

GROUNDWATER MONITORING REPORT

CIRCLE K STORE #2706042
10171 U.S. HIGHWAY 12
NACHES, WASHINGTON 98937

SAMPLING DATE: APRIL 22, 2019

PREPARED FOR:



CIRCLE K STORES INC.
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CORONA, CALIFORNIA 92879

SUBMITTED TO:

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DEPARTMENT OF ECOLOGY
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BLAES PROJECT #202-06042-10

MAY 3, 2019

This *Groundwater Monitoring Report* has been prepared by Blaes Environmental Management, Inc. for the exclusive use of Circle K Stores Inc. as it pertains to Circle K Store #2706042 located at 10171 U.S. Highway 12 in Naches, Washington. Our professional services have been performed using that degree of care and skill ordinarily exercised under similar circumstances by other geologists, engineers, and environmental consultants practicing in this field. No other warranty, express or implied, is made as to the professional advice in this report. *Any use of or reliance on this report by a third party shall be at such a party's sole risk.*

Blaes Environmental Management, Inc. can offer no assurances and assumes no responsibility for site conditions or activities outside the scope of the inquiry requested by Circle K Stores Inc. as outlined in this document. It should be understood by all parties that Blaes Environmental Management, Inc. has relied on the accuracy of documents, oral information, and other materials, services, and information provided by Circle K Stores Inc., subcontractors, and other associated parties. Any subsequent modification, revision or verification of this report must be provided in writing by Blaes Environmental Management, Inc.

All work associated with this project will be performed under the supervision of a State of Washington Licensed Geologist/Hydrogeologist.

Prepared By:
Blaes Environmental Management, Inc.



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Daniel Michael Blaes

Blaes Project #202-06042-10

May 3, 2019

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1.0 INTRODUCTION

This groundwater monitoring report was prepared by Blaes Environmental Management, Inc. (Blaes Environmental), on behalf of Circle K Stores Inc. (Circle K) for Circle K Store #2706042 located at 10171 U.S. Highway 12 in Naches, Washington (Figure 1). This periodic groundwater monitoring program was conducted following a detection of petroleum hydrocarbon constituents in 2013 near the intersection of Naches Avenue and Highway 12 (associated with a past release at the site) and following ongoing soil and groundwater remediation efforts at the property.

In April 2019, Blaes Environmental conducted another groundwater monitoring event at the site using five groundwater monitoring wells at the site (MW-1, MW-3, MW-4, MW-6, and MW-8). The sampling event involved: (1) measuring the depth to groundwater in the wells; (2) collecting a groundwater sample from each selected well; and (3) analyzing each groundwater sample at an analytical laboratory for petroleum constituents.

The data from this sampling event was compared to the data from the past groundwater sampling events as a continued evaluation of the effectiveness of the air sparge injection events conducted during the summer of 2017 and 2018 and in preparation for additional remediation activities in the summer of 2019. During this sampling event, there was a slight decrease in benzene in the groundwater within well MW-3 from this event compared to the sampling event conducted in November 2018. The benzene concentration is still below the MTCA Method A level. The following sections of this report include the description of the procedures and findings of the April 2019 groundwater monitoring event.

2.0 BACKGROUND INFORMATION

This section presents information regarding the site and provides a summary of the site background. The information was obtained from public records, the project files of Blaes Environmental, and the records of Circle K.

2.1 SITE LOCATION AND LAND USE

The property is located on the northwest corner of the intersection of Naches Avenue and Highway 12 in Naches, Washington. The property is within Section 4, Township 14 North, Range 17 East of the Naches Washington U.S. Geological Survey 7 ½ -minute Topographic Quadrangle. The property consists of a concrete and asphalt-paved lot with one existing single-story building (the Circle K Store) and three product dispensers. The site features are shown on the Site Plan in Figure 2. Global Positioning System (GPS) readings locate the site at approximately latitude 46 degrees, 43 minutes, 43.32 seconds North and longitude 120 degrees, 42 minutes, 01.73 seconds West as measured on Google Earth 2013.

The area surrounding the site consists of a mixture of commercial businesses and residential development. Commercial businesses are located southeast, west, and east-southeast of the site. Residential development is located south (across Highway 12), immediately north, and east (across the Naches Avenue), of the site.

2.2 SITE PHYSIOGRAPHY

The property lies at an elevation of approximately 1468 feet above Mean Sea Level (Google Earth 2013). Natural surface drainage in the area is towards the south-southwest towards the Naches River (U.S. Geological Survey 7 ½ -minute Topographic Quadrangle). On-site drainage is predominantly away from the building, towards the storm drains, to the north and east and east to Naches Avenue.

2.3 SITE LITHOLOGY AND DEPTH TO GROUNDWATER

The soil types in the immediate vicinity consists of Naches River Deposits. These deposits are composed of brown sandy loam with approximately 80 percent gravel, cobbles, and boulders up to approximately two feet (2) in diameter. The highly coarse soils extend to a depth of at least 25 feet below the ground surface. The soils in the lower part of the zone contain some clay.

Groundwater was encountered within the tank pit at approximately 11 feet below the ground surface in 1992 and logs of wells in the area also show the water level to be between 9 and 13 feet below the ground surface depending on the season of year. Groundwater was encountered at a depth of approximately 9 to 11 feet below the ground surface within the wells samples during this investigation. Groundwater flow is predominantly toward the south at the site.

2.4 SENSITIVE RECEPTORS

The Naches River is approximately 1,500 feet south of the site and the open irrigation ditch (trending approximately north-south) is approximately 75 feet east of the site. There are no additional surface water bodies or wetlands within one-mile of the site. Residences are located directly north of the site, across Naches Avenue to the east, and across U.S. Highway 12 to the south of the site.

The Naches Valley Middle School is located approximately 1,287 feet east-northeast of the site. The Naches Valley Intermediate School is located approximately 1,689 feet east-northeast of the site. The Naches Valley High School is located approximately 2,914 feet north-northwest of the site.

2.5 PREVIOUS INVESTIGATIONS

2.5.1 Limited Site Check: 1992

Previous investigations conducted at the site included a limited site check and sampling program in 1992 at the former Naches Chevron Facility. The investigation indicated gasoline range organics (GRO) in soil and GRO and lead in groundwater, adjacent to the former supreme unleaded gasoline UST, in excess of WDOE "Method A Clean-Up Levels". An Interim Status Report was prepared and submitted to the WDOE by Sage Earth Sciences, Inc. in October 1992. After the leak had been repaired the excavation was reportedly left open for approximately 15 months and then backfilled around the existing USTs.

2.5.2 UST Removal: 1998

In 1994 the three existing USTs were removed and replaced with fiberglass USTs. Subsequent soil and groundwater sampling during the tank removal revealed GRO in the groundwater beneath the site. Concentrations of soluble lead were not found in the soil sample collected at the site. The groundwater sample was not analyzed for soluble lead during this program. A UST Closure Site Assessment & Interim Remediation Report was prepared and submitted to the WDOE by White Shield, Inc. in March 1994.

2.5.3 WDOE Correspondence 1998-2001

In October 1998 the property owner, Mr. Mike Abhold, contacted WDOE indicating that he “believes that natural attenuation mechanisms have cleaned the residual groundwater at this site” and he wanted input from WDOE. WDOE responded to Mr. Abhold indicating that “groundwater samples to confirm natural attenuation and a site cleanup report” would be required. In 2001 the UST file was reviewed by Mr. Brian T. Deeken with WDOE and it was determined that there had been no change of status at the site since 1998. Based on this file review, Mr. John Mefford, L.G. the current WDOE manager for this site contacted Circle K (following the purchase of the site from Sun Pacific Energy) asking for the current site status.

2.5.4 Site Characterization Activities

Circle K contracted Blaes Environmental to conduct a program to determine if groundwater beneath the site had been impacted by petroleum hydrocarbons. The program included drilling and installation of four groundwater monitoring wells and collection and analyses of groundwater samples and the preparation of the October 2013 Site Characterization Report documenting the activities. Cascade Drilling of Woodinville, Washington was contracted to drill the soil borings for the four wells using a hollow-stem auger drilling rig. The boreholes were drilled on July 22 and 23, 2013 to depths ranging from approximately 14 feet below the ground surface (MW-3) to approximately 15’ below the ground surface (MW-1) before large cobbles triggered auger refusal.

A total of five soil samples (one from wells MW-2, MW-3, and MW-1 and two from MW-1) were collected during the site characterization program and delivered by Blaes Environmental, under proper chain-of-custody record, to Test America in Seattle, Washington. Soil samples from the soil borings were analyzed for NWTPH-GX (GRO), NWTPH-DX (DRO), and for VOCs including Benzene, Toluene, Ethylbenzene, & Total Xylenes (BTEX), fuel oxygenates including methyl-tert butyl ether (MTBE), and ethylene dibromide (EDB) according to EPA Method 8260. Laboratory analytical results indicated concentrations of m-Xylenes & p-Xylenes (3.4 ug/Kg) and 1,2,4-Trimethylbenzene above laboratory reporting limits in the soil sample collected from the boring at MW-3 near the intersection. No other detectable concentrations of GRO, DRO, BTEX, VOC, or EDB were found in any other soil sample.

2.5.5 Groundwater Monitoring and Sampling

On August 18, 2013 Blaes Environmental conducted a groundwater monitoring and sampling event within the newly installed wells. The groundwater monitoring and sampling event consisted of three

tasks: 1) measuring the depth to groundwater in the wells; 2) purging water from each well using a low-flow device and collecting a groundwater sample; and 3) analyzing the groundwater samples at a State of Washington certified analytical laboratory. A copy of the report entitled *Site Characterization Report*, prepared by Blaes Environmental, dated October 31, 2013, is on file with WDOE.

On August 8, 2014, Blaes Environmental conducted a groundwater monitoring and sampling event within the four groundwater monitoring wells at the site (MW-1, MW-2, MW-3, and MW-4). The groundwater monitoring and sampling event consisted of three tasks: 1) measuring the depth to groundwater in the wells; 2) purging water from each well using low-flow pump and collecting a groundwater sample from each well; and 3) analyzing the groundwater samples at a State of Washington certified analytical laboratory. A copy of the report entitled *Groundwater Monitoring Report*, prepared by Blaes Environmental, dated August 25, 2014, is on file with WDOE.

On December 10, 2014, Blaes Environmental conducted a groundwater monitoring and sampling event within the four groundwater monitoring wells at the site (MW-1, MW-2, MW-3, and MW-4). The groundwater monitoring and sampling event consisted of three tasks: 1) measuring the depth to groundwater in the wells; 2) purging water from each well using low-flow pump and collecting a groundwater sample from each well; and 3) analyzing the groundwater samples at a State of Washington certified analytical laboratory. A copy of the report entitled *Groundwater Monitoring Report*, prepared by Blaes Environmental, dated December 31, 2014, is on file with WDOE.

On May 28, 2015, Blaes Environmental conducted another groundwater monitoring and sampling event within the four groundwater monitoring wells at the site (MW-1, MW-2, MW-3, and MW-4). The groundwater monitoring and sampling event consisted of three tasks: 1) measuring the depth to groundwater in the wells; 2) grabbing a groundwater sample from each well without purging; and 3) analyzing the groundwater samples at a State of Washington certified analytical laboratory. A copy of the report entitled *Groundwater Monitoring Report*, prepared by Blaes Environmental, dated June 8, 2015, is on file with WDOE.

On November 12, 2015, Blaes Environmental conducted a groundwater monitoring and sampling event within the four groundwater monitoring wells at the site (MW-1, MW-2, MW-3, and MW-4). The groundwater monitoring and sampling event consisted of three tasks: (1) measuring the depth to groundwater in the wells, and (2) analyzing the groundwater samples at a State of Washington certified

analytical laboratory. A copy of the report entitled *Groundwater Monitoring Report*, prepared by Blaes Environmental, dated December 21, 2015, is on file with WDOE.

2.5.6 Additional Groundwater Monitoring and Remediation Well Installation

In June 2016, Blaes Environmental, in conjunction with Cascade Drilling of Federal Way, Washington installed four additional groundwater monitoring wells and 11 air sparge remediation wells at the site. The objective of the additional monitoring wells was to further understand the lateral distribution of petroleum hydrocarbon concentrations under the property. The objective of the air sparge wells was to provide a remediation mechanism to start reducing the volatile hydrocarbon constituents at the site.

The four new groundwater monitoring wells (MW-5, MW-6, MW-7, and MW-8) were each drilled to a depth of approximately 25 feet below the ground surface using a sonic drilling rig. Each 2-inch diameter PVC monitoring well was screened from approximately 5 feet to 25 feet below the ground surface. The 11 new air sparge remediation wells were each drilled to a depth of approximately 25 feet below the ground surface using a sonic drilling rig. Each 2-inch diameter PVC monitoring well was screened from approximately 20 feet to 25 feet below the ground surface. The location of each new well is shown on the Site Plan in Figure 2. Additional data from this well installation program will be submitted in a separate report.

2.5.7 Subsequent Groundwater Monitoring and Sampling

In March 2017, an additional groundwater sampling event was conducted to evaluate the site conditions prior to the 2017 remediation events. The results of the sampling event were submitted to WDOE in a report dated May 1, 2017. The results of the March 2017 sampling event showed an additional rebound in the petroleum hydrocarbons but a reduction in benzene and other hydrocarbon constituents. The only monitoring well with hydrocarbon detections was MW-3 near the southeast corner of the property.

In June 2017, an additional groundwater sampling event was conducted to evaluate the site conditions prior to the summer 2017 remediation events. The results of the sampling event were submitted to WDOE in a report dated July 9, 2017. The results of the June 2017 sampling event showed a decrease in the petroleum hydrocarbons. Again, the only monitoring well with hydrocarbon detections was MW-3 near the southeast corner of the property.

In September 2017, an additional groundwater sampling event was conducted to evaluate the site conditions prior to the summer 2017 remediation events. The results of the sampling event were

submitted to WDOE in a report dated October 13, 2017. The results of the September 2017 sampling event showed a decrease in the petroleum hydrocarbons. Again, the only monitoring well with hydrocarbon detections was MW-3 near the southeast corner of the property.

In December 2017, an additional groundwater sampling event was conducted to evaluate the site conditions prior to the summer 2018 remediation events. The results of the sampling event were submitted to WDOE in a report dated December 15, 2017. The results of the December 2017 sampling event showed a slight decrease in the petroleum hydrocarbons. Again, the only monitoring well with hydrocarbon detections was MW-3 near the southeast corner of the property.

In March 2018, an additional groundwater sampling event was conducted to evaluate the site conditions prior to the summer 2018 remediation events. The results of the sampling event were submitted to WDOE in a report dated March 16, 2018. The results of the March 2018 sampling event showed a slight decrease in the petroleum hydrocarbons compared with the December 2017 event. Again, the only monitoring well with hydrocarbon detections was MW-3 near the southeast corner of the property.

In July 2018, an additional groundwater sampling event was conducted to evaluate the site conditions prior to the autumn 2018 remediation events. The results of the sampling event were submitted to WDOE in a report dated July 31, 2018. The results of the July 2018 sampling event showed a slight decrease in the petroleum hydrocarbons compared with the March 2018 event. Again, the only monitoring well with hydrocarbon detections was MW-3 near the southeast corner of the property.

In September 2018, an additional groundwater sampling event was conducted at the site. The results of the sampling event were submitted to WDOE in a report dated September 24, 2018. The results of the September 2018 sampling event showed a decrease in the petroleum hydrocarbons compared with the July 2018 event. Again, the only monitoring well with hydrocarbon detections was MW-3 near the southeast corner of the property.

In late November 2018, an additional groundwater sampling event was conducted at the site. The results of the sampling event were submitted to WDOE in a report dated December 19, 2018. The results of the December 2018 sampling event showed about the same level of petroleum hydrocarbon constituents compared with the July 2018 and September 2018 events. Again, the only monitoring well with hydrocarbon detections was MW-3 near the southeast corner of the property.

2.5.8 Soil Vapor Extraction and Groundwater Air Sparge Events

In August 2016, during a scheduled addition of diesel fuel and fuel system repipe project the site by Circle K, Blaes Environmental conducted a soil vapor extraction and groundwater air sparging remediation pilot test event at the site. The objective of the pilot test program was to evaluate whether petroleum hydrocarbon concentrations in the vadose zone soil and in the groundwater saturated zone could be significantly reduced in the southeast part of the site without installing a full fixed-based remediation system. The program utilized a mobile trailer-mounted all-electric catalytic oxidizer (powered by its own diesel generator) to extract and treat soil vapor and a mobile air sparge compressor (powered by a separate diesel generator) to inject air. All of the equipment was located near the corner of the intersection. Select monitoring wells were used as the vapor extraction points and many of the new air sparge wells were used to inject air into the groundwater during the test.

The air sparge test was conducted from August 15, 2016 to August 26, 2016. The vapor extraction test was completed near the end of the air sparge test from August 24, 2016 to August 26, 2016 in part to recover vapors from the previous days of sparge testing. During both feasibility tests, Blaes Environmental recorded system parameters and monitored the uptime of each system. Additional details from this pilot test program will be presented in a separate pilot test report.

On June 23, 2017, Blaes Environmental conducted a one-day additional air sparge injection event at the site. A small air compressor was used to inject air into sparge well AS-5 near monitoring well MW-3. The event last approximately three hours with a flowrate of approximately 5 cubic feet per minute at a pressure of approximately 3 pounds per square inch into AS-5.

