetrachloroethane	0.500	U	0.500	0.150	ug/L	1		11/19/18 20:12
1,1,1-Trichloroethane	1.00	U	1.00	0.310	ug/L	1		11/19/18 20:12
1,1,2,2-Tetrachloroethane	0.500	U	0.500	0.150	ug/L	1		11/19/18 20:12
1,1,2-Trichloroethane	0.400	U	0.400	0.120	ug/L	1		11/19/18 20:12
1,1-Dichloroethane	1.00	U	1.00	0.310	ug/L	1		11/19/18 20:12
1,1-Dichloroethene	1.00	U	1.00	0.310	ug/L	1		11/19/18 20:12
1,1-Dichloropropene	1.00	U	1.00	0.310	ug/L	1		11/19/18 20:12
1,2,3-Trichlorobenzene	1.00	U	1.00	0.310	ug/L	1		11/19/18 20:12
1,2,3-Trichloropropane	1.00	U	1.00	0.310	ug/L	1		11/19/18 20:12
1,2,4-Trichlorobenzene	1.00	U	1.00	0.310	ug/L	1		11/19/18 20:12
1,2,4-Trimethylbenzene	1.00	U	1.00	0.310	ug/L	1		11/19/18 20:12
1,2-Dibromo-3-chloropropane	10.0	U	10.0	3.10	ug/L	1		11/19/18 20:12
1,2-Dibromoethane	0.0750	U	0.0750	0.0180	ug/L	1		11/19/18 20:12
1,2-Dichlorobenzene	1.00	U	1.00	0.310	ug/L	1		11/19/18 20:12
1,2-Dichloroethane	0.500	U	0.500	0.150	ug/L	1		11/19/18 20:12
1,2-Dichloropropane	1.00	U	1.00	0.310	ug/L	1		11/19/18 20:12
1,3,5-Trimethylbenzene	1.00	U	1.00	0.310	ug/L	1		11/19/18 20:12
1,3-Dichlorobenzene	1.00	U	1.00	0.310	ug/L	1		11/19/18 20:12
1,3-Dichloropropane	0.500	U	0.500	0.150	ug/L	1		11/19/18 20:12
1,4-Dichlorobenzene	0.500	U	0.500	0.150	ug/L	1		11/19/18 20:12
2,2-Dichloropropane	1.00	U	1.00	0.310	ug/L	1		11/19/18 20:12
2-Butanone (MEK)	10.0	U	10.0	3.10	ug/L	1		11/19/18 20:12
2-Chlorotoluene	1.00	U	1.00	0.310	ug/L	1		11/19/18 20:12
2-Hexanone	10.0	U	10.0	3.10	ug/L	1		11/19/18 20:12
4-Chlorotoluene	1.00	U	1.00	0.310	ug/L	1		11/19/18 20:12
4-Isopropyltoluene	1.00	U	1.00	0.310	ug/L	1		11/19/18 20:12
4-Methyl-2-pentanone (MIBK)	10.0	U	10.0	3.10	ug/L	1		11/19/18 20:12
Benzene	0.400	U	0.400	0.120	ug/L	1		11/19/18 20:12
Bromobenzene	1.00	U	1.00	0.310	ug/L	1		11/19/18 20:12
Bromochloromethane	1.00	U	1.00	0.310	ug/L	1		11/19/18 20:12
Bromodichloromethane	0.500	U	0.500	0.150	ug/L	1		11/19/18 20:12
Bromoform	1.00	U	1.00	0.310	ug/L	1		11/19/18 20:12
Bromomethane	5.00	U	5.00	1.50	ug/L	1		11/19/18 20:12
Carbon disulfide	10.0	U	10.0	3.10	ug/L	1		11/19/18 20:12
Carbon tetrachloride	1.00	U	1.00	0.310	ug/L	1		11/19/18 20:12
Chlorobenzene	0.500	U	0.500	0.150	ug/L	1		11/19/18 20:12
Chloroethane	1.00	U	1.00	0.310	ug/L	1		11/19/18 20:12

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Results of **MW3-1114**

Client Sample ID: **MW3-1114**
Client Project ID: **East 5th Ave**
Lab Sample ID: 1186522004
Lab Project ID: 1186522

Collection Date: 11/14/18 14:11
Received Date: 11/16/18 10:19
Matrix: Water (Surface, Eff., Ground)
Solids (%):
Location:

Results by **Volatile GC/MS**

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Chloroform	1.00 U		1.00	0.310	ug/L	1		11/19/18 20:12
Chloromethane	1.00 U		1.00	0.310	ug/L	1		11/19/18 20:12
cis-1,2-Dichloroethene	1.00 U		1.00	0.310	ug/L	1		11/19/18 20:12
cis-1,3-Dichloropropene	0.500 U		0.500	0.150	ug/L	1		11/19/18 20:12
Dibromochloromethane	0.500 U		0.500	0.150	ug/L	1		11/19/18 20:12
Dibromomethane	1.00 U		1.00	0.310	ug/L	1		11/19/18 20:12
Dichlorodifluoromethane	1.00 U		1.00	0.310	ug/L	1		11/22/18 21:32
Ethylbenzene	1.00 U		1.00	0.310	ug/L	1		11/19/18 20:12
Freon-113	10.0 U		10.0	3.10	ug/L	1		11/19/18 20:12
Hexachlorobutadiene	1.00 U		1.00	0.310	ug/L	1		11/19/18 20:12
Isopropylbenzene (Cumene)	1.00 U		1.00	0.310	ug/L	1		11/19/18 20:12
Methylene chloride	5.00 U		5.00	1.00	ug/L	1		11/19/18 20:12
Methyl-t-butyl ether	10.0 U		10.0	3.10	ug/L	1		11/19/18 20:12
Naphthalene	1.00 U		1.00	0.310	ug/L	1		11/19/18 20:12
n-Butylbenzene	1.00 U		1.00	0.310	ug/L	1		11/19/18 20:12
n-Propylbenzene	1.00 U		1.00	0.310	ug/L	1		11/19/18 20:12
o-Xylene	1.00 U		1.00	0.310	ug/L	1		11/19/18 20:12
P & M -Xylene	2.00 U		2.00	0.620	ug/L	1		11/19/18 20:12
sec-Butylbenzene	1.00 U		1.00	0.310	ug/L	1		11/19/18 20:12
Styrene	1.00 U		1.00	0.310	ug/L	1		11/19/18 20:12
tert-Butylbenzene	1.00 U		1.00	0.310	ug/L	1		11/19/18 20:12
Tetrachloroethene	1.00 U		1.00	0.310	ug/L	1		11/19/18 20:12
Toluene	1.00 U		1.00	0.310	ug/L	1		11/19/18 20:12
trans-1,2-Dichloroethene	1.00 U		1.00	0.310	ug/L	1		11/19/18 20:12
trans-1,3-Dichloropropene	1.00 U		1.00	0.310	ug/L	1		11/19/18 20:12
Trichloroethene	1.00 U		1.00	0.310	ug/L	1		11/19/18 20:12
Trichlorofluoromethane	1.00 U		1.00	0.310	ug/L	1		11/19/18 20:12
Vinyl acetate	10.0 U		10.0	3.10	ug/L	1		11/19/18 20:12
Vinyl chloride	0.150 U		0.150	0.0500	ug/L	1		11/19/18 20:12
Xylenes (total)	3.00 U		3.00	1.00	ug/L	1		11/19/18 20:12
Surrogates								
1,2-Dichloroethane-D4 (surr)	103		81-118		%	1		11/19/18 20:12
4-Bromofluorobenzene (surr)	105		85-114		%	1		11/19/18 20:12
Toluene-d8 (surr)	102		89-112		%	1		11/19/18 20:12

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Results of **MW3-1114**

Client Sample ID: **MW3-1114**
Client Project ID: **East 5th Ave**
Lab Sample ID: 1186522004
Lab Project ID: 1186522

Collection Date: 11/14/18 14:11
Received Date: 11/16/18 10:19
Matrix: Water (Surface, Eff., Ground)
Solids (%):
Location:

Results by **Volatile GC/MS**

Batch Information

Analytical Batch: VMS18586
Analytical Method: SW8260C
Analyst: NRO
Analytical Date/Time: 11/19/18 20:12
Container ID: 1186522004-A

Prep Batch: VXX33567
Prep Method: SW5030B
Prep Date/Time: 11/19/18 06:00
Prep Initial Wt./Vol.: 5 mL
Prep Extract Vol: 5 mL

Analytical Batch: VMS18592
Analytical Method: SW8260C
Analyst: NRO
Analytical Date/Time: 11/22/18 21:32
Container ID: 1186522004-A

Prep Batch: VXX33575
Prep Method: SW5030B
Prep Date/Time: 11/22/18 06:00
Prep Initial Wt./Vol.: 5 mL
Prep Extract Vol: 5 mL

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Results of **MW4-1-1114**

Client Sample ID: **MW4-1-1114**
Client Project ID: **East 5th Ave**
Lab Sample ID: 1186522005
Lab Project ID: 1186522

Collection Date: 11/14/18 12:06
Received Date: 11/16/18 10:19
Matrix: Water (Surface, Eff., Ground)
Solids (%):
Location:

Results by **Semivolatile Organic Fuels**

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Diesel Range Organics	0.577	U	0.577	0.173	mg/L	1		11/27/18 13:01
Surrogates								
5a Androstane (surr)	83		50-150		%	1		11/27/18 13:01

Batch Information

Analytical Batch: XFC14817
Analytical Method: AK102
Analyst: CMS
Analytical Date/Time: 11/27/18 13:01
Container ID: 1186522005-D

Prep Batch: XXX40945
Prep Method: SW3520C
Prep Date/Time: 11/26/18 08:35
Prep Initial Wt./Vol.: 260 mL
Prep Extract Vol: 1 mL

Print Date: 11/28/2018 2:21:36PM

Results of **MW4-1-1114**

Client Sample ID: **MW4-1-1114**
Client Project ID: **East 5th Ave**
Lab Sample ID: 1186522005
Lab Project ID: 1186522

Collection Date: 11/14/18 12:06
Received Date: 11/16/18 10:19
Matrix: Water (Surface, Eff., Ground)
Solids (%):
Location:

Results by **Volatile GC/MS**

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
1,1,1,2-Tetrachloroethane	0.500	U	0.500	0.150	ug/L	1		11/19/18 20:27
1,1,1-Trichloroethane	1.00	U	1.00	0.310	ug/L	1		11/19/18 20:27
1,1,2,2-Tetrachloroethane	0.500	U	0.500	0.150	ug/L	1		11/19/18 20:27
1,1,2-Trichloroethane	0.400	U	0.400	0.120	ug/L	1		11/19/18 20:27
1,1-Dichloroethane	1.00	U	1.00	0.310	ug/L	1		11/19/18 20:27
1,1-Dichloroethene	1.00	U	1.00	0.310	ug/L	1		11/19/18 20:27
1,1-Dichloropropene	1.00	U	1.00	0.310	ug/L	1		11/19/18 20:27
1,2,3-Trichlorobenzene	1.00	U	1.00	0.310	ug/L	1		11/19/18 20:27
1,2,3-Trichloropropane	1.00	U	1.00	0.310	ug/L	1		11/19/18 20:27
1,2,4-Trichlorobenzene	1.00	U	1.00	0.310	ug/L	1		11/19/18 20:27
1,2,4-Trimethylbenzene	5.91		1.00	0.310	ug/L	1		11/19/18 20:27
1,2-Dibromo-3-chloropropane	10.0	U	10.0	3.10	ug/L	1		11/19/18 20:27
1,2-Dibromoethane	0.0750	U	0.0750	0.0180	ug/L	1		11/19/18 20:27
1,2-Dichlorobenzene	1.00	U	1.00	0.310	ug/L	1		11/19/18 20:27
1,2-Dichloroethane	0.500	U	0.500	0.150	ug/L	1		11/19/18 20:27
1,2-Dichloropropane	1.00	U	1.00	0.310	ug/L	1		11/19/18 20:27
1,3,5-Trimethylbenzene	15.7		1.00	0.310	ug/L	1		11/19/18 20:27
1,3-Dichlorobenzene	1.00	U	1.00	0.310	ug/L	1		11/19/18 20:27
1,3-Dichloropropane	0.500	U	0.500	0.150	ug/L	1		11/19/18 20:27
1,4-Dichlorobenzene	0.500	U	0.500	0.150	ug/L	1		11/19/18 20:27
2,2-Dichloropropane	1.00	U	1.00	0.310	ug/L	1		11/19/18 20:27
2-Butanone (MEK)	10.0	U	10.0	3.10	ug/L	1		11/19/18 20:27
2-Chlorotoluene	1.00	U	1.00	0.310	ug/L	1		11/19/18 20:27
2-Hexanone	10.0	U	10.0	3.10	ug/L	1		11/19/18 20:27
4-Chlorotoluene	1.00	U	1.00	0.310	ug/L	1		11/19/18 20:27
4-Isopropyltoluene	2.13		1.00	0.310	ug/L	1		11/19/18 20:27
4-Methyl-2-pentanone (MIBK)	10.0	U	10.0	3.10	ug/L	1		11/19/18 20:27
Benzene	0.400	U	0.400	0.120	ug/L	1		11/19/18 20:27
Bromobenzene	1.00	U	1.00	0.310	ug/L	1		11/19/18 20:27
Bromochloromethane	1.00	U	1.00	0.310	ug/L	1		11/19/18 20:27
Bromodichloromethane	0.500	U	0.500	0.150	ug/L	1		11/19/18 20:27
Bromoform	1.00	U	1.00	0.310	ug/L	1		11/19/18 20:27
Bromomethane	5.00	U	5.00	1.50	ug/L	1		11/19/18 20:27
Carbon disulfide	10.0	U	10.0	3.10	ug/L	1		11/19/18 20:27
Carbon tetrachloride	1.00	U	1.00	0.310	ug/L	1		11/19/18 20:27
Chlorobenzene	0.500	U	0.500	0.150	ug/L	1		11/19/18 20:27
Chloroethane	1.00	U	1.00	0.310	ug/L	1		11/19/18 20:27

