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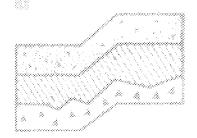
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Groundwater Summary

Former C and C Paints Facility
Seattle, Washington
VCP NW 2496

Project No. T-6552

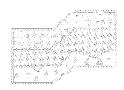


Terra Associates, Inc.

Prepared for:

HALCO Properties, LLC Auburn, Washington

June 17, 2020



TERRA ASSOCIATES, Inc.

Consultants in Geotechnical Engineering, Geology and Environmental Earth Sciences

> June 17, 2020 Project No. T-6552

Mr. Brett Cowman HALCO Properties, LLC P.O. Box 512 Auburn, Washington 98071

Subject:

Groundwater Summary

Former C and C Paints Facility

Seattle, Washington VCP NW 2496

Dear Mr. Cowman:

This report summarizes past and current groundwater conditions on and immediately adjacent to 5221 Ballard Avenue NW. This report is cumulative and updates our report, dated October 21, 2019.

The results of the groundwater monitoring that has been done to date show that the groundwater beneath the 5221 Ballard Avenue NW site meets the current cleanup levels. The data further indicates that no migration of contamination from the former UST cluster at 5232 Shilshole Avenue NW has impacted the 5221 Ballard Avenue site.

The attached report discusses our site observations, the results of analytical testing, and our conclusions in more detail.

We trust the information presented is sufficient for your current needs. If you have any questions or require additional information, please call.

Respectfully submitted,

TERRA ASSOCIATES, INC.

Charles R. Lie, L.H.G. Project Manager

Submitted via email only



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Groundwater Summary Former C and C Paint Facility Seattle, Washington VCP NW 2496

1.0 EXECUTIVE SUMMARY

The following report presents the cumulative sampling of groundwater wells at the subject site. The site was formerly known as C&C Paints. The site covered by VCP NW 2496 consists of the extent of contamination attributed to the former UST cluster in the parking lot at 5221 Ballard Avenue NW, a portion of the adjacent parcel immediately west of 5221 with an address of 5227 Ballard Avenue NW, and a portion of the parcel immediately south of 5221 known as 5246 Shilshole Avenue NW. This report includes groundwater data for the overall 5221 site as well as for an adjacent site not covered by VCP NW 2496, 5232 Shilshole Avenue NW (5232).

As discussed in this report, the groundwater beneath the 5221 property meets current cleanup levels. Additional groundwater assessments are needed at the 5246 Shilshole Avenue NW property that will be subject to a separate remedial action under a separate VCP file.

The results of our study are discussed in more detail later in this report.

2.0 SCOPE OF WORK

Our scope of work for this supplemental report consisted of the following:

- Measuring static water level in the existing wellfield on and adjacent to 5221.
- Sampling groundwater from the existing wellfield and the new wells built for this study.
- Subcontracting analytical testing of selected soil and groundwater samples.
- Appropriate analysis of the data.
- Preparation of this report.

3.0 SITE CONDITIONS

3.1 Surface

The site is located at 5221 Ballard Avenue NW in Seattle, Washington. The site location is shown on Figures 1 and 2. The site layout is shown on Figure 3.

The monitoring well locations and former UST locations on the 5221 and 5232 parcels are shown on Figure

The elevation of the parking lot where the UST cluster at 5221 is approximately Elev. 37. The elevation of the 5232 Parcel is approximately Elev. 28. The grade change is supported by basement walls in the buildings on the two sites.

3.2 Subsurface

We observed explorations at the 5221 site and 5232 properties consisting of Direct Push Technology probes and borings. We also referred to prior work done by others. Locations of the explorations are shown on Figure 3.

In general, native subsurface conditions beneath the site consist of silty sands that are dense till soils. Overlying the dense till soil are fills. These fills represent soils that were reworked incidental to the construction of the existing building and adjacent building as well as UST backfill soils. All soils encountered in the borings are granular soils.

Logs of the individual explorations conducted for this study are presented in Appendix A of this report.

3.3 Groundwater

3.3.1 Static Water Level Measurements

A total of 26 monitoring wells have been built on-site. Table 1 summarizes the wells, their construction date, and their current status. Thirteen of the wells went dry as a result of the dewatering at the hotel east of the site. Nine of the monitoring wells have been lawfully closed. Eleven wells remain for the current monitoring.

Groundwater elevations have been established through the use of a groundwater depth tape that is marked in 1/100th of a foot. The wells have all been surveyed by a licensed surveyor. Static water levels prior to 2011 were measured by others. Measurements show that groundwater gradients were towards the south-southwest prior to 2012. Table 2 attached to this report summarizes the static water levels measured from 1996 through 2020.

Figures 3 through 17 show our interpretations of groundwater depth measurements collected by others prior to 2011 and by us subsequent to 2011. Prior to 2011 all of the wells were located at and south of the parcel at 5232 Shilshole Avenue NW. The groundwater flow gradient was consistent with prior data developed by others until the construction of the new building north of 5221 Ballard Avenue NW. Construction of the new building included a deep parking garage that is dewatered on a continuous basis. As seen in the data, the groundwater levels on-site have decreased. To summarize the groundwater gradients on the project site, a rose diagram was created to show the general directions of flow within the entire wellfield.

In the creation of the static water level contours shown on Figures 10 through 17, we used the footing drain inverts for the new building at 5216 Ballard Avenue North. There is a deeper sump within the basement area; however, we have not been provided access to survey the location of the sump. The project surveyor, Axis Survey, established the building corners of the building at 5216 Ballard Avenue NW during a survey printed on September 27, 2019. The footing drain inverts are based on drawings obtained from the City of Seattle on-line permit archives. Appendix A contains selected plans and notes from the permit archives for the building at 5216 Ballard Avenue NW. One monitoring well has continued to have groundwater throughout nearly the entire monitoring period. This is Monitoring Well MW-6 located along Shilshole Avenue North. Monitoring Well MW-6 is discussed in more detail in Section 3.3.2.

The variation is more dramatic for the wells at 5221 where the initial static water elevation was at about Elev. 25 in the spring through fall of 2011. The decline in static water levels started in November of 2011 and resulted in the screened segments of Monitoring Wells MW-101 through MW-104 being left dry. Monitoring Well MW-205, a new well was established at the north end of the UST cluster at 5221 in 2014 close to the former location of Monitoring Well MW-103. The static water elevation in that well has been about Elev. 13.

At the request of Ecology, Monitoring Well MW-206 was established midway between the locations of former Monitoring Wells MW-101 and MW-102.

3.3.2 MW-6 Measurements

The change in static water levels is illustrated on Table 2 and Chart 1 on Figure 19 for Monitoring Well MW-6 at 5232 Shilshole Avenue NW. Monitoring Well MW-6 is the only original well that still has groundwater within the screen zone. As can be seen, the static water elevation trended from Elev. 21 to 23 from 1995 through 2011. Subsequent to 2011, the static water level has trended from Elev. 19.5 to 18.

The mapped gradient subsequent to the end of 2011 has been towards the north. Monitoring Well MW-6 had been an anomaly in the post 2011 groundwater contours. The static water level in Monitoring Well MW-6 had resembled a groundwater divide where groundwater to the north of Monitoring Well MW-6 flowed towards the north and groundwater south of Monitoring Well MW-6 flowed towards the south.

There is not an as built for Monitoring Well MW-6. We used a down hole TV camera to establish the screen depth. We found that the well is screened from about 5.4 to 15.4 feet below the top of casing, consistent with a 10-foot screen in 15-foot-deep borings. Based on our current interpretation, based on site observations and measurements, Monitoring Well MW-6 had become a seasonal groundwater mound due to a broken slab of concrete that allowed stormwater runoff from the downspout of the adjacent building to directly infiltration near the location of Monitoring Well MW-6. The approximate location of the main downspout from the roof of the adjacent building at 5232 Shilshole Avenue is shown on the photo.

Monitoring Well MW-6 was built within the former UST cavity for the Shilshole parcels. The UST cavity is within the till soils and allows a local groundwater mound to develop due to the infiltration of roof runoff. During the installation of a soil vapor extraction system (SVE) at 5232 Shilshole Avenue NW, the broken segments of the concrete apron in the vicinity of Monitoring Well MW-6 was repaired and restored most of the flow of stormwater from the nearby roof downspout to the existing stormwater system. The apparent groundwater mound diminished following the repair to the concrete apron. As seen in the January 2020 data, the mound returned following the heavy rains of the prior December of 2019 and January of 2020.

3.3.3 Surface Water Infiltration at 5221 Ballard Avenue Northwest

Until the summer of 2018, the paved surface of the parking area above the USTs along the western margin of 5221 Ballard Avenue NW was in poor condition. The pavement condition was due to excavations that removed position of a concrete apron to allow placement of USTs and of the disruption pipes that led to the south. This poor condition was effectively equivalent to a Low Impact Development (LID) pavement that allows infiltration of runoff to enter the site soils.

The catch basin located at the northeast corner of the parking lot was typically clogged allowing water to pond in the northern portion of the parking lot. Water flow into the adjacent basement areas occurred on a regular basis due to the lack of suitable drainage in the parking lot area. In 2016, the remodeling of the building at 5221 Ballard Avenue NW resulted in the removal of about half of the prior pavement allowing additional infiltration directly into the former UST cavities to occur. The pavement was not replaced until the spring of 2018. The replacement of the pavement with a cast concrete apron directed runoff from the site into the neighborhood stormwater system.

4.0 FIELD SAMPLING

Standard sampling procedures were used in the field. The procedures are discussed in Appendix B.

5.0 LABORATORY TESTING

5.1 General

The constituents of concern (COCs) are paint thinners, petroleum hydrocarbons including Diesel No. 2 (Heating oil), and volatile organic compounds. The COCs are based on the past use of the land, the contents of former USTs on-site, and previous sampling by others.

Groundwater samples have been analyzed for the following analytes:

- Total petroleum hydrocarbons (TPH) in the gasoline range (paint thinner) at both 5221 and 5232.
- Volatile organic compounds (BETX) and halogenated compounds at both 5221 and 5232.
- Lead at 5232 where paint mixing occurred.
- Ethylene Glycol at 5232 where paint mixing occurred.
- TPH in the diesel range due to former heating oil UST at 5232.
- PAHs in Monitoring Wells MW-205 and MW-206 at the request of the WDOE and in Monitoring Well MW-107 as part of the VPH/EPH analysis.

The test results are summarized in the following sections of this report.

The laboratory reports for testing groundwater done for this study are attached as Appendix C.

5.2 Groundwater

The following tables are cumulative and show the results reported by prior testing by others. All testing prior to 2011 was done by other firms. As documented by groundwater sampling, the contaminants of concern are TPH in the gasoline through diesel range and gasoline constituents of benzene, ethyl benzene, toluene, and xylenes (BETX). The benzene and ethyl benzene appear to have been incidental contaminates in the paint thinner used on-site. None of the former USTs were reported to be used to store gasoline.

6.0 DISCUSSION

6.1 General

There is no indication from the current nor from prior work that shows that the plume from 5221 extended onto 5232 Shilshole Avenue NW. There was a UST cluster at 5232 that was removed in the early 1990s. There are impacted soils and groundwater at the 5232 site; however, none of the prior nor the current data suggests that the impacts from 5232 have co-mingled with the impacts from 5221. A separate VCP application will be submitted for the proposed remedial action at 5232. This report includes data from both the 5232 site as well as the 5221 site to allow an understanding of the changes in the groundwater flow regime that have occurred over the past five years.

Remedial measures have been undertaken at 5221 Ballard Avenue NW that consisted of enhanced bioremediation with initial injection of a calcium peroxide. As documented in prior reports and in this report, dewatering associated with a new building located north of the 5221-property resulted in dramatic decreases in groundwater levels at 5221. Subsequent to the dewatering effort, a Soil Vapor Extraction System (SVE) was placed adjacent to the UST cluster at 5221.

Remedial measures are underway at 5232 using a soil vapor extraction system placed beneath the slab of the former paint mixing operation. This remedial measure is not discussed further in this report.

To address concerns about groundwater quality, the former monitoring wells along the north margin of Shilshole Avenue NW were abandoned and replaced with wells that have deeper screens. The decreased groundwater level had left the prior wells either dry or with so little water that representative samples could not be obtained. In addition, a new well was placed along the north margin of the UST cluster at 5221 to document the groundwater flow and quality beneath the former UST cluster at 5221.

The cleanup levels for this project are summarized below. All units are ug/liter.

Benzene	Method B	0.795
Ethyl benzene	Method B	800
Toluene	Method B	640
Xylenes	Method B	1,600
TPH Gasoline	Method B	250 (based on MTCATPH11 calculations)
cPAHs	Method A	0.1
Lead	Method A	15
Ethylene Glycol	Method B	16,000

As shown in the data, the only 2 monitoring wells that have levels of hydrocarbons that exceed the project cleanup levels are Monitoring Wells MW-201 and MW-107 both associated with 5232 Shilshole Avenue NW. None of the monitoring wells associated with 5221 exceed the project cleanup levels.

6.2 Recommendations

Based on the data summarized in this report, it is our opinion that no more groundwater sampling is needed at the wells associated with the former USTs located at 5221 Ballard Avenue Northwest. There is no evidence that the residual contamination present along the southern margin of the building located at 5232 Shilshole Avenue NW is migrating towards 5221 Ballard Avenue Northwest. The wells associated with 5221 Ballard Avenue Northwest consist of Monitoring Wells MW-205 and MW-206.

Prior testing in the initial wells, Monitoring Wells MW-101 through MW-103 showed only slight exceedances of the general Method A cleanup levels and of the site-specific cleanup levels. As discussed earlier, dewatering for the construction of the adjacent hotel lowered the groundwater levels to below the screened interval. Immediately prior to the change in groundwater levels, Terra Associates, Inc. observed the injection of 770 pounds of Calcium Peroxide into the groundwater to enhance in situ bio-degradation.

Monitoring Wells MW-101 through MW-103 were then converted to SVE wells and were under vacuum for several years. None of the contaminants of concern have been found to exceed with Method A cleanup values or the lower site-specific cleanup levels for gasoline and BETX in the replacement wells, Monitoring Wells MW-205 and MW-206.

It is our opinion that the monitoring wells at 5221 Ballard Avenue Northwest may be closed. A sperate report will be submitted that addresses soil and soil vapor conditions at 5221 Ballard Ave Northwest. There are sufficient wells at the property at 5232 Shilshole Avenue NW to provide documentation of the groundwater flows and groundwater quality for that separate cleanup effort.

7.0 LIMITATIONS

This report is the copyrighted property of Terra Associates, Inc. and was prepared in accordance with generally accepted local geo-environmental engineering practices and within the limitations of time and budget. Analytical testing of samples was based on our understanding of past land uses documented in reports by others and the tax records. In the event additional information regarding site history or current site uses is found, the information should be brought to our attention, as it may affect our conclusions.

This report is intended for specific application to the 5221 Ballard Avenue NW project, and is for the exclusive use of HALCO Properties, LLC and their authorized representatives. No other warranty, expressed or implied, is made.

The analyses and recommendations presented in this report are based on information prepared by others together with data obtained from explorations advanced on the site, and analyses of groundwater samples for this study. The conclusions reached in this report are our opinions based on the previous and current explorations and analytical test data summarized and discussed in this report. Subsurface conditions may vary and seasonal variations in groundwater may occur.

Table 1 Monitoring Well Summary

Monitoring Well	Surface Elev.	Date Built	Total depth (feet)	Screen Interval	Notes	Date Closed
MW-1	26.44	2/16/1995	8	3-8	Well went dry after 8/14/2012.	9/2014
MW-2	25.98	2/16/1995	9	4-9	Well went dry after 8/14/2012.	9/2014
MW-3	26.05	2/16/1995	9	4-9	Well went dry after 8/14/2012.	9/2014
MW-4	26.21	2/16/1995	9	4-9	Well went dry after 8/14/2012.	9/2014
MW-5	26.32	2/1996?	9	4-9	Well went dry after 8/14/2012.	9/2014
MW-6	26.8	2/1996?	15.4	5.4-15.4	B-6 drilled Feb 1996, MW-6 built at a later time, no log has been found, screen information is from a video.	Still Active
MW-7	26.89	2/1996?	8	3-8	Well went dry after 8/14/2012.	Held as SVE measuring point
MW-7A	26.74	1/2019	15	5 to 15	Still Active	Active
MW-8	27.97	2/1996?	8	3-8	Well went dry after 8/14/012.	Present-dry
MW-9	30.24	2/1996?	8	3-8	Well went dry after 8/14/2012.	Present-dry
MW-10	26.48	2/1996?	7	3-7	Well went dry after 8/14/2012.	9/2014
MW-101	36.77	5/6/2011	20	10-20	Well went dry after 11/29/2011 converted to SVE well.	1/2016
MW-102	36.35	5/6/2011	20	10-20	Well went dry after 11/29/2011 converted to SVE well.	1/2016
MW-103	36.13	5/6/2011	20	10-20	Well went dry after 11/29/2011 converted to SVE well.	1/2016
MW-104	28.23	6/13/2011	15	5-15	Well went dry after 11/29/2011	Present-dry
MW-105	36+/-	2/8/2013	21.5	10-20	SVE well	1/2016
MW-106	36+/-	2/18/2013	20	10-20	SVE well	1/2016
MW-107	25.96	3/27/2013	18.5	7-17	Still Active	Active
MW-108	30.34	1/18/2016	22.5	12.5-22.5	Still Active	Active
MW-109	26.79	1/18/2016	20	10-20	Still Active	Active
MW-201	28	9/10/2014	28	18-28	Still Active	Active
MW-202	26.85	9/10/2014	21	11-21	Still Active	Active
MW-203	26.02	9/11/2014	21.5	10-20	Still Active	Active
MW-204	26.15	9/11/2014	21.5	10-20	Still Active	Active
MW-205	38.23	11/13/2014	46.5	34-44	Still Active	Active
MW-206	36.20	5/25/2018	30	20-30	Still Active	Active

Table 2 Groundwater Measurements

Monitoring	Surface	MP	4-29	-2011	5-6-2	2011	5-10-	-2011	6-29	-2011	9-29-	-2011	10-17	-2011	11-18	3-2011	11-29	-2011
Well	Elev.	Elev.	Depth	Elev.	Depth	Elev.												
MW-1	26.44	26.11	4.6	21.51	NM	4.78	21.33											
MW-2	25.98	25.98	NM	5.75	20.23													
MW-3	26.05	26.05	NM	NM	NM													
MW-4	26.21	25.90	4.89	21.01	NM	5.26	20.64											
MW-5	26.32	26.32	4.92	21.40	NM	NM	NM											
MW-6	26.8	26.34	4.63	21.71	NM	4.71	21.63											
MW-7	26.89	26.60	3.38	23.22	NM	3.09	23.51											
MW-8	27.97	27.51	3.52	23.99	NM	NM	NM	NM	NM	NM	5.22	22.29	NM	NM	NM	NM	3.72	23.79
MW-9	30.24	29.99	4.77	25.22	NM	NM	NM	NM	NM	NM	7.39	22.60	NM	NM	NM	NM	4.99	25.00
MW-10	26.48	26.16	5.8	20.36	NM	6	20.16											
MW-101	36.77	36.37	NM	NM	10.3	26.07	11.63	24.74	11.50	24.87	15.68	20.69	17.19	19.18	10.45	25.92	10.78	25.59
MW-102	36.35	35.93	NM	NM	10.25	25.68	11	24.93	10.86	25.07	15.78	20.15	17.32	18.61	9.81	26.12	10.08	25.85
MW-103	36.13	35.79	NM	NM	10.25	25.54	10.86	24.93	10.54	25.25	16.83	18.96	18.54	17.25	9.38	26.41	9.74	26.05
MW-104	28.23	27.98	NM	NM	NM	NM	3.55	24.43	NM	NM	6.83	21.15	NM	NM	NM	NM	2.76	25.22

Table 2 (continued)
Groundwater Measurements

Monitoring	Surface	MP	5-2-2	2012	8-14	-2012	7-11-	-2013	9-27	-2013	2-26-	2014	9-24	-2014	11-7-2	2014	2-20-	2015
Well	Elev.	Elev.	Depth	Elev.	Depth	Elev.	Depth	Elev.	Depth	Elev.	Depth	Elev.	Depth	Elev.	Depth	Elev.	Depth	Elev.
MW-1	26.44	26.11	NM	NM	7.52	18.59	Dry		Closed		Closed		7.3	18.81			_	
MW-2	25.98	25.98	NM	NM	6.88	19.10	6.25	19.73	Closed		Closed				19.73	19.73		
MW-3	26.05	26.05	NM	NM	7.07	18.98	Dry		Closed	-	Closed		6.89	19.16				
MW-4	26.21	25.90	NM	NM	NM	NM	7.78	18.12	Closed		Closed		6.95	18.95	18.12	18.12		
MW-5	26.32	26.32	NM	NM	NM	NM	dry		Closed		Closed							
MW-6	26.8	26.34	NM	NM	5.87	20.47	7.65	18.69	NM		NM		6.91	19.43	18.69	18.69	NM	NM
MW-7	26.89	26.60	NM	NM	>8	<18.60	Dry		Dry		NM		>8	<18.60			Dry	
MW-8	27.97	27.51	>8	<18.60	NM	NM	Dry		Dry		NM		NM	NM				
MW-9	30.24	29.99	>8	<19.51	NM	NM	Dry		Dry		NM		NM	NM				
MW-10	26.48	26.16	NM	NM	NM	NM	Dry		Closed		Closed		7.7	18.46				
MW-101	36.77	36.37	>20	<16.37	NM	NM	NM		Dry		Dry		NM	NM	Dry		Closed	
MW-102	36.35	35.93	>20	<15.93	NM	NM	NM		Dry		Dry		NM	NM	Dry		Closed	
MW-103	36.13	35.79	>20	<15.79	NM	NM	NM		Dry		Dry		NM	NM	Dry		Closed	
MW-104	28.23	27.98	>15	<12.98	NM	NM	NM		Dry		Dry		>15	<12.98	Dry		Closed	
MW-105	SVE Well-dry du	ring drillin	ng. Under	vacuum 2	-28-13 to	2-24-15	NM		Dry		Dry				Dry		Closed	
MW-106	SVE Well-dry du	ring drillin	ng. Under	vacuum 2	-28-13 to	2-24-15	NM		Dry		Dry				Dry		Closed	
MW-107	25.96	25.66					7.62	18.08	NM	NM	8.03	18.17	7.53	18.17	18.08	18.08	7.56	18.64
MW-201	28	27.63							15.36	12.52	13.29	14.59	NM	NM	NM	NM	13.24	14.64
MW-202	26.85	26.52							9.57	17.1	9.37	17.3	NM	NM	NM	NM	8.63	18.04
MW-203	26.02	25.69							8.62	17.55	8.93	17.24	NM	NM	NM	NM	8.19	17.98
MW-204	26.15	25.89							8.47	17.77	8.52	17.72	NM	NM	NM	NM	7.95	18.29
MW-205	38.23	37.98					Well bu	ilt on No	vember 3,		1						22.77	13.11

Table 2 (continued) Groundwater Measurements

Monitoring	Surface	MP	5/27/	2015	6/17	//2015	7/14	/2015	2/5/	2016	8/29	/2016	11/17	//2016	3/23	/2018
Well	Elev.	Elev.	Depth	Elev.	Depth	Elev.	Depth	Elev.	Depth	Elev.	Depth	Elev.	Depth	Elev.	Depth	Elev.
MW-6	26.8	26.34	7.43	18.91	7.74	18.60	8.2	18.14	5.84	20.34	8.1	18.08	5.79	20.39	6.68	19.50
MW-7	26.89	26.60	Dry		Dry	< 18.41			Dry		Dry		Dry	20.07	Dry	13.50
MW-8	27.97	27.51	Dry		Dry	<20.56			Dry		Dry		Dry		Dry	
MW-9	30.24	29.99	Dry		Dry	<21.74			Dry		Dry		Dry		Dry	
MW-104	28.23	27.98	Dry		Dry				Dry		Dry		Dry		Dry	
MW-107	25.96	25.66	7.45	18.75			8.2	18	6.65	19.01	8.35	17.31	Diy		6.78	18.88
MW-108	30.34	30.04							11.73	18.31	13.8	16.24	11.73	18.31	11.98	18.06
MW-109	26.79	26.49									9.79	16.7	8.75	17.74	8.64	17.85
MW-201	28	27.63	12.7	15.18			12.47	15.41	11.19	16.44	12.4	15.23	11.19	16.44	11.20	16.43
MW-202	26.85	26.52	8.76	17.91			9.39	17.28	7.8	18.72	9.48	17.04	7.8	18.72	8.29	18.23
MW-203	26.02	25.69	8.6	17.57			8.72	17.45	7.97	17.72	9	16.69	8.12	17.57	6.57	
MW-204	26.15	25.89	8.96	17.28		~	8.73	17.51	7.62	18.27	9.15	16.74	8			19.12
MW-205	38.23	37.98	22.9	12.98							 			17.89	6.57	19.32
	30.23	37.70					23.06	12.82	NM	NM	22.88	15.1	22.61	15.37	22.67	15.31

Table 2 (continued) Groundwater Measurements

Monitoring	Surface	MP	6/1/20	18	3/8/	/2019	7/30/	2019	10/30	/2019	1/30/	/2020
Well	Elev.	Elev.	Depth	Elev.	Depth	Elev.	Depth	Elev.	Depth	Elev.	Depth	Elev.
MW-6	26.8	26.34	7.13	19.05	6.95	19.23	8.56	17.62	8.63	17.55	5.87	20.31
MW-7	26.89	26.60	Dry		Dry		Dry		Dry		Dry	
MW-7A	26.74	26.34	Built in Febru	ary 2018	8.72	17.62	9.23	17.11	9.51	16.83	8.14	18.2
MW-8	27.97	27.51	Dry		Dry		Dry		Dry		Dry	
MW-9	30.24	29.99	Dry		Dry		Dry		Dry		Dry	
MW-104	28.23	27.98	Dry		Dry		Dry		Dry		Dry	
MW-107	25.96	25.66			6.63	19.03	7.76	17.9	7.58	18.08	6.18	19.48
MW-108	30.34	30.04	12.47	17.57	12.15	17.89	12.97	17.07	12.47	17.57	11.27	18.77
MW-109	26.79	26.49	8.26	18.23	8.52	17.97	8.88	17.61	8.78	17.71	8.34	18.15
MW-201	28	27.63	11.27	16.36	11.28	16.35	12.7	14.93	11.72	15.91	10.24	17.39
MW-202	26.85	26.52	10.9	15.62	8.29	18.23	8.92	17.6	8.59	17.93	8.22	18.30
MW-203	26.02	25.69	8.24	17.45	8.03	17.66	8.03	17.66	8.21	17.48	7.93	17.76
MW-204	26.15	25.89	8.46	17.43	7.63	18.26	9.23	16.66	8.34	17.55	7.75	18.14
MW-205	36.03	35.78	22.32	13.46	22.3	13.48	22.58	13.2	22.59	13.19	22.29	13.49
MW-206	36.2	35.87	22.03	13.84	22.13	13.74	22.48	13.39	22.5	13.37	22.03	13.84

Notes: MP is the north side of the top of the PVC casing within the surface monument. Ground surface elevations are from a survey by Jim Hart and Associates.