During the summer of 2017, Blaes Environmental conducted four additional one-day additional air sparge injection events at the site. During each event (July 7, 2017, July 17, 2017, July 27, 2017, and August 2, 2017), a small air compressor was used to inject air into sparge well AS-5 near monitoring well MW-3. Each event last between four and eight hours of runtime with a flowrate of approximately 5 cubic feet per minute at a pressure of approximately 3 pounds per square inch into AS-5.

During the summer of 2018 (August 29, 2018 to September 7, 2018), Blaes Environmental conducted additional air sparge injection events at the site. During each event, a small air compressor was used to inject air into a combination of sparge wells AS-5 and AS-6 near monitoring well MW-3. During each

event, the flowrate into the air sparge well was approximately 5 cubic feet per minute at a pressure of approximately 3 pounds per square inch.

3.0 GROUNDWATER MONITORING PROGRAM

A groundwater monitoring and sampling event was conducted at the site in April 2019 by personnel from Blaes Environmental. The objective of the program was to evaluate the groundwater conditions at the site following the air sparge remediation activities during the summer of 2017 and 2018. The data from this event was compared to the data from the July 2016 sampling event (before the pilot test) and to the data from the August and December 2016 sampling events (after the pilot test) as well as the March 2017, June 2017, September 2017, December 2017, March 2018, July 2018, September 2018, and November 2018 sampling events as a method to determine the effectiveness of the remediation technologies and the approach. Details of the April 2019 groundwater sampling event are provided in the following sections.

3.1 GROUNDWATER MONITORING AND SAMPLING

On April 22, 2019, Blaes Environmental conducted the groundwater monitoring and sampling event within five of the eight existing groundwater monitoring wells at the site (MW-1, MW-3, MW-4, MW-6, and MW-8). The event consisted of three tasks: (1) measuring the depth to groundwater in the eight wells, and (2) collecting a groundwater sample from each well, and (3) analyzing the groundwater samples from each well at a State of Washington certified analytical laboratory. A description of each task is presented in the following sections.

3.1.1 Groundwater Depth Measurements and Gradient

The depth to groundwater in the select monitoring wells was measured to the nearest 0.01 foot using a groundwater level indicator. Depths to water ranged from 9.35 feet (MW-8) to 10.74 feet (MW-4) and averaged 10.04 feet across the site. The water level measurement probe was washed with a Liquinox™ solution and rinsed with tap water before and after each groundwater depth measurement to prevent cross contamination. A summary of the depth to water/elevation data from the April 22, 2019 sampling event is included in Table 1. The field data sheets showing the depth to groundwater measurements are included in Appendix A.

The depth to groundwater was measured from a permanent mark on the top of the uncapped PVC well casing. Using the elevation of the well casing at that same mark, Blaes Environmental calculated the elevation of groundwater in the well during the monitoring event by subtracting the measured depth to groundwater within the well from the surveyed wellhead elevation. On April 22, 2019, the average groundwater elevation at the site was 1,456.0 feet.

The groundwater flow direction was to the south at a gradient of approximately 0.0037 feet/foot. A diagram of the groundwater flow direction and gradient is presented in Figure 3. A hydrograph of groundwater elevations is presented in Figure 4.

3.1.2 Groundwater Sample Collection

The wells were not purged during this sampling event because Circle K wanted to compare directly to the groundwater data from the recent sampling events (that also did not have purged sample events). A groundwater grab sample was collected from each groundwater monitoring well to evaluate the current dissolved petroleum hydrocarbon concentrations in the groundwater. The groundwater samples were placed into laboratory supplied sample containers. The sample containers were sealed with Teflon lined caps, labeled, and placed on ice in a cooler. A written record of the sample was entered onto a chain-of-custody document for transport to the analytical laboratory.

3.1.3 Groundwater Laboratory Analyses

The groundwater samples were delivered to Test America in Fife, Washington for laboratory analyses. The groundwater samples were analyzed for Total Petroleum Hydrocarbons gasoline range organics using method NWTPH-GX, NWTPH-Dx, NWTPH-O, Arsenic, Lead, and for full list VOCs according to EPA Method 8260B including EDB and EDC. The samples to be analyzed for diesel range organics were prepared using a standard silica gel cleanup. A copy of the groundwater laboratory analytical report is included in Appendix B.

3.1.4 Groundwater Analytical Results

Laboratory analysis of the groundwater samples collected on April 22, 2019 indicated concentrations in well MW-3 were NWTPH-gas (3,500 ug/L), NWTPH-Dx (1,000 ug/L), Benzene (2.6 ug/L), Ethylbenzene (61 ug/L), Xylenes (5.6 ug/L), Naphthalene (1.4 ug/L), 1,2,4-Trimethylbenzene (57 ug/L), 1,3,5-Trimethylbenzene (5.7 ug/L), and other various volatile organic compounds. None of the other four groundwater monitoring wells had laboratory reportable detections of the hydrocarbon constituents. The laboratory analytical results of the groundwater samples are summarized in Table 2.

4.0 RESULTS AND CONCLUSIONS

Based on the analytical results from the groundwater samples collected on April 22, 2019, Blaes Environmental confirms a continued impact to groundwater with petroleum hydrocarbon constituents on the southeastern most portion of the site. The groundwater concentrations of petroleum hydrocarbon constituents found in the well MW-3 during this event were all lower compared with previous sampling events. The concentration of benzene in well MW-3 was below the MTCA Method A cleanup level. The estimated continued lateral extent of Benzene in groundwater is shown in Figure 5.

These latest groundwater laboratory results continue to indicate that limited groundwater air sparging events continue to have a long-lasting effect and will be effective remediation technology for lowering hydrocarbon concentrations in groundwater at this site. Further, the use of short-term targeted treatment events at the site (using select wells during each event) will likely meet the long-term remediation goals while avoiding the costly and time consuming need to install a fixed-based remediation system. It also appears that groundwater depth does have an effect on hydrocarbon concentrations in MW-3.

The next groundwater monitoring event is scheduled for late June 2019. The next short-term air sparge injection events are planned in July 2019.

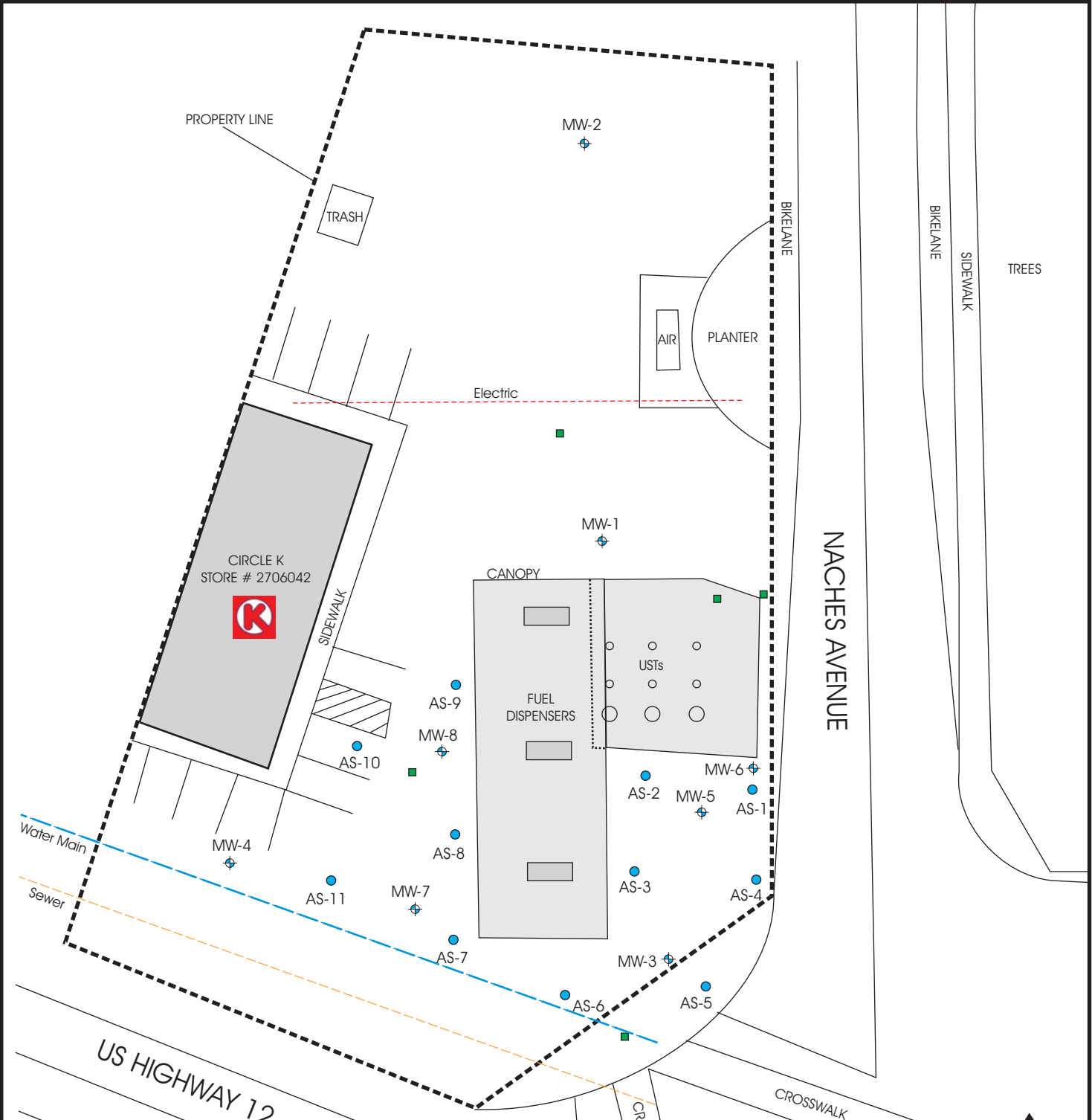
5.0 REFERENCES

White Shield Inc., 1994, UST Closure Site Assessment & Interim Remediation, 47 pg.

Sage Earth Sciences, Inc., 1992, Interim Status Report for a Limited Site Check and Petroleum Contaminated Soil Removal Activities, 36 pg.

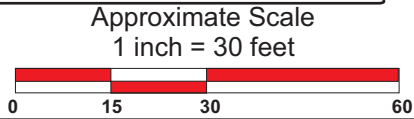
Lasmanis, Raymond, 1991, The geology of Washington: Rocks and Minerals, v. 66, no. 4, p. 262-277. © Copyright Heldref Publications (Helen Dwight Reid Educational Foundation).

FIGURES

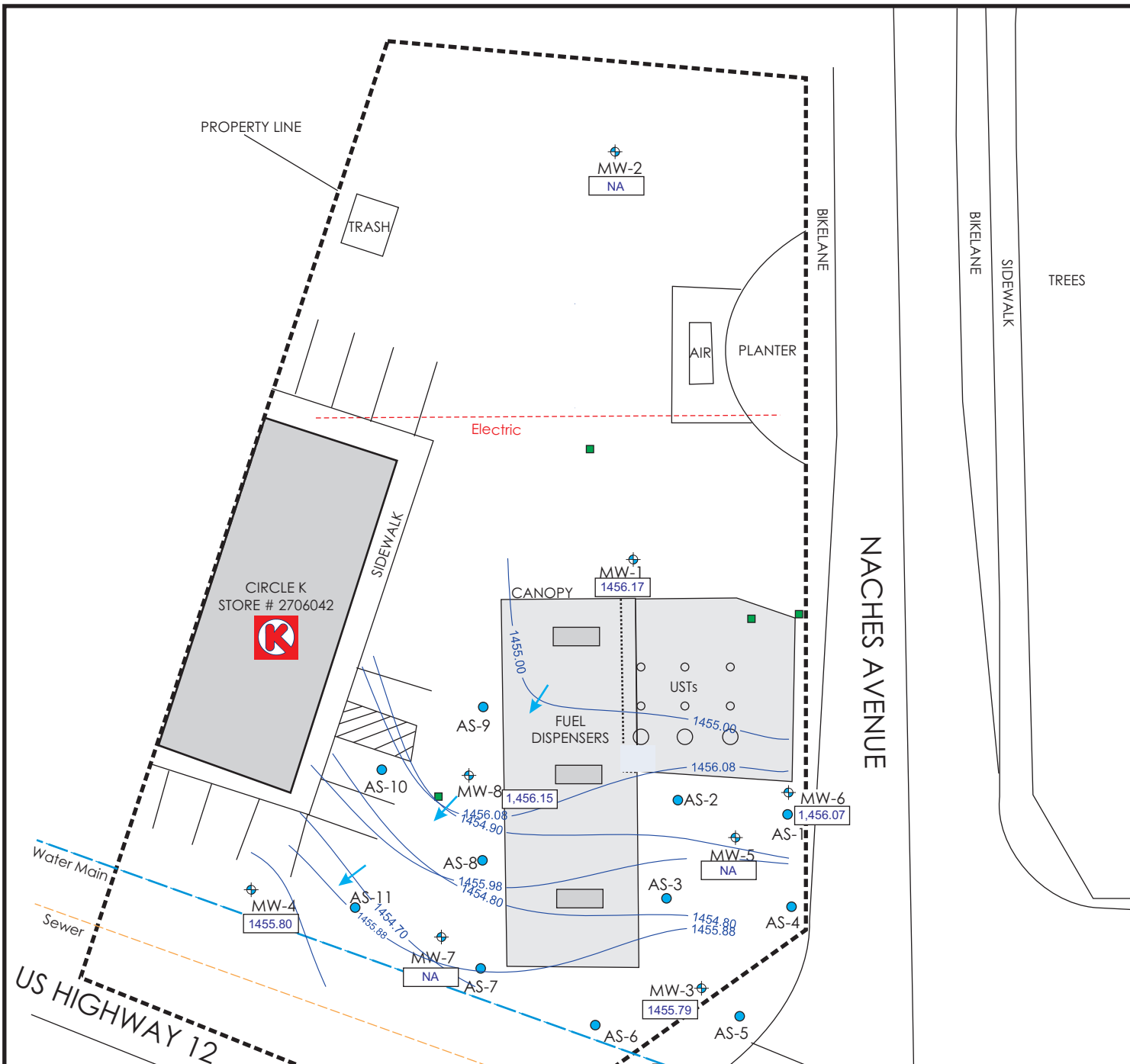


LEGEND





	MW-1	Approximate Location of Groundwater Monitoring Well(s) & ID
		Approximate Location of Stormdrain
	AS-3	Approximate Location of Air Sparge Well



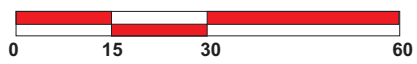
Circle K Store # 2706042 10171 Highway 12 Naches, Washington		Site Plan
Aug 2016	Project #202-06042-04	
<small>P:\Technical\202CKWashington\202-6042-04Naches\6042 Figures\6042SiteMap.cdr</small>		
		Figure 2



LEGEND

-  MW-1 Approximate Location of Groundwater Monitoring Well(s) & ID
-  Approximate location of Storm Drain(s)
-  AS-3 Approximate Location of Air Sparge Well
- 1,455.40 Groundwater Elevation (feet above mean sea level)
-  Groundwater Directional Gradient Arrow
Groundwater Contour Interval = 0.10 feet
Approximate Gradient = 0.002 (MW-1 to MW-4)

