NORTECH

SUSTAINABLE ENVIRONMENT, ENERGY,
HEALTH & SAFETY PROFESSIONAL SERVICES

Accounting Office:
2400 College Rd
Fairbanks, AK 99709
907.452.5688
907.452.5694 Fax

♦

3105 Lakeshore Drive
Suite A106
Anchorage, AK 99517
907.222.2445
907.222.0915 Fax

♦

5438 Shaune Drive
Suite B
Juneau, AK 99801
907.586.6813
907.586.6819 Fax

♦

www.nortechengr.com

January 8, 2016

Sent via email to:

Gold Hill Store
3040 Parks Highway,
Fairbanks, AK 99709

ATTN: Susan Osborne

RE: July 2015 Monitoring Well Sampling at the Gold Hill Store Site

Dear Ms. Osborne

NORTECH is pleased to submit this report summarizing the results of the July 20, 2015 groundwater monitoring event at the Gold Hill Store in Fairbanks, Alaska. The sampling program was carried out to characterize current groundwater concentrations of petroleum hydrocarbons. The scope of this work was outlined in ***NORTECH***'s July 2, 2015 proposal and ADEC approved work plan.

Figure 1 shows the location of the site in Fairbanks, Alaska. Figure 2 shows the site with associated buildings, and contaminant concentrations in each tested monitoring well along with a brief history of the latest sampling results.

Table 1 summarizes the 2015 groundwater laboratory results and field duplicate quality control results, while Table 2 show results obtained from the former drinking water well. A copy of the laboratory analysis report for the sampling event and an ADEC QC Checklist for the current sample results are also attached.

Background

AMEC Earth and Environmental Inc. (formerly AGRA Earth & Environmental) identified a petroleum hydrocarbon release from the former gasoline underground storage tanks located on the east side of the store structure in 1994. In 1996, AMEC installed a soil vapor extraction system (SVE) in combination with an air sparge system to remediate impacts to the soil and groundwater. AMEC initiated groundwater monitoring in 1994 and conducted at least 27 groundwater monitoring events throughout the years.

A document search indicates AMEC's remedial activities and monitoring activities were concluded in 2004, with the final analytical results and conclusions published in their 2004 annual report. This report indicated that eight monitoring points had at least one or more contaminants of concern exceeding ADEC's recommended cleanup levels. However, based on a positive natural attenuation analysis, reducing contaminant trends and an encouraging exposure route evaluation, AMEC recommended ADEC consider issuing a No Further Remedial Action Planned (NFRAP) with the stipulations of continued long term monitoring and continued use of carbon filtration on the Gold Hill Store water supply.

The latest document found in the ADEC file presenting results for fieldwork and groundwater monitoring was produced by Shannon and Wilson in November 2006.

Three monitoring wells and the drinking water supply (MW-2, MW-17, MW-20, and GHW-2) were tested. The results indicated several constituents exceeded ADEC cleanup levels in each groundwater monitoring well. Contaminant concentration trends were inconclusive with some results higher and some results lower than prior year concentrations.

Objectives/Scope of Work

The workplan guiding the current activities intended to identify current groundwater conditions at the Gold Hill Store Site and evaluate alternatives for a long-term strategy for management of long-term concerns. As reported by AMEC in their final 2004 annual report and by Shannon & Wilson in their November 2006 groundwater monitoring report, contamination exceeding ADEC's cleanup levels remained on site. Approximately nine years have passed since conditions have been evaluated, and ADEC has been updated on the current status of the site.

The scope of work and the ADEC work plan for this monitoring event were intended to:

- Document the location and condition of the monitoring wells (MWs)
- Sample and laboratory analysis of groundwater from MW2, MW-9, MW-12, MW16, MW17, MW 20, WW-2 and GHW-if functional
- Prepare a report documenting the sampling event.
- Outline long-term management strategies for contamination remaining at the site.

Methodology

Field sampling was completed in general accordance with the 2002 ADEC UST Procedures Manual Standard Sampling Procedures (SSP), 2010 Draft Field Sampling Guidance (FSG) and the attached standalone groundwater sampling methodologies as detailed in these sections. Prior to purging, static water levels were measured in the monitoring wells and recorded. Purging and sampling was performed with a peristaltic pump and dedicated tubing. During the purging process, field personnel monitored water quality parameters and purge volume. Purging was considered complete when at least three well volumes were removed and/or water quality parameters stabilized. Groundwater quality parameters (including temperature, ORP, pH, conductivity, and dissolved oxygen) were measured within a flow-through cell at three to five minute intervals during well purging. Water quality parameters were considered stabilized when three consecutive measurements indicated that: pH was within 0.1 units, conductivity was within 3 percent, the temperature was within 1 degree Celsius, and turbidity was within 10 percent. However, recharge rates in several wells were not sufficient to meet these criteria and were sampled when sufficient water volume had recharged for collecting samples.

Once groundwater quality stabilization criteria were satisfied, the pump's discharge tubing was disconnected from the flow-through cell and groundwater samples were collected for laboratory analysis. Samples were placed in clean, laboratory supplied glassware and placed immediately in a cooler with ice for transportation to the laboratory. One trip blank accompanied the samples submitted to the laboratory for analysis of volatile compounds. Samples were delivered under chain-of-custody (COC) to SGS Environmental Services in Anchorage, Alaska for analysis.

Field Activities

NORTECH mobilized to the site on July 20, 2015 to perform groundwater sampling as outlined in the ADEC approved workplan. Each monitoring well was inspected and condition noted.

MW-2 had no well cap and the well casing was frost jacked until the PVC riser touched the bottom of the well monument cover. The cover is in poor condition and needs replacement. Groundwater was detected at 16.44 feet. The recharge rate during purging was not sufficient to purge three well volumes or obtain stable water parameters. The well sampling was undertaken two hours later when sufficient groundwater recharged.

MW-17 had frost jacked, pulling the bottom of the well casing above the water table at the time of the sampling. Near MW-17, MW-19 and MW-18 appeared to be covered by fill used in the in the construction of the caboose drive throughstructuree and could not be sampled. To access groundwater in this area, a sample was collected from AS-8 despite the screened interval being deeper than monitoring wells in this area.

MW-12's well casing frosted jacked three feet above the protective surface casing, leaving the bottom of the well above the groundwater. No appropriate alternative well was located to establish groundwater conditions near the corner of Cornell Correction Center.

The other wells had not frost jacked. MW-20 was in good condition, though the recharge rate was slow. Approximately 4.5 gallons were purged when the well ran dry. The well was sampled fifteen minutes later when the well was sufficiently recharged to collect samples. MW-9 was in good condition and was sampled when groundwater parameters stabilized. WW-2 was fair condition and was sampled when water quality parameters were stable.

GHW-2, the former domestic water supply is no longer used in Gold Hill store's day to day operations. They use hauled water stored in a tank with a new expansion tank and pump. Despite GHW-2 falling into disuse, the system remains and a sample from GHW-2 was collected to compare with previous results. The sample was collected just after the expansion tank using the tanks existing hose barb.

NORTECH sampled water at seven monitoring points on site and off site on Cornell Corrections Center Property. The table below shows the analytical method used at each sampling point.

Analysis	MW-2	MW-9	MW-16	AS-8 Sub for MW-17	MW-20	WW-2	GHW-2
GRO by AK101	X	X	X	X	X	X	
VOCs EPA 8260	X	X	X	X	X	X	
EDB 504.1	X	X	X		X		
BTEX EPA 524.2							X
Lead, EPA 200.8	X				X		

Results with Discussion

Groundwater Contaminant Concentrations

The groundwater contaminant concentrations for the 2015 sampling events are summarized in Table 1 and the results from GHW-2 in Table 2. Historical data in these wells since 2002 are outlined in Figure 2.

MW-2 located near the highway had no BTEX compounds detected above the detection limit (DL). GRO compounds were detected below cleanup criteria. Lead and Ethylene Dichloride (EDC) and Ethylene dibromide (EDB) were detected above cleanup levels while Methyl *tert*-butyl ether (MTBE) and Chloroethane was detected at concentrations below ADEC's limits. Concentration trends have shown a general decrease since September 1995. The detected GRO concentration reported in 2015 is below the LOQ from previous non-detect results.

MW-16: Results from MW-16 has detectable concentrations of BTEX with benzene concentrations exceeding ADEC cleanup levels. Benzene concentrations have increased since the 2004 sampling event and remain above cleanup levels. MTBE has been detected below ADEC cleanup levels and has a similar concentration as 2004 results. EDC and EDB exceed cleanup levels as they did in 2004. Eleven other VOCs were detected well below ADECs cleanup levels. The contaminant concentrations have fluctuated through time, but GRO and BTEX compounds have decreased since 2003 and significantly decreased since 1995.

MW-9: This monitoring well is located in front of the heating oil dispenser. No compounds were detected at this well above the DL. This is consistent with long-term results, suggesting that the 6/4/2003 results were an anomaly or error.

MW-17/AS-8 This monitoring well has been damaged by frost jacking and is not usable. AS-8, the nearest well to MW-17, is a former sparge well and was used as a substitute for MW-17. GRO, Benzene and MTBE were detected below ADEC cleanup levels. EDC was detected above cleanup criteria.

WW-2: This water well is on the on Cornell Corrections Center Property. GRO was detected well below cleanup levels, while EDC was above the cleanup level. Benzene had been above the cleanup level from 1999 until 2002 and is now below the detection level. Benzene and GRO have fluctuated through time and the long-term trend has been a decline.

MW-20: Nine VOC compounds, including GRO were detected well below cleanup levels. Benzene, lead and EDC are above the ADEC cleanup levels, while in 2004, benzene, toluene, GRO, MTBE, EDB and EDC were above cleanup levels. The concentrations all compounds have declined since 2004.

GHW-2; GHW-2 is the former drinking water well that supplied the facility. Because the water had an odor and of poor quality, the water well was replaced by a hauled water system with a holding tank. The well was sampled and found to contain Trichlorofluoromethane (Freon 11) at a concentration three orders of magnitude below the cleanup level. No other VOC was detected above the DL. However, EDB's DL is above the ADEC cleanup level. EDB has not been historically detected at GHW-2. In 2003 and 2004, benzene was detected below the cleanup level.

Data Quality

Laboratory analytical reports and associated Laboratory Data Quality Control forms are presented in the Attachments. The data quality review for this sampling event indicated there were no significant data quality issues associated with this laboratory report.

Other data quality issues, including the calculated relative percent differences (RPDs) for each analyte in the field duplicate pair, are discussed in the attached Laboratory Data Review

Checklist (LDCR). The RPDs are acceptable and no other significant data quality issues that could impact the usability of the data were identified.

While benzene was not detected in the estimated range between the LOQ and the DL, a number of other analytes were detected in this range. These are reported in the laboratory report and in Table 1 with a "J" flag, which means that the concentration reported is estimated because it is below the calibration range of the instrument. While these concentrations are estimated below the LOQ, the results and the LOQ can compared to ADEC cleanup levels. Each of the J-flagged concentrations, and the LOQ for each of these analytes, are well-below applicable ADEC cleanup levels.

Biological Degradation

Except for EDC in MW-16, the historic results while tending to fluctuate, show a general long-term decrease in concentrations for all COCs. AMEC collected a broad array of geochemical parameters in May 2004 to evaluate the biological degradation of contaminants. Manganese, total iron, ferrous iron were elevated at the plume center and gasoline degrading bacteria were detected, suggesting biologic activity is occurring. The general decrease in contaminant concentrations seen in this sample event is most likely a result of continued biological degradation of the contaminants and other natural attenutive processes. AMEC studies also concluded that nitrogen is limited and additions of ammonia and micronutrients may stimulate and increase natural attenuation.

Field parameters collected during this event show the dissolved oxygen is lowest in MW-16 and MW-20, the most contaminated wells and in the plume center. Oxygen reduction potential is positive in all wells with the lowest values at MW-16 (102 mv). While not conclusive, the limited data suggests ongoing biological activity at MW-16 and MW-20.

Future Remediation and Sampling

The soil remediation activities (air sparge, soil vapor extraction and dual phase extraction) conducted from 1995 to 2004 removed a significant contaminant mass. The remaining contamination is expected to decrease in the future based on decreasing trends that has been established with data obtained from the last 28 sampling events. Future sampling events may be able to be less frequent and should be conducted every five years to ten years to verify continued decreasing contaminate concentrations. All unused wells, including sparge and SVE points should be decommissioned in accordance with ADEC guidance.

Indoor Air quality

Based on clean results at MW-9 and GHW-2, indoor air quality at the store is not a concern. Testing for petroleum VOC constituents would prove to be inconclusive due to the products sold in the store and elevated ambient air conditions on site.

Conclusions and Recommendations

Based on the current and historical data, ***NORTECH*** has arrived at the following conclusions:

- Contaminant trends since 1995 are decreasing
    - GRO concentrations in MW-16 are above cleanup levels, but are less that cleanup levels in all other monitoring wells sampled
    - Benzene is the only BTEX compound above cleanup levels at MW-16 and MW-20, toluene, ethylbenzene, and total xylenes concentrations remain below cleanup levels

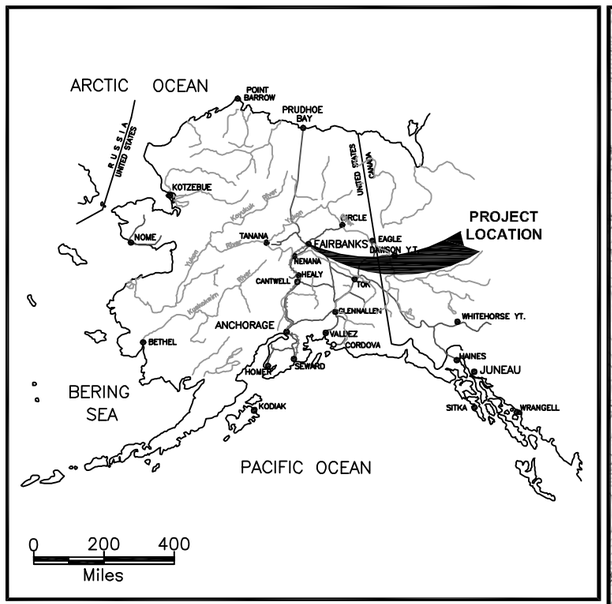
  - Excepting EDC, MW-20 and MW-16 are the only wells test that has VOC compounds above the cleanup levels
  - EDC is the most recalcitrant compound and will remain on site longer than other VOCs
  - Add nitrogen and micro elements to stimulate remedial processes, especially to encourage EDC degradation across the site
  - Perform groundwater monitoring every five years to verify decreasing trends
- Based on data obtained from more than 28 sampling events, the soil and groundwater impacted by petroleum hydrocarbons has been adequately delineated
- Natural attenuation geochemistry was evaluated in 2004 by AMEC
  - This indicated biological degradation would provide long-term remediation at the site.
  - AMEC suggested nutrient addition may stimulate biological activity and reduce remediation time
  - Trends indicate biological activity is reducing contaminant trends sincethe active remediation systemm was shut down
- The clean groundwater results at MW-9 and GHW-2 suggest IAQ issues regarding petroleum VOCs are not a concern
- The former drinking water well (GHW-2) meets the ADEC drinking water standards
  - This well has been replaced with a hauled water system
  - No additional sampling of this well is recommended
- All wells, points and other in ground hardware, including GHW-2 should be decommissioned if not part of a long term monitoring program

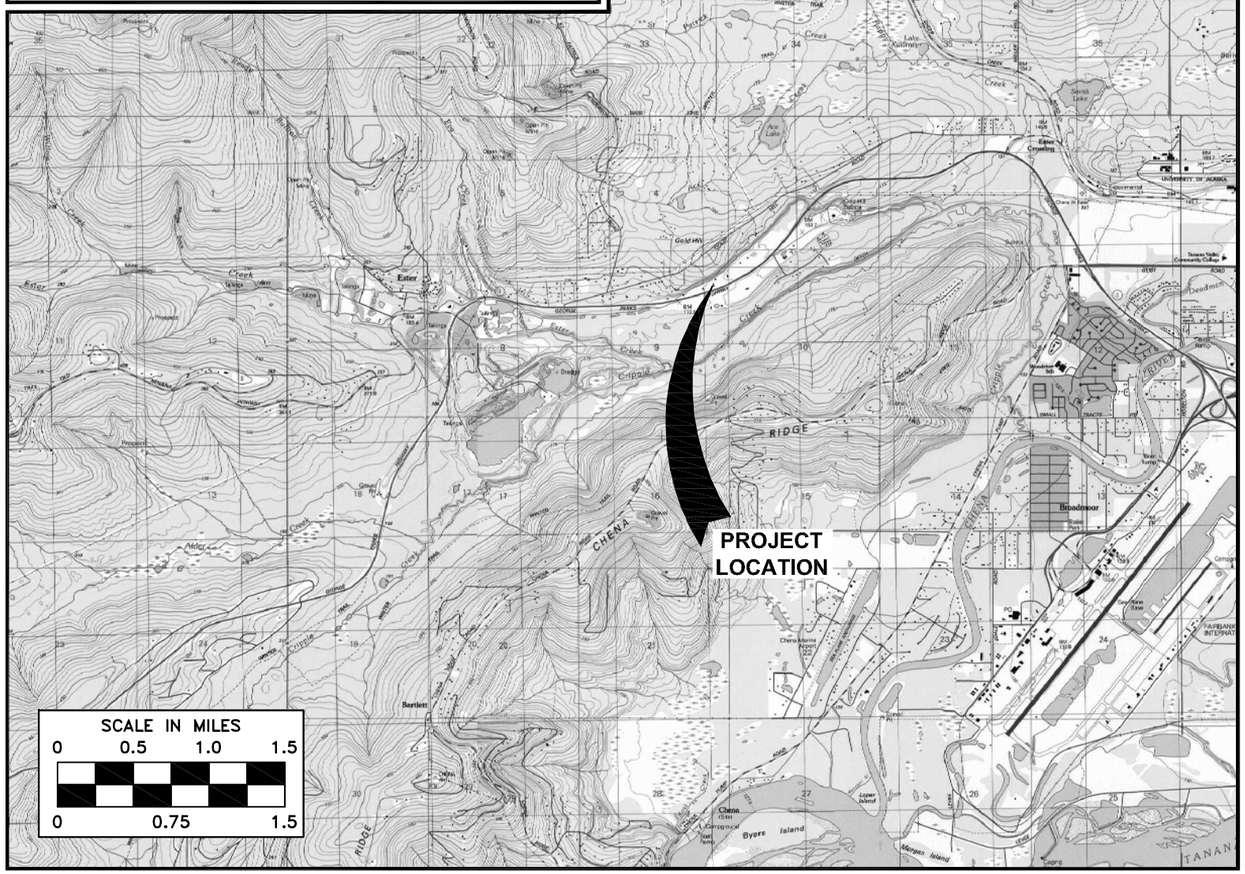
This report should be submitted to the ADEC for review and comment. ***NORTECH*** can coordinate this following your review of the report. The recommendations should be developed into a long-term monitoring program that establishes a limited number of wells to be sampled periodically. Please contact me at your earliest convenience if you have any questions or concerns.

Sincerely,
NORTECH

Doug Dusek
Environmental Specialist

Attachments: Figures
Tables
Laboratory Report and ADEC Laboratory Data Review Check List
Standard Groundwater Sampling Methodology





NORTECH

SUSTAINABLE ENVIRONMENT, ENERGY, HEALTH & SAFETY
2400 College Road, Fairbanks, AK. 99709, 907-452-5688
3105 Lakeshore Dr. Ste.A106, Anchorage, AK. 99517 907-222-2445
5438 Shaune Dr. Ste.B, Juneau, AK. 99801 907-586-6813

2015 Groundwater Monitoring
Gold Hill General Store
Fairbanks, Alaska

DATE: 1/7/2016	SCALE: As Shown
PROJ MGR: DD	PROJECT: 15-1091
DRAWN: CMR	DWG. NO.: 151091a(01)

FIGURE 1

MW-20				
Analyte	7/11/2003	10/29/2003	5/13/2004	7/20/2015
B	**2.05**	**0.233**	**4.360**	**1.09**
T	0.002U	0.002U	**2.180**	0.0005U
E	0.12	0.007	0.41	0.00032J
X	0.059	0.004U	1	0.0015U
GRO	**2.94**	0.543	**15.7**	1.70
MTBE	NT	0.0248	0.005U	0.00897J
EDB	NT	**0.0047**	**0.011**	0.00003
EDC	NT	0.001U	**0.092**	**0.027**
Lead	NT	**0.15**	**0.097**	**0.055**

MW-20

MW-9			
Analyte	9/5/2002	6/4/2003	7/20/2015
B	0.0005U	**0.355**	0.0002U
T	0.002U	0.02U	0.0005U
E	0.002U	0.022	0.0005U
X	0.0592	0.574	0.0005U
GRO	0.09U	1.86	0.0500U
MTBE	NT	NT	0.005U
EDB	NT	NT	0.0005U
EDC	NT	NT	0.0005U

WW-2		
Analyte	9/5/2002	7/20/2015
B	**0.287**	0.0002U
T	0.020	0.0005U
E	0.020U	0.0005U
X	0.040U	0.0005U
GRO	0.09U	0.0323J
MTBE	NT	0.005U
EDB	NT	**0.0179**
EDC	NT	**0.023**

WW-2

GHW-2				
Analyte	6/4/2003	10/29/2003	5/14/2004	7/20/2015
B	**0.0034**	0.0007	0.0005	0.00025U
T	0.002U	0.0005U	0.002U	0.00025U
E	0.002U	0.0005U	0.002U	0.00025U
X	0.004U	0.002U	0.004U	0.00025U
GRO	0.09U	0.09U	0.09U	NT
MTBE	NT	NT	0.001U	0.0005U
EDB	NT	NT	0.000018U	0.00025U
EDC	NT	NT	0.0005U	0.00025U

GHW-2

MW-9

FORMER TANKS

GOLD HILL STORE.

MW-16			
Analyte	9/5/2002	5/13/2004	7/20/2015
B	**11.40**	**0.93**	**3.87**
T	**18.40**	**1.07**	0.00088J
E	**3.11**	0.28	0.0102
X	**12.1**	1.56	0.0955
GRO	**64.80**	**8.49**	0.036
MTBE	NT	0.128	0.143
EDB	NT	**0.018**	**0.0179**
EDC	NT	**0.195**	**0.267**

MW-16 **(GRO = 8.09 mg/l)**

AS-8 (Sub MW-17)	
Analyte	7/20/2015
B	0.00039J
T	0.0005U
E	0.0005U
X	0.0005U
GRO	0.0400J
MTBE	0.038
EDB	NT
EDC	**0.049**

AS-8

MW-17	
Analyte	11/10/2006
B	**0.179**
T	<0.002
E	<0.002
X	<0.002
GRO	NT
MTBE	0.044
EDB	**0.006**
EDC	**0.177**

MW-17

CORNELL CORRECTIONS CENTER

MW-12

MW-2

MW-2					
Analyte	9/5/2002	6/4/2003	10/3/2003/	5/14/2004	7/20/2015
B	0.0005U	**0.444**	0.0005U	**0.16**	0.0002U
T	0.002U	0.002U	0.002U	0.002U	0.0005U
E	0.002U	0.002U	0.002U	0.002U	0.0005U
X	0.004U	0.004U	0.004U	0.004U	0.0015U
GRO	0.09U	0.64	0.09U	0.34U	0.036U
MTBE	NT	NT	0.197	0.197	0.0233
EDB	NT	NT	**0.011**	**0.0009**	**0.00026**
EDC	NT	NT	**0.267**	**0.0692**	**0.0251**
Lead	NT	NT	**0.06**	0.05U	**0.0254**

NOTE:

1. ALL UNITS ARE mg/L

NORTECH
SUSTAINABLE ENVIRONMENT, ENERGY, HEALTH & SAFETY
2400 College Road, Fairbanks, AK. 99709, 907-452-5688
3105 Lakeshore Dr. Ste.A106, Anchorage, AK. 99517 907-222-2445
5438 Shaune Dr. Ste.B, Juneau, AK. 99801 907-586-6813

2015 Groundwater Monitoring Well Locations & Results
Gold Hill General Store
Fairbanks, Alaska

DATE: 1/7/2016	SCALE: 1" = 30'
PROJ MGR: DD	PROJECT: 15-1091
DRAWN: CMR	DWG. NO.: 151091a(02)

FIGURE 2

Table 1
Gold Hill Groundwater Sample Results Summary
July 20, 2015

Sample ID	ADEC	MW-2	MW-9	MW-16	AS-8	WW-2	MW-20	MW-25	RPD
	Cleanup Level							Duplicate of MW-20	
Analyte	mg/L	mg/L		mg/L	mg/L	mg/L	mg/L	mg/L	%
Petroleum Fractions by AK 101									
GRO	2.2	0.036	0.0500U	**8.09**	0.0400J	0.0323J	1.70	2.12	22.0%
VOCs by SW 8260B									
1,2,4-Trimethylbenzene	1.8	0.0005U	0.0005U	0.035	0.0005U	0.0005U	0.0005U	0.0005U	NA
1,2-Dibromoethane (EDB)	0.00005	**0.00026**	0.0000037U	**0.0179**	NT	NT	0.00003	0.00003	NA
1,2-Dichloroethane (EDC)	0.005	**0.042**	0.0005U	**0.267**	**0.049**	**0.023**	**0.027**	**0.025**	6.9%
1,3,5-Trimethylbenzene	1.8	0.0005U	0.0005U	0.002	0.0005U	0.0005U	0.0005U	0.0005U	NA
4-Isopropyltoluene	NE	0.0005U	0.0002U	0.003	0.0002U	0.0002U	0.0002U	0.0002U	NA
Benzene	0.005	0.0002U	0.0005U	**3.87**	0.00039J	0.0002U	**1.09**	**0.976**	11.0%
Chloroethane	0.29	0.000940J	0.0005U	0.0005U	0.0005U	0.0005U	0.0005U	0.0005U	NA
Ethylbenzene	0.7	0.0005U	0.0005U	0.010	0.0005U	0.0005U	0.00032J	0.0005U	NA
Isopropylbenzene (Cumene)	3.7	0.0005U	0.0005U	0.006	0.0005U	0.0005U	0.017	0.015	12.7%
Methyl-t-butyl ether	0.47	0.023	0.005U	0.143	0.0378	0.005U	0.00897J	0.00852J	5.1%
Naphthalene	0.73	0.005U	0.005U	0.049	0.005U	0.005U	0.005U	0.005U	NA
Trichlorofluoromethane	11.0	0.0005U	0.0005U	0.0005U	0.0005U	0.0005U	0.00061J	0.00052J	15.9%
n-Propylbenzene	0.37	0.0005U	0.0005U	0.013	0.0005U	0.0005U	0.00095J	0.00081J	15.9%
sec-Butylbenzene	0.37	0.0005U	0.0005U	0.0005U	0.0005U	0.0005U	0.003	0.003	13.7%
Toluene	1.0	0.0005U	0.0005U	0.0005U	0.0005U	0.0005U	0.0005U	0.0005U	NA
o-Xylene	NE	0.0005U	0.0005U	0.077	0.0005U	0.0005U	0.00052J	0.00046J	12.2%
p & m-Xylene	NE	0.001U	0.001U	0.019	0.001U	0.001U	0.001U	0.001U	NA
Xylenes (total)	10	0.0015U	0.0015U	0.096	0.0015U	0.0015U	0.0015U	0.0015U	NA
Lead by EP 200.8									
Lead	0.015	**0.025**	NT	NT	NT	NT	**0.055**	**0.054**	0.9%

Notes:

# U	Analyte not detected at the listed limit of quantitation (LOQ)
#J	Concentration estimated between the Detection Limit (DL) and the LOQ
NA	Analyte not analyzed
Shade	Analyte detected in concentration below the ADEC Cleanup level
Bold	Analyte detected in concentration exceeding the ADEC Cleanup level
NE	Cleanup &/or Fbks Background Level for Analyte not established
RPD	Relative Percent Difference
mg/L	Milligrams per liter
NT	Not Taken

Table 2
Gold Hill Drinking Water Sample Results Summary

Sample ID	ADEC	GH-2	GH-12	RPD
	Cleanup Level		Dup of GH-2	
Analyte	mg/L	mg/L	mg/L	%
VOCs EPA Method 524.2				
Benzene	0.005	0.00025U	0.00025U	NA
Ethylbenzene	0.7	0.00025U	0.00025U	NA
Trichlorofluoromethane	11.0	0.0014	0.0014	4.3%
Toluene	1	0.00100U	0.00100U	NA
o-Xylene	NE	0.00025U	0.00025U	NA
p & m-Xylene	NE	0.00025U	0.00025U	NA
Xylenes (total)	10	0.00025U	0.00025U	NA

Notes:

# U	Analyte not detected at the listed limit of quantitation (LOQ)
NA	Analyte not analyzed
Shade	Analyte detected in concentration below the ADEC Cleanup level
Bold	Analyte detected in concentration exceeding the ADEC Cleanup level
NE	Cleanup Level for Analyte not established
RPD	Relative Percent Difference

Laboratory Report of Analysis

To: Nortech
2400 College Rd.
Fairbanks, AK 99709
(907)385-7587

Report Number: **1158310**

Client Project: **Gold Hill**

Dear Doug Dusek,

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 Jennifer 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.