NM indicates that the well was not measured or was inaccessible on the day of the field work.

Closed indicates wells that have been permanently abandoned in accordance with state regulations.

The wellhead for MW-205 was changed during placement of the final concrete for the driveway and was resurveyed to obtain current top of casing prior to the June 1, 2018 site visit.

Table 3
Static Water Elevation for MW-6 from all Data

	Date	01/30/1996	09/11/1996	10/10/1998	09/25/2002	11/14/2003	04/29/2011	06/29/2011	08/14/2012	7/11/2013	9/27/2013	2/26/2014	5/27/2015	6/17/2015	7/14/2015	2/5/2016	8/29/2016
MW	SWL Elev.	21.77	22.86	23.03	21.48	22.72	21.71	21.63	20.47	19.43	18.69	19.2	18.75	18.44	17.98	20.34	18.08
MW-6		11/17/2016	3/23/2018	6/1/2018	3/8/2019	7/30/2019	10/30/2019	1/30/2020	4/21/2020		·		<u> </u>				
	SWL Elev.	20.39	19.50	19.05	19.23	17.62	17.55	20.31	19.5								

Notes: Measurements prior to 2011 are by others. Chart 1 on Figure 5 is a graphical presentation of this data.

Table 4
Total Petroleum Hydrocarbons
Groundwater

Well Number	Date	TPH Diesel Range	TPH Oil Range	TPH Gas Range	Benzene	Ethyl Benzene	Toluene	m,p Xylene	o Xylene
Ţ	U nits	mg/liter	mg/liter	mg/liter	μg/liter	μg/liter	μg/liter	μg/liter	μg/liter
	11/27/1995	NT	NT	24,000	930	550	41,000	8	55,000
	6/20/1996	NT	NT	210	8.5	14,000	300		14,000
	9/11/1996	NT	NT	190	ND	13,000	ND		58,000
	12/10/1996	NT	NT	190	7.0	14,000	270	(54,000
	4/3/1997	NT	NT	190	7.6	13,000	260	51,000	NT
	1/31/1998	NT	NT	310	ND	15,000	230	•	70,000
	10/10/2000	1,1	0.95	410	1. 0 U	16,000	120	•	70,100
	9/25/2002	0.91	0.5U	34	10U	11,000	26	19,000	3,900
	11/14/2003	11		18	5. 0 U	1,700	80		5,500
	6/21/2006	0.5 U	0.5 U	NR	ND	240	1		280
MW-1	12/15/2006	ND	ND	ND	ND	2,900	29		1,000
	1/18/2007	ND	ND	ND	ND	150	ND		440
	6/12/2007	ND	ND	5.8	1 0 U	800	1 0 U		2,500
	10/22/2007	NR	ND	2.4	10U	825	1 0 U		2,700
	3/19/2008	ND	ND	2.7	10U	700	1 0 U		1,900
	6/20/2008	NT NT	NT	0.5U	1.0U	40	1. 0 U		130
	12/30/2008	NT	NT	312	0.56	27	2.0 U		47
	6/2009	NT	NT	8.7	1.0U	460	1. 0 U		1,800
	10/2009	NT	NT	11.3	10U	825	1 0 U		2,700
	2/2010	NT	NT	10.0	10U	700	1 0 U		1,900
	7/27/2010	0.5U	0.5U	1.2	1.0U	40	1. 0 U		130
	4/29/2011	0.3U	0.41U	1.1	0.56	27	2.0U		47
	8/14/2012	0.38U	0.41 U	4.9	1.0U	460	1. 0 U		1,800
	7/11/2013	1.4	0.41U	2.3	0.53	32	1. 0 U		210
		MW-1 abandoned	due to lower gr	oundwater level	s in September	2014, see replace	ement Monitori	ng Well MW-	204.

Well Number	Date	TPH Diesel Range	TPH Oil Range	TPH Gas Range	Benzene	Ethyl Benzene	Toluene	m,p Xylene	o Xylene
	Units	mg/liter	mg/liter	mg/liter	μg/liter	μg/liter	μg/liter	μg/	liter
	11/27/1995	NT	NT	ND	ND	6.6	ND	2	7
	6/20/1996	NT	NT	1.1	NT	NT	NT	NT	NT
	9/11/1996	NT	NT	0.9	ND	79	23	37	
	12/10/1996	NT	NT	0.9	ND	1.1	ND	2.	.3
	4/3/1997	NT	NT	0.1U	ND	ND	3.2	N	D
	1/31/1998	NT	NT	ND	ND	ND	ND	N	D
	10/10/2000	NT	NT	0.13	1. 0 U	1. 0 U	36	1. 0 U	NT
MW-2	9/25/2002	NT	NT	0.5U	5.0U	5.0U	5. 0 U	5.0)U
	11/14/2003	NT	NT	0.25U	5.0U	5.0U	5.0U	15	U
	6/21/2006	0.5U	X	0.25U	NT	NT	NT	NT	NT
	12/15/2006	ND	ND	ND	NT	NT	NT	NT	NT
	1/18/2007	ND	NR	ND	NT	NT	NT	NT	NT
	6/12/2007	ND	NR	ND	NT	NT	NT	NT	NT
	10/22/2007	NR	NR	ND	NT	NT	NT	NT	NT
	3/19/2008	ND	ND	ND	NT	NT	NT	NT	NT
	6/20/2008	NT	NT	0.05U	NT	NT	NT	NT	NT
	12/30/2008	NT	NT	ND	ND	ND	ND	N	D
	7/27/2010	0.47	1.2	0.2U	NT	NT	NT	NT	NT
	2/26/2014	5.1U	16	0.1U	1. 0 U	1. 0 U	1. 0 U	1. 0 U	1. 0 U
		MW-2 abaı	idoned due to lo	wer groundwate	er levels in Septe	ember 2014-see	replacement we	II MW-203.	

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Well Number	Date	TPH Diesel Range	TPH Oil Range	TPH Gas Range	Benzene	Ethyl Benzene	Toluene	m,p Xylene	o Xylene
	Units	mg/liter	mg/liter	mg/liter	μg/liter	μg/liter	μg/liter	μg/liter	μg/liter
	11/27/1995	NT	NT	ND	ND	ND	ND	ND	ND ND
	1/31/1998	NT	NT	ND	ND _	ND	ND	ND	ND ND
	10/10/2000	NT	NT	ND	1. 0 U	1.0U	1. 0 U	1. 0 U	1.6
	9/25/2002	NT	NT	0.05U	1. 0 U	1.0U	1. 0 U	1. 0 U	1. 0 U
	11/14/2003	NT	NT	0.05U	1. 0 U	1. 0 U	1. 0 U	1. 0 U	3.0U
	6/26/2006	0.5U	0.5U	0.25U	NT	NT	NT	NT	NT
MW-3	12/15/2006	0.65	ND	ND	NT	NT	NT	NT	NT
	1/18/2007	ND	NR	ND	NT	NT	NT	NT	NT
	6/12/2007	ND	ND	ND	NT	NT	NT	NT	NT
-	10/22/2007	ND	ND	ND	NT	NT	NT	NT	NT
	3/19/2008	ND	ND	ND	NT	NT	NT	NT.	NT
	6/20/2008	NT	NT	0.052	NT	NT	NT	NT	NT
	12/30/2008	NT	NT	ND	NT	NT	NT	NT	NT
	7/27/2010	0.5U	0.5U	0.2 U	NT	NT	NT	NT	NT
	8/14/2012	0.26 U	0.41U	0.1U	1. 0 U	1. 0 U	1.0U	3.2	1. 0 U
	7/11/2013	-		0.1U	0.5U	1.0U	1.0U	1.0U	1.0U
		·	MW-3 aban	doned due to lo	wer groundwate	er levels in Septe	ember 2014.		

Well Number	Date	TPH Diesel Range	TPH Oil Range	TPH Gas Range	Benzene	Ethyl Benzene	Toluene	m,p Xylene	o Xylene
	Units	mg/liter	mg/liter	mg/liter	μg/liter	μg/liter	μg/liter	μg/	liter
	11/27/1995	NT	NT	78	4.0	4,600	40	(0000000000000000000000000000000000000	800
	1/31/1998	NT	NT	14	ND	1,300	3.0	3,0	75
	10/10/2000	NT	NT	0.68	1.0U	37	1. 0 U	30	NT
	9/25/2002	NT	NT	0.11	1.0U	3.0	1. 0 U	1	6
	11/14/2003	NT	NT	0.05U	1. 0 U	1. 0 U	1. 0 U	3.0	OU
	6/21/2006	0.5U	0.5U	0.25U	NT	NT	NT	NT	NT
	12/15/2006	ND	ND	ND	NT	NT	NT	NT	NT
	1/18/2007	ND	ND	ND	NT	NT	NT	NT	NT
	6/12/2007	ND	ND	0.11	ND	1.0	ND	(5
MW-4	10/22/2007	NR	ND	ND	NT	NT	NT	NT	NT
141 44 -4	3/19/2008	ND	ND	ND	NT	NT	NT	NT	NT
	6/20/2008	NT	NT	1.57	NT	NT	NT	NT	NT
	12/30/2008	NT	NT	ND	NT	NT	NT	NT	NT
	7/27/2010	0.5 U	0.5U	0.2U	NT	NT	NT	NT	NT
	7/11/2013	0.38	0.41U	0.19	0.5U	1.3	1.0	12	1. 0 U
	9/27/2013	0.32	0.41U	0.16	0.5U	1. 0 U	1. 0 U	1.1	1. 0 U
			MW-4 aban	doned due to lo	wer groundwate	er levels in Septe	mber 2014.		

Well Number	Date	TPH Diesel Range	TPH Oil Range	TPH Gas Range	Benzene	Ethyl Benzene	Toluene	m,p Xylene	o Xylene		
	Units	mg/liter	mg/liter	mg/liter	μg/liter	μg/liter	μg/liter	μg/	liter		
	11/27/1995	NT	NT	28	4.0	1,500	11	7,4	100		
	1/31/1998	NT	NT	1.1	ND	38	5.1	211			
	10/10/2000	NT	NT	0.2	1.1	1	1. 0 U	4.9	NT		
	9/25/2002	NT	NT	0.25U	5.0U	5.0U	5.0U	7.0			
	11/14/2003	NT	NT	0.05U	1. 0 U	1.0U	1. 0 U	3.0U			
MW-5	12/15/2006	ND	ND	ND	NT	NT	NT	NT	NT		
	1/18/2007	ND	ND	ND	NT	NT	NT	NT	NT		
	6/12/2007	ND	ND	ND	NT	NT	NT	NT	NT		
	10/22/2007	NR	NR	ND	NT	NT	NT	NT	NT		
	3/19/2008	ND	ND	ND	NT	NT	NT	NT	NT		
	6/20/2008	NT	NT	0.05U	NT	NT	NT	NT	NT		
	12/30/2008	NT	NT	ND	NT	NT	NT	NT	NT		
	7/27/2010	0.5U	0.5U	0.2U	NT	NT	NT	NT	NT		
	MW-5 abandoned due to lower groundwater levels in September 2014.										

	T		T						
Well Number	Date	TPH Diesel Range	TPH Oil Range	TPH Gas Range	Benzene	Ethyl Benzene	Toluene	m,p Xylene	o Xylene
	Units	mg/liter	mg/liter	mg/liter	μg/liter	μg/liter	μg/liter	μg/	liter
	1/29/1996	NT	NT	0.68	3.5	2.5	ND		12
	1/31/1998	NT	NT	NT	3.7	ND	ND		.7
	10/10/2000	NT	NT	0.84	1.9	1. 0 U	1. 0 U	1.7	NT
	9/25/2002	NT	NT	0.25U	5.0U	5. 0 U	5.0U	8	.0
	11/14/2003	NT	NT	0.05U	1. 0 U	1. 0 U	1.0U	3.0	OU
	6/26/2006	0.5U	0.5U	0.25U	NT	NT	NT	NT	NT
	12/15/2006	ND	ND	ND	NT	NT	NT	NT	NT
MW-6	1/18/2007	ND	ND	0.29	16	ND	69	1	6
IVI W -0	6/12/2007	NR	ND	0.32	ND	ND	ND	N	D
	10/22/2007	NR	NR	ND	NT	NT	NT	NT	NT
	3/19/2008	ND	ND	ND	NT	NT	NT	NT	NT
	6/20/2008	NT	NT	0.147	NT	NT	NT	NT	NT
	12/30/2008	NT	NT	0.12	NT	NT	NT	NT	NT
	7/27/2010	0.5U	0.5U	0.11	1. 0 U	1. 0 U	1. 0 U	3.0)U
-	4/28/2011	0.26 U	0.41U	0.16	0.2U	0.2U	1. 0 U	0.4U	0.2U
	8/14/2012	0.26 U	0.41U	0.1U	1. 0 U	1. 0 U	1. 0 U	1.0U	1. 0 U
	7/11/2013	0.37	0.41U	0.16	0.5U	2.3	1. 0 U	21	1. 0 U
	9/27/2013	0.29	0.41U	0.1U	0.5U	1. 0 U	1.0U	1. 0 U	1. 0 U
	2/26/2014	0.26 U	0.41U	0.1U	1. 0 U	1.0U	1. 0 U	1. 0 U	1. 0 U
	5/27/2015	0.27	0.41 U	0.1U	0.5U	1. 0 U	1. 0 U	1. 0 U	1. 0 U
	2/5/2016	0.29	0.41U	0.1U	0.5U	1. 0 U	1. 0 U	1. 0 U	1. 0 U
	3/8/2019	NT	NT	0.1U	0.5U	1. 0 U	1.0U	1. 0 U	1. 0 U
	7/31/2019	0.26 U	0.42U	0.1U	0.5U	1. 0 U	1. 0 U	1. 0 U	1.0U
	10/30/2019	0.2U	0.28	0.1U	0.5U	1. 0 U	1. 0 U	1. 0 U	1. 0 U
	1/31/2020	0.2U	0.25	0.1U	0.5U	1. 0 U	1. 0 U	1. 0 U	1. 0 U

Well Number	Date	TPH Diesel Range	TPH Oil Range	TPH Gas Range	Benzene	Ethyl Benzene	Toluene	m,p Xylene	o Xylene
	Units	mg/liter	mg/liter	mg/liter	μg/liter	μg/liter	μg/liter	μg/	liter
,	1/29/1996	NT	NT	61	2.0	3,500	340	50000000000000000000000000000000000000	200
	6/20/1996	NT	NT	16	NT	NT	NT	NT	NT
	9/11/1996	NT	NT	9.0	NT	NT	NT	NT	NT
	12/10/1996	NT	NT	15	NT	NT	NT	NT	NT
	4/3/1997	NT	NT	17	NT	NT	NT	NT	NT
,	1/31/1998	NT	NT	31	1,600	1.6	486	1,6	500
	10/10/2000	NT	NT	4.3	190	1 .0 U	360	19	90
MW-7	9/25/2002	NT	NT	0.89	140	5.0U	130	14	40
	11/14/2003	NT	NT	0.72	130	5. 0 U	210	~	130
	6/21/2006	0.5U	0.5U	0.25U	NT	NT	NT	NT	NT
	1/18/2007	ND	ND	0.077	ND	4.0	ND	6	9
	6/12/2007	ND	ND	ND	ND	ND	ND	N	D
	10/22/2007	NR	ND	2.4	NT	NT	NT	NT	NT
	3/19/2008	ND	ND	0.3	ND	ND	ND	N	D
	6/20/2008	NT	NT	0.13	NT	NT	NT	NT	NT
	12/30/2008	NT	NT	ND	NT	NT	NT	NT	NT
	7/27/2010	0.5U	0.5U	0.2U	NT	NT	NT	NT	NT
	4/28/2011	0.26 U	0.41U	0.1U_	0.2U	0.32	1. 0 U	0.4U	0.2U
MW-7A	3/8/2019	NT	NT	0.14	0.5	8.0	1. 0 U	1. 0 U	1. 0 U
	8/6/2019	NT	NT	0.12	0.5U	4.2	1. 0 U	1. 0 U	1.0U
	10/30/2019	NT	NT	0.1U	0.5U	2.1	1. 0 U	1. 0 U	1. 0 U
	1/31/2020	NT	NT	0.1U	0.5U	1. 0 U	1. 0 U	1. 0 U	1. 0 U

Table 4 (continued)
Total Petroleum Hydrocarbons
Groundwater

Well Number	Date	TPH Diesel Range	TPH Oil Range	TPH Gas Range	Benzene	Ethyl Benzene	Toluene	m,p Xylene	o Xylene
>	Units	mg/liter	mg/liter	mg/liter	/1:4		//*		
	1/29/1996	NT	1		μg/liter	μg/liter	μg/liter		liter
	6/20/1996	NT	NT NT	ND	ND	ND	ND		.0
	9/11/1996	NT	NT	0.1U 0.1U	NT	NT	NT	NT	NT
	12/10/1996	NT	NT	0.1U	ND NT	ND NT	ND NT	ND NT	NT
	4/3/1997	NT	NT	0.1U	NT	NT NT	NT NT	NT	NT
	1/31/1998	NT	NT	ND	ND ND	ND ND	ND ND	ND ND	IN 1
	10/10/2000	NT	NT	0.1U	1.0U	1.0U	1.0U	1.0U	NT NT
MW-8	9/25/2002	NT	NT	0.05U	1.0U	1.0U	1.0U		.0
	11/14/2003	NT	NT	0.05U	1.0U	1.0U	1.0U		DU DU
	6/21/2006	0.5U	0.5U	0.25U	NT	NT	NT	NT NT	NT
	12/15/2006	ND	ND	ND	NT	NT	NT	NT	NT
	1/18/2007	ND	ND	ND	NT	NT	NT	NT	NT
	6/12/2007	ND	ND	ND	ND	ND	ND	ND	
	10/22/2007	ND	ND	ND	NT	NT	NT	NT	NT
	3/19/2008	ND	ND	ND	NT	NT	NT	NT	NT
	6/20/2008	NT	NT	0.05U	NT	NT	NT	NT	NT
	12/30/2008	NT	NT	ND	NT	NT	NT	NT	NT
	7/27/2010	0.5U	0.5U	0.2U	NT	NT	NT	NT	NT

Well Number	Date	TPH Diesel Range	TPH Oil Range	TPH Gas Range	Benzene	Ethyl Benzene	Toluene	m,p Xylene	o Xylene
	Units	mg/liter	mg/liter	mg/liter	μg/liter	μg/liter	μg/liter	μg/	liter
	1/29/1996	NT	NT	ND	ND	ND	ND	1	.0
	6/20/1996	NT	NT	0.1U	NT	NT	NT	NT	NT
	9/11/1996	NT	NT	0.1U	ND	ND	ND	N	D
	12/10/1996	NT	NT	0.1U	NT	NT	NT	NT	NT
	4/3/1997	NT	NT	0.1U	ND	ND	ND	ND	ND
LAW A	1/31/1998	NT	NT	ND	ND	ND	ND	ND	ND
MW-9	10/10/2000	NT	NT	0.1U	1. 0 U	1. 0 U	1. 0 U	1.0U	1. 0 U
	9/25/2002	NT	NT	0.05U	1. 0 U	1.0U	1. 0 U	2	.0
	11/14/2003	NT	NT	0.05U	1. 0 U	1. 0 U	1. 0 U	3.0	0U
	1/18/2007	ND	ND	ND	NT	NT	NT	NT	NT
	6/12/2007	ND	ND	ND	NT	NT	NT	NT	NT
	10/22/2007	ND	ND	ND	NT	NT	NT	NT	NT
	3/19/2008	ND	ND	ND	NT	NT	NT	NT	NT
	6/20/2008	NT	NT	0.05	NT	NT	NT	NT	NT
	12/30/2008	NT	NT	ND	NT	NT	NT	NT	NT
	7/27/2010	0.5U	0.5U	0.2U	NT	NT	NT	NT	NT

Well	Date	TPH Diesel Range	TPH Oil Range	TPH Gas Range	Benzene	Ethyl Benzene	Toluene	m,p Xylene	o Xylene				
	Units	mg/liter	mg/liter	mg/liter	μg/liter	μg/liter	μg/liter	μg/li	ter				
	1/29/1996 NT NT 0.93 ND 62 ND 39.7												
	6/20/1996 NT NT 1.1 NT NT NT NT NT NT												
	9/11/1996 NT NT 0.58 ND 43 ND 171												
12/10/1996 NT NT 0.1U ND ND ND 1.2													
	4/3/1997	NT	NT	0.1U	ND	2.1	ND	5.2					
	1/31/1998	NT	NT	ND	ND	ND	ND	NE)				
MW-10	10/10/2000	NT	NT	ND	1. 0 U	1. 0 U	1. 0 U	1. 0 U	NT				
14144-10	9/25/2002	NT	NT	0.05U	1. 0 U	1. 0 U	1. 0 U	2.0)				
	11/14/2003	NT	NT	0.05U	1. 0U	1. 0 U	1. 0 U	3.01	U_				
	12/15/2006	ND	ND	ND	NT	NT	NT	NT	NT				
	6/12/2007	ND	ND	ND	NT	NT	NT	NT	NT				
	10/22/2007	ND	ND	ND	NT	NT	NT	NT	NT				
	3/19/2008	ND	ND	ND	NT	NT	NT	NT	NT				
	6/20/2008	NT	NT	0.05U	NT	NT	NT	NT	NT				
	12/30/2008	NT	NT	ND	NT	NT	NT	NT	NT				
	7/27/2010 0.5U 0.5U 0.2U NT NT NT NT NT												
	7/11/2013	NT	NT	0.1U	0.5U	1.8	1. 0 U	16	1. 0 U				
		MV	V-10 abandoned	due to lower gr	oundwater level	s in September	2014.						