Approximate Scale
1 inch = 30 feet





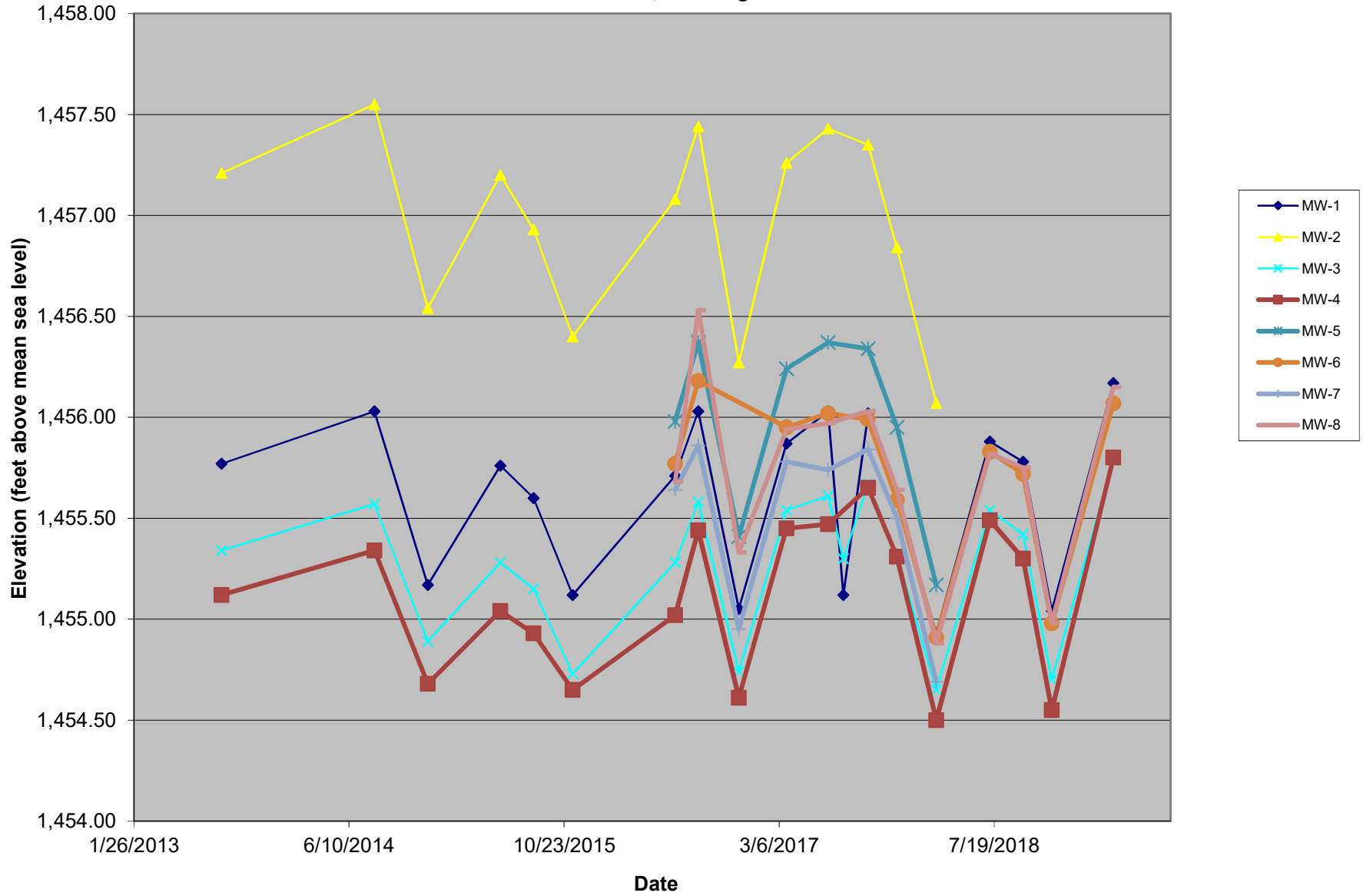
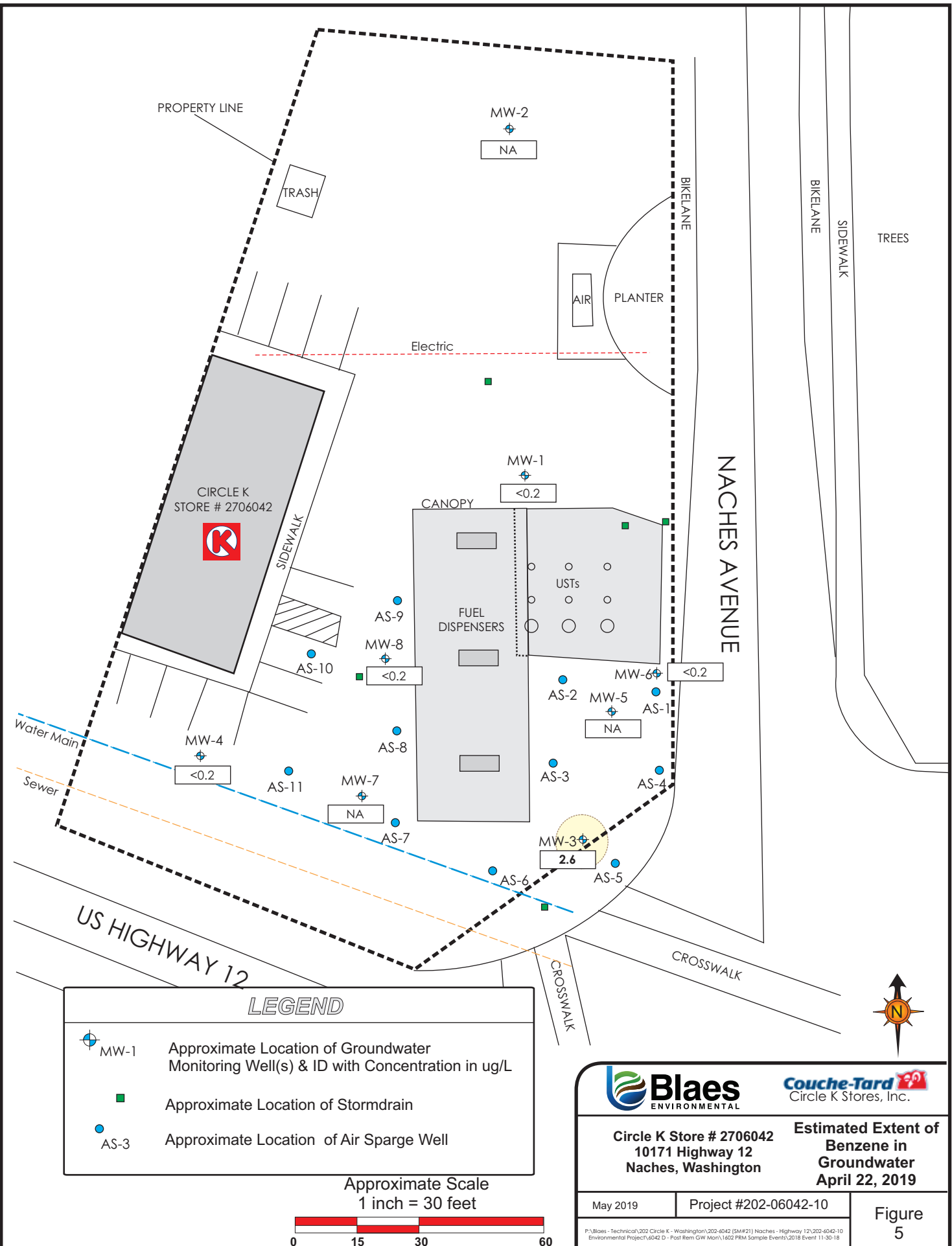
 	
Circle K Store # 2706042 10171 Highway 12 Naches, Washington	
Groundwater Elevation Contour Map April 22, 2019	
May 2019	Project #202-06042-10
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Figure 3	

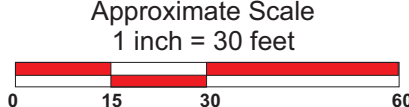
FIGURE 4: HYDROGRAPH
Circle K #2706042
10171 Highway 12
Naches, Washington





LEGEND

	MW-1	Approximate Location of Groundwater Monitoring Well(s) & ID with Concentration in ug/L
		Approximate Location of Stormdrain
	AS-3	Approximate Location of Air Sparge Well



Circle K Store # 2706042 10171 Highway 12 Naches, Washington	
Estimated Extent of Benzene in Groundwater April 22, 2019	
May 2019	Project #202-06042-10
Figure 5	
P:\Blaes - Technical\202 Circle K - Washington\202-6042 (SM#21) Naches - Highway 12\202-6042-10 Environmental Project\6042 D - Post Rem GW Mon\1602 PRM Sample Events\2018 Event 11-30-18	



TABLES

TABLE 1

SUMMARY OF GROUNDWATER ELEVATION DATA

Circle K Store #2706042
 10171 Highway 12
 Naches, Washington

Well ID	Date	TOC Elevation (ft amsl)	Depth to Free Product (ft btoc)	Depth to Groundwater (ft btoc)	Groundwater Elevation (ft amsl)
MW-1	8/18/2013	1466.08	---	10.31	1,455.77
	8/8/2014		---	10.05	1,456.03
	12/10/2014		---	10.91	1,455.17
	5/28/2015		---	10.32	1,455.76
	8/13/2015		---	10.48	1,455.60
	11/12/2015		---	10.96	1,455.12
	7/7/2016		---	10.37	1,455.71
	8/30/2016		---	10.05	1,456.03
	12/2/2016		---	11.03	1,455.05
	3/23/2017		---	10.21	1,455.87
	6/28/2017		---	10.05	1,456.03
	8/2/2017		---	10.96	1,455.12
	9/29/2017		---	10.06	1,456.02
	12/5/2017		---	10.48	1,455.60
	3/6/2018		---	11.15	1,454.93
	7/9/2018		---	10.20	1,455.88
	9/24/2018		---	10.30	1,455.78
	11/30/2018		---	11.04	1,455.04
	4/22/2019		---	9.91	1,456.17
MW-2	8/18/2013	1466.84	---	9.63	1,457.21
	8/8/2014		---	9.29	1,457.55
	12/10/2014		---	10.30	1,456.54
	5/28/2015		---	9.64	1,457.20
	8/13/2015		---	9.91	1,456.93
	11/12/2015		---	10.44	1,456.40
	7/7/2016		---	9.76	1,457.08
	8/30/2016		---	9.40	1,457.44
	12/2/2016		---	10.57	1,456.27
	3/23/2017		---	9.58	1,457.26
	6/28/2017		---	9.41	1,457.43
	9/29/2017		---	9.49	1,457.35
	12/5/2017		---	10.00	1,456.84
3/6/2018	---	10.77	1,456.07		
MW-3	8/18/2013	1466.26	---	10.92	1,455.34
	8/8/2014		---	10.69	1,455.57
	12/10/2014		---	11.37	1,454.89
	5/28/2015		---	10.98	1,455.28
	8/13/2015		---	11.11	1,455.15
	11/12/2015		---	11.53	1,454.73
	7/7/2016		---	10.98	1,455.28
	8/30/2016		---	10.68	1,455.58
	12/2/2016		---	11.52	1,454.74
	3/23/2017		---	10.72	1,455.54
	6/28/2017		---	10.65	1,455.61
	8/2/2017		---	10.96	1,455.30
	9/29/2017		---	10.59	1,455.67
	12/5/2017		---	10.94	1,455.32
	3/6/2018		---	11.61	1,454.65
	7/9/2018		---	10.72	1,455.54
	9/24/2018		---	10.84	1,455.42
11/30/2018	---	11.56	1,454.70		
4/22/2019	---	10.47	1,455.79		
MW-4	8/18/2013		---	11.42	1,455.12
	8/8/2014		---	11.20	1,455.34

TABLE 1

SUMMARY OF GROUNDWATER ELEVATION DATA

Circle K Store #2706042
 10171 Highway 12
 Naches, Washington

Well ID	Date	TOC Elevation (ft amsl)	Depth to Free Product (ft btoc)	Depth to Groundwater (ft btoc)	Groundwater Elevation (ft amsl)
	12/10/2014	1466.54	---	11.86	1,454.68
	5/28/2015		---	11.50	1,455.04
	8/13/2015		---	11.61	1,454.93
	11/12/2015		---	11.89	1,454.65
	7/7/2016		---	11.52	1,455.02
	8/30/2016		---	11.10	1,455.44
	12/2/2016		---	11.93	1,454.61
	3/23/2017		---	11.09	1,455.45
	6/28/2017		---	11.07	1,455.47
	9/29/2017		---	10.89	1,455.65
	12/5/2017		---	11.23	1,455.31
	3/6/2018		---	12.04	1,454.50
	7/9/2018		---	11.05	1,455.49
	9/24/2018		---	11.24	1,455.30
	11/30/2018		---	11.99	1,454.55
4/22/2019	---	10.74	1,455.80		
MW-5	7/7/2016	1466.25	---	10.27	1,455.98
	8/30/2016		---	9.88	1,456.37
	12/2/2016		---	10.84	1,455.41
	3/23/2017		---	10.01	1,456.24
	6/28/2017		---	9.88	1,456.37
	9/29/2017		---	9.91	1,456.34
	12/5/2017		---	10.30	1,455.95
3/6/2018	---	11.08	1,455.17		
MW-6	7/7/2016	1465.82	---	10.05	1,455.77
	8/30/2016		---	9.64	1,456.18
	12/2/2016		---	NA	NA
	3/23/2017		---	9.87	1,455.95
	6/28/2017		---	9.80	1,456.02
	9/28/2017		---	9.83	1,455.99
	12/5/2017		---	10.23	1,455.59
	3/6/2018		---	10.91	1,454.91
	7/9/2018		---	9.99	1,455.83
	9/24/2018		---	10.10	1,455.72
	11/30/2018		---	10.84	1,454.98
4/22/2019	---	9.75	1,456.07		
MW-7	7/7/2016	1465.99	---	10.35	1,455.64
	8/30/2016		---	10.13	1,455.86
	12/2/2016		---	11.04	1,454.95
	3/23/2017		---	10.21	1,455.78
	6/28/2017		---	10.25	1,455.74
	9/29/2017		---	10.15	1,455.84
	12/5/2017		---	10.49	1,455.50
3/6/2018	---	11.30	1,454.69		
MW-8	7/7/2016	1465.50	---	9.82	1,455.68
	8/30/2016		---	8.97	1,456.53
	12/2/2016		---	10.17	1,455.33
	3/23/2017		---	9.56	1,455.94
	6/28/2017		---	9.53	1,455.97
	9/29/2017		---	9.47	1,456.03
	12/5/2017		---	9.86	1,455.64
	3/6/2018		---	10.62	1,454.88
	7/9/2018		---	9.68	1,455.82
	9/24/2018		---	9.75	1,455.75
	11/30/2018		---	10.52	1,454.98
4/22/2019	---	9.35	1,456.15		

NOTES:

APPENDICES

APPENDIX A

GROUNDWATER SAMPLE DATA SHEETS



GROUNDWATER SAMPLING FORM

Site ID: CIRCLE K #6042 NACHES, WA
 Project No.: 202-6042-10
 Recorded By: D. BLAES

Well No.: MW-1
 Well Type: Monitor Remedial - VE AS
 Other: _____
 Well Material: PVC St. Steel
 Other: _____

WELL PURGING

Purge Volume **Purge Date:** NA
 Casing Diameter (D) in inches:
 2-inch 4-inch 6-inch Other: _____
 Total Depth of Casing (TD in feet BTOC): _____
 Water Level Depth (WL in feet BTOC): 9.91'
 Number of Well Volumes (# Vols) to be Purged:
 3 4 5 Other: _____

Purge Method
 Bailer - Type: _____
 Submersible Submersible Whale
 Other: NA

Pump Intake Setting
 Near Bottom Near Top Other: _____
 Depth in feet (BTOC): _____
 Screen Interval in Feet (BTOC): from _____ to _____

Purge Volume Calculation:

$$\left(\frac{\text{TD (feet)} - \text{WL (feet)}}{\text{D (inches)}} \right)^2 \times \text{\# Vols} \times 0.0409 = \text{Calculated Purge Volume (gallons)}$$

Pump Time **Purge Rate** **Actual Purge Volume**
 Start: _____ Stop: _____ Time Elapsed: _____ Initial _____ ml/m _____ liters
 Final _____ ml/m

Field Parameter Measurements

Time	Gallons Purged	DO (%)	DO (mg/L)	Cond. (uS)	Spec. Cond. (uS)	Salinity (ppt)	Temp. (deg. C)	pH	ORP (mV)
<u>11:58 Am</u>	<u>—</u>	<u>64.0</u>	<u>7.25</u>	<u>341</u>	<u>243</u>	<u>0.16</u>	<u>10.04</u>	<u>6.58</u>	<u>149.5</u>

TURB
0.22

Observations During Purging (well Condition, Turbidity, Color, Odor, etc.): _____

Purge Water Storage/Disposal: Drum(s), Number: _____ Storm Sewer Sanitary Sewer
 Other / Comments: _____

WELL SAMPLING

Sampled By: D. BLAES **Sampling Date:** 4/22/19 **Sampling Time:** 11:58 Am

Sampling Method Water Level Before Sampling (in feet BTOC): _____
 Bailer - Type: DISPOSABLE Same as Above
 Submersible Whale Grab - Type: _____
 Other: _____ Other - Type: _____

Sampling Distribution Sample Series: _____

Sample No.	Containers, Vol., #	Preserve	Analysis	Lab	Comments

Other Notes: _____



GROUNDWATER SAMPLING FORM

Site ID: CIRCLE K # 6042 NACHES, WA
 Project No.: 202-6042-10
 Recorded By: D. BYTES

Well No.: MW-3
 Well Type: Monitor Remedial - VE AS
 Other: _____
 Well Material: PVC St. Steel
 Other: _____

WELL PURGING

Purge Volume **Purge Date:** NA
 Casing Diameter (D) in inches:
 2-inch 4-inch 6-inch Other: _____
 Total Depth of Casing (TD in feet BTOC): _____
 Water Level Depth (WL in feet BTOC): 10.47'
 Number of Well Volumes (# Vols) to be Purged:
 3 4 5 Other: _____

Purge Method
 Bailer - Type: _____
 Submersible Submersible Whale
 Other: NA

Pump Intake Setting
 Near Bottom Near Top Other: _____
 Depth in feet (BTOC): _____
 Screen Interval in Feet (BTOC): from _____ to _____

Purge Volume Calculation:

$$\left(\frac{\text{TD (feet)} - \text{WL (feet)}}{D \text{ (inches)}} \right)^2 \times \# \text{ Vols} \times 0.0409 = \text{Calculated Purge Volume (gallons)}$$

Pump Time **Purge Rate** **Actual Purge Volume**
 Start: _____ Stop: _____ Time Elapsed: _____ Initial _____ ml/m _____ liters
 Final _____ ml/m

Field Parameter Measurements

Time	Gallons Purged	DO (%)	DO (mg/L)	Cond. (uS)	Spec. Cond. (uS)	Salinity (ppt)	Temp. (deg. C)	pH	ORP (mV)
<u>1:24 pm</u>	<u>-</u>	<u>5.0</u>	<u>0.54</u>	<u>1356</u>	<u>1024</u>	<u>0.68</u>	<u>12.15</u>	<u>6.94</u>	<u>-71.0</u>