Stephen C. Ede
Alaska Division Technical Director

Stephen Ede
2015.08.05
14:15:40 -08'00'

Jennifer Dawkins
Project Manager

Date

Print Date: 08/05/2015 2:08:39PM

Case Narrative

SGS Client: **Nortech**
SGS Project: **1158310**
Project Name/Site: **Gold Hill**
Project Contact: **Doug Dusek**

Refer to sample receipt form for information on sample condition.

MW-2 (1158310001) PS

504 - EDB was analyzed by Test America of Denver, CO.

MW-9 (1158310002) PS

504 - EDB was analyzed by Test America of Denver, CO.

MW-16 (1158310003) PS

504 - EDB was analyzed by Test America of Denver, CO.

MW-20 (1158310005) PS

504 - EDB was analyzed by Test America of Denver, CO.
AK101 - Surrogate recovery for 4-bromofluorobenzene (158%) does not meet QC criteria due to matrix interference.

MW-25 (1158310009) PS

504 - EDB was analyzed by Test America of Denver, CO.
AK101 - Surrogate recovery for 4-bromofluorobenzene (188%) does not meet QC criteria due to matrix interference.

TB-02 (1158310011) PS

504 - EDB was analyzed by Test America of Denver, CO.

*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

Report of Manual Integrations

Laboratory ID	Client Sample ID	Analytical Batch	Analyte	Reason
SW8260B				
1158310001	MW-2	VMS15116	Chloroethane	BLC

Manual Integration Reason Code Descriptions

Code	Description
O	Original Chromatogram
M	Modified Chromatogram
SS	Skimmed surrogate
BLG	Closed baseline gap
RP	Reassign peak name
PIR	Pattern integration required
IT	Included tail
SP	Split peak
RSP	Removed split peak
FPS	Forced peak start/stop
BLC	Baseline correction
PNF	Peak not found by software

All DRO/RRO analysis are integrated per SOP.

Print Date: 08/05/2015 2:08:41PM

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) & UST-005 (CS) for ADEC and 2944.01 for DOD ELAP/ISO17025 (RCRA methods: 1020B, 1311, 3010A, 3050B, 3520C, 3550C, 5030B, 5035A, 6020A, 7470A, 7471B, 8021B, 8082A, 8260B, 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
D	The analyte concentration is the result of a dilution.
DF	Dilution Factor
DL	Detection Limit (i.e., maximum method detection limit)
E	The analyte result is above the calibrated range.
F	Indicates value that is greater than or equal to the DL
GT	Greater Than
IB	Instrument Blank
ICV	Initial Calibration Verification
J	The quantitation is an estimation.
JL	The analyte was positively identified, but the quantitation is a low estimation.
LCS(D)	Laboratory Control Spike (Duplicate)
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
M	A matrix effect was present.
MB	Method Blank
MS(D)	Matrix Spike (Duplicate)
ND	Indicates the analyte is not detected.
Q	QC parameter out of acceptance range.
R	Rejected
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
t 907.562.2343 f 907.561.5301 www.us.sgs.com

Sample Summary

Client Sample ID	Lab Sample ID	Collected	Received	Matrix
MW-2	1158310001	07/20/2015	07/21/2015	Water (Surface, Eff., Ground)
MW-9	1158310002	07/20/2015	07/21/2015	Water (Surface, Eff., Ground)
MW-16	1158310003	07/20/2015	07/21/2015	Water (Surface, Eff., Ground)
AS-8	1158310004	07/20/2015	07/21/2015	Water (Surface, Eff., Ground)
MW-20	1158310005	07/20/2015	07/21/2015	Water (Surface, Eff., Ground)
WW-2	1158310006	07/20/2015	07/21/2015	Water (Surface, Eff., Ground)
GHW-2	1158310007	07/20/2015	07/21/2015	Water (Surface, Eff., Ground)
GHW-12	1158310008	07/20/2015	07/21/2015	Water (Surface, Eff., Ground)
MW-25	1158310009	07/20/2015	07/21/2015	Water (Surface, Eff., Ground)
TB-01	1158310010	07/20/2015	07/21/2015	Water (Surface, Eff., Ground)
TB-02	1158310011	07/20/2015	07/21/2015	Water (Surface, Eff., Ground)
TB-03	1158310012	07/20/2015	07/21/2015	Water (Surface, Eff., Ground)

Method	Method Description
AK101	Gasoline Range Organics (W)
EP200.8	Metals in Water by 200.8 ICP-MS
SW8260B	Volatile Organic Compounds (W) FULL
EPA 524.2	Volatile Organics by 524.2 (DW)

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

Detectable Results Summary

Client Sample ID: **MW-2**
Lab Sample ID: 1158310001

	Parameter	Result	Units
Metals by ICP/MS	Lead	25.4	ug/L
Volatile Fuels	Gasoline Range Organics	0.0361J	mg/L
Volatile Gas Chromatography/Mass Spectrom	1,2-Dichloroethane	42.4	ug/L
	Chloroethane	0.940J	ug/L
	Methyl-t-butyl ether	23.3	ug/L

Client Sample ID: **MW-16**
Lab Sample ID: 1158310003

	Parameter	Result	Units
Volatile Fuels	Gasoline Range Organics	8.09	mg/L
Volatile Gas Chromatography/Mass Spectrom	1,2,4-Trimethylbenzene	34.6	ug/L
	1,2-Dibromoethane	17.9	ug/L
	1,2-Dichloroethane	267	ug/L
	1,3,5-Trimethylbenzene	2.12	ug/L
	4-Isopropyltoluene	2.85	ug/L
	Benzene	3870	ug/L
	Ethylbenzene	10.2	ug/L
	Isopropylbenzene (Cumene)	5.77	ug/L
	Methyl-t-butyl ether	143	ug/L
	Naphthalene	49.3	ug/L
	n-Propylbenzene	12.6	ug/L
	o-Xylene	76.6	ug/L
	P & M -Xylene	18.9	ug/L
	sec-Butylbenzene	2.54	ug/L
	Toluene	0.880J	ug/L
	Xylenes (total)	95.5	ug/L

Client Sample ID: **AS-8**
Lab Sample ID: 1158310004

	Parameter	Result	Units
Volatile Fuels	Gasoline Range Organics	0.0400J	mg/L
Volatile Gas Chromatography/Mass Spectrom	1,2-Dichloroethane	49.3	ug/L
	Benzene	0.390J	ug/L
	Methyl-t-butyl ether	37.8	ug/L

Client Sample ID: **MW-20**
Lab Sample ID: 1158310005

	Parameter	Result	Units
Metals by ICP/MS	Lead	54.7	ug/L
Volatile Fuels	Gasoline Range Organics	1.70	mg/L
Volatile Gas Chromatography/Mass Spectrom	1,2-Dichloroethane	26.9	ug/L
	Benzene	1090	ug/L
	Ethylbenzene	0.320J	ug/L
	Isopropylbenzene (Cumene)	16.7	ug/L
	Methyl-t-butyl ether	8.97J	ug/L
	n-Butylbenzene	0.610J	ug/L
	n-Propylbenzene	0.950J	ug/L
	o-Xylene	0.520J	ug/L
	sec-Butylbenzene	3.13	ug/L

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

Detectable Results Summary

Client Sample ID: **WW-2**			
Lab Sample ID: 1158310006	Parameter	Result	Units
Volatile Fuels	Gasoline Range Organics	0.0323J	mg/L
Volatile Gas Chromatography/Mass Spectrom	1,2-Dichloroethane	23.4	ug/L
Client Sample ID: **GHW-2**			
Lab Sample ID: 1158310007	Parameter	Result	Units
Volatile Gas Chromatography/Mass Spectrom	Trichlorofluoromethane	1.35	ug/L
Client Sample ID: **GHW-12**			
Lab Sample ID: 1158310008	Parameter	Result	Units
Volatile Gas Chromatography/Mass Spectrom	Trichlorofluoromethane	1.41	ug/L
Client Sample ID: **MW-25**			
Lab Sample ID: 1158310009	Parameter	Result	Units
Metals by ICP/MS	Lead	54.2	ug/L
Volatile Fuels	Gasoline Range Organics	2.12	mg/L
Volatile Gas Chromatography/Mass Spectrom	1,2-Dichloroethane	25.1	ug/L
	Benzene	976	ug/L
	Isopropylbenzene (Cumene)	14.7	ug/L
	Methyl-t-butyl ether	8.52J	ug/L
	n-Butylbenzene	0.520J	ug/L
	n-Propylbenzene	0.810J	ug/L
	o-Xylene	0.460J	ug/L
	sec-Butylbenzene	2.73	ug/L
Client Sample ID: **TB-03**			
Lab Sample ID: 1158310012	Parameter	Result	Units
Volatile Gas Chromatography/Mass Spectrom	Methylene chloride	0.230J	ug/L

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

Results of **MW-2**

Client Sample ID: **MW-2**
Client Project ID: **Gold Hill**
Lab Sample ID: 1158310001
Lab Project ID: 1158310

Collection Date: 07/20/15 11:45
Received Date: 07/21/15 09:00
Matrix: Water (Surface, Eff., Ground)
Solids (%):
Location:

Results by **Metals by ICP/MS**

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Lead	25.4		0.200	0.0620	ug/L	1		07/28/15 17:26

Batch Information

Analytical Batch: MMS9018
Analytical Method: EP200.8
Analyst: EAB
Analytical Date/Time: 07/28/15 17:26
Container ID: 1158310001-J

Prep Batch: MXX28917
Prep Method: E200.2
Prep Date/Time: 07/27/15 15:00
Prep Initial Wt./Vol.: 20 mL
Prep Extract Vol: 50 mL

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

Results of **MW-2**

Client Sample ID: **MW-2**
Client Project ID: **Gold Hill**
Lab Sample ID: 1158310001
Lab Project ID: 1158310

Collection Date: 07/20/15 11:45
Received Date: 07/21/15 09:00
Matrix: Water (Surface, Eff., Ground)
Solids (%):
Location:

Results by **Volatile Fuels**

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Gasoline Range Organics	0.0361	J	0.100	0.0310	mg/L	1		07/23/15 16:33
Surrogates								
4-Bromofluorobenzene (surr)	103		50-150		%	1		07/23/15 16:33

Batch Information

Analytical Batch: VFC12534
Analytical Method: AK101
Analyst: CRD
Analytical Date/Time: 07/23/15 16:33
Container ID: 1158310001-A

Prep Batch: VXX27612
Prep Method: SW5030B
Prep Date/Time: 07/23/15 08:00
Prep Initial Wt./Vol.: 5 mL
Prep Extract Vol: 5 mL

Results of **MW-2**

Client Sample ID: **MW-2**
Client Project ID: **Gold Hill**
Lab Sample ID: 1158310001
Lab Project ID: 1158310

Collection Date: 07/20/15 11:45
Received Date: 07/21/15 09:00
Matrix: Water (Surface, Eff., Ground)
Solids (%):
Location:

Results by **Volatile Gas Chromatography/Mass Spectrome**

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
1,1,1,2-Tetrachloroethane	0.250	U	0.500	0.150	ug/L	1		07/22/15 16:35
1,1,1-Trichloroethane	0.500	U	1.00	0.310	ug/L	1		07/22/15 16:35
1,1,2,2-Tetrachloroethane	0.250	U	0.500	0.150	ug/L	1		07/22/15 16:35
1,1,2-Trichloroethane	0.500	U	1.00	0.310	ug/L	1		07/22/15 16:35
1,1-Dichloroethane	0.500	U	1.00	0.310	ug/L	1		07/22/15 16:35
1,1-Dichloroethene	0.500	U	1.00	0.310	ug/L	1		07/22/15 16:35
1,1-Dichloropropene	0.500	U	1.00	0.310	ug/L	1		07/22/15 16:35
1,2,3-Trichlorobenzene	0.500	U	1.00	0.310	ug/L	1		07/22/15 16:35
1,2,3-Trichloropropane	0.500	U	1.00	0.310	ug/L	1		07/22/15 16:35
1,2,4-Trichlorobenzene	0.500	U	1.00	0.310	ug/L	1		07/22/15 16:35
1,2,4-Trimethylbenzene	0.500	U	1.00	0.310	ug/L	1		07/22/15 16:35
1,2-Dibromo-3-chloropropane	5.00	U	10.0	3.10	ug/L	1		07/22/15 16:35
1,2-Dibromoethane	0.500	U	1.00	0.310	ug/L	1		07/22/15 16:35
1,2-Dichlorobenzene	0.500	U	1.00	0.310	ug/L	1		07/22/15 16:35
1,2-Dichloroethane	42.4		0.500	0.150	ug/L	1		07/22/15 16:35
1,2-Dichloropropane	0.500	U	1.00	0.310	ug/L	1		07/22/15 16:35
1,3,5-Trimethylbenzene	0.500	U	1.00	0.310	ug/L	1		07/22/15 16:35
1,3-Dichlorobenzene	0.500	U	1.00	0.310	ug/L	1		07/22/15 16:35
1,3-Dichloropropane	0.250	U	0.500	0.150	ug/L	1		07/22/15 16:35
1,4-Dichlorobenzene	0.250	U	0.500	0.150	ug/L	1		07/22/15 16:35
2,2-Dichloropropane	0.500	U	1.00	0.310	ug/L	1		07/22/15 16:35
2-Butanone (MEK)	5.00	U	10.0	3.10	ug/L	1		07/22/15 16:35
2-Chlorotoluene	0.500	U	1.00	0.310	ug/L	1		07/22/15 16:35
2-Hexanone	5.00	U	10.0	3.10	ug/L	1		07/22/15 16:35
4-Chlorotoluene	0.500	U	1.00	0.310	ug/L	1		07/22/15 16:35
4-Isopropyltoluene	0.500	U	1.00	0.310	ug/L	1		07/22/15 16:35
4-Methyl-2-pentanone (MIBK)	5.00	U	10.0	3.10	ug/L	1		07/22/15 16:35
Benzene	0.200	U	0.400	0.120	ug/L	1		07/22/15 16:35
Bromobenzene	0.500	U	1.00	0.310	ug/L	1		07/22/15 16:35
Bromochloromethane	0.500	U	1.00	0.310	ug/L	1		07/22/15 16:35
Bromodichloromethane	0.250	U	0.500	0.150	ug/L	1		07/22/15 16:35
Bromoform	0.500	U	1.00	0.310	ug/L	1		07/22/15 16:35
Bromomethane	5.00	U	10.0	3.10	ug/L	1		07/22/15 16:35
Carbon disulfide	5.00	U	10.0	3.10	ug/L	1		07/22/15 16:35
Carbon tetrachloride	0.500	U	1.00	0.310	ug/L	1		07/22/15 16:35
Chlorobenzene	0.250	U	0.500	0.150	ug/L	1		07/22/15 16:35
Chloroethane	0.940	J	1.00	0.310	ug/L	1		07/22/15 16:35

Results of **MW-2**

Client Sample ID: **MW-2**
Client Project ID: **Gold Hill**
Lab Sample ID: 1158310001
Lab Project ID: 1158310

Collection Date: 07/20/15 11:45
Received Date: 07/21/15 09:00
Matrix: Water (Surface, Eff., Ground)
Solids (%):
Location:

Results by **Volatile Gas Chromatography/Mass Spectrome**

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Chloroform	0.500	U	1.00	0.300	ug/L	1		07/22/15 16:35
Chloromethane	0.500	U	1.00	0.310	ug/L	1		07/22/15 16:35
cis-1,2-Dichloroethene	0.500	U	1.00	0.310	ug/L	1		07/22/15 16:35
cis-1,3-Dichloropropene	0.250	U	0.500	0.150	ug/L	1		07/22/15 16:35
Dibromochloromethane	0.250	U	0.500	0.150	ug/L	1		07/22/15 16:35
Dibromomethane	0.500	U	1.00	0.310	ug/L	1		07/22/15 16:35
Dichlorodifluoromethane	0.500	U	1.00	0.310	ug/L	1		07/22/15 16:35
Ethylbenzene	0.500	U	1.00	0.310	ug/L	1		07/22/15 16:35
Freon-113	5.00	U	10.0	3.10	ug/L	1		07/22/15 16:35
Hexachlorobutadiene	0.500	U	1.00	0.310	ug/L	1		07/22/15 16:35
Isopropylbenzene (Cumene)	0.500	U	1.00	0.310	ug/L	1		07/22/15 16:35
Methylene chloride	2.50	U	5.00	1.00	ug/L	1		07/22/15 16:35
Methyl-t-butyl ether	23.3		10.0	3.10	ug/L	1		07/22/15 16:35
Naphthalene	5.00	U	10.0	3.10	ug/L	1		07/22/15 16:35
n-Butylbenzene	0.500	U	1.00	0.310	ug/L	1		07/22/15 16:35
n-Propylbenzene	0.500	U	1.00	0.310	ug/L	1		07/22/15 16:35
o-Xylene	0.500	U	1.00	0.310	ug/L	1		07/22/15 16:35
P & M -Xylene	1.00	U	2.00	0.620	ug/L	1		07/22/15 16:35
sec-Butylbenzene	0.500	U	1.00	0.310	ug/L	1		07/22/15 16:35
Styrene	0.500	U	1.00	0.310	ug/L	1		07/22/15 16:35
tert-Butylbenzene	0.500	U	1.00	0.310	ug/L	1		07/22/15 16:35
Tetrachloroethene	0.500	U	1.00	0.310	ug/L	1		07/22/15 16:35
Toluene	0.500	U	1.00	0.310	ug/L	1		07/22/15 16:35
trans-1,2-Dichloroethene	0.500	U	1.00	0.310	ug/L	1		07/22/15 16:35
trans-1,3-Dichloropropene	0.500	U	1.00	0.310	ug/L	1		07/22/15 16:35
Trichloroethene	0.500	U	1.00	0.310	ug/L	1		07/22/15 16:35
Trichlorofluoromethane	0.500	U	1.00	0.310	ug/L	1		07/22/15 16:35
Vinyl acetate	5.00	U	10.0	3.10	ug/L	1		07/22/15 16:35
Vinyl chloride	0.500	U	1.00	0.310	ug/L	1		07/22/15 16:35
Xylenes (total)	1.50	U	3.00	1.00	ug/L	1		07/22/15 16:35
Surrogates								
1,2-Dichloroethane-D4 (surr)	111		81-118		%	1		07/22/15 16:35
4-Bromofluorobenzene (surr)	101		85-114		%	1		07/22/15 16:35
Toluene-d8 (surr)	99.3		89-112		%	1		07/22/15 16:35

Results of **MW-2**

Client Sample ID: **MW-2**
Client Project ID: **Gold Hill**
Lab Sample ID: 1158310001
Lab Project ID: 1158310

Collection Date: 07/20/15 11:45
Received Date: 07/21/15 09:00
Matrix: Water (Surface, Eff., Ground)
Solids (%):
Location:

Results by **Volatile Gas Chromatography/Mass Spectrome**

Batch Information

Analytical Batch: VMS15116
Analytical Method: SW8260B
Analyst: NRB
Analytical Date/Time: 07/22/15 16:35
Container ID: 1158310001-D

Prep Batch: VXX27609
Prep Method: SW5030B
Prep Date/Time: 07/22/15 06:00
Prep Initial Wt./Vol.: 5 mL
Prep Extract Vol: 5 mL

Results of **MW-9**

Client Sample ID: **MW-9**
Client Project ID: **Gold Hill**
Lab Sample ID: 1158310002
Lab Project ID: 1158310

Collection Date: 07/20/15 12:30
Received Date: 07/21/15 09:00
Matrix: Water (Surface, Eff., Ground)
Solids (%):
Location:

Results by **Volatile Fuels**

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Gasoline Range Organics	0.0500	U	0.100	0.0310	mg/L	1		07/23/15 16:52
Surrogates								
4-Bromofluorobenzene (surr)	101		50-150		%	1		07/23/15 16:52

Batch Information

Analytical Batch: VFC12534
Analytical Method: AK101
Analyst: CRD
Analytical Date/Time: 07/23/15 16:52
Container ID: 1158310002-A

Prep Batch: VXX27612
Prep Method: SW5030B
Prep Date/Time: 07/23/15 08:00
Prep Initial Wt./Vol.: 5 mL
Prep Extract Vol: 5 mL

Results of **MW-9**

Client Sample ID: **MW-9**
Client Project ID: **Gold Hill**
Lab Sample ID: 1158310002
Lab Project ID: 1158310

Collection Date: 07/20/15 12:30
Received Date: 07/21/15 09:00
Matrix: Water (Surface, Eff., Ground)
Solids (%):
Location:

Results by **Volatile Gas Chromatography/Mass Spectrome**

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
1,1,1,2-Tetrachloroethane	0.250	U	0.500	0.150	ug/L	1		07/22/15 16:52
1,1,1-Trichloroethane	0.500	U	1.00	0.310	ug/L	1		07/22/15 16:52
1,1,2,2-Tetrachloroethane	0.250	U	0.500	0.150	ug/L	1		07/22/15 16:52
1,1,2-Trichloroethane	0.500	U	1.00	0.310	ug/L	1		07/22/15 16:52
1,1-Dichloroethane	0.500	U	1.00	0.310	ug/L	1		07/22/15 16:52
1,1-Dichloroethene	0.500	U	1.00	0.310	ug/L	1		07/22/15 16:52
1,1-Dichloropropene	0.500	U	1.00	0.310	ug/L	1		07/22/15 16:52
1,2,3-Trichlorobenzene	0.500	U	1.00	0.310	ug/L	1		07/22/15 16:52
1,2,3-Trichloropropane	0.500	U	1.00	0.310	ug/L	1		07/22/15 16:52
1,2,4-Trichlorobenzene	0.500	U	1.00	0.310	ug/L	1		07/22/15 16:52
1,2,4-Trimethylbenzene	0.500	U	1.00	0.310	ug/L	1		07/22/15 16:52
1,2-Dibromo-3-chloropropane	5.00	U	10.0	3.10	ug/L	1		07/22/15 16:52
1,2-Dibromoethane	0.500	U	1.00	0.310	ug/L	1		07/22/15 16:52
1,2-Dichlorobenzene	0.500	U	1.00	0.310	ug/L	1		07/22/15 16:52
1,2-Dichloroethane	0.250	U	0.500	0.150	ug/L	1		07/22/15 16:52
1,2-Dichloropropane	0.500	U	1.00	0.310	ug/L	1		07/22/15 16:52
1,3,5-Trimethylbenzene	0.500	U	1.00	0.310	ug/L	1		07/22/15 16:52
1,3-Dichlorobenzene	0.500	U	1.00	0.310	ug/L	1		07/22/15 16:52
1,3-Dichloropropane	0.250	U	0.500	0.150	ug/L	1		07/22/15 16:52
1,4-Dichlorobenzene	0.250	U	0.500	0.150	ug/L	1		07/22/15 16:52
2,2-Dichloropropane	0.500	U	1.00	0.310	ug/L	1		07/22/15 16:52
2-Butanone (MEK)	5.00	U	10.0	3.10	ug/L	1		07/22/15 16:52
2-Chlorotoluene	0.500	U	1.00	0.310	ug/L	1		07/22/15 16:52
2-Hexanone	5.00	U	10.0	3.10	ug/L	1		07/22/15 16:52
4-Chlorotoluene	0.500	U	1.00	0.310	ug/L	1		07/22/15 16:52
4-Isopropyltoluene	0.500	U	1.00	0.310	ug/L	1		07/22/15 16:52
4-Methyl-2-pentanone (MIBK)	5.00	U	10.0	3.10	ug/L	1		07/22/15 16:52
Benzene	0.200	U	0.400	0.120	ug/L	1		07/22/15 16:52
Bromobenzene	0.500	U	1.00	0.310	ug/L	1		07/22/15 16:52
Bromochloromethane	0.500	U	1.00	0.310	ug/L	1		07/22/15 16:52
Bromodichloromethane	0.250	U	0.500	0.150	ug/L	1		07/22/15 16:52
Bromoform	0.500	U	1.00	0.310	ug/L	1		07/22/15 16:52
Bromomethane	5.00	U	10.0	3.10	ug/L	1		07/22/15 16:52
Carbon disulfide	5.00	U	10.0	3.10	ug/L	1		07/22/15 16:52
Carbon tetrachloride	0.500	U	1.00	0.310	ug/L	1		07/22/15 16:52
Chlorobenzene	0.250	U	0.500	0.150	ug/L	1		07/22/15 16:52
Chloroethane	0.500	U	1.00	0.310	ug/L	1		07/22/15 16:52

Results of **MW-9**

Client Sample ID: **MW-9**
Client Project ID: **Gold Hill**
Lab Sample ID: 1158310002
Lab Project ID: 1158310

Collection Date: 07/20/15 12:30
Received Date: 07/21/15 09:00
Matrix: Water (Surface, Eff., Ground)
Solids (%):
Location:

Results by **Volatile Gas Chromatography/Mass Spectrome**

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Chloroform	0.500	U	1.00	0.300	ug/L	1		07/22/15 16:52
Chloromethane	0.500	U	1.00	0.310	ug/L	1		07/22/15 16:52
cis-1,2-Dichloroethene	0.500	U	1.00	0.310	ug/L	1		07/22/15 16:52
cis-1,3-Dichloropropene	0.250	U	0.500	0.150	ug/L	1		07/22/15 16:52
Dibromochloromethane	0.250	U	0.500	0.150	ug/L	1		07/22/15 16:52
Dibromomethane	0.500	U	1.00	0.310	ug/L	1		07/22/15 16:52
Dichlorodifluoromethane	0.500	U	1.00	0.310	ug/L	1		07/22/15 16:52
Ethylbenzene	0.500	U	1.00	0.310	ug/L	1		07/22/15 16:52
Freon-113	5.00	U	10.0	3.10	ug/L	1		07/22/15 16:52
Hexachlorobutadiene	0.500	U	1.00	0.310	ug/L	1		07/22/15 16:52
Isopropylbenzene (Cumene)	0.500	U	1.00	0.310	ug/L	1		07/22/15 16:52
Methylene chloride	2.50	U	5.00	1.00	ug/L	1		07/22/15 16:52
Methyl-t-butyl ether	5.00	U	10.0	3.10	ug/L	1		07/22/15 16:52
Naphthalene	5.00	U	10.0	3.10	ug/L	1		07/22/15 16:52
n-Butylbenzene	0.500	U	1.00	0.310	ug/L	1		07/22/15 16:52
n-Propylbenzene	0.500	U	1.00	0.310	ug/L	1		07/22/15 16:52
o-Xylene	0.500	U	1.00	0.310	ug/L	1		07/22/15 16:52
P & M -Xylene	1.00	U	2.00	0.620	ug/L	1		07/22/15 16:52
sec-Butylbenzene	0.500	U	1.00	0.310	ug/L	1		07/22/15 16:52
Styrene	0.500	U	1.00	0.310	ug/L	1		07/22/15 16:52
tert-Butylbenzene	0.500	U	1.00	0.310	ug/L	1		07/22/15 16:52
Tetrachloroethene	0.500	U	1.00	0.310	ug/L	1		07/22/15 16:52
Toluene	0.500	U	1.00	0.310	ug/L	1		07/22/15 16:52
trans-1,2-Dichloroethene	0.500	U	1.00	0.310	ug/L	1		07/22/15 16:52
trans-1,3-Dichloropropene	0.500	U	1.00	0.310	ug/L	1		07/22/15 16:52
Trichloroethene	0.500	U	1.00	0.310	ug/L	1		07/22/15 16:52
Trichlorofluoromethane	0.500	U	1.00	0.310	ug/L	1		07/22/15 16:52
Vinyl acetate	5.00	U	10.0	3.10	ug/L	1		07/22/15 16:52
Vinyl chloride	0.500	U	1.00	0.310	ug/L	1		07/22/15 16:52
Xylenes (total)	1.50	U	3.00	1.00	ug/L	1		07/22/15 16:52
Surrogates								
1,2-Dichloroethane-D4 (surr)	111		81-118		%	1		07/22/15 16:52
4-Bromofluorobenzene (surr)	99.1		85-114		%	1		07/22/15 16:52
Toluene-d8 (surr)	98.1		89-112		%	1		07/22/15 16:52

Results of **MW-9**

Client Sample ID: **MW-9**
Client Project ID: **Gold Hill**
Lab Sample ID: 1158310002
Lab Project ID: 1158310

Collection Date: 07/20/15 12:30
Received Date: 07/21/15 09:00
Matrix: Water (Surface, Eff., Ground)
Solids (%):
Location:

Results by **Volatile Gas Chromatography/Mass Spectrome**

Batch Information

Analytical Batch: VMS15116
Analytical Method: SW8260B
Analyst: NRB
Analytical Date/Time: 07/22/15 16:52
Container ID: 1158310002-D

Prep Batch: VXX27609
Prep Method: SW5030B
Prep Date/Time: 07/22/15 06:00
Prep Initial Wt./Vol.: 5 mL
Prep Extract Vol: 5 mL

Results of **MW-16**

Client Sample ID: **MW-16**
Client Project ID: **Gold Hill**
Lab Sample ID: 1158310003
Lab Project ID: 1158310

Collection Date: 07/20/15 13:35
Received Date: 07/21/15 09:00
Matrix: Water (Surface, Eff., Ground)
Solids (%):
Location:

Results by **Volatile Fuels**

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Gasoline Range Organics	8.09		2.00	0.620	mg/L	20		07/27/15 15:43
Surrogates								
4-Bromofluorobenzene (surr)	86.3		50-150		%	20		07/27/15 15:43

Batch Information

Analytical Batch: VFC12542
Analytical Method: AK101
Analyst: ST
Analytical Date/Time: 07/27/15 15:43
Container ID: 1158310003-F

Prep Batch: VXX27627
Prep Method: SW5030B
Prep Date/Time: 07/27/15 08:00
Prep Initial Wt./Vol.: 5 mL
Prep Extract Vol: 5 mL

Results of **MW-16**

Client Sample ID: **MW-16**
Client Project ID: **Gold Hill**
Lab Sample ID: 1158310003
Lab Project ID: 1158310

Collection Date: 07/20/15 13:35
Received Date: 07/21/15 09:00
Matrix: Water (Surface, Eff., Ground)
Solids (%):
Location:

Results by **Volatile Gas Chromatography/Mass Spectrome**

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
1,1,1,2-Tetrachloroethane	0.250	U	0.500	0.150	ug/L	1		07/22/15 17:08
1,1,1-Trichloroethane	0.500	U	1.00	0.310	ug/L	1		07/22/15 17:08
1,1,2,2-Tetrachloroethane	0.250	U	0.500	0.150	ug/L	1		07/22/15 17:08
1,1,2-Trichloroethane	0.500	U	1.00	0.310	ug/L	1		07/22/15 17:08
1,1-Dichloroethane	0.500	U	1.00	0.310	ug/L	1		07/22/15 17:08
1,1-Dichloroethene	0.500	U	1.00	0.310	ug/L	1		07/22/15 17:08
1,1-Dichloropropene	0.500	U	1.00	0.310	ug/L	1		07/22/15 17:08
1,2,3-Trichlorobenzene	0.500	U	1.00	0.310	ug/L	1		07/22/15 17:08
1,2,3-Trichloropropane	0.500	U	1.00	0.310	ug/L	1		07/22/15 17:08
1,2,4-Trichlorobenzene	0.500	U	1.00	0.310	ug/L	1		07/22/15 17:08
1,2,4-Trimethylbenzene	34.6		1.00	0.310	ug/L	1		07/22/15 17:08
1,2-Dibromo-3-chloropropane	5.00	U	10.0	3.10	ug/L	1		07/22/15 17:08
1,2-Dibromoethane	17.9		1.00	0.310	ug/L	1		07/22/15 17:08
1,2-Dichlorobenzene	0.500	U	1.00	0.310	ug/L	1		07/22/15 17:08
1,2-Dichloroethane	267		5.00	1.50	ug/L	10		07/23/15 23:58
1,2-Dichloropropane	0.500	U	1.00	0.310	ug/L	1		07/22/15 17:08
1,3,5-Trimethylbenzene	2.12		1.00	0.310	ug/L	1		07/22/15 17:08
1,3-Dichlorobenzene	0.500	U	1.00	0.310	ug/L	1		07/22/15 17:08
1,3-Dichloropropane	0.250	U	0.500	0.150	ug/L	1		07/22/15 17:08
1,4-Dichlorobenzene	0.250	U	0.500	0.150	ug/L	1		07/22/15 17:08
2,2-Dichloropropane	0.500	U	1.00	0.310	ug/L	1		07/22/15 17:08
2-Butanone (MEK)	5.00	U	10.0	3.10	ug/L	1		07/22/15 17:08
2-Chlorotoluene	0.500	U	1.00	0.310	ug/L	1		07/22/15 17:08
2-Hexanone	5.00	U	10.0	3.10	ug/L	1		07/22/15 17:08
4-Chlorotoluene	0.500	U	1.00	0.310	ug/L	1		07/22/15 17:08
4-Isopropyltoluene	2.85		1.00	0.310	ug/L	1		07/22/15 17:08
4-Methyl-2-pentanone (MIBK)	5.00	U	10.0	3.10	ug/L	1		07/22/15 17:08
Benzene	3870		40.0	12.0	ug/L	100		07/23/15 20:56
Bromobenzene	0.500	U	1.00	0.310	ug/L	1		07/22/15 17:08
Bromochloromethane	0.500	U	1.00	0.310	ug/L	1		07/22/15 17:08
Bromodichloromethane	0.250	U	0.500	0.150	ug/L	1		07/22/15 17:08
Bromoform	0.500	U	1.00	0.310	ug/L	1		07/22/15 17:08
Bromomethane	5.00	U	10.0	3.10	ug/L	1		07/22/15 17:08
Carbon disulfide	5.00	U	10.0	3.10	ug/L	1		07/22/15 17:08
Carbon tetrachloride	0.500	U	1.00	0.310	ug/L	1		07/22/15 17:08
Chlorobenzene	0.250	U	0.500	0.150	ug/L	1		07/22/15 17:08
Chloroethane	0.500	U	1.00	0.310	ug/L	1		07/22/15 17:08

Results of **MW-16**

Client Sample ID: **MW-16**
Client Project ID: **Gold Hill**
Lab Sample ID: 1158310003
Lab Project ID: 1158310

Collection Date: 07/20/15 13:35
Received Date: 07/21/15 09:00
Matrix: Water (Surface, Eff., Ground)
Solids (%):
Location:

Results by **Volatile Gas Chromatography/Mass Spectrome**

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Chloroform	0.500	U	1.00	0.300	ug/L	1		07/22/15 17:08
Chloromethane	0.500	U	1.00	0.310	ug/L	1		07/22/15 17:08
cis-1,2-Dichloroethene	0.500	U	1.00	0.310	ug/L	1		07/22/15 17:08
cis-1,3-Dichloropropene	0.250	U	0.500	0.150	ug/L	1		07/22/15 17:08
Dibromochloromethane	0.250	U	0.500	0.150	ug/L	1		07/22/15 17:08
Dibromomethane	0.500	U	1.00	0.310	ug/L	1		07/22/15 17:08
Dichlorodifluoromethane	0.500	U	1.00	0.310	ug/L	1		07/22/15 17:08
Ethylbenzene	10.2		1.00	0.310	ug/L	1		07/22/15 17:08
Freon-113	5.00	U	10.0	3.10	ug/L	1		07/22/15 17:08
Hexachlorobutadiene	0.500	U	1.00	0.310	ug/L	1		07/22/15 17:08
Isopropylbenzene (Cumene)	5.77		1.00	0.310	ug/L	1		07/22/15 17:08
Methylene chloride	2.50	U	5.00	1.00	ug/L	1		07/22/15 17:08
Methyl-t-butyl ether	143		100	31.0	ug/L	10		07/23/15 23:58
Naphthalene	49.3		10.0	3.10	ug/L	1		07/22/15 17:08
n-Butylbenzene	0.500	U	1.00	0.310	ug/L	1		07/22/15 17:08
n-Propylbenzene	12.6		1.00	0.310	ug/L	1		07/22/15 17:08
o-Xylene	76.6		10.0	3.10	ug/L	10		07/23/15 23:58
P & M -Xylene	18.9		2.00	0.620	ug/L	1		07/22/15 17:08
sec-Butylbenzene	2.54		1.00	0.310	ug/L	1		07/22/15 17:08
Styrene	0.500	U	1.00	0.310	ug/L	1		07/22/15 17:08
tert-Butylbenzene	0.500	U	1.00	0.310	ug/L	1		07/22/15 17:08
Tetrachloroethene	0.500	U	1.00	0.310	ug/L	1		07/22/15 17:08
Toluene	0.880	J	1.00	0.310	ug/L	1		07/22/15 17:08
trans-1,2-Dichloroethene	0.500	U	1.00	0.310	ug/L	1		07/22/15 17:08
trans-1,3-Dichloropropene	0.500	U	1.00	0.310	ug/L	1		07/22/15 17:08
Trichloroethene	0.500	U	1.00	0.310	ug/L	1		07/22/15 17:08
Trichlorofluoromethane	0.500	U	1.00	0.310	ug/L	1		07/22/15 17:08
Vinyl acetate	5.00	U	10.0	3.10	ug/L	1		07/22/15 17:08
Vinyl chloride	0.500	U	1.00	0.310	ug/L	1		07/22/15 17:08
Xylenes (total)	95.5		30.0	10.0	ug/L	10		07/23/15 23:58
Surrogates								
1,2-Dichloroethane-D4 (surr)	104		81-118		%	1		07/22/15 17:08
4-Bromofluorobenzene (surr)	101		85-114		%	1		07/22/15 17:08
Toluene-d8 (surr)	98.2		89-112		%	1		07/22/15 17:08

Print Date: 08/05/2015 2:08:47PM

J flagging is activated

Results of **MW-16**

Client Sample ID: **MW-16**
Client Project ID: **Gold Hill**
Lab Sample ID: 1158310003
Lab Project ID: 1158310

Collection Date: 07/20/15 13:35
Received Date: 07/21/15 09:00
Matrix: Water (Surface, Eff., Ground)
Solids (%):
Location:

Results by **Volatile Gas Chromatography/Mass Spectrome**

Batch Information

Analytical Batch: VMS15116
Analytical Method: SW8260B
Analyst: NRB
Analytical Date/Time: 07/22/15 17:08
Container ID: 1158310003-D

Prep Batch: VXX27609
Prep Method: SW5030B
Prep Date/Time: 07/22/15 06:00
Prep Initial Wt./Vol.: 5 mL
Prep Extract Vol: 5 mL

Analytical Batch: VMS15119
Analytical Method: SW8260B
Analyst: NRB
Analytical Date/Time: 07/23/15 23:58
Container ID: 1158310003-C

Prep Batch: VXX27615
Prep Method: SW5030B
Prep Date/Time: 07/23/15 06:00
Prep Initial Wt./Vol.: 5 mL
Prep Extract Vol: 5 mL

Results of **AS-8**

Client Sample ID: **AS-8**
Client Project ID: **Gold Hill**
Lab Sample ID: 1158310004
Lab Project ID: 1158310

Collection Date: 07/20/15 11:20
Received Date: 07/21/15 09:00
Matrix: Water (Surface, Eff., Ground)
Solids (%):
Location:

Results by **Volatile Fuels**

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Gasoline Range Organics	0.0400	J	0.100	0.0310	mg/L	1		07/23/15 17:30
Surrogates								
4-Bromofluorobenzene (surr)	103		50-150		%	1		07/23/15 17:30

Batch Information

Analytical Batch: VFC12534
Analytical Method: AK101
Analyst: CRD
Analytical Date/Time: 07/23/15 17:30
Container ID: 1158310004-A

Prep Batch: VXX27612
Prep Method: SW5030B
Prep Date/Time: 07/23/15 08:00
Prep Initial Wt./Vol.: 5 mL
Prep Extract Vol: 5 mL

Results of **AS-8**

Client Sample ID: **AS-8**
Client Project ID: **Gold Hill**
Lab Sample ID: 1158310004
Lab Project ID: 1158310

Collection Date: 07/20/15 11:20
Received Date: 07/21/15 09:00
Matrix: Water (Surface, Eff., Ground)
Solids (%):
Location:

Results by **Volatile Gas Chromatography/Mass Spectrome**

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
1,1,1,2-Tetrachloroethane	0.250	U	0.500	0.150	ug/L	1		07/22/15 17:25
1,1,1-Trichloroethane	0.500	U	1.00	0.310	ug/L	1		07/22/15 17:25
1,1,2,2-Tetrachloroethane	0.250	U	0.500	0.150	ug/L	1		07/22/15 17:25
1,1,2-Trichloroethane	0.500	U	1.00	0.310	ug/L	1		07/22/15 17:25
1,1-Dichloroethane	0.500	U	1.00	0.310	ug/L	1		07/22/15 17:25
1,1-Dichloroethene	0.500	U	1.00	0.310	ug/L	1		07/22/15 17:25
1,1-Dichloropropene	0.500	U	1.00	0.310	ug/L	1		07/22/15 17:25
1,2,3-Trichlorobenzene	0.500	U	1.00	0.310	ug/L	1		07/22/15 17:25
1,2,3-Trichloropropane	0.500	U	1.00	0.310	ug/L	1		07/22/15 17:25
1,2,4-Trichlorobenzene	0.500	U	1.00	0.310	ug/L	1		07/22/15 17:25
1,2,4-Trimethylbenzene	0.500	U	1.00	0.310	ug/L	1		07/22/15 17:25
1,2-Dibromo-3-chloropropane	5.00	U	10.0	3.10	ug/L	1		07/22/15 17:25
1,2-Dibromoethane	0.500	U	1.00	0.310	ug/L	1		07/22/15 17:25
1,2-Dichlorobenzene	0.500	U	1.00	0.310	ug/L	1		07/22/15 17:25
1,2-Dichloroethane	49.3		0.500	0.150	ug/L	1		07/22/15 17:25
1,2-Dichloropropane	0.500	U	1.00	0.310	ug/L	1		07/22/15 17:25
1,3,5-Trimethylbenzene	0.500	U	1.00	0.310	ug/L	1		07/22/15 17:25
1,3-Dichlorobenzene	0.500	U	1.00	0.310	ug/L	1		07/22/15 17:25
1,3-Dichloropropane	0.250	U	0.500	0.150	ug/L	1		07/22/15 17:25
1,4-Dichlorobenzene	0.250	U	0.500	0.150	ug/L	1		07/22/15 17:25
2,2-Dichloropropane	0.500	U	1.00	0.310	ug/L	1		07/22/15 17:25
2-Butanone (MEK)	5.00	U	10.0	3.10	ug/L	1		07/22/15 17:25
2-Chlorotoluene	0.500	U	1.00	0.310	ug/L	1		07/22/15 17:25
2-Hexanone	5.00	U	10.0	3.10	ug/L	1		07/22/15 17:25
4-Chlorotoluene	0.500	U	1.00	0.310	ug/L	1		07/22/15 17:25
4-Isopropyltoluene	0.500	U	1.00	0.310	ug/L	1		07/22/15 17:25
4-Methyl-2-pentanone (MIBK)	5.00	U	10.0	3.10	ug/L	1		07/22/15 17:25
Benzene	0.390	J	0.400	0.120	ug/L	1		07/23/15 21:45
Bromobenzene	0.500	U	1.00	0.310	ug/L	1		07/22/15 17:25
Bromochloromethane	0.500	U	1.00	0.310	ug/L	1		07/22/15 17:25
Bromodichloromethane	0.250	U	0.500	0.150	ug/L	1		07/22/15 17:25
Bromoform	0.500	U	1.00	0.310	ug/L	1		07/22/15 17:25
Bromomethane	5.00	U	10.0	3.10	ug/L	1		07/22/15 17:25
Carbon disulfide	5.00	U	10.0	3.10	ug/L	1		07/22/15 17:25
Carbon tetrachloride	0.500	U	1.00	0.310	ug/L	1		07/22/15 17:25
Chlorobenzene	0.250	U	0.500	0.150	ug/L	1		07/22/15 17:25
Chloroethane	0.500	U	1.00	0.310	ug/L	1		07/22/15 17:25

Results of **AS-8**

Client Sample ID: **AS-8**
Client Project ID: **Gold Hill**
Lab Sample ID: 1158310004
Lab Project ID: 1158310

Collection Date: 07/20/15 11:20
Received Date: 07/21/15 09:00
Matrix: Water (Surface, Eff., Ground)
Solids (%):
Location:

Results by **Volatile Gas Chromatography/Mass Spectrome**

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Chloroform	0.500	U	1.00	0.300	ug/L	1		07/22/15 17:25
Chloromethane	0.500	U	1.00	0.310	ug/L	1		07/22/15 17:25
cis-1,2-Dichloroethene	0.500	U	1.00	0.310	ug/L	1		07/22/15 17:25
cis-1,3-Dichloropropene	0.250	U	0.500	0.150	ug/L	1		07/22/15 17:25
Dibromochloromethane	0.250	U	0.500	0.150	ug/L	1		07/22/15 17:25
Dibromomethane	0.500	U	1.00	0.310	ug/L	1		07/22/15 17:25
Dichlorodifluoromethane	0.500	U	1.00	0.310	ug/L	1		07/22/15 17:25
Ethylbenzene	0.500	U	1.00	0.310	ug/L	1		07/22/15 17:25
Freon-113	5.00	U	10.0	3.10	ug/L	1		07/22/15 17:25
Hexachlorobutadiene	0.500	U	1.00	0.310	ug/L	1		07/22/15 17:25
Isopropylbenzene (Cumene)	0.500	U	1.00	0.310	ug/L	1		07/22/15 17:25
Methylene chloride	2.50	U	5.00	1.00	ug/L	1		07/22/15 17:25
Methyl-t-butyl ether	37.8		10.0	3.10	ug/L	1		07/22/15 17:25
Naphthalene	5.00	U	10.0	3.10	ug/L	1		07/22/15 17:25
n-Butylbenzene	0.500	U	1.00	0.310	ug/L	1		07/22/15 17:25
n-Propylbenzene	0.500	U	1.00	0.310	ug/L	1		07/22/15 17:25
o-Xylene	0.500	U	1.00	0.310	ug/L	1		07/22/15 17:25
P & M -Xylene	1.00	U	2.00	0.620	ug/L	1		07/22/15 17:25
sec-Butylbenzene	0.500	U	1.00	0.310	ug/L	1		07/22/15 17:25
Styrene	0.500	U	1.00	0.310	ug/L	1		07/22/15 17:25
tert-Butylbenzene	0.500	U	1.00	0.310	ug/L	1		07/22/15 17:25
Tetrachloroethene	0.500	U	1.00	0.310	ug/L	1		07/22/15 17:25
Toluene	0.500	U	1.00	0.310	ug/L	1		07/22/15 17:25
trans-1,2-Dichloroethene	0.500	U	1.00	0.310	ug/L	1		07/22/15 17:25
trans-1,3-Dichloropropene	0.500	U	1.00	0.310	ug/L	1		07/22/15 17:25
Trichloroethene	0.500	U	1.00	0.310	ug/L	1		07/22/15 17:25
Trichlorofluoromethane	0.500	U	1.00	0.310	ug/L	1		07/22/15 17:25
Vinyl acetate	5.00	U	10.0	3.10	ug/L	1		07/22/15 17:25
Vinyl chloride	0.500	U	1.00	0.310	ug/L	1		07/22/15 17:25
Xylenes (total)	1.50	U	3.00	1.00	ug/L	1		07/22/15 17:25
Surrogates								
1,2-Dichloroethane-D4 (surr)	111		81-118		%	1		07/22/15 17:25
4-Bromofluorobenzene (surr)	99.7		85-114		%	1		07/22/15 17:25
Toluene-d8 (surr)	99.3		89-112		%	1		07/22/15 17:25

Results of **AS-8**

Client Sample ID: **AS-8**
Client Project ID: **Gold Hill**
Lab Sample ID: 1158310004
Lab Project ID: 1158310

Collection Date: 07/20/15 11:20
Received Date: 07/21/15 09:00
Matrix: Water (Surface, Eff., Ground)
Solids (%):
Location:

Results by **Volatile Gas Chromatography/Mass Spectrome**

Batch Information

Analytical Batch: VMS15116
Analytical Method: SW8260B
Analyst: NRB
Analytical Date/Time: 07/22/15 17:25
Container ID: 1158310004-D

Prep Batch: VXX27609
Prep Method: SW5030B
Prep Date/Time: 07/22/15 06:00
Prep Initial Wt./Vol.: 5 mL
Prep Extract Vol: 5 mL

Analytical Batch: VMS15119
Analytical Method: SW8260B
Analyst: NRB
Analytical Date/Time: 07/23/15 21:45
Container ID: 1158310004-C

Prep Batch: VXX27615
Prep Method: SW5030B
Prep Date/Time: 07/23/15 06:00
Prep Initial Wt./Vol.: 5 mL
Prep Extract Vol: 5 mL

Results of **MW-20**

Client Sample ID: **MW-20**
Client Project ID: **Gold Hill**
Lab Sample ID: 1158310005
Lab Project ID: 1158310

Collection Date: 07/20/15 09:47
Received Date: 07/21/15 09:00
Matrix: Water (Surface, Eff., Ground)
Solids (%):
Location:

Results by **Metals by ICP/MS**

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Lead	54.7		0.200	0.0620	ug/L	1		07/28/15 17:28

Batch Information

Analytical Batch: MMS9018
Analytical Method: EP200.8
Analyst: EAB
Analytical Date/Time: 07/28/15 17:28
Container ID: 1158310005-J

Prep Batch: MXX28917
Prep Method: E200.2
Prep Date/Time: 07/27/15 15:00
Prep Initial Wt./Vol.: 20 mL
Prep Extract Vol: 50 mL

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

Results of **MW-20**

Client Sample ID: **MW-20**
Client Project ID: **Gold Hill**
Lab Sample ID: 1158310005
Lab Project ID: 1158310

Collection Date: 07/20/15 09:47
Received Date: 07/21/15 09:00
Matrix: Water (Surface, Eff., Ground)
Solids (%):
Location:

Results by **Volatile Fuels**

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Gasoline Range Organics	1.70		0.100	0.0310	mg/L	1		07/23/15 18:11
Surrogates								
4-Bromofluorobenzene (surr)	158	*	50-150		%	1		07/23/15 18:11

Batch Information

Analytical Batch: VFC12534
Analytical Method: AK101
Analyst: CRD
Analytical Date/Time: 07/23/15 18:11
Container ID: 1158310005-A

Prep Batch: VXX27612
Prep Method: SW5030B
Prep Date/Time: 07/23/15 08:00
Prep Initial Wt./Vol.: 5 mL
Prep Extract Vol: 5 mL

Results of **MW-20**

Client Sample ID: **MW-20**
Client Project ID: **Gold Hill**
Lab Sample ID: 1158310005
Lab Project ID: 1158310

Collection Date: 07/20/15 09:47
Received Date: 07/21/15 09:00
Matrix: Water (Surface, Eff., Ground)
Solids (%):
Location:

Results by **Volatile Gas Chromatography/Mass Spectrome**

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
1,1,1,2-Tetrachloroethane	0.250	U	0.500	0.150	ug/L	1		07/22/15 17:42
1,1,1-Trichloroethane	0.500	U	1.00	0.310	ug/L	1		07/22/15 17:42
1,1,2,2-Tetrachloroethane	0.250	U	0.500	0.150	ug/L	1		07/22/15 17:42
1,1,2-Trichloroethane	0.500	U	1.00	0.310	ug/L	1		07/22/15 17:42
1,1-Dichloroethane	0.500	U	1.00	0.310	ug/L	1		07/22/15 17:42
1,1-Dichloroethene	0.500	U	1.00	0.310	ug/L	1		07/22/15 17:42
1,1-Dichloropropene	0.500	U	1.00	0.310	ug/L	1		07/22/15 17:42
1,2,3-Trichlorobenzene	0.500	U	1.00	0.310	ug/L	1		07/22/15 17:42
1,2,3-Trichloropropane	0.500	U	1.00	0.310	ug/L	1		07/22/15 17:42
1,2,4-Trichlorobenzene	0.500	U	1.00	0.310	ug/L	1		07/22/15 17:42
1,2,4-Trimethylbenzene	0.500	U	1.00	0.310	ug/L	1		07/22/15 17:42
1,2-Dibromo-3-chloropropane	5.00	U	10.0	3.10	ug/L	1		07/22/15 17:42
1,2-Dibromoethane	0.500	U	1.00	0.310	ug/L	1		07/22/15 17:42
1,2-Dichlorobenzene	0.500	U	1.00	0.310	ug/L	1		07/22/15 17:42
1,2-Dichloroethane	26.9		0.500	0.150	ug/L	1		07/22/15 17:42
1,2-Dichloropropane	0.500	U	1.00	0.310	ug/L	1		07/22/15 17:42
1,3,5-Trimethylbenzene	0.500	U	1.00	0.310	ug/L	1		07/22/15 17:42
1,3-Dichlorobenzene	0.500	U	1.00	0.310	ug/L	1		07/22/15 17:42
1,3-Dichloropropane	0.250	U	0.500	0.150	ug/L	1		07/22/15 17:42
1,4-Dichlorobenzene	0.250	U	0.500	0.150	ug/L	1		07/22/15 17:42
2,2-Dichloropropane	0.500	U	1.00	0.310	ug/L	1		07/22/15 17:42
2-Butanone (MEK)	5.00	U	10.0	3.10	ug/L	1		07/22/15 17:42
2-Chlorotoluene	0.500	U	1.00	0.310	ug/L	1		07/22/15 17:42
2-Hexanone	5.00	U	10.0	3.10	ug/L	1		07/22/15 17:42
4-Chlorotoluene	0.500	U	1.00	0.310	ug/L	1		07/22/15 17:42
4-Isopropyltoluene	0.500	U	1.00	0.310	ug/L	1		07/22/15 17:42
4-Methyl-2-pentanone (MIBK)	5.00	U	10.0	3.10	ug/L	1		07/22/15 17:42
Benzene	1090		40.0	12.0	ug/L	100		07/23/15 21:12
Bromobenzene	0.500	U	1.00	0.310	ug/L	1		07/22/15 17:42
Bromochloromethane	0.500	U	1.00	0.310	ug/L	1		07/22/15 17:42
Bromodichloromethane	0.250	U	0.500	0.150	ug/L	1		07/22/15 17:42
Bromoform	0.500	U	1.00	0.310	ug/L	1		07/22/15 17:42
Bromomethane	5.00	U	10.0	3.10	ug/L	1		07/22/15 17:42
Carbon disulfide	5.00	U	10.0	3.10	ug/L	1		07/22/15 17:42
Carbon tetrachloride	0.500	U	1.00	0.310	ug/L	1		07/22/15 17:42
Chlorobenzene	0.250	U	0.500	0.150	ug/L	1		07/22/15 17:42
Chloroethane	0.500	U	1.00	0.310	ug/L	1		07/22/15 17:42

Results of **MW-20**

Client Sample ID: **MW-20**
Client Project ID: **Gold Hill**
Lab Sample ID: 1158310005
Lab Project ID: 1158310

Collection Date: 07/20/15 09:47
Received Date: 07/21/15 09:00
Matrix: Water (Surface, Eff., Ground)
Solids (%):
Location:

Results by **Volatile Gas Chromatography/Mass Spectrome**

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Chloroform	0.500	U	1.00	0.300	ug/L	1		07/22/15 17:42
Chloromethane	0.500	U	1.00	0.310	ug/L	1		07/22/15 17:42
cis-1,2-Dichloroethene	0.500	U	1.00	0.310	ug/L	1		07/22/15 17:42
cis-1,3-Dichloropropene	0.250	U	0.500	0.150	ug/L	1		07/22/15 17:42
Dibromochloromethane	0.250	U	0.500	0.150	ug/L	1		07/22/15 17:42
Dibromomethane	0.500	U	1.00	0.310	ug/L	1		07/22/15 17:42
Dichlorodifluoromethane	0.500	U	1.00	0.310	ug/L	1		07/22/15 17:42
Ethylbenzene	0.320	J	1.00	0.310	ug/L	1		07/22/15 17:42
Freon-113	5.00	U	10.0	3.10	ug/L	1		07/22/15 17:42
Hexachlorobutadiene	0.500	U	1.00	0.310	ug/L	1		07/22/15 17:42
Isopropylbenzene (Cumene)	16.7		1.00	0.310	ug/L	1		07/22/15 17:42
Methylene chloride	2.50	U	5.00	1.00	ug/L	1		07/22/15 17:42
Methyl-t-butyl ether	8.97	J	10.0	3.10	ug/L	1		07/22/15 17:42
Naphthalene	5.00	U	10.0	3.10	ug/L	1		07/22/15 17:42
n-Butylbenzene	0.610	J	1.00	0.310	ug/L	1		07/22/15 17:42
n-Propylbenzene	0.950	J	1.00	0.310	ug/L	1		07/22/15 17:42
o-Xylene	0.520	J	1.00	0.310	ug/L	1		07/22/15 17:42
P & M -Xylene	1.00	U	2.00	0.620	ug/L	1		07/22/15 17:42
sec-Butylbenzene	3.13		1.00	0.310	ug/L	1		07/22/15 17:42
Styrene	0.500	U	1.00	0.310	ug/L	1		07/22/15 17:42
tert-Butylbenzene	0.500	U	1.00	0.310	ug/L	1		07/22/15 17:42
Tetrachloroethene	0.500	U	1.00	0.310	ug/L	1		07/22/15 17:42
Toluene	0.500	U	1.00	0.310	ug/L	1		07/22/15 17:42
trans-1,2-Dichloroethene	0.500	U	1.00	0.310	ug/L	1		07/22/15 17:42
trans-1,3-Dichloropropene	0.500	U	1.00	0.310	ug/L	1		07/22/15 17:42
Trichloroethene	0.500	U	1.00	0.310	ug/L	1		07/22/15 17:42
Trichlorofluoromethane	0.500	U	1.00	0.310	ug/L	1		07/22/15 17:42
Vinyl acetate	5.00	U	10.0	3.10	ug/L	1		07/22/15 17:42
Vinyl chloride	0.500	U	1.00	0.310	ug/L	1		07/22/15 17:42
Xylenes (total)	1.50	U	3.00	1.00	ug/L	1		07/22/15 17:42
Surrogates								
1,2-Dichloroethane-D4 (surr)	104		81-118		%	1		07/22/15 17:42
4-Bromofluorobenzene (surr)	99.7		85-114		%	1		07/22/15 17:42
Toluene-d8 (surr)	98.3		89-112		%	1		07/22/15 17:42

Results of **MW-20**

Client Sample ID: **MW-20**
Client Project ID: **Gold Hill**
Lab Sample ID: 1158310005
Lab Project ID: 1158310

Collection Date: 07/20/15 09:47
Received Date: 07/21/15 09:00
Matrix: Water (Surface, Eff., Ground)
Solids (%):
Location:

Results by **Volatile Gas Chromatography/Mass Spectrome**

Batch Information

Analytical Batch: VMS15116
Analytical Method: SW8260B
Analyst: NRB
Analytical Date/Time: 07/22/15 17:42
Container ID: 1158310005-D

Prep Batch: VXX27609
Prep Method: SW5030B
Prep Date/Time: 07/22/15 06:00
Prep Initial Wt./Vol.: 5 mL
Prep Extract Vol: 5 mL

Analytical Batch: VMS15119
Analytical Method: SW8260B
Analyst: NRB
Analytical Date/Time: 07/23/15 21:12
Container ID: 1158310005-B

Prep Batch: VXX27615
Prep Method: SW5030B
Prep Date/Time: 07/23/15 06:00
Prep Initial Wt./Vol.: 5 mL
Prep Extract Vol: 5 mL

Results of **WW-2**

Client Sample ID: **WW-2**
Client Project ID: **Gold Hill**
Lab Sample ID: 1158310006
Lab Project ID: 1158310

Collection Date: 07/20/15 10:40
Received Date: 07/21/15 09:00
Matrix: Water (Surface, Eff., Ground)
Solids (%):
Location:

Results by **Volatile Fuels**

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Gasoline Range Organics	0.0323	J	0.100	0.0310	mg/L	1		07/23/15 18:30
Surrogates								
4-Bromofluorobenzene (surr)	102		50-150		%	1		07/23/15 18:30

Batch Information

Analytical Batch: VFC12534
Analytical Method: AK101
Analyst: CRD
Analytical Date/Time: 07/23/15 18:30
Container ID: 1158310006-A

Prep Batch: VXX27612
Prep Method: SW5030B
Prep Date/Time: 07/23/15 08:00
Prep Initial Wt./Vol.: 5 mL
Prep Extract Vol: 5 mL

Results of **WW-2**

Client Sample ID: **WW-2**
Client Project ID: **Gold Hill**
Lab Sample ID: 1158310006
Lab Project ID: 1158310

Collection Date: 07/20/15 10:40
Received Date: 07/21/15 09:00
Matrix: Water (Surface, Eff., Ground)
Solids (%):
Location:

Results by **Volatile Gas Chromatography/Mass Spectrome**

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
1,1,1,2-Tetrachloroethane	0.250	U	0.500	0.150	ug/L	1		07/22/15 17:58
1,1,1-Trichloroethane	0.500	U	1.00	0.310	ug/L	1		07/22/15 17:58
1,1,2,2-Tetrachloroethane	0.250	U	0.500	0.150	ug/L	1		07/22/15 17:58
1,1,2-Trichloroethane	0.500	U	1.00	0.310	ug/L	1		07/22/15 17:58
1,1-Dichloroethane	0.500	U	1.00	0.310	ug/L	1		07/22/15 17:58
1,1-Dichloroethene	0.500	U	1.00	0.310	ug/L	1		07/22/15 17:58
1,1-Dichloropropene	0.500	U	1.00	0.310	ug/L	1		07/22/15 17:58
1,2,3-Trichlorobenzene	0.500	U	1.00	0.310	ug/L	1		07/22/15 17:58
1,2,3-Trichloropropane	0.500	U	1.00	0.310	ug/L	1		07/22/15 17:58
1,2,4-Trichlorobenzene	0.500	U	1.00	0.310	ug/L	1		07/22/15 17:58
1,2,4-Trimethylbenzene	0.500	U	1.00	0.310	ug/L	1		07/22/15 17:58
1,2-Dibromo-3-chloropropane	5.00	U	10.0	3.10	ug/L	1		07/22/15 17:58
1,2-Dibromoethane	0.500	U	1.00	0.310	ug/L	1		07/22/15 17:58
1,2-Dichlorobenzene	0.500	U	1.00	0.310	ug/L	1		07/22/15 17:58
1,2-Dichloroethane	23.4		0.500	0.150	ug/L	1		07/22/15 17:58
1,2-Dichloropropane	0.500	U	1.00	0.310	ug/L	1		07/22/15 17:58
1,3,5-Trimethylbenzene	0.500	U	1.00	0.310	ug/L	1		07/22/15 17:58
1,3-Dichlorobenzene	0.500	U	1.00	0.310	ug/L	1		07/22/15 17:58
1,3-Dichloropropane	0.250	U	0.500	0.150	ug/L	1		07/22/15 17:58
1,4-Dichlorobenzene	0.250	U	0.500	0.150	ug/L	1		07/22/15 17:58
2,2-Dichloropropane	0.500	U	1.00	0.310	ug/L	1		07/22/15 17:58
2-Butanone (MEK)	5.00	U	10.0	3.10	ug/L	1		07/22/15 17:58
2-Chlorotoluene	0.500	U	1.00	0.310	ug/L	1		07/22/15 17:58
2-Hexanone	5.00	U	10.0	3.10	ug/L	1		07/22/15 17:58
4-Chlorotoluene	0.500	U	1.00	0.310	ug/L	1		07/22/15 17:58
4-Isopropyltoluene	0.500	U	1.00	0.310	ug/L	1		07/22/15 17:58
4-Methyl-2-pentanone (MIBK)	5.00	U	10.0	3.10	ug/L	1		07/22/15 17:58
Benzene	0.200	U	0.400	0.120	ug/L	1		07/22/15 17:58
Bromobenzene	0.500	U	1.00	0.310	ug/L	1		07/22/15 17:58
Bromochloromethane	0.500	U	1.00	0.310	ug/L	1		07/22/15 17:58
Bromodichloromethane	0.250	U	0.500	0.150	ug/L	1		07/22/15 17:58
Bromoform	0.500	U	1.00	0.310	ug/L	1		07/22/15 17:58
Bromomethane	5.00	U	10.0	3.10	ug/L	1		07/22/15 17:58
Carbon disulfide	5.00	U	10.0	3.10	ug/L	1		07/22/15 17:58
Carbon tetrachloride	0.500	U	1.00	0.310	ug/L	1		07/22/15 17:58
Chlorobenzene	0.250	U	0.500	0.150	ug/L	1		07/22/15 17:58
Chloroethane	0.500	U	1.00	0.310	ug/L	1		07/22/15 17:58

Print Date: 08/05/2015 2:08:47PM

J flagging is activated

Results of **WW-2**

Client Sample ID: **WW-2**
Client Project ID: **Gold Hill**
Lab Sample ID: 1158310006
Lab Project ID: 1158310

Collection Date: 07/20/15 10:40
Received Date: 07/21/15 09:00
Matrix: Water (Surface, Eff., Ground)
Solids (%):
Location:

Results by **Volatile Gas Chromatography/Mass Spectrome**

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Chloroform	0.500	U	1.00	0.300	ug/L	1		07/22/15 17:58
Chloromethane	0.500	U	1.00	0.310	ug/L	1		07/22/15 17:58
cis-1,2-Dichloroethene	0.500	U	1.00	0.310	ug/L	1		07/22/15 17:58
cis-1,3-Dichloropropene	0.250	U	0.500	0.150	ug/L	1		07/22/15 17:58
Dibromochloromethane	0.250	U	0.500	0.150	ug/L	1		07/22/15 17:58
Dibromomethane	0.500	U	1.00	0.310	ug/L	1		07/22/15 17:58
Dichlorodifluoromethane	0.500	U	1.00	0.310	ug/L	1		07/22/15 17:58
Ethylbenzene	0.500	U	1.00	0.310	ug/L	1		07/22/15 17:58
Freon-113	5.00	U	10.0	3.10	ug/L	1		07/22/15 17:58
Hexachlorobutadiene	0.500	U	1.00	0.310	ug/L	1		07/22/15 17:58
Isopropylbenzene (Cumene)	0.500	U	1.00	0.310	ug/L	1		07/22/15 17:58
Methylene chloride	2.50	U	5.00	1.00	ug/L	1		07/22/15 17:58
Methyl-t-butyl ether	5.00	U	10.0	3.10	ug/L	1		07/22/15 17:58
Naphthalene	5.00	U	10.0	3.10	ug/L	1		07/22/15 17:58
n-Butylbenzene	0.500	U	1.00	0.310	ug/L	1		07/22/15 17:58
n-Propylbenzene	0.500	U	1.00	0.310	ug/L	1		07/22/15 17:58
o-Xylene	0.500	U	1.00	0.310	ug/L	1		07/22/15 17:58
P & M -Xylene	1.00	U	2.00	0.620	ug/L	1		07/22/15 17:58
sec-Butylbenzene	0.500	U	1.00	0.310	ug/L	1		07/22/15 17:58
Styrene	0.500	U	1.00	0.310	ug/L	1		07/22/15 17:58
tert-Butylbenzene	0.500	U	1.00	0.310	ug/L	1		07/22/15 17:58
Tetrachloroethene	0.500	U	1.00	0.310	ug/L	1		07/22/15 17:58
Toluene	0.500	U	1.00	0.310	ug/L	1		07/22/15 17:58
trans-1,2-Dichloroethene	0.500	U	1.00	0.310	ug/L	1		07/22/15 17:58
trans-1,3-Dichloropropene	0.500	U	1.00	0.310	ug/L	1		07/22/15 17:58
Trichloroethene	0.500	U	1.00	0.310	ug/L	1		07/22/15 17:58
Trichlorofluoromethane	0.500	U	1.00	0.310	ug/L	1		07/22/15 17:58
Vinyl acetate	5.00	U	10.0	3.10	ug/L	1		07/22/15 17:58
Vinyl chloride	0.500	U	1.00	0.310	ug/L	1		07/22/15 17:58
Xylenes (total)	1.50	U	3.00	1.00	ug/L	1		07/22/15 17:58
Surrogates								
1,2-Dichloroethane-D4 (surr)	113		81-118		%	1		07/22/15 17:58
4-Bromofluorobenzene (surr)	99.1		85-114		%	1		07/22/15 17:58
Toluene-d8 (surr)	100		89-112		%	1		07/22/15 17:58

Results of **WW-2**

Client Sample ID: **WW-2**
Client Project ID: **Gold Hill**
Lab Sample ID: 1158310006
Lab Project ID: 1158310

Collection Date: 07/20/15 10:40
Received Date: 07/21/15 09:00
Matrix: Water (Surface, Eff., Ground)
Solids (%):
Location:

Results by **Volatile Gas Chromatography/Mass Spectrome**

Batch Information

Analytical Batch: VMS15116
Analytical Method: SW8260B
Analyst: NRB
Analytical Date/Time: 07/22/15 17:58
Container ID: 1158310006-B

Prep Batch: VXX27609
Prep Method: SW5030B
Prep Date/Time: 07/22/15 06:00
Prep Initial Wt./Vol.: 5 mL
Prep Extract Vol: 5 mL

Results of **GHW-2**

Client Sample ID: **GHW-2**
Client Project ID: **Gold Hill**
Lab Sample ID: 1158310007
Lab Project ID: 1158310

Collection Date: 07/20/15 13:50
Received Date: 07/21/15 09:00
Matrix: Water (Surface, Eff., Ground)
Solids (%):
Location:

Results by **Volatile Gas Chromatography/Mass Spectrome**

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
1,1,1,2-Tetrachloroethane	0.250	U	0.500	0.150	ug/L	1		07/22/15 15:12
1,1,1-Trichloroethane	0.250	U	0.500	0.150	ug/L	1	(<200)	07/22/15 15:12
1,1,2,2-Tetrachloroethane	0.250	U	0.500	0.150	ug/L	1		07/22/15 15:12
1,1,2-Trichloroethane	0.250	U	0.500	0.150	ug/L	1	(<5)	07/22/15 15:12
1,1-Dichloroethane	0.250	U	0.500	0.150	ug/L	1		07/22/15 15:12
1,1-Dichloroethene	0.250	U	0.500	0.150	ug/L	1	(<7)	07/22/15 15:12
1,1-Dichloropropene	0.250	U	0.500	0.150	ug/L	1		07/22/15 15:12
1,2,3-Trichlorobenzene	0.250	U	0.500	0.150	ug/L	1		07/22/15 15:12
1,2,3-Trichloropropane	0.250	U	0.500	0.180	ug/L	1		07/22/15 15:12
1,2,4-Trichlorobenzene	0.250	U	0.500	0.150	ug/L	1	(<70)	07/22/15 15:12
1,2,4-Trimethylbenzene	0.250	U	0.500	0.150	ug/L	1		07/22/15 15:12
1,2-Dibromo-3-chloropropane	1.00	U	2.00	0.620	ug/L	1		07/22/15 15:12
1,2-Dibromoethane	0.250	U	0.500	0.150	ug/L	1		07/22/15 15:12
1,2-Dichlorobenzene	0.250	U	0.500	0.150	ug/L	1	(<600)	07/22/15 15:12
1,2-Dichloroethane	0.250	U	0.500	0.150	ug/L	1	(<5)	07/22/15 15:12
1,2-Dichloropropane	0.250	U	0.500	0.150	ug/L	1	(<5)	07/22/15 15:12
1,3,5-Trimethylbenzene	0.250	U	0.500	0.150	ug/L	1		07/22/15 15:12
1,3-Dichlorobenzene	0.250	U	0.500	0.150	ug/L	1		07/22/15 15:12
1,3-Dichloropropane	0.250	U	0.500	0.150	ug/L	1		07/22/15 15:12
1,4-Dichlorobenzene	0.250	U	0.500	0.150	ug/L	1	(<75)	07/22/15 15:12
2,2-Dichloropropane	0.250	U	0.500	0.150	ug/L	1		07/22/15 15:12
2-Chlorotoluene	0.250	U	0.500	0.150	ug/L	1		07/22/15 15:12
4-Chlorotoluene	0.250	U	0.500	0.150	ug/L	1		07/22/15 15:12
4-Isopropyltoluene	0.250	U	0.500	0.150	ug/L	1		07/22/15 15:12
Benzene	0.250	U	0.500	0.150	ug/L	1	(<5)	07/22/15 15:12
Bromobenzene	0.250	U	0.500	0.150	ug/L	1		07/22/15 15:12
Bromochloromethane	0.250	U	0.500	0.150	ug/L	1		07/22/15 15:12
Bromodichloromethane	0.250	U	0.500	0.150	ug/L	1		07/22/15 15:12
Bromoform	0.250	U	0.500	0.150	ug/L	1		07/22/15 15:12
Bromomethane	1.00	U	2.00	0.620	ug/L	1		07/22/15 15:12
Carbon tetrachloride	0.250	U	0.500	0.150	ug/L	1	(<5)	07/22/15 15:12
Chlorobenzene	0.250	U	0.500	0.150	ug/L	1	(<100)	07/22/15 15:12
Chloroethane	0.500	U	1.00	0.310	ug/L	1		07/22/15 15:12
Chloroform	0.250	U	0.500	0.150	ug/L	1		07/22/15 15:12
Chloromethane	0.250	U	0.500	0.150	ug/L	1		07/22/15 15:12
cis-1,2-Dichloroethene	0.250	U	0.500	0.150	ug/L	1	(<70)	07/22/15 15:12
cis-1,3-Dichloropropene	0.250	U	0.500	0.150	ug/L	1		07/22/15 15:12

Print Date: 08/05/2015 2:08:47PM

J flagging is activated

Results of **GHW-2**

Client Sample ID: **GHW-2**
Client Project ID: **Gold Hill**
Lab Sample ID: 1158310007
Lab Project ID: 1158310

Collection Date: 07/20/15 13:50
Received Date: 07/21/15 09:00
Matrix: Water (Surface, Eff., Ground)
Solids (%):
Location:

Results by **Volatile Gas Chromatography/Mass Spectrome**

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Dibromochloromethane	0.250	U	0.500	0.150	ug/L	1		07/22/15 15:12
Dibromomethane	0.250	U	0.500	0.150	ug/L	1		07/22/15 15:12
Dichlorodifluoromethane	0.250	U	0.500	0.150	ug/L	1		07/22/15 15:12
Ethylbenzene	0.250	U	0.500	0.150	ug/L	1	(<700)	07/22/15 15:12
Hexachlorobutadiene	0.250	U	0.500	0.150	ug/L	1		07/22/15 15:12
Isopropylbenzene (Cumene)	0.250	U	0.500	0.150	ug/L	1		07/22/15 15:12
Methylene chloride	0.250	U	0.500	0.150	ug/L	1	(<5)	07/22/15 15:12
Methyl-t-butyl ether	0.500	U	1.00	0.500	ug/L	1		07/22/15 15:12
Naphthalene	0.250	U	0.500	0.150	ug/L	1		07/22/15 15:12
n-Butylbenzene	0.250	U	0.500	0.150	ug/L	1		07/22/15 15:12
n-Propylbenzene	0.250	U	0.500	0.150	ug/L	1		07/22/15 15:12
o-Xylene	0.250	U	0.500	0.150	ug/L	1		07/22/15 15:12
P & M -Xylene	0.250	U	0.500	0.150	ug/L	1		07/22/15 15:12
sec-Butylbenzene	0.250	U	0.500	0.150	ug/L	1		07/22/15 15:12
Styrene	0.250	U	0.500	0.150	ug/L	1	(<100)	07/22/15 15:12
tert-Butylbenzene	0.250	U	0.500	0.150	ug/L	1		07/22/15 15:12
Tetrachloroethene	0.250	U	0.500	0.150	ug/L	1	(<5)	07/22/15 15:12
Toluene	0.250	U	0.500	0.150	ug/L	1	(<1000)	07/22/15 15:12
Total Trihalomethanes	1.00	U	2.00	0.600	ug/L	1	(<80)	07/22/15 15:12
trans-1,2-Dichloroethene	0.250	U	0.500	0.150	ug/L	1	(<100)	07/22/15 15:12
trans-1,3-Dichloropropene	0.250	U	0.500	0.150	ug/L	1		07/22/15 15:12
Trichloroethene	0.250	U	0.500	0.150	ug/L	1	(<5)	07/22/15 15:12
Trichlorofluoromethane	1.35		0.500	0.150	ug/L	1		07/22/15 15:12
Vinyl chloride	0.200	U	0.400	0.120	ug/L	1	(<2)	07/22/15 15:12
Xylenes (total)	0.250	U	0.500	0.150	ug/L	1	(<10000)	07/22/15 15:12
Surrogates								
1,2-Dichloroethane-D4 (surr)	111		70-130		%	1		07/22/15 15:12
4-Bromofluorobenzene (surr)	101		70-130		%	1		07/22/15 15:12
Toluene-d8 (surr)	98.8		70-130		%	1		07/22/15 15:12

Batch Information

Analytical Batch: VMS15114
Analytical Method: EPA 524.2
Analyst: NRB
Analytical Date/Time: 07/22/15 15:12
Container ID: 1158310007-A

Prep Batch: VXX27607
Prep Method: SW5030B
Prep Date/Time: 07/22/15 06:00
Prep Initial Wt./Vol.: 5 mL
Prep Extract Vol: 5 mL

Print Date: 08/05/2015 2:08:47PM

J flagging is activated

Results of **GHW-12**

Client Sample ID: **GHW-12**
Client Project ID: **Gold Hill**
Lab Sample ID: 1158310008
Lab Project ID: 1158310

Collection Date: 07/20/15 13:55
Received Date: 07/21/15 09:00
Matrix: Water (Surface, Eff., Ground)
Solids (%):
Location:

Results by **Volatile Gas Chromatography/Mass Spectrome**

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
1,1,1,2-Tetrachloroethane	0.250	U	0.500	0.150	ug/L	1		07/22/15 14:56
1,1,1-Trichloroethane	0.250	U	0.500	0.150	ug/L	1	(<200)	07/22/15 14:56
1,1,2,2-Tetrachloroethane	0.250	U	0.500	0.150	ug/L	1		07/22/15 14:56
1,1,2-Trichloroethane	0.250	U	0.500	0.150	ug/L	1	(<5)	07/22/15 14:56
1,1-Dichloroethane	0.250	U	0.500	0.150	ug/L	1		07/22/15 14:56
1,1-Dichloroethene	0.250	U	0.500	0.150	ug/L	1	(<7)	07/22/15 14:56
1,1-Dichloropropene	0.250	U	0.500	0.150	ug/L	1		07/22/15 14:56
1,2,3-Trichlorobenzene	0.250	U	0.500	0.150	ug/L	1		07/22/15 14:56
1,2,3-Trichloropropane	0.250	U	0.500	0.180	ug/L	1		07/22/15 14:56
1,2,4-Trichlorobenzene	0.250	U	0.500	0.150	ug/L	1	(<70)	07/22/15 14:56
1,2,4-Trimethylbenzene	0.250	U	0.500	0.150	ug/L	1		07/22/15 14:56
1,2-Dibromo-3-chloropropane	1.00	U	2.00	0.620	ug/L	1		07/22/15 14:56
1,2-Dibromoethane	0.250	U	0.500	0.150	ug/L	1		07/22/15 14:56
1,2-Dichlorobenzene	0.250	U	0.500	0.150	ug/L	1	(<600)	07/22/15 14:56
1,2-Dichloroethane	0.250	U	0.500	0.150	ug/L	1	(<5)	07/22/15 14:56
1,2-Dichloropropane	0.250	U	0.500	0.150	ug/L	1	(<5)	07/22/15 14:56
1,3,5-Trimethylbenzene	0.250	U	0.500	0.150	ug/L	1		07/22/15 14:56
1,3-Dichlorobenzene	0.250	U	0.500	0.150	ug/L	1		07/22/15 14:56
1,3-Dichloropropane	0.250	U	0.500	0.150	ug/L	1		07/22/15 14:56
1,4-Dichlorobenzene	0.250	U	0.500	0.150	ug/L	1	(<75)	07/22/15 14:56
2,2-Dichloropropane	0.250	U	0.500	0.150	ug/L	1		07/22/15 14:56
2-Chlorotoluene	0.250	U	0.500	0.150	ug/L	1		07/22/15 14:56
4-Chlorotoluene	0.250	U	0.500	0.150	ug/L	1		07/22/15 14:56
4-Isopropyltoluene	0.250	U	0.500	0.150	ug/L	1		07/22/15 14:56
Benzene	0.250	U	0.500	0.150	ug/L	1	(<5)	07/22/15 14:56
Bromobenzene	0.250	U	0.500	0.150	ug/L	1		07/22/15 14:56
Bromochloromethane	0.250	U	0.500	0.150	ug/L	1		07/22/15 14:56
Bromodichloromethane	0.250	U	0.500	0.150	ug/L	1		07/22/15 14:56
Bromoform	0.250	U	0.500	0.150	ug/L	1		07/22/15 14:56
Bromomethane	1.00	U	2.00	0.620	ug/L	1		07/22/15 14:56
Carbon tetrachloride	0.250	U	0.500	0.150	ug/L	1	(<5)	07/22/15 14:56
Chlorobenzene	0.250	U	0.500	0.150	ug/L	1	(<100)	07/22/15 14:56
Chloroethane	0.500	U	1.00	0.310	ug/L	1		07/22/15 14:56
Chloroform	0.250	U	0.500	0.150	ug/L	1		07/22/15 14:56
Chloromethane	0.250	U	0.500	0.150	ug/L	1		07/22/15 14:56
cis-1,2-Dichloroethene	0.250	U	0.500	0.150	ug/L	1	(<70)	07/22/15 14:56
cis-1,3-Dichloropropene	0.250	U	0.500	0.150	ug/L	1		07/22/15 14:56