MW-101 MW-102 MW-102 MW-102 MW-102 MW-102 MW-103 MW-104 MW-103 MW-104 MW-104 MW-104 MW-104 MW-104 MW-105	Well	Date	TPH Diesel Range	TPH Oil Range	TPH Gas Range	Benzene	Ethyl	Toluene	m,p Xylene	o Xylene				
MW-101 9/29/2011 0.26U 0.41U 0.16 1.3 0.95 1.0U 1.5 0.2U MW-101 went dry after sept 29, 2011 and was converted to an SVE well. MW-101 was abandoned MW-102 5/10/2011 0.27U 0.41U 0.5U 0.2U 0.2U 1.0U 0.4U 0.2U MW-102 9/29/2011 0.26U 0.41U 0.59 0.2U 0.2U 1.0U 0.4U 0.2U MW-103 MW-102 went dry after sept 29, 2011 and was converted to an SVE well. MW-101 was abandoned WW-103 was abandoned WW-103 was abandoned 0.2U 0.2U 1.0U 0.4U 0.2U MW-103 0.26U 0.41U 0.27 0.2U 0.2U 1.0U 0.4U 0.2U MW-104 0.29/2011 0.41U 0.26U 0.1U 0.27 0.2U 1.0U 0.4U 0.2U MW-104 0.29/2011 0.41U 0.26U 0.1U 0.27 0.2U 1.0U 0.4U 0.4U 0.2U						μg/liter	μg/liter	ug/liter	ua/1	i ton				
MW-101 went dry after sept 29, 2011 and was converted to an SVE well. MW-101 was abandoned MW-102 MW-102 went dry after sept 29, 2011 and was converted to an SVE well. MW-101 was abandoned	MW-101				VIVIVIO O O O O O O O O O O O O O O O O	1,3								
MW-102 5/10/2011 0.27U 0.41U 0.5U 0.2U 0.2U 1.0U 0.4U 0.2U 0.2U 0.2U 0.4U 0.2U 0.2U 0.4U 0.2U 0.2U 0.4U 0.2U 0.2U 0.4U 0.2U 0.2U 0.2U 0.2U 0.4U 0.2U		912912011		0.420	0,29	2.8	1.2							
MW-102 9/29/2011 0.26U 0.41U 0.59 0.2U 0.2U 1.0U 0.4U 0.2U MW-102 went dry after sept 29, 2011 and was converted to an SVE well. MW-101 was abandoned MW-103 0.7U 0.42U 0.94 0.2U 0.2U 1.0U 0.4U 0.2U 9/29/2011 0.26U 0.41U 0.27 0.2U 0.2U 1.0U 0.4U 0.2U MW-104 0/29/2011 0.41U 0.26U 0.1U 0.27 0.2U 1.0U 0.4U 0.2U MW-104 0/29/2011 0.26U 0.41U 0.27 0.2U 1.0U 0.4U 0.2U		5/10/2011	MW-101 Went	dry after sept 29,	2011 and was co	inverted to an SV	E well. MW-16	1 was abandoned	1 0.40	0.20				
MW-102 went dry after sept 29, 2011 and was converted to an SVE well. MW-101 was abandoned MW-103 went dry after sept 29, 2011 and was converted to an SVE well. MW-101 was abandoned MW-103 went dry after sept 29, 2011 and was converted to an SVE well. MW-101 was abandoned MW-103 went dry after sept 29, 2011 and was converted to an SVE well. MW-101 was abandoned MW-103 went dry after sept 29, 2011 and was converted to an SVE well. MW-101 was abandoned MW-104	MW-102			0.41U	0.5U	0.2U	0.211							
MW-102 went dry after sept 29, 2011 and was converted to an SVE well. MW-101 was abandoned MW-103 5/10/2011 0.7U 0.42U 0.94 0.2U 0.2U 1.0U 0.4U 0.2U 9/29/2011 0.26U 0.41U 0.27 0.2U 0.2U 1.0U 0.4U 0.2U MW-104 6/29/2011 0.41U 0.26U 0.1U 0.27 0.2U 1.0U 0.4U 0.2U MW-104 9/29/2011 0.26U 0.41U 0.1U 0.27 0.2U 1.0U 0.4U 0.2U 9/29/2011 0.26U 0.41U 0.1U 0.21 0.2U 1.0U 0.4U 0.2U 9/29/2011 0.26U 0.41U 0.1U 0.21 0.2U 0.2U 0.2U 0.2U 9/29/2011 0.26U 0.41U 0.1U 0.21 0.2U 0.2U 0.4U 0.2U 9/29/2011 0.26U 0.41U 0.1U 0.21 0.2U 0.2U 0.4U 0.2U 9/29/2011 0.26U 0.41U 0.1U 0.21 0.2U 0.2U 0.4U 0.2U 9/29/2011 0.26U 0.41U 0.1U 0.21 0.2U 0.2U 0.2U 0.2U 9/29/2011 0.26U 0.41U 0.1U 0.21 0.2U 0.2U 0.2U 0.2U 9/29/2011 0.26U 0.41U 0.1U 0.2U 0.2U 0.2U 0.2U 0.2U 0.2U 0.2U 9/29/2011 0.26U 0.41U 0.2U 0.2U		9/29/2011	0.26U	0.4 1U	0.59	0.211				0.2U				
MW-103 9/29/2011 0.26U 0.41U 0.27 0.2U 0.2U 1.0U 0.4U 0.2U			MW-102 went	dry after sent 29	2011 and was		0.20	1.00	0.4U	0.2 U				
MW-103 9/29/2011 0.26U 0.41U 0.27 0.2U 0.2U 1.0U 0.4U 0.2U MW-103 went dry after sept 29, 2011 and was converted to an SVE well. MW-101 was abandoned MW-104 6/29/2011 0.41U 0.26U 0.1U 0.27 0.2U 1.0U 0.4U 0.2U MW-104 9/29/2011 0.26U 0.41U 0.1U 0.21 0.2U 1.0U 0.4U 0.2U	1.691.100	5/10/2011	0.711	0.4211	2011 and was co	inverted to an SV	E well. MW-10	l was abandoned	i					
MW-104 6/29/2011 0.26U 0.1U 0.2V 0.2U 1.0U 0.4U 0.2U MW-104 9/29/2011 0.26U 0.1U 0.27 0.2U 1.0U 0.4U 0.2U	MW-103	\vdash					0.2 U	1. 0 U	0.411	0.211				
9/29/2011 0.26U 0.41U 0.1U 0.21 0.2H 1.0U 0.4U 0.2U				dry after sent 20	2011	0.2U	0.2 U	1. 0 U						
9/29/2011 0.26U 0.41U 0.1U 0.21 0.2H 1.0U 0.4U 0.2U		6/29/2011 0 411 0 261 0 114 0												
0.20	MW-104	7/W-104 9/29/2011 0.26U 0.10 0.27 0.2U 1.0U 0.4U 0.2U												
MW-104 went dry after September 29, 2011 This well has recognized 1.00 0.40 0.20		7/2//2011			0.1U	0.21	0.2U	4 077						
			<u>MW</u> -	-104 went dry af	iter September 2	9, 2011. This w	ell has remaine	d dry	0.40	<u>0.2U</u>				

Well	Date	TPH Diesel Range	TPH Oil Range	TPH Gas Range	Benzene	Ethyl Benzene	Toluene	m,p Xylene	o Xylene
	Units	mg/liter	mg/liter	mg/liter	μg/liter	μg/liter	μg/liter	μg/liter	μg/liter
	4/12/2013	0.59U	6.900	6.9	1.0U	1,100	4.5	4,000	1,100
	7/11/2013	0.27	0.1U	0.1U	0.5U	1. 0 U	1.0U	3.4	1.0U
	10/1/2013	0.69	6.8	6.8	0.5U	1500	4.3	5300	6800
	2/28/2014	0.28U	0.84	0.32	1.0U	84	1. 0 U	150	39
	2/20/2015	0.35	0.46U	0.1U	1.0U	1. 0 U	1. 0 U	1. 0 U	1.0U
MW-107	5/27/2015	0.31	0.41U	0.1U	0.5U	1. 0 U	1.0U	1. 0 U	1.0U
	2/5/2016	0.31	0.41U	0.73	0.5U	1.2	1. 0 U	130	1.0U
	3/8/2019	0.25U	0.4U	0.1U	0.5U	1. 0 U	1.0U	1. 0 U	1.0U
	7/31/2019	0.25U	0.4U	0.1U	0.5U	1. 0 U	1. 0 U	1. 0 U	1. 0 U
	10/30/2019	0.31	0.43	0.1U	0.5U	1. 0 U	1. 0 U	1. 0 U	1.0U
	11/12/2019	0.42	0.61	NT	NT	NT	NT	NT	NT
	1/31/2020	0.65 (0.2U)	0.42 (0.2U)	0.1U	0.5U	1. 0 U	1. 0 U	1. 0 U	1.0U
	2/5/2016	0.25U	0.41U	0.1U	0.5U	2.4	1. 0 U	6.4	1.0U
	3/8/2019	NT	NT	0.1U	0.5U	1. 0 U	1. 0 U	1. 0 U	1. 0 U
MW-108	7/31/2019	0.26U	0.41U	0.1U	0.5U	1. 0 U	1.0U	1. 0 U	1. 0 U
	10/30/2019	0.2U	0.2U	0.1U	0.5U	1.0U	1. 0 U	1.0U	1.0U
	1/31/2020	0.21U (0.21U	0.21U(0.21U)	0.1U	0.5U	1.0U	1. 0 U	1.0U	1.0U
	2/5/2019	0.26U	0.41U	0.1U	1. 0 U	1. 0 U	1. 0 U	1.0U	1.0U
	3/8/2019	NT	NT	0.1U	0.5U	1. 0 U	1. 0 U	1.0U	1. 0 U
MW-109	7/31/2019	NT	NT	0.1U	0.5U	1. 0 U	1.0U	1.0U	1. 0 U
	10/30/2019	NT	NT	0.1U	0.5U	1. 0 U	1. 0 U	1.0U	1. 0 U
	1/31/2020	NT	MT	0.1U	0.5U	1. 0 U	1.0U	1. 0 U	1. 0 U

Table 4 (continued)
Total Petroleum Hydrocarbons
Groundwater

Well	Date	TPH Diesel Range	TPH Oil Range	TPH Gas Range	Benzene	Ethyl	Toluene	m,p Xylene	o Xylene
	Units	mg/liter	mg/liter	mg/liter	μg/liter	μg/liter	μg/liter	μg/liter	μg/liter
	9/24/2014	NT	NT	0.1U	0.5U	1.0U	1. 0 U	1. 0 U	1. 0 U
	2/20/2015	0.26U	0.41U	0.1U	0.5U	1.0U	1. 0 U	1. 0 U	1. 0 U
	5/27/2015	NT	NT	0.1U	0.5U	1.0U	1. 0 U	1. 0 U	1.0U
MW-201	2/5/2016	NT	NT	0.1U	0.5U	1. 0 U	1 .0 U	1. 0 U	1. 0 U
	3/8/2019	NT	NT	0.1U	0.5U	1. 0 U	1. 0 U	1. 0 U	1. 0 U
	7/31/2019	NT	NT	0.1U	0.5U	1. 0 U	1. 0 U	1. 0 U	1. 0 U
	10/30/2019	NT	NT	0.1U	0.5U	1. 0 U	1. 0 U	1. 0 U	1. 0 U
	1/31/2020	NTNT		0.1U	0.5U	1. 0 U	1. 0 U	1.0U	1. 0 U
	9/24/2014	NT	NT	0.38	0.05U	51	6.3	46	44
	2/20/2015	0.7	0.44 U	42	4.6	3,900	31	9,200	1,900
	5/27/2015	0.39	0.41U	7.8	1.4	1,600	3.8	3,400	570
MW-202	2/5/2016	0.57	0.41	31.0	3.4	3,100	7.0	8,200	900
IVI VV -202	3/8/2019	NT	NT	40.0	4.3	5,100	. 17	16,000	1,600
	8/6/2019	NT	NT	33.0	2.8	2,000	4.9	9,400	840
	10/30/2019	NT	NT	19.0	2.1	2,100	3.9	7,500	520
	1/31/2020	0.21U	0.21U	15	1.5	1,100	1. 0 U	4,000	110

Well	Date	TPH Diesel Range	TPH Oil Range	TPH Gas Range	Benzene	Ethyl	Toluene	m,p Xylene	o Xylene
	Units	mg/liter	mg/liter	mg/liter	μg/liter	μg/liter	μg/liter	μg/liter	μg/liter
	9/24/2014	0.26 U	0.42U	0.1U	0.5U	3.8	1.0U	1.7	1.0
	2/20/2015	0.29U	0.47U	0.15	0.5U	18	1.0U	20	1.4
	5/27/2015	0.26U	0.41U	0.1U	0.5U	21	1. 0 U	1.0U	1.0U
MW-203	2/5/2016	0.26 U	0.41U	0.1U	0.5U	2.3	1. 0 U	1.0U	1.0U
	3/8/2019	NT	NT	0.1U	0.1U	1. 0 U	1. 0 U	1.0U	1.0U
	7/31/2019	NT	NT	0.1U	0.5U	1.0U	1.0U	1.0U	1.0U
	10/30/2019	NT	NT	0.1U	0.5U	1. 0 U	1.0U	1.0U	1.0U
	1/31/2020	NT	NT	0.1U	0.5U	1. 0 U	1. 0 U	1.0U	1.0U
	9/24/2014	0.47	0.41U	0.16	0.5U	1.0U	1.0U	1.0U	1.0U
	2/20/2015	0.43	0.45U	0.17	0.5U	3.2	1. 0 U	8.5	1.5
	5/27/2015	0.26 U	0.41U	0.1U	0.5U	1.0U	1.0U	1.0U	1.0U
MW-204	2/5/2016	0.44	0.41U	0.16	0.5U	1.0U	1. 0 U	6.4	1.0U
WI W -204	3/8/2019	NT	NT	0.1U	1. 0 U	1.0U	1.0U	1.0U	1.0U
	7/31/2019	NT	NT	0.1 U	0.5U	1. 0 U	1.0U	1.0U	1.0U
	10/30/2019	NT	NT	0.1U	0.5U	1.0U	1.0U	1.0U	1.0U
11-24 W. A. L.	1/31/2020	NT	NT	0.1U	0.5U	1.0U	1.0U	1.0U	1.0U
	11/25/2014	NT	NT	0.1U	0.5U	1.0U	1. 0 U	1.0U	1.0U
	2/20/2015	0.28 U	0.44U	0.1 U	0.5U	1. 0 U	1.0U	1.0U	1.0U
	5/27/2015	NT	NT	0.1U	0.5U	1.0U	1.0U	1.0U	1.0U
MW-205	3/8/2019	0.25U	0.4U	0.1U	0.5U	1. 0 U	1.0U	1.0U	1.0U
	8/6/2019	0.25U	0.4U	0.1U	0.5U	1.0U	1.0U	1.0U	1.0U
	10/30/2019	0.21 U	0.21U	0.1U	0.5U	1. 0 U	1. 0 U	1.0U	1.0U
	1/31/2020	NT	NT	0.1U	0.5U	1. 0 U	1. 0 U	1.0U	1.0U
	3//8/2019	0.25U	0.4U	0.1U	0.5U	1. 0 U	1. 0 U	1.0U	1.0U
MW-206	7/31/2019	0.25 U	0.4U	0.1U	0.5U	1. 0 U	1. 0 U	1.0U	1.0U
141 44 -700	10/30/2019	0.27	0.2 U	0.1U	0.5U	1.0U	1. 0 U	1.0U	1.0U
	1/31/2020	NT	NT	0.1U	0.5U	1. 0 U	1. 0 U	1.0U	1.0U
MTCA Method A		0.5	0.5	0.8 (1.0)	5.0	700	1,000	1,00	
Project Remediation	Levels	0.5	0.5	0.25	0.795	800	640	1,60	

Notes: TPH values are reported in mg/liter, BETX values are reported in µg/liter.

U modifier indicates that the analyte was not present at the stated practical quantitation limit (PQL).

NT indicates that the sample was not tested for the individual analyte.

Table 5 Volatile Organic Compounds Groundwater

Well Number	Date	Vinyl Chloride	1,1-Dichlroethane	(cis) 1,2- Dichloroehtene	Trichloroethylene	Tetrachloroethylene
	9/23/2020	1 0 U	10U	10U	1 0 U	10U
MW-1	4/29/2011	0.4U	0.4U	0.4U	0.4U	0.4U
MW-6	4/29/2011	0.2U	0.20	0.2U	0.2U	0.22
MW-7	4/29/2011	0.2U	0.2U	0.39	0.22	0.27
MW-101	5/10/2011	0.2U	0.49	0.39	0.2U	0.2U
MW-102	5/10/2011	0.2U	0.2U	0.2U	0.2U	0.2U
MW-103	5/10/2011	0.2U	0.2U	0.2U	0.2U	0.2U
MW-104	6/29/2011	0.2U	0.23	0.2U	0.2U	0.2U
MTC		0.2	7.7	16	5.0	5.0

Notes: All units are µg/liter.

Table 6
PAHs-MW-205/MW-206/MW-107

Well Number	Date	Benzo[a]pyrene	Benzo[a]anthracene	Benzo[b]fluoranthene	Benzo[k]fluoranthene	Chrysene	Dibenz[a,h]anthracene	Indeno[1,2,3-cd]pyrene	Total cPAHs
MW-205	1/12/2015	0.0094U	0.0094U	0.0094U	0.094U	0.0094U	0.0094U	0.0094U	0.066U
	3/8/2019	0.0094U	0.0094U	0.0094U	0.094U	0.0094U	0.0094U	0.0094U	0.066U
	8/14/2019	0.010U	0.010U	0.010U	0.010U	0.010U	0.010 U	0.010 U	0.07U
	11/1/2019	0.0094U	0.0094U	0.0094U	0.094U	0.0094U	0.0094U	0.0094U	0.066U
	1/31/2020	0.0094U	0.0094U	0.0094U	0.094U	0.0094U	0.0094U	0.0094U	0.066U
MW-206	3/8/2019	0.0096U	0.0096U	0.0096U	0.0096U	0.0096U	0.0096U	0.0096U	0.0672
	8/14/2019	0.010U	0.010U	0.010U	0.010U	0.010U	0.010U	0.010U_	0.07 U
	11/1/2019	0.0094U	0.0094U	0.0094U	0.094U	0.0094U	0.0094U	0.0094U	0.066U
	1/30/2020	0.0095U	0.0095U	0.0095U	0.0095U	0.0095U	0.0095U	0.0095U	0.0665U
MW-107	11/1/2019	0.0094U	0.0094U	0.0094U	0.094U	0.0094U	0.0094U	0.0094U	0.066U
MTCA				0.1 for	r sum of cP	AHs		-	·

Notes: All units are µg/liter.

Note total cPAH shown does not take 708-2 TEF into account and is a conservative number. Non-carcinogenic PAHs are not shown for brevity, all PAHs in the analysis were below the PQL. MW-107 was analyzed for PAHs as part of a VPH/EPH analysis.

Table 7 Lead

Well ID	Date	Total lead	Dissolved Lead
MW-107	2/20/2015	13	1.0U
MW-201	2/20/2015	1.1U	1.0U
MW-202	2/20/2015	2.5	1.0U
MW-203	2/20/2015	1.1U	1.0U
MW-204	2/20/2015	1.1U	1.0U
MTCA N	Method A	15	15

Notes: All units are µg/liter.

Samples for dissolved lead analysis were field filtered through a 0.45-micron filter.

Table 8 Ethylene Glycol

Well ID	Date	Ethylene Glycol
MW-107	2/20/2015	10U
MW-201	2/20/2015	10U
MW-202	2/20/2015	10U
MW-203	2/20/2015	10U
MTCA I	MTCA Method B	

Table 9 Groundwater Parameters

Well Number	Date	Hď	Conductivity	OŒ	ORP	Temp.
	6/21/2006	6.19	600	NM	NM	NM
MW-1	12/15/2006	6.97	NM	NM	NM	NM
	4/29/2011	NM	NM	NM	NM	15.8
MW-2	6/21/2006	6.97	249	NM	NM	NM
IVI W - 2	12/15/2006	6.9	NM	NM	NM	NM
MW-3	12/15/2006	6.35	NM	NM	NM	NM
	6/21/2006	6.3	484	NM	NM	NM
MW-4	12/15/2006	6.9	NM	NM	NM	NM
	9/27/2013	6.5	654	0.57	-75	20.1
N/W/ 5	6/21/2006	6.05	430	NM	NM	NM
MW-5	12/15/2006	6.85	NM	NM	NM	NM
	6/21/2006	6.67	521	NM	NM	NM
	12/15/2006	6.9	NM	NM	NM	NM
	4/29/2011	NM	NM	NM	NM	12.6
	9/27/2013	6.16	379	0	-2	19.24
MW-6	5/27/2015	6.27	316	1.82	-19.2	14.51
	7/30/2019	6.46	406	0.71	-5.3	16.58
	10/30/2019	6.61	268	2.28	15.9	14.26
	1/30/2020	6.78	267	0.21	-1	12.91
	6/21/2006	6.7	511	NM	NM	NM
MW-7	4/29/2011	NM	NM	NM	NM	14.4
	3/7/2019	7.19	775	0.3	-105.9	13.15
	7/30/2019	7.2	630	1.82	-84.8	17.7
MW-7A	10/30/2019	7.42	618	1.25	-115.8	17.19
	1/30/2020	7.15	787	0.29	-147	14.79
	6/21/2006	6.6	579	NM	NM	NM
MW-8	12/15/2006	7.0	NM	NM	NM	NM
MW-10	12/15/2006	6.9	NM	NM	NM	NM
	5/10/2011	NM	NM	NM	NM	15.3
MW-101	7/6/2011	6.55	148	0.32	-10	16.0
MW-102	5/10/2011	NM	NM	NM	NM	15.2
	5/10/2011	NM	NM	NM	NM	16.1
MW-103	7/6/2011	6.49	113	0.3	-45	16.6

Table 9 (cont.) Groundwater Parameters

Well Number	Date	Hď	Conductivity	DO	ORP	Temp.
MW-7	6/21/2006	6.7	511	NM	NM	NM
141 44 - 7	4/29/2011	NM	NM	NM	NM	14.4
	3/7/2019	7.19	775	0.3	-105.9	13.15
MW-7A	7/30/2019	7.2	630	1.82	-84.8	17.7
141 44 - 77 X	10/30/2019	7.42	618	1.25	-115.8	17.19
	1/30/2020	7.15	787	0.29	-147	14.79
MW-8	6/21/2006	6.6	579	NM	NM	NM
	12/15/2006	7.0	NM	NM	NM	NM
MW-10	12/15/2006	6.9	NM	NM	NM	NM
MW-101	5/10/2011	NM	NM	NM	NM	15.3
1V1 W - 1 U 1	7/6/2011	6.55	148	0.32	-10	16.0
MW-102	5/10/2011	NM	NM	NM	NM	15.2
MW 102	5/10/2011	NM	NM	NM	NM	16.1
MW-103	7/6/2011	6.49	113	0.3	-45	16.6
MW-107	7/11/2013	6.53	855	0.6	-69	17.03
	9/27/2013	7.06	968	0	-94	20.09
	2/20/2015	6.91	NM	0.67	-92.2	14.32
	3/7/2019	6.65	877	0.54	50.6	11.58
	7/30/2019	6.47	791	0.69	82.2	17.88
	10/30/2019	6.45	564	1.03	36	17.51
	1/30/2020	6.59	595	0.19	80	13.07
MW-108	3/7/2019	7.41	284	0.19	-117.4	11.64
	7/30/2019	7.33	290	0.57	-90.1	17.75
	1/30/2020	7.03	328	0.39	-91	14.18
MW-109	3/7/2019	6.98	775	0.47	-80.1	13.52
	7/30/2019	6.91	872	0.71	-46.2	16.98
	1/30/2020	7.14	779	0.37	32	15.24
MW-201	2/20/2015	7.27	NM	0.89	-9	15.23
	5/27/2015	7.01	444	1.94	-50.2	15.16
	3/17/2019	7.11	448	0.55	-35.5	12.94
	7/30/2019	7.12	469	1.29	-72.2	16.26
	10/30/2019	7.11	439	1.33	-82.8	15.78
	1/30/2020	7.01	519	0.01	-76	14.8

Table 9 (cont.) Groundwater Parameters

Well Number	Date	Hd	Conductivity	DO	ORP	Temp.
MW-202	2/20/2015	6.82	NM	0.71	-82.3	14.61
	5/27/2015	6.62	638	0.68	-58.1	14.88
	3/9/2019	6.75	588	0.68	-103.3	12.86
	7/30/2019	6.69	586	1.66	-44.1	16.7
	10/30/2019	6.76	627	1.51	-66	16.86
	1/30/2020	6.65	830	0.52	-130	14.89
MW-203	2/20/2015	6.95	NM	0.56	-116.7	14.67
	5/27/2015	6.52	526	1.01	-57.1	15.83
	3/7/2019	6.64	598	0.37	-61.8	12.04
	7/30/2019	6.61	682	1.31	-73.2	17.44
	10/30/2019	6.62	603	2.16	-34.2	17.32
	1/30/2020	6.58	787	0.18	-83	14.27
MW-204	2/20/2015	6.7	NM	0.84	-98.4	14.4
	5/27/2015	6.55	489	0.7	-83.5	15.87
	3/9/2019	6.75	585	0.22	-98.5	11.57
	7/30/2019	6.64	611	0.8	-72	17.01
	10/30/2019	6.74	532	2.2	-64.9	17.8
	1/30/2020	6.59	689	0.2	-102	14.12
MW-205j	2/20/2015	7.02	NM	0.88	46.2	16.24
	5/28/2015	6.73	297	1.22	136.1	15.38
	3/7/2019	7.04	349	0.49	-10.1	14.18
	7/30/2019	7.02	341.6	2.29	78.3	16.1
	10/30/2019	7.04	357	1.74	1.8	15.72
	1/30/2020	6.89	412	0.1	37	15.26
MW-206	6/1/2018	7.26	1,477.3	1.3	-63.6	16.1
	3/9/2019					
	7/30/2019	6.63	1,104	1.73	-46.3	16.9
	10/30/2019	6.51	1,037	1.81	-34.9	16.13
	1/30/2020	6.47	140	0.51	-75	14.97

Notes:

Data prior to 2011 was collected by others.

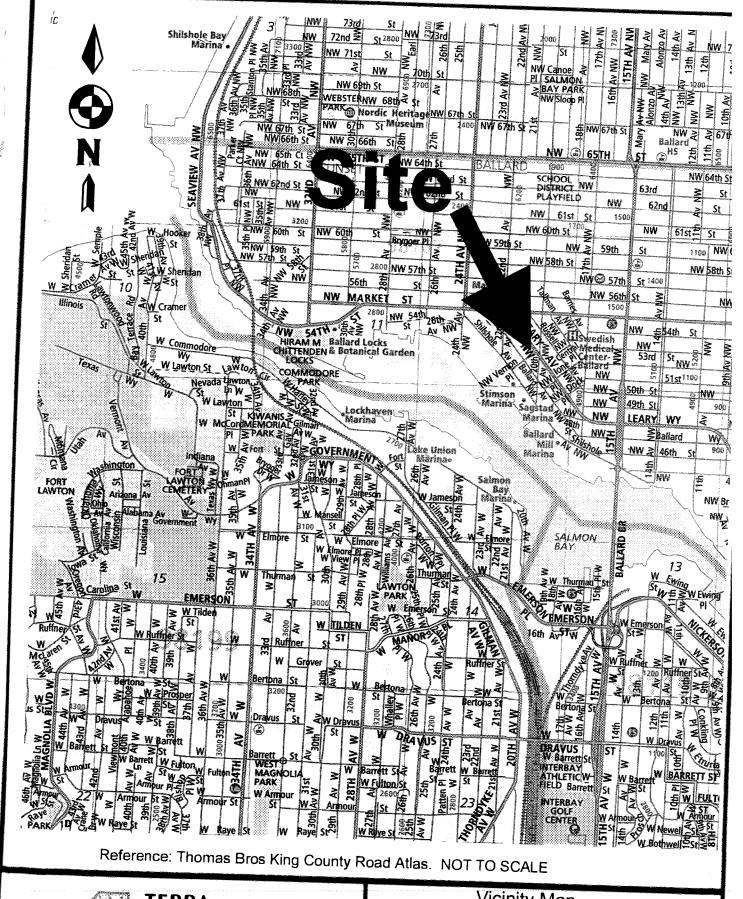
DO is measured in ppm.