NRB
0.883

Observations During Purging (well Condition, Turbidity, Color, Odor, etc.): CLOUDY, SLIGHT HYDROCARBON ODFR

Purge Water Storage/Disposal: Drum(s), Number: _____ Storm Sewer Sanitary Sewer
 Other / Comments: _____

WELL SAMPLING

Sampled By: D. BYTES **Sampling Date:** 4/22/19 **Sampling Time:** 1:24 pm

Sampling Method Water Level Before Sampling (in feet BTOC): _____
 Bailer - Type: DISPOSABLE Same as Above
 Submersible Whale Grab - Type: _____
 Other: _____ Other - Type: _____

Sampling Distribution Sample Series: _____

Sample No.	Containers, Vol., #	Preserve	Analysis	Lab	Comments

Other Notes: _____



GROUNDWATER SAMPLING FORM

Site ID: CIRCLE K # 6042 NACHES, WA
 Project No.: 207-6042-10
 Recorded By: D. BLUES

Well No.: MW-4
 Well Type: Monitor Remedial - VE AS
 Other: _____
 Well Material: PVC St. Steel
 Other: _____

WELL PURGING

Purge Volume **Purge Date:** NA
 Casing Diameter (D) in inches:
 2-inch 4-inch 6-inch Other: _____
 Total Depth of Casing (TD in feet BTOC): _____
 Water Level Depth (WL in feet BTOC): 10.74'
 Number of Well Volumes (# Vols) to be Purged:
 3 4 5 Other: _____

Purge Method
 Bailer - Type: _____
 Submersible Submersible Whale
 Other: NA

Pump Intake Setting
 Near Bottom Near Top Other: _____
 Depth in feet (BTOC): _____
 Screen Interval in Feet (BTOC): from _____ to _____

Purge Volume Calculation:

$$\left(\frac{\text{TD (feet)} - \text{WL (feet)}}{D \text{ (inches)}} \right)^2 \times \text{\# Vols} \times 0.0409 = \text{Calculated Purge Volume (gallons)}$$

Pump Time **Purge Rate** **Actual Purge Volume**

Start: _____ Stop: _____ Time Elapsed: _____ Initial _____ ml/m Final _____ ml/m _____ liters

Field Parameter Measurements

Time	Gallons Purged	DO (%)	DO (mg/L)	Cond. (uS)	Spec. Cond. (uS)	Salinity (ppt)	Temp. (deg. C)	pH	ORP (mV)
<u>12:42 pm</u>	<u>—</u>	<u>58.7</u>	<u>6.46</u>	<u>1480</u>	<u>1080</u>	<u>0.75</u>	<u>10.85</u>	<u>6.71</u>	<u>169.1</u>

TURB 0.962

Observations During Purging (well Condition, Turbidity, Color, Odor, etc.): SLIGHTLY CLADY, NO ODOR

Purge Water Storage/Disposal: Drum(s), Number: _____ Storm Sewer Sanitary Sewer
 Other / Comments: _____

WELL SAMPLING

Sampled By: D. BLUES Sampling Date: 4/22/19 Sampling Time: 12:42 pm

Sampling Method Water Level Before Sampling (in feet BTOC): _____

Bailer - Type: DISPOSABLE Same as Above
 Submersible Whale Grab - Type: _____
 Other: _____ Other - Type: _____

Sampling Distribution Sample Series: _____

Sample No.	Containers, Vol., #	Preserve	Analysis	Lab	Comments

Other Notes: _____



GROUNDWATER SAMPLING FORM

Site ID: CIRCLE K #6042 MACHES, WA
 Project No.: 202-6042-10
 Recorded By: D. BLUES

Well No.: MW-6
 Well Type: Monitor Remedial - VE AS
 Other: _____
 Well Material: PVC St. Steel
 Other: _____

WELL PURGING

Purge Volume **Purge Date:** NA **Purge Method**
 Casing Diameter (D) in inches:
 2-inch 4-inch 6-inch Other: _____
 Total Depth of Casing (TD in feet BTOC): _____
 Water Level Depth (WL in feet BTOC): 9.75'
 Number of Well Volumes (# Vols) to be Purged:
 3 4 5 Other: _____
 Purge Volume Calculation:

$$\left(\frac{\text{TD (feet)}}{\text{D (inches)}} - \frac{\text{WL (feet)}}{\text{D (inches)}} \right) \times \frac{D^2}{4} \times \text{\# Vols} \times 0.0409 = \text{_____ gallons}$$
 Calculated Purge Volume

Bailer - Type: _____
 Submersible Submersible Whale
 Other: NA
Pump Intake Setting
 Near Bottom Near Top Other: _____
 Depth in feet (BTOC): ~ _____
 Screen Interval in Feet (BTOC): from _____ to _____

Pump Time **Purge Rate** **Actual Purge Volume**
 Start: _____ Stop: _____ Time Elapsed: _____ Initial _____ ml/m _____ liters
 Final _____ ml/m

Field Parameter Measurements

Time	Gallons Purged	DO (%)	DO (mg/L)	Cond. (uS)	Spec. Cond. (uS)	Salinity (ppt)	Temp. (deg. C)	pH	ORP (mV)	
<u>1:00pm</u>	<u>-</u>	<u>23.5</u>	<u>2.52</u>	<u>254</u>	<u>192</u>	<u>0.12</u>	<u>12.25</u>	<u>7.33</u>	<u>157.8</u>	<u>0.165</u>

Observations During Purging (well Condition, Turbidity, Color, Odor, etc.): CLEAR, NO ODOR

Purge Water Storage/Disposal: Drum(s), Number: _____ Storm Sewer Sanitary Sewer
 Other / Comments: _____

WELL SAMPLING

Sampled By: D. BLUES **Sampling Date:** 4/22/19 **Sampling Time:** 1:00pm

Sampling Method Water Level Before Sampling (in feet BTOC): _____
 Bailer - Type: DISPOSABLE Same as Above
 Submersible Whale Grab - Type: _____
 Other: _____ Other - Type: _____

Sampling Distribution Sample Series: _____

Sample No.	Containers, Vol., #	Preserve	Analysis	Lab	Comments

Other Notes: _____



GROUNDWATER SAMPLING FORM

Site ID: CIRCLE K #6042 NACHES, WA
 Project No.: 202-6042-10
 Recorded By: D. BUSS

Well No.: MW-8 mw-8
 Well Type: Monitor Remedial - VE AS
 Other: _____
 Well Material: PVC St. Steel
 Other: _____

WELL PURGING

Purge Volume **Purge Date:** NA
 Casing Diameter (D) in inches:
 2-inch 4-inch 6-inch Other: _____
 Total Depth of Casing (TD in feet BTOC): _____
 Water Level Depth (WL in feet BTOC): 9.35'
 Number of Well Volumes (# Vols) to be Purged:
 3 4 5 Other: _____

Purge Method
 Bailer - Type: _____
 Submersible Submersible Whale
 Other: NA

Pump Intake Setting
 Near Bottom Near Top Other: _____
 Depth in feet (BTOC): _____
 Screen Interval in Feet (BTOC): from _____ to _____

Purge Volume Calculation:

$$\left(\frac{\text{TD (feet)} - \text{WL (feet)}}{D \text{ (inches)}} \right)^2 \times \text{\# Vols} \times 0.0409 = \text{Calculated Purge Volume (gallons)}$$

Pump Time **Purge Rate** **Actual Purge Volume**
 Start: _____ Stop: _____ Time Elapsed: _____ Initial _____ ml/m _____ liters
 Final _____ ml/m

Field Parameter Measurements

Time	Gallons Purged	DO (%)	DO (mg/L)	Cond. (uS)	Spec. Cond. (uS)	Salinity (ppt)	Temp. (deg. C)	pH	ORP (mV)
<u>12:28 pm</u>	<u>—</u>	<u>28.6</u>	<u>3.04</u>	<u>254</u>	<u>192</u>	<u>0.12</u>	<u>12.40</u>	<u>7.27</u>	<u>155.0</u>

7.165
0.165

Observations During Purging (well Condition, Turbidity, Color, Odor, etc.): _____

Purge Water Storage/Disposal: Drum(s), Number: _____ Storm Sewer Sanitary Sewer
 Other / Comments: _____

WELL SAMPLING

Sampled By: D. BUSS **Sampling Date:** 4/22/19 **Sampling Time:** 12:28 pm

Sampling Method Water Level Before Sampling (in feet BTOC): _____
 Bailer - Type: DISPOSABLE Same as Above
 Submersible Whale Grab - Type: _____
 Other: _____ Other - Type: _____

Sampling Distribution Sample Series: _____

Sample No.	Containers, Vol., #	Preserve	Analysis	Lab	Comments

Other Notes: _____

APPENDIX B

GROUNDWATER LABORATORY ANALYTICAL REPORTS

ANALYTICAL REPORT

Eurofins TestAmerica, Seattle
5755 8th Street East
Tacoma, WA 98424
Tel: (253)922-2310

Laboratory Job ID: 580-85716-1
Client Project/Site: Circle K #6042
Sampling Event: Circle K #6042 Naches

For:
Blaes Environmental Inc.
45 E Monterey Way
Suite 200
Phoenix, Arizona 85012

Attn: Dan Blaes

M. Elaine Walker

Authorized for release by:
5/3/2019 4:48:43 PM

Elaine Walker, Project Manager II
(253)248-4972
elaine.walker@testamericainc.com

LINKS

Review your project
results through
TotalAccess

Have a Question?



Visit us at:
www.testamericainc.com

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.



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Case Narrative

Client: Blaes Environmental Inc.
Project/Site: Circle K #6042

Job ID: 580-85716-1

Job ID: 580-85716-1

Laboratory: Eurofins TestAmerica, Seattle

Narrative

Job Narrative 580-85716-1

Receipt

Five samples were received on 4/24/2019 4:35 PM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 2.6° C.

Receipt Exceptions

The Chain-of-Custody (COC) was incomplete as received and/or improperly completed. The sampling times were omitted. The samples are logged in per container labels.

GC/MS VOA

Method(s) 8260C: Concentrations for the following samples (MW-3 (580-85716-2)) were measured above the upper calibration limit for the following compounds: 1,2,4-Trimethylbenzene, Ethylbenzene, Isopropylbenzene, and N-Propylbenzene. There is no remaining volume for analysis, so these analytes have been reported.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

GC Semi VOA

Method(s) 8011: The laboratory control sample (LCS) and / or laboratory control sample duplicate (LCSD) for preparation batch 580-299394 and analytical batch 580-299693 recovered outside control limits for the following analytes: Ethylene Dibromide. These analytes were biased high in the LCS and were not detected in the associated samples; therefore, the data have been reported.

Method(s) NWTPH-Dx: Detected hydrocarbons appear to be due to gasoline overlap for sample MW-3 (580-85716-2).

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

Metals

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Definitions/Glossary

Client: Blaes Environmental Inc.
Project/Site: Circle K #6042

Job ID: 580-85716-1

Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
E	Result exceeded calibration range.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

GC Semi VOA

Qualifier	Qualifier Description
*	LCS or LCSD is outside acceptance limits.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
α	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

Client Sample Results

Client: Blaes Environmental Inc.
Project/Site: Circle K #6042

Job ID: 580-85716-1

Client Sample ID: MW-1

Lab Sample ID: 580-85716-1

Date Collected: 04/22/19 11:58

Matrix: Water

Date Received: 04/24/19 16:35

Method: 8260C - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		0.30		ug/L			04/26/19 18:11	1
1,1,1-Trichloroethane	ND		0.20		ug/L			04/26/19 18:11	1
1,1,2,2-Tetrachloroethane	ND		0.20		ug/L			04/26/19 18:11	1
1,1,2-Trichloroethane	ND		0.20		ug/L			04/26/19 18:11	1
1,1-Dichloroethane	ND		0.20		ug/L			04/26/19 18:11	1
1,1-Dichloroethene	ND		0.20		ug/L			04/26/19 18:11	1
1,1-Dichloropropene	ND		0.20		ug/L			04/26/19 18:11	1
1,2,3-Trichlorobenzene	ND		0.50		ug/L			04/26/19 18:11	1
1,2,3-Trichloropropane	ND		0.20		ug/L			04/26/19 18:11	1
1,2,4-Trichlorobenzene	ND		0.30		ug/L			04/26/19 18:11	1
1,2,4-Trimethylbenzene	ND		0.30		ug/L			04/26/19 18:11	1
1,2-Dibromo-3-Chloropropane	ND		2.0		ug/L			04/26/19 18:11	1
1,2-Dichlorobenzene	ND		0.30		ug/L			04/26/19 18:11	1
1,2-Dichloropropane	ND		0.20		ug/L			04/26/19 18:11	1
1,3,5-Trimethylbenzene	ND		0.50		ug/L			04/26/19 18:11	1
1,3-Dichlorobenzene	ND		0.30		ug/L			04/26/19 18:11	1
1,3-Dichloropropane	ND		0.20		ug/L			04/26/19 18:11	1
1,4-Dichlorobenzene	ND		0.30		ug/L			04/26/19 18:11	1
2,2-Dichloropropane	ND		0.50		ug/L			04/26/19 18:11	1
2-Chlorotoluene	ND		0.50		ug/L			04/26/19 18:11	1
4-Chlorotoluene	ND		0.30		ug/L			04/26/19 18:11	1
4-Isopropyltoluene	ND		0.30		ug/L			04/26/19 18:11	1
Benzene	ND		0.20		ug/L			04/26/19 18:11	1
Bromobenzene	ND		0.20		ug/L			04/26/19 18:11	1
Bromoform	ND		0.50		ug/L			04/26/19 18:11	1
Bromomethane	ND		0.50		ug/L			04/26/19 18:11	1
Carbon tetrachloride	ND		0.20		ug/L			04/26/19 18:11	1
Chlorobenzene	ND		0.20		ug/L			04/26/19 18:11	1
Chlorobromomethane	ND		0.20		ug/L			04/26/19 18:11	1
Chlorodibromomethane	ND		0.20		ug/L			04/26/19 18:11	1
Chloroethane	ND		0.50		ug/L			04/26/19 18:11	1
Chloroform	ND		0.20		ug/L			04/26/19 18:11	1
Chloromethane	ND		0.50		ug/L			04/26/19 18:11	1
cis-1,2-Dichloroethene	ND		0.20		ug/L			04/26/19 18:11	1
cis-1,3-Dichloropropene	ND		0.20		ug/L			04/26/19 18:11	1
Dibromomethane	ND		0.20		ug/L			04/26/19 18:11	1
Dichlorobromomethane	ND		0.20		ug/L			04/26/19 18:11	1
Dichlorodifluoromethane	ND		0.40		ug/L			04/26/19 18:11	1
EDC	ND		0.20		ug/L			04/26/19 18:11	1
Ethylbenzene	ND		0.20		ug/L			04/26/19 18:11	1
Hexachlorobutadiene	ND		0.50		ug/L			04/26/19 18:11	1
Isopropylbenzene	ND		1.0		ug/L			04/26/19 18:11	1
Methyl tert-butyl ether	ND		0.30		ug/L			04/26/19 18:11	1
Methylene Chloride	ND		5.0		ug/L			04/26/19 18:11	1
m-Xylene & p-Xylene	ND		0.50		ug/L			04/26/19 18:11	1
Naphthalene	ND		1.0		ug/L			04/26/19 18:11	1
n-Butylbenzene	ND		0.50		ug/L			04/26/19 18:11	1
N-Propylbenzene	ND		0.30		ug/L			04/26/19 18:11	1
o-Xylene	ND		0.50		ug/L			04/26/19 18:11	1

Eurofins TestAmerica, Seattle

Client Sample Results

Client: Blaes Environmental Inc.
Project/Site: Circle K #6042

Job ID: 580-85716-1

Client Sample ID: MW-1

Lab Sample ID: 580-85716-1

Date Collected: 04/22/19 11:58

Matrix: Water

Date Received: 04/24/19 16:35

Method: 8260C - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
sec-Butylbenzene	ND		1.0		ug/L			04/26/19 18:11	1
Styrene	ND		0.50		ug/L			04/26/19 18:11	1
tert-Butylbenzene	ND		0.50		ug/L			04/26/19 18:11	1
Tetrachloroethene	ND		0.50		ug/L			04/26/19 18:11	1
Toluene	ND		0.20		ug/L			04/26/19 18:11	1
trans-1,2-Dichloroethene	ND		0.20		ug/L			04/26/19 18:11	1
trans-1,3-Dichloropropene	ND		0.20		ug/L			04/26/19 18:11	1
Trichloroethene	ND		0.20		ug/L			04/26/19 18:11	1
Trichlorofluoromethane	ND		0.50		ug/L			04/26/19 18:11	1
Vinyl chloride	ND		0.020		ug/L			04/26/19 18:11	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	104		80 - 120					04/26/19 18:11	1
4-Bromofluorobenzene (Surr)	102		80 - 120					04/26/19 18:11	1
Dibromofluoromethane (Surr)	97		80 - 120					04/26/19 18:11	1
Toluene-d8 (Surr)	102		75 - 125					04/26/19 18:11	1
Trifluorotoluene (Surr)	97		80 - 120					04/26/19 18:11	1

Method: NWTPH-Gx - Northwest - Volatile Petroleum Products (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline	ND		0.25		mg/L			04/30/19 02:11	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	71		50 - 150					04/30/19 02:11	1
Trifluorotoluene (Surr)	119		50 - 150					04/30/19 02:11	1