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Results of **MW4-1-1114**

Client Sample ID: **MW4-1-1114**
Client Project ID: **East 5th Ave**
Lab Sample ID: 1186522005
Lab Project ID: 1186522

Collection Date: 11/14/18 12:06
Received Date: 11/16/18 10:19
Matrix: Water (Surface, Eff., Ground)
Solids (%):
Location:

Results by **Volatile GC/MS**

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Chloroform	1.00 U		1.00	0.310	ug/L	1		11/19/18 20:27
Chloromethane	1.00 U		1.00	0.310	ug/L	1		11/19/18 20:27
cis-1,2-Dichloroethene	1.00 U		1.00	0.310	ug/L	1		11/19/18 20:27
cis-1,3-Dichloropropene	0.500 U		0.500	0.150	ug/L	1		11/19/18 20:27
Dibromochloromethane	0.500 U		0.500	0.150	ug/L	1		11/19/18 20:27
Dibromomethane	1.00 U		1.00	0.310	ug/L	1		11/19/18 20:27
Dichlorodifluoromethane	1.00 U		1.00	0.310	ug/L	1		11/22/18 21:48
Ethylbenzene	1.00 U		1.00	0.310	ug/L	1		11/19/18 20:27
Freon-113	10.0 U		10.0	3.10	ug/L	1		11/19/18 20:27
Hexachlorobutadiene	1.00 U		1.00	0.310	ug/L	1		11/19/18 20:27
Isopropylbenzene (Cumene)	1.00 U		1.00	0.310	ug/L	1		11/19/18 20:27
Methylene chloride	5.00 U		5.00	1.00	ug/L	1		11/19/18 20:27
Methyl-t-butyl ether	10.0 U		10.0	3.10	ug/L	1		11/19/18 20:27
Naphthalene	1.00 U		1.00	0.310	ug/L	1		11/19/18 20:27
n-Butylbenzene	1.00 U		1.00	0.310	ug/L	1		11/19/18 20:27
n-Propylbenzene	2.00		1.00	0.310	ug/L	1		11/19/18 20:27
o-Xylene	1.00 U		1.00	0.310	ug/L	1		11/19/18 20:27
P & M -Xylene	2.00 U		2.00	0.620	ug/L	1		11/19/18 20:27
sec-Butylbenzene	1.00 U		1.00	0.310	ug/L	1		11/19/18 20:27
Styrene	1.00 U		1.00	0.310	ug/L	1		11/19/18 20:27
tert-Butylbenzene	1.00 U		1.00	0.310	ug/L	1		11/19/18 20:27
Tetrachloroethene	1.00 U		1.00	0.310	ug/L	1		11/19/18 20:27
Toluene	1.00 U		1.00	0.310	ug/L	1		11/19/18 20:27
trans-1,2-Dichloroethene	1.00 U		1.00	0.310	ug/L	1		11/19/18 20:27
trans-1,3-Dichloropropene	1.00 U		1.00	0.310	ug/L	1		11/19/18 20:27
Trichloroethene	1.00 U		1.00	0.310	ug/L	1		11/19/18 20:27
Trichlorofluoromethane	1.00 U		1.00	0.310	ug/L	1		11/19/18 20:27
Vinyl acetate	10.0 U		10.0	3.10	ug/L	1		11/19/18 20:27
Vinyl chloride	0.150 U		0.150	0.0500	ug/L	1		11/19/18 20:27
Xylenes (total)	3.00 U		3.00	1.00	ug/L	1		11/19/18 20:27
Surrogates								
1,2-Dichloroethane-D4 (surr)	105		81-118		%	1		11/19/18 20:27
4-Bromofluorobenzene (surr)	105		85-114		%	1		11/19/18 20:27
Toluene-d8 (surr)	102		89-112		%	1		11/19/18 20:27

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Results of **MW4-1-1114**

Client Sample ID: **MW4-1-1114**
Client Project ID: **East 5th Ave**
Lab Sample ID: 1186522005
Lab Project ID: 1186522

Collection Date: 11/14/18 12:06
Received Date: 11/16/18 10:19
Matrix: Water (Surface, Eff., Ground)
Solids (%):
Location:

Results by **Volatile GC/MS**

Batch Information

Analytical Batch: VMS18586
Analytical Method: SW8260C
Analyst: NRO
Analytical Date/Time: 11/19/18 20:27
Container ID: 1186522005-A

Prep Batch: VXX33567
Prep Method: SW5030B
Prep Date/Time: 11/19/18 06:00
Prep Initial Wt./Vol.: 5 mL
Prep Extract Vol: 5 mL

Analytical Batch: VMS18592
Analytical Method: SW8260C
Analyst: NRO
Analytical Date/Time: 11/22/18 21:48
Container ID: 1186522005-A

Prep Batch: VXX33575
Prep Method: SW5030B
Prep Date/Time: 11/22/18 06:00
Prep Initial Wt./Vol.: 5 mL
Prep Extract Vol: 5 mL

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Results of **MW4-2-1114**

Client Sample ID: **MW4-2-1114**
Client Project ID: **East 5th Ave**
Lab Sample ID: 1186522006
Lab Project ID: 1186522

Collection Date: 11/14/18 12:06
Received Date: 11/16/18 10:19
Matrix: Water (Surface, Eff., Ground)
Solids (%):
Location:

Results by **Semivolatile Organic Fuels**

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Diesel Range Organics	0.577	U	0.577	0.173	mg/L	1		11/27/18 13:11
Surrogates								
5a Androstane (surr)	85.1		50-150		%	1		11/27/18 13:11

Batch Information

Analytical Batch: XFC14817
Analytical Method: AK102
Analyst: CMS
Analytical Date/Time: 11/27/18 13:11
Container ID: 1186522006-D

Prep Batch: XXX40945
Prep Method: SW3520C
Prep Date/Time: 11/26/18 08:35
Prep Initial Wt./Vol.: 260 mL
Prep Extract Vol: 1 mL

Print Date: 11/28/2018 2:21:36PM

Results of **MW4-2-1114**

Client Sample ID: **MW4-2-1114**
Client Project ID: **East 5th Ave**
Lab Sample ID: 1186522006
Lab Project ID: 1186522

Collection Date: 11/14/18 12:06
Received Date: 11/16/18 10:19
Matrix: Water (Surface, Eff., Ground)
Solids (%):
Location:

Results by **Volatile GC/MS**

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
1,1,1,2-Tetrachloroethane	0.500	U	0.500	0.150	ug/L	1		11/19/18 20:43
1,1,1-Trichloroethane	1.00	U	1.00	0.310	ug/L	1		11/19/18 20:43
1,1,2,2-Tetrachloroethane	0.500	U	0.500	0.150	ug/L	1		11/19/18 20:43
1,1,2-Trichloroethane	0.400	U	0.400	0.120	ug/L	1		11/19/18 20:43
1,1-Dichloroethane	1.00	U	1.00	0.310	ug/L	1		11/19/18 20:43
1,1-Dichloroethene	1.00	U	1.00	0.310	ug/L	1		11/19/18 20:43
1,1-Dichloropropene	1.00	U	1.00	0.310	ug/L	1		11/19/18 20:43
1,2,3-Trichlorobenzene	1.00	U	1.00	0.310	ug/L	1		11/19/18 20:43
1,2,3-Trichloropropane	1.00	U	1.00	0.310	ug/L	1		11/19/18 20:43
1,2,4-Trichlorobenzene	1.00	U	1.00	0.310	ug/L	1		11/19/18 20:43
1,2,4-Trimethylbenzene	5.96		1.00	0.310	ug/L	1		11/19/18 20:43
1,2-Dibromo-3-chloropropane	10.0	U	10.0	3.10	ug/L	1		11/19/18 20:43
1,2-Dibromoethane	0.0750	U	0.0750	0.0180	ug/L	1		11/19/18 20:43
1,2-Dichlorobenzene	1.00	U	1.00	0.310	ug/L	1		11/19/18 20:43
1,2-Dichloroethane	0.500	U	0.500	0.150	ug/L	1		11/19/18 20:43
1,2-Dichloropropane	1.00	U	1.00	0.310	ug/L	1		11/19/18 20:43
1,3,5-Trimethylbenzene	16.1		1.00	0.310	ug/L	1		11/19/18 20:43
1,3-Dichlorobenzene	1.00	U	1.00	0.310	ug/L	1		11/19/18 20:43
1,3-Dichloropropane	0.500	U	0.500	0.150	ug/L	1		11/19/18 20:43
1,4-Dichlorobenzene	0.500	U	0.500	0.150	ug/L	1		11/19/18 20:43
2,2-Dichloropropane	1.00	U	1.00	0.310	ug/L	1		11/19/18 20:43
2-Butanone (MEK)	10.0	U	10.0	3.10	ug/L	1		11/19/18 20:43
2-Chlorotoluene	1.00	U	1.00	0.310	ug/L	1		11/19/18 20:43
2-Hexanone	10.0	U	10.0	3.10	ug/L	1		11/19/18 20:43
4-Chlorotoluene	1.00	U	1.00	0.310	ug/L	1		11/19/18 20:43
4-Isopropyltoluene	2.18		1.00	0.310	ug/L	1		11/19/18 20:43
4-Methyl-2-pentanone (MIBK)	10.0	U	10.0	3.10	ug/L	1		11/19/18 20:43
Benzene	0.400	U	0.400	0.120	ug/L	1		11/19/18 20:43
Bromobenzene	1.00	U	1.00	0.310	ug/L	1		11/19/18 20:43
Bromochloromethane	1.00	U	1.00	0.310	ug/L	1		11/19/18 20:43
Bromodichloromethane	0.500	U	0.500	0.150	ug/L	1		11/19/18 20:43
Bromoform	1.00	U	1.00	0.310	ug/L	1		11/19/18 20:43
Bromomethane	5.00	U	5.00	1.50	ug/L	1		11/19/18 20:43
Carbon disulfide	10.0	U	10.0	3.10	ug/L	1		11/19/18 20:43
Carbon tetrachloride	1.00	U	1.00	0.310	ug/L	1		11/19/18 20:43
Chlorobenzene	0.500	U	0.500	0.150	ug/L	1		11/19/18 20:43
Chloroethane	1.00	U	1.00	0.310	ug/L	1		11/19/18 20:43

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Results of **MW4-2-1114**

Client Sample ID: **MW4-2-1114**
Client Project ID: **East 5th Ave**
Lab Sample ID: 1186522006
Lab Project ID: 1186522