ORP is measured in milli volts.

Conductivity is measured in micro Siemens.

pH is in standard units.

Temperature is in degrees Celsius.





TERRA ASSOCIATES

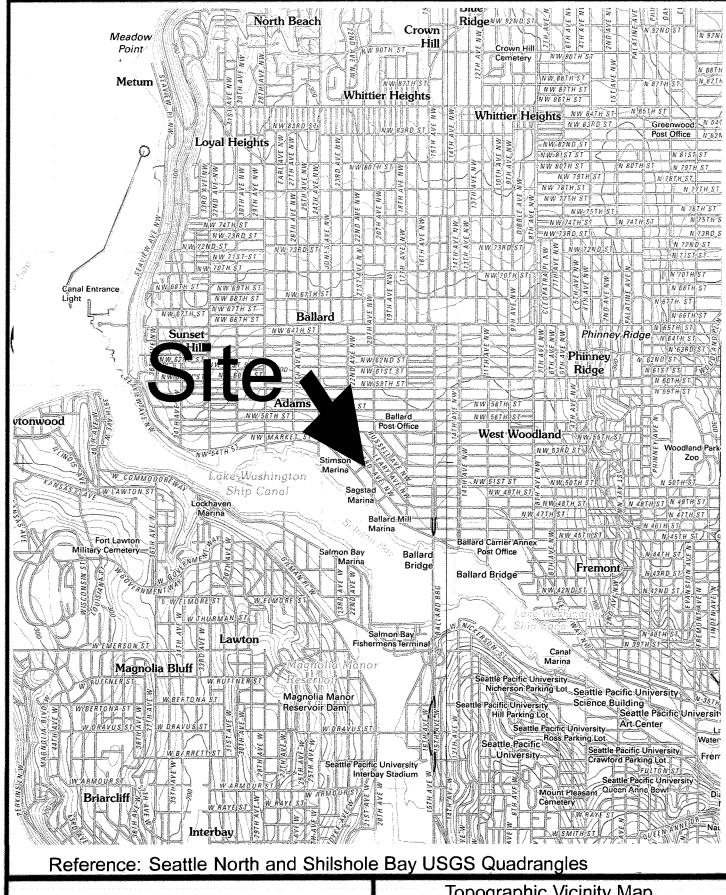
Geotechnical Consultants

Vicinity Map Former C and C Paint Facility Seattle, Washington

Proj. No T-6552

Date June 2020

Figure 1



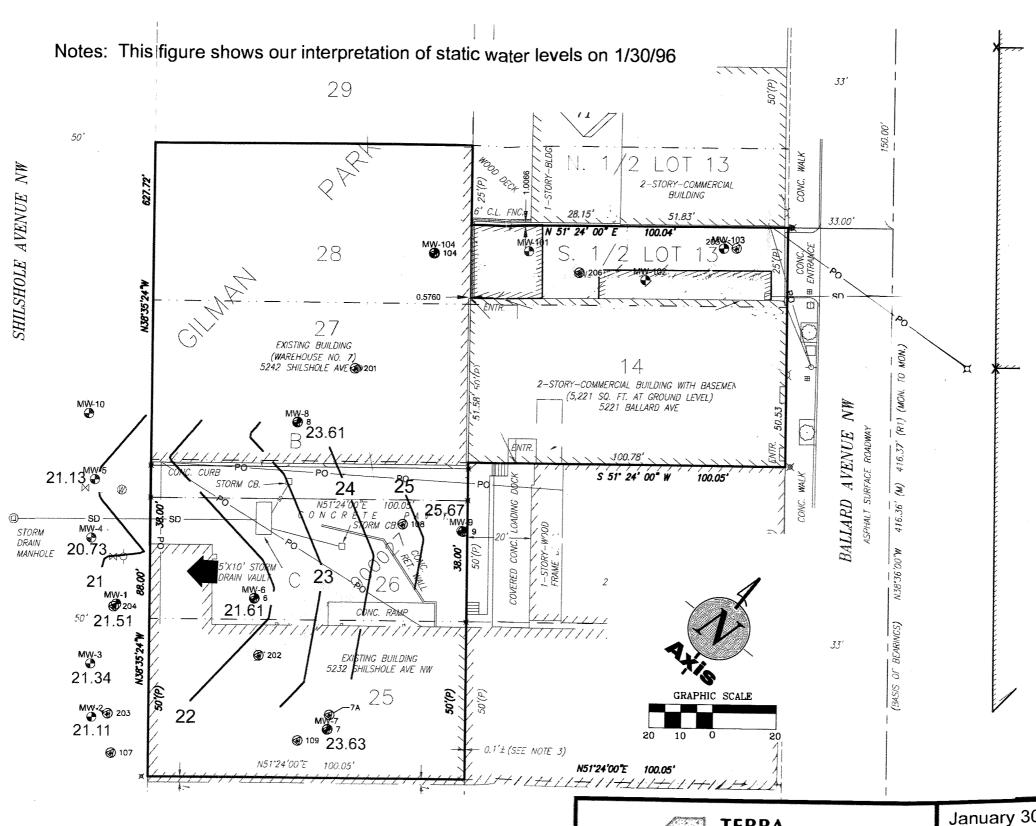


Topographic Vicinity Map Former C and C Paint Facility Seattle, Washington

Proj. No T-6552

Date June 2020

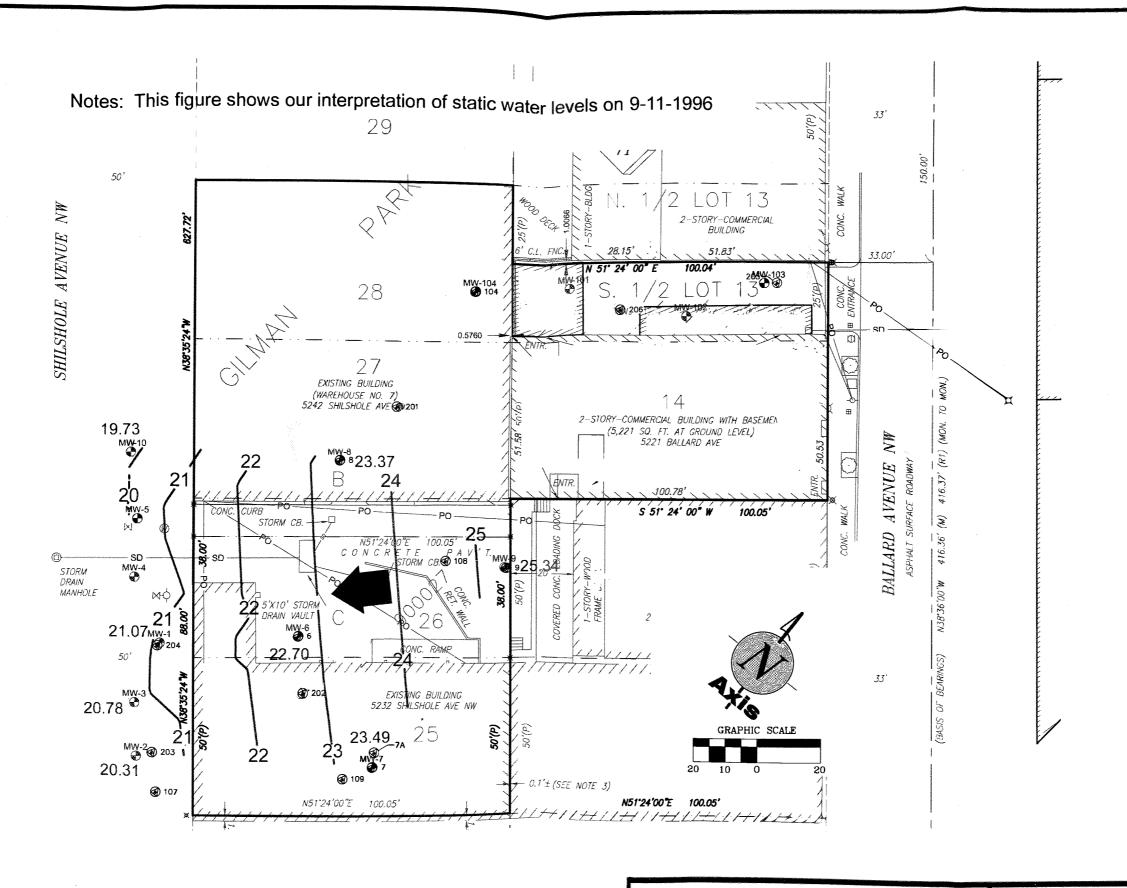
Figure 2



TERRA
ASSOCIATES

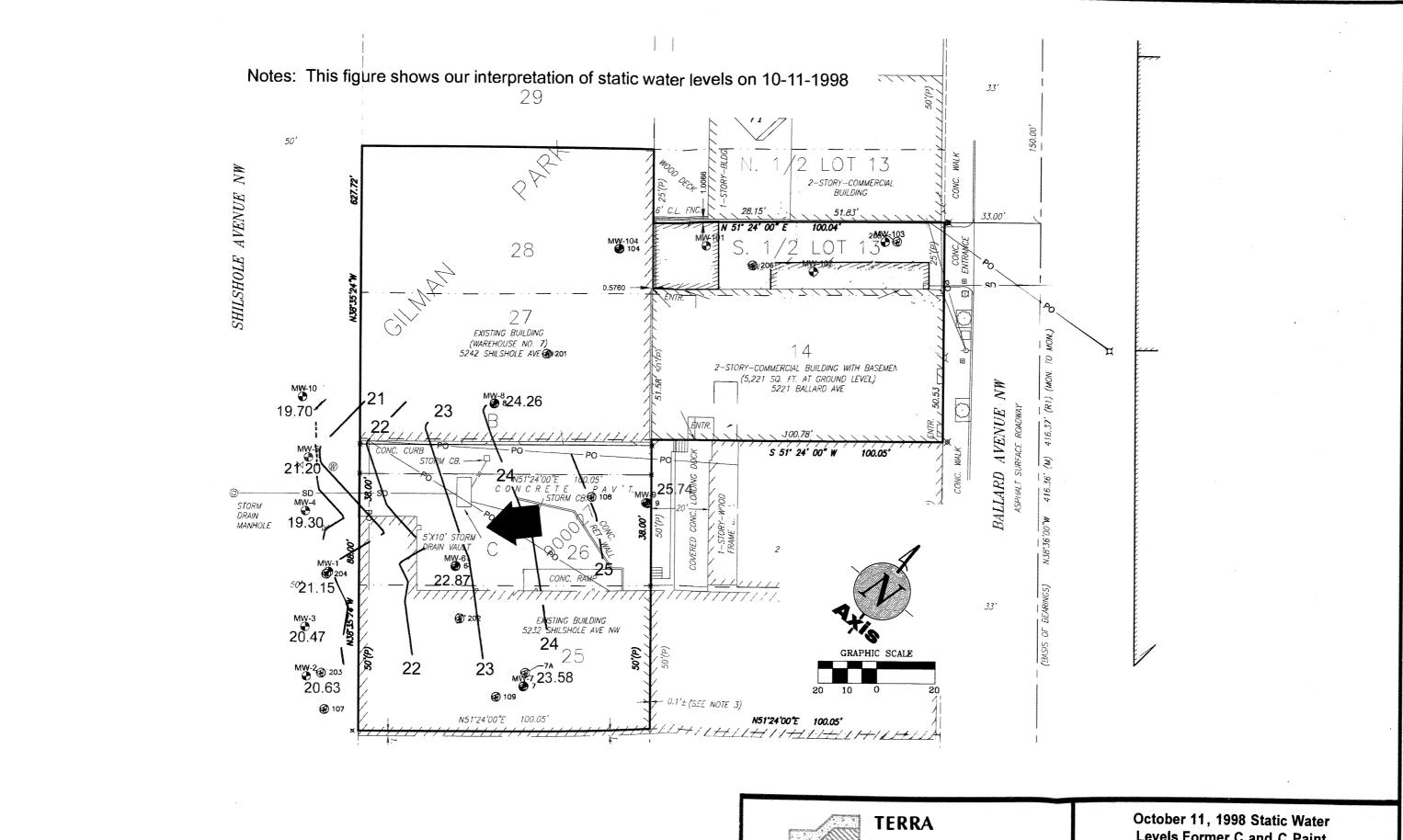
Geotechnical Consultants

January 30, 1996 Static Water Levels Former C and C Paint Faclity Seattle, Washington



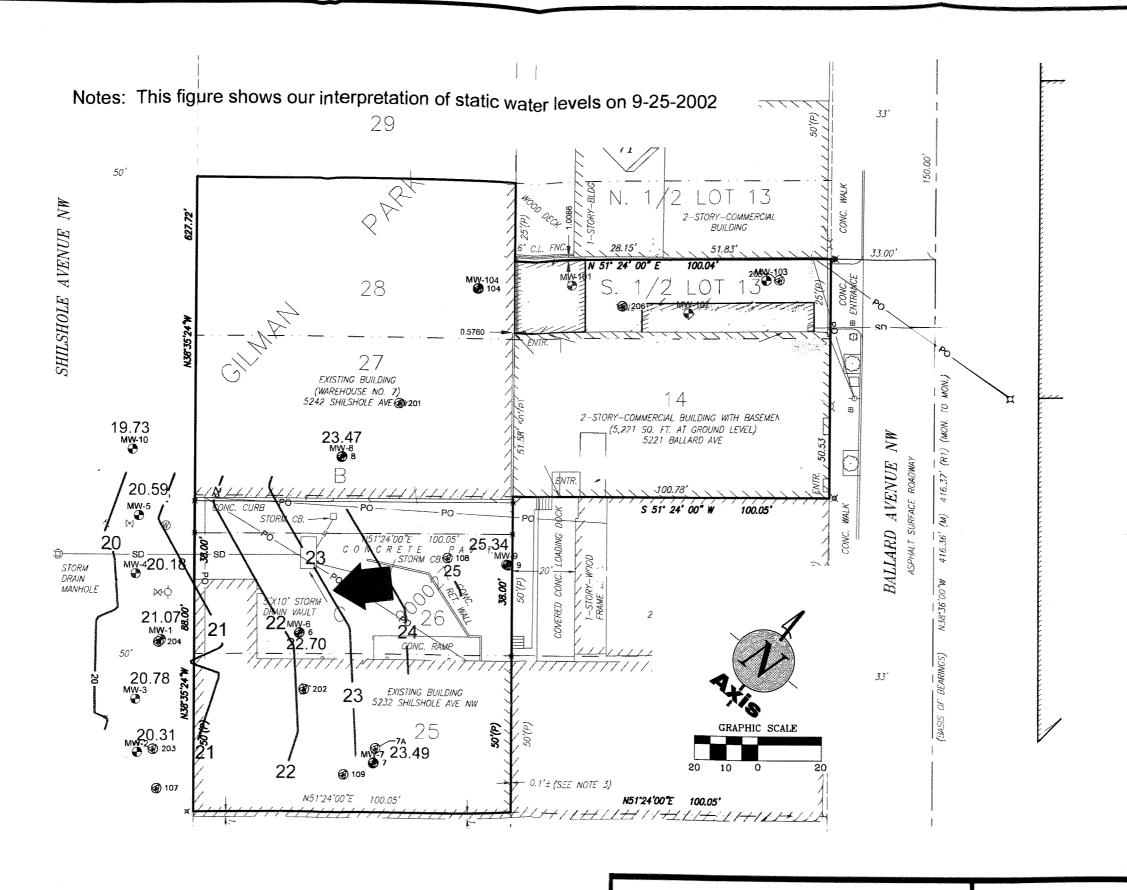


September 11, 1996 Static Water Levels Former C and C Paint Faclity Seattle, Washington





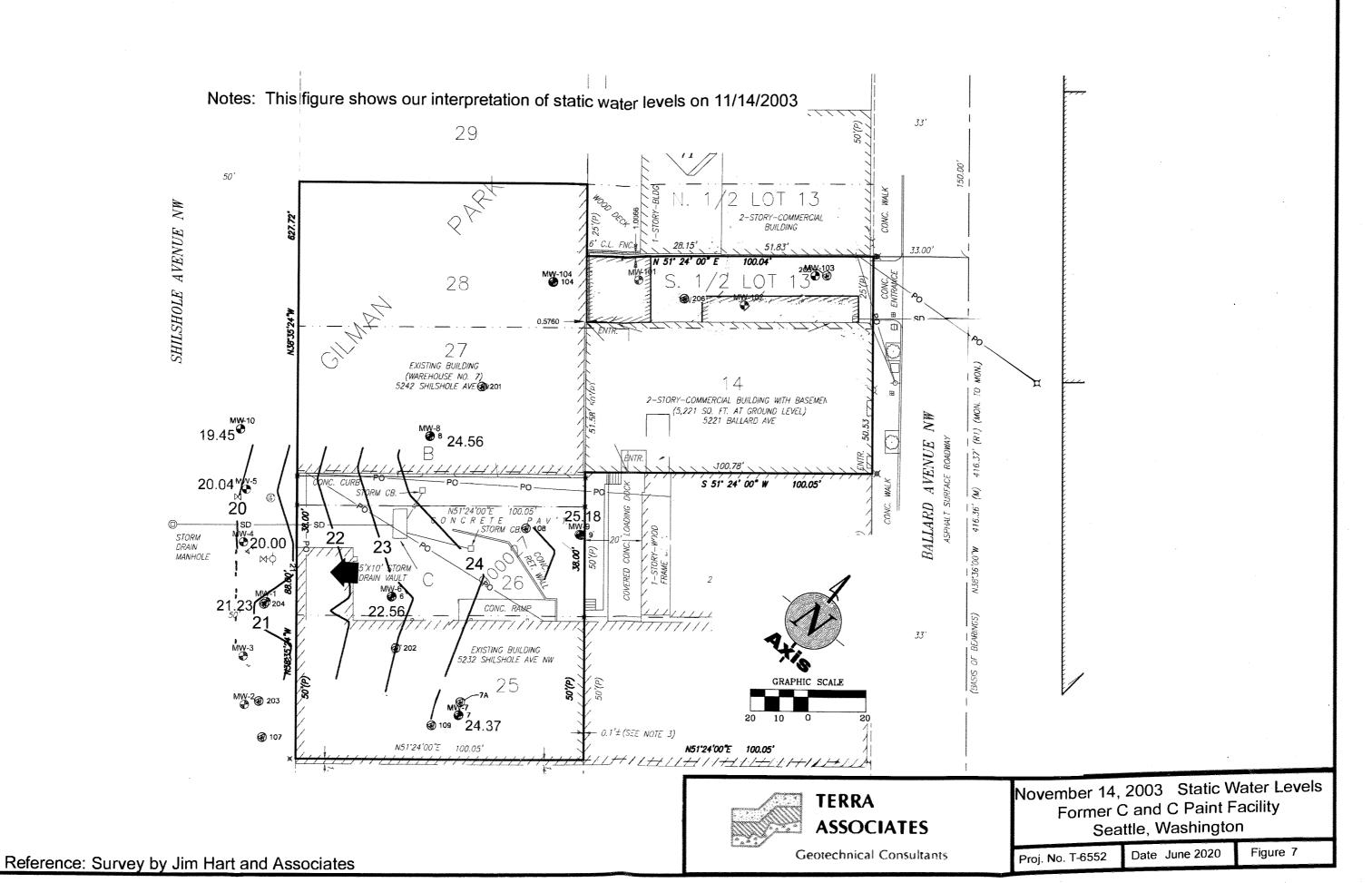
October 11, 1998 Static Water Levels Former C and C Paint Faclity Seattle, Washington

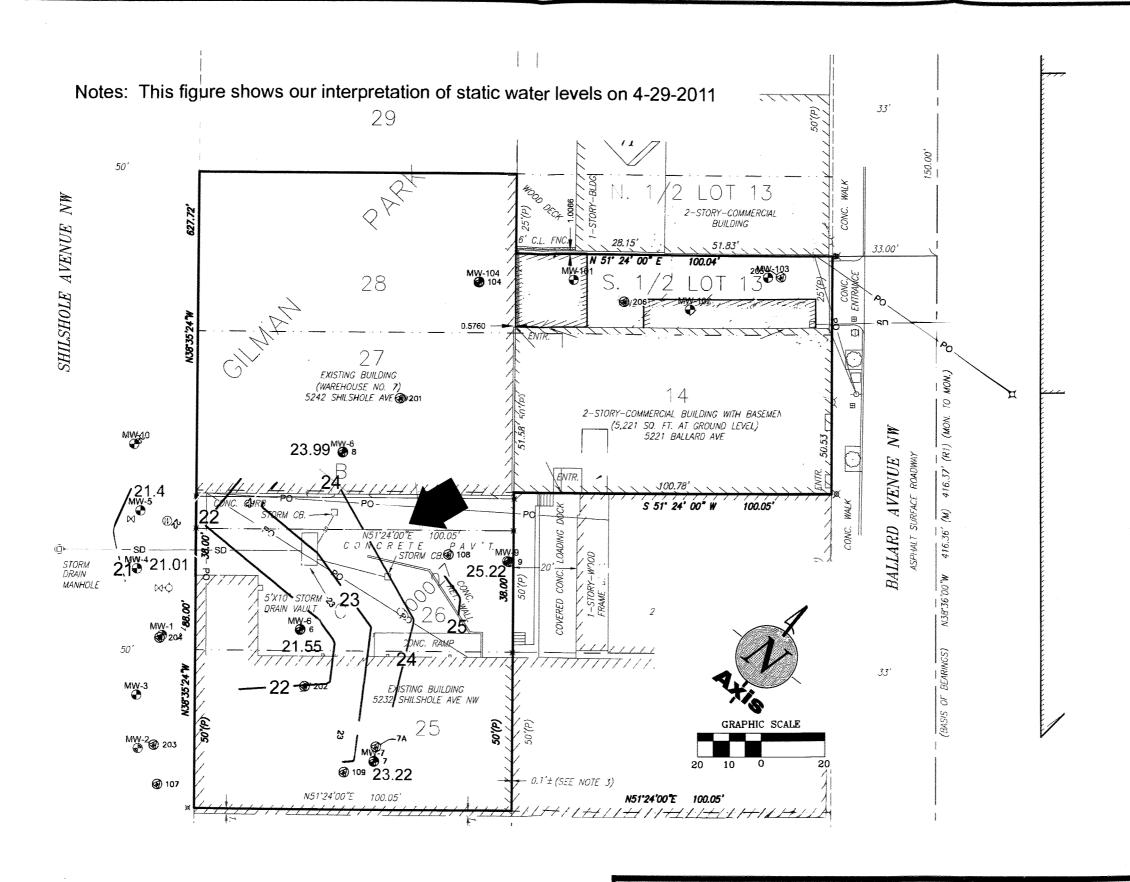




September 25, 2002 Static Water Levels Former C and C Paint Faclity Seattle, Washington