Method: 8011 - EDB and DBCP in Water by Microextraction

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethylene Dibromide	ND	*	0.0099		ug/L		04/25/19 14:20	04/30/19 16:21	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dibromopropane	84		60 - 140				04/25/19 14:20	04/30/19 16:21	1

Method: NWTPH-Dx - Northwest - Semi-Volatile Petroleum Products (GC) - Silica Gel Cleanup

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics (DRO) (C10-C25)	ND		0.24		mg/L		04/30/19 09:48	04/30/19 15:01	1
Residual Range Organics (RRO) (C25-C36)	ND		0.40		mg/L		04/30/19 09:48	04/30/19 15:01	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
o-Terphenyl	106		50 - 150				04/30/19 09:48	04/30/19 15:01	1
n-Triacontane-d62	95		50 - 150				04/30/19 09:48	04/30/19 15:01	1

Method: 6020A - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	7.7		5.0		ug/L		04/26/19 14:30	04/30/19 09:44	5
Lead	11		4.0		ug/L		04/26/19 14:30	04/30/19 09:44	5

Client Sample Results

Client: Blaes Environmental Inc.
Project/Site: Circle K #6042

Job ID: 580-85716-1

Client Sample ID: MW-3
Date Collected: 04/22/19 13:24
Date Received: 04/24/19 16:35

Lab Sample ID: 580-85716-2
Matrix: Water

Method: 8260C - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		0.30		ug/L			04/26/19 18:37	1
1,1,1-Trichloroethane	ND		0.20		ug/L			04/26/19 18:37	1
1,1,2,2-Tetrachloroethane	ND		0.20		ug/L			04/26/19 18:37	1
1,1,2-Trichloroethane	ND		0.20		ug/L			04/26/19 18:37	1
1,1-Dichloroethane	ND		0.20		ug/L			04/26/19 18:37	1
1,1-Dichloroethene	ND		0.20		ug/L			04/26/19 18:37	1
1,1-Dichloropropene	ND		0.20		ug/L			04/26/19 18:37	1
1,2,3-Trichlorobenzene	ND		0.50		ug/L			04/26/19 18:37	1
1,2,3-Trichloropropane	ND		0.20		ug/L			04/26/19 18:37	1
1,2,4-Trichlorobenzene	ND		0.30		ug/L			04/26/19 18:37	1
1,2,4-Trimethylbenzene	57	E	0.30		ug/L			04/26/19 18:37	1
1,2-Dibromo-3-Chloropropane	ND		2.0		ug/L			04/26/19 18:37	1
1,2-Dichlorobenzene	ND		0.30		ug/L			04/26/19 18:37	1
1,2-Dichloropropane	ND		0.20		ug/L			04/26/19 18:37	1
1,3,5-Trimethylbenzene	5.7		0.50		ug/L			04/26/19 18:37	1
1,3-Dichlorobenzene	ND		0.30		ug/L			04/26/19 18:37	1
1,3-Dichloropropane	ND		0.20		ug/L			04/26/19 18:37	1
1,4-Dichlorobenzene	ND		0.30		ug/L			04/26/19 18:37	1
2,2-Dichloropropane	ND		0.50		ug/L			04/26/19 18:37	1
2-Chlorotoluene	ND		0.50		ug/L			04/26/19 18:37	1
4-Chlorotoluene	ND		0.30		ug/L			04/26/19 18:37	1
4-Isopropyltoluene	4.0		0.30		ug/L			04/26/19 18:37	1
Benzene	2.6		0.20		ug/L			04/26/19 18:37	1
Bromobenzene	ND		0.20		ug/L			04/26/19 18:37	1
Bromoform	ND		0.50		ug/L			04/26/19 18:37	1
Bromomethane	ND		0.50		ug/L			04/26/19 18:37	1
Carbon tetrachloride	ND		0.20		ug/L			04/26/19 18:37	1
Chlorobenzene	ND		0.20		ug/L			04/26/19 18:37	1
Chlorobromomethane	ND		0.20		ug/L			04/26/19 18:37	1
Chlorodibromomethane	ND		0.20		ug/L			04/26/19 18:37	1
Chloroethane	ND		0.50		ug/L			04/26/19 18:37	1
Chloroform	ND		0.20		ug/L			04/26/19 18:37	1
Chloromethane	ND		0.50		ug/L			04/26/19 18:37	1
cis-1,2-Dichloroethene	ND		0.20		ug/L			04/26/19 18:37	1
cis-1,3-Dichloropropene	ND		0.20		ug/L			04/26/19 18:37	1
Dibromomethane	ND		0.20		ug/L			04/26/19 18:37	1
Dichlorobromomethane	ND		0.20		ug/L			04/26/19 18:37	1
Dichlorodifluoromethane	ND		0.40		ug/L			04/26/19 18:37	1
EDC	ND		0.20		ug/L			04/26/19 18:37	1
Ethylbenzene	61	E	0.20		ug/L			04/26/19 18:37	1
Hexachlorobutadiene	ND		0.50		ug/L			04/26/19 18:37	1
Isopropylbenzene	32	E	1.0		ug/L			04/26/19 18:37	1
Methyl tert-butyl ether	ND		0.30		ug/L			04/26/19 18:37	1
Methylene Chloride	ND		5.0		ug/L			04/26/19 18:37	1
m-Xylene & p-Xylene	3.0		0.50		ug/L			04/26/19 18:37	1
Naphthalene	1.4		1.0		ug/L			04/26/19 18:37	1
n-Butylbenzene	50		0.50		ug/L			04/26/19 18:37	1
N-Propylbenzene	39	E	0.30		ug/L			04/26/19 18:37	1
o-Xylene	2.6		0.50		ug/L			04/26/19 18:37	1

Eurofins TestAmerica, Seattle

Client Sample Results

Client: Blaes Environmental Inc.
Project/Site: Circle K #6042

Job ID: 580-85716-1

Client Sample ID: MW-3
Date Collected: 04/22/19 13:24
Date Received: 04/24/19 16:35

Lab Sample ID: 580-85716-2
Matrix: Water

Method: 8260C - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
sec-Butylbenzene	12		1.0		ug/L			04/26/19 18:37	1
Styrene	ND		0.50		ug/L			04/26/19 18:37	1
tert-Butylbenzene	ND		0.50		ug/L			04/26/19 18:37	1
Tetrachloroethene	ND		0.50		ug/L			04/26/19 18:37	1
Toluene	ND		0.20		ug/L			04/26/19 18:37	1
trans-1,2-Dichloroethene	ND		0.20		ug/L			04/26/19 18:37	1
trans-1,3-Dichloropropene	ND		0.20		ug/L			04/26/19 18:37	1
Trichloroethene	ND		0.20		ug/L			04/26/19 18:37	1
Trichlorofluoromethane	ND		0.50		ug/L			04/26/19 18:37	1
Vinyl chloride	ND		0.020		ug/L			04/26/19 18:37	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	107		80 - 120					04/26/19 18:37	1
4-Bromofluorobenzene (Surr)	100		80 - 120					04/26/19 18:37	1
Dibromofluoromethane (Surr)	101		80 - 120					04/26/19 18:37	1
Toluene-d8 (Surr)	98		75 - 125					04/26/19 18:37	1
Trifluorotoluene (Surr)	93		80 - 120					04/26/19 18:37	1

Method: NWTPH-Gx - Northwest - Volatile Petroleum Products (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline	3.5		0.25		mg/L			04/30/19 02:38	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	147		50 - 150					04/30/19 02:38	1
Trifluorotoluene (Surr)	116		50 - 150					04/30/19 02:38	1

Method: 8011 - EDB and DBCP in Water by Microextraction

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethylene Dibromide	ND	*	0.010		ug/L		04/25/19 14:20	04/30/19 16:37	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dibromopropane	96		60 - 140				04/25/19 14:20	04/30/19 16:37	1

Method: NWTPH-Dx - Northwest - Semi-Volatile Petroleum Products (GC) - Silica Gel Cleanup

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics (DRO) (C10-C25)	1.0		0.24		mg/L		04/30/19 09:48	04/30/19 15:21	1
Residual Range Organics (RRO) (C25-C36)	ND		0.40		mg/L		04/30/19 09:48	04/30/19 15:21	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
o-Terphenyl	102		50 - 150				04/30/19 09:48	04/30/19 15:21	1
n-Triacontane-d62	87		50 - 150				04/30/19 09:48	04/30/19 15:21	1

Method: 6020A - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	6.0		5.0		ug/L		04/26/19 14:30	04/30/19 09:48	5
Lead	4.4		4.0		ug/L		04/26/19 14:30	04/30/19 09:48	5

Client Sample Results

Client: Blaes Environmental Inc.
Project/Site: Circle K #6042

Job ID: 580-85716-1

Client Sample ID: MW-4
Date Collected: 04/22/19 12:42
Date Received: 04/24/19 16:35

Lab Sample ID: 580-85716-3
Matrix: Water

Method: 8260C - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		0.30		ug/L			04/26/19 19:04	1
1,1,1-Trichloroethane	ND		0.20		ug/L			04/26/19 19:04	1
1,1,2,2-Tetrachloroethane	ND		0.20		ug/L			04/26/19 19:04	1
1,1,2-Trichloroethane	ND		0.20		ug/L			04/26/19 19:04	1
1,1-Dichloroethane	ND		0.20		ug/L			04/26/19 19:04	1
1,1-Dichloroethene	ND		0.20		ug/L			04/26/19 19:04	1
1,1-Dichloropropene	ND		0.20		ug/L			04/26/19 19:04	1
1,2,3-Trichlorobenzene	ND		0.50		ug/L			04/26/19 19:04	1
1,2,3-Trichloropropane	ND		0.20		ug/L			04/26/19 19:04	1
1,2,4-Trichlorobenzene	ND		0.30		ug/L			04/26/19 19:04	1
1,2,4-Trimethylbenzene	ND		0.30		ug/L			04/26/19 19:04	1
1,2-Dibromo-3-Chloropropane	ND		2.0		ug/L			04/26/19 19:04	1
1,2-Dichlorobenzene	ND		0.30		ug/L			04/26/19 19:04	1
1,2-Dichloropropane	ND		0.20		ug/L			04/26/19 19:04	1
1,3,5-Trimethylbenzene	ND		0.50		ug/L			04/26/19 19:04	1
1,3-Dichlorobenzene	ND		0.30		ug/L			04/26/19 19:04	1
1,3-Dichloropropane	ND		0.20		ug/L			04/26/19 19:04	1
1,4-Dichlorobenzene	ND		0.30		ug/L			04/26/19 19:04	1
2,2-Dichloropropane	ND		0.50		ug/L			04/26/19 19:04	1
2-Chlorotoluene	ND		0.50		ug/L			04/26/19 19:04	1
4-Chlorotoluene	ND		0.30		ug/L			04/26/19 19:04	1
4-Isopropyltoluene	ND		0.30		ug/L			04/26/19 19:04	1
Benzene	ND		0.20		ug/L			04/26/19 19:04	1
Bromobenzene	ND		0.20		ug/L			04/26/19 19:04	1
Bromoform	ND		0.50		ug/L			04/26/19 19:04	1
Bromomethane	ND		0.50		ug/L			04/26/19 19:04	1
Carbon tetrachloride	ND		0.20		ug/L			04/26/19 19:04	1
Chlorobenzene	ND		0.20		ug/L			04/26/19 19:04	1
Chlorobromomethane	ND		0.20		ug/L			04/26/19 19:04	1
Chlorodibromomethane	ND		0.20		ug/L			04/26/19 19:04	1
Chloroethane	ND		0.50		ug/L			04/26/19 19:04	1
Chloroform	ND		0.20		ug/L			04/26/19 19:04	1
Chloromethane	ND		0.50		ug/L			04/26/19 19:04	1
cis-1,2-Dichloroethene	ND		0.20		ug/L			04/26/19 19:04	1
cis-1,3-Dichloropropane	ND		0.20		ug/L			04/26/19 19:04	1
Dibromomethane	ND		0.20		ug/L			04/26/19 19:04	1
Dichlorobromomethane	ND		0.20		ug/L			04/26/19 19:04	1
Dichlorodifluoromethane	ND		0.40		ug/L			04/26/19 19:04	1
EDC	ND		0.20		ug/L			04/26/19 19:04	1
Ethylbenzene	ND		0.20		ug/L			04/26/19 19:04	1
Hexachlorobutadiene	ND		0.50		ug/L			04/26/19 19:04	1
Isopropylbenzene	ND		1.0		ug/L			04/26/19 19:04	1
Methyl tert-butyl ether	ND		0.30		ug/L			04/26/19 19:04	1
Methylene Chloride	ND		5.0		ug/L			04/26/19 19:04	1
m-Xylene & p-Xylene	ND		0.50		ug/L			04/26/19 19:04	1
Naphthalene	ND		1.0		ug/L			04/26/19 19:04	1
n-Butylbenzene	ND		0.50		ug/L			04/26/19 19:04	1
N-Propylbenzene	ND		0.30		ug/L			04/26/19 19:04	1
o-Xylene	ND		0.50		ug/L			04/26/19 19:04	1

Eurofins TestAmerica, Seattle

Client Sample Results

Client: Blaes Environmental Inc.
Project/Site: Circle K #6042

Job ID: 580-85716-1

Client Sample ID: MW-4
Date Collected: 04/22/19 12:42
Date Received: 04/24/19 16:35

Lab Sample ID: 580-85716-3
Matrix: Water

Method: 8260C - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
sec-Butylbenzene	ND		1.0		ug/L			04/26/19 19:04	1
Styrene	ND		0.50		ug/L			04/26/19 19:04	1
tert-Butylbenzene	ND		0.50		ug/L			04/26/19 19:04	1
Tetrachloroethene	ND		0.50		ug/L			04/26/19 19:04	1
Toluene	ND		0.20		ug/L			04/26/19 19:04	1
trans-1,2-Dichloroethene	ND		0.20		ug/L			04/26/19 19:04	1
trans-1,3-Dichloropropene	ND		0.20		ug/L			04/26/19 19:04	1
Trichloroethene	ND		0.20		ug/L			04/26/19 19:04	1
Trichlorofluoromethane	ND		0.50		ug/L			04/26/19 19:04	1
Vinyl chloride	ND		0.020		ug/L			04/26/19 19:04	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	103		80 - 120					04/26/19 19:04	1
4-Bromofluorobenzene (Surr)	105		80 - 120					04/26/19 19:04	1
Dibromofluoromethane (Surr)	98		80 - 120					04/26/19 19:04	1
Toluene-d8 (Surr)	102		75 - 125					04/26/19 19:04	1
Trifluorotoluene (Surr)	93		80 - 120					04/26/19 19:04	1

Method: NWTPH-Gx - Northwest - Volatile Petroleum Products (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline	ND		0.25		mg/L			04/30/19 03:06	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	74		50 - 150					04/30/19 03:06	1
Trifluorotoluene (Surr)	129		50 - 150					04/30/19 03:06	1

Method: 8011 - EDB and DBCP in Water by Microextraction

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethylene Dibromide	ND	*	0.010		ug/L		04/25/19 14:20	04/30/19 16:53	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dibromopropane	98		60 - 140				04/25/19 14:20	04/30/19 16:53	1

Method: NWTPH-Dx - Northwest - Semi-Volatile Petroleum Products (GC) - Silica Gel Cleanup

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics (DRO) (C10-C25)	ND		0.25		mg/L		04/30/19 09:48	04/30/19 15:40	1
Residual Range Organics (RRO) (C25-C36)	ND		0.42		mg/L		04/30/19 09:48	04/30/19 15:40	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
o-Terphenyl	104		50 - 150				04/30/19 09:48	04/30/19 15:40	1
n-Triacontane-d62	88		50 - 150				04/30/19 09:48	04/30/19 15:40	1

Method: 6020A - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	ND		5.0		ug/L		04/26/19 14:30	04/30/19 09:05	5
Lead	ND		4.0		ug/L		04/26/19 14:30	04/30/19 09:05	5

Client Sample Results

Client: Blaes Environmental Inc.
Project/Site: Circle K #6042

Job ID: 580-85716-1

Client Sample ID: MW-6
Date Collected: 04/22/19 13:00
Date Received: 04/24/19 16:35