Collection Date: 11/14/18 12:06
Received Date: 11/16/18 10:19
Matrix: Water (Surface, Eff., Ground)
Solids (%):
Location:

Results by **Volatile GC/MS**

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Chloroform	1.00 U		1.00	0.310	ug/L	1		11/19/18 20:43
Chloromethane	1.00 U		1.00	0.310	ug/L	1		11/19/18 20:43
cis-1,2-Dichloroethene	1.00 U		1.00	0.310	ug/L	1		11/19/18 20:43
cis-1,3-Dichloropropene	0.500 U		0.500	0.150	ug/L	1		11/19/18 20:43
Dibromochloromethane	0.500 U		0.500	0.150	ug/L	1		11/19/18 20:43
Dibromomethane	1.00 U		1.00	0.310	ug/L	1		11/19/18 20:43
Dichlorodifluoromethane	1.00 U		1.00	0.310	ug/L	1		11/22/18 22:04
Ethylbenzene	1.00 U		1.00	0.310	ug/L	1		11/19/18 20:43
Freon-113	10.0 U		10.0	3.10	ug/L	1		11/19/18 20:43
Hexachlorobutadiene	1.00 U		1.00	0.310	ug/L	1		11/19/18 20:43
Isopropylbenzene (Cumene)	1.00 U		1.00	0.310	ug/L	1		11/19/18 20:43
Methylene chloride	5.00 U		5.00	1.00	ug/L	1		11/19/18 20:43
Methyl-t-butyl ether	10.0 U		10.0	3.10	ug/L	1		11/19/18 20:43
Naphthalene	1.00 U		1.00	0.310	ug/L	1		11/19/18 20:43
n-Butylbenzene	1.00 U		1.00	0.310	ug/L	1		11/19/18 20:43
n-Propylbenzene	2.04		1.00	0.310	ug/L	1		11/19/18 20:43
o-Xylene	1.00 U		1.00	0.310	ug/L	1		11/19/18 20:43
P & M -Xylene	2.00 U		2.00	0.620	ug/L	1		11/19/18 20:43
sec-Butylbenzene	1.00 U		1.00	0.310	ug/L	1		11/19/18 20:43
Styrene	1.00 U		1.00	0.310	ug/L	1		11/19/18 20:43
tert-Butylbenzene	1.00 U		1.00	0.310	ug/L	1		11/19/18 20:43
Tetrachloroethene	1.00 U		1.00	0.310	ug/L	1		11/19/18 20:43
Toluene	1.00 U		1.00	0.310	ug/L	1		11/19/18 20:43
trans-1,2-Dichloroethene	1.00 U		1.00	0.310	ug/L	1		11/19/18 20:43
trans-1,3-Dichloropropene	1.00 U		1.00	0.310	ug/L	1		11/19/18 20:43
Trichloroethene	1.00 U		1.00	0.310	ug/L	1		11/19/18 20:43
Trichlorofluoromethane	1.00 U		1.00	0.310	ug/L	1		11/19/18 20:43
Vinyl acetate	10.0 U		10.0	3.10	ug/L	1		11/19/18 20:43
Vinyl chloride	0.150 U		0.150	0.0500	ug/L	1		11/19/18 20:43
Xylenes (total)	3.00 U		3.00	1.00	ug/L	1		11/19/18 20:43
Surrogates								
1,2-Dichloroethane-D4 (surr)	104		81-118		%	1		11/19/18 20:43
4-Bromofluorobenzene (surr)	103		85-114		%	1		11/19/18 20:43
Toluene-d8 (surr)	101		89-112		%	1		11/19/18 20:43

Print Date: 11/28/2018 2:21:36PM

Results of **MW4-2-1114**

Client Sample ID: **MW4-2-1114**
Client Project ID: **East 5th Ave**
Lab Sample ID: 1186522006
Lab Project ID: 1186522

Collection Date: 11/14/18 12:06
Received Date: 11/16/18 10:19
Matrix: Water (Surface, Eff., Ground)
Solids (%):
Location:

Results by **Volatile GC/MS**

Batch Information

Analytical Batch: VMS18586
Analytical Method: SW8260C
Analyst: NRO
Analytical Date/Time: 11/19/18 20:43
Container ID: 1186522006-A

Prep Batch: VXX33567
Prep Method: SW5030B
Prep Date/Time: 11/19/18 06:00
Prep Initial Wt./Vol.: 5 mL
Prep Extract Vol: 5 mL

Analytical Batch: VMS18592
Analytical Method: SW8260C
Analyst: NRO
Analytical Date/Time: 11/22/18 22:04
Container ID: 1186522006-A

Prep Batch: VXX33575
Prep Method: SW5030B
Prep Date/Time: 11/22/18 06:00
Prep Initial Wt./Vol.: 5 mL
Prep Extract Vol: 5 mL

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Results of **MW5-1114**

Client Sample ID: **MW5-1114**
Client Project ID: **East 5th Ave**
Lab Sample ID: 1186522007
Lab Project ID: 1186522

Collection Date: 11/14/18 16:13
Received Date: 11/16/18 10:19
Matrix: Water (Surface, Eff., Ground)
Solids (%):
Location:

Results by **Semivolatile Organic Fuels**

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Diesel Range Organics	0.566	U	0.566	0.170	mg/L	1		11/27/18 13:20
Surrogates								
5a Androstane (surr)	80.9		50-150		%	1		11/27/18 13:20

Batch Information

Analytical Batch: XFC14817
Analytical Method: AK102
Analyst: CMS
Analytical Date/Time: 11/27/18 13:20
Container ID: 1186522007-D

Prep Batch: XXX40945
Prep Method: SW3520C
Prep Date/Time: 11/26/18 08:35
Prep Initial Wt./Vol.: 265 mL
Prep Extract Vol: 1 mL

Print Date: 11/28/2018 2:21:36PM

Results of **MW5-1114**

Client Sample ID: **MW5-1114**
Client Project ID: **East 5th Ave**
Lab Sample ID: 1186522007
Lab Project ID: 1186522

Collection Date: 11/14/18 16:13
Received Date: 11/16/18 10:19
Matrix: Water (Surface, Eff., Ground)
Solids (%):
Location:

Results by **Volatile GC/MS**

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
1,1,1,2-Tetrachloroethane	0.500	U	0.500	0.150	ug/L	1		11/19/18 20:58
1,1,1-Trichloroethane	1.00	U	1.00	0.310	ug/L	1		11/19/18 20:58
1,1,2,2-Tetrachloroethane	0.500	U	0.500	0.150	ug/L	1		11/19/18 20:58
1,1,2-Trichloroethane	0.400	U	0.400	0.120	ug/L	1		11/19/18 20:58
1,1-Dichloroethane	1.00	U	1.00	0.310	ug/L	1		11/19/18 20:58
1,1-Dichloroethene	1.00	U	1.00	0.310	ug/L	1		11/19/18 20:58
1,1-Dichloropropene	1.00	U	1.00	0.310	ug/L	1		11/19/18 20:58
1,2,3-Trichlorobenzene	1.00	U	1.00	0.310	ug/L	1		11/19/18 20:58
1,2,3-Trichloropropane	1.00	U	1.00	0.310	ug/L	1		11/19/18 20:58
1,2,4-Trichlorobenzene	1.00	U	1.00	0.310	ug/L	1		11/19/18 20:58
1,2,4-Trimethylbenzene	1.00	U	1.00	0.310	ug/L	1		11/19/18 20:58
1,2-Dibromo-3-chloropropane	10.0	U	10.0	3.10	ug/L	1		11/19/18 20:58
1,2-Dibromoethane	0.0750	U	0.0750	0.0180	ug/L	1		11/19/18 20:58
1,2-Dichlorobenzene	1.00	U	1.00	0.310	ug/L	1		11/19/18 20:58
1,2-Dichloroethane	0.500	U	0.500	0.150	ug/L	1		11/19/18 20:58
1,2-Dichloropropane	1.00	U	1.00	0.310	ug/L	1		11/19/18 20:58
1,3,5-Trimethylbenzene	1.00	U	1.00	0.310	ug/L	1		11/19/18 20:58
1,3-Dichlorobenzene	1.00	U	1.00	0.310	ug/L	1		11/19/18 20:58
1,3-Dichloropropane	0.500	U	0.500	0.150	ug/L	1		11/19/18 20:58
1,4-Dichlorobenzene	0.500	U	0.500	0.150	ug/L	1		11/19/18 20:58
2,2-Dichloropropane	1.00	U	1.00	0.310	ug/L	1		11/19/18 20:58
2-Butanone (MEK)	10.0	U	10.0	3.10	ug/L	1		11/19/18 20:58
2-Chlorotoluene	1.00	U	1.00	0.310	ug/L	1		11/19/18 20:58
2-Hexanone	10.0	U	10.0	3.10	ug/L	1		11/19/18 20:58
4-Chlorotoluene	1.00	U	1.00	0.310	ug/L	1		11/19/18 20:58
4-Isopropyltoluene	1.00	U	1.00	0.310	ug/L	1		11/19/18 20:58
4-Methyl-2-pentanone (MIBK)	10.0	U	10.0	3.10	ug/L	1		11/19/18 20:58
Benzene	0.400	U	0.400	0.120	ug/L	1		11/19/18 20:58
Bromobenzene	1.00	U	1.00	0.310	ug/L	1		11/19/18 20:58
Bromochloromethane	1.00	U	1.00	0.310	ug/L	1		11/19/18 20:58
Bromodichloromethane	0.500	U	0.500	0.150	ug/L	1		11/19/18 20:58
Bromoform	1.00	U	1.00	0.310	ug/L	1		11/19/18 20:58
Bromomethane	5.00	U	5.00	1.50	ug/L	1		11/19/18 20:58
Carbon disulfide	10.0	U	10.0	3.10	ug/L	1		11/19/18 20:58
Carbon tetrachloride	1.00	U	1.00	0.310	ug/L	1		11/19/18 20:58
Chlorobenzene	0.500	U	0.500	0.150	ug/L	1		11/19/18 20:58
Chloroethane	1.00	U	1.00	0.310	ug/L	1		11/19/18 20:58

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Results of **MW5-1114**

Client Sample ID: **MW5-1114**
Client Project ID: **East 5th Ave**
Lab Sample ID: 1186522007
Lab Project ID: 1186522

Collection Date: 11/14/18 16:13
Received Date: 11/16/18 10:19
Matrix: Water (Surface, Eff., Ground)
Solids (%):
Location:

Results by **Volatile GC/MS**

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Chloroform	1.00 U		1.00	0.310	ug/L	1		11/19/18 20:58
Chloromethane	1.00 U		1.00	0.310	ug/L	1		11/19/18 20:58
cis-1,2-Dichloroethene	1.00 U		1.00	0.310	ug/L	1		11/19/18 20:58
cis-1,3-Dichloropropene	0.500 U		0.500	0.150	ug/L	1		11/19/18 20:58
Dibromochloromethane	0.500 U		0.500	0.150	ug/L	1		11/19/18 20:58
Dibromomethane	1.00 U		1.00	0.310	ug/L	1		11/19/18 20:58
Dichlorodifluoromethane	1.00 U		1.00	0.310	ug/L	1		11/22/18 22:20
Ethylbenzene	1.00 U		1.00	0.310	ug/L	1		11/19/18 20:58
Freon-113	10.0 U		10.0	3.10	ug/L	1		11/19/18 20:58
Hexachlorobutadiene	1.00 U		1.00	0.310	ug/L	1		11/19/18 20:58
Isopropylbenzene (Cumene)	1.00 U		1.00	0.310	ug/L	1		11/19/18 20:58
Methylene chloride	5.00 U		5.00	1.00	ug/L	1		11/19/18 20:58
Methyl-t-butyl ether	10.0 U		10.0	3.10	ug/L	1		11/19/18 20:58
Naphthalene	1.00 U		1.00	0.310	ug/L	1		11/19/18 20:58
n-Butylbenzene	1.00 U		1.00	0.310	ug/L	1		11/19/18 20:58
n-Propylbenzene	1.00 U		1.00	0.310	ug/L	1		11/19/18 20:58
o-Xylene	1.00 U		1.00	0.310	ug/L	1		11/19/18 20:58
P & M -Xylene	2.00 U		2.00	0.620	ug/L	1		11/19/18 20:58
sec-Butylbenzene	1.00 U		1.00	0.310	ug/L	1		11/19/18 20:58
Styrene	1.00 U		1.00	0.310	ug/L	1		11/19/18 20:58
tert-Butylbenzene	1.00 U		1.00	0.310	ug/L	1		11/19/18 20:58
Tetrachloroethene	1.00 U		1.00	0.310	ug/L	1		11/19/18 20:58
Toluene	1.00 U		1.00	0.310	ug/L	1		11/19/18 20:58
trans-1,2-Dichloroethene	1.00 U		1.00	0.310	ug/L	1		11/19/18 20:58
trans-1,3-Dichloropropene	1.00 U		1.00	0.310	ug/L	1		11/19/18 20:58
Trichloroethene	1.00 U		1.00	0.310	ug/L	1		11/19/18 20:58
Trichlorofluoromethane	1.00 U		1.00	0.310	ug/L	1		11/19/18 20:58
Vinyl acetate	10.0 U		10.0	3.10	ug/L	1		11/19/18 20:58
Vinyl chloride	0.150 U		0.150	0.0500	ug/L	1		11/19/18 20:58
Xylenes (total)	3.00 U		3.00	1.00	ug/L	1		11/19/18 20:58
Surrogates								
1,2-Dichloroethane-D4 (surr)	103		81-118		%	1		11/19/18 20:58
4-Bromofluorobenzene (surr)	106		85-114		%	1		11/19/18 20:58
Toluene-d8 (surr)	102		89-112		%	1		11/19/18 20:58