Figure 6



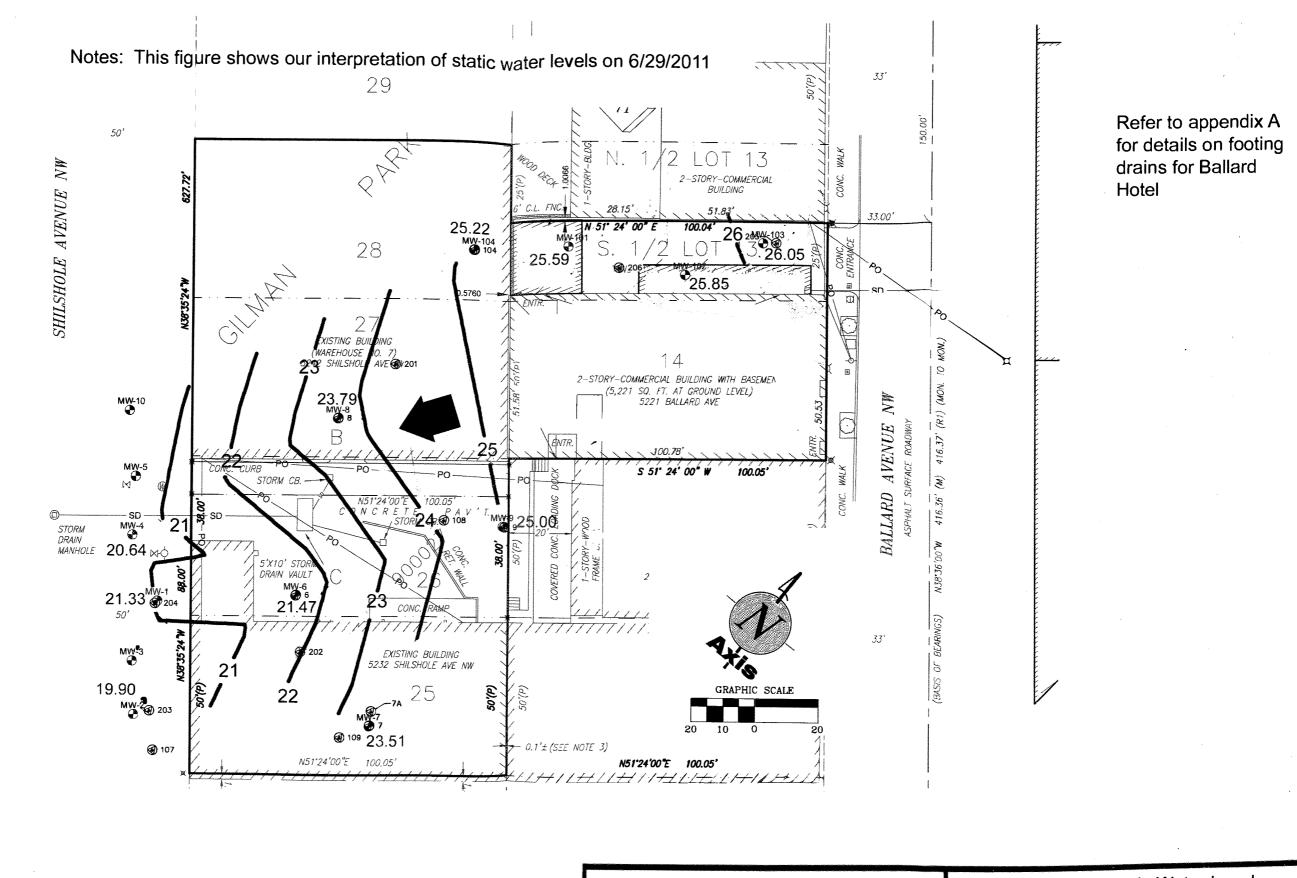


Refer to appendix A for details on footing drains for Ballard Hotel

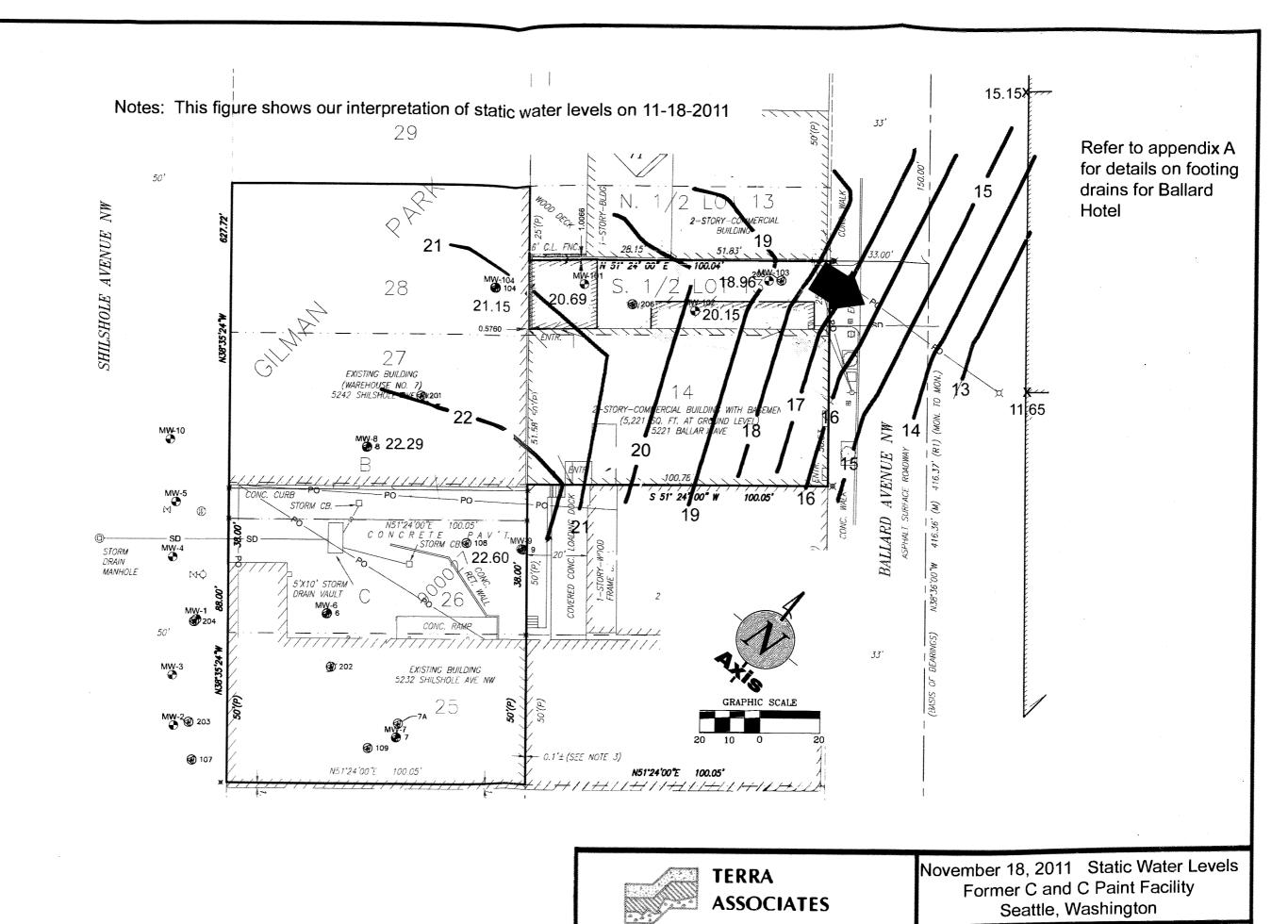


April 29, 2011 Static Water Levels Former C and C Paint Faclity Seattle, Washington

Proj. No. T-6552







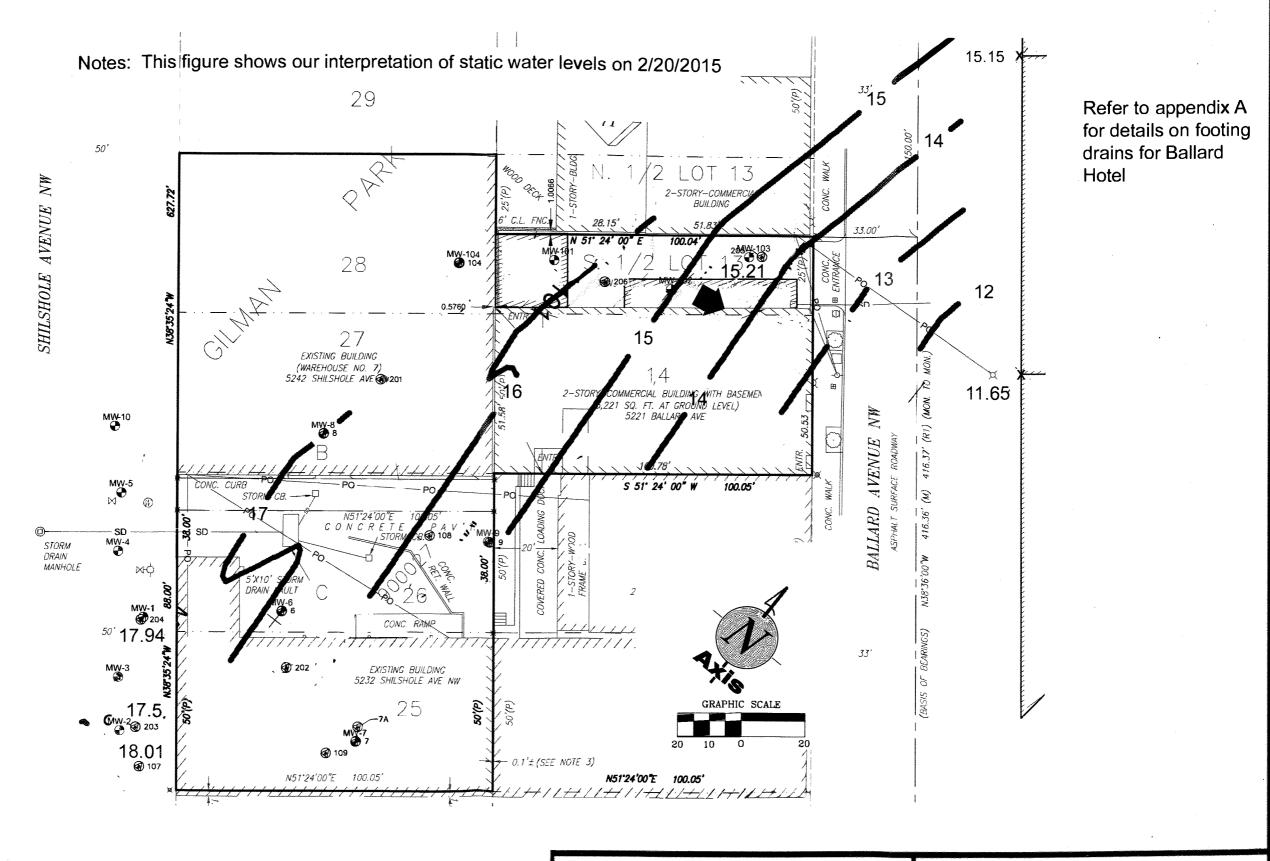
Reference: Survey by Jim Hart and Associates

Geotechnical Consultants

Proj. No. T-6552

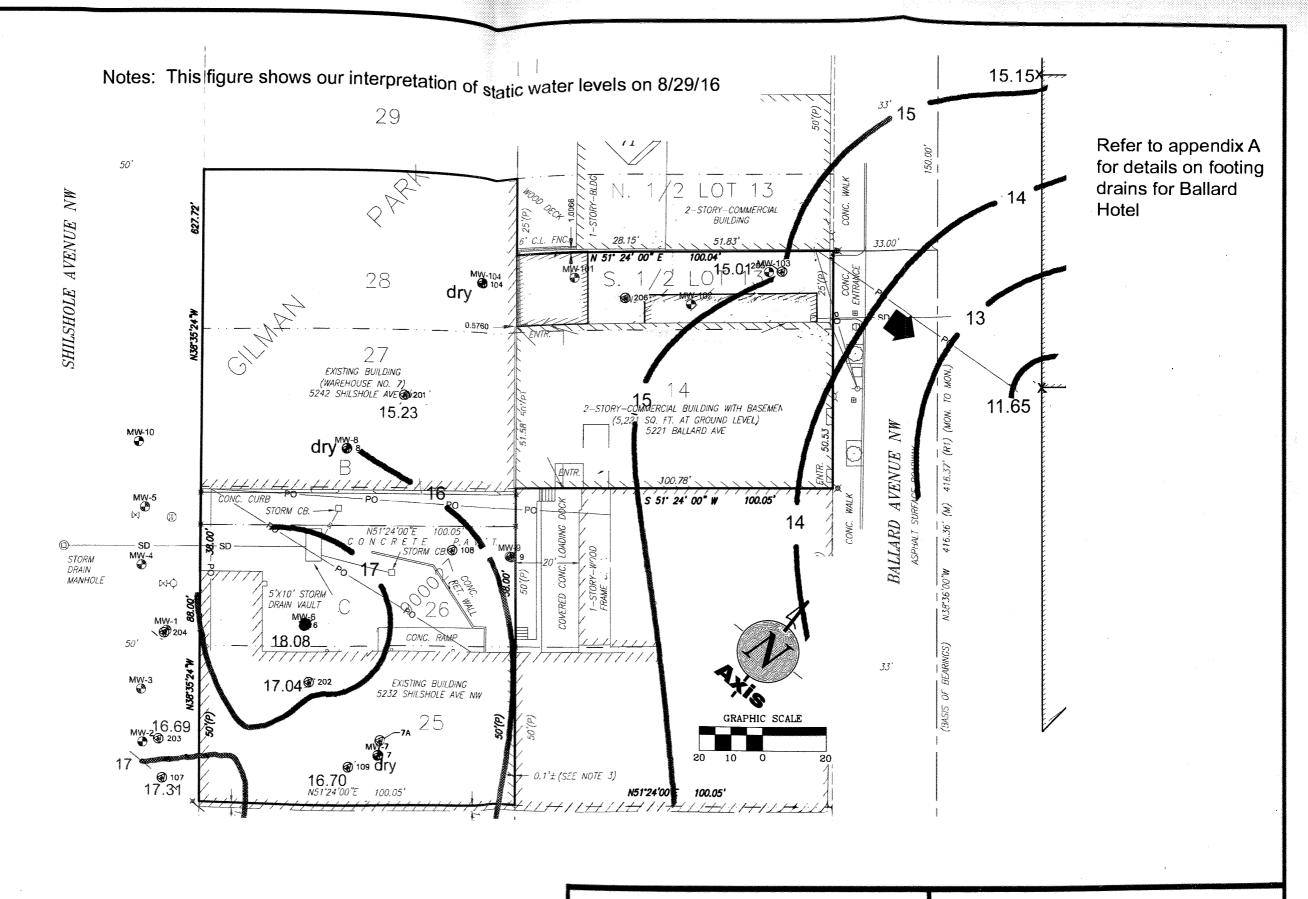
Figure 10

Date June 2020



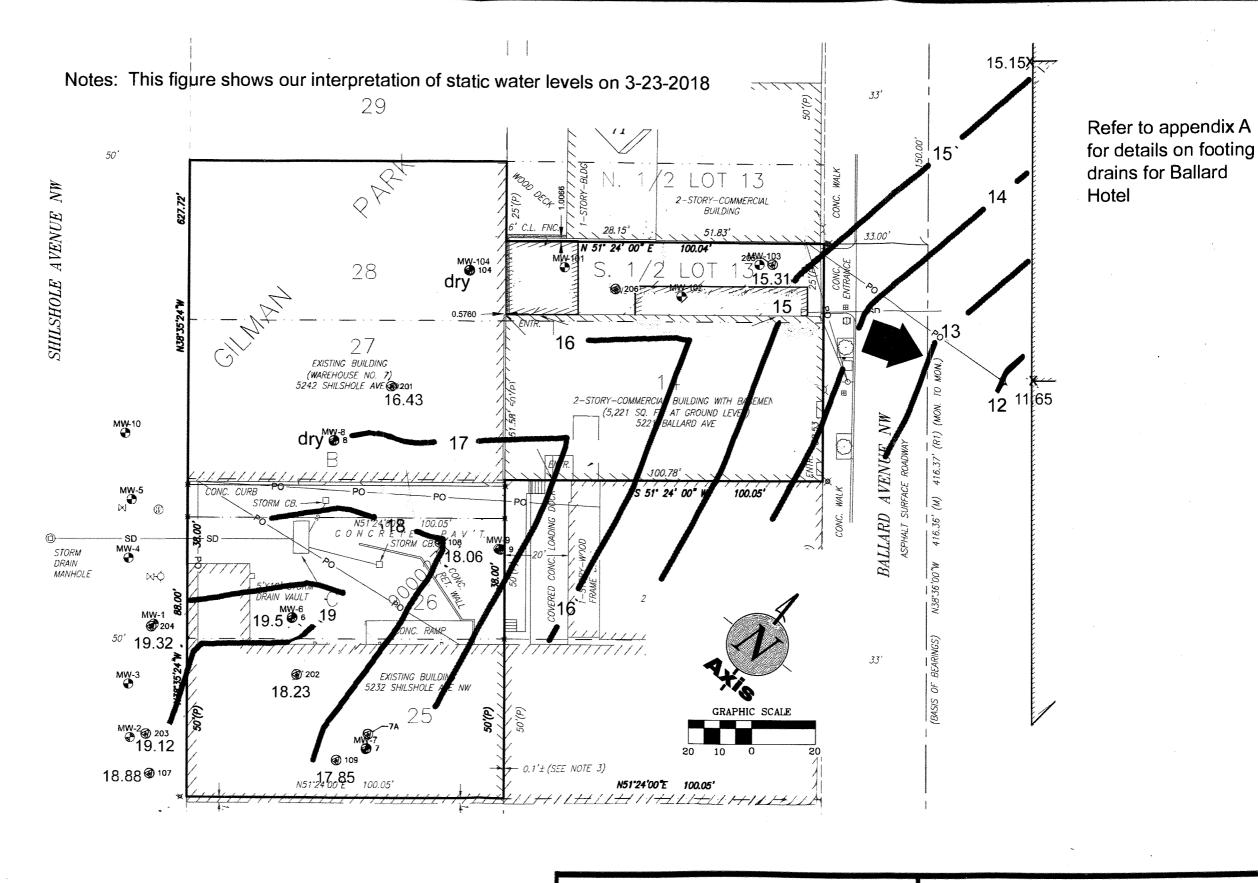


February 20, 2015 Static Water Levels Former C and C Paint Faclity Seattle, Washington



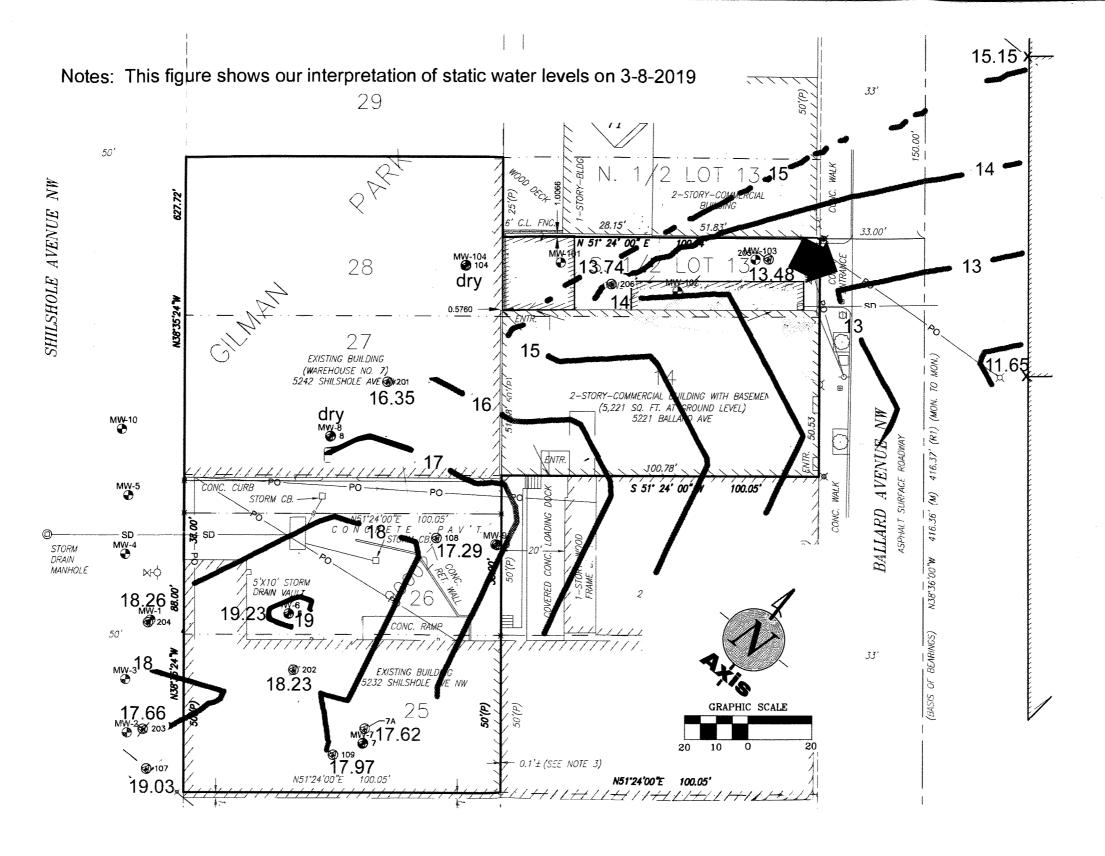


August 29.2016 Static Water Levels Former C and C Paint Faclity Seattle, Washington





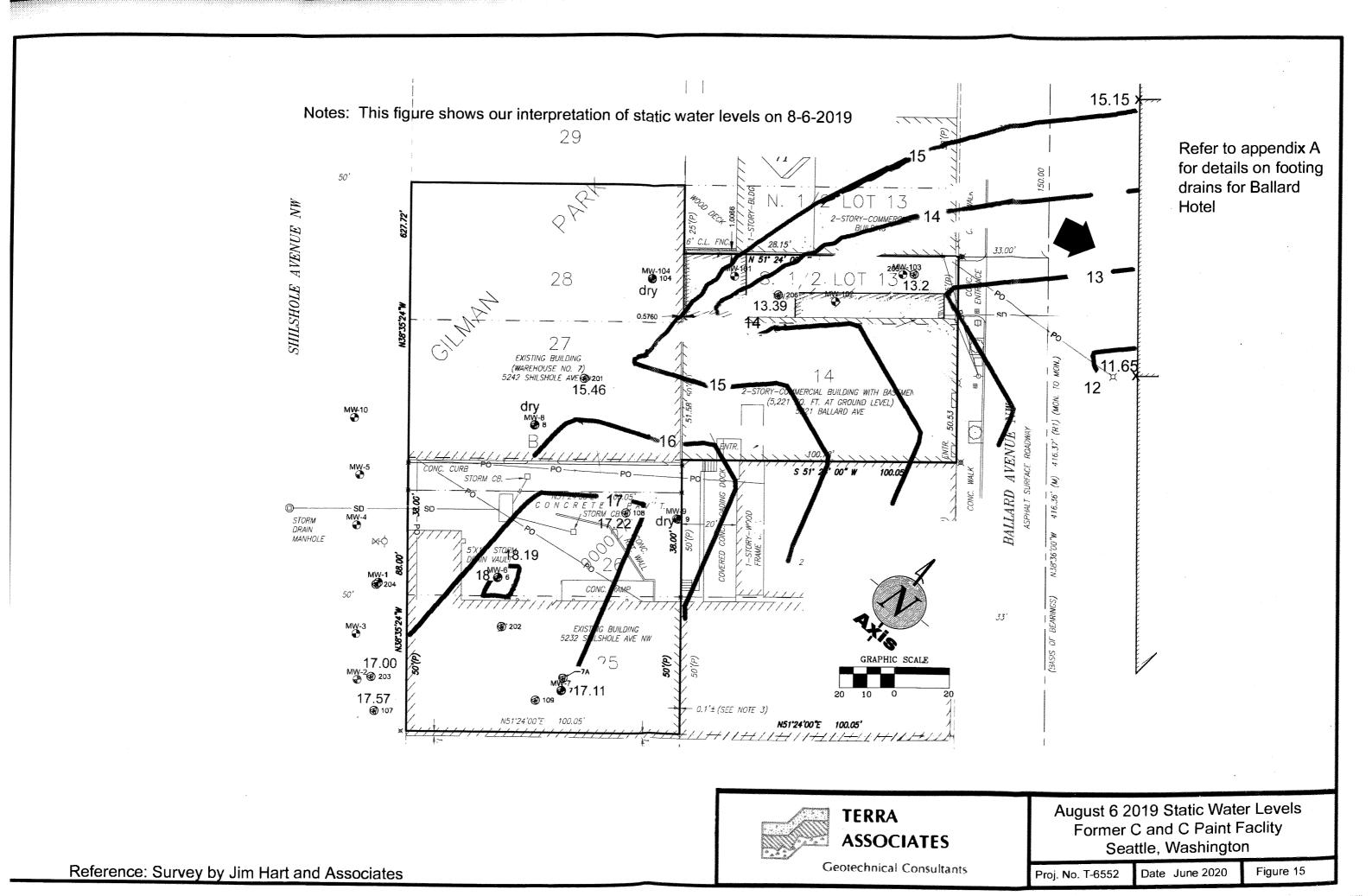
March 23 2018 Static Water Levels Former C and C Paint Facility Seattle, Washington