Lab Sample ID: 580-85716-4
Matrix: Water

Method: 8260C - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		0.30		ug/L			04/26/19 19:30	1
1,1,1-Trichloroethane	ND		0.20		ug/L			04/26/19 19:30	1
1,1,2,2-Tetrachloroethane	ND		0.20		ug/L			04/26/19 19:30	1
1,1,2-Trichloroethane	ND		0.20		ug/L			04/26/19 19:30	1
1,1-Dichloroethane	ND		0.20		ug/L			04/26/19 19:30	1
1,1-Dichloroethene	ND		0.20		ug/L			04/26/19 19:30	1
1,1-Dichloropropene	ND		0.20		ug/L			04/26/19 19:30	1
1,2,3-Trichlorobenzene	ND		0.50		ug/L			04/26/19 19:30	1
1,2,3-Trichloropropane	ND		0.20		ug/L			04/26/19 19:30	1
1,2,4-Trichlorobenzene	ND		0.30		ug/L			04/26/19 19:30	1
1,2,4-Trimethylbenzene	ND		0.30		ug/L			04/26/19 19:30	1
1,2-Dibromo-3-Chloropropane	ND		2.0		ug/L			04/26/19 19:30	1
1,2-Dichlorobenzene	ND		0.30		ug/L			04/26/19 19:30	1
1,2-Dichloropropane	ND		0.20		ug/L			04/26/19 19:30	1
1,3,5-Trimethylbenzene	ND		0.50		ug/L			04/26/19 19:30	1
1,3-Dichlorobenzene	ND		0.30		ug/L			04/26/19 19:30	1
1,3-Dichloropropane	ND		0.20		ug/L			04/26/19 19:30	1
1,4-Dichlorobenzene	ND		0.30		ug/L			04/26/19 19:30	1
2,2-Dichloropropane	ND		0.50		ug/L			04/26/19 19:30	1
2-Chlorotoluene	ND		0.50		ug/L			04/26/19 19:30	1
4-Chlorotoluene	ND		0.30		ug/L			04/26/19 19:30	1
4-Isopropyltoluene	ND		0.30		ug/L			04/26/19 19:30	1
Benzene	ND		0.20		ug/L			04/26/19 19:30	1
Bromobenzene	ND		0.20		ug/L			04/26/19 19:30	1
Bromoform	ND		0.50		ug/L			04/26/19 19:30	1
Bromomethane	ND		0.50		ug/L			04/26/19 19:30	1
Carbon tetrachloride	ND		0.20		ug/L			04/26/19 19:30	1
Chlorobenzene	ND		0.20		ug/L			04/26/19 19:30	1
Chlorobromomethane	ND		0.20		ug/L			04/26/19 19:30	1
Chlorodibromomethane	ND		0.20		ug/L			04/26/19 19:30	1
Chloroethane	ND		0.50		ug/L			04/26/19 19:30	1
Chloroform	ND		0.20		ug/L			04/26/19 19:30	1
Chloromethane	ND		0.50		ug/L			04/26/19 19:30	1
cis-1,2-Dichloroethene	ND		0.20		ug/L			04/26/19 19:30	1
cis-1,3-Dichloropropane	ND		0.20		ug/L			04/26/19 19:30	1
Dibromomethane	ND		0.20		ug/L			04/26/19 19:30	1
Dichlorobromomethane	ND		0.20		ug/L			04/26/19 19:30	1
Dichlorodifluoromethane	ND		0.40		ug/L			04/26/19 19:30	1
EDC	ND		0.20		ug/L			04/26/19 19:30	1
Ethylbenzene	ND		0.20		ug/L			04/26/19 19:30	1
Hexachlorobutadiene	ND		0.50		ug/L			04/26/19 19:30	1
Isopropylbenzene	ND		1.0		ug/L			04/26/19 19:30	1
Methyl tert-butyl ether	ND		0.30		ug/L			04/26/19 19:30	1
Methylene Chloride	ND		5.0		ug/L			04/26/19 19:30	1
m-Xylene & p-Xylene	ND		0.50		ug/L			04/26/19 19:30	1
Naphthalene	ND		1.0		ug/L			04/26/19 19:30	1
n-Butylbenzene	ND		0.50		ug/L			04/26/19 19:30	1
N-Propylbenzene	ND		0.30		ug/L			04/26/19 19:30	1
o-Xylene	ND		0.50		ug/L			04/26/19 19:30	1

Eurofins TestAmerica, Seattle

Client Sample Results

Client: Blaes Environmental Inc.
Project/Site: Circle K #6042

Job ID: 580-85716-1

Client Sample ID: MW-6
Date Collected: 04/22/19 13:00
Date Received: 04/24/19 16:35

Lab Sample ID: 580-85716-4
Matrix: Water

Method: 8260C - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
sec-Butylbenzene	ND		1.0		ug/L			04/26/19 19:30	1
Styrene	ND		0.50		ug/L			04/26/19 19:30	1
tert-Butylbenzene	ND		0.50		ug/L			04/26/19 19:30	1
Tetrachloroethene	ND		0.50		ug/L			04/26/19 19:30	1
Toluene	ND		0.20		ug/L			04/26/19 19:30	1
trans-1,2-Dichloroethene	ND		0.20		ug/L			04/26/19 19:30	1
trans-1,3-Dichloropropene	ND		0.20		ug/L			04/26/19 19:30	1
Trichloroethene	ND		0.20		ug/L			04/26/19 19:30	1
Trichlorofluoromethane	ND		0.50		ug/L			04/26/19 19:30	1
Vinyl chloride	ND		0.020		ug/L			04/26/19 19:30	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	106		80 - 120					04/26/19 19:30	1
4-Bromofluorobenzene (Surr)	104		80 - 120					04/26/19 19:30	1
Dibromofluoromethane (Surr)	97		80 - 120					04/26/19 19:30	1
Toluene-d8 (Surr)	101		75 - 125					04/26/19 19:30	1
Trifluorotoluene (Surr)	93		80 - 120					04/26/19 19:30	1

Method: NWTPH-Gx - Northwest - Volatile Petroleum Products (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline	ND		0.25		mg/L			04/30/19 22:50	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	99		50 - 150					04/30/19 22:50	1
Trifluorotoluene (Surr)	113		50 - 150					04/30/19 22:50	1

Method: 8011 - EDB and DBCP in Water by Microextraction

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethylene Dibromide	ND	*	0.0098		ug/L		04/25/19 14:20	04/30/19 17:10	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dibromopropane	92		60 - 140				04/25/19 14:20	04/30/19 17:10	1

Method: NWTPH-Dx - Northwest - Semi-Volatile Petroleum Products (GC) - Silica Gel Cleanup

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics (DRO) (C10-C25)	ND		0.24		mg/L		04/30/19 09:48	04/30/19 16:00	1
Residual Range Organics (RRO) (C25-C36)	ND		0.40		mg/L		04/30/19 09:48	04/30/19 16:00	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
o-Terphenyl	109		50 - 150				04/30/19 09:48	04/30/19 16:00	1
n-Triacontane-d62	99		50 - 150				04/30/19 09:48	04/30/19 16:00	1

Method: 6020A - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	ND		5.0		ug/L		04/26/19 14:30	04/30/19 09:52	5
Lead	7.8		4.0		ug/L		04/26/19 14:30	04/30/19 09:52	5

Client Sample Results

Client: Blaes Environmental Inc.
Project/Site: Circle K #6042

Job ID: 580-85716-1

Client Sample ID: MW-8
Date Collected: 04/22/19 12:28
Date Received: 04/24/19 16:35

Lab Sample ID: 580-85716-5
Matrix: Water

Method: 8260C - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		0.30		ug/L			04/26/19 19:57	1
1,1,1-Trichloroethane	ND		0.20		ug/L			04/26/19 19:57	1
1,1,2,2-Tetrachloroethane	ND		0.20		ug/L			04/26/19 19:57	1
1,1,2-Trichloroethane	ND		0.20		ug/L			04/26/19 19:57	1
1,1-Dichloroethane	ND		0.20		ug/L			04/26/19 19:57	1
1,1-Dichloroethene	ND		0.20		ug/L			04/26/19 19:57	1
1,1-Dichloropropene	ND		0.20		ug/L			04/26/19 19:57	1
1,2,3-Trichlorobenzene	ND		0.50		ug/L			04/26/19 19:57	1
1,2,3-Trichloropropane	ND		0.20		ug/L			04/26/19 19:57	1
1,2,4-Trichlorobenzene	ND		0.30		ug/L			04/26/19 19:57	1
1,2,4-Trimethylbenzene	ND		0.30		ug/L			04/26/19 19:57	1
1,2-Dibromo-3-Chloropropane	ND		2.0		ug/L			04/26/19 19:57	1
1,2-Dichlorobenzene	ND		0.30		ug/L			04/26/19 19:57	1
1,2-Dichloropropane	ND		0.20		ug/L			04/26/19 19:57	1
1,3,5-Trimethylbenzene	ND		0.50		ug/L			04/26/19 19:57	1
1,3-Dichlorobenzene	ND		0.30		ug/L			04/26/19 19:57	1
1,3-Dichloropropane	ND		0.20		ug/L			04/26/19 19:57	1
1,4-Dichlorobenzene	ND		0.30		ug/L			04/26/19 19:57	1
2,2-Dichloropropane	ND		0.50		ug/L			04/26/19 19:57	1
2-Chlorotoluene	ND		0.50		ug/L			04/26/19 19:57	1
4-Chlorotoluene	ND		0.30		ug/L			04/26/19 19:57	1
4-Isopropyltoluene	ND		0.30		ug/L			04/26/19 19:57	1
Benzene	ND		0.20		ug/L			04/26/19 19:57	1
Bromobenzene	ND		0.20		ug/L			04/26/19 19:57	1
Bromoform	ND		0.50		ug/L			04/26/19 19:57	1
Bromomethane	ND		0.50		ug/L			04/26/19 19:57	1
Carbon tetrachloride	ND		0.20		ug/L			04/26/19 19:57	1
Chlorobenzene	ND		0.20		ug/L			04/26/19 19:57	1
Chlorobromomethane	ND		0.20		ug/L			04/26/19 19:57	1
Chlorodibromomethane	ND		0.20		ug/L			04/26/19 19:57	1
Chloroethane	ND		0.50		ug/L			04/26/19 19:57	1
Chloroform	ND		0.20		ug/L			04/26/19 19:57	1
Chloromethane	ND		0.50		ug/L			04/26/19 19:57	1
cis-1,2-Dichloroethene	ND		0.20		ug/L			04/26/19 19:57	1
cis-1,3-Dichloropropene	ND		0.20		ug/L			04/26/19 19:57	1
Dibromomethane	ND		0.20		ug/L			04/26/19 19:57	1
Dichlorobromomethane	ND		0.20		ug/L			04/26/19 19:57	1
Dichlorodifluoromethane	ND		0.40		ug/L			04/26/19 19:57	1
EDC	ND		0.20		ug/L			04/26/19 19:57	1
Ethylbenzene	ND		0.20		ug/L			04/26/19 19:57	1
Hexachlorobutadiene	ND		0.50		ug/L			04/26/19 19:57	1
Isopropylbenzene	ND		1.0		ug/L			04/26/19 19:57	1
Methyl tert-butyl ether	ND		0.30		ug/L			04/26/19 19:57	1
Methylene Chloride	ND		5.0		ug/L			04/26/19 19:57	1
m-Xylene & p-Xylene	ND		0.50		ug/L			04/26/19 19:57	1
Naphthalene	ND		1.0		ug/L			04/26/19 19:57	1
n-Butylbenzene	ND		0.50		ug/L			04/26/19 19:57	1
N-Propylbenzene	ND		0.30		ug/L			04/26/19 19:57	1
o-Xylene	ND		0.50		ug/L			04/26/19 19:57	1

Eurofins TestAmerica, Seattle

Client Sample Results

Client: Blaes Environmental Inc.
Project/Site: Circle K #6042

Job ID: 580-85716-1

Client Sample ID: MW-8
Date Collected: 04/22/19 12:28
Date Received: 04/24/19 16:35

Lab Sample ID: 580-85716-5
Matrix: Water

Method: 8260C - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
sec-Butylbenzene	ND		1.0		ug/L			04/26/19 19:57	1
Styrene	ND		0.50		ug/L			04/26/19 19:57	1
tert-Butylbenzene	ND		0.50		ug/L			04/26/19 19:57	1
Tetrachloroethene	ND		0.50		ug/L			04/26/19 19:57	1
Toluene	ND		0.20		ug/L			04/26/19 19:57	1
trans-1,2-Dichloroethene	ND		0.20		ug/L			04/26/19 19:57	1
trans-1,3-Dichloropropene	ND		0.20		ug/L			04/26/19 19:57	1
Trichloroethene	ND		0.20		ug/L			04/26/19 19:57	1
Trichlorofluoromethane	ND		0.50		ug/L			04/26/19 19:57	1
Vinyl chloride	ND		0.020		ug/L			04/26/19 19:57	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	105		80 - 120					04/26/19 19:57	1
4-Bromofluorobenzene (Surr)	104		80 - 120					04/26/19 19:57	1
Dibromofluoromethane (Surr)	98		80 - 120					04/26/19 19:57	1
Toluene-d8 (Surr)	101		75 - 125					04/26/19 19:57	1
Trifluorotoluene (Surr)	94		80 - 120					04/26/19 19:57	1

Method: NWTPH-Gx - Northwest - Volatile Petroleum Products (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline	ND		0.25		mg/L			04/30/19 03:59	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	73		50 - 150					04/30/19 03:59	1
Trifluorotoluene (Surr)	127		50 - 150					04/30/19 03:59	1

Method: 8011 - EDB and DBCP in Water by Microextraction

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethylene Dibromide	ND	*	0.010		ug/L		04/25/19 14:20	04/30/19 17:26	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dibromopropane	96		60 - 140				04/25/19 14:20	04/30/19 17:26	1

Method: NWTPH-Dx - Northwest - Semi-Volatile Petroleum Products (GC) - Silica Gel Cleanup

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics (DRO) (C10-C25)	ND		0.24		mg/L		04/30/19 09:48	04/30/19 16:19	1
Residual Range Organics (RRO) (C25-C36)	ND		0.41		mg/L		04/30/19 09:48	04/30/19 16:19	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
o-Terphenyl	104		50 - 150				04/30/19 09:48	04/30/19 16:19	1
n-Triacontane-d62	92		50 - 150				04/30/19 09:48	04/30/19 16:19	1

Method: 6020A - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	14		5.0		ug/L		04/26/19 14:30	04/30/19 09:57	5
Lead	21		4.0		ug/L		04/26/19 14:30	04/30/19 09:57	5

Eurofins TestAmerica, Seattle

QC Sample Results

Client: Blaes Environmental Inc.
Project/Site: Circle K #6042

Job ID: 580-85716-1

Method: 8260C - Volatile Organic Compounds (GC/MS)

Lab Sample ID: MB 580-299452/7
Matrix: Water
Analysis Batch: 299452

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		0.30		ug/L			04/26/19 14:13	1
1,1,1-Trichloroethane	ND		0.20		ug/L			04/26/19 14:13	1
1,1,2,2-Tetrachloroethane	ND		0.20		ug/L			04/26/19 14:13	1
1,1,2-Trichloroethane	ND		0.20		ug/L			04/26/19 14:13	1
1,1-Dichloroethane	ND		0.20		ug/L			04/26/19 14:13	1
1,1-Dichloroethene	ND		0.20		ug/L			04/26/19 14:13	1
1,1-Dichloropropene	ND		0.20		ug/L			04/26/19 14:13	1
1,2,3-Trichlorobenzene	ND		0.50		ug/L			04/26/19 14:13	1
1,2,3-Trichloropropane	ND		0.20		ug/L			04/26/19 14:13	1
1,2,4-Trichlorobenzene	ND		0.30		ug/L			04/26/19 14:13	1
1,2,4-Trimethylbenzene	ND		0.30		ug/L			04/26/19 14:13	1
1,2-Dibromo-3-Chloropropane	ND		2.0		ug/L			04/26/19 14:13	1
1,2-Dichlorobenzene	ND		0.30		ug/L			04/26/19 14:13	1
1,2-Dichloropropane	ND		0.20		ug/L			04/26/19 14:13	1
1,3,5-Trimethylbenzene	ND		0.50		ug/L			04/26/19 14:13	1
1,3-Dichlorobenzene	ND		0.30		ug/L			04/26/19 14:13	1
1,3-Dichloropropane	ND		0.20		ug/L			04/26/19 14:13	1
1,4-Dichlorobenzene	ND		0.30		ug/L			04/26/19 14:13	1
2,2-Dichloropropane	ND		0.50		ug/L			04/26/19 14:13	1
2-Chlorotoluene	ND		0.50		ug/L			04/26/19 14:13	1
4-Chlorotoluene	ND		0.30		ug/L			04/26/19 14:13	1
4-Isopropyltoluene	ND		0.30		ug/L			04/26/19 14:13	1
Benzene	ND		0.20		ug/L			04/26/19 14:13	1
Bromobenzene	ND		0.20		ug/L			04/26/19 14:13	1
Bromoform	ND		0.50		ug/L			04/26/19 14:13	1
Bromomethane	ND		0.50		ug/L			04/26/19 14:13	1
Carbon tetrachloride	ND		0.20		ug/L			04/26/19 14:13	1
Chlorobenzene	ND		0.20		ug/L			04/26/19 14:13	1
Chlorobromomethane	ND		0.20		ug/L			04/26/19 14:13	1
Chlorodibromomethane	ND		0.20		ug/L			04/26/19 14:13	1
Chloroethane	ND		0.50		ug/L			04/26/19 14:13	1
Chloroform	ND		0.20		ug/L			04/26/19 14:13	1
Chloromethane	ND		0.50		ug/L			04/26/19 14:13	1
cis-1,2-Dichloroethene	ND		0.20		ug/L			04/26/19 14:13	1
cis-1,3-Dichloropropene	ND		0.20		ug/L			04/26/19 14:13	1
Dibromomethane	ND		0.20		ug/L			04/26/19 14:13	1
Dichlorobromomethane	ND		0.20		ug/L			04/26/19 14:13	1
Dichlorodifluoromethane	ND		0.40		ug/L			04/26/19 14:13	1
EDC	ND		0.20		ug/L			04/26/19 14:13	1
Ethylbenzene	ND		0.20		ug/L			04/26/19 14:13	1
Hexachlorobutadiene	ND		0.50		ug/L			04/26/19 14:13	1
Isopropylbenzene	ND		1.0		ug/L			04/26/19 14:13	1
Methyl tert-butyl ether	ND		0.30		ug/L			04/26/19 14:13	1
Methylene Chloride	ND		5.0		ug/L			04/26/19 14:13	1
m-Xylene & p-Xylene	ND		0.50		ug/L			04/26/19 14:13	1
Naphthalene	ND		1.0		ug/L			04/26/19 14:13	1
n-Butylbenzene	ND		0.50		ug/L			04/26/19 14:13	1
N-Propylbenzene	ND		0.30		ug/L			04/26/19 14:13	1