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Results of **MW5-1114**

Client Sample ID: **MW5-1114**
Client Project ID: **East 5th Ave**
Lab Sample ID: 1186522007
Lab Project ID: 1186522

Collection Date: 11/14/18 16:13
Received Date: 11/16/18 10:19
Matrix: Water (Surface, Eff., Ground)
Solids (%):
Location:

Results by **Volatile GC/MS**

Batch Information

Analytical Batch: VMS18586
Analytical Method: SW8260C
Analyst: NRO
Analytical Date/Time: 11/19/18 20:58
Container ID: 1186522007-A

Prep Batch: VXX33567
Prep Method: SW5030B
Prep Date/Time: 11/19/18 06:00
Prep Initial Wt./Vol.: 5 mL
Prep Extract Vol: 5 mL

Analytical Batch: VMS18592
Analytical Method: SW8260C
Analyst: NRO
Analytical Date/Time: 11/22/18 22:20
Container ID: 1186522007-A

Prep Batch: VXX33575
Prep Method: SW5030B
Prep Date/Time: 11/22/18 06:00
Prep Initial Wt./Vol.: 5 mL
Prep Extract Vol: 5 mL

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Results of **MW6-1115**

Client Sample ID: **MW6-1115**
Client Project ID: **East 5th Ave**
Lab Sample ID: 1186522008
Lab Project ID: 1186522

Collection Date: 11/15/18 13:44
Received Date: 11/16/18 10:19
Matrix: Water (Surface, Eff., Ground)
Solids (%):
Location:

Results by **Semivolatile Organic Fuels**

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Diesel Range Organics	0.600	U	0.600	0.180	mg/L	1		11/27/18 13:31
Surrogates								
5a Androstane (surr)	83.7		50-150		%	1		11/27/18 13:31

Batch Information

Analytical Batch: XFC14817
Analytical Method: AK102
Analyst: CMS
Analytical Date/Time: 11/27/18 13:31
Container ID: 1186522008-D

Prep Batch: XXX40945
Prep Method: SW3520C
Prep Date/Time: 11/26/18 08:35
Prep Initial Wt./Vol.: 250 mL
Prep Extract Vol: 1 mL

Print Date: 11/28/2018 2:21:36PM

Results of **MW6-1115**

Client Sample ID: **MW6-1115**
Client Project ID: **East 5th Ave**
Lab Sample ID: 1186522008
Lab Project ID: 1186522

Collection Date: 11/15/18 13:44
Received Date: 11/16/18 10:19
Matrix: Water (Surface, Eff., Ground)
Solids (%):
Location:

Results by **Volatile GC/MS**

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
1,1,1,2-Tetrachloroethane	0.500	U	0.500	0.150	ug/L	1		11/19/18 21:13
1,1,1-Trichloroethane	1.00	U	1.00	0.310	ug/L	1		11/19/18 21:13
1,1,2,2-Tetrachloroethane	0.500	U	0.500	0.150	ug/L	1		11/19/18 21:13
1,1,2-Trichloroethane	0.400	U	0.400	0.120	ug/L	1		11/19/18 21:13
1,1-Dichloroethane	1.00	U	1.00	0.310	ug/L	1		11/19/18 21:13
1,1-Dichloroethene	1.00	U	1.00	0.310	ug/L	1		11/19/18 21:13
1,1-Dichloropropene	1.00	U	1.00	0.310	ug/L	1		11/19/18 21:13
1,2,3-Trichlorobenzene	1.00	U	1.00	0.310	ug/L	1		11/19/18 21:13
1,2,3-Trichloropropane	1.00	U	1.00	0.310	ug/L	1		11/19/18 21:13
1,2,4-Trichlorobenzene	1.00	U	1.00	0.310	ug/L	1		11/19/18 21:13
1,2,4-Trimethylbenzene	1.00	U	1.00	0.310	ug/L	1		11/19/18 21:13
1,2-Dibromo-3-chloropropane	10.0	U	10.0	3.10	ug/L	1		11/19/18 21:13
1,2-Dibromoethane	0.0750	U	0.0750	0.0180	ug/L	1		11/19/18 21:13
1,2-Dichlorobenzene	1.00	U	1.00	0.310	ug/L	1		11/19/18 21:13
1,2-Dichloroethane	0.500	U	0.500	0.150	ug/L	1		11/19/18 21:13
1,2-Dichloropropane	1.00	U	1.00	0.310	ug/L	1		11/19/18 21:13
1,3,5-Trimethylbenzene	1.00	U	1.00	0.310	ug/L	1		11/19/18 21:13
1,3-Dichlorobenzene	1.00	U	1.00	0.310	ug/L	1		11/19/18 21:13
1,3-Dichloropropane	0.500	U	0.500	0.150	ug/L	1		11/19/18 21:13
1,4-Dichlorobenzene	0.500	U	0.500	0.150	ug/L	1		11/19/18 21:13
2,2-Dichloropropane	1.00	U	1.00	0.310	ug/L	1		11/19/18 21:13
2-Butanone (MEK)	10.0	U	10.0	3.10	ug/L	1		11/19/18 21:13
2-Chlorotoluene	1.00	U	1.00	0.310	ug/L	1		11/19/18 21:13
2-Hexanone	10.0	U	10.0	3.10	ug/L	1		11/19/18 21:13
4-Chlorotoluene	1.00	U	1.00	0.310	ug/L	1		11/19/18 21:13
4-Isopropyltoluene	1.00	U	1.00	0.310	ug/L	1		11/19/18 21:13
4-Methyl-2-pentanone (MIBK)	10.0	U	10.0	3.10	ug/L	1		11/19/18 21:13
Benzene	0.400	U	0.400	0.120	ug/L	1		11/19/18 21:13
Bromobenzene	1.00	U	1.00	0.310	ug/L	1		11/19/18 21:13
Bromochloromethane	1.00	U	1.00	0.310	ug/L	1		11/19/18 21:13
Bromodichloromethane	0.500	U	0.500	0.150	ug/L	1		11/19/18 21:13
Bromoform	1.00	U	1.00	0.310	ug/L	1		11/19/18 21:13
Bromomethane	5.00	U	5.00	1.50	ug/L	1		11/19/18 21:13
Carbon disulfide	10.0	U	10.0	3.10	ug/L	1		11/19/18 21:13
Carbon tetrachloride	1.00	U	1.00	0.310	ug/L	1		11/19/18 21:13
Chlorobenzene	0.500	U	0.500	0.150	ug/L	1		11/19/18 21:13
Chloroethane	1.00	U	1.00	0.310	ug/L	1		11/19/18 21:13

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Results of **MW6-1115**

Client Sample ID: **MW6-1115**
Client Project ID: **East 5th Ave**
Lab Sample ID: 1186522008
Lab Project ID: 1186522

Collection Date: 11/15/18 13:44
Received Date: 11/16/18 10:19
Matrix: Water (Surface, Eff., Ground)
Solids (%):
Location:

Results by **Volatile GC/MS**

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Chloroform	1.00 U		1.00	0.310	ug/L	1		11/19/18 21:13
Chloromethane	1.00 U		1.00	0.310	ug/L	1		11/19/18 21:13
cis-1,2-Dichloroethene	1.00 U		1.00	0.310	ug/L	1		11/19/18 21:13
cis-1,3-Dichloropropene	0.500 U		0.500	0.150	ug/L	1		11/19/18 21:13
Dibromochloromethane	0.500 U		0.500	0.150	ug/L	1		11/19/18 21:13
Dibromomethane	1.00 U		1.00	0.310	ug/L	1		11/19/18 21:13
Dichlorodifluoromethane	1.00 U		1.00	0.310	ug/L	1		11/22/18 22:36
Ethylbenzene	1.00 U		1.00	0.310	ug/L	1		11/19/18 21:13
Freon-113	10.0 U		10.0	3.10	ug/L	1		11/19/18 21:13
Hexachlorobutadiene	1.00 U		1.00	0.310	ug/L	1		11/19/18 21:13
Isopropylbenzene (Cumene)	1.00 U		1.00	0.310	ug/L	1		11/19/18 21:13
Methylene chloride	5.00 U		5.00	1.00	ug/L	1		11/19/18 21:13
Methyl-t-butyl ether	10.0 U		10.0	3.10	ug/L	1		11/19/18 21:13
Naphthalene	1.00 U		1.00	0.310	ug/L	1		11/19/18 21:13
n-Butylbenzene	1.00 U		1.00	0.310	ug/L	1		11/19/18 21:13
n-Propylbenzene	1.00 U		1.00	0.310	ug/L	1		11/19/18 21:13
o-Xylene	1.00 U		1.00	0.310	ug/L	1		11/19/18 21:13
P & M -Xylene	2.00 U		2.00	0.620	ug/L	1		11/19/18 21:13
sec-Butylbenzene	1.00 U		1.00	0.310	ug/L	1		11/19/18 21:13
Styrene	1.00 U		1.00	0.310	ug/L	1		11/19/18 21:13
tert-Butylbenzene	1.00 U		1.00	0.310	ug/L	1		11/19/18 21:13
Tetrachloroethene	1.00 U		1.00	0.310	ug/L	1		11/19/18 21:13
Toluene	1.00 U		1.00	0.310	ug/L	1		11/19/18 21:13
trans-1,2-Dichloroethene	1.00 U		1.00	0.310	ug/L	1		11/19/18 21:13
trans-1,3-Dichloropropene	1.00 U		1.00	0.310	ug/L	1		11/19/18 21:13
Trichloroethene	1.00 U		1.00	0.310	ug/L	1		11/19/18 21:13
Trichlorofluoromethane	1.00 U		1.00	0.310	ug/L	1		11/19/18 21:13
Vinyl acetate	10.0 U		10.0	3.10	ug/L	1		11/19/18 21:13
Vinyl chloride	0.150 U		0.150	0.0500	ug/L	1		11/19/18 21:13
Xylenes (total)	3.00 U		3.00	1.00	ug/L	1		11/19/18 21:13
Surrogates								
1,2-Dichloroethane-D4 (surr)	103		81-118		%	1		11/19/18 21:13
4-Bromofluorobenzene (surr)	105		85-114		%	1		11/19/18 21:13
Toluene-d8 (surr)	103		89-112		%	1		11/19/18 21:13

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Results of **MW6-1115**

Client Sample ID: **MW6-1115**
Client Project ID: **East 5th Ave**
Lab Sample ID: 1186522008
Lab Project ID: 1186522

Collection Date: 11/15/18 13:44
Received Date: 11/16/18 10:19
Matrix: Water (Surface, Eff., Ground)
Solids (%):
Location:

Results by **Volatile GC/MS**

Batch Information

Analytical Batch: VMS18586
Analytical Method: SW8260C
Analyst: NRO
Analytical Date/Time: 11/19/18 21:13
Container ID: 1186522008-A

Prep Batch: VXX33567
Prep Method: SW5030B
Prep Date/Time: 11/19/18 06:00
Prep Initial Wt./Vol.: 5 mL
Prep Extract Vol: 5 mL

Analytical Batch: VMS18592
Analytical Method: SW8260C
Analyst: NRO
Analytical Date/Time: 11/22/18 22:36
Container ID: 1186522008-A

Prep Batch: VXX33575
Prep Method: SW5030B
Prep Date/Time: 11/22/18 06:00
Prep Initial Wt./Vol.: 5 mL
Prep Extract Vol: 5 mL

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Results of **Trip Blank**

Client Sample ID: **Trip Blank**
Client Project ID: **East 5th Ave**
Lab Sample ID: 1186522009
Lab Project ID: 1186522

Collection Date: 11/14/18 12:06
Received Date: 11/16/18 10:19
Matrix: Water (Surface, Eff., Ground)
Solids (%):
Location:

Results by **Volatile GC/MS**

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
1,1,1,2-Tetrachloroethane	0.500	U	0.500	0.150	ug/L	1		11/19/18 18:56
1,1,1-Trichloroethane	1.00	U	1.00	0.310	ug/L	1		11/19/18 18:56
1,1,2,2-Tetrachloroethane	0.500	U	0.500	0.150	ug/L	1		11/19/18 18:56
1,1,2-Trichloroethane	0.400	U	0.400	0.120	ug/L	1		11/19/18 18:56
1,1-Dichloroethane	1.00	U	1.00	0.310	ug/L	1		11/19/18 18:56
1,1-Dichloroethene	1.00	U	1.00	0.310	ug/L	1		11/19/18 18:56
1,1-Dichloropropene	1.00	U	1.00	0.310	ug/L	1		11/19/18 18:56
1,2,3-Trichlorobenzene	1.00	U	1.00	0.310	ug/L	1		11/19/18 18:56
1,2,3-Trichloropropane	1.00	U	1.00	0.310	ug/L	1		11/19/18 18:56
1,2,4-Trichlorobenzene	1.00	U	1.00	0.310	ug/L	1		11/19/18 18:56
1,2,4-Trimethylbenzene	1.00	U	1.00	0.310	ug/L	1		11/19/18 18:56
1,2-Dibromo-3-chloropropane	10.0	U	10.0	3.10	ug/L	1		11/19/18 18:56
1,2-Dibromoethane	0.0750	U	0.0750	0.0180	ug/L	1		11/19/18 18:56
1,2-Dichlorobenzene	1.00	U	1.00	0.310	ug/L	1		11/19/18 18:56
1,2-Dichloroethane	0.500	U	0.500	0.150	ug/L	1		11/19/18 18:56
1,2-Dichloropropane	1.00	U	1.00	0.310	ug/L	1		11/19/18 18:56
1,3,5-Trimethylbenzene	1.00	U	1.00	0.310	ug/L	1		11/19/18 18:56
1,3-Dichlorobenzene	1.00	U	1.00	0.310	ug/L	1		11/19/18 18:56
1,3-Dichloropropane	0.500	U	0.500	0.150	ug/L	1		11/19/18 18:56
1,4-Dichlorobenzene	0.500	U	0.500	0.150	ug/L	1		11/19/18 18:56
2,2-Dichloropropane	1.00	U	1.00	0.310	ug/L	1		11/19/18 18:56
2-Butanone (MEK)	10.0	U	10.0	3.10	ug/L	1		11/19/18 18:56
2-Chlorotoluene	1.00	U	1.00	0.310	ug/L	1		11/19/18 18:56
2-Hexanone	10.0	U	10.0	3.10	ug/L	1		11/19/18 18:56
4-Chlorotoluene	1.00	U	1.00	0.310	ug/L	1		11/19/18 18:56
4-Isopropyltoluene	1.00	U	1.00	0.310	ug/L	1		11/19/18 18:56
4-Methyl-2-pentanone (MIBK)	10.0	U	10.0	3.10	ug/L	1		11/19/18 18:56
Benzene	0.400	U	0.400	0.120	ug/L	1		11/19/18 18:56
Bromobenzene	1.00	U	1.00	0.310	ug/L	1		11/19/18 18:56
Bromochloromethane	1.00	U	1.00	0.310	ug/L	1		11/19/18 18:56
Bromodichloromethane	0.500	U	0.500	0.150	ug/L	1		11/19/18 18:56
Bromoform	1.00	U	1.00	0.310	ug/L	1		11/19/18 18:56
Bromomethane	5.00	U	5.00	1.50	ug/L	1		11/19/18 18:56
Carbon disulfide	10.0	U	10.0	3.10	ug/L	1		11/19/18 18:56
Carbon tetrachloride	1.00	U	1.00	0.310	ug/L	1		11/19/18 18:56
Chlorobenzene	0.500	U	0.500	0.150	ug/L	1		11/19/18 18:56
Chloroethane	1.00	U	1.00	0.310	ug/L	1		11/19/18 18:56

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Results of **Trip Blank**

Client Sample ID: **Trip Blank**
Client Project ID: **East 5th Ave**
Lab Sample ID: 1186522009
Lab Project ID: 1186522

Collection Date: 11/14/18 12:06
Received Date: 11/16/18 10:19
Matrix: Water (Surface, Eff., Ground)
Solids (%):
Location:

Results by **Volatile GC/MS**

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Chloroform	1.00 U		1.00	0.310	ug/L	1		11/19/18 18:56
Chloromethane	1.00 U		1.00	0.310	ug/L	1		11/19/18 18:56
cis-1,2-Dichloroethene	1.00 U		1.00	0.310	ug/L	1		11/19/18 18:56
cis-1,3-Dichloropropene	0.500 U		0.500	0.150	ug/L	1		11/19/18 18:56
Dibromochloromethane	0.500 U		0.500	0.150	ug/L	1		11/19/18 18:56
Dibromomethane	1.00 U		1.00	0.310	ug/L	1		11/19/18 18:56
Dichlorodifluoromethane	1.00 U		1.00	0.310	ug/L	1		11/22/18 20:12
Ethylbenzene	1.00 U		1.00	0.310	ug/L	1		11/19/18 18:56
Freon-113	10.0 U		10.0	3.10	ug/L	1		11/19/18 18:56
Hexachlorobutadiene	1.00 U		1.00	0.310	ug/L	1		11/19/18 18:56
Isopropylbenzene (Cumene)	1.00 U		1.00	0.310	ug/L	1		11/19/18 18:56
Methylene chloride	5.00 U		5.00	1.00	ug/L	1		11/19/18 18:56
Methyl-t-butyl ether	10.0 U		10.0	3.10	ug/L	1		11/19/18 18:56
Naphthalene	1.00 U		1.00	0.310	ug/L	1		11/19/18 18:56
n-Butylbenzene	1.00 U		1.00	0.310	ug/L	1		11/19/18 18:56
n-Propylbenzene	1.00 U		1.00	0.310	ug/L	1		11/19/18 18:56
o-Xylene	1.00 U		1.00	0.310	ug/L	1		11/19/18 18:56
P & M -Xylene	2.00 U		2.00	0.620	ug/L	1		11/19/18 18:56
sec-Butylbenzene	1.00 U		1.00	0.310	ug/L	1		11/19/18 18:56
Styrene	1.00 U		1.00	0.310	ug/L	1		11/19/18 18:56
tert-Butylbenzene	1.00 U		1.00	0.310	ug/L	1		11/19/18 18:56
Tetrachloroethene	1.00 U		1.00	0.310	ug/L	1		11/19/18 18:56
Toluene	1.00 U		1.00	0.310	ug/L	1		11/19/18 18:56
trans-1,2-Dichloroethene	1.00 U		1.00	0.310	ug/L	1		11/19/18 18:56
trans-1,3-Dichloropropene	1.00 U		1.00	0.310	ug/L	1		11/19/18 18:56
Trichloroethene	1.00 U		1.00	0.310	ug/L	1		11/19/18 18:56
Trichlorofluoromethane	1.00 U		1.00	0.310	ug/L	1		11/19/18 18:56
Vinyl acetate	10.0 U		10.0	3.10	ug/L	1		11/19/18 18:56
Vinyl chloride	0.150 U		0.150	0.0500	ug/L	1		11/19/18 18:56
Xylenes (total)	3.00 U		3.00	1.00	ug/L	1		11/19/18 18:56
Surrogates								
1,2-Dichloroethane-D4 (surr)	104		81-118		%	1		11/19/18 18:56
4-Bromofluorobenzene (surr)	107		85-114		%	1		11/19/18 18:56
Toluene-d8 (surr)	102		89-112		%	1		11/19/18 18:56

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Results of **Trip Blank**

Client Sample ID: **Trip Blank**
Client Project ID: **East 5th Ave**
Lab Sample ID: 1186522009
Lab Project ID: 1186522

Collection Date: 11/14/18 12:06
Received Date: 11/16/18 10:19
Matrix: Water (Surface, Eff., Ground)
Solids (%):
Location:

Results by **Volatile GC/MS**

Batch Information

Analytical Batch: VMS18586
Analytical Method: SW8260C
Analyst: NRO
Analytical Date/Time: 11/19/18 18:56
Container ID: 1186522009-A

Prep Batch: VXX33567
Prep Method: SW5030B
Prep Date/Time: 11/19/18 06:00
Prep Initial Wt./Vol.: 5 mL
Prep Extract Vol: 5 mL

Analytical Batch: VMS18592
Analytical Method: SW8260C
Analyst: NRO
Analytical Date/Time: 11/22/18 20:12
Container ID: 1186522009-A

Prep Batch: VXX33575
Prep Method: SW5030B
Prep Date/Time: 11/22/18 06:00
Prep Initial Wt./Vol.: 5 mL
Prep Extract Vol: 5 mL

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Method Blank

Blank ID: MB for HBN 1789221 [VXX/33567]
Blank Lab ID: 1489005

Matrix: Water (Surface, Eff., Ground)

QC for Samples:
1186522001, 1186522002, 1186522003, 1186522004, 1186522005, 1186522006, 1186522007, 1186522008, 1186522009

Results by **SW8260C**

Parameter	Results	LOQ/CL	DL	Units
1,1,1,2-Tetrachloroethane	0.250U	0.500	0.150	ug/L
1,1,1-Trichloroethane	0.500U	1.00	0.310	ug/L
1,1,2,2-Tetrachloroethane	0.250U	0.500	0.150	ug/L
1,1,2-Trichloroethane	0.200U	0.400	0.120	ug/L
1,1-Dichloroethane	0.500U	1.00	0.310	ug/L
1,1-Dichloroethene	0.500U	1.00	0.310	ug/L
1,1-Dichloropropene	0.500U	1.00	0.310	ug/L
1,2,3-Trichlorobenzene	0.500U	1.00	0.310	ug/L
1,2,3-Trichloropropane	0.500U	1.00	0.310	ug/L
1,2,4-Trichlorobenzene	0.500U	1.00	0.310	ug/L
1,2,4-Trimethylbenzene	0.500U	1.00	0.310	ug/L
1,2-Dibromo-3-chloropropane	5.00U	10.0	3.10	ug/L
1,2-Dibromoethane	0.0375U	0.0750	0.0180	ug/L
1,2-Dichlorobenzene	0.500U	1.00	0.310	ug/L
1,2-Dichloroethane	0.250U	0.500	0.150	ug/L
1,2-Dichloropropane	0.500U	1.00	0.310	ug/L
1,3,5-Trimethylbenzene	0.500U	1.00	0.310	ug/L
1,3-Dichlorobenzene	0.500U	1.00	0.310	ug/L
1,3-Dichloropropane	0.250U	0.500	0.150	ug/L
1,4-Dichlorobenzene	0.250U	0.500	0.150	ug/L
2,2-Dichloropropane	0.500U	1.00	0.310	ug/L
2-Butanone (MEK)	5.00U	10.0	3.10	ug/L
2-Chlorotoluene	0.500U	1.00	0.310	ug/L
2-Hexanone	5.00U	10.0	3.10	ug/L
4-Chlorotoluene	0.500U	1.00	0.310	ug/L
4-Isopropyltoluene	0.500U	1.00	0.310	ug/L
4-Methyl-2-pentanone (MIBK)	5.00U	10.0	3.10	ug/L
Benzene	0.200U	0.400	0.120	ug/L
Bromobenzene	0.500U	1.00	0.310	ug/L
Bromochloromethane	0.500U	1.00	0.310	ug/L
Bromodichloromethane	0.250U	0.500	0.150	ug/L
Bromoform	0.500U	1.00	0.310	ug/L
Bromomethane	2.50U	5.00	1.50	ug/L
Carbon disulfide	5.00U	10.0	3.10	ug/L
Carbon tetrachloride	0.500U	1.00	0.310	ug/L
Chlorobenzene	0.250U	0.500	0.150	ug/L
Chloroethane	0.500U	1.00	0.310	ug/L
Chloroform	0.500U	1.00	0.310	ug/L