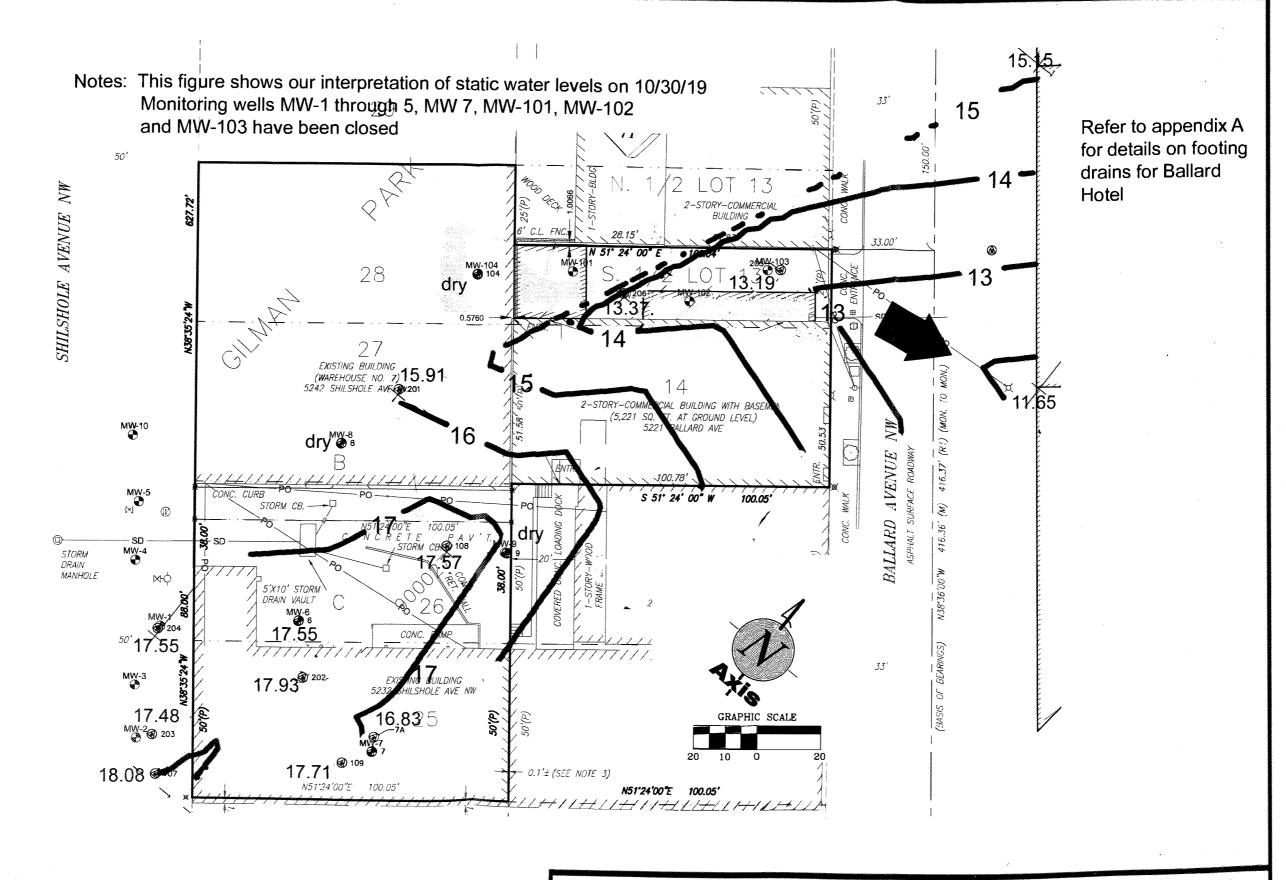


Refer to appendix A for details on footing drains for Ballard Hotel



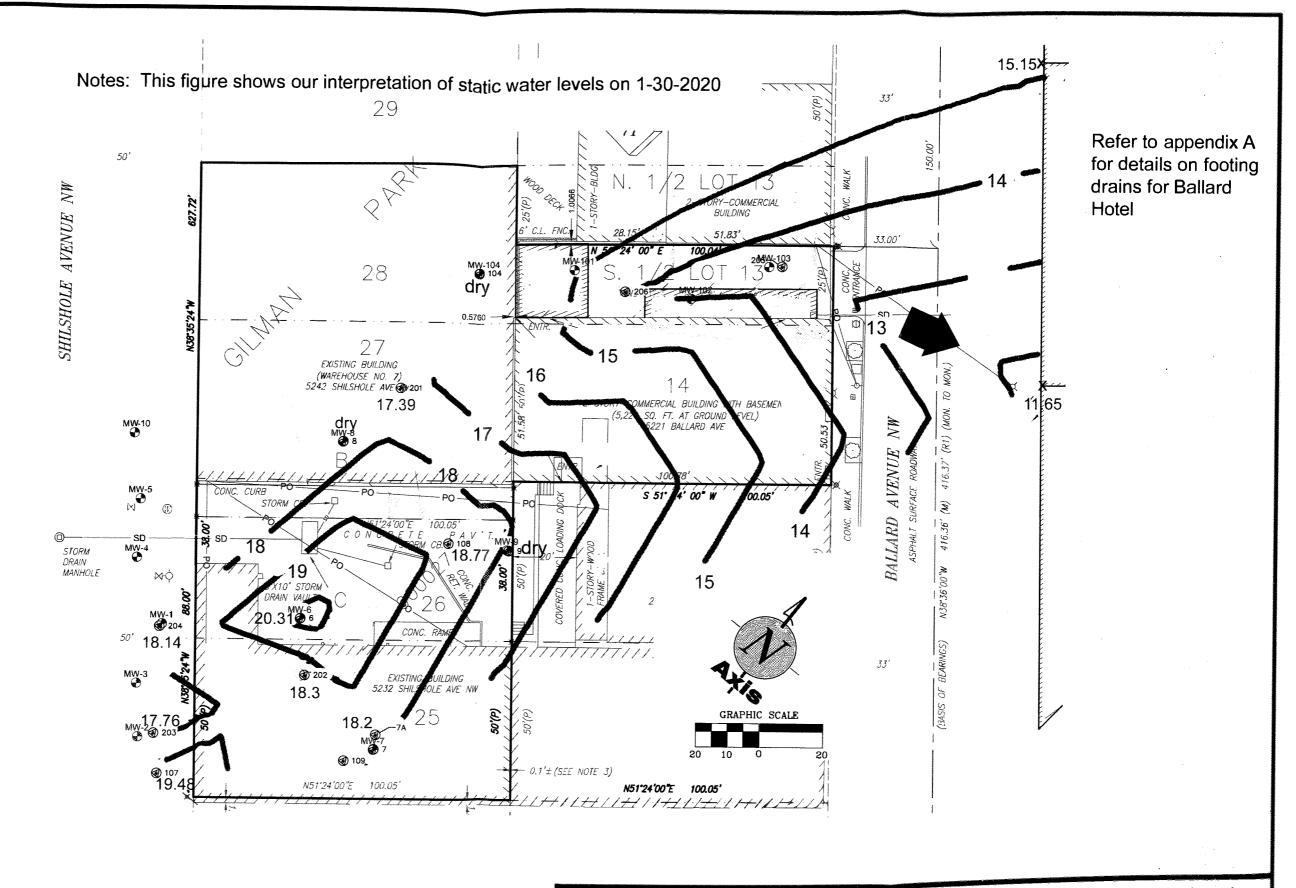
March 8 2019 Static Water Levels Former C and C Paint Facility Seattle, Washington





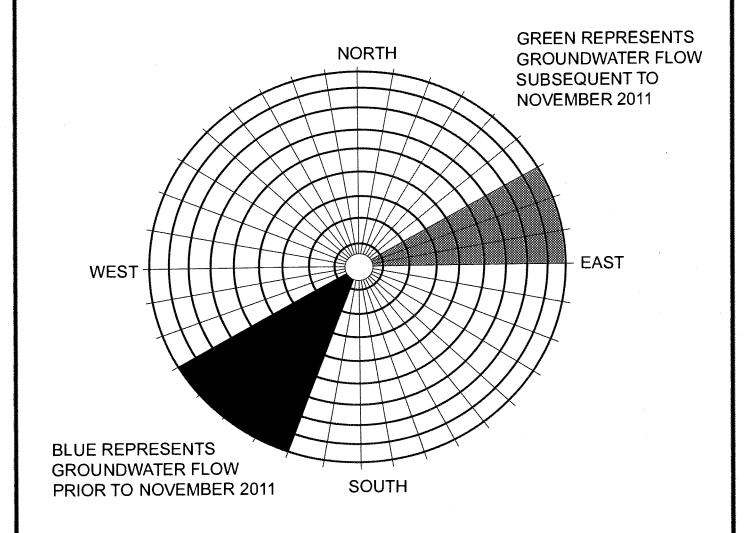


October 30, 2019 Static Water Levels Former C and C Paint Facility Seattle, Washington





January 30, 2020 Static Water Levels Former C and C Paint Faclity Seattle, Washington



Note, this is a general representation of groundwater flow from the area of the UST cluster at 5221 Ballard Avenue NW.



Rose Diagram
Former C and C Paint Facility
Seattle, Washington

Proj. No T-6552

Date June 2020

Figure 18

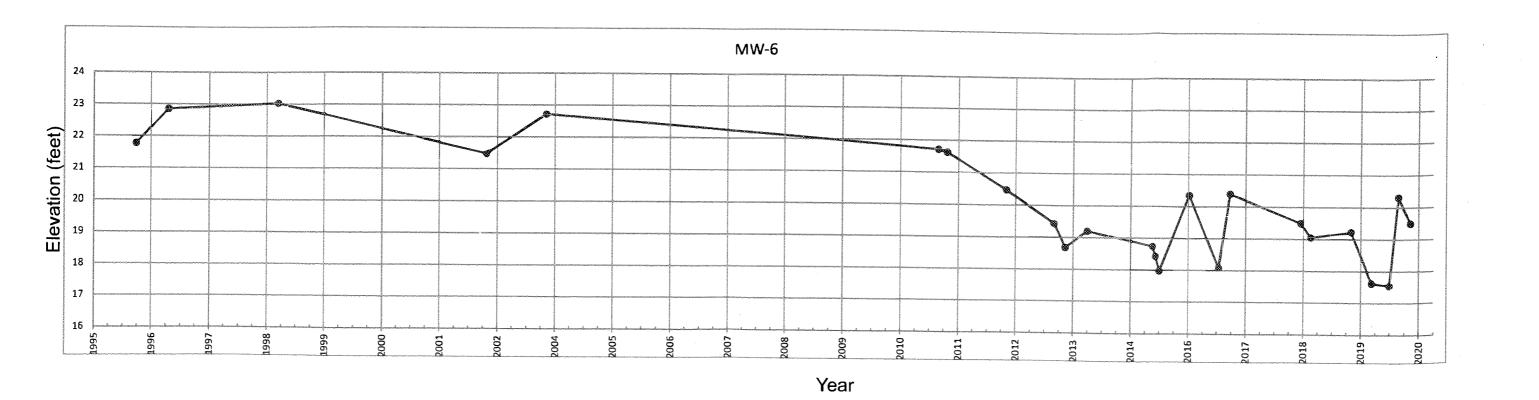
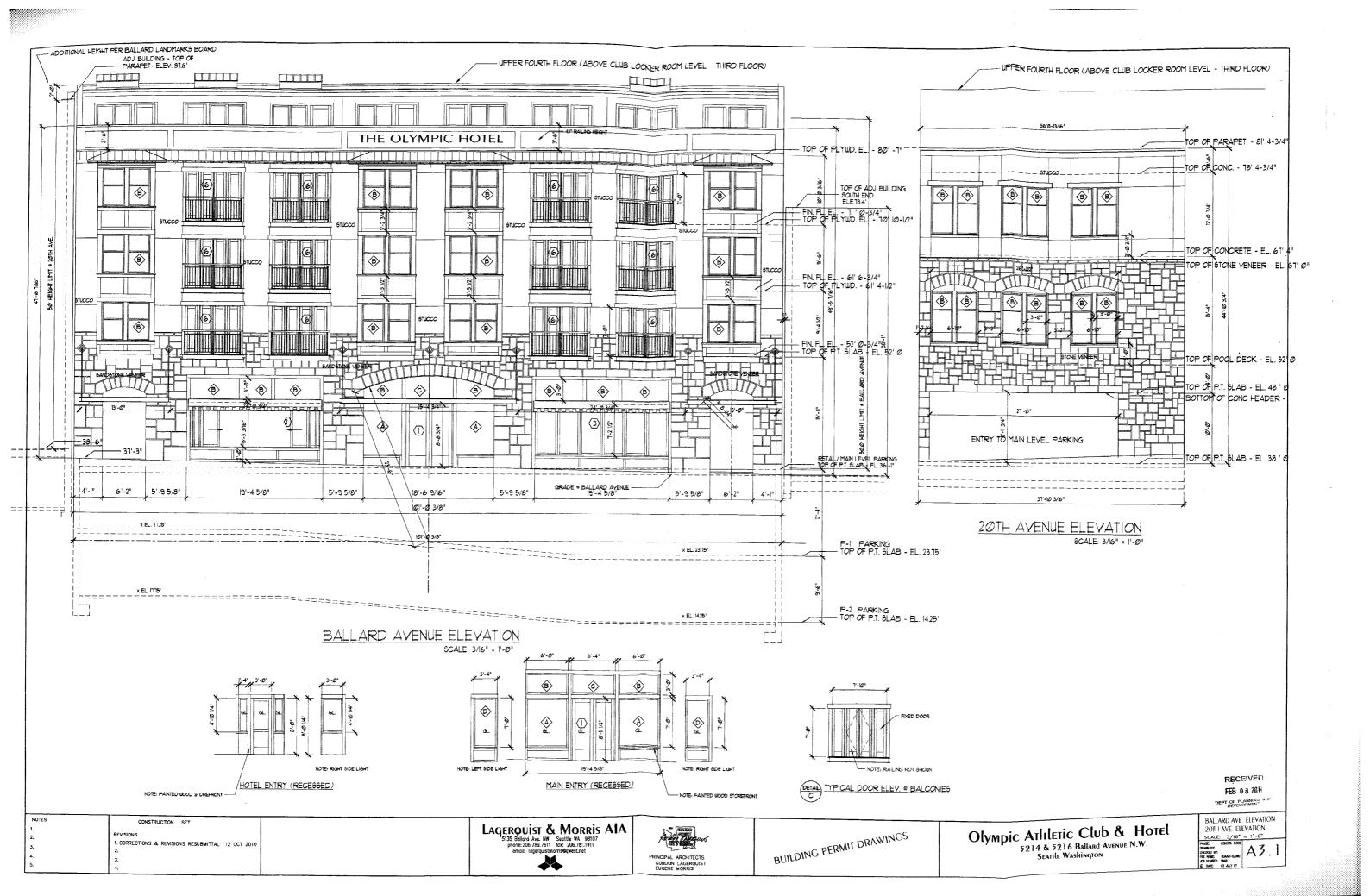


Chart 1:MW-6 SWL Measurements
Former C and C Paint Facility
Seattle, Washington

APPENDIX A

BALLARD HOTEL PLANS



APPENDIX B FIELD SAMPLING

Former C & C Paints Facility Seattle, Washington

Groundwater samples have been taken with a peristaltic pump using dedicated tubing and low flow purge methodology. For Monitoring Well MW-205, a submersible stainless-steel pump is used to purge the well. During groundwater sampling, some basic parameters were monitored. All parameter monitoring by Terra Associates, Inc. has been done with a flow through cell.

APPENDIX C ANALYTICAL TESTING GROUNDWATER

Former C & C Paints Facility Seattle, Washington

All groundwater samples were placed into laboratory-prepared glassware. Each sample was given unique sample identification. All samples were kept refrigerated pending delivery to OnSite Environmental Inc. in Redmond, Washington. Chain of custody protocols were followed for all samples. OnSite Environmental Inc. has accreditation from Ecology for all of the testing performed during this project.

All testing was performed within the designated holding times. At the laboratory, standard quality control procedures were followed. The procedures consisted of sample blanks, duplicates, and matrix spikes. All testing was within normal standards.

To evaluate the diesel and oil range hydrocarbons found in the sample from Monitoring Well MW-107 was analyzed by the EPH/VPH method in addition to standard TPHDx methodology.

Based on our review of the laboratory data, it is our opinion that the results are acceptable for current use. Only analytical test reports for groundwater samples in 2019 and 2020 are included in this appendix.



14648 NE 95th Street, Redmond, WA 98052 • (425) 883-3881

March 18, 2019

Chuck Lie Terra Associates, Inc. 12220 113th Avenue NE, Suite 130 Kirkland, WA 98034

Re:

Analytical Data for Project 6552-1 Laboratory Reference No. 1903-083

Dear Chuck:

Enclosed are the analytical results and associated quality control data for samples submitted on March 8, 2019.

The standard policy of OnSite Environmental, Inc. is to store your samples for 30 days from the date of receipt. If you require longer storage, please contact the laboratory.

We appreciate the opportunity to be of service to you on this project. If you have any questions concerning the data, or need additional information, please feel free to call me.

Sincerely,

David Baumeister Project Manager

Enclosures



Project: 6552-1

GASOLINE RANGE ORGANICS/BTEX NWTPH-Gx/EPA 8021B

ormo. ug/2 (pps)				Date	Date	
Analyte	Result	PQL	Method	Prepared	Analyzed	Flags
Client ID:	MW-202					
Laboratory ID:	03-083-01					
Benzene	4.3	0.50	EPA 8021B	3-14-19	3-14-19	
Toluene	17	1.0	EPA 8021B	3-14-19	3-14-19	
Ethyl Benzene	5100	500	EPA 8021B	3-15-19	3-15-19	
m,p-Xylene	16000	500	EPA 8021B	3-15-19	3-15-19	
o-Xylene	1600	20	EPA 8021B	3-14-19	3-14-19	
Gasoline	40000	2000	NWTPH-Gx	3-14-19	3-14-19	
Surrogate:	Percent Recovery	Control Limits				
Fluorobenzene	86	66-117				
Client ID:	MW-109					
Laboratory ID:	03-083-02					
Benzene	ND	0.50	EPA 8021B	3-15-19	3-15-19	
Toluene	ND	1.0	EPA 8021B	3-15-19	3-15-19	
Ethyl Benzene	ND	1.0	EPA 8021B	3-15-19	3-15-19	
m,p-Xylene	ND	1.0	EPA 8021B	3-15-19	3-15-19	
o-Xylene	ND	1.0	EPA 8021B	3-15-19	3-15-19	
Gasoline	ND	100	NWTPH-Gx	3-15-19	3-15-19	
Surrogate:	Percent Recovery	Control Limits				
Fluorobenzene	82	66-117				
Client ID:	MW-7A					
Laboratory ID:	03-083-03					
Benzene	ND	0.50	EPA 8021B	3-15-19	3-15-19	
Toluene	ND	1.0	EPA 8021B	3-15-19	3-15-19	
Ethyl Benzene	8.0	1.0	EPA 8021B	3-15-19	3-15-19	
m,p-Xylene	ND	1.0	EPA 8021B	3-15-19	3-15-19	
o-Xylene	ND	1.0	EPA 8021B	3-15-19	3-15-19	
Gasoline	140	100	NWTPH-Gx	3-15-19	3-15-19	
Surrogate:	Percent Recovery	Control Limits				
Fluorobenzene	83	66-117				



Project: 6552-1

GASOLINE RANGE ORGANICS/BTEX NWTPH-Gx/EPA 8021B

orms. ag/E (ppb)				Date	Date	
Analyte	Result	PQL	Method	Prepared	Analyzed	Flags
Client ID:	MW-6					
Laboratory ID:	03-083-04					
Benzene	ND	0.50	EPA 8021B	3-15-19	3-15-19	
Toluene	ND	1.0	EPA 8021B	3-15-19	3-15-19	
Ethyl Benzene	ND	1.0	EPA 8021B	3-15-19	3-15-19	
m,p-Xylene	ND	1.0	EPA 8021B	3-15-19	3-15-19	
o-Xylene	ND	1.0	EPA 8021B	3-15-19	3-15-19	
Gasoline	ND	100	NWTPH-Gx	3-15-19	3-15-19	
Surrogate:	Percent Recovery	Control Limits				
Fluorobenzene	85	66-117				
Client ID:	MW-201					
Laboratory ID:	03-083-05					
Benzene	ND	0.50	EPA 8021B	3-15-19	3-15-19	
Toluene	ND	1.0	EPA 8021B	3-15-19	3-15-19	
Ethyl Benzene	ND	1.0	EPA 8021B	3-15-19	3-15-19	
m,p-Xylene	ND	1.0	EPA 8021B	3-15-19	3-15-19	
o-Xylene	ND	1.0	EPA 8021B	3-15-19	3-15-19	
Gasoline	ND	100	NWTPH-Gx	3-15-19	3-15-19	
Surrogate:	Percent Recovery	Control Limits				
Fluorobenzene	82	66-117				
Client ID:	MW-108					
Laboratory ID:	03-083-06					
Benzene	ND	0.50	EPA 8021B	3-15-19	3-15-19	
Toluene	ND	1.0	EPA 8021B	3-15-19	3-15-19	
Ethyl Benzene	ND	1.0	EPA 8021B	3-15-19	3-15-19	
m,p-Xylene	ND	1.0	EPA 8021B	3-15-19	3-15-19	
o-Xylene	ND	1.0	EPA 8021B	3-15-19	3-15-19	
Gasoline	ND	100	NWTPH-Gx	3-15-19	3-15-19	
Surrogate:	Percent Recovery	Control Limits				
Fluorobenzene	83	66-117				

GASOLINE RANGE ORGANICS/BTEX NWTPH-Gx/EPA 8021B

				Date	Date	
Analyte	Result	PQL	Method	Prepared	Analyzed	Flags
Client ID:	MW-206					
Laboratory ID:	03-083-07					
Benzene	ND	0.50	EPA 8021B	3-14-19	3-14-19	
Toluene	ND	1.0	EPA 8021B	3-14-19	3-14-19	
Ethyl Benzene	ND	1.0	EPA 8021B	3-14-19	3-14-19	
m,p-Xylene	ND	1.0	EPA 8021B	3-14-19	3-14-19	
o-Xylene	ND	1.0	EPA 8021B	3-14-19	3-14-19	
Gasoline	ND	100	NWTPH-Gx	3-14-19	3-14-19	
Surrogate:	Percent Recovery	Control Limits				
Fluorobenzene	83	66-117				
Client ID:	MW-205					
Laboratory ID:	03-083-08					
Benzene	ND	0.50	EPA 8021B	3-14-19	3-14-19	
Toluene	ND	1.0	EPA 8021B	3-14-19	3-14-19	
Ethyl Benzene	ND	1.0	EPA 8021B	3-14-19	3-14-19	
m,p-Xylene	ND	1.0	EPA 8021B	3-14-19	3-14-19	
o-Xylene	ND	1.0	EPA 8021B	3-14-19	3-14-19	
Gasoline	ND	100	NWTPH-Gx	3-14-19	3-14-19	
Surrogate:	Percent Recovery	Control Limits				
Fluorobenzene	84	66-117				
Client ID:	MW-107					
Laboratory ID:	03-083-09					
Benzene	ND	0.50	EPA 8021B	3-14-19	3-14-19	
Toluene	ND	1.0	EPA 8021B	3-14-19	3-14-19	
Ethyl Benzene	ND	1.0	EPA 8021B	3-14-19	3-14-19	
m,p-Xylene	ND	1.0	EPA 8021B	3-14-19	3-14-19	
o-Xylene	ND	1.0	EPA 8021B	3-14-19	3-14-19	
Gasoline	ND	100	NWTPH-Gx	3-14-19	3-14-19	
Surrogate:	Percent Recovery	Control Limits				
Fluorobenzene	83	66-117				



GASOLINE RANGE ORGANICS/BTEX NWTPH-Gx/EPA 8021B

				Date	Date	
Analyte	Result	PQL	Method	Prepared	Analyzed	Flags
Client ID:	MW-203					
Laboratory ID:	03-083-10					
Benzene	ND	0.50	EPA 8021B	3-14-19	3-14-19	
Toluene	ND	1.0	EPA 8021B	3-14-19	3-14-19	
Ethyl Benzene	ND	1.0	EPA 8021B	3-14-19	3-14-19	
m,p-Xylene	ND	1.0	EPA 8021B	3-14-19	3-14-19	
o-Xylene	ND	1.0	EPA 8021B	3-14-19	3-14-19	
Gasoline	ND	100	NWTPH-Gx	3-14-19	3-14-19	
Surrogate:	Percent Recovery	Control Limits				
Fluorobenzene	82	66-117				
Client ID:	MW-204					
Laboratory ID:	03-083-11					
Benzene	ND	0.50	EPA 8021B	3-14-19	3-14-19	
Toluene	ND	1.0	EPA 8021B	3-14-19	3-14-19	
Ethyl Benzene	ND	1.0	EPA 8021B	3-14-19	3-14-19	
m,p-Xylene	ND	1.0	EPA 8021B	3-14-19	3-14-19	
o-Xylene	ND	1.0	EPA 8021B	3-14-19	3-14-19	
Gasoline	ND .	100	NWTPH-Gx	3-14-19	3-14-19	
Surrogate:	Percent Recovery	Control Limits				
Fluorobenzene	84	66-117				

Project: 6552-1

GASOLINE RANGE ORGANICS/BTEX NWTPH-Gx/EPA 8021B METHOD BLANK QUALITY CONTROL

Analyte METHOD BLANK	Result	PQL				
METHOD DI ANIK		r QL	Method	Prepared	Analyzed	Flags
ME I HOD BLANK						
Laboratory ID:	MB0314W2					
Benzene	ND	0.50	EPA 8021B	3-14-19	3-14-19	
Toluene	ND	1.0	EPA 8021B	3-14-19	3-14-19	
Ethyl Benzene	ND	1.0	EPA 8021B	3-14-19	3-14-19	
m,p-Xylene	ND	1.0	EPA 8021B	3-14-19	3-14-19	
o-Xylene	ND	1.0	EPA 8021B	3-14-19	3-14-19	
Gasoline	ND	100	NWTPH-Gx	3-14-19	3-14-19	
Surrogate:	Percent Recovery	Control Limits				
Fluorobenzene	83	66-117				
Laboratory ID:	MB0314W3					
Benzene	ND	0.50	EPA 8021B	3-14-19	3-14-19	
Toluene	ND	1.0	EPA 8021B	3-14-19	3-14-19	
Ethyl Benzene	ND	1.0	EPA 8021B	3-14-19	3-14-19	
m,p-Xylene	ND	1.0	EPA 8021B	3-14-19	3-14-19	
o-Xylene	ND	1.0	EPA 8021B	3-14-19	3-14-19	
Gasoline	ND	100	NWTPH-Gx	3-14-19	3-14-19	
Surrogate:	Percent Recovery	Control Limits				
Fluorobenzene	79	66-117				
Laboratory ID:	MB0315W1					
Benzene	ND	0.50	EPA 8021B	3-15-19	3-15-19	
Toluene	ND	1.0	EPA 8021B	3-15-19	3-15-19	
Ethyl Benzene	ND	1.0	EPA 8021B	3-15-19	3-15-19	
m,p-Xylene	ND	1.0	EPA 8021B	3-15-19	3-15-19	
o-Xylene	ND	1.0	EPA 8021B	3-15-19	3-15-19	
Gasoline	ND	100	NWTPH-Gx	3-15-19	3-15-19	
Surrogate:	Percent Recovery	Control Limits				
Fluorobenzene	80	66-117				