Print Date: 08/05/2015 2:08:47PM

J flagging is activated

Results of **GHW-12**

Client Sample ID: **GHW-12**
Client Project ID: **Gold Hill**
Lab Sample ID: 1158310008
Lab Project ID: 1158310

Collection Date: 07/20/15 13:55
Received Date: 07/21/15 09:00
Matrix: Water (Surface, Eff., Ground)
Solids (%):
Location:

Results by **Volatile Gas Chromatography/Mass Spectrome**

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Dibromochloromethane	0.250	U	0.500	0.150	ug/L	1		07/22/15 14:56
Dibromomethane	0.250	U	0.500	0.150	ug/L	1		07/22/15 14:56
Dichlorodifluoromethane	0.250	U	0.500	0.150	ug/L	1		07/22/15 14:56
Ethylbenzene	0.250	U	0.500	0.150	ug/L	1	(<700)	07/22/15 14:56
Hexachlorobutadiene	0.250	U	0.500	0.150	ug/L	1		07/22/15 14:56
Isopropylbenzene (Cumene)	0.250	U	0.500	0.150	ug/L	1		07/22/15 14:56
Methylene chloride	0.250	U	0.500	0.150	ug/L	1	(<5)	07/22/15 14:56
Methyl-t-butyl ether	0.500	U	1.00	0.500	ug/L	1		07/22/15 14:56
Naphthalene	0.250	U	0.500	0.150	ug/L	1		07/22/15 14:56
n-Butylbenzene	0.250	U	0.500	0.150	ug/L	1		07/22/15 14:56
n-Propylbenzene	0.250	U	0.500	0.150	ug/L	1		07/22/15 14:56
o-Xylene	0.250	U	0.500	0.150	ug/L	1		07/22/15 14:56
P & M -Xylene	0.250	U	0.500	0.150	ug/L	1		07/22/15 14:56
sec-Butylbenzene	0.250	U	0.500	0.150	ug/L	1		07/22/15 14:56
Styrene	0.250	U	0.500	0.150	ug/L	1	(<100)	07/22/15 14:56
tert-Butylbenzene	0.250	U	0.500	0.150	ug/L	1		07/22/15 14:56
Tetrachloroethene	0.250	U	0.500	0.150	ug/L	1	(<5)	07/22/15 14:56
Toluene	0.250	U	0.500	0.150	ug/L	1	(<1000)	07/22/15 14:56
Total Trihalomethanes	1.00	U	2.00	0.600	ug/L	1	(<80)	07/22/15 14:56
trans-1,2-Dichloroethene	0.250	U	0.500	0.150	ug/L	1	(<100)	07/22/15 14:56
trans-1,3-Dichloropropene	0.250	U	0.500	0.150	ug/L	1		07/22/15 14:56
Trichloroethene	0.250	U	0.500	0.150	ug/L	1	(<5)	07/22/15 14:56
Trichlorofluoromethane	1.41		0.500	0.150	ug/L	1		07/22/15 14:56
Vinyl chloride	0.200	U	0.400	0.120	ug/L	1	(<2)	07/22/15 14:56
Xylenes (total)	0.250	U	0.500	0.150	ug/L	1	(<10000)	07/22/15 14:56
Surrogates								
1,2-Dichloroethane-D4 (surr)	117		70-130		%	1		07/22/15 14:56
4-Bromofluorobenzene (surr)	103		70-130		%	1		07/22/15 14:56
Toluene-d8 (surr)	101		70-130		%	1		07/22/15 14:56

Batch Information

Analytical Batch: VMS15114
Analytical Method: EPA 524.2
Analyst: NRB
Analytical Date/Time: 07/22/15 14:56
Container ID: 1158310008-A

Prep Batch: VXX27607
Prep Method: SW5030B
Prep Date/Time: 07/22/15 06:00
Prep Initial Wt./Vol.: 5 mL
Prep Extract Vol: 5 mL

Print Date: 08/05/2015 2:08:47PM

J flagging is activated

Results of **MW-25**

Client Sample ID: **MW-25**
Client Project ID: **Gold Hill**
Lab Sample ID: 1158310009
Lab Project ID: 1158310

Collection Date: 07/20/15 14:00
Received Date: 07/21/15 09:00
Matrix: Water (Surface, Eff., Ground)
Solids (%):
Location:

Results by **Metals by ICP/MS**

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Lead	54.2		0.200	0.0620	ug/L	1		07/28/15 17:30

Batch Information

Analytical Batch: MMS9018
Analytical Method: EP200.8
Analyst: EAB
Analytical Date/Time: 07/28/15 17:30
Container ID: 1158310009-J

Prep Batch: MXX28917
Prep Method: E200.2
Prep Date/Time: 07/27/15 15:00
Prep Initial Wt./Vol.: 20 mL
Prep Extract Vol: 50 mL

Results of **MW-25**

Client Sample ID: **MW-25**
Client Project ID: **Gold Hill**
Lab Sample ID: 1158310009
Lab Project ID: 1158310

Collection Date: 07/20/15 14:00
Received Date: 07/21/15 09:00
Matrix: Water (Surface, Eff., Ground)
Solids (%):
Location:

Results by **Volatile Fuels**

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Gasoline Range Organics	2.12		0.100	0.0310	mg/L	1		07/23/15 18:49
Surrogates								
4-Bromofluorobenzene (surr)	188	*	50-150		%	1		07/23/15 18:49

Batch Information

Analytical Batch: VFC12534
Analytical Method: AK101
Analyst: CRD
Analytical Date/Time: 07/23/15 18:49
Container ID: 1158310009-B

Prep Batch: VXX27612
Prep Method: SW5030B
Prep Date/Time: 07/23/15 08:00
Prep Initial Wt./Vol.: 5 mL
Prep Extract Vol: 5 mL

Results of **MW-25**

Client Sample ID: **MW-25**
Client Project ID: **Gold Hill**
Lab Sample ID: 1158310009
Lab Project ID: 1158310

Collection Date: 07/20/15 14:00
Received Date: 07/21/15 09:00
Matrix: Water (Surface, Eff., Ground)
Solids (%):
Location:

Results by **Volatile Gas Chromatography/Mass Spectrome**

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
1,1,1,2-Tetrachloroethane	0.250	U	0.500	0.150	ug/L	1		07/22/15 18:15
1,1,1-Trichloroethane	0.500	U	1.00	0.310	ug/L	1		07/22/15 18:15
1,1,2,2-Tetrachloroethane	0.250	U	0.500	0.150	ug/L	1		07/22/15 18:15
1,1,2-Trichloroethane	0.500	U	1.00	0.310	ug/L	1		07/22/15 18:15
1,1-Dichloroethane	0.500	U	1.00	0.310	ug/L	1		07/22/15 18:15
1,1-Dichloroethene	0.500	U	1.00	0.310	ug/L	1		07/22/15 18:15
1,1-Dichloropropene	0.500	U	1.00	0.310	ug/L	1		07/22/15 18:15
1,2,3-Trichlorobenzene	0.500	U	1.00	0.310	ug/L	1		07/22/15 18:15
1,2,3-Trichloropropane	0.500	U	1.00	0.310	ug/L	1		07/22/15 18:15
1,2,4-Trichlorobenzene	0.500	U	1.00	0.310	ug/L	1		07/22/15 18:15
1,2,4-Trimethylbenzene	0.500	U	1.00	0.310	ug/L	1		07/22/15 18:15
1,2-Dibromo-3-chloropropane	5.00	U	10.0	3.10	ug/L	1		07/22/15 18:15
1,2-Dibromoethane	0.500	U	1.00	0.310	ug/L	1		07/22/15 18:15
1,2-Dichlorobenzene	0.500	U	1.00	0.310	ug/L	1		07/22/15 18:15
1,2-Dichloroethane	25.1		0.500	0.150	ug/L	1		07/22/15 18:15
1,2-Dichloropropane	0.500	U	1.00	0.310	ug/L	1		07/22/15 18:15
1,3,5-Trimethylbenzene	0.500	U	1.00	0.310	ug/L	1		07/22/15 18:15
1,3-Dichlorobenzene	0.500	U	1.00	0.310	ug/L	1		07/22/15 18:15
1,3-Dichloropropane	0.250	U	0.500	0.150	ug/L	1		07/22/15 18:15
1,4-Dichlorobenzene	0.250	U	0.500	0.150	ug/L	1		07/22/15 18:15
2,2-Dichloropropane	0.500	U	1.00	0.310	ug/L	1		07/22/15 18:15
2-Butanone (MEK)	5.00	U	10.0	3.10	ug/L	1		07/22/15 18:15
2-Chlorotoluene	0.500	U	1.00	0.310	ug/L	1		07/22/15 18:15
2-Hexanone	5.00	U	10.0	3.10	ug/L	1		07/22/15 18:15
4-Chlorotoluene	0.500	U	1.00	0.310	ug/L	1		07/22/15 18:15
4-Isopropyltoluene	0.500	U	1.00	0.310	ug/L	1		07/22/15 18:15
4-Methyl-2-pentanone (MIBK)	5.00	U	10.0	3.10	ug/L	1		07/22/15 18:15
Benzene	976		40.0	12.0	ug/L	100		07/23/15 21:29
Bromobenzene	0.500	U	1.00	0.310	ug/L	1		07/22/15 18:15
Bromochloromethane	0.500	U	1.00	0.310	ug/L	1		07/22/15 18:15
Bromodichloromethane	0.250	U	0.500	0.150	ug/L	1		07/22/15 18:15
Bromoform	0.500	U	1.00	0.310	ug/L	1		07/22/15 18:15
Bromomethane	5.00	U	10.0	3.10	ug/L	1		07/22/15 18:15
Carbon disulfide	5.00	U	10.0	3.10	ug/L	1		07/22/15 18:15
Carbon tetrachloride	0.500	U	1.00	0.310	ug/L	1		07/22/15 18:15
Chlorobenzene	0.250	U	0.500	0.150	ug/L	1		07/22/15 18:15
Chloroethane	0.500	U	1.00	0.310	ug/L	1		07/22/15 18:15

Results of **MW-25**

Client Sample ID: **MW-25**
Client Project ID: **Gold Hill**
Lab Sample ID: 1158310009
Lab Project ID: 1158310

Collection Date: 07/20/15 14:00
Received Date: 07/21/15 09:00
Matrix: Water (Surface, Eff., Ground)
Solids (%):
Location:

Results by **Volatile Gas Chromatography/Mass Spectrome**

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Chloroform	0.500	U	1.00	0.300	ug/L	1		07/22/15 18:15
Chloromethane	0.500	U	1.00	0.310	ug/L	1		07/22/15 18:15
cis-1,2-Dichloroethene	0.500	U	1.00	0.310	ug/L	1		07/22/15 18:15
cis-1,3-Dichloropropene	0.250	U	0.500	0.150	ug/L	1		07/22/15 18:15
Dibromochloromethane	0.250	U	0.500	0.150	ug/L	1		07/22/15 18:15
Dibromomethane	0.500	U	1.00	0.310	ug/L	1		07/22/15 18:15
Dichlorodifluoromethane	0.500	U	1.00	0.310	ug/L	1		07/22/15 18:15
Ethylbenzene	0.500	U	1.00	0.310	ug/L	1		07/22/15 18:15
Freon-113	5.00	U	10.0	3.10	ug/L	1		07/22/15 18:15
Hexachlorobutadiene	0.500	U	1.00	0.310	ug/L	1		07/22/15 18:15
Isopropylbenzene (Cumene)	14.7		1.00	0.310	ug/L	1		07/22/15 18:15
Methylene chloride	2.50	U	5.00	1.00	ug/L	1		07/22/15 18:15
Methyl-t-butyl ether	8.52	J	10.0	3.10	ug/L	1		07/22/15 18:15
Naphthalene	5.00	U	10.0	3.10	ug/L	1		07/22/15 18:15
n-Butylbenzene	0.520	J	1.00	0.310	ug/L	1		07/22/15 18:15
n-Propylbenzene	0.810	J	1.00	0.310	ug/L	1		07/22/15 18:15
o-Xylene	0.460	J	1.00	0.310	ug/L	1		07/22/15 18:15
P & M -Xylene	1.00	U	2.00	0.620	ug/L	1		07/22/15 18:15
sec-Butylbenzene	2.73		1.00	0.310	ug/L	1		07/22/15 18:15
Styrene	0.500	U	1.00	0.310	ug/L	1		07/22/15 18:15
tert-Butylbenzene	0.500	U	1.00	0.310	ug/L	1		07/22/15 18:15
Tetrachloroethene	0.500	U	1.00	0.310	ug/L	1		07/22/15 18:15
Toluene	0.500	U	1.00	0.310	ug/L	1		07/22/15 18:15
trans-1,2-Dichloroethene	0.500	U	1.00	0.310	ug/L	1		07/22/15 18:15
trans-1,3-Dichloropropene	0.500	U	1.00	0.310	ug/L	1		07/22/15 18:15
Trichloroethene	0.500	U	1.00	0.310	ug/L	1		07/22/15 18:15
Trichlorofluoromethane	0.500	U	1.00	0.310	ug/L	1		07/22/15 18:15
Vinyl acetate	5.00	U	10.0	3.10	ug/L	1		07/22/15 18:15
Vinyl chloride	0.500	U	1.00	0.310	ug/L	1		07/22/15 18:15
Xylenes (total)	1.50	U	3.00	1.00	ug/L	1		07/22/15 18:15
Surrogates								
1,2-Dichloroethane-D4 (surr)	104		81-118		%	1		07/22/15 18:15
4-Bromofluorobenzene (surr)	100		85-114		%	1		07/22/15 18:15
Toluene-d8 (surr)	99.5		89-112		%	1		07/22/15 18:15

Results of **MW-25**

Client Sample ID: **MW-25**
Client Project ID: **Gold Hill**
Lab Sample ID: 1158310009
Lab Project ID: 1158310

Collection Date: 07/20/15 14:00
Received Date: 07/21/15 09:00
Matrix: Water (Surface, Eff., Ground)
Solids (%):
Location:

Results by **Volatile Gas Chromatography/Mass Spectrome**

Batch Information

Analytical Batch: VMS15116
Analytical Method: SW8260B
Analyst: NRB
Analytical Date/Time: 07/22/15 18:15
Container ID: 1158310009-E

Prep Batch: VXX27609
Prep Method: SW5030B
Prep Date/Time: 07/22/15 06:00
Prep Initial Wt./Vol.: 5 mL
Prep Extract Vol: 5 mL

Analytical Batch: VMS15119
Analytical Method: SW8260B
Analyst: NRB
Analytical Date/Time: 07/23/15 21:29
Container ID: 1158310009-F

Prep Batch: VXX27615
Prep Method: SW5030B
Prep Date/Time: 07/23/15 06:00
Prep Initial Wt./Vol.: 5 mL
Prep Extract Vol: 5 mL

Results of **TB-01**

Client Sample ID: **TB-01**
Client Project ID: **Gold Hill**
Lab Sample ID: 1158310010
Lab Project ID: 1158310

Collection Date: 07/20/15 14:00
Received Date: 07/21/15 09:00
Matrix: Water (Surface, Eff., Ground)
Solids (%):
Location:

Results by **Volatile Fuels**

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Gasoline Range Organics	0.0500	U	0.100	0.0310	mg/L	1		07/23/15 19:08
Surrogates								
4-Bromofluorobenzene (surr)	103		50-150		%	1		07/23/15 19:08

Batch Information

Analytical Batch: VFC12534
Analytical Method: AK101
Analyst: CRD
Analytical Date/Time: 07/23/15 19:08
Container ID: 1158310010-A

Prep Batch: VXX27612
Prep Method: SW5030B
Prep Date/Time: 07/23/15 08:00
Prep Initial Wt./Vol.: 5 mL
Prep Extract Vol: 5 mL

Results of **TB-01**

Client Sample ID: **TB-01**
Client Project ID: **Gold Hill**
Lab Sample ID: 1158310010
Lab Project ID: 1158310

Collection Date: 07/20/15 14:00
Received Date: 07/21/15 09:00
Matrix: Water (Surface, Eff., Ground)
Solids (%):
Location:

Results by **Volatile Gas Chromatography/Mass Spectrome**

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
1,1,1,2-Tetrachloroethane	0.250	U	0.500	0.150	ug/L	1		07/22/15 18:32
1,1,1-Trichloroethane	0.500	U	1.00	0.310	ug/L	1		07/22/15 18:32
1,1,2,2-Tetrachloroethane	0.250	U	0.500	0.150	ug/L	1		07/22/15 18:32
1,1,2-Trichloroethane	0.500	U	1.00	0.310	ug/L	1		07/22/15 18:32
1,1-Dichloroethane	0.500	U	1.00	0.310	ug/L	1		07/22/15 18:32
1,1-Dichloroethene	0.500	U	1.00	0.310	ug/L	1		07/22/15 18:32
1,1-Dichloropropene	0.500	U	1.00	0.310	ug/L	1		07/22/15 18:32
1,2,3-Trichlorobenzene	0.500	U	1.00	0.310	ug/L	1		07/22/15 18:32
1,2,3-Trichloropropane	0.500	U	1.00	0.310	ug/L	1		07/22/15 18:32
1,2,4-Trichlorobenzene	0.500	U	1.00	0.310	ug/L	1		07/22/15 18:32
1,2,4-Trimethylbenzene	0.500	U	1.00	0.310	ug/L	1		07/22/15 18:32
1,2-Dibromo-3-chloropropane	5.00	U	10.0	3.10	ug/L	1		07/22/15 18:32
1,2-Dibromoethane	0.500	U	1.00	0.310	ug/L	1		07/22/15 18:32
1,2-Dichlorobenzene	0.500	U	1.00	0.310	ug/L	1		07/22/15 18:32
1,2-Dichloroethane	0.250	U	0.500	0.150	ug/L	1		07/22/15 18:32
1,2-Dichloropropane	0.500	U	1.00	0.310	ug/L	1		07/22/15 18:32
1,3,5-Trimethylbenzene	0.500	U	1.00	0.310	ug/L	1		07/22/15 18:32
1,3-Dichlorobenzene	0.500	U	1.00	0.310	ug/L	1		07/22/15 18:32
1,3-Dichloropropane	0.250	U	0.500	0.150	ug/L	1		07/22/15 18:32
1,4-Dichlorobenzene	0.250	U	0.500	0.150	ug/L	1		07/22/15 18:32
2,2-Dichloropropane	0.500	U	1.00	0.310	ug/L	1		07/22/15 18:32
2-Butanone (MEK)	5.00	U	10.0	3.10	ug/L	1		07/22/15 18:32
2-Chlorotoluene	0.500	U	1.00	0.310	ug/L	1		07/22/15 18:32
2-Hexanone	5.00	U	10.0	3.10	ug/L	1		07/22/15 18:32
4-Chlorotoluene	0.500	U	1.00	0.310	ug/L	1		07/22/15 18:32
4-Isopropyltoluene	0.500	U	1.00	0.310	ug/L	1		07/22/15 18:32
4-Methyl-2-pentanone (MIBK)	5.00	U	10.0	3.10	ug/L	1		07/22/15 18:32
Benzene	0.200	U	0.400	0.120	ug/L	1		07/22/15 18:32
Bromobenzene	0.500	U	1.00	0.310	ug/L	1		07/22/15 18:32
Bromochloromethane	0.500	U	1.00	0.310	ug/L	1		07/22/15 18:32
Bromodichloromethane	0.250	U	0.500	0.150	ug/L	1		07/22/15 18:32
Bromoform	0.500	U	1.00	0.310	ug/L	1		07/22/15 18:32
Bromomethane	5.00	U	10.0	3.10	ug/L	1		07/22/15 18:32
Carbon disulfide	5.00	U	10.0	3.10	ug/L	1		07/22/15 18:32
Carbon tetrachloride	0.500	U	1.00	0.310	ug/L	1		07/22/15 18:32
Chlorobenzene	0.250	U	0.500	0.150	ug/L	1		07/22/15 18:32
Chloroethane	0.500	U	1.00	0.310	ug/L	1		07/22/15 18:32

Results of **TB-01**

Client Sample ID: **TB-01**
Client Project ID: **Gold Hill**
Lab Sample ID: 1158310010
Lab Project ID: 1158310

Collection Date: 07/20/15 14:00
Received Date: 07/21/15 09:00
Matrix: Water (Surface, Eff., Ground)
Solids (%):
Location:

Results by **Volatile Gas Chromatography/Mass Spectrome**

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Chloroform	0.500	U	1.00	0.300	ug/L	1		07/22/15 18:32
Chloromethane	0.500	U	1.00	0.310	ug/L	1		07/22/15 18:32
cis-1,2-Dichloroethene	0.500	U	1.00	0.310	ug/L	1		07/22/15 18:32
cis-1,3-Dichloropropene	0.250	U	0.500	0.150	ug/L	1		07/22/15 18:32
Dibromochloromethane	0.250	U	0.500	0.150	ug/L	1		07/22/15 18:32
Dibromomethane	0.500	U	1.00	0.310	ug/L	1		07/22/15 18:32
Dichlorodifluoromethane	0.500	U	1.00	0.310	ug/L	1		07/22/15 18:32
Ethylbenzene	0.500	U	1.00	0.310	ug/L	1		07/22/15 18:32
Freon-113	5.00	U	10.0	3.10	ug/L	1		07/22/15 18:32
Hexachlorobutadiene	0.500	U	1.00	0.310	ug/L	1		07/22/15 18:32
Isopropylbenzene (Cumene)	0.500	U	1.00	0.310	ug/L	1		07/22/15 18:32
Methylene chloride	2.50	U	5.00	1.00	ug/L	1		07/22/15 18:32
Methyl-t-butyl ether	5.00	U	10.0	3.10	ug/L	1		07/22/15 18:32
Naphthalene	5.00	U	10.0	3.10	ug/L	1		07/22/15 18:32
n-Butylbenzene	0.500	U	1.00	0.310	ug/L	1		07/22/15 18:32
n-Propylbenzene	0.500	U	1.00	0.310	ug/L	1		07/22/15 18:32
o-Xylene	0.500	U	1.00	0.310	ug/L	1		07/22/15 18:32
P & M -Xylene	1.00	U	2.00	0.620	ug/L	1		07/22/15 18:32
sec-Butylbenzene	0.500	U	1.00	0.310	ug/L	1		07/22/15 18:32
Styrene	0.500	U	1.00	0.310	ug/L	1		07/22/15 18:32
tert-Butylbenzene	0.500	U	1.00	0.310	ug/L	1		07/22/15 18:32
Tetrachloroethene	0.500	U	1.00	0.310	ug/L	1		07/22/15 18:32
Toluene	0.500	U	1.00	0.310	ug/L	1		07/22/15 18:32
trans-1,2-Dichloroethene	0.500	U	1.00	0.310	ug/L	1		07/22/15 18:32
trans-1,3-Dichloropropene	0.500	U	1.00	0.310	ug/L	1		07/22/15 18:32
Trichloroethene	0.500	U	1.00	0.310	ug/L	1		07/22/15 18:32
Trichlorofluoromethane	0.500	U	1.00	0.310	ug/L	1		07/22/15 18:32
Vinyl acetate	5.00	U	10.0	3.10	ug/L	1		07/22/15 18:32
Vinyl chloride	0.500	U	1.00	0.310	ug/L	1		07/22/15 18:32
Xylenes (total)	1.50	U	3.00	1.00	ug/L	1		07/22/15 18:32
Surrogates								
1,2-Dichloroethane-D4 (surr)	112		81-118		%	1		07/22/15 18:32
4-Bromofluorobenzene (surr)	99.9		85-114		%	1		07/22/15 18:32
Toluene-d8 (surr)	99.4		89-112		%	1		07/22/15 18:32

Print Date: 08/05/2015 2:08:47PM

J flagging is activated

Results of **TB-01**

Client Sample ID: **TB-01**
Client Project ID: **Gold Hill**
Lab Sample ID: 1158310010
Lab Project ID: 1158310

Collection Date: 07/20/15 14:00
Received Date: 07/21/15 09:00
Matrix: Water (Surface, Eff., Ground)
Solids (%):
Location:

Results by **Volatile Gas Chromatography/Mass Spectrome**

Batch Information

Analytical Batch: VMS15116
Analytical Method: SW8260B
Analyst: NRB
Analytical Date/Time: 07/22/15 18:32
Container ID: 1158310010-B

Prep Batch: VXX27609
Prep Method: SW5030B
Prep Date/Time: 07/22/15 06:00
Prep Initial Wt./Vol.: 5 mL
Prep Extract Vol: 5 mL

Results of **TB-03**

Client Sample ID: **TB-03**
Client Project ID: **Gold Hill**
Lab Sample ID: 1158310012
Lab Project ID: 1158310

Collection Date: 07/20/15 14:00
Received Date: 07/21/15 09:00
Matrix: Water (Surface, Eff., Ground)
Solids (%):
Location:

Results by **Volatile Gas Chromatography/Mass Spectrome**

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
1,1,1,2-Tetrachloroethane	0.250	U	0.500	0.150	ug/L	1		07/22/15 13:49
1,1,1-Trichloroethane	0.250	U	0.500	0.150	ug/L	1	(<200)	07/22/15 13:49
1,1,2,2-Tetrachloroethane	0.250	U	0.500	0.150	ug/L	1		07/22/15 13:49
1,1,2-Trichloroethane	0.250	U	0.500	0.150	ug/L	1	(<5)	07/22/15 13:49
1,1-Dichloroethane	0.250	U	0.500	0.150	ug/L	1		07/22/15 13:49
1,1-Dichloroethene	0.250	U	0.500	0.150	ug/L	1	(<7)	07/22/15 13:49
1,1-Dichloropropene	0.250	U	0.500	0.150	ug/L	1		07/22/15 13:49
1,2,3-Trichlorobenzene	0.250	U	0.500	0.150	ug/L	1		07/22/15 13:49
1,2,3-Trichloropropane	0.250	U	0.500	0.180	ug/L	1		07/22/15 13:49
1,2,4-Trichlorobenzene	0.250	U	0.500	0.150	ug/L	1	(<70)	07/22/15 13:49
1,2,4-Trimethylbenzene	0.250	U	0.500	0.150	ug/L	1		07/22/15 13:49
1,2-Dibromo-3-chloropropane	1.00	U	2.00	0.620	ug/L	1		07/22/15 13:49
1,2-Dibromoethane	0.250	U	0.500	0.150	ug/L	1		07/22/15 13:49
1,2-Dichlorobenzene	0.250	U	0.500	0.150	ug/L	1	(<600)	07/22/15 13:49
1,2-Dichloroethane	0.250	U	0.500	0.150	ug/L	1	(<5)	07/22/15 13:49
1,2-Dichloropropane	0.250	U	0.500	0.150	ug/L	1	(<5)	07/22/15 13:49
1,3,5-Trimethylbenzene	0.250	U	0.500	0.150	ug/L	1		07/22/15 13:49
1,3-Dichlorobenzene	0.250	U	0.500	0.150	ug/L	1		07/22/15 13:49
1,3-Dichloropropane	0.250	U	0.500	0.150	ug/L	1		07/22/15 13:49
1,4-Dichlorobenzene	0.250	U	0.500	0.150	ug/L	1	(<75)	07/22/15 13:49
2,2-Dichloropropane	0.250	U	0.500	0.150	ug/L	1		07/22/15 13:49
2-Chlorotoluene	0.250	U	0.500	0.150	ug/L	1		07/22/15 13:49
4-Chlorotoluene	0.250	U	0.500	0.150	ug/L	1		07/22/15 13:49
4-Isopropyltoluene	0.250	U	0.500	0.150	ug/L	1		07/22/15 13:49
Benzene	0.250	U	0.500	0.150	ug/L	1	(<5)	07/22/15 13:49
Bromobenzene	0.250	U	0.500	0.150	ug/L	1		07/22/15 13:49
Bromochloromethane	0.250	U	0.500	0.150	ug/L	1		07/22/15 13:49
Bromodichloromethane	0.250	U	0.500	0.150	ug/L	1		07/22/15 13:49
Bromoform	0.250	U	0.500	0.150	ug/L	1		07/22/15 13:49
Bromomethane	1.00	U	2.00	0.620	ug/L	1		07/22/15 13:49
Carbon tetrachloride	0.250	U	0.500	0.150	ug/L	1	(<5)	07/22/15 13:49
Chlorobenzene	0.250	U	0.500	0.150	ug/L	1	(<100)	07/22/15 13:49
Chloroethane	0.500	U	1.00	0.310	ug/L	1		07/22/15 13:49
Chloroform	0.250	U	0.500	0.150	ug/L	1		07/22/15 13:49
Chloromethane	0.250	U	0.500	0.150	ug/L	1		07/22/15 13:49
cis-1,2-Dichloroethene	0.250	U	0.500	0.150	ug/L	1	(<70)	07/22/15 13:49
cis-1,3-Dichloropropene	0.250	U	0.500	0.150	ug/L	1		07/22/15 13:49

Print Date: 08/05/2015 2:08:47PM

J flagging is activated

Results of **TB-03**

Client Sample ID: **TB-03**
Client Project ID: **Gold Hill**
Lab Sample ID: 1158310012
Lab Project ID: 1158310

Collection Date: 07/20/15 14:00
Received Date: 07/21/15 09:00
Matrix: Water (Surface, Eff., Ground)
Solids (%):
Location:

Results by **Volatile Gas Chromatography/Mass Spectrome**

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Dibromochloromethane	0.250	U	0.500	0.150	ug/L	1		07/22/15 13:49
Dibromomethane	0.250	U	0.500	0.150	ug/L	1		07/22/15 13:49
Dichlorodifluoromethane	0.250	U	0.500	0.150	ug/L	1		07/22/15 13:49
Ethylbenzene	0.250	U	0.500	0.150	ug/L	1	(<700)	07/22/15 13:49
Hexachlorobutadiene	0.250	U	0.500	0.150	ug/L	1		07/22/15 13:49
Isopropylbenzene (Cumene)	0.250	U	0.500	0.150	ug/L	1		07/22/15 13:49
Methylene chloride	0.230	J	0.500	0.150	ug/L	1	(<5)	07/22/15 13:49
Methyl-t-butyl ether	0.500	U	1.00	0.500	ug/L	1		07/22/15 13:49
Naphthalene	0.250	U	0.500	0.150	ug/L	1		07/22/15 13:49
n-Butylbenzene	0.250	U	0.500	0.150	ug/L	1		07/22/15 13:49
n-Propylbenzene	0.250	U	0.500	0.150	ug/L	1		07/22/15 13:49
o-Xylene	0.250	U	0.500	0.150	ug/L	1		07/22/15 13:49
P & M -Xylene	0.250	U	0.500	0.150	ug/L	1		07/22/15 13:49
sec-Butylbenzene	0.250	U	0.500	0.150	ug/L	1		07/22/15 13:49
Styrene	0.250	U	0.500	0.150	ug/L	1	(<100)	07/22/15 13:49
tert-Butylbenzene	0.250	U	0.500	0.150	ug/L	1		07/22/15 13:49
Tetrachloroethene	0.250	U	0.500	0.150	ug/L	1	(<5)	07/22/15 13:49
Toluene	0.250	U	0.500	0.150	ug/L	1	(<1000)	07/22/15 13:49
Total Trihalomethanes	1.00	U	2.00	0.600	ug/L	1	(<80)	07/22/15 13:49
trans-1,2-Dichloroethene	0.250	U	0.500	0.150	ug/L	1	(<100)	07/22/15 13:49
trans-1,3-Dichloropropene	0.250	U	0.500	0.150	ug/L	1		07/22/15 13:49
Trichloroethene	0.250	U	0.500	0.150	ug/L	1	(<5)	07/22/15 13:49
Trichlorofluoromethane	0.250	U	0.500	0.150	ug/L	1		07/22/15 13:49
Vinyl chloride	0.200	U	0.400	0.120	ug/L	1	(<2)	07/22/15 13:49
Xylenes (total)	0.250	U	0.500	0.150	ug/L	1	(<10000)	07/22/15 13:49
Surrogates								
1,2-Dichloroethane-D4 (surr)	110		70-130		%	1		07/22/15 13:49
4-Bromofluorobenzene (surr)	99.7		70-130		%	1		07/22/15 13:49
Toluene-d8 (surr)	98.7		70-130		%	1		07/22/15 13:49

Batch Information

Analytical Batch: VMS15114
Analytical Method: EPA 524.2
Analyst: NRB
Analytical Date/Time: 07/22/15 13:49
Container ID: 1158310012-A

Prep Batch: VXX27607
Prep Method: SW5030B
Prep Date/Time: 07/22/15 06:00
Prep Initial Wt./Vol.: 5 mL
Prep Extract Vol: 5 mL

Print Date: 08/05/2015 2:08:47PM

J flagging is activated

Method Blank

Blank ID: MB for HBN 1714907 [MXX/28917]
Blank Lab ID: 1279486

Matrix: Water (Surface, Eff., Ground)

QC for Samples:
1158310001, 1158310005, 1158310009

Results by **EP200.8**

Parameter	Results	LOQ/CL	DL	Units
Lead	0.100U	0.200	0.0620	ug/L

Batch Information

Analytical Batch: MMS9018
Analytical Method: EP200.8
Instrument: Perkin Elmer Sciex ICP-MS P3
Analyst: EAB
Analytical Date/Time: 7/28/2015 4:57:39PM

Prep Batch: MXX28917
Prep Method: E200.2
Prep Date/Time: 7/27/2015 3:00:07PM
Prep Initial Wt./Vol.: 20 mL
Prep Extract Vol: 50 mL

Blank Spike Summary

Blank Spike ID: LCS for HBN 1158310 [MXX28917]
Blank Spike Lab ID: 1279487
Date Analyzed: 07/28/2015 17:00

Matrix: Water (Surface, Eff., Ground)

QC for Samples: 1158310001, 1158310005, 1158310009

Results by **EP200.8**

Blank Spike (ug/L)

Parameter	Spike	Result	Rec (%)	CL
Lead	1000	1030	103	(85-115)

Batch Information

Analytical Batch: **MMS9018**
Analytical Method: **EP200.8**
Instrument: **Perkin Elmer Sciex ICP-MS P3**
Analyst: **EAB**

Prep Batch: **MXX28917**
Prep Method: **E200.2**
Prep Date/Time: **07/27/2015 15:00**
Spike Init Wt./Vol.: 1000 ug/L Extract Vol: 50 mL
Dupe Init Wt./Vol.: Extract Vol:

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

Matrix Spike Summary

Original Sample ID: 1279539
MS Sample ID: 1279488 MS
MSD Sample ID:

Analysis Date: 07/28/2015 17:02
Analysis Date: 07/28/2015 17:04
Analysis Date:
Matrix: Drinking Water

QC for Samples: 1158310001, 1158310005, 1158310009

Results by **EP200.8**

		Matrix Spike (ug/L)			Spike Duplicate (ug/L)					
Parameter	Sample	Spike	Result	Rec (%)	Spike	Result	Rec (%)	CL	RPD (%)	RPD CL
Lead	0.272	1000	1010	101				70-130		

Batch Information

Analytical Batch: MMS9018
Analytical Method: EP200.8
Instrument: Perkin Elmer Sciex ICP-MS P3
Analyst: EAB
Analytical Date/Time: 7/28/2015 5:04:46PM

Prep Batch: MXX28917
Prep Method: DW Digest for Metals on ICP-MS
Prep Date/Time: 7/27/2015 3:00:07PM
Prep Initial Wt./Vol.: 20.00mL
Prep Extract Vol: 50.00mL

Print Date: 08/05/2015 2:08:52PM

Matrix Spike Summary

Original Sample ID: 1279540
MS Sample ID: 1279489 MS
MSD Sample ID:

Analysis Date: 07/28/2015 17:33
Analysis Date: 07/28/2015 17:35
Analysis Date:
Matrix: Drinking Water

QC for Samples: 1158310001, 1158310005, 1158310009

Results by **EP200.8**

		Matrix Spike (ug/L)			Spike Duplicate (ug/L)					
Parameter	Sample	Spike	Result	Rec (%)	Spike	Result	Rec (%)	CL	RPD (%)	RPD CL
Lead	3.17	1000	1030	103				70-130		

Batch Information

Analytical Batch: MMS9018
Analytical Method: EP200.8
Instrument: Perkin Elmer Sciex ICP-MS P3
Analyst: EAB
Analytical Date/Time: 7/28/2015 5:35:45PM

Prep Batch: MXX28917
Prep Method: DW Digest for Metals on ICP-MS
Prep Date/Time: 7/27/2015 3:00:07PM
Prep Initial Wt./Vol.: 20.00mL
Prep Extract Vol: 50.00mL

Print Date: 08/05/2015 2:08:52PM

Method Blank

Blank ID: MB for HBN 1714418 [VXX/27607]
Blank Lab ID: 1278698

Matrix: Drinking Water

QC for Samples:
1158310007, 1158310008, 1158310012

Results by **EPA 524.2**

Parameter	Results	LOQ/CL	DL	Units
1,1,1,2-Tetrachloroethane	0.250U	0.500	0.150	ug/L
1,1,1-Trichloroethane	0.250U	0.500	0.150	ug/L
1,1,2,2-Tetrachloroethane	0.250U	0.500	0.150	ug/L
1,1,2-Trichloroethane	0.250U	0.500	0.150	ug/L
1,1-Dichloroethane	0.250U	0.500	0.150	ug/L
1,1-Dichloroethene	0.250U	0.500	0.150	ug/L
1,1-Dichloropropene	0.250U	0.500	0.150	ug/L
1,2,3-Trichlorobenzene	0.250U	0.500	0.150	ug/L
1,2,3-Trichloropropane	0.250U	0.500	0.180	ug/L
1,2,4-Trichlorobenzene	0.250U	0.500	0.150	ug/L
1,2,4-Trimethylbenzene	0.250U	0.500	0.150	ug/L
1,2-Dibromo-3-chloropropane	1.00U	2.00	0.620	ug/L
1,2-Dibromoethane	0.250U	0.500	0.150	ug/L
1,2-Dichlorobenzene	0.250U	0.500	0.150	ug/L
1,2-Dichloroethane	0.250U	0.500	0.150	ug/L
1,2-Dichloropropane	0.250U	0.500	0.150	ug/L
1,3,5-Trimethylbenzene	0.250U	0.500	0.150	ug/L
1,3-Dichlorobenzene	0.250U	0.500	0.150	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	0.250U	0.500	0.150	ug/L
2-Chlorotoluene	0.250U	0.500	0.150	ug/L
4-Chlorotoluene	0.250U	0.500	0.150	ug/L
4-Isopropyltoluene	0.250U	0.500	0.150	ug/L
Benzene	0.250U	0.500	0.150	ug/L
Bromobenzene	0.250U	0.500	0.150	ug/L
Bromochloromethane	0.250U	0.500	0.150	ug/L
Bromodichloromethane	0.250U	0.500	0.150	ug/L
Bromoform	0.250U	0.500	0.150	ug/L
Bromomethane	1.00U	2.00	0.620	ug/L
Carbon tetrachloride	0.250U	0.500	0.150	ug/L
Chlorobenzene	0.250U	0.500	0.150	ug/L
Chloroethane	0.500U	1.00	0.310	ug/L
Chloroform	0.250U	0.500	0.150	ug/L
Chloromethane	0.250U	0.500	0.150	ug/L
cis-1,2-Dichloroethene	0.250U	0.500	0.150	ug/L
cis-1,3-Dichloropropene	0.250U	0.500	0.150	ug/L
Dibromochloromethane	0.250U	0.500	0.150	ug/L

Method Blank

Blank ID: MB for HBN 1714418 [VXX/27607]
Blank Lab ID: 1278698

Matrix: Drinking Water

QC for Samples:
1158310007, 1158310008, 1158310012

Results by **EPA 524.2**

Parameter	Results	LOQ/CL	DL	Units
Dibromomethane	0.250U	0.500	0.150	ug/L
Dichlorodifluoromethane	0.250U	0.500	0.150	ug/L
Ethylbenzene	0.250U	0.500	0.150	ug/L
Hexachlorobutadiene	0.250U	0.500	0.150	ug/L
Isopropylbenzene (Cumene)	0.250U	0.500	0.150	ug/L
Methylene chloride	0.250U	0.500	0.150	ug/L
Methyl-t-butyl ether	0.500U	1.00	0.500	ug/L
Naphthalene	0.250U	0.500	0.150	ug/L
n-Butylbenzene	0.250U	0.500	0.150	ug/L
n-Propylbenzene	0.250U	0.500	0.150	ug/L
o-Xylene	0.250U	0.500	0.150	ug/L
P & M -Xylene	0.250U	0.500	0.150	ug/L
sec-Butylbenzene	0.250U	0.500	0.150	ug/L
Styrene	0.250U	0.500	0.150	ug/L
tert-Butylbenzene	0.250U	0.500	0.150	ug/L
Tetrachloroethene	0.250U	0.500	0.150	ug/L
Toluene	0.250U	0.500	0.150	ug/L
trans-1,2-Dichloroethene	0.250U	0.500	0.150	ug/L
trans-1,3-Dichloropropene	0.250U	0.500	0.150	ug/L
Trichloroethene	0.250U	0.500	0.150	ug/L
Trichlorofluoromethane	0.250U	0.500	0.150	ug/L
Vinyl chloride	0.200U	0.400	0.120	ug/L
Surrogates				
1,2-Dichloroethane-D4 (surr)	110	70-130		%
4-Bromofluorobenzene (surr)	99.9	70-130		%
Toluene-d8 (surr)	99.3	70-130		%

Batch Information

Analytical Batch: VMS15114
Analytical Method: EPA 524.2
Instrument: VPA 780/5975 GC/MS
Analyst: NRB
Analytical Date/Time: 7/22/2015 8:28:00AM

Prep Batch: VXX27607
Prep Method: SW5030B
Prep Date/Time: 7/22/2015 6:00:00AM
Prep Initial Wt./Vol.: 5 mL
Prep Extract Vol: 5 mL

Blank Spike Summary

Blank Spike ID: LCS for HBN 1158310 [VXX27607]
Blank Spike Lab ID: 1278699
Date Analyzed: 07/22/2015 09:11

Spike Duplicate ID: LCSD for HBN 1158310 [VXX27607]
Spike Duplicate Lab ID: 1278700
Matrix: Drinking Water

QC for Samples: 1158310007, 1158310008, 1158310012

Results by **EPA 524.2**

	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	31.5	105	30	29.8	99	(70-130)	5.60	(< 30)
1,1,1-Trichloroethane	30	30.9	103	30	30.3	101	(70-130)	1.90	(< 30)
1,1,2,2-Tetrachloroethane	30	32.8	109	30	30.5	102	(70-130)	7.30	(< 30)
1,1,2-Trichloroethane	30	33.4	111	30	31.6	105	(70-130)	5.60	(< 30)
1,1-Dichloroethane	30	30.8	103	30	30.1	100	(70-130)	2.30	(< 30)
1,1-Dichloroethene	30	31.1	104	30	30.8	103	(70-130)	1.00	(< 30)
1,1-Dichloropropene	30	31.5	105	30	31.0	103	(70-130)	1.60	(< 30)
1,2,3-Trichlorobenzene	30	30.9	103	30	29.0	97	(70-130)	6.20	(< 30)
1,2,3-Trichloropropane	30	32.2	107	30	29.8	100	(70-130)	7.70	(< 30)
1,2,4-Trichlorobenzene	30	31.0	103	30	29.8	99	(70-130)	3.80	(< 30)
1,2,4-Trimethylbenzene	30	31.3	104	30	29.8	99	(70-130)	4.90	(< 30)
1,2-Dibromo-3-chloropropane	30	32.6	109	30	30.2	101	(70-130)	7.40	(< 30)
1,2-Dibromoethane	30	32.9	110	30	31.6	105	(70-130)	4.00	(< 30)
1,2-Dichlorobenzene	30	30.3	101	30	29.3	98	(70-130)	3.20	(< 30)
1,2-Dichloroethane	30	32.9	110	30	31.4	105	(70-130)	4.40	(< 30)
1,2-Dichloropropane	30	31.2	104	30	29.9	100	(70-130)	4.20	(< 30)
1,3,5-Trimethylbenzene	30	31.4	105	30	29.8	99	(70-130)	5.00	(< 30)
1,3-Dichlorobenzene	30	30.2	101	30	28.4	95	(70-130)	5.90	(< 30)
1,3-Dichloropropane	30	33.6	112	30	31.9	106	(70-130)	5.10	(< 30)
1,4-Dichlorobenzene	30	30.5	102	30	29.1	97	(70-130)	4.70	(< 30)
2,2-Dichloropropane	30	29.7	99	30	29.0	97	(70-130)	2.30	(< 30)
2-Chlorotoluene	30	30.7	102	30	30.2	101	(70-130)	1.50	(< 30)
4-Chlorotoluene	30	31.0	103	30	29.6	99	(70-130)	4.80	(< 30)
4-Isopropyltoluene	30	31.1	104	30	29.8	99	(70-130)	4.10	(< 30)
Benzene	30	30.3	101	30	29.4	98	(70-130)	3.10	(< 30)
Bromobenzene	30	29.6	99	30	28.4	95	(70-130)	4.30	(< 30)
Bromochloromethane	30	28.6	95	30	28.0	94	(70-130)	1.90	(< 30)
Bromodichloromethane	30	31.4	105	30	30.4	101	(70-130)	3.10	(< 30)
Bromoform	30	32.3	108	30	30.5	102	(70-130)	5.70	(< 30)
Bromomethane	30	30.2	101	30	30.8	103	(70-130)	2.00	(< 30)
Carbon tetrachloride	30	30.6	102	30	30.2	101	(70-130)	1.30	(< 30)
Chlorobenzene	30	30.7	102	30	29.3	98	(70-130)	4.80	(< 30)
Chloroethane	30	36.6	122	30	35.8	119	(70-130)	2.10	(< 30)
Chloroform	30	31.3	104	30	30.4	101	(70-130)	3.00	(< 30)

Print Date: 08/05/2015 2:08:56PM

Blank Spike Summary

Blank Spike ID: LCS for HBN 1158310 [VXX27607]
Blank Spike Lab ID: 1278699
Date Analyzed: 07/22/2015 09:11

Spike Duplicate ID: LCSD for HBN 1158310 [VXX27607]
Spike Duplicate Lab ID: 1278700
Matrix: Drinking Water

QC for Samples: 1158310007, 1158310008, 1158310012

Results by **EPA 524.2**

	Blank Spike (ug/L)			Spike Duplicate (ug/L)					
Parameter	Spike	Result	Rec (%)	Spike	Result	Rec (%)	CL	RPD (%)	RPD CL
Chloromethane	30	31.6	105	30	29.2	97	(70-130)	7.70	(< 30)
cis-1,2-Dichloroethene	30	29.4	98	30	28.0	94	(70-130)	4.90	(< 30)
cis-1,3-Dichloropropene	30	30.4	101	30	28.9	96	(70-130)	5.20	(< 30)
Dibromochloromethane	30	32.0	107	30	30.7	102	(70-130)	4.10	(< 30)
Dibromomethane	30	31.5	105	30	29.8	99	(70-130)	5.50	(< 30)
Dichlorodifluoromethane	30	31.0	103	30	30.3	101	(70-130)	2.10	(< 30)
Ethylbenzene	30	30.5	102	30	29.3	98	(70-130)	4.00	(< 30)
Hexachlorobutadiene	30	30.4	101	30	29.6	99	(70-130)	2.50	(< 30)
Isopropylbenzene (Cumene)	30	31.9	106	30	31.1	104	(70-130)	2.30	(< 30)
Methylene chloride	30	27.2	91	30	26.5	88	(70-130)	2.60	(< 30)
Methyl-t-butyl ether	45	46.1	102	45	44.0	98	(70-130)	4.80	(< 30)
Naphthalene	30	31.6	105	30	29.2	97	(70-130)	7.70	(< 30)
n-Butylbenzene	30	33.1	110	30	32.2	107	(70-130)	2.80	(< 30)
n-Propylbenzene	30	32.3	108	30	30.8	103	(70-130)	4.80	(< 30)
o-Xylene	30	31.3	104	30	30.1	100	(70-130)	3.80	(< 30)
P & M -Xylene	60	62.7	105	60	60.6	101	(70-130)	3.50	(< 30)
sec-Butylbenzene	30	31.4	105	30	30.4	101	(70-130)	3.10	(< 30)
Styrene	30	31.8	106	30	30.7	102	(70-130)	3.50	(< 30)
tert-Butylbenzene	30	31.2	104	30	30.2	101	(70-130)	3.50	(< 30)
Tetrachloroethene	30	30.8	103	30	29.8	99	(70-130)	3.40	(< 30)
Toluene	30	30.5	102	30	29.5	98	(70-130)	3.50	(< 30)
trans-1,2-Dichloroethene	30	29.2	97	30	28.6	95	(70-130)	2.20	(< 30)
trans-1,3-Dichloropropene	30	32.8	109	30	31.6	105	(70-130)	3.80	(< 30)
Trichloroethene	30	30.3	101	30	29.4	98	(70-130)	2.80	(< 30)
Trichlorofluoromethane	30	34.1	114	30	33.8	113	(70-130)	0.62	(< 30)
Vinyl chloride	30	29.7	99	30	29.4	98	(70-130)	1.20	(< 30)
Surrogates									
1,2-Dichloroethane-D4 (surr)	30	105	105	30	106	106	(70-130)	0.41	
4-Bromofluorobenzene (surr)	30	98.7	99	30	100	100	(70-130)	1.70	
Toluene-d8 (surr)	30	101	101	30	101	101	(70-130)	0.13	

Blank Spike Summary

Blank Spike ID: LCS for HBN 1158310 [VXX27607]
Blank Spike Lab ID: 1278699
Date Analyzed: 07/22/2015 09:11

Spike Duplicate ID: LCSD for HBN 1158310 [VXX27607]
Spike Duplicate Lab ID: 1278700
Matrix: Drinking Water

QC for Samples: 1158310007, 1158310008, 1158310012

Results by **EPA 524.2**

Parameter	Blank Spike (%) Spike	Result	Rec (%)	Spike Duplicate (%) Spike	Result	Rec (%)	CL	RPD (%)	RPD CL

Batch Information

Analytical Batch: **VMS15114**
Analytical Method: **EPA 524.2**
Instrument: **VPA 780/5975 GC/MS**
Analyst: **NRB**

Prep Batch: **VXX27607**
Prep Method: **SW5030B**
Prep Date/Time: **07/22/2015 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 1714428 [VXX/27609]
Blank Lab ID: 1278740

Matrix: Water (Surface, Eff., Ground)

QC for Samples:
1158310001, 1158310002, 1158310003, 1158310004, 1158310005, 1158310006, 1158310009, 1158310010

Results by **SW8260B**

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	0.500U	1.00	0.310	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	0.500U	1.00	0.310	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	5.00U	10.0	3.10	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	0.300	ug/L

Method Blank

Blank ID: MB for HBN 1714428 [VXX/27609]
Blank Lab ID: 1278740

Matrix: Water (Surface, Eff., Ground)

QC for Samples:
1158310001, 1158310002, 1158310003, 1158310004, 1158310005, 1158310006, 1158310009, 1158310010

Results by **SW8260B**

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
Dichlorodifluoromethane	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	5.00U	10.0	3.10	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	0.500U	1.00	0.310	ug/L
Xylenes (total)	1.50U	3.00	1.00	ug/L
Surrogates				
1,2-Dichloroethane-D4 (surr)	110	81-118		%
4-Bromofluorobenzene (surr)	99.9	85-114		%
Toluene-d8 (surr)	99.3	89-112		%

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 1714428 [VXX/27609]
Blank Lab ID: 1278740

Matrix: Water (Surface, Eff., Ground)

QC for Samples:
1158310001, 1158310002, 1158310003, 1158310004, 1158310005, 1158310006, 1158310009, 1158310010

Results by **SW8260B**

Parameter	Results	LOQ/CL	DL	Units

Batch Information

Analytical Batch: VMS15116
Analytical Method: SW8260B
Instrument: VPA 780/5975 GC/MS
Analyst: NRB
Analytical Date/Time: 7/22/2015 8:28:00AM

Prep Batch: VXX27609
Prep Method: SW5030B
Prep Date/Time: 7/22/2015 6:00:00AM
Prep Initial Wt./Vol.: 5 mL
Prep 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

Blank Spike Summary

Blank Spike ID: LCS for HBN 1158310 [VXX27609]
Blank Spike Lab ID: 1278741
Date Analyzed: 07/22/2015 09:11

Spike Duplicate ID: LCSD for HBN 1158310 [VXX27609]
Spike Duplicate Lab ID: 1278742
Matrix: Water (Surface, Eff., Ground)

QC for Samples: 1158310001, 1158310002, 1158310003, 1158310004, 1158310005, 1158310006, 1158310009, 1158310010