Method Blank

Blank ID: MB for HBN 1789221 [VXX/33567]
Blank Lab ID: 1489005

Matrix: Water (Surface, Eff., Ground)

QC for Samples:
1186522001, 1186522002, 1186522003, 1186522004, 1186522005, 1186522006, 1186522007, 1186522008, 1186522009

Results by **SW8260C**

Parameter	Results	LOQ/CL	DL	Units
Chloromethane	0.500U	1.00	0.310	ug/L
cis-1,2-Dichloroethene	0.500U	1.00	0.310	ug/L
cis-1,3-Dichloropropene	0.250U	0.500	0.150	ug/L
Dibromochloromethane	0.250U	0.500	0.150	ug/L
Dibromomethane	0.500U	1.00	0.310	ug/L
Ethylbenzene	0.500U	1.00	0.310	ug/L
Freon-113	5.00U	10.0	3.10	ug/L
Hexachlorobutadiene	0.500U	1.00	0.310	ug/L
Isopropylbenzene (Cumene)	0.500U	1.00	0.310	ug/L
Methylene chloride	2.50U	5.00	1.00	ug/L
Methyl-t-butyl ether	5.00U	10.0	3.10	ug/L
Naphthalene	0.500U	1.00	0.310	ug/L
n-Butylbenzene	0.500U	1.00	0.310	ug/L
n-Propylbenzene	0.500U	1.00	0.310	ug/L
o-Xylene	0.500U	1.00	0.310	ug/L
P & M -Xylene	1.00U	2.00	0.620	ug/L
sec-Butylbenzene	0.500U	1.00	0.310	ug/L
Styrene	0.500U	1.00	0.310	ug/L
tert-Butylbenzene	0.500U	1.00	0.310	ug/L
Tetrachloroethene	0.500U	1.00	0.310	ug/L
Toluene	0.500U	1.00	0.310	ug/L
trans-1,2-Dichloroethene	0.500U	1.00	0.310	ug/L
trans-1,3-Dichloropropene	0.500U	1.00	0.310	ug/L
Trichloroethene	0.500U	1.00	0.310	ug/L
Trichlorofluoromethane	0.500U	1.00	0.310	ug/L
Vinyl acetate	5.00U	10.0	3.10	ug/L
Vinyl chloride	0.0750U	0.150	0.0500	ug/L
Xylenes (total)	1.50U	3.00	1.00	ug/L
Surrogates				
1,2-Dichloroethane-D4 (surr)	106	81-118		%
4-Bromofluorobenzene (surr)	105	85-114		%
Toluene-d8 (surr)	102	89-112		%

Method Blank

Blank ID: MB for HBN 1789221 [VXX/33567]
Blank Lab ID: 1489005

Matrix: Water (Surface, Eff., Ground)

QC for Samples:
1186522001, 1186522002, 1186522003, 1186522004, 1186522005, 1186522006, 1186522007, 1186522008, 1186522009

Results by **SW8260C**

Parameter	Results	LOQ/CL	DL	Units

Batch Information

Analytical Batch: VMS18586
Analytical Method: SW8260C
Instrument: Agilent 7890-75MS
Analyst: NRO
Analytical Date/Time: 11/19/2018 4:30:00PM

Prep Batch: VXX33567
Prep Method: SW5030B
Prep Date/Time: 11/19/2018 6:00:00AM
Prep Initial Wt./Vol.: 5 mL
Prep Extract Vol: 5 mL

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Blank Spike Summary

Blank Spike ID: LCS for HBN 1186522 [VXX33567]
Blank Spike Lab ID: 1489006
Date Analyzed: 11/19/2018 17:09

Spike Duplicate ID: LCSD for HBN 1186522 [VXX33567]
Spike Duplicate Lab ID: 1489007
Matrix: Water (Surface, Eff., Ground)

QC for Samples: 1186522001, 1186522002, 1186522003, 1186522004, 1186522005, 1186522006, 1186522007, 1186522008, 1186522009

Results by **SW8260C**

	Blank Spike (ug/L)			Spike Duplicate (ug/L)					
Parameter	Spike	Result	Rec (%)	Spike	Result	Rec (%)	CL	RPD (%)	RPD CL
1,1,1,2-Tetrachloroethane	30	33.1	110	30	33.8	113	(78-124)	1.90	(< 20)
1,1,1-Trichloroethane	30	32.1	107	30	32.8	109	(74-131)	2.00	(< 20)
1,1,2,2-Tetrachloroethane	30	34.7	116	30	34.2	114	(71-121)	1.30	(< 20)
1,1,2-Trichloroethane	30	33.3	111	30	33.1	110	(80-119)	0.61	(< 20)
1,1-Dichloroethane	30	32.1	107	30	32.3	108	(77-125)	0.75	(< 20)
1,1-Dichloroethene	30	30.4	101	30	30.9	103	(71-131)	1.50	(< 20)
1,1-Dichloropropene	30	33.1	110	30	33.5	112	(79-125)	1.00	(< 20)
1,2,3-Trichlorobenzene	30	31.3	104	30	32.0	107	(69-129)	2.10	(< 20)
1,2,3-Trichloropropane	30	33.4	111	30	33.2	111	(73-122)	0.53	(< 20)
1,2,4-Trichlorobenzene	30	32.6	109	30	33.5	112	(69-130)	2.70	(< 20)
1,2,4-Trimethylbenzene	30	34.6	115	30	35.0	117	(79-124)	0.96	(< 20)
1,2-Dibromo-3-chloropropane	30	34.9	116	30	35.2	117	(62-128)	0.94	(< 20)
1,2-Dibromoethane	30	32.4	108	30	33.0	110	(77-121)	1.60	(< 20)
1,2-Dichlorobenzene	30	33.0	110	30	33.4	111	(80-119)	1.30	(< 20)
1,2-Dichloroethane	30	32.8	109	30	32.2	107	(73-128)	1.60	(< 20)
1,2-Dichloropropane	30	33.3	111	30	33.0	110	(78-122)	0.93	(< 20)
1,3,5-Trimethylbenzene	30	33.8	113	30	33.9	113	(75-124)	0.27	(< 20)
1,3-Dichlorobenzene	30	33.2	111	30	33.7	112	(80-119)	1.60	(< 20)
1,3-Dichloropropane	30	33.5	112	30	33.9	113	(80-119)	1.40	(< 20)
1,4-Dichlorobenzene	30	33.8	113	30	34.1	114	(79-118)	1.20	(< 20)
2,2-Dichloropropane	30	35.1	117	30	35.7	119	(60-139)	1.80	(< 20)
2-Butanone (MEK)	90	87.2	97	90	87.8	98	(56-143)	0.64	(< 20)
2-Chlorotoluene	30	34.6	115	30	34.5	115	(79-122)	0.33	(< 20)
2-Hexanone	90	96.8	108	90	96.8	108	(57-139)	0.05	(< 20)
4-Chlorotoluene	30	35.2	117	30	35.0	117	(78-122)	0.39	(< 20)
4-Isopropyltoluene	30	33.9	113	30	33.8	113	(77-127)	0.37	(< 20)
4-Methyl-2-pentanone (MIBK)	90	96.4	107	90	94.0	104	(67-130)	2.50	(< 20)
Benzene	30	32.2	107	30	32.2	107	(79-120)	0.08	(< 20)
Bromobenzene	30	33.7	112	30	33.4	111	(80-120)	0.82	(< 20)
Bromochloromethane	30	31.0	103	30	31.1	104	(78-123)	0.38	(< 20)
Bromodichloromethane	30	33.3	111	30	33.2	111	(79-125)	0.16	(< 20)
Bromoform	30	33.7	112	30	34.6	115	(66-130)	2.50	(< 20)
Bromomethane	30	32.4	108	30	31.0	103	(53-141)	4.60	(< 20)
Carbon disulfide	45	44.6	99	45	45.1	100	(64-133)	1.00	(< 20)

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Blank Spike Summary

Blank Spike ID: LCS for HBN 1186522 [VXX33567]
Blank Spike Lab ID: 1489006
Date Analyzed: 11/19/2018 17:09

Spike Duplicate ID: LCSD for HBN 1186522 [VXX33567]
Spike Duplicate Lab ID: 1489007
Matrix: Water (Surface, Eff., Ground)

QC for Samples: 1186522001, 1186522002, 1186522003, 1186522004, 1186522005, 1186522006, 1186522007, 1186522008, 1186522009

Results by **SW8260C**

	Blank Spike (ug/L)			Spike Duplicate (ug/L)					
Parameter	Spike	Result	Rec (%)	Spike	Result	Rec (%)	CL	RPD (%)	RPD CL
Carbon tetrachloride	30	33.3	111	30	33.7	112	(72-136)	1.20	(< 20)
Chlorobenzene	30	31.0	103	30	31.4	105	(82-118)	1.30	(< 20)
Chloroethane	30	24.0	80	30	24.7	82	(60-138)	2.80	(< 20)
Chloroform	30	30.6	102	30	30.7	102	(79-124)	0.44	(< 20)
Chloromethane	30	29.4	98	30	29.4	98	(50-139)	0.19	(< 20)
cis-1,2-Dichloroethene	30	31.4	105	30	32.0	107	(78-123)	1.70	(< 20)
cis-1,3-Dichloropropene	30	35.2	117	30	34.9	116	(75-124)	0.92	(< 20)
Dibromochloromethane	30	34.1	114	30	34.5	115	(74-126)	1.20	(< 20)
Dibromomethane	30	32.1	107	30	31.6	105	(79-123)	1.50	(< 20)
Ethylbenzene	30	33.3	111	30	33.3	111	(79-121)	0.13	(< 20)
Freon-113	45	44.4	99	45	44.5	99	(70-136)	0.17	(< 20)
Hexachlorobutadiene	30	31.7	106	30	32.6	109	(66-134)	2.50	(< 20)
Isopropylbenzene (Cumene)	30	33.1	110	30	34.0	113	(72-131)	2.70	(< 20)
Methylene chloride	30	32.0	107	30	32.1	107	(74-124)	0.16	(< 20)
Methyl-t-butyl ether	45	46.9	104	45	46.3	103	(71-124)	1.30	(< 20)
Naphthalene	30	33.3	111	30	34.5	115	(61-128)	3.70	(< 20)
n-Butylbenzene	30	34.5	115	30	35.7	119	(75-128)	3.40	(< 20)
n-Propylbenzene	30	34.8	116	30	34.7	116	(76-126)	0.09	(< 20)
o-Xylene	30	32.4	108	30	33.1	110	(78-122)	2.40	(< 20)
P & M -Xylene	60	64.8	108	60	66.5	111	(80-121)	2.50	(< 20)
sec-Butylbenzene	30	34.6	115	30	34.7	116	(77-126)	0.29	(< 20)
Styrene	30	33.6	112	30	34.3	114	(78-123)	2.10	(< 20)
tert-Butylbenzene	30	33.4	111	30	33.9	113	(78-124)	1.30	(< 20)
Tetrachloroethene	30	31.2	104	30	31.6	105	(74-129)	1.30	(< 20)
Toluene	30	31.0	103	30	31.6	105	(80-121)	1.80	(< 20)
trans-1,2-Dichloroethene	30	31.5	105	30	31.9	106	(75-124)	1.20	(< 20)
trans-1,3-Dichloropropene	30	36.3	121	30	36.8	123	(73-127)	1.30	(< 20)
Trichloroethene	30	31.5	105	30	31.7	106	(79-123)	0.44	(< 20)
Trichlorofluoromethane	30	28.2	94	30	28.7	96	(65-141)	1.70	(< 20)
Vinyl acetate	30	37.2	124	30	37.4	125	(54-146)	0.66	(< 20)
Vinyl chloride	30	28.3	94	30	28.4	95	(58-137)	0.27	(< 20)
Xylenes (total)	90	97.2	108	90	99.6	111	(79-121)	2.50	(< 20)