Eurofins TestAmerica, Seattle

QC Sample Results

Client: Blaes Environmental Inc.
Project/Site: Circle K #6042

Job ID: 580-85716-1

Method: 8260C - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 580-299452/7
Matrix: Water
Analysis Batch: 299452

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
o-Xylene	ND		0.50		ug/L			04/26/19 14:13	1
sec-Butylbenzene	ND		1.0		ug/L			04/26/19 14:13	1
Styrene	ND		0.50		ug/L			04/26/19 14:13	1
tert-Butylbenzene	ND		0.50		ug/L			04/26/19 14:13	1
Tetrachloroethene	ND		0.50		ug/L			04/26/19 14:13	1
Toluene	ND		0.20		ug/L			04/26/19 14:13	1
trans-1,2-Dichloroethene	ND		0.20		ug/L			04/26/19 14:13	1
trans-1,3-Dichloropropene	ND		0.20		ug/L			04/26/19 14:13	1
Trichloroethene	ND		0.20		ug/L			04/26/19 14:13	1
Trichlorofluoromethane	ND		0.50		ug/L			04/26/19 14:13	1
Vinyl chloride	ND		0.020		ug/L			04/26/19 14:13	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	112		80 - 120		04/26/19 14:13	1
4-Bromofluorobenzene (Surr)	105		80 - 120		04/26/19 14:13	1
Dibromofluoromethane (Surr)	101		80 - 120		04/26/19 14:13	1
Toluene-d8 (Surr)	101		75 - 125		04/26/19 14:13	1
Trifluorotoluene (Surr)	93		80 - 120		04/26/19 14:13	1

Lab Sample ID: LCS 580-299452/4
Matrix: Water
Analysis Batch: 299452

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,1,1,2-Tetrachloroethane	5.00	4.80		ug/L		96	79 - 139
1,1,1-Trichloroethane	5.00	4.84		ug/L		97	74 - 137
1,1,2,2-Tetrachloroethane	5.00	4.56		ug/L		91	69 - 147
1,1,2-Trichloroethane	5.00	4.91		ug/L		98	80 - 127
1,1-Dichloroethane	5.00	4.90		ug/L		98	80 - 135
1,1-Dichloroethene	5.00	4.54		ug/L		91	71 - 134
1,1-Dichloropropene	5.00	4.86		ug/L		97	80 - 132
1,2,3-Trichlorobenzene	5.00	4.10		ug/L		82	75 - 137
1,2,3-Trichloropropane	5.00	4.61		ug/L		92	80 - 127
1,2,4-Trichlorobenzene	5.00	4.47		ug/L		89	79 - 130
1,2,4-Trimethylbenzene	5.00	5.34		ug/L		107	78 - 142
1,2-Dibromo-3-Chloropropane	5.00	4.40		ug/L		88	69 - 130
1,2-Dichlorobenzene	5.00	4.68		ug/L		94	80 - 129
1,2-Dichloropropane	5.00	5.13		ug/L		103	80 - 130
1,3,5-Trimethylbenzene	5.00	5.30		ug/L		106	80 - 139
1,3-Dichlorobenzene	5.00	5.29		ug/L		106	80 - 130
1,3-Dichloropropane	5.00	4.46		ug/L		89	80 - 130
1,4-Dichlorobenzene	5.00	5.40		ug/L		108	80 - 129
2,2-Dichloropropane	5.00	5.00		ug/L		100	74 - 150
2-Chlorotoluene	5.00	4.97		ug/L		99	80 - 130
4-Chlorotoluene	5.00	4.85		ug/L		97	80 - 130
4-Isopropyltoluene	5.00	5.03		ug/L		101	72 - 139
Benzene	5.00	4.75		ug/L		95	73 - 133
Bromobenzene	5.00	4.66		ug/L		93	80 - 130

Eurofins TestAmerica, Seattle

QC Sample Results

Client: Blaes Environmental Inc.
Project/Site: Circle K #6042

Job ID: 580-85716-1

Method: 8260C - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 580-299452/4

Matrix: Water

Analysis Batch: 299452

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Bromoform	5.00	4.36		ug/L		87	69 - 125
Bromomethane	5.00	4.47		ug/L		89	61 - 141
Carbon tetrachloride	5.00	4.82		ug/L		96	71 - 140
Chlorobenzene	5.00	4.98		ug/L		100	80 - 129
Chlorobromomethane	5.00	5.05		ug/L		101	79 - 131
Chlorodibromomethane	5.00	4.79		ug/L		96	76 - 131
Chloroethane	5.00	5.51		ug/L		110	58 - 150
Chloroform	5.00	4.94		ug/L		99	80 - 130
Chloromethane	5.00	4.73		ug/L		95	61 - 143
cis-1,2-Dichloroethene	5.00	4.96		ug/L		99	79 - 130
cis-1,3-Dichloropropene	5.00	4.90		ug/L		98	79 - 132
Dibromomethane	5.00	4.74		ug/L		95	76 - 129
Dichlorobromomethane	5.00	4.75		ug/L		95	80 - 131
Dichlorodifluoromethane	5.00	4.30		ug/L		86	45 - 129
EDC	5.00	4.74		ug/L		95	80 - 130
Ethylbenzene	5.00	5.09		ug/L		102	74 - 138
Hexachlorobutadiene	5.00	4.98		ug/L		100	72 - 138
Isopropylbenzene	5.00	5.77		ug/L		115	75 - 137
Methyl tert-butyl ether	5.00	4.71		ug/L		94	80 - 127
Methylene Chloride	5.00	4.67	J	ug/L		93	75 - 134
m-Xylene & p-Xylene	5.00	5.11		ug/L		102	73 - 130
Naphthalene	5.00	4.15		ug/L		83	79 - 132
n-Butylbenzene	5.00	5.02		ug/L		100	80 - 125
N-Propylbenzene	5.00	5.12		ug/L		102	77 - 142
o-Xylene	5.00	5.10		ug/L		102	80 - 139
sec-Butylbenzene	5.00	5.54		ug/L		111	78 - 140
Styrene	5.00	4.88		ug/L		98	74 - 136
tert-Butylbenzene	5.00	5.07		ug/L		101	77 - 140
Tetrachloroethene	5.00	4.95		ug/L		99	75 - 131
Toluene	5.00	5.00		ug/L		100	80 - 126
trans-1,2-Dichloroethene	5.00	4.62		ug/L		92	75 - 133
trans-1,3-Dichloropropene	5.00	4.74		ug/L		95	78 - 128
Trichloroethene	5.00	4.88		ug/L		98	72 - 136
Trichlorofluoromethane	5.00	4.48		ug/L		90	60 - 139
Vinyl chloride	5.00	4.81		ug/L		96	59 - 140

Surrogate	LCS %Recovery	LCS Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	99		80 - 120
4-Bromofluorobenzene (Surr)	101		80 - 120
Dibromofluoromethane (Surr)	100		80 - 120
Toluene-d8 (Surr)	99		75 - 125
Trifluorotoluene (Surr)	96		80 - 120

QC Sample Results

Client: Blaes Environmental Inc.
Project/Site: Circle K #6042

Job ID: 580-85716-1

Method: 8260C - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCSD 580-299452/5
Matrix: Water
Analysis Batch: 299452

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
1,1,1,2-Tetrachloroethane	5.00	4.73		ug/L		95	79 - 139	1	20
1,1,1-Trichloroethane	5.00	4.72		ug/L		94	74 - 137	2	20
1,1,2,2-Tetrachloroethane	5.00	4.68		ug/L		94	69 - 147	3	16
1,1,2-Trichloroethane	5.00	4.98		ug/L		100	80 - 127	1	19
1,1-Dichloroethane	5.00	4.75		ug/L		95	80 - 135	3	20
1,1-Dichloroethene	5.00	4.39		ug/L		88	71 - 134	3	28
1,1-Dichloropropene	5.00	4.73		ug/L		95	80 - 132	3	13
1,2,3-Trichlorobenzene	5.00	3.88		ug/L		78	75 - 137	6	20
1,2,3-Trichloropropane	5.00	4.70		ug/L		94	80 - 127	2	20
1,2,4-Trichlorobenzene	5.00	4.35		ug/L		87	79 - 130	3	20
1,2,4-Trimethylbenzene	5.00	5.47		ug/L		109	78 - 142	2	20
1,2-Dibromo-3-Chloropropane	5.00	4.31		ug/L		86	69 - 130	2	20
1,2-Dichlorobenzene	5.00	4.74		ug/L		95	80 - 129	1	14
1,2-Dichloropropane	5.00	5.20		ug/L		104	80 - 130	1	20
1,3,5-Trimethylbenzene	5.00	5.45		ug/L		109	80 - 139	3	20
1,3-Dichlorobenzene	5.00	5.39		ug/L		108	80 - 130	2	12
1,3-Dichloropropane	5.00	4.53		ug/L		91	80 - 130	2	29
1,4-Dichlorobenzene	5.00	5.52		ug/L		110	80 - 129	2	11
2,2-Dichloropropane	5.00	4.86		ug/L		97	74 - 150	3	19
2-Chlorotoluene	5.00	5.14		ug/L		103	80 - 130	3	20
4-Chlorotoluene	5.00	5.01		ug/L		100	80 - 130	3	20
4-Isopropyltoluene	5.00	5.09		ug/L		102	72 - 139	1	14
Benzene	5.00	4.70		ug/L		94	73 - 133	1	20
Bromobenzene	5.00	4.88		ug/L		98	80 - 130	5	20
Bromoform	5.00	4.20		ug/L		84	69 - 125	4	20
Bromomethane	5.00	4.29		ug/L		86	61 - 141	4	31
Carbon tetrachloride	5.00	4.68		ug/L		94	71 - 140	3	21
Chlorobenzene	5.00	4.95		ug/L		99	80 - 129	1	12
Chlorobromomethane	5.00	4.95		ug/L		99	79 - 131	2	20
Chlorodibromomethane	5.00	4.76		ug/L		95	76 - 131	1	20
Chloroethane	5.00	5.22		ug/L		104	58 - 150	5	35
Chloroform	5.00	4.80		ug/L		96	80 - 130	3	20
Chloromethane	5.00	4.58		ug/L		92	61 - 143	3	31
cis-1,2-Dichloroethene	5.00	4.82		ug/L		96	79 - 130	3	20
cis-1,3-Dichloropropene	5.00	4.90		ug/L		98	79 - 132	0	22
Dibromomethane	5.00	4.61		ug/L		92	76 - 129	3	20
Dichlorobromomethane	5.00	4.89		ug/L		98	80 - 131	3	20
Dichlorodifluoromethane	5.00	3.98		ug/L		80	45 - 129	8	29
EDC	5.00	4.71		ug/L		94	80 - 130	1	15
Ethylbenzene	5.00	5.08		ug/L		102	74 - 138	0	20
Hexachlorobutadiene	5.00	4.92		ug/L		98	72 - 138	1	20
Isopropylbenzene	5.00	5.58		ug/L		112	75 - 137	3	20
Methyl tert-butyl ether	5.00	4.49		ug/L		90	80 - 127	5	20
Methylene Chloride	5.00	4.50	J	ug/L		90	75 - 134	4	29
m-Xylene & p-Xylene	5.00	5.06		ug/L		101	73 - 130	1	20
Naphthalene	5.00	4.00		ug/L		80	79 - 132	4	20
n-Butylbenzene	5.00	5.05		ug/L		101	80 - 125	1	12
N-Propylbenzene	5.00	5.31		ug/L		106	77 - 142	4	20

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QC Sample Results

Client: Blaes Environmental Inc.
Project/Site: Circle K #6042

Job ID: 580-85716-1

Method: 8260C - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCSD 580-299452/5
Matrix: Water
Analysis Batch: 299452

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
o-Xylene	5.00	4.99		ug/L		100	80 - 139	2	20
sec-Butylbenzene	5.00	5.61		ug/L		112	78 - 140	1	20
Styrene	5.00	4.86		ug/L		97	74 - 136	0	20
tert-Butylbenzene	5.00	5.18		ug/L		104	77 - 140	2	20
Tetrachloroethene	5.00	4.91		ug/L		98	75 - 131	1	20
Toluene	5.00	5.06		ug/L		101	80 - 126	1	20
trans-1,2-Dichloroethene	5.00	4.44		ug/L		89	75 - 133	4	27
trans-1,3-Dichloropropene	5.00	4.73		ug/L		95	78 - 128	0	21
Trichloroethene	5.00	4.78		ug/L		96	72 - 136	2	20
Trichlorofluoromethane	5.00	4.29		ug/L		86	60 - 139	4	31
Vinyl chloride	5.00	4.51		ug/L		90	59 - 140	6	30

Surrogate	LCSD %Recovery	LCSD Qualifier	LCSD Limits
1,2-Dichloroethane-d4 (Surr)	98		80 - 120
4-Bromofluorobenzene (Surr)	99		80 - 120
Dibromofluoromethane (Surr)	99		80 - 120
Toluene-d8 (Surr)	100		75 - 125
Trifluorotoluene (Surr)	102		80 - 120

Method: NWTPH-Gx - Northwest - Volatile Petroleum Products (GC)

Lab Sample ID: MB 580-299585/6
Matrix: Water
Analysis Batch: 299585

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline	ND		0.25		mg/L			04/29/19 18:05	1

Surrogate	MB %Recovery	MB Qualifier	MB Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	71		50 - 150		04/29/19 18:05	1
Trifluorotoluene (Surr)	129		50 - 150		04/29/19 18:05	1

Lab Sample ID: LCS 580-299585/7
Matrix: Water
Analysis Batch: 299585

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Gasoline	1.00	0.867		mg/L		87	79 - 120

Surrogate	LCS %Recovery	LCS Qualifier	LCS Limits
4-Bromofluorobenzene (Surr)	75		50 - 150
Trifluorotoluene (Surr)	119		50 - 150

QC Sample Results

Client: Blaes Environmental Inc.
Project/Site: Circle K #6042

Job ID: 580-85716-1

Method: NWTPH-Gx - Northwest - Volatile Petroleum Products (GC) (Continued)

Lab Sample ID: LCSD 580-299585/8
Matrix: Water
Analysis Batch: 299585

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Gasoline	1.00	0.941		mg/L		94	79 - 120	8	10
LCSD LCSD									
Surrogate	%Recovery	Qualifier	Limits						
4-Bromofluorobenzene (Surr)	78		50 - 150						
Trifluorotoluene (Surr)	128		50 - 150						

Lab Sample ID: MB 580-299667/6
Matrix: Water
Analysis Batch: 299667

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline	ND		0.25		mg/L			04/30/19 14:50	1
MB MB									
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	91		50 - 150					04/30/19 14:50	1
Trifluorotoluene (Surr)	112		50 - 150					04/30/19 14:50	1

Lab Sample ID: LCS 580-299667/7
Matrix: Water
Analysis Batch: 299667

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Gasoline	1.00	0.921		mg/L		92	79 - 120		
LCS LCS									
Surrogate	%Recovery	Qualifier	Limits						
4-Bromofluorobenzene (Surr)	101		50 - 150						
Trifluorotoluene (Surr)	106		50 - 150						

Lab Sample ID: LCSD 580-299667/8
Matrix: Water
Analysis Batch: 299667

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Gasoline	1.00	0.900		mg/L		90	79 - 120	2	10
LCSD LCSD									
Surrogate	%Recovery	Qualifier	Limits						
4-Bromofluorobenzene (Surr)	98		50 - 150						
Trifluorotoluene (Surr)	104		50 - 150						

Method: 8011 - EDB and DBCP in Water by Microextraction

Lab Sample ID: MB 580-299394/3-A
Matrix: Water
Analysis Batch: 299693

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 299394

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethylene Dibromide	ND		0.010		ug/L		04/25/19 14:20	04/30/19 15:15	1

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QC Sample Results

Client: Blaes Environmental Inc.
Project/Site: Circle K #6042

Job ID: 580-85716-1

Method: 8011 - EDB and DBCP in Water by Microextraction (Continued)

Lab Sample ID: MB 580-299394/3-A
Matrix: Water
Analysis Batch: 299693

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 299394

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dibromopropane	80		60 - 140	04/25/19 14:20	04/30/19 15:15	1

Lab Sample ID: LCS 580-299394/4-A
Matrix: Water
Analysis Batch: 299693

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 299394

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
Ethylene Dibromide	0.0571	0.0623		ug/L		109	60 - 140

Surrogate	LCS %Recovery	LCS Qualifier	Limits
1,2-Dibromopropane	100		60 - 140

Lab Sample ID: LCSD 580-299394/5-A
Matrix: Water
Analysis Batch: 299693

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 299394

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Ethylene Dibromide	0.0571	0.0665		ug/L		116	60 - 140	6	20

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
1,2-Dibromopropane	87		60 - 140

Lab Sample ID: LLCS 580-299394/6-A
Matrix: Water
Analysis Batch: 299693

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 299394

Analyte	Spike Added	LLCS Result	LLCS Qualifier	Unit	D	%Rec	Limits
Ethylene Dibromide	0.0114	0.0198	*	ug/L		173	60 - 140