Results by **SW8260B**

	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	31.5	105	30	29.8	99	(78-124)	5.60	(< 20)
1,1,1-Trichloroethane	30	30.9	103	30	30.3	101	(74-131)	1.90	(< 20)
1,1,2,2-Tetrachloroethane	30	32.8	109	30	30.5	102	(71-121)	7.30	(< 20)
1,1,2-Trichloroethane	30	33.4	111	30	31.6	105	(80-119)	5.60	(< 20)
1,1-Dichloroethane	30	30.8	103	30	30.1	100	(77-125)	2.30	(< 20)
1,1-Dichloroethene	30	31.1	104	30	30.8	103	(71-131)	1.00	(< 20)
1,1-Dichloropropene	30	31.5	105	30	31.0	103	(79-125)	1.60	(< 20)
1,2,3-Trichlorobenzene	30	30.9	103	30	29.0	97	(69-129)	6.20	(< 20)
1,2,3-Trichloropropane	30	32.2	107	30	29.8	100	(73-122)	7.70	(< 20)
1,2,4-Trichlorobenzene	30	31.0	103	30	29.8	99	(69-130)	3.80	(< 20)
1,2,4-Trimethylbenzene	30	31.3	104	30	29.8	99	(79-124)	4.90	(< 20)
1,2-Dibromo-3-chloropropane	30	32.6	109	30	30.2	101	(62-128)	7.40	(< 20)
1,2-Dibromoethane	30	32.9	110	30	31.6	105	(77-121)	4.00	(< 20)
1,2-Dichlorobenzene	30	30.3	101	30	29.3	98	(80-119)	3.20	(< 20)
1,2-Dichloroethane	30	32.9	110	30	31.4	105	(73-128)	4.40	(< 20)
1,2-Dichloropropane	30	31.2	104	30	29.9	100	(78-122)	4.20	(< 20)
1,3,5-Trimethylbenzene	30	31.4	105	30	29.8	99	(75-124)	5.00	(< 20)
1,3-Dichlorobenzene	30	30.2	101	30	28.4	95	(80-119)	5.90	(< 20)
1,3-Dichloropropane	30	33.6	112	30	31.9	106	(80-119)	5.10	(< 20)
1,4-Dichlorobenzene	30	30.5	102	30	29.1	97	(79-118)	4.70	(< 20)
2,2-Dichloropropane	30	29.7	99	30	29.0	97	(60-139)	2.30	(< 20)
2-Butanone (MEK)	90	98.2	109	90	88.4	98	(56-143)	10.50	(< 20)
2-Chlorotoluene	30	30.7	102	30	30.2	101	(79-122)	1.50	(< 20)
2-Hexanone	90	103	115	90	93.9	104	(57-139)	9.70	(< 20)
4-Chlorotoluene	30	31.0	103	30	29.6	99	(78-122)	4.80	(< 20)
4-Isopropyltoluene	30	31.1	104	30	29.8	99	(77-127)	4.10	(< 20)
4-Methyl-2-pentanone (MIBK)	90	94.3	105	90	86.3	96	(67-130)	8.80	(< 20)
Benzene	30	30.3	101	30	29.4	98	(79-120)	3.10	(< 20)
Bromobenzene	30	29.6	99	30	28.4	95	(80-120)	4.30	(< 20)
Bromochloromethane	30	28.6	95	30	28.0	94	(78-123)	1.90	(< 20)
Bromodichloromethane	30	31.4	105	30	30.4	101	(79-125)	3.10	(< 20)
Bromoform	30	32.3	108	30	30.5	102	(66-130)	5.70	(< 20)
Bromomethane	30	30.2	101	30	30.8	103	(53-141)	2.00	(< 20)
Carbon disulfide	45	46.9	104	45	46.7	104	(64-133)	0.32	(< 20)

Blank Spike Summary

Blank Spike ID: LCS for HBN 1158310 [VXX27609]
Blank Spike Lab ID: 1278741
Date Analyzed: 07/22/2015 09:11

Spike Duplicate ID: LCSD for HBN 1158310 [VXX27609]
Spike Duplicate Lab ID: 1278742
Matrix: Water (Surface, Eff., Ground)

QC for Samples: 1158310001, 1158310002, 1158310003, 1158310004, 1158310005, 1158310006, 1158310009, 1158310010

Results by **SW8260B**

	Blank Spike (ug/L)			Spike Duplicate (ug/L)					
Parameter	Spike	Result	Rec (%)	Spike	Result	Rec (%)	CL	RPD (%)	RPD CL
Carbon tetrachloride	30	30.6	102	30	30.2	101	(72-136)	1.30	(< 20)
Chlorobenzene	30	30.7	102	30	29.3	98	(82-118)	4.80	(< 20)
Chloroethane	30	36.6	122	30	35.8	119	(60-138)	2.10	(< 20)
Chloroform	30	31.3	104	30	30.4	101	(79-124)	3.00	(< 20)
Chloromethane	30	29.6	99	30	27.4	91	(50-139)	7.70	(< 20)
cis-1,2-Dichloroethene	30	29.4	98	30	28.0	94	(78-123)	4.90	(< 20)
cis-1,3-Dichloropropene	30	30.4	101	30	28.9	96	(75-124)	5.20	(< 20)
Dibromochloromethane	30	32.0	107	30	30.7	102	(74-126)	4.10	(< 20)
Dibromomethane	30	31.5	105	30	29.8	99	(79-123)	5.50	(< 20)
Dichlorodifluoromethane	30	31.0	103	30	30.3	101	(32-152)	2.10	(< 20)
Ethylbenzene	30	30.5	102	30	29.3	98	(79-121)	4.00	(< 20)
Freon-113	45	47.9	106	45	47.5	105	(70-136)	0.96	
Hexachlorobutadiene	30	30.4	101	30	29.6	99	(66-134)	2.50	(< 20)
Isopropylbenzene (Cumene)	30	31.9	106	30	31.1	104	(72-131)	2.30	(< 20)
Methylene chloride	30	27.2	91	30	26.5	88	(74-124)	2.60	(< 20)
Methyl-t-butyl ether	45	46.1	102	45	44.0	98	(71-124)	4.80	(< 20)
Naphthalene	30	31.6	105	30	29.2	97	(61-128)	7.70	(< 20)
n-Butylbenzene	30	33.1	110	30	32.2	107	(75-128)	2.80	(< 20)
n-Propylbenzene	30	32.3	108	30	30.8	103	(76-126)	4.80	(< 20)
o-Xylene	30	31.3	104	30	30.1	100	(78-122)	3.80	(< 20)
P & M -Xylene	60	62.7	105	60	60.6	101	(80-121)	3.50	(< 20)
sec-Butylbenzene	30	31.4	105	30	30.4	101	(77-126)	3.10	(< 20)
Styrene	30	31.8	106	30	30.7	102	(78-123)	3.50	(< 20)
tert-Butylbenzene	30	31.2	104	30	30.2	101	(78-124)	3.50	(< 20)
Tetrachloroethene	30	30.8	103	30	29.8	99	(74-129)	3.40	(< 20)
Toluene	30	30.5	102	30	29.5	98	(80-121)	3.50	(< 20)
trans-1,2-Dichloroethene	30	29.2	97	30	28.6	95	(75-124)	2.20	(< 20)
trans-1,3-Dichloropropene	30	32.8	109	30	31.6	105	(73-127)	3.80	(< 20)
Trichloroethene	30	30.3	101	30	29.4	98	(79-123)	2.80	(< 20)
Trichlorofluoromethane	30	34.1	114	30	33.8	113	(65-141)	0.62	(< 20)
Vinyl acetate	30	32.1	107	30	30.4	101	(54-146)	5.50	(< 20)
Vinyl chloride	30	29.7	99	30	29.4	98	(58-137)	1.20	(< 20)
Xylenes (total)	90	94.0	104	90	90.7	101	(79-121)	3.60	(< 20)

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 1158310 [VXX27609]
Blank Spike Lab ID: 1278741
Date Analyzed: 07/22/2015 09:11

Spike Duplicate ID: LCSD for HBN 1158310 [VXX27609]
Spike Duplicate Lab ID: 1278742
Matrix: Water (Surface, Eff., Ground)

QC for Samples: 1158310001, 1158310002, 1158310003, 1158310004, 1158310005, 1158310006, 1158310009, 1158310010

Results by **SW8260B**

	Blank Spike (%)			Spike Duplicate (%)					
Parameter	Spike	Result	Rec (%)	Spike	Result	Rec (%)	CL	RPD (%)	RPD CL
Surrogates									
1,2-Dichloroethane-D4 (surr)	30	105	105	30	106	106	(81-118)	0.41	
4-Bromofluorobenzene (surr)	30	98.7	99	30	100	100	(85-114)	1.70	
Toluene-d8 (surr)	30	101	101	30	101	101	(89-112)	0.13	

Batch Information

Analytical Batch: **VMS15116**
Analytical Method: **SW8260B**
Instrument: **VPA 780/5975 GC/MS**
Analyst: **NRB**

Prep Batch: **VXX27609**
Prep Method: **SW5030B**
Prep Date/Time: **07/22/2015 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 1714500 [VXX/27612]
Blank Lab ID: 1278879

Matrix: Water (Surface, Eff., Ground)

QC for Samples:
1158310001, 1158310002, 1158310004, 1158310005, 1158310006, 1158310009, 1158310010

Results by **AK101**

Parameter	Results	LOQ/CL	DL	Units
Gasoline Range Organics	0.0500U	0.100	0.0310	mg/L
Surrogates				
4-Bromofluorobenzene (surr)	100	50-150		%

Batch Information

Analytical Batch: VFC12534
Analytical Method: AK101
Instrument: Agilent 7890A PID/FID
Analyst: CRD
Analytical Date/Time: 7/23/2015 1:04:00PM

Prep Batch: VXX27612
Prep Method: SW5030B
Prep Date/Time: 7/23/2015 8:00:00AM
Prep Initial Wt./Vol.: 5 mL
Prep 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

Blank Spike Summary

Blank Spike ID: LCS for HBN 1158310 [VXX27612]
Blank Spike Lab ID: 1278882
Date Analyzed: 07/23/2015 14:01

Spike Duplicate ID: LCSD for HBN 1158310 [VXX27612]
Spike Duplicate Lab ID: 1278883
Matrix: Water (Surface, Eff., Ground)

QC for Samples: 1158310001, 1158310002, 1158310004, 1158310005, 1158310006, 1158310009, 1158310010

Results by **AK101**

	Blank Spike (mg/L)			Spike Duplicate (mg/L)					
Parameter	Spike	Result	Rec (%)	Spike	Result	Rec (%)	CL	RPD (%)	RPD CL
Gasoline Range Organics	1.00	1.05	105	1.00	0.998	100	(60-120)	4.60	(< 20)
Surrogates									
4-Bromofluorobenzene (surr)	0.0500	110	110	0.0500	112	112	(50-150)	1.20	

Batch Information

Analytical Batch: **VFC12534**
Analytical Method: **AK101**
Instrument: **Agilent 7890A PID/FID**
Analyst: **CRD**

Prep Batch: **VXX27612**
Prep Method: **SW5030B**
Prep Date/Time: **07/23/2015 08:00**
Spike Init Wt./Vol.: 1.00 mg/L Extract Vol: 5 mL
Dupe Init Wt./Vol.: 1.00 mg/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 1714522 [VXX/27615]
Blank Lab ID: 1278973

Matrix: Water (Surface, Eff., Ground)

QC for Samples:
1158310003, 1158310004, 1158310005, 1158310009

Results by **SW8260B**

Parameter	Results	LOQ/CL	DL	Units
1,2-Dichloroethane	0.250U	0.500	0.150	ug/L
Benzene	0.200U	0.400	0.120	ug/L
Methyl-t-butyl ether	5.00U	10.0	3.10	ug/L
o-Xylene	0.500U	1.00	0.310	ug/L
Xylenes (total)	1.50U	3.00	1.00	ug/L
Surrogates				
1,2-Dichloroethane-D4 (surr)	110	81-118		%
4-Bromofluorobenzene (surr)	98.7	85-114		%
Toluene-d8 (surr)	99.3	89-112		%

Batch Information

Analytical Batch: VMS15119
Analytical Method: SW8260B
Instrument: VPA 780/5975 GC/MS
Analyst: NRB
Analytical Date/Time: 7/23/2015 3:25:00PM

Prep Batch: VXX27615
Prep Method: SW5030B
Prep Date/Time: 7/23/2015 6:00:00AM
Prep Initial Wt./Vol.: 5 mL
Prep 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

Leaching Blank

Blank ID: LB for HBN 1714244 [TCLP/7882]
Blank Lab ID: 1278289

Matrix: Water (Surface, Eff., Ground)

QC for Samples:
1158310003, 1158310004, 1158310005, 1158310009

Results by **SW8260B**

Parameter	Results	LOQ/CL	DL	Units
1,2-Dichloroethane	12.5U	25.0	7.50	ug/L
Benzene	10.0U	20.0	6.00	ug/L
Surrogates				
1,2-Dichloroethane-D4 (surr)	109	81-118		%
4-Bromofluorobenzene (surr)	100	85-114		%
Toluene-d8 (surr)	98.9	89-112		%

Batch Information

Analytical Batch: VMS15119
Analytical Method: SW8260B
Instrument: VPA 780/5975 GC/MS
Analyst: NRB
Analytical Date/Time: 7/23/2015 5:53:00PM

Prep Batch: VXX27615
Prep Method: SW5030B
Prep Date/Time: 7/23/2015 6:00:00AM
Prep Initial Wt./Vol.: 5 mL
Prep 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

Blank Spike Summary

Blank Spike ID: LCS for HBN 1158310 [VXX27615]
Blank Spike Lab ID: 1278974
Date Analyzed: 07/23/2015 15:52

Spike Duplicate ID: LCSD for HBN 1158310 [VXX27615]
Spike Duplicate Lab ID: 1278975
Matrix: Water (Surface, Eff., Ground)

QC for Samples: 1158310003, 1158310004, 1158310005, 1158310009

Results by **SW8260B**

	Blank Spike (ug/L)			Spike Duplicate (ug/L)					
Parameter	Spike	Result	Rec (%)	Spike	Result	Rec (%)	CL	RPD (%)	RPD CL
1,2-Dichloroethane	30	32.9	110	30	32.9	110	(73-128)	0.12	(< 20)
Benzene	30	31.1	104	30	30.8	103	(79-120)	1.00	(< 20)
Methyl-t-butyl ether	45	45.6	101	45	46.4	103	(71-124)	1.80	(< 20)
o-Xylene	30	31.5	105	30	31.1	104	(78-122)	1.10	(< 20)
Xylenes (total)	90	95.2	106	90	94.1	105	(79-121)	1.20	(< 20)
Surrt f aœg									
1,2-Dichloroethane-D4 (surr)	30	105	105	30	104	104	(81-118)	1.30	
4-Bromofluorobenzene (surr)	30	99	99	30	97.8	98	(85-114)	1.20	
Toluene-d8 (surr)	30	102	102	30	101	101	(89-112)	0.59	

Baœsc Inlt rmaœt n

Analytical Batch: **VMS1511P**
Analytical Method: **SW8260B**
Instrument: **VA7 / 805SP/ 5 GC9MS**
Analyst: **NRB**

Prep Batch: **VXX2/ 615**
Prep Method: **SW5030B**
Prep Date/Time: **0/ 9239201 5 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
o907.562.2343 I 907.561.5301 www.us.sgs.com

Method Blank

Blank ID: MB for HBN 171450[VX/ / 267067]
Blank Lab ID: 16750[4

8 9 for QaC Slmp:
11es31[[[3

Ma,rti : x a,mr WQ(rfaumcEff.cGro(nd)

Rmp(l,p by **AK101**

ParaCmmr	Rmp(l,p	LO8 29 L	DL	Unt,p
GapoltnmRangmOrgantup	[.[e[[U	[.1[[	[.[31[	Cg2L
Surrogates				
4-BroCofl(orobmmzmmWp(rr)	s5.7	e[-1e[		%

Batch Information

Analy,tual Ba,uh: XF9 16e46
Analy,tual Mmjhod: AK1[1
Inp,r(Cmn,: Agtlmn, 7s5[PID2FID
Analyp,: QT
Analy,tual Da,m2TtCm 726726[1e 1[:4[:[[AM

PrmS Ba,uh: X/ / 67067
PrmS Mmjhod: Qx e[3[B
PrmS Da,m2TtCm 726726[1e s:[[:[[AM
PrmS Int,tal x ,.2Xol.: e CL
PrmS Ei ,rau, Xol: e CL

Blank Spike Summary

Blank Spike ID: LCS for HBN 1158310 [VXX27627]
Blank Spike Lab ID: 127t 605
DaAe y nalzde/ : 074274 2015 11:17

Spike DuplicaAe ID: LCSD for HBN 1158310 [VXX27627]
Spike DuplicaAe Lab ID: 127t 606
MaAtix: WaAer (Surface, Eff., Groun/)

QC for Samples: 1158310003

ResulAs bz **AK101**

	Blank Spike (mg4L)			Spike DuplicaAe (mg4L)					
ParameAer	Spike	ResulA	Rec (%)	Spike	ResulA	Rec (%)	CL	RPD (%)	RPD CL
Gasoline Range 9 rganics	1.00	1.02	102	1.00	0.t 87	t t	(60C120)	3.20	(- 20)
Surrogates									
<CBromofluorobendene (surr)	0.0500	t 2.<	t 2	0.0500	8<.1	8<	(50C150)	t .30	

Batch Information

y nalzAcal BaAch: **VFC12542**
y nalzAcal MeAno/ : **AK101**
InsAumenA: **Agilent 7890 PID/FID**
y nalzsA: **ST**

Prep BaAch: **VXX27627**
Prep MeAno/ : **SW5030B**
Prep DaAe4Time: **07/27/2015 08:00**
Spike IniAWAAVol.: 1.00 mg4L ExAacAVol: 5 mL
Dupe IniAWAAVol.: 1.00 mg4L ExAacAVol: 5 mL

SGS

SGS North America
CHAIN OF CUSTODY 1158310

Locations Nationwide

Alaska	Maryland
New Jersey	New York
North Carolina	Indiana
West Virgina	Kentucky

www.us.sgs.com

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

Section 1

CLIENT: NORTECH

CONTACT: DOUG DUSEK PHONE NO: 907-452-5688

PROJECT NAME: GOLD HILL PROJECT/ PWSID/ PERMIT#:

REPORTS TO: DOUG DUSEK E-MAIL: ddusek@nortechengr.com

INVOICE TO: DOUG DUSEK QUOTE #: P.O. #:

Section 2

	RESERVED for lab use	SAMPLE IDENTIFICATION	DATE mm/dd/yy	TIME HH:MM	MATRIX/ MATRIX CODE	# CONTAINERS	Type C = COMP G = GRAB MI = Multi Incre-mental Soils	Preservative: H2O	Preservative: NaP	Preservative:	Preservative: HP	Preservative: H2SO4 HNO3				REMARKS/ LOC ID
								GRO	8260	EDB, 504.1	524.2	LEAD 200.8				
1	A-J	MW-2	7/20/15	1145	W	10	6	✓	✓	✓		✓				
2	A-I	MW-9		1230		9		✓	✓	✓						
3	A-I	MW-10		1335		9		✓	✓	✓						
4	A-F	AS-8		1120		6		✓	✓			✓				
5	A-J	MW-20		0947		10		✓	✓	✓		✓				
6	A-F	MW-2		1040		6		✓	✓		✓					
7	A-C	GMW-2		1350		3					✓					
8	A-C	GMW-12		1355		3					✓	✓				
9	A-J	MW-25		1400		10		✓	✓	✓	✓	✓				
10	A-D	TB-01	7/20/15	1400	W	1		X	X							

Section 5

	Date	Time	
Relinquished By: (1) DWH	7/20/15	1427	Received By: 7.20.15 1427
Relinquished By: (2)	7.20.15	1600	Received By:
Relinquished By: (3)	Date	Time	Received By:
Relinquished By: (4)	7/21/15	0900	Received For Laboratory By:

Section 4

DOD Project? Yes (No)

Cooler ID:

Data Deliverable Requirements: ADEC

Requested Turnaround Time and/or Special Instructions:

Temp Blank °C: 5.0

or Ambient [ ]

(See attached Sample Receipt Form)

Chain of Custody Seal: (Circle) HD

INTACT BROKEN (ABSENT)

(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

ANC IFB 4.8.02

SGS

SGS North Americ
CHAIN OF CUSTODY

1158310

Locations Nationwide

Alaska	Maryland
New Jersey	New York
North Carolina	Indiana
West Virgina	Kentucky

www.us.sgs.com

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

Section 1

CLIENT: Nortech

CONTACT: Doug Dusek PHONE NO: 907-452-5688

PROJECT NAME: Gold Hill PROJECT/ PWSID/ PERMIT#:

REPORTS TO: Doug Dusek E-MAIL: ddusek@nortech engr.com

INVOICE TO: Nortech QUOTE #: P.O. #:

Section 2

RESERVED for lab use	SAMPLE IDENTIFICATION	DATE mm/dd/yy	TIME HH:MM	MATRIX/ MATRIX CODE	# CONTAINERS	Type C = COMP G = GRAB MI = Multi Incre-mental Soils	Section 3 Preservative: EDB 504.1	Preservative: BTEX 524.2	REMARKS/ LOC ID
(11) A-C	TB-02	7/20/15	1460	W	1		X		
(12) A-C	TB-03	7/20/15	1400	W	1			X	

Section 5

	Date	Time	
Relinquished By: (1) Dan H	7/20/15	1427	Received By: 7.20.15 1427
Relinquished By: (2)	7.20.15	1600	Received By:
Relinquished By: (3)			Received By:
Relinquished By: (4)	7/21/15	0900	Received For Laboratory By:

Section 4

DOD Project? Yes (No)

Cooler ID:

Data Deliverable Requirements: ADEC

Requested Turnaround Time and/or Special Instructions:

Temp Blank °C: 5.0 or Ambient [ ]

(See attached Sample Receipt Form)

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

(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

http://www.sgs.com/terms-and-conditions

ANC IFIB 4.8 102

SGS

1158310

FAIRBANKS SAMPLE RECEIPT FORM

Note: This form is to be completed by Fairbanks Receiving Staff for all samples

Review Criteria:	Condition:	Comments/Actions Taken
Were **custody seals** intact? Note # & location, if applicable. COC accompanied samples?	Yes No (N/A) (Yes) No N/A	□*Exemption permitted if sampler hand carries/delivers.*
Temperature blank compliant* (i.e., 0-6°C) *If >6°C, were samples collected <8 hours ago?* *If <0°C, were all sample containers ice free?* Cooler ID: 1 @ 5.0 w/Therm. ID: 203 Cooler ID:____ @____ w/Therm. ID:____ Cooler ID:____ @____ w/Therm. ID:____ Cooler ID:____ @____ w/Therm. ID:____ Cooler ID:____ @____ w/Therm. ID:____ If samples are received without a temperature blank, the "cooler temperature" will be documented in lieu of the temperature blank and "**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"	(Yes) No Yes No (N/A) Yes No (N/A)	□*Exemption permitted if chilled & collected <8hrs ago* ***Note: Identify containers received at non-compliant temperature. Use form FS-0029 if more space is needed.***
Delivery Method: (Client (hand carried)) Other:____	Tracking/AB# : Or see attached (Or N/A)	
→For samples received with payment, note amount ($) and whether cash / check / CC (**circle one**) was received.		
Were samples in **good condition** (no leaks/cracks/breakage)? Packing material used (specify all that apply): (Bubble Wrap) Separate plastic bags Vermiculite Other:____	(Yes) No N/A	***Note: some samples are sent to Anchorage without inspection by SGS Fairbanks personnel.***
Were **Trip Blanks** (i.e., VOAs, LL-Hg) in cooler with samples?	(Yes) No N/A	
For **RUSH/SHORT Hold Time**, were COC/Bottles flagged accordingly? Was Rush/Short HT email sent, if applicable?	Yes No (N/A) Yes No (N/A)	
Additional notes (if applicable):		

Note to Client: any "no" circled above indicates non-compliance with standard procedures and may impact data quality.