Surrogates

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Blank Spike Summary

Blank Spike ID: LCS for HBN 1186522 [VXX33567]
Blank Spike Lab ID: 1489006
Date Analyzed: 11/19/2018 17:09

Spike Duplicate ID: LCSD for HBN 1186522 [VXX33567]
Spike Duplicate Lab ID: 1489007
Matrix: Water (Surface, Eff., Ground)

QC for Samples: 1186522001, 1186522002, 1186522003, 1186522004, 1186522005, 1186522006, 1186522007, 1186522008, 1186522009

Results by **SW8260C**

	Blank Spike (%)			Spike Duplicate (%)					
Parameter	Spike	Result	Rec (%)	Spike	Result	Rec (%)	CL	RPD (%)	RPD CL
1,2-Dichloroethane-D4 (surr)	30	99.5	100	30	97.6	98	(81-118)	1.90	
4-Bromofluorobenzene (surr)	30	105	105	30	105	105	(85-114)	0.51	
Toluene-d8 (surr)	30	99.8	100	30	101	101	(89-112)	0.94	

Batch Information

Analytical Batch: **VMS18586**
Analytical Method: **SW8260C**
Instrument: **Agilent 7890-75MS**
Analyst: **NRO**

Prep Batch: **VXX33567**
Prep Method: **SW5030B**
Prep Date/Time: **11/19/2018 06:00**
Spike Init Wt./Vol.: 30 ug/L Extract Vol: 5 mL
Dupe Init Wt./Vol.: 30 ug/L Extract Vol: 5 mL

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Method Blank

Blank ID: MB for HBN 1789309 [VXX/33575]
Blank Lab ID: 1489395

Matrix: Water (Surface, Eff., Ground)

QC for Samples:
1186522001, 1186522002, 1186522003, 1186522004, 1186522005, 1186522006, 1186522007, 1186522008, 1186522009

Results by **SW8260C**

Parameter	Results	LOQ/CL	DL	Units
Dichlorodifluoromethane	0.500U	1.00	0.310	ug/L
Surrogates				
1,2-Dichloroethane-D4 (surr)	104	81-118		%
4-Bromofluorobenzene (surr)	96.4	85-114		%
Toluene-d8 (surr)	96.5	89-112		%

Batch Information

Analytical Batch: VMS18592
Analytical Method: SW8260C
Instrument: VPA 780/5975 GC/MS
Analyst: NRO
Analytical Date/Time: 11/22/2018 4:28:00PM

Prep Batch: VXX33575
Prep Method: SW5030B
Prep Date/Time: 11/22/2018 6:00:00AM
Prep Initial Wt./Vol.: 5 mL
Prep Extract Vol: 5 mL

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Blank Spike Summary

Blank Spike ID: LCS for HBN 1186522 [VXX33575]
Blank Spike Lab ID: 1489396
Date Analyzed: 11/22/2018 17:00

Spike Duplicate ID: LCSD for HBN 1186522 [VXX33575]
Spike Duplicate Lab ID: 1489397
Matrix: Water (Surface, Eff., Ground)

QC for Samples: 1186522001, 1186522002, 1186522003, 1186522004, 1186522005, 1186522006, 1186522007, 1186522008, 1186522009

Results by **SW8260C**

	Blank Spike (ug/L)			Spike Duplicate (ug/L)					
Parameter	Spike	Result	Rec (%)	Spike	Result	Rec (%)	CL	RPD (%)	RPD CL
Dichlorodifluoromethane	30	29.6	99	30	27.9	93	(32-152)	5.90	(< 20)
Surrogates									
1,2-Dichloroethane-D4 (surr)	30	96.2	96	30	98.2	98	(81-118)	2.10	
4-Bromofluorobenzene (surr)	30	101	101	30	101	101	(85-114)	0.29	
Toluene-d8 (surr)	30	94	94	30	95.4	95	(89-112)	1.60	

Batch Information

Analytical Batch: **VMS18592**
Analytical Method: **SW8260C**
Instrument: **VPA 780/5975 GC/MS**
Analyst: **NRO**

Prep Batch: **VXX33575**
Prep Method: **SW5030B**
Prep Date/Time: **11/22/2018 06:00**
Spike Init Wt./Vol.: 30 ug/L Extract Vol: 5 mL
Dupe Init Wt./Vol.: 30 ug/L Extract Vol: 5 mL

SGS North America Inc.
200 West Potter Drive Anchorage, AK 95518
t 907.562.2343 f 907.561.5301 www.us.sgs.com

Method Blank

Blank ID: MB for HBN 1789289 [XXX/40945]
Blank Lab ID: 1489316

Matrix: Water (Surface, Eff., Ground)

QC for Samples:
1186522001, 1186522002, 1186522003, 1186522004, 1186522005, 1186522006, 1186522007, 1186522008

Results by **AK102**

Parameter	Results	LOQ/CL	DL	Units
Diesel Range Organics	0.300U	0.600	0.180	mg/L
Surrogates				
5a Androstane (surr)	90.1	60-120		%

Batch Information

Analytical Batch: XFC14817
Analytical Method: AK102
Instrument: Agilent 7890B F
Analyst: CMS
Analytical Date/Time: 11/27/2018 11:50:00AM

Prep Batch: XXX40945
Prep Method: SW3520C
Prep Date/Time: 11/26/2018 8:35:51AM
Prep Initial Wt./Vol.: 250 mL
Prep Extract Vol: 1 mL

SGS North America Inc.
200 West Potter Drive Anchorage, AK 95518
t 907.562.2343 **f** 907.561.5301 www.us.sgs.com

Blank Spike Summary

Blank Spike ID: LCS for HBN 1186522 [XXX40945]
Blank Spike Lab ID: 1489317
Date Analyzed: 11/27/2018 12:00

Spike Duplicate ID: LCSD for HBN 1186522 [XXX40945]
Spike Duplicate Lab ID: 1489318
Matrix: Water (Surface, Eff., Ground)

QC for Samples: 1186522001, 1186522002, 1186522003, 1186522004, 1186522005, 1186522006, 1186522007, 1186522008

Results by **AK102**

	Blank Spike (mg/L)			Spike Duplicate (mg/L)					
Parameter	Spike	Result	Rec (%)	Spike	Result	Rec (%)	CL	RPD (%)	RPD CL
Diesel Range Organics	20	19.0	95	20	18.8	94	(75-125)	1.40	(< 20)
Surrogates									
5a Androstane (surr)	0.4	100	100	0.4	99.2	99	(60-120)	1.20	

Batch Information

Analytical Batch: **XFC14817**
Analytical Method: **AK102**
Instrument: **Agilent 7890B F**
Analyst: **CMS**

Prep Batch: **XXX40945**
Prep Method: **SW3520C**
Prep Date/Time: **11/26/2018 08:35**
Spike Init Wt./Vol.: 20 mg/L Extract Vol: 1 mL
Dupe Init Wt./Vol.: 20 mg/L Extract Vol: 1 mL

Print Date: 11/28/2018 2:21:46PM

SGS

REVIEWED MC

SGS North America Inc.
CHAIN OF CUSTODY RECORD

1186522

Instructions: Sections 1 - 5 must be filled out. Omissions may delay the onset of analysis.

Section 1

CLIENT: BGES, Inc.

CONTACT: Jayne PHONE NO: 644-2900

PROJECT NAME: East 5th Ave PROJECT/ PWSID/ PERMIT#: -

REPORTS TO: Jayne E-MAIL: jayne@bgesinc.com

INVOICE TO: carol@bgesinc.com QUOTE #: OPEN P.O. #: -

Section 2

RESERVED for lab use	SAMPLE IDENTIFICATION	DATE mm/dd/yy	TIME HH:MM	MATRIX/ MATRIX CODE	Section 3: # CONTAINERS	Section 3: Type C = COMP G = GRAB MI = Multi Incremental Soils	Preservative: HCl	Preservative: 0.6°C	Preservative: VOCs 8260	Preservative: DRO AK 102	REMARKS/ LOC ID
(1) A-E	MW1-1114	11/14/18	18:11	Water	5	G	✓	✓	✓	✓	
(2) A-E	MW2-1-1115	11/15/18	15:58				✓	✓	✓	✓	
(3) A-E	MW2-2-1115	11/15/18	15:58				✓	✓	✓	✓	
(4) A-E	MW3-1114	11/14/18	14:11				✓	✓	✓	✓	
(5) A-E	MW4-1-1114	11/14/18	12:06				✓	✓	✓	✓	
(6) A-E	MW4-2-1114	11/14/18	12:06				✓	✓	✓	✓	
(7) A-E	MW5-1114	11/14/18	16:13				✓	✓	✓	✓	
(8) A-E	MW6-1115	11/15/18	13:44				✓	✓	✓	✓	
(9) A-C	Trip Blank	-	-		3	-	✓		✓		

Section 5

	Date	Time	
Relinquished By: (1)	11/16/18	10:19	Received By:
Relinquished By: (2)			Received By:
Relinquished By: (3)			Received By:
Relinquished By: (4)	11/16/18	10:19	Received For Laboratory By:

Section 4

DOD Project? Yes (No)

Cooler ID:

Data Deliverable Requirements: Level II

Requested Turnaround Time and/or Special Instructions: Standard

Temp Blank °C: 2.4 DII

or Ambient [ ]

(See attached Sample Receipt Form)

Chain of Custody Seal: (Circle) INTACT BROKEN (ABSENT) HD

(See attached Sample Receipt Form)

[ ] 200 W. Potter Drive Anchorage, AK 99518 Tel: (907) 562-2343 Fax: (907) 561-5301
[ ] 5500 Business Drive Wilmington, NC 28405 Tel: (910) 350-1903 Fax: (910) 350-1557

F083-Kit_Request_and_COC_Templates-Blank
Revised 2013-03-24

e-Sample Receipt Form

SGS Workorder #: **1186522**

Review Criteria	Condition (Yes, No, N/A)	Exceptions Noted below
Chain of Custody / Temperature Requirements		yes Exemption permitted if sampler hand carries/delivers.
Were Custody Seals intact? Note # & location	n/a	
COC accompanied samples?	yes	
n/a **Exemption permitted if chilled & collected <8 hours ago, or for samples where chilling is not required		
Temperature blank compliant* (i.e., 0-6 °C after CF)?	yes	Cooler ID: 1 @ 2.4 °C Therm. ID: D11
	n/a	Cooler ID: @ °C Therm. ID:
	n/a	Cooler ID: @ °C Therm. ID:
	n/a	Cooler ID: @ °C Therm. ID:
	n/a	Cooler ID: @ °C Therm. ID:
If >6°C, were samples collected <8 hours ago?	n/a	
If <0°C, were sample containers ice free?	n/a	
If samples received without a temperature blank, the "cooler temperature" will be documented in lieu of the temperature blank & "**COOLER TEMP**" will be noted to the right. In cases where neither a temp blank nor cooler temp can be obtained, note "ambient" or "chilled".		
Note: Identify containers received at non-compliant temperature . Use form FS-0029 if more space is needed.		
Holding Time / Documentation / Sample Condition Requirements		Note: Refer to form F-083 "Sample Guide" for specific holding times.
Were samples received within holding time?	yes	
Do samples **match COC**** (i.e.,sample IDs,dates/times collected)?	yes	
**Note: If times differ <1hr, record details & login per COC.		
Were analyses requested unambiguous? (i.e., method is specified for analyses with >1 option for analysis)	yes	
	n/a	***Exemption permitted for metals (e.g,200.8/6020A).
Were proper containers (type/mass/volume/preservative***)used?	yes	
Volatile / LL-Hg Requirements		
Were Trip Blanks (i.e., VOAs, LL-Hg) in cooler with samples?	yes	
Were all water VOA vials free of headspace (i.e., bubbles ≤ 6mm)?	yes	
Were all soil VOAs field extracted with MeOH+BFB?	n/a	

Note to Client: Any "No", answer above indicates non-compliance with standard procedures and may impact data quality.