Surrogate	LLCS %Recovery	LLCS Qualifier	Limits
1,2-Dibromopropane	89		60 - 140

Method: NWTPH-Dx - Northwest - Semi-Volatile Petroleum Products (GC)

Lab Sample ID: MB 590-21954/1-A
Matrix: Water
Analysis Batch: 21955

Client Sample ID: Method Blank
Prep Type: Silica Gel Cleanup
Prep Batch: 21954

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics (DRO) (C10-C25)	ND		0.24		mg/L		04/30/19 09:48	04/30/19 14:03	1
Residual Range Organics (RRO) (C25-C36)	ND		0.40		mg/L		04/30/19 09:48	04/30/19 14:03	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
o-Terphenyl	107		50 - 150	04/30/19 09:48	04/30/19 14:03	1
n-Triacontane-d62	91		50 - 150	04/30/19 09:48	04/30/19 14:03	1

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QC Sample Results

Client: Blaes Environmental Inc.
Project/Site: Circle K #6042

Job ID: 580-85716-1

Method: NWTPH-Dx - Northwest - Semi-Volatile Petroleum Products (GC) (Continued)

Lab Sample ID: LCS 590-21954/2-A
Matrix: Water
Analysis Batch: 21955

Client Sample ID: Lab Control Sample
Prep Type: Silica Gel Cleanup
Prep Batch: 21954

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits	
Diesel Range Organics (DRO) (C10-C25)	1.60	1.60		mg/L		100	50 - 150	
Residual Range Organics (RRO) (C25-C36)	1.60	1.97		mg/L		123	50 - 150	
		LCS LCS						
Surrogate	%Recovery	Qualifier	Limits					
<i>o</i> -Terphenyl	115		50 - 150					
<i>n</i> -Triacontane-d62	116		50 - 150					

Lab Sample ID: LCSD 590-21954/3-A
Matrix: Water
Analysis Batch: 21955

Client Sample ID: Lab Control Sample Dup
Prep Type: Silica Gel Cleanup
Prep Batch: 21954

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits		RPD	Limit
Diesel Range Organics (DRO) (C10-C25)	1.60	1.59		mg/L		99	50 - 150	1	25	
Residual Range Organics (RRO) (C25-C36)	1.60	1.92		mg/L		120	50 - 150	3	25	
		LCSD LCSD								
Surrogate	%Recovery	Qualifier	Limits							
<i>o</i> -Terphenyl	113		50 - 150							
<i>n</i> -Triacontane-d62	112		50 - 150							

Method: 6020A - Metals (ICP/MS)

Lab Sample ID: MB 580-299492/22-A
Matrix: Water
Analysis Batch: 299699

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 299492

Analyte	MB MB		RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Arsenic	ND		5.0		ug/L		04/26/19 14:30	04/30/19 08:52	5
Lead	ND		4.0		ug/L		04/26/19 14:30	04/30/19 08:52	5

Lab Sample ID: LCS 580-299492/23-A
Matrix: Water
Analysis Batch: 299699

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 299492

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits	
Arsenic	1000	1040		ug/L		104	80 - 120	
Lead	1000	1010		ug/L		101	80 - 120	

Lab Sample ID: LCSD 580-299492/24-A
Matrix: Water
Analysis Batch: 299699

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 299492

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits		RPD	Limit
Arsenic	1000	1040		ug/L		104	80 - 120	1	20	
Lead	1000	1010		ug/L		101	80 - 120	0	20	

Eurofins TestAmerica, Seattle

QC Sample Results

Client: Blaes Environmental Inc.
Project/Site: Circle K #6042

Job ID: 580-85716-1

Method: 6020A - Metals (ICP/MS) (Continued)

Lab Sample ID: 580-85716-3 MS
Matrix: Water
Analysis Batch: 299699

Client Sample ID: MW-4
Prep Type: Total/NA
Prep Batch: 299492

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	Limits
Arsenic	ND		1000	1000		ug/L		100	80 - 120
Lead	ND		1000	985		ug/L		98	80 - 120

Lab Sample ID: 580-85716-3 MSD
Matrix: Water
Analysis Batch: 299699

Client Sample ID: MW-4
Prep Type: Total/NA
Prep Batch: 299492

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Arsenic	ND		1000	1050		ug/L		105	80 - 120	4	20
Lead	ND		1000	1020		ug/L		102	80 - 120	4	20

Lab Sample ID: 580-85716-3 DU
Matrix: Water
Analysis Batch: 299699

Client Sample ID: MW-4
Prep Type: Total/NA
Prep Batch: 299492

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	Limit
Arsenic	ND		ND		ug/L		NC	20
Lead	ND		ND		ug/L		NC	20

Lab Chronicle

Client: Blaes Environmental Inc.
Project/Site: Circle K #6042

Job ID: 580-85716-1

Client Sample ID: MW-1

Date Collected: 04/22/19 11:58

Date Received: 04/24/19 16:35

Lab Sample ID: 580-85716-1

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	299452	04/26/19 18:11	CJ	TAL SEA
Total/NA	Analysis	NWTPH-Gx		1	299585	04/30/19 02:11	Z1R	TAL SEA
Total/NA	Prep	8011			299394	04/25/19 14:20	CJB	TAL SEA
Total/NA	Analysis	8011		1	299693	04/30/19 16:21	CJ	TAL SEA
Silica Gel Cleanup	Prep	3510C SGC			21954	04/30/19 09:48	NMI	TAL SPK
Silica Gel Cleanup	Analysis	NWTPH-Dx		1	21955	04/30/19 15:01	NMI	TAL SPK
Total/NA	Prep	3010A			299492	04/26/19 14:30	T1H	TAL SEA
Total/NA	Analysis	6020A		5	299699	04/30/19 09:44	FCW	TAL SEA

Client Sample ID: MW-3

Date Collected: 04/22/19 13:24

Date Received: 04/24/19 16:35

Lab Sample ID: 580-85716-2

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	299452	04/26/19 18:37	CJ	TAL SEA
Total/NA	Analysis	NWTPH-Gx		1	299585	04/30/19 02:38	Z1R	TAL SEA
Total/NA	Prep	8011			299394	04/25/19 14:20	CJB	TAL SEA
Total/NA	Analysis	8011		1	299693	04/30/19 16:37	CJ	TAL SEA
Silica Gel Cleanup	Prep	3510C SGC			21954	04/30/19 09:48	NMI	TAL SPK
Silica Gel Cleanup	Analysis	NWTPH-Dx		1	21955	04/30/19 15:21	NMI	TAL SPK
Total/NA	Prep	3010A			299492	04/26/19 14:30	T1H	TAL SEA
Total/NA	Analysis	6020A		5	299699	04/30/19 09:48	FCW	TAL SEA

Client Sample ID: MW-4

Date Collected: 04/22/19 12:42

Date Received: 04/24/19 16:35

Lab Sample ID: 580-85716-3

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	299452	04/26/19 19:04	CJ	TAL SEA
Total/NA	Analysis	NWTPH-Gx		1	299585	04/30/19 03:06	Z1R	TAL SEA
Total/NA	Prep	8011			299394	04/25/19 14:20	CJB	TAL SEA
Total/NA	Analysis	8011		1	299693	04/30/19 16:53	CJ	TAL SEA
Silica Gel Cleanup	Prep	3510C SGC			21954	04/30/19 09:48	NMI	TAL SPK
Silica Gel Cleanup	Analysis	NWTPH-Dx		1	21955	04/30/19 15:40	NMI	TAL SPK
Total/NA	Prep	3010A			299492	04/26/19 14:30	T1H	TAL SEA
Total/NA	Analysis	6020A		5	299699	04/30/19 09:05	FCW	TAL SEA

Client Sample ID: MW-6

Date Collected: 04/22/19 13:00

Date Received: 04/24/19 16:35

Lab Sample ID: 580-85716-4

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	299452	04/26/19 19:30	CJ	TAL SEA
Total/NA	Analysis	NWTPH-Gx		1	299667	04/30/19 22:50	Z1R	TAL SEA

Eurofins TestAmerica, Seattle

Lab Chronicle

Client: Blaes Environmental Inc.
Project/Site: Circle K #6042

Job ID: 580-85716-1

Client Sample ID: MW-6
Date Collected: 04/22/19 13:00
Date Received: 04/24/19 16:35

Lab Sample ID: 580-85716-4
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	8011			299394	04/25/19 14:20	CJB	TAL SEA
Total/NA	Analysis	8011		1	299693	04/30/19 17:10	CJ	TAL SEA
Silica Gel Cleanup	Prep	3510C SGC			21954	04/30/19 09:48	NMI	TAL SPK
Silica Gel Cleanup	Analysis	NWTPH-Dx		1	21955	04/30/19 16:00	NMI	TAL SPK
Total/NA	Prep	3010A			299492	04/26/19 14:30	T1H	TAL SEA
Total/NA	Analysis	6020A		5	299699	04/30/19 09:52	FCW	TAL SEA

Client Sample ID: MW-8
Date Collected: 04/22/19 12:28
Date Received: 04/24/19 16:35

Lab Sample ID: 580-85716-5
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	299452	04/26/19 19:57	CJ	TAL SEA
Total/NA	Analysis	NWTPH-Gx		1	299585	04/30/19 03:59	Z1R	TAL SEA
Total/NA	Prep	8011			299394	04/25/19 14:20	CJB	TAL SEA
Total/NA	Analysis	8011		1	299693	04/30/19 17:26	CJ	TAL SEA
Silica Gel Cleanup	Prep	3510C SGC			21954	04/30/19 09:48	NMI	TAL SPK
Silica Gel Cleanup	Analysis	NWTPH-Dx		1	21955	04/30/19 16:19	NMI	TAL SPK
Total/NA	Prep	3010A			299492	04/26/19 14:30	T1H	TAL SEA
Total/NA	Analysis	6020A		5	299699	04/30/19 09:57	FCW	TAL SEA

Laboratory References:

TAL SEA = Eurofins TestAmerica, Seattle, 5755 8th Street East, Tacoma, WA 98424, TEL (253)922-2310
TAL SPK = Eurofins TestAmerica, Spokane, 11922 East 1st Ave, Spokane, WA 99206, TEL (509)924-9200

Accreditation/Certification Summary

Client: Blaes Environmental Inc.
Project/Site: Circle K #6042

Job ID: 580-85716-1

Laboratory: Eurofins TestAmerica, Seattle

Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below.

Authority	Program	EPA Region	Identification Number	Expiration Date
Washington	State Program	10	C553	02-17-20

The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.

Analysis Method	Prep Method	Matrix	Analyte
6020A	3010A	Water	Arsenic
6020A	3010A	Water	Lead

Laboratory: Eurofins TestAmerica, Spokane

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	EPA Region	Identification Number	Expiration Date
Alaska (UST)	State Program	10	17-025	12-07-19
Oregon	NELAP	10	4137	12-07-19
Washington	State Program	10	C569	01-06-20

Sample Summary

Client: Blaes Environmental Inc.
Project/Site: Circle K #6042

Job ID: 580-85716-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
580-85716-1	MW-1	Water	04/22/19 11:58	04/24/19 16:35
580-85716-2	MW-3	Water	04/22/19 13:24	04/24/19 16:35
580-85716-3	MW-4	Water	04/22/19 12:42	04/24/19 16:35
580-85716-4	MW-6	Water	04/22/19 13:00	04/24/19 16:35
580-85716-5	MW-8	Water	04/22/19 12:28	04/24/19 16:35

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11

Rush

Short Hold

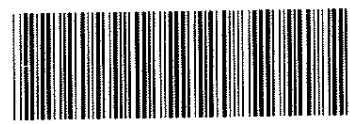
Chain of Custody Record

Client BLAES ENVIRONMENTAL		Client Contact DAN BLAES		Date 4/24/19	Chain of Custody Number 35974
Address 45 E. MONTEREY WAY		Telephone Number (Area Code)/Fax Number 602-728-0707		Lab Number 85716	Page 1 of 1

City PHOENIX	State AZ	Zip Code 85012	Sampler D. BLAES	Lab Contact	Analysis (Attach list if more space is needed)
Project Name and Location (State) CIRCLE K #6042 NACHES, WA			Billing Contact D. BLAES		

Contract/Purchase Order/Quote No. **202-6042-10**

Sample I.D. and Location/Description (Containers for each sample may be combined on one line)	Date	Time	Matrix				Containers & Preservatives						Special Instructions/ Conditions of Receipt	
			Air	Aqueous	Sed.	Soil	Unpres.	H2SO4	HNO3	HCl	NaOH	ZnAc/NaOH		
MW-1	4/22/19		X											5-DAY TAT ON ALL ↓
MW-3			X											
MW-4			X											
MW-6			X											
MW-8			X											



580-85716 Chain of Custody

Therm. ID: **A2** Cor: **2.6** Unc: **3.0**
Cooler Desc: **LG Blue**
Packing: **500** FedEx: _____
Cust. Seal: Yes No UPS: _____
Blue Ice, Wet, Dry, None Other: **Clidro**
420

Cooler Yes No Cooler Temp: _____ Possible Hazard Identification Non-Hazard Flammable Skin Irritant Poison B Unknown Return To Client Disposal By Lab Archive For _____ Months (A fee may be assessed if samples are retained longer than 1 month)

Turn Around Time Required (business days) 24 Hours 48 Hours 5 Days 10 Days 15 Days Other _____ QC Requirements (Specify)

1. Relinquished By Sign/Print Dan Blaes / DAN BLAES	Date 4/24/19	Time 4:35pm	1. Received By Sign/Print Tom Blanks / Blanks	Date 4/24/19	Time 16:35
2. Relinquished By Sign/Print	Date	Time	2. Received By Sign/Print	Date	Time
3. Relinquished By Sign/Print	Date	Time	3. Received By Sign/Print	Date	Time

Comments



Client Information (Sub Contract Lab)	Sampler:	Lab P/N:	Carrier Tracking No(s):	COC No:
Client Contact:	Phone:	Walker, Elaine M	State of Origin:	580-65408.1
Shipping/Receiving	E-Mail:	elaine.walker@testamericainc.com	Washington	Page: 1 of 1
Company:	Accreditations Required (See note):	State Program - Washington		Job #: 580-85716-1
Address:	Due Date Requested:			
11922 East 1st Ave.	4/30/2019			
City:	TAT Requested (days):			
Spokane				
State Zip:				
WA, 99206				
Phone:	PO #:			
509-924-9200(Tel) 509-924-9290(Fax)				
Email:	W/O #:			
Project Name:	Project #:			
Circle K #6042	58005982			
Site:	SSOW#:			
Circle K #6042 Naches				

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (G=Comp, G=grab)	Matrix (Water, Solid, Organic, Inorganic, BTEX, etc.)	Field Filtered Sample (Yes or No)		Perform MS/MSD (Yes or No)	Analysis Requested	Total Number of containers	Special Instructions/Note:
					Field Filtered	MS/MSD				
MMW-1 (580-85716-1)	4/22/19	11:58 Pacific		Water			NWTPH_Dx/3510C_LVI_SGC14 DRO and RRO		2	
MMW-3 (580-85716-2)	4/22/19	13:24 Pacific		Water					2	
MMW-4 (580-85716-3)	4/22/19	12:42 Pacific		Water					2	
MMW-6 (580-85716-4)	4/22/19	13:00 Pacific		Water					2	
MMW-8 (580-85716-5)	4/22/19	12:28 Pacific		Water					2	

Note: Since laboratory accreditations are subject to change, TestAmerica Laboratories, Inc. places the ownership of method, analyte & accreditation compliance upon out subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/elements being analyzed, the samples must be shipped back to the TestAmerica laboratory or other instructions will be provided. Any changes to accreditation status should be brought to TestAmerica Laboratories, Inc. attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said compliance to TestAmerica Laboratories, Inc.

Possible Hazard Identification
 Unconfirmed

Deliverable Requested: I, II, III, IV, Other (specify) Primary Deliverable Rank: 2

Empty Kit Relinquished by: _____ Date: _____ Time: _____ Method of Shipment: _____

Relinquished by: *Tom R. [Signature]* Date/Time: *4/25/19* Company: *TA Sea* Received by: *Nalina Groov* Date/Time: *4/26/19 15:15* Company: *AT&T*

Relinquished by: _____ Date/Time: _____ Company: _____ Received by: _____ Date/Time: _____ Company: _____

Custody Seals Intact: Yes No Custody Seal No.: _____ Cooler Temperature(s) °C and Other Remarks: *2.9*

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
 Return To Client Disposal By Lab Archive For _____ Months

Special Instructions/QC Requirements:

Login Sample Receipt Checklist

Client: Blaes Environmental Inc.

Job Number: 580-85716-1

Login Number: 85716

List Source: Eurofins TestAmerica, Seattle

List Number: 1

Creator: Blankinship, Tom X

Question	Answer	Comment
Radioactivity wasn't checked or is \leq background as measured by a survey meter.	True	
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.	False	No sample date and/or time on COC, logged in per container labels.
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	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 <math><6\text{mm}</math> (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Login Sample Receipt Checklist

Client: Blaes Environmental Inc.

Job Number: 580-85716-1

Login Number: 85716

List Number: 2

Creator: O'Toole, Maria C

List Source: Eurofins TestAmerica, Spokane

List Creation: 04/26/19 01:38 PM

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