1158310

SAMPLE RECEIPT FORM

Review Criteria:	Yes	N/A	No	Comments/Action Taken:
Were **custody seals** intact? Note # & location, if applicable. COC accompanied samples?	☐ ☑	☑ ☐	☐ ☐	***Exemption permitted if sampler hand carries/delivers.***
Temperature blank compliant* (i.e., 0-6°C after CF)? *If >6°C, were samples collected <8 hours ago?* *If <0°C, were all sample containers ice free?* Cooler ID: [1] _____ @ 4.8 _____ w/ Therm.ID: D2 _____ Cooler ID: _____ @ _____ w/ Therm.ID: _____ Cooler ID: _____ @ _____ w/ Therm.ID: _____ Cooler ID: _____ @ _____ w/ Therm.ID: _____ Cooler ID: _____ @ _____ w/ Therm.ID: _____ If samples are 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."	☑ ☐ ☐	☐ ☑ ☑	☐ ☐ ☐	***Exemption permitted if chilled & collected <8 hrs ago.*** ***Note: Identify containers received at non-compliant temperature. Use form FS-0029 if more space is needed.***
Delivery method (specify all that apply): ☐Client (hand carried) ☐USPS ☑Lynden ☐AK Air ☐Alert Courier ☐UPS ☐FedEx ☐RAVN ☐C&D Delivery ☐Carlile ☐Pen Air ☐Warp Speed ☐Other: _____ → *For WO# with airbills, was the WO# & airbill info recorded in the Front Counter eLog?*	☐	☑	☐	
	Yes	**N/A**	**No**	
Were samples received within hold time? Do samples **match COC*** (i.e., sample IDs, dates/times collected)? Were analyses requested unambiguous?	☑ ☑ ☑	☐ ☐ ☐	☐ ☐ ☐	***Note: Refer to form F-083 "Sample Guide" for hold times.*** ***Note: If times differ <1hr, record details and login per COC.***
Were samples in **good condition** (no leaks/cracks/breakage)? Packing material used (specify all that apply): ☐Bubble Wrap ☐Separate plastic bags ☐Vermiculite ☐Other:	☑	☐	☐	
Were **proper containers** (type/mass/volume/preservative*) used? Were **Trip Blanks** (i.e., VOAs, LL-Hg) in cooler with samples? Were all VOA vials **free of headspace** (i.e., bubbles ≤6 mm)? Were all soil VOAs **field extracted** with MeOH+BFB?	☑ ☐ ☐ ☐	☐ ☑ ☑ ☑	☐ ☐ ☐ ☐	☐ ***Exemption permitted for metals (e.g., 200.8/6020A).***
For preserved waters (other than VOA vials, LL-Mercury or microbiological analyses), was **pH verified and compliant**? If pH was adjusted, were bottles flagged (i.e., stickers)?	☑ ☐	☐ ☑	☐ ☐	
For **special handling** (e.g., "MI" soils, foreign soils, lab filter for dissolved…, lab extract for volatiles, Ref Lab, limited volume), were bottles/paperwork flagged (e.g., sticker)?	☐	☑	☐	
For **RUSH/SHORT Hold Time**, were COC/Bottles flagged accordingly? Was Rush/Short HT email sent, if applicable?	☐	☑	☐	
For **SITE-SPECIFIC QC, e.g. BMS/BMSD/BDUP**, were containers / paperwork flagged accordingly?	☐	☑	☐	
For any question answered "No," has the PM been notified and the problem resolved (or paperwork put in their bin)?	☐	☑	☐	SRF Completed by: VDL 7/21/15 PM notified:
Was **PEER REVIEW** of ***sample numbering/labeling completed?***	☑	☐	☐	Peer Reviewed by: D.C
Additional notes (if applicable):				

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

Sample Containers and Preservatives

Container Id	Preservative	Container Condition
1158310001-A	HCL to pH < 2	OK
1158310001-B	HCL to pH < 2	OK
1158310001-C	HCL to pH < 2	OK
1158310001-D	HCL to pH < 2	OK
1158310001-E	HCL to pH < 2	OK
1158310001-F	HCL to pH < 2	OK
1158310001-G	No Preservative Required	OK
1158310001-H	No Preservative Required	OK
1158310001-I	No Preservative Required	OK
1158310001-J	HNO3 to pH < 2	OK
1158310002-A	HCL to pH < 2	OK
1158310002-B	HCL to pH < 2	OK
1158310002-C	HCL to pH < 2	OK
1158310002-D	HCL to pH < 2	OK
1158310002-E	HCL to pH < 2	OK
1158310002-F	HCL to pH < 2	OK
1158310002-G	No Preservative Required	OK
1158310002-H	No Preservative Required	OK
1158310002-I	No Preservative Required	OK
1158310003-A	HCL to pH < 2	OK
1158310003-B	HCL to pH < 2	OK
1158310003-C	HCL to pH < 2	OK
1158310003-D	HCL to pH < 2	OK
1158310003-E	HCL to pH < 2	OK
1158310003-F	HCL to pH < 2	OK
1158310003-G	No Preservative Required	OK
1158310003-H	No Preservative Required	OK
1158310003-I	No Preservative Required	OK
1158310004-A	HCL to pH < 2	OK
1158310004-B	HCL to pH < 2	OK
1158310004-C	HCL to pH < 2	OK
1158310004-D	HCL to pH < 2	OK
1158310004-E	HCL to pH < 2	OK
1158310004-F	HCL to pH < 2	OK
1158310005-A	HCL to pH < 2	OK
1158310005-B	HCL to pH < 2	OK
1158310005-C	HCL to pH < 2	OK
1158310005-D	HCL to pH < 2	OK
1158310005-E	HCL to pH < 2	OK
1158310005-F	HCL to pH < 2	OK
1158310005-G	No Preservative Required	OK
1158310005-H	No Preservative Required	OK
1158310005-I	No Preservative Required	OK
1158310005-J	HNO3 to pH < 2	OK
1158310006-A	HCL to pH < 2	OK
1158310006-B	HCL to pH < 2	OK
1158310006-C	HCL to pH < 2	OK
1158310006-D	HCL to pH < 2	OK
1158310006-E	HCL to pH < 2	OK
1158310006-F	HCL to pH < 2	OK
1158310007-A	HCL to pH < 2	OK
1158310007-B	HCL to pH < 2	OK
1158310007-C	HCL to pH < 2	OK
1158310008-A	HCL to pH < 2	OK
1158310008-B	HCL to pH < 2	OK
1158310008-C	HCL to pH < 2	OK
1158310009-A	HCL to pH < 2	OK
1158310009-B	HCL to pH < 2	OK
1158310009-C	HCL to pH < 2	OK
1158310009-D	HCL to pH < 2	OK
1158310009-E	HCL to pH < 2	OK
1158310009-F	HCL to pH < 2	OK
1158310009-G	No Preservative Required	OK
1158310009-H	No Preservative Required	OK
1158310009-I	No Preservative Required	OK
1158310009-J	HNO3 to pH < 2	OK
1158310010-A	HCL to pH < 2	OK
1158310010-B	HCL to pH < 2	OK
1158310010-C	HCL to pH < 2	OK
1158310010-D	HCL to pH < 2	OK
1158310011-A	No Preservative Required	OK
1158310011-B	No Preservative Required	OK
1158310011-C	No Preservative Required	OK
1158310012-A	HCL to pH < 2	OK
1158310012-B	HCL to pH < 2	OK
1158310012-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.
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.
BU - The container was received with headspace greater than 6mm.

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

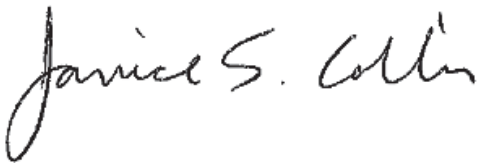
ANALYTICAL REPORT

Job Number: 280-72191-1

Job Description: SGS AK -1158310

For:
SGS North America, Inc
200 W. Potter Drive
Anchorage, AK 99518

Attention: Mr. Forest Taylor



Approved for release.
Janice S Collins
Project Management Assistant I
8/4/2015 3:04 PM

Designee for
Betsy A Sara, Project Manager II
4955 Yarrow Street, Arvada, CO, 80002
(303)736-0189
betsy.sara@testamericainc.com
08/04/2015

cc: Ms. Julie Shumway

The test results in this report relate only to the samples in this report and meet all requirements of NELAC, with any exceptions noted. Pursuant to NELAP, this report shall not be reproduced except in full, without the written approval of the laboratory. All questions regarding this report should be directed to the TestAmerica Denver Project Manager.

The Lab Certification ID# is 4025.

Reporting limits are adjusted for sample size used, dilutions and moisture content if applicable.

Table of Contents

CASE NARRATIVE

Client: SGS North America, Inc

Project: SGS AK -1158310

Report Number: 280-72191-1

With the exceptions noted as flags or footnotes, standard analytical protocols were followed in the analysis of the samples and no problems were encountered or anomalies observed. In addition all laboratory quality control samples were within established control limits, with any exceptions noted below. Each sample was analyzed to achieve the lowest possible reporting limit within the constraints of the method. In some cases, due to interference or analytes present at high concentrations, samples were diluted. For diluted samples, the reporting limits are adjusted relative to the dilution required.

Calculations are performed before rounding to avoid round-off errors in calculated results.

All holding times were met and proper preservation noted for the methods performed on these samples, unless otherwise detailed in the individual sections below.

Sample Receiving

The samples were received on 07/23/2015; the samples arrived in good condition, properly preserved and on ice. The temperature of the cooler at receipt was 0.4 C.

Holding Times

All holding times were met.

Method Blanks

All Method Blank recoveries were within established control limits.

Laboratory Control Samples (LCS)

All Laboratory Control Samples were within established control limits.

Matrix Spike (MS) and Matrix Spike Duplicate (MSD)

The method required MS/MSD could not be performed for Method 504.1 due to insufficient sample volume, however, a LCS/LCSD pair was analyzed to demonstrate method precision and accuracy.

Organics

The sample MW-16 was analyzed at a dilution for Method 504.1 due to the abundance of target analyte. As a result, the reporting limit was elevated. In addition, the Method 504.1 surrogate result of 1,2-Dibromopropane for MW-16 was outside the laboratories quantitation levels due to the dilution performed on the sample. As a result, the laboratory does not control on the reported recovery.

EXECUTIVE SUMMARY - Detections

Client: SGS North America, Inc Job Number: 280-72191-1

Lab Sample ID Analyte	Client Sample ID	Result	Qualifier	Reporting Limit	Units	Method
280-72191-1 1,2-Dibromoethane	**MW-2**	0.26		0.020	ug/L	504.1
280-72191-3 1,2-Dibromoethane	**MW-16**	18		1.0	ug/L	504.1
280-72191-4 1,2-Dibromoethane	**MW-20**	0.030		0.020	ug/L	504.1
280-72191-5 1,2-Dibromoethane	**MW-25**	0.032		0.020	ug/L	504.1

METHOD SUMMARY

Client: SGS North America, Inc

Job Number: 280-72191-1

Description	Lab Location	Method	Preparation Method
Matrix: Water			
EDB, DBCP and 1,2,3-TCP (GC)	TAL DEN	EPA-DW 504.1	
Microextraction	TAL DEN		EPA-DW 504.1

Lab References:

TAL DEN = TestAmerica Denver

Method References:

EPA-DW = "Methods For The Determination Of Organic Compounds In Drinking Water", EPA/600/4-88/039, December 1988 And Its Supplements.

METHOD / ANALYST SUMMARY

Client: SGS North America, Inc

Job Number: 280-72191-1

Method	Analyst	Analyst ID
EPA-DW 504.1	Redman, Erin E	EER

SAMPLE SUMMARY

Client: SGS North America, Inc

Job Number: 280-72191-1

Lab Sample ID	Client Sample ID	Client Matrix	Date/Time Sampled	Date/Time Received
280-72191-1	MW-2	Water	07/20/2015 1145	07/23/2015 0920
280-72191-2	MW-9	Water	07/20/2015 1230	07/23/2015 0920
280-72191-3	MW-16	Water	07/20/2015 1335	07/23/2015 0920
280-72191-4	MW-20	Water	07/20/2015 0947	07/23/2015 0920
280-72191-5	MW-25	Water	07/20/2015 1400	07/23/2015 0920
280-72191-6	TB-02	Water	07/20/2015 1400	07/23/2015 0920

SAMPLE RESULTS

Client: SGS North America, Inc

Job Number: 280-72191-1

Client Sample ID: **MW-2**

Lab Sample ID: 280-72191-1
Client Matrix: Water

Date Sampled: 07/20/2015 1145
Date Received: 07/23/2015 0920

504.1 EDB, DBCP and 1,2,3-TCP (GC)

Analysis Method:	504.1	Analysis Batch:	280-288444	Instrument ID:	SGC_E
Prep Method:	504.1	Prep Batch:	280-288433	Initial Weight/Volume:	35.1 mL
Dilution:	1.0			Final Weight/Volume:	35 mL
Analysis Date:	07/30/2015 2340			Injection Volume:	3 uL
Prep Date:	07/30/2015 1201			Result Type:	PRIMARY

Analyte	Result (ug/L)	Qualifier	MDL	RL
1,2-Dibromoethane	0.26		0.0037	0.020

Surrogate	%Rec	Qualifier	Acceptance Limits
1,2-Dibromopropane	112		70 - 130

Client: SGS North America, Inc

Job Number: 280-72191-1

Client Sample ID: **MW-9**

Lab Sample ID: 280-72191-2
Client Matrix: Water

Date Sampled: 07/20/2015 1230
Date Received: 07/23/2015 0920

504.1 EDB, DBCP and 1,2,3-TCP (GC)

Analysis Method:	504.1	Analysis Batch:	280-288444	Instrument ID:	SGC_E
Prep Method:	504.1	Prep Batch:	280-288433	Initial Weight/Volume:	35.3 mL
Dilution:	1.0			Final Weight/Volume:	35 mL
Analysis Date:	07/30/2015 2359			Injection Volume:	3 uL
Prep Date:	07/30/2015 1201			Result Type:	PRIMARY

Analyte	Result (ug/L)	Qualifier	MDL	RL
1,2-Dibromoethane	ND		0.0037	0.020

Surrogate	%Rec	Qualifier	Acceptance Limits
1,2-Dibromopropane	111		70 - 130

Client: SGS North America, Inc

Job Number: 280-72191-1

Client Sample ID: **MW-16**

Lab Sample ID: 280-72191-3
Client Matrix: Water

Date Sampled: 07/20/2015 1335
Date Received: 07/23/2015 0920

504.1 EDB, DBCP and 1,2,3-TCP (GC)

Analysis Method:	504.1	Analysis Batch:	280-288597	Instrument ID:	SGC_E
Prep Method:	504.1	Prep Batch:	280-288433	Initial Weight/Volume:	34.9 mL
Dilution:	50			Final Weight/Volume:	35 mL
Analysis Date:	07/31/2015 0923			Injection Volume:	3 uL
Prep Date:	07/30/2015 1201			Result Type:	PRIMARY

Analyte	Result (ug/L)	Qualifier	MDL	RL
1,2-Dibromoethane	18		0.19	1.0

Surrogate	%Rec	Qualifier	Acceptance Limits
1,2-Dibromopropane	226	X D	70 - 130

Client: SGS North America, Inc

Job Number: 280-72191-1

Client Sample ID: **MW-20**

Lab Sample ID: 280-72191-4
Client Matrix: Water

Date Sampled: 07/20/2015 0947
Date Received: 07/23/2015 0920

504.1 EDB, DBCP and 1,2,3-TCP (GC)

Analysis Method:	504.1	Analysis Batch:	280-288444	Instrument ID:	SGC_E
Prep Method:	504.1	Prep Batch:	280-288433	Initial Weight/Volume:	35.4 mL
Dilution:	1.0			Final Weight/Volume:	35 mL
Analysis Date:	07/31/2015 0037			Injection Volume:	3 uL
Prep Date:	07/30/2015 1201			Result Type:	PRIMARY

Analyte	Result (ug/L)	Qualifier	MDL	RL
1,2-Dibromoethane	0.030		0.0037	0.020

Surrogate	%Rec	Qualifier	Acceptance Limits
1,2-Dibromopropane	126		70 - 130

Client: SGS North America, Inc

Job Number: 280-72191-1

Client Sample ID: **MW-25**

Lab Sample ID: 280-72191-5
Client Matrix: Water

Date Sampled: 07/20/2015 1400
Date Received: 07/23/2015 0920

504.1 EDB, DBCP and 1,2,3-TCP (GC)

Analysis Method:	504.1	Analysis Batch:	280-288444	Instrument ID:	SGC_E
Prep Method:	504.1	Prep Batch:	280-288433	Initial Weight/Volume:	35.3 mL
Dilution:	1.0			Final Weight/Volume:	35 mL
Analysis Date:	07/31/2015 0056			Injection Volume:	3 uL
Prep Date:	07/30/2015 1201			Result Type:	PRIMARY

Analyte	Result (ug/L)	Qualifier	MDL	RL
1,2-Dibromoethane	0.032		0.0037	0.020

Surrogate	%Rec	Qualifier	Acceptance Limits
1,2-Dibromopropane	126		70 - 130

Client: SGS North America, Inc

Job Number: 280-72191-1

Client Sample ID: **TB-02**

Lab Sample ID: 280-72191-6
Client Matrix: Water

Date Sampled: 07/20/2015 1400
Date Received: 07/23/2015 0920

504.1 EDB, DBCP and 1,2,3-TCP (GC)

Analysis Method:	504.1	Analysis Batch:	280-288444	Instrument ID:	SGC_E
Prep Method:	504.1	Prep Batch:	280-288433	Initial Weight/Volume:	35 mL
Dilution:	1.0			Final Weight/Volume:	35 mL
Analysis Date:	07/31/2015 0115			Injection Volume:	3 uL
Prep Date:	07/30/2015 1201			Result Type:	PRIMARY

Analyte	Result (ug/L)	Qualifier	MDL	RL
1,2-Dibromoethane	ND		0.0037	0.020

Surrogate	%Rec	Qualifier	Acceptance Limits
1,2-Dibromopropane	115		70 - 130

DATA REPORTING QUALIFIERS

Client: SGS North America, Inc Job Number: 280-72191-1

Lab Section	Qualifier	Description
GC Semi VOA		
	D	Sample results are obtained from a dilution; the surrogate or matrix spike recoveries reported are calculated from diluted samples.
	X	Surrogate is outside control limits

QUALITY CONTROL RESULTS

Client: SGS North America, Inc

Job Number: 280-72191-1

QC Association Summary

Lab Sample ID	Client Sample ID	Report Basis	Client Matrix	Method	Prep Batch
GC Semi VOA					
Prep Batch: 280-288433					
LCS 280-288433/3-A	Lab Control Sample	T	Water	504.1	
LCSD 280-288433/4-A	Lab Control Sample Duplicate	T	Water	504.1	
LLCS 280-288433/5-A	Low Level Control Sample	T	Water	504.1	
MB 280-288433/2-A	Method Blank	T	Water	504.1	
280-72191-1	MW-2	T	Water	504.1	
280-72191-2	MW-9	T	Water	504.1	
280-72191-3	MW-16	T	Water	504.1	
280-72191-4	MW-20	T	Water	504.1	
280-72191-5	MW-25	T	Water	504.1	
280-72191-6	TB-02	T	Water	504.1	
Analysis Batch:280-288444					
LCS 280-288433/3-A	Lab Control Sample	T	Water	504.1	280-288433
LCSD 280-288433/4-A	Lab Control Sample Duplicate	T	Water	504.1	280-288433
LLCS 280-288433/5-A	Low Level Control Sample	T	Water	504.1	280-288433
MB 280-288433/2-A	Method Blank	T	Water	504.1	280-288433
280-72191-1	MW-2	T	Water	504.1	280-288433
280-72191-2	MW-9	T	Water	504.1	280-288433
280-72191-4	MW-20	T	Water	504.1	280-288433
280-72191-5	MW-25	T	Water	504.1	280-288433
280-72191-6	TB-02	T	Water	504.1	280-288433
Analysis Batch:280-288597					
280-72191-3	MW-16	T	Water	504.1	280-288433

Report Basis
T = Total

Client: SGS North America, Inc

Job Number: 280-72191-1

Surrogate Recovery Report

504.1 EDB, DBCP and 1,2,3-TCP (GC)

Client Matrix: Water

Lab Sample ID	Client Sample ID	12DBP1 %Rec
280-72191-1	MW-2	112
280-72191-2	MW-9	111
280-72191-3	MW-16	226X D
280-72191-4	MW-20	126
280-72191-5	MW-25	126
280-72191-6	TB-02	115
MB 280-288433/2-A		110
LCS 280-288433/3-A		108
LCSD 280-288433/4-A		112
LLCS 280-288433/5-A		108

Surrogate	Acceptance Limits
12DBP = 1,2-Dibromopropane	70-130

Client: SGS North America, Inc

Job Number: 280-72191-1

Method Blank - Batch: 280-288433

Method: 504.1
Preparation: 504.1

Lab Sample ID:	MB 280-288433/2-A	Analysis Batch:	280-288444	Instrument ID:	SGC_E
Client Matrix:	Water	Prep Batch:	280-288433	Lab File ID:	029F2901.D
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	35 mL
Analysis Date:	07/30/2015 2225	Units:	ug/L	Final Weight/Volume:	35 mL
Prep Date:	07/30/2015 1201			Injection Volume:	3 uL
Leach Date:	N/A			Column ID:	PRIMARY

Analyte	Result	Qual	MDL	RL
1,2-Dibromoethane	ND		0.0037	0.020

Surrogate	% Rec	Acceptance Limits
1,2-Dibromopropane	110	70 - 130

Low Level Control Sample - Batch: 280-288433

Method: 504.1
Preparation: 504.1

Lab Sample ID:	LLCS 280-288433/5-A	Analysis Batch:	280-288444	Instrument ID:	SGC_E
Client Matrix:	Water	Prep Batch:	280-288433	Lab File ID:	032F3201.D
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	35 mL
Analysis Date:	07/30/2015 2321	Units:	ug/L	Final Weight/Volume:	35 mL
Prep Date:	07/30/2015 1201			Injection Volume:	3 uL
Leach Date:	N/A			Column ID:	PRIMARY

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
1,2-Dibromoethane	0.0200	0.0256	128	70 - 130	

Surrogate	% Rec	Acceptance Limits
1,2-Dibromopropane	108	70 - 130

Client: SGS North America, Inc

Job Number: 280-72191-1

Lab Control Sample/
Lab Control Sample Duplicate Recovery Report - Batch: 280-288433

Method: 504.1
Preparation: 504.1

LCS Lab Sample ID:	LCS 280-288433/3-A	Analysis Batch:	280-288444	Instrument ID:	SGC_E
Client Matrix:	Water	Prep Batch:	280-288433	Lab File ID:	030F3001.D
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	35 mL
Analysis Date:	07/30/2015 2244	Units:	ug/L	Final Weight/Volume:	35 mL
Prep Date:	07/30/2015 1201			Injection Volume:	3 uL
Leach Date:	N/A			Column ID:	PRIMARY

LCSD Lab Sample ID:	LCSD 280-288433/4-A	Analysis Batch:	280-288444	Instrument ID:	SGC_E
Client Matrix:	Water	Prep Batch:	280-288433	Lab File ID:	031F3101.D
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	35 mL
Analysis Date:	07/30/2015 2302	Units:	ug/L	Final Weight/Volume:	35 mL
Prep Date:	07/30/2015 1201			Injection Volume:	3 uL
Leach Date:	N/A			Column ID:	PRIMARY

	% Rec.						
Analyte	LCS	LCSD	Limit	RPD	RPD Limit	LCS Qual	LCSD Qual
1,2-Dibromoethane	105	105	70 - 130	0	30		

Surrogate	LCS % Rec	LCSD % Rec	Acceptance Limits
1,2-Dibromopropane	108	112	70 - 130

SGS North America Inc.

CHAIN OF CUSTODY RECORD

1158310

Locations Nationwide

Alaska Maryland
New Jersey New York
North Carolina Indiana
West Virgina Kentucky

www.us.sgs.com

CLIENT:	SGS North America Inc. - Alaska Division	SGS Reference:	Test America, CO
CONTACT:	Julie Shumway	PHONE NO:	(907) 562-2343
PROJECT NAME:	1158310	PROJECT/ PWSID/ PERMIT#:	
REPORTS TO:		E-MAIL:	Julie.Shumway@sgs.com
INVOICE TO:	SGS - Alaska	QUOTE #: / P.O. #:	1158310

Additional Comments: All soils report out in dry weight unless otherwise requested.

Page ___ of ___

280-72191 Chain of Custody

RESERVED for lab use	SAMPLE IDENTIFICATION	DATE mm/dd/yy	TIME HHMM	MATRIX/ MATRIX	# CONTAINERS	Preservative Used: NONE / TYPE C = COMP G = GRAB Incremental Soils	EDB 504				MS	MSD	SGS lab #	Loc ID	REMARKS
	MW-2	07/20/15	1145	Water	3								1158310001		
	MW-9	07/20/15	1230	Water	3								1158310002		
	MW-16	07/20/15	1335	Water	3								1158310003		
	MW-20	07/20/15	947	Water	3								1158310005		
	MW-25	07/20/15	1400	Water	3								1158310009		
	TB-02	07/02/15	1400	Water	3								1158310011		

Relinquished By: (1) Diana Clark	Date 7/22/15	Time 10:40	Received By:	7/23/15 935
Relinquished By: (2)	Date	Time	Received By:	
Relinquished By: (3)	Date	Time	Received By:	
Relinquished By: (4)	Date	Time	Received For Laboratory By:	

DOD Project? ☐ YES ☑ NO
Report to DL (J Flags) ☑
Cooler ID:

Data Deliverable Requirements: Level 2

Requested Turnaround Time and-or Special Instructions:

Temp Blank °C: _____ or Ambient [ ]

Chain of Custody Seal: (Circle) INTACT BROKEN ABSENT

[X] 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

0.3+0.1 IR#5 DW 7/23/15 935

Login Sample Receipt Checklist

Client: SGS North America, Inc

Job Number: 280-72191-1

Login Number: 72191
List Number: 1
Creator: White, Denise E

List Source: TestAmerica Denver

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	N/A	
Samples are received within Holding Time.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Laboratory Data Review Checklist

Completed by:	Hilary Pletta		
Title:	Staff Scientist	Date:	October 19, 2015
CS Report Name:	Gold Hill	Report Date:	August 5, 2015
Consultant Firm:	Nortech Inc.		
Laboratory Name:	SGS	Laboratory Report Number:	1158310
ADEC File Number:	24409	ADEC RecKey Number:	

1. Laboratory

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

(●) Yes ( ) No ( ) NA (Please explain.) 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 ( ) NA (Please explain) Comments:

Samples transferred to Test America.

2. Chain of Custody (COC)

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

(●) Yes ( ) No ( ) NA (Please explain) Comments:

b. Correct analyses requested?

(●) Yes ( ) No ( ) NA (Please explain) Comments:

3. Laboratory Sample Receipt Documentation

a. Sample/cooler temperature documented and within range at receipt (4° ± 2° C)?

(●) Yes ( ) No ( ) NA (Please explain) Comments:

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

(•) Yes ( ) No ( ) NA (Please explain) Comments:

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

( ) Yes ( ) No (•) NA (Please explain) Comments:

All samples received in good condition.

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

( ) Yes ( ) No (•) NA (Please explain) Comments:

No discrepancies reported.

e. Data quality or usability affected? (Please explain)

Comments:

4. Case Narrative

a. Present and understandable?

(•) Yes ( ) No ( ) NA (Please explain) Comments:

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

(•) Yes ( ) No ( ) NA (Please explain) Comments:

c. Were all corrective actions documented?

( ) Yes ( ) No (•) NA (Please explain) Comments:

Corrective actions not taken.

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 ( ) NA (Please explain) Comments:

b. All applicable holding times met?

(•) Yes ( ) No ( ) NA (Please explain) Comments:

c. All soils reported on a dry weight basis?

( ) Yes ( ) No (•) NA (Please explain) Comments:

Only water samples were collected

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

( ) Yes (•) No ( ) NA (Please explain) Comments:

MW-16, MW-20, MW-25 Benzene

e. Data quality or usability affected? (Please explain)

Comments:

Data quality not affected.

6. QC Samples

a. Method Blank

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

(•) Yes ( ) No ( ) NA (Please explain) Comments:

ii. All method blank results less than PQL?

(•) Yes ( ) No ( ) NA (Please explain) Comments:

iii. If above PQL, what samples are affected? Comments:

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

○ Yes ○ No ◉ NA (Please explain) Comments:

All results below the PQL.

v. Data quality or usability affected? (Please explain) Comments:

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 ○ NA (Please explain) Comments:

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

◉ Yes ○ No ○ NA (Please explain) Comments:

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 ○ NA (Please explain) 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/DMSD, and or sample/sample duplicate. (AK Petroleum methods 20%; all other analyses see the laboratory QC pages)

◉ Yes ○ No ○ NA (Please explain) Comments:

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

Comments:

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

○ Yes ○ No ◉ NA (Please explain) Comments:

Samples within acceptable limits.

vii. Data quality or usability affected? (Please explain) Comments:

c. Surrogates - Organics Only

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

◉ Yes ○ No ○ NA (Please explain) 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 ○ NA (Please explain) Comments:

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

◉ Yes ○ No ○ NA (Please explain) Comments:

iv. Data quality or usability affected? (Use the comment box to explain.). Comments:

Not affected

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 ○ NA (Please explain.) 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 ○ NA (Please explain.) Comments:

iii. All results less than PQL?

◉ Yes ○ No ○ NA (Please explain.) Comments:

iv. If above PQL, what samples are affected?

Comments:

v. Data quality or usability affected? (Please explain.)

Comments:

e. Field Duplicate

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

◉ Yes ○ No ○ NA (Please explain) Comments:

ii. Submitted blind to lab?

◉ Yes ○ No ○ NA (Please explain.) Comments:

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

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

Where R_1 = Sample Concentration

R_2 = Field Duplicate Concentration

◉ Yes ○ No ○ NA (Please explain) Comments:

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

○ Yes ◉ No ○ NA (Please explain) Comments:

f. Decontamination or Equipment Blank (if applicable)

○ Yes ◉ No ○ NA (Please explain) Comments:

Not required for this project.

i. All results less than PQL?

○ Yes ○ No ◉ NA (Please explain) Comments:

ii. If above PQL, what samples are affected?

Comments:

iii. Data quality or usability affected? (Please explain.)

Comments:

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

a. Defined and appropriate?

○ Yes ○ No ◉ NA (Please explain) Comments:

No other data flags defined.

Reset Form