Additional notes (if applicable):

Sample Containers and Preservatives

Container Id	Preservative	Container Condition	Container Id	Preservative	Container Condition
1186522001-A	HCL to pH < 2	OK			
1186522001-B	HCL to pH < 2	OK			
1186522001-C	HCL to pH < 2	OK			
1186522001-D	No Preservative Required	OK			
1186522001-E	No Preservative Required	OK			
1186522002-A	HCL to pH < 2	OK			
1186522002-B	HCL to pH < 2	OK			
1186522002-C	HCL to pH < 2	OK			
1186522002-D	No Preservative Required	OK			
1186522002-E	No Preservative Required	OK			
1186522003-A	HCL to pH < 2	OK			
1186522003-B	HCL to pH < 2	OK			
1186522003-C	HCL to pH < 2	OK			
1186522003-D	No Preservative Required	OK			
1186522003-E	No Preservative Required	OK			
1186522004-A	HCL to pH < 2	OK			
1186522004-B	HCL to pH < 2	OK			
1186522004-C	HCL to pH < 2	OK			
1186522004-D	No Preservative Required	OK			
1186522004-E	No Preservative Required	OK			
1186522005-A	HCL to pH < 2	OK			
1186522005-B	HCL to pH < 2	OK			
1186522005-C	HCL to pH < 2	OK			
1186522005-D	No Preservative Required	OK			
1186522005-E	No Preservative Required	OK			
1186522006-A	HCL to pH < 2	OK			
1186522006-B	HCL to pH < 2	OK			
1186522006-C	HCL to pH < 2	OK			
1186522006-D	No Preservative Required	OK			
1186522006-E	No Preservative Required	OK			
1186522007-A	HCL to pH < 2	OK			
1186522007-B	HCL to pH < 2	OK			
1186522007-C	HCL to pH < 2	OK			
1186522007-D	No Preservative Required	OK			
1186522007-E	No Preservative Required	OK			
1186522008-A	HCL to pH < 2	OK			
1186522008-B	HCL to pH < 2	OK			
1186522008-C	HCL to pH < 2	OK			
1186522008-D	No Preservative Required	OK			
1186522008-E	No Preservative Required	OK			
1186522009-A	HCL to pH < 2	OK			
1186522009-B	HCL to pH < 2	OK			
1186522009-C	HCL to pH < 2	OK			

Container Id	Preservative	Container Condition	Container Id	Preservative	Container Condition

Container Condition Glossary

Containers for bacteriological, low level mercury and VOA vials are not opened prior to analysis and will be assigned condition code OK unless evidence indicates than an inappropriate container was submitted.

OK - The container was received at an acceptable pH for the analysis requested.
BU - The container was received with headspace greater than 6mm.
DM - The container was received damaged.
FR - The container was received frozen and not usable for Bacteria or BOD analyses.
IC - The container provided for microbiology analysis was not a laboratory-supplied, pre-sterilized container and therefore was not suitable for analysis.
PA - The container was received outside of the acceptable pH for the analysis requested. Preservative was added upon receipt and the container is now at the correct pH. See the Sample Receipt Form for details on the amount and lot # of the preservative added.
PH - The container was received outside of the acceptable pH for the analysis requested. Preservative was added upon receipt, but was insufficient to bring the container to the correct pH for the analysis requested. See the Sample Receipt Form for details on the amount and lot # of the preservative added.

APPENDIX C
LABORATORY DATA
REVIEW CHECKLIST

Laboratory Data Review Checklist

Completed By:

Vanessa Crandell-Beck

Title:

Environmental Scientist I

Date:

January 4, 2019

CS Report Name:

2501 EAST 5th AVENUE
ANCHORAGE, ALASKA
ADEC FILE NUMBER 2100.26.129
2018 GROUNDWATER MONITORING ACTIVITIES

Report Date:

January 2019

Consultant Firm:

BGES, Inc.

Laboratory Name:

SGS North America Inc.

Laboratory Report Number:

1186522

ADEC File Number:

2100.26.129

Hazard Identification Number:

23804

1186522

1. Laboratory

   a. Did an ADEC CS approved laboratory receive and perform all of the submitted sample analyses?

   ☑ Yes ☐ No Comments:

   b. If the samples were transferred to another "network" laboratory or sub-contracted to an alternate laboratory, was the laboratory performing the analyses ADEC CS approved?

   ☐ Yes ☐ No Comments:

2. Chain of Custody (CoC)

   a. CoC information completed, signed, and dated (including released/received by)?

   ☑ Yes ☐ No Comments:

   b. Correct Analyses requested?

   ☑ Yes ☐ No Comments:

3. Laboratory Sample Receipt Documentation

   a. Sample/cooler temperature documented and within range at receipt (0° to 6° C)?

   ☑ Yes ☐ No Comments:

   The temperature within the sample cooler was measured at the laboratory at the time of receipt to be 2.4 degrees Celsius (° C), which is within the ADEC-prescribed optimal range of 0° to 6° C.

   b. Sample preservation acceptable – acidified waters, Methanol preserved VOC soil (GRO, BTEX, Volatile Chlorinated Solvents, etc.)?

   ☑ Yes ☐ No Comments:

   c. Sample condition documented – broken, leaking (Methanol), zero headspace (VOC vials)?

   ☑ Yes ☐ No Comments:

   No irregularities or abnormalities with respect to sample containers were reported.

d. If there were any discrepancies, were they documented? For example, incorrect sample containers/preservation, sample temperature outside of acceptable range, insufficient or missing samples, etc.?

☐ Yes ☒ No Comments:

N/A

e. Data quality or usability affected?

Comments:

4. Case Narrative

a. Present and understandable?

☒ Yes ☐ No Comments:

b. Discrepancies, errors, or QC failures identified by the lab?

☐ Yes ☒ No Comments:

Not applicable

c. Were all corrective actions documented?

☐ Yes ☒ No Comments:

No corrective actions were noted in the case narrative or the sample receipt form.

d. What is the effect on data quality/usability according to the case narrative?

Comments:

5. Samples Results

a. Correct analyses performed/reported as requested on COC?

☒ Yes ☐ No Comments:

b. All applicable holding times met?

☒ Yes ☐ No Comments:

c. All soils reported on a dry weight basis?

☐ Yes ☒ No Comments:

Not applicable because only water samples were submitted for this work order.

d. Are the reported LOQs less than the Cleanup Level or the minimum required detection level for the project?

☐ Yes ☒ No Comments:

Laboratory LOQ for 1,2,3-trichloropropane was above the ADEC cleanup criterion for this work order. All other LOQs were below the ADEC cleanup criteria for this work order.

e. Data quality or usability affected?

☐ Yes ☒ No Comments:

No effect on data quality or usability. The LOQ for 1,2,3-trichloropropane exceeded the ADEC cleanup criterion in all samples on this work order. As such, it cannot be determined if the actual concentrations of 1,2,3-trichloropropane within these samples exceeds the ADEC cleanup criterion. However, because 1,2,3-trichloropropane is not a contaminant of concern for this site and because no other analytes were detected in the field samples, it is our opinion that this elevated LOQ does not affect the interpretation of the data for their intended use.

6. QC Samples

a. Method Blank

i. One method blank reported per matrix, analysis and 20 samples?

☒ Yes ☐ No Comments:

ii. All method blank results less than limit of quantitation (LOQ)?

☒ Yes ☐ No Comments:

iii. If above LOQ, what samples are affected?

Comments:

NA

iv. Do the affected sample(s) have data flags? If so, are the data flags clearly defined?

☐ Yes ☒ No Comments:

No data flags were present for the method blank data.

v. Data quality or usability affected?

Comments:

No effect on data quality or usability.

b. Laboratory Control Sample/Duplicate (LCS/LCSD)

i. Organics – One LCS/LCSD reported per matrix, analysis and 20 samples? (LCS/LCSD required per AK methods, LCS required per SW846)

☑ Yes ☐ No Comments:

ii. Metals/Inorganics – one LCS and one sample duplicate reported per matrix, analysis and 20 samples?

☐ Yes ☑ No Comments:

Metals analyses were not part of this work order.

iii. Accuracy – All percent recoveries (%R) reported and within method or laboratory limits? And project specified DQOs, if applicable. (AK Petroleum methods: AK101 60%-120%, AK102 75%-125%, AK103 60%-120%; all other analyses see the laboratory QC pages)

☑ Yes ☐ No Comments:

iv. Precision – All relative percent differences (RPD) reported and less than method or laboratory limits? And project specified DQOs, if applicable. RPD reported from LCS/LCSD, MS/MSD, and or sample/sample duplicate. (AK Petroleum methods 20%; all other analyses see the laboratory QC pages)

☑ Yes ☐ No Comments:

v. If %R or RPD is outside of acceptable limits, what samples are affected?

Comments:

NA

vi. Do the affected sample(s) have data flags? If so, are the data flags clearly defined?

☐ Yes ☑ No Comments:

There were no data QC issues with the LCS/LCSD samples in this work order.

vii. Data quality or usability affected? (Use comment box to explain.)

Comments:

NA

c. Surrogates – Organics Only

i. Are surrogate recoveries reported for organic analyses – field, QC and laboratory samples?

☑ Yes ☐ No Comments:

ii. Accuracy – All percent recoveries (%R) reported and within method or laboratory limits? And project specified DQOs, if applicable. (AK Petroleum methods 50-150 %R; all other analyses see the laboratory report pages)

☑ Yes ☐ No Comments:

iii. Do the sample results with failed surrogate recoveries have data flags? If so, are the data flags clearly defined?

☐ Yes ☑ No Comments:

There were no failed surrogate recoveries in this work order.

iv. Data quality or usability affected?

Comments:

No effect on data quality or usability.

d. Trip blank – Volatile analyses only (GRO, BTEX, Volatile Chlorinated Solvents, etc.): Water and Soil

i. One trip blank reported per matrix, analysis and for each cooler containing volatile samples?
(If not, enter explanation below.)

☑ Yes ☐ No Comments:

ii. Is the cooler used to transport the trip blank and VOA samples clearly indicated on the COC? (If not, a comment explaining why must be entered below)

☑ Yes ☐ No Comments:

iii. All results less than LOQ?

☑ Yes ☐ No Comments:

The laboratory LOQ for 1,2,3-trichloropropane was above the ADEC cleanup criterion for this work order; see section 5.e and 5.d above. All other LOQs were below the ADEC cleanup criteria for this work order.

iv. If above LOQ, what samples are affected?

Comments:

NA

v. Data quality or usability affected?

Comments:

NA

e. Field Duplicate

i. One field duplicate submitted per matrix, analysis and 10 project samples?

☑ Yes ☐ No Comments:

ii. Submitted blind to lab?

☑ Yes ☐ No Comments:

iii. Precision – All relative percent differences (RPD) less than specified DQOs?
(Recommended: 30% water, 50% soil)

RPD (%) = Absolute value of: $\frac{(R_1-R_2)}{((R_1+R_2)/2)} \times 100$

Where R_1 = Sample Concentration
R_2 = Field Duplicate Concentration

☑ Yes ☐ No Comments:

Water Sample MW2-2-1115 was a duplicate of Water Sample MW2-1-1115 and was collected to evaluate field sampling precision. Water Sample MW4-2-1114 was a duplicate of Water Sample MW4-1-1114 and was also collected to evaluate field sampling precision. The DRO and VOC parameters for samples and duplicates were non-detectable and there was no applicable relative percent difference (RPD).

iv. Data quality or usability affected? (Use the comment box to explain why or why not.)

Comments:

No effect on data quality or usability.

f. Decontamination or Equipment Blank (If not applicable, a comment stating why must be entered below).

☐ Yes ☐ No ☒ Not Applicable

i. All results less than LOQ?

☐ Yes ☐ No Comments:

NA

ii. If above LOQ, what samples are affected?

Comments:

NA

iii. Data quality or usability affected?

Comments:

NA

7. Other Data Flags/Qualifiers (ACOE, AFCEE, Lab Specific, etc.)

a. Defined and appropriate?

☐ Yes ☐ No Comments:

NA