Project: 6552-1

GASOLINE RANGE ORGANICS/BTEX NWTPH-Gx/EPA 8021B QUALITY CONTROL

					Source		cent	Recovery		RPD	
Analyte	Res	sult	Spike	Level	Result	Rec	overy	Limits	RPD	Limit	Flags
DUPLICATE											
Laboratory ID:		33-02									
	ORIG	DUP									
Benzene	ND	ND	NA	NA			I A	NA	NA	30	
Toluene	ND	ND	NA	NA		N	I A	NA	NA	30	
Ethyl Benzene	ND	ND	NA	NA		N	I A	NA	NA	30	
m,p-Xylene	ND	ND	NA	NA		N	IA	NA	NA	30	
o-Xylene	ND	ND	NA	NA		N	IA	NA	NA	30	
Gasoline	ND	ND	NA	NA		N	IA	NA .	NA	30	
Surrogate:											
Fluorobenzene						82	73	66-117			
Laboratory ID:	03-08	33-03									
	ORIG	DUP									
Benzene	ND	ND	NA	NA		N	JA	NA	NA	30	
Toluene	ND	ND	NA	NA		N	I A	NA	NA	30	
Ethyl Benzene	8.02	7.69	NA	NA		N	lΑ	NA	4	30	
m,p-Xylene	ND	ND	NA	NA		N	lΑ	NA	NA	30	
o-Xylene	ND	ND	NA	NA		N	lΑ	NA	NA	30	
Gasoline	137	139	NA	NA		N	lΑ	NA	1	30	
Surrogate:											
Fluorobenzene						83	79	66-117			
SPIKE BLANKS											
Laboratory ID:	SB03	14W3									
	SB	SBD	SB	SBD		SB	SBD				
Benzene	49.4	50.0	50.0	50.0		99	100	82-122	1	11	
Toluene	51.2	52.5	50.0	50.0		102	105	83-123	3	12	
Ethyl Benzene	52.7	53.4	50.0	50.0		105	107	83-123	1	12	
m,p-Xylene	54.3	53.6	50.0	50.0		109	107	83-123	1	12	
o-Xylene	51.7	52.7	50.0	50.0		103	105	83-123	2	11	
Surrogate:											
Fluorobenzene						91	90	66-117			

Project: 6552-1

DIESEL AND HEAVY OIL RANGE ORGANICS NWTPH-Dx

				Date	Date	
Analyte	Result	PQL	Method	Prepared	Analyzed	Flags
Client ID:	MW-206					
Laboratory ID:	03-083-07					
Diesel Range Organics	ND	0.25	NWTPH-Dx	3-11-19	3-11-19	
Lube Oil Range Organics	ND	0.40	NWTPH-Dx	3-11-19	3-11-19	
Surrogate:	Percent Recovery	Control Limits				
o-Terphenyl	100	50-150				
Client ID:	MW-205					
Laboratory ID:	03-083-08					
Diesel Range Organics	ND	0.25	NWTPH-Dx	3-11-19	3-11-19	
Lube Oil Range Organics	ND	0.40	NWTPH-Dx	3-11-19	3-11-19	
Surrogate:	Percent Recovery	Control Limits				
o-Terphenyl	122	50-150				
Client ID:	MW-107					
Laboratory ID:	03-083-09					
Diesel Range Organics	· ND	0.25	NWTPH-Dx	3-11-19	3-11-19	
Lube Oil Range Organics	ND	0.40	NWTPH-Dx	3-11-19	3-11-19	
Surrogate:	Percent Recovery	Control Limits				
o-Terphenyl	115	<i>50-150</i>				

Project: 6552-1

DIESEL AND HEAVY OIL RANGE ORGANICS NWTPH-Dx QUALITY CONTROL

Matrix: Water
Units: mg/L (ppm)

				Date	Date	
Analyte	Result	PQL	Method	Prepared	Analyzed	Flags
METHOD BLANK						
Laboratory ID:	MB0311W1					
Diesel Range Organics	ND	0.25	NWTPH-Dx	3-11-19	3-11-19	
Lube Oil Range Organics	ND	0.40	NWTPH-Dx	3-11-19	3-11-19	
Surrogate:	Percent Recovery	Control Limits				
o-Terphenyl	103	50-150				

RPD Source Percent Recovery Limits **RPD** Limit Flags_ Result Spike Level Result Recovery **Analyte DUPLICATE** 03-083-08 Laboratory ID: ORIG DUP NA NA NA NA NA ND ND NA Diesel Range NA NA NA NA NA ND ND NA Lube Oil Range

Surrogate: o-Terphenyl

122 111 50-150

Project: 6552-1

PAHs EPA 8270D/SIM

Matrix: Water Units: ug/L

A -1 A-	Donali	DOL		Date	Date	Elege
Analyte	Result	PQL	Method	Prepared	Analyzed	Flags
Client ID:	MW-206					
Laboratory ID:	03-083-07					-
Naphthalene	ND	0.096	EPA 8270D/SIM	3-11-19	3-11-19	
2-Methylnaphthalene	ND	0.096	EPA 8270D/SIM	3-11-19	3-11-19	
1-Methylnaphthalene	ND	0.096	EPA 8270D/SIM	3-11-19	3-11-19	
Acenaphthylene	ND	0.096	EPA 8270D/SIM	3-11-19	3-11-19	
Acenaphthene	ND	0.096	EPA 8270D/SIM	3-11-19	3-11-19	
Fluorene	ND	0.096	EPA 8270D/SIM	3-11-19	3-11-19	
Phenanthrene	ND	0.096	EPA 8270D/SIM	3-11-19	3-11-19	
Anthracene	ND	0.096	EPA 8270D/SIM	3-11-19	3-11-19	
Fluoranthene	ND	0.096	EPA 8270D/SIM	3-11-19	3-11-19	
Pyrene	ND	0.096	EPA 8270D/SIM	3-11-19	3-11-19	
Benzo[a]anthracene	ND	0.0096	EPA 8270D/SIM	3-11-19	3-11-19	
Chrysene	ND	0.0096	EPA 8270D/SIM	3-11-19	3-11-19	
Benzo[b]fluoranthene	ND	0.0096	EPA 8270D/SIM	3-11-19	3-11-19	
Benzo(j,k)fluoranthene	ND	0.0096	EPA 8270D/SIM	3-11-19	3-11-19	
Benzo[a]pyrene	ND	0.0096	EPA 8270D/SIM	3-11-19	3-11-19	
Indeno(1,2,3-c,d)pyrene	ND	0.0096	EPA 8270D/SIM	3-11-19	3-11-19	
Dibenz[a,h]anthracene	ND	0.0096	EPA 8270D/SIM	3-11-19	3-11-19	
Benzo[g,h,i]perylene	ND	0.0096	EPA 8270D/SIM	3-11-19	3-11-19	
Surrogate:	Percent Recovery	Control Limits				
2-Fluorobiphenyl	76	21 - 110				
Pvrene-d10	91	19 - 111				

Project: 6552-1

PAHs EPA 8270D/SIM

Matrix: Water Units: ug/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	MW-205	- ru-	Metriou	гтератец	Arialyzeu	ı ıagə
Laboratory ID:	03-083-08					
Naphthalene	ND	0.094	EPA 8270D/SIM	3-11-19	3-11-19	
•		0.094	EPA 8270D/SIM	3-11-19	3-11-19	
2-Methylnaphthalene	ND					
1-Methylnaphthalene	ND	0.094	EPA 8270D/SIM	3-11-19	3-11-19	
Acenaphthylene	ND	0.094	EPA 8270D/SIM	3-11-19	3-11-19	
Acenaphthene	ND	0.094	EPA 8270D/SIM	3-11-19	3-11-19	
Fluorene	ND	0.094	EPA 8270D/SIM	3-11-19	3-11-19	
Phenanthrene	ND	0.094	EPA 8270D/SIM	3-11-19	3-11-19	
Anthracene	ND	0.094	EPA 8270D/SIM	3-11-19	3-11-19	
Fluoranthene	ND	0.094	EPA 8270D/SIM	3-11-19	3-11-19	
Pyrene	ND	0.094	EPA 8270D/SIM	3-11-19	3-11-19	
Benzo[a]anthracene	ND	0.0094	EPA 8270D/SIM	3-11-19	3-11-19	
Chrysene	ND	0.0094	EPA 8270D/SIM	3-11-19	3-11-19	
Benzo[b]fluoranthene	ND	0.0094	EPA 8270D/SIM	3-11-19	3-11-19	
Benzo(j,k)fluoranthene	ND	0.0094	EPA 8270D/SIM	3-11-19	3-11-19	
Benzo[a]pyrene	ND	0.0094	EPA 8270D/SIM	3-11-19	3-11-19	
Indeno(1,2,3-c,d)pyrene	ND	0.0094	EPA 8270D/SIM	3-11-19	3-11-19	
Dibenz[a,h]anthracene	ND	0.0094	EPA 8270D/SIM	3-11-19	3-11-19	
Benzo[g,h,i]perylene	ND	0.0094	EPA 8270D/SIM	3-11-19	3-11-19	
Surrogate:	Percent Recovery	Control Limits				
2-Fluorobiphenyl	67	21 - 110				

Project: 6552-1

PAHs EPA 8270D/SIM METHOD BLANK QUALITY CONTROL

Matrix: Water Units: ug/L

			Date	Date	
Result	PQL	Method	Prepared	Analyzed	Flags
MB0311W1					
ND	0.10	EPA 8270D/SIM	3-11-19	3-11-19	
ND	0.10	EPA 8270D/SIM	3-11-19	3-11-19	
· ND	0.10	EPA 8270D/SIM	3-11-19	3-11-19	
ND	0.10	EPA 8270D/SIM	3-11-19	3-11-19	
ND	0.10	EPA 8270D/SIM	3-11-19	3-11-19	
ND	0.10	EPA 8270D/SIM	3-11-19	3-11-19	
ND	0.10	EPA 8270D/SIM	3-11-19	3-11-19	
ND	0.10	EPA 8270D/SIM	3-11-19	3-11-19	
ND	0.10	EPA 8270D/SIM	3-11-19	3-11-19	
ND	0.10	EPA 8270D/SIM	3-11-19	3-11-19	
ND	0.010	EPA 8270D/SIM	3-11-19	3-11-19	
ND	0.010	EPA 8270D/SIM	3-11-19	3-11-19	
ND	0.010	EPA 8270D/SIM	3-11-19	3-11-19	
ND	0.010	EPA 8270D/SIM	3-11-19	3-11-19	
ND	0.010	EPA 8270D/SIM	3-11-19	3-11-19	
ND	0.010	EPA 8270D/SIM	3-11-19	3-11-19	
ND	0.010	EPA 8270D/SIM	3-11-19	3-11-19	
ND	0.010	EPA 8270D/SIM	3-11-19	3-11-19	
Percent Recovery	Control Limits				
50	21 - 110				
87	19 - 111				
	MB0311W1 ND ND ND ND ND ND ND ND ND N	MB0311W1 ND 0.10 ND 0.010 Percent Recovery Control Limits 50 21 - 110	MB0311W1 ND 0.10 EPA 8270D/SIM ND 0.010 EPA 8270D/SIM	Result PQL Method Prepared MB0311W1 ND 0.10 EPA 8270D/SIM 3-11-19 ND 0.010 EPA 8270D/SIM 3-11-19 ND </td <td>Result PQL Method Prepared Analyzed MB0311W1 ND 0.10 EPA 8270D/SIM 3-11-19 3-11-19 ND 0.010 EPA 8270D/SIM 3-11-19 3-11-19 ND 0.010 EPA 8270D/SIM 3-11-19 3-11-19 ND</td>	Result PQL Method Prepared Analyzed MB0311W1 ND 0.10 EPA 8270D/SIM 3-11-19 3-11-19 ND 0.010 EPA 8270D/SIM 3-11-19 3-11-19 ND 0.010 EPA 8270D/SIM 3-11-19 3-11-19 ND

Project: 6552-1

PAHS EPA 8270D/SIM SB/SBD QUALITY CONTROL

Matrix: Water Units: ug/L

-					Per	cent	Recovery		RPD	
Analyte	Re	sult	Spike	Level	Rec	overy	Limits	RPD	Limit	Flags
SPIKE BLANKS										
Laboratory ID:	SB03	11W1				-				
	SB	SBD	SB	SBD	SB	SBD				
Naphthalene	0.352	0.369	0.500	0.500	70	74	28 - 109	5	38	
Acenaphthylene	0.402	0.406	0.500	0.500	80	81	37 - 111	1	26	
Acenaphthene	0.349	0.362	0.500	0.500	70	72	41 - 113	4	33	
Fluorene	0.414	0.432	0.500	0.500	83	86	47 - 114	4	23	
Phenanthrene	0.391	0.415	0.500	0.500	78	83	50 - 113	6	18	
Anthracene	0.401	0.458	0.500	0.500	80	92	50 - 117	13	18	
Fluoranthene	0.466	0.485	0.500	0.500	93	97	52 <i>-</i> 120	4	15	
Pyrene	0.446	0.474	0.500	0.500	89	95	51 - 128	6	31	
Benzo[a]anthracene	0.428	0.464	0.500	0.500	86	93	57 - 127	8	15	
Chrysene	0.448	0.477	0.500	0.500	90	95	51 - 120	6	15	
Benzo[b]fluoranthene	0.481	0.529	0.500	0.500	96	106	54 - 124	10	17	
Benzo(j,k)fluoranthene	0.468	0.491	0.500	0.500	94	98	50 - 127	5	18	
Benzo[a]pyrene	0.440	0.475	0.500	0.500	88	95	50 - 120	8	16	
Indeno(1,2,3-c,d)pyrene	0.434	0.479	0.500	0.500	87	96	46 - 132	10	20	
Dibenz[a,h]anthracene	0.464	0.507	0.500	0.500	93	101	49 - 129	9	18	
Benzo[g,h,i]perylene	0.427	0.449	0.500	0.500	85	90	45 - 130	5	19	
Surrogate:										
2-Fluorobiphenyl					59	60	21 - 110			
Pyrene-d10					91	94	19 - 111			
Terphenyl-d14					89	95	32 - 137			



Data Qualifiers and Abbreviations

- A Due to a high sample concentration, the amount spiked is insufficient for meaningful MS/MSD recovery data.
- B The analyte indicated was also found in the blank sample.
- C The duplicate RPD is outside control limits due to high result variability when analyte concentrations are within five times the quantitation limit.
- E The value reported exceeds the quantitation range and is an estimate.
- F Surrogate recovery data is not available due to the high concentration of coeluting target compounds.
- H The analyte indicated is a common laboratory solvent and may have been introduced during sample preparation, and be impacting the sample result.
- I Compound recovery is outside of the control limits.
- J The value reported was below the practical quantitation limit. The value is an estimate.
- K Sample duplicate RPD is outside control limits due to sample inhomogeneity. The sample was re-extracted and re-analyzed with similar results.
- L The RPD is outside of the control limits.
- M Hydrocarbons in the gasoline range are impacting the diesel range result.
- M1 Hydrocarbons in the gasoline range (toluene-naphthalene) are present in the sample.
- N Hydrocarbons in the lube oil range are impacting the diesel range result.
- N1 Hydrocarbons in diesel range are impacting lube oil range results.
- O Hydrocarbons indicative of heavier fuels are present in the sample and are impacting the gasoline result.
- P The RPD of the detected concentrations between the two columns is greater than 40.
- Q Surrogate recovery is outside of the control limits.
- S Surrogate recovery data is not available due to the necessary dilution of the sample.
- T The sample chromatogram is not similar to a typical _____.
- U The analyte was analyzed for, but was not detected above the reported sample quantitation limit.
- U1 The practical quantitation limit is elevated due to interferences present in the sample.
- V Matrix Spike/Matrix Spike Duplicate recoveries are outside control limits due to matrix effects.
- W Matrix Spike/Matrix Spike Duplicate RPD are outside control limits due to matrix effects.
- X Sample extract treated with a mercury cleanup procedure.
- X1- Sample extract treated with a sulfuric acid/silica gel cleanup procedure.
- Y The calibration verification for this analyte exceeded the 20% drift specified in method 8260C, and therefore the reported result should be considered an estimate. The overall performance of the calibration verification standard met the acceptance criteria of the method.

Z -

ND - Not Detected at PQL

PQL - Practical Quantitation Limit

RPD - Relative Percent Difference



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Chain of Custody

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Project Manager:		65 65 70 83	ă		Acid /	olatiles	(Waters	3270D/S PAHs)	Mil (fow-	e Pestic	iorus Pe	od Herb	etals	etals		jrease) 1	-		manage and a second sec	LADORANIA GAZIA PARA PARA PARA PARA PARA PARA PARA PA
Sampled by: Michael R. Hottman	(other)	Rumber of Containers	NWTPH-HCID NWTPH-Gx/BTEX	H-Gx	NWTPH-Dx (Acid / SG Clean-up)	Malogenated Volatiles 8260C	EDB EPA 8011 (Waters Only)	Semivolatiles 8270D/SIM (with low-level PAHs)	PAHs 8270D/9	russ ousza Organochlorine Pesticides 8081B	Organophosphorus Pesticides 8270D/SiM	Ohlorinated Acid Herbicides	Total RCRA Metals	Total MTCA Metals	TCLP Metals	HEM (oil and grease) 1664A			*co-representation of the contraction of the contra	isture
Lab ID Sample Identification	Date Time Sampled Sampled Mate		PEWN SERVICE S	NWTPH-Gx	NWTP Interest	Halog	ED8 E	Semiv (with I	PAHs	Organ	Organ	Chlori	Total	Total	TCLP	ΞĘ				% Moisture
1 Mw-202	3/7/19 9:30 West	J3	X																	
2 MW-109	10,25	3	Ix														,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,		640 308E004 AND DOSSAN	
3 MW-7A	11:20	3	X																	
4 MW-6	12:10	3	<u> </u>		***************************************															
5 MW-201	12:45	3															esmessionesses			
6 MW-108	13:35	3	X													nassiuneirosans o				
7 MW-206	14:50	<u> </u> 7	X		X				X											
8 MW-205	15:45	7	<u> </u>		X				X			ļ	<u> </u>							
9 MW-107	3/8/19 845	5	<u> </u>		X			14	水	492	3									
8 MW-205 9 MW-107 10 MW-203	3/4/19 9145	V [3]	X		· · · · · · · · · · · · · · · · · · ·									_						
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Phone: (425) 883-3681 · www.c Company: Torra Assuc Project Number: 655 7 - 1 Project Name: Project Manager: Luck L Sampled by: Nicolas K	ints Ire of	2 Days Standard (7 Days) (other)	1 Day	Rumber of Containers	NWTPH-HCID	NWTPH-Gx/BTEX	NWTPH-GX NWTPH-Dx (∏ Acid / SG Clean-up)	Volatiles 8260C	Halogenated Volatiles 8260C	EDB EPA 8011 (Waters Only)	Semivolatiles 6270D/SIM (with low-level PAHs)	s 8270D/SiM (low-level)	PCBs 8082A	Organochlorine Pesticides 8081B	Organophosphorus Pesticides 82/0D/Silw	Chlorinated Acid Herbicides 8151A	Total RCRA Metals	Total MTCA Metais		HEM (oil and grease) 1664A					% Moisture
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14648 NE 95th Street, Redmond, WA 98052 • (425) 883-3881

August 8, 2019

Chuck Lie Terra Associates, Inc. 12220 113th Avenue NE, Suite 130 Kirkland, WA 98034

Re:

Analytical Data for Project 6552-1 Laboratory Reference No. 1907-358

Dear Chuck:

Enclosed are the analytical results and associated quality control data for samples submitted on July 31, 2019.

The standard policy of OnSite Environmental, Inc. is to store your samples for 30 days from the date of receipt. If you require longer storage, please contact the laboratory.

We appreciate the opportunity to be of service to you on this project. If you have any questions concerning the data, or need additional information, please feel free to call me.

Sincerely,

David Baumeister Project Manager

Enclosures



Project: 6552-1

Case Narrative

Samples were collected on July 30 and 31, 2019 and received by the laboratory on July 31, 2019. They were maintained at the laboratory at a temperature of 2°C to 6°C.

Please note that any and all soil sample results are reported on a dry-weight basis, unless otherwise noted below.

General QA/QC issues associated with the analytical data enclosed in this laboratory report will be indicated with a reference to a comment or explanation on the Data Qualifier page. More complex and involved QA/QC issues will be discussed in detail below.

Date of Report: August 8, 2019 Samples Submitted: July 31, 2019 Laboratory Reference: 1907-358 Project: 6552-1

GASOLINE RANGE ORGANICS/BTEX NWTPH-Gx/EPA 8021B

Matrix: Water Units: ug/L (ppb)

U /				Date	Date	
Analyte	Result	PQL	Method	Prepared	Analyzed	Flags
Client ID:	MW-201					
Laboratory ID:	07-358-01					
Benzene	ND	0.50	EPA 8021B	8-1-19	8-1-19	
Toluene	ND	1.0	EPA 8021B	8-1-19	8-1-19	
Ethyl Benzene	ND	1.0	EPA 8021B	8-1-19	8-1-19	
m,p-Xylene	ND	1.0	EPA 8021B	8-1-19	8-1-19	
o-Xylene	ND	1.0	EPA 8021B	8-1-19	8-1-19	
Gasoline	ND	100	NWTPH-Gx	8-1-19	8-1-19	
Surrogate:	Percent Recovery	Control Limits				
Fluorobenzene	90	59-122				
Client ID:	MW-109					
Laboratory ID:	07-358-02					
Benzene	ND	0.50	EPA 8021B	8-1-19	8-1-19	
Toluene	ND	1.0	EPA 8021B	8-1-19	8-1-19	
Ethyl Benzene	ND	1.0	EPA 8021B	8-1-19	8-1-19	
m,p-Xylene	ND	1.0	EPA 8021B	8-1-19	8-1-19	
o-Xylene	ND	1.0	EPA 8021B	8-1-19	8-1-19	
Gasoline	ND	100	NWTPH-Gx	8-1-19	8-1-19	
Surrogate:	Percent Recovery	Control Limits				
Fluorobenzene	97	59-122				
Client ID:	MW-204					
Laboratory ID:	07-358-03					
Benzene	ND	0.50	EPA 8021B	8-1-19	8-1-19	
Toluene	ND	1.0	EPA 8021B	8-1-19	8-1-19	
Ethyl Benzene	ND	1.0	EPA 8021B	8-1-19	8-1-19	
m,p-Xylene	ND	1.0	EPA 8021B	8-1-19	8-1-19	
o-Xylene	ND	1.0	EPA 8021B	8-1-19	8-1-19	
Gasoline	ND	100	NWTPH-Gx	8-1-19	8-1-19	
Surrogate:	Percent Recovery	Control Limits				
Fluorobenzene	100	<i>59-122</i>				

Project: 6552-1

GASOLINE RANGE ORGANICS/BTEX NWTPH-Gx/EPA 8021B

Matrix: Water Units: ug/L (ppb)

Office. ag/L (ppb/				Date	Date	
Analyte	Result	PQL	Method	Prepared	Analyzed	Flags
Client ID:	MW-107					
Laboratory ID:	07-358-04					
Benzene	ND	0.50	EPA 8021B	8-1-19	8-1-19	
Toluene	ND	1.0	EPA 8021B	8-1-19	8-1-19	
Ethyl Benzene	ND	1.0	EPA 8021B	8-1-19	8-1-19	
m,p-Xylene	ND	1.0	EPA 8021B	8-1-19	8-1-19	
o-Xylene	ND	1.0	EPA 8021B	8-1-19	8-1-19	
Gasoline	ND	100	NWTPH-Gx	8-1-19	8-1-19	
Surrogate:	Percent Recovery	Control Limits				
Fluorobenzene	100	59-122				
Client ID:	MW-203					
Laboratory ID:	07-358-05					
Benzene	ND	0.50	EPA 8021B	8-1-19	8-1-19	
Toluene	ND	1.0	EPA 8021B	8-1-19	8-1-19	
Ethyl Benzene	ND	1.0	EPA 8021B	8-1-19	8-1-19	
m,p-Xylene	ND	1.0	EPA 8021B	8-1-19	8-1-19	
o-Xylene	ND	1.0	EPA 8021B	8-1-19	8-1-19	
Gasoline	ND	100	NWTPH-Gx	8-1-19	8-1-19	
Surrogate:	Percent Recovery	Control Limits				
Fluorobenzene	100	59-122				
Client ID:	MW-108					
Laboratory ID:	07-358-06					
Benzene	ND	0.50	EPA 8021B	8-1-19	8-1-19	
Toluene	ND	1.0	EPA 8021B	8-1-19	8-1-19	
Ethyl Benzene	ND	1.0	EPA 8021B	8-1-19	8-1-19	
m,p-Xylene	ND	1.0	EPA 8021B	8-1-19	8-1-19	
o-Xylene	ND	1.0	EPA 8021B	8-1-19	8-1-19	
Gasoline	ND	100	NWTPH-Gx	8-1-19	8-1-19	
Surrogate:	Percent Recovery	Control Limits				
Fluorobenzene	100	<i>59-122</i>				

Project: 6552-1

GASOLINE RANGE ORGANICS/BTEX NWTPH-Gx/EPA 8021B

Matrix: Water Units: ug/L (ppb)

				Date	Date	
Analyte	Result	PQL	Method	Prepared	Analyzed	Flags
Client ID:	MW-6					
Laboratory ID:	07-358-07					
Benzene	ND	0.50	EPA 8021B	8-1-19	8-1-19	
Toluene	ND	1.0	EPA 8021B	8-1-19	8-1-19	
Ethyl Benzene	ND	1.0	EPA 8021B	8-1-19	8-1-19	
m,p-Xylene	ND	1.0	EPA 8021B	8-1-19	8-1-19	
o-Xylene	ND	1.0	EPA 8021B	8-1-19	8-1-19	
Gasoline	ND	100	NWTPH-Gx	8-1-19	8-1-19	
	5 . 5	0				<u> </u>

Surrogate: Percent Recovery Control Limits Fluorobenzene 100 59-122

Date of Report: August 8, 2019 Samples Submitted: July 31, 2019 Laboratory Reference: 1907-358 Project: 6552-1

GASOLINE RANGE ORGANICS/BTEX NWTPH-Gx/EPA 8021B QUALITY CONTROL

Matrix: Water Units: ug/L (ppb)

				Date	Date	
Analyte	Result	PQL	Method	Prepared	Analyzed	Flags
METHOD BLANK						
Laboratory ID:	MB0801W1					
Benzene	ND	0.50	EPA 8021B	8-1-19	8-1-19	
Toluene	ND	1.0	EPA 8021B	8-1-19	8-1-19	
Ethyl Benzene	ND	1.0	EPA 8021B	8-1-19	8-1-19	
m,p-Xylene	ND	1.0	EPA 8021B	8-1-19	8-1-19	
o-Xylene	ND	1.0	EPA 8021B	8-1-19	8-1-19	
Gasoline	ND	100	NWTPH-Gx	8-1-19	8-1-19	
Surrogate:	Percent Recovery	Control Limits			-	
Fluorobenzene	96	59-122				

					Source	Per	rcent	Recovery		RPD	
Analyte	Res	sult	Spike	Level	Result		overy	Limits	RPD	Limit	Flags
DUPLICATE			-								
Laboratory ID:	08-35	8-01									
_	ORIG	DUP									
Benzene	ND	ND	NA	NA		١	NA AV	NA	NA	30	
Toluene	ND	ND	NA	NA		N	NΑ	NA	NA	30	
Ethyl Benzene	ND	ND	NA	NA		N	NΑ	NA	NA	30	
m,p-Xylene	ND	ND	NA	NA		N	NΑ	NA	NA	30	
o-Xylene	ND	ND	NA	NA		١	NΑ	NA	NA	30	
Gasoline	ND	ND	NA	NA		١	NΑ	NA	NA	30	
Surrogate:											
Fluorobenzene						90	99	59-122			
SPIKE BLANKS											
Laboratory ID:	SB080	01W1									
	SB	SBD	SB	SBD		SB	SBD				
Benzene	52.6	53.1	50.0	50.0		105	106	76-120	1	11	
Toluene	52.5	52.9	50.0	50.0		105	106	80-116	1	12	
Ethyl Benzene	53.3	53.6	50.0	50.0		107	107	80-116	1	12	
m,p-Xylene	53.0	53.1	50.0	50.0		106	106	76-117	0	12	
o-Xylene	52.5	52.8	50.0	50.0		105	106	79-114	1	11	
Surrogate:											
Fluorobenzene						108	105	<i>59-122</i>			

Project: 6552-1

DIESEL AND HEAVY OIL RANGE ORGANICS NWTPH-Dx

Matrix: Water Units: mg/L (ppm)

J (1,7)				Date	Date	
Analyte	Result	PQL	Method	Prepared	Analyzed	Flags
Client ID:	MW-107					
Laboratory ID:	07-358-04					
Diesel Range Organics	ND	0.25	NWTPH-Dx	8-6-19	8-6-19	
Lube Oil Range Organics	ND	0.40	NWTPH-Dx	8-6-19	8-6-19	
Surrogate:	Percent Recovery	Control Limits				
o-Terphenyl	88	50-150				
Client ID:	MW-108					
Laboratory ID:	07-358-06					
Diesel Range Organics	ND	0.26	NWTPH-Dx	8-6-19	8-6-19	
Lube Oil Range Organics	ND	0.41	NWTPH-Dx	8-6-19	8-6-19	
Surrogate:	Percent Recovery	Control Limits				
o-Terphenyl	94	50-150				
Client ID:	MW-6					
						
Laboratory ID:	07-358-07	0.00	NIM/TDLL D	0.0.10	0.0.10	
Diesel Range Organics	ND	0.26	NWTPH-Dx	8-6-19	8-6-19	
Lube Oil Range Organics	ND	0.42	NWTPH-Dx	8-6-19	8-6-19	
Surrogate:	Percent Recovery	Control Limits				
o-Terphenyl	<i>97</i>	50-150				

Project: 6552-1

DIESEL AND HEAVY OIL RANGE ORGANICS NWTPH-Dx QUALITY CONTROL

Matrix: Water Units: mg/L (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
METHOD BLANK						
Laboratory ID:	MB0806W1					
Diesel Range Organics	ND	0.25	NWTPH-Dx	8-6-19	8-6-19	
Lube Oil Range Organics	ND	0.40	NWTPH-Dx	8-6-19	8-6-19	
Surrogate:	Percent Recovery	Control Limits				

o-Terphenyl

87

50-150

Analyte	Res	sult	Spike	Level	Source Result	Percent Recovery	Recovery Limits	RPD	RPD Limit	Flags
DUPLICATE										
Laboratory ID:	SB08	06W1								
	ORIG	DUP								
Diesel Fuel #2	0.775	0.768	NA	NA		NA	NA	1	NA	
Lube Oil Range	ND	ND	NA	NA		. NA	NA	NA	NA	
Surrogate:										
o-Terphenyl						91 90	50-150			



Data Qualifiers and Abbreviations

- A Due to a high sample concentration, the amount spiked is insufficient for meaningful MS/MSD recovery data.
- B The analyte indicated was also found in the blank sample.
- C The duplicate RPD is outside control limits due to high result variability when analyte concentrations are within five times the quantitation limit.
- E The value reported exceeds the quantitation range and is an estimate.
- F Surrogate recovery data is not available due to the high concentration of coeluting target compounds.
- H The analyte indicated is a common laboratory solvent and may have been introduced during sample preparation, and be impacting the sample result.
- I Compound recovery is outside of the control limits.
- J The value reported was below the practical quantitation limit. The value is an estimate.
- K Sample duplicate RPD is outside control limits due to sample inhomogeneity. The sample was re-extracted and re-analyzed with similar results.
- L The RPD is outside of the control limits.
- M Hydrocarbons in the gasoline range are impacting the diesel range result.
- M1 Hydrocarbons in the gasoline range (toluene-naphthalene) are present in the sample.
- N Hydrocarbons in the lube oil range are impacting the diesel range result.
- N1 Hydrocarbons in diesel range are impacting lube oil range results.
- O Hydrocarbons indicative of heavier fuels are present in the sample and are impacting the gasoline result.
- P The RPD of the detected concentrations between the two columns is greater than 40.
- Q Surrogate recovery is outside of the control limits.
- S Surrogate recovery data is not available due to the necessary dilution of the sample.
- T The sample chromatogram is not similar to a typical
- U The analyte was analyzed for, but was not detected above the reported sample quantitation limit.
- U1 The practical quantitation limit is elevated due to interferences present in the sample.
- V Matrix Spike/Matrix Spike Duplicate recoveries are outside control limits due to matrix effects.
- W Matrix Spike/Matrix Spike Duplicate RPD are outside control limits due to matrix effects.
- X Sample extract treated with a mercury cleanup procedure.
- X1- Sample extract treated with a sulfuric acid/silica gel cleanup procedure.
- Y The calibration verification for this analyte exceeded the 20% drift specified in methods 8260 & 8270, and therefore the reported result should be considered an estimate. The overall performance of the calibration verification standard met the acceptance criteria of the method.

Z -

ND - Not Detected at PQL

PQL - Practical Quantitation Limit

RPD - Relative Percent Difference





Chain of Custody

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Analytical Laboratory Testing Services 14648 NE 95th Street • Redmond, WA 98052	Turnaround Request (in working days)		Labo	rator	y Nu	ımber:		0	7 -	35	8				L-MENNEY - CHESTA I				***************************************	
Phone: (425) 883-3881 • www.onsite-env.com Company: TAT Project Number: 0 552 - \ Project Name: Project Manager: Lhuck Li e Sampled by: Epan H. Eckles	(Check One) Same Day 1 Day 2 Days 3 Days Standard (7 Days) (other)	Rumber of Containers NWTPH-HCID	NWTPH-Gx/8TEX	NWTPH-Gx NWTPH-Dx (Acid / SG Clean-up)	-	Halogenated Volatiles 8260C EDB EPA 8011 (Waters Only)	Semivolatiles 8270D/SIM (with low-level PAHs)	NHs 8270D/SIM (low-level)	PCES BORZA Organochlorine Pesticides 8081B	Organophosphorus Pesticides 8270D/SIM	Chlorinated Acid Herbicides 8151A	Total RCRA Metals	Total MTCA Metals	TCLP Metals	HEM (oil and grease) 1664A					% Moisture
ab ID Sample Identification MW-25	7-30 13-30 W	3 Z	Z		>	I W	S &	at (1 0	10	10	FE	<u> </u>	j	I					8
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3 MW-204	7-31 6:50 W	3	Ť								 	<u> </u>								
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14648 NE 95th Street, Redmond, WA 98052 • (425) 883-3881

August 12, 2019

Chuck Lie Terra Associates, Inc. 12220 113th Avenue NE, Suite 130 Kirkland, WA 98034

Re:

Analytical Data for Project 6552-1 Laboratory Reference No. 1908-073

Dear Chuck:

Enclosed are the analytical results and associated quality control data for samples submitted on August 6, 2019.

The standard policy of OnSite Environmental, Inc. is to store your samples for 30 days from the date of receipt. If you require longer storage, please contact the laboratory.

We appreciate the opportunity to be of service to you on this project. If you have any questions concerning the data, or need additional information, please feel free to call me.

Sincerely,

David Baumeister Project Manager

Enclosures



Project: 6552-1

Case Narrative

Samples were collected on August 6, 2019 and received by the laboratory on August 6, 2019. They were maintained at the laboratory at a temperature of 2°C to 6°C.

Please note that any and all soil sample results are reported on a dry-weight basis, unless otherwise noted below.

General QA/QC issues associated with the analytical data enclosed in this laboratory report will be indicated with a reference to a comment or explanation on the Data Qualifier page. More complex and involved QA/QC issues will be discussed in detail below.

NWTPH-Gx/BTEX Analysis

The chromatogram for sample MW-202 is not similar to a typical gas.

Any other QA/QC issues associated with this extraction and analysis will be indicated with a footnote reference and discussed in detail on the Data Qualifier page.

Project: 6552-1

GASOLINE RANGE ORGANICS/BTEX NWTPH-Gx/EPA 8021B

Matrix: Water Units: ug/L (ppb)

				Date	Date	_
Analyte	Result	PQL	Method	Prepared	Analyzed	Flags
Client ID:	MW-205					
Laboratory ID:	08-073-01					
Benzene	ND	0.50	EPA 8021B	8-8-19	8-8-19	
Toluene	ND	1.0	EPA 8021B	8-8-19	8-8-19	
Ethyl Benzene	ND	1.0	EPA 8021B	8-8-19	8-8-19	
m,p-Xylene	ND	1.0	EPA 8021B	8-8-19	8-8-19	
o-Xylene	ND	1.0	EPA 8021B	8-8-19	8-8-19	
Gasoline	ND	100	NWTPH-Gx	8-8-19	8-8-19	
Surrogate:	Percent Recovery	Control Limits				
Fluorobenzene	99	59-122				
Client ID:	MW-206					
Laboratory ID:	08-073-02					
Benzene	ND	0.50	EPA 8021B	8-8-19	8-8-19	
Toluene	ND	1.0	EPA 8021B	8-8-19	8-8-19	
Ethyl Benzene	ND	1.0	EPA 8021B	8-8-19	8-8-19	
m,p-Xylene	ND	1.0	EPA 8021B	8-8-19	8-8-19	
o-Xylene	ND	1.0	EPA 8021B	8-8-19	8-8-19	
Gasoline	ND	100	NWTPH-Gx	8-8-19	8-8-19	
Surrogate:	Percent Recovery	Control Limits				
Fluorobenzene	101	59-122				
Client ID:	MW-7A					
Laboratory ID:	08-073-03					
Benzene	ND	0.50	EPA 8021B	8-8-19	8-8-19	
Toluene	ND	1.0	EPA 8021B	8-8-19	8-8-19	
Ethyl Benzene	4.2	1.0	EPA 8021B	8-8-19	8-8-19	
m,p-Xylene	ND	1.0	EPA 8021B	8-8-19	8-8-19	
o-Xylene	ND	1.0	EPA 8021B	8-8-19	8-8-19	
Gasoline	120	100	NWTPH-Gx	8-8-19	8-8-19	
Surrogate:	Percent Recovery	Control Limits				
Fluorobenzene	101	59-122				

Project: 6552-1

GASOLINE RANGE ORGANICS/BTEX NWTPH-Gx/EPA 8021B

Matrix: Water Units: ug/L (ppb)

				Date	Date	
Analyte	Result	PQL	Method	Prepared	Analyzed	Flags
Client ID:	MW-202			•		****
Laboratory ID:	08-073-04					
Benzene	2.5	0.50	EPA 8021B	8-8-19	8-8-19	
Toluene	4.9	1.0	EPA 8021B	8-8-19	8-8-19	
Ethyl Benzene	2000	50	EPA 8021B	8-8-19	8-8-19	
m,p-Xylene	9400	100	EPA 8021B	8-8-19	8-8-19	
o-Xylene	540	50	EPA 8021B	8-8-19	8-8-19	
Gasoline	33000	5000	NWTPH-Gx	8-8-19	8-8-19	Т
0	D	On attack the				

Surrogate: Percent Recovery Control Limits
Fluorobenzene 91 59-122

GASOLINE RANGE ORGANICS/BTEX NWTPH-Gx/EPA 8021B **QUALITY CONTROL**

Matrix: Water Units: ug/L (ppb)

				Date	Date	
Analyte	Result	PQL	Method	Prepared	Analyzed	Flags
METHOD BLANK		•				
Laboratory ID:	MB0808W1					
Benzene	ND	0.50	EPA 8021B	8-8-19	8-8-19	
Toluene	ND	1.0	EPA 8021B	8-8-19	8-8-19	
Ethyl Benzene	ND	1.0	EPA 8021B	8-8-19	8-8-19	
m,p-Xylene	ND	1.0	EPA 8021B	8-8-19	8-8-19	
o-Xylene	ND	1.0	EPA 8021B	8-8-19	8-8-19	
Gasoline	ND	100	NWTPH-Gx	8-8-19	8-8-19	
Surrogate:	Percent Recovery	Control Limits				-
Fluorobenzene	100	59-122				

Surrogate:	Percent Recovery	Control Limits
Fluorobenzene	100	59-122

					Source	Pei	rcent	Recovery		RPD	
Analyte	Res	sult	Spike	Level	Result	Rec	overy	Limits	RPD	Limit	Flags
DUPLICATE											
Laboratory ID:	08-07	73-01									
	ORIG	DUP									
Benzene	ND	ND	NA	NA		1	NA AI	NA	NA	30	
Toluene	ND	ND	NA	NA		١	NΑ	NA	NA	30	
Ethyl Benzene	ND	ND	NA	NA		١	NΑ	NA	NA	30	
m,p-Xylene	ND	ND	NA	NA		١	NΑ	NA	NA	30	
o-Xylene	ND	ND	NA	NA		١	NΑ	NA	NA	30	
Gasoline	ND	ND	NA	NA		١	NΑ	NA	NA	30	
Surrogate:											
Fluorobenzene						99	100	59-122			
SPIKE BLANKS											
Laboratory ID:	SB08	08W1									
	SB	SBD	SB	SBD		SB	SBD				
Benzene	49.8	51.7	50.0	50.0		100	103	76-120	4	11	
Toluene	50.3	52.4	50.0	50.0		101	105	80-116	4	12	
Ethyl Benzene	51.3	53.5	50.0	50.0		103	107	80-116	4	12	
m,p-Xylene	51.1	53.3	50.0	50.0		102	107	76-117	4	12	
o-Xylene	50.8	52.9	50.0	50.0		102	106	79-114	4	11	
Surrogate:											
Fluorobenzene						104	107	59-122			

Project: 6552-1

DIESEL AND HEAVY OIL RANGE ORGANICS NWTPH-Dx

Matrix: Water Units: mg/L (ppm)

				Date	Date	
Analyte	Result	PQL	Method	Prepared	Analyzed	Flags
Client ID:	MW-205					
Laboratory ID:	08-073-01					
Diesel Range Organics	ND	0.25	NWTPH-Dx	8-8-19	8-9-19	
Lube Oil Range Organics	ND	0.40	NWTPH-Dx	8-8-19	8-9-19	
Surrogate:	Percent Recovery	Control Limits				
o-Terphenyl	66	50-150				
Client ID:	MW-206					
Laboratory ID:	08-073-02					
Diesel Range Organics	ND	0.25	NWTPH-Dx	8-8-19	8-9-19	
Lube Oil Range Organics	ND	0.40	NWTPH-Dx	8-8-19	8-9-19	
Surrogate:	Percent Recovery	Control Limits			•	
o-Terphenyl	67	50-150				

Project: 6552-1

DIESEL AND HEAVY OIL RANGE ORGANICS NWTPH-Dx QUALITY CONTROL

Matrix: Water Units: mg/L (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
METHOD BLANK						
Laboratory ID:	MB0808W1					
Diesel Range Organics	ND	0.25	NWTPH-Dx	8-8-19	8-9-19	
Lube Oil Range Organics	ND	0.40	NWTPH-Dx	8-8-19	8-9-19	
Surrogate:	Percent Recovery	Control Limits		_		

o-Terphenyl

64 50-150

Analyte	Res	sult	Spike	Level	Source Result	Percent Recovery	Recovery Limits	RPD	RPD Limit	Flags
DUPLICATE										
Laboratory ID:	08-07	⁷ 8-07								
	ORIG	DUP								
Diesel Range	ND	ND	NA	NA		NA	NA	NA	NA	
Lube Oil Range	ND	ND	NA	NA		NA	NA	NA	NA	
Surrogate: o-Terphenyl						72 69	50-150			



Data Qualifiers and Abbreviations

- A Due to a high sample concentration, the amount spiked is insufficient for meaningful MS/MSD recovery data.
- B The analyte indicated was also found in the blank sample.
- C The duplicate RPD is outside control limits due to high result variability when analyte concentrations are within five times the quantitation limit.
- E The value reported exceeds the quantitation range and is an estimate.
- F Surrogate recovery data is not available due to the high concentration of coeluting target compounds.
- H The analyte indicated is a common laboratory solvent and may have been introduced during sample preparation, and be impacting the sample result.
- 1 Compound recovery is outside of the control limits.
- J The value reported was below the practical quantitation limit. The value is an estimate.
- K Sample duplicate RPD is outside control limits due to sample inhomogeneity. The sample was re-extracted and re-analyzed with similar results.
- L The RPD is outside of the control limits.
- M Hydrocarbons in the gasoline range are impacting the diesel range result.
- M1 Hydrocarbons in the gasoline range (toluene-naphthalene) are present in the sample.
- N Hydrocarbons in the lube oil range are impacting the diesel range result.
- N1 Hydrocarbons in diesel range are impacting lube oil range results.
- O Hydrocarbons indicative of heavier fuels are present in the sample and are impacting the gasoline result.
- P The RPD of the detected concentrations between the two columns is greater than 40.
- Q Surrogate recovery is outside of the control limits.
- S Surrogate recovery data is not available due to the necessary dilution of the sample.
- T The sample chromatogram is not similar to a typical gas.
- U The analyte was analyzed for, but was not detected above the reported sample quantitation limit.
- U1 The practical quantitation limit is elevated due to interferences present in the sample.
- V Matrix Spike/Matrix Spike Duplicate recoveries are outside control limits due to matrix effects.
- W Matrix Spike/Matrix Spike Duplicate RPD are outside control limits due to matrix effects.
- X Sample extract treated with a mercury cleanup procedure.
- X1- Sample extract treated with a sulfuric acid/silica gel cleanup procedure.
- Y The calibration verification for this analyte exceeded the 20% drift specified in methods 8260 & 8270, and therefore the reported result should be considered an estimate. The overall performance of the calibration verification standard met the acceptance criteria of the method.

Z -

ND - Not Detected at PQL

PQL - Practical Quantitation Limit

RPD - Relative Percent Difference





Chain of Custody

Page /	of /

Analytical Laboratory Testing Services 14648 NE 95th Street • Redmond, WA 98052 Phone: (425) 883-3881 • www.onsite-env.com	14	rnaround Her in working da	As) Incat	_	L	abo	rat	ory I	Num	ber:	enamento en mora	0	8	- 0	7	3						*********			
Project Number: 6557 Project Name: Project Manager: Chuck List Sampled by: Nicolas R. Hoffman	Date	ays ndard (7 Days) (other)	1 Day	Ramber of Containers	NWTPH-HCID	NWTPH-Gx/BTEX	NVTPH-Gx	NWTPH-Dx (Acid / SG Clean-up)	Volatiles 82500C Halogenated Volatiles 8260C	EDB EPA 8011 (Waters Only)	Semivolatiles 8270D/SIM (with low-level PAHs)	AHs 8270D/SIM (low-level)	PCBs 6062A	Organochlorine Pesticides 8081B	Organophosphorus Pesticides 8270D/SIM	Chlorinated Acid Herbicides 8151A	Total RCRA Metals	Total MTCA Metais	TCLP Metals	HEM (oli and grease) 1664A					% Moisture
ab 10 Sample Identification	Sampled Skille	Sampled 例らら	Matrix Loss	con	Z	X	2	z V	> I	Ш	S S	<u> </u>	С.	0	<u> </u>	O	X	l H		I					%
1 MW-205 9 MW-206 3 MW-7A 4 MW-202		9,105		5										***************************************	Nakosistan hossaida									*******	
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4 MW-202	V	11:00	V	3		Ĭ,								******	***************************************							1934AV49344V99			WAAFIOGOCCOST

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14648 NE 95th Street, Redmond, WA 98052 • (425) 883-3881

August 19, 2019

Chuck Lie Terra Associates, Inc. 12220 113th Avenue NE, Suite 130 Kirkland, WA 98034

Re:

Analytical Data for Project 6552-1 Laboratory Reference No. 1908-173

Dear Chuck:

Enclosed are the analytical results and associated quality control data for samples submitted on August 14, 2019.

The standard policy of OnSite Environmental, Inc. is to store your samples for 30 days from the date of receipt. If you require longer storage, please contact the laboratory.

We appreciate the opportunity to be of service to you on this project. If you have any questions concerning the data, or need additional information, please feel free to call me.

Sincerely,

David Baumeister Project Manager

Enclosures



Project:

Case Narrative

Samples were collected on August 14, 2019 and received by the laboratory on August 14, 2019. They were maintained at the laboratory at a temperature of 2°C to 6°C.

Please note that any and all soil sample results are reported on a dry-weight basis, unless otherwise noted below.

General QA/QC issues associated with the analytical data enclosed in this laboratory report will be indicated with a reference to a comment or explanation on the Data Qualifier page. More complex and involved QA/QC issues will be discussed in detail below.

Project:

PAHs EPA 8270D/SIM

Matrix: Water Units: ug/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	MW-206	F QL	Metriou	Fiepaieu	Analyzeu	i iags
Laboratory ID:	08-173-01					
Naphthalene	ND	0.10	EPA 8270D/SIM	8-15-19	8-16-19	
2-Methylnaphthalene	ND	0.10	EPA 8270D/SIM	8-15-19	8-16-19	
1-Methylnaphthalene	ND	0.10	EPA 8270D/SIM	8-15-19	8-16-19	
Acenaphthylene	ND	0.10	EPA 8270D/SIM	8-15-19	8-16-19	
Acenaphthene	ND	0.10	EPA 8270D/SIM	8-15-19	8-16-19	
Fluorene	ND	0.10	EPA 8270D/SIM	8-15-19	8-16-19	
Phenanthrene	ND	0.10	EPA 8270D/SIM	8-15-19	8-16-19	
Anthracene	ND	0.10	EPA 8270D/SIM	8-15-19	8-16-19	
Fluoranthene	ND	0.10	EPA 8270D/SIM	8-15-19	8-16-19	
Pyrene	ND	0.10	EPA 8270D/SIM	8-15-19	8-16-19	
Benzo[a]anthracene	ND	0.010	EPA 8270D/SIM	8-15-19	8-16-19	
Chrysene	ND	0.010	EPA 8270D/SIM	8-15-19	8-16-19	
Benzo[b]fluoranthene	ND	0.010	EPA 8270D/SIM	8-15-19	8-16-19	
Benzo(j,k)fluoranthene	ND	0.010	EPA 8270D/SIM	8-15-19	8-16-19	
Benzo[a]pyrene	ND	0.010	EPA 8270D/SIM	8-15-19	8-16-19	
Indeno(1,2,3-c,d)pyrene	ND	0.010	EPA 8270D/SIM	8-15-19	8-16-19	
Dibenz[a,h]anthracene	ND	0.010	EPA 8270D/SIM	8-15-19	8-16-19	
Benzo[g,h,i]perylene	ND	0.010	EPA 8270D/SIM	8-15-19	8-16-19	
Surrogate:	Percent Recovery	Control Limits				
2-Fluorobiphenyl	77	27 - 106				
Pyrene-d10	86	35 - 98				

Surrogate:	Percent Recovery	Control Limits
2-Fluorobiphenyl	77	27 - 106
Pyrene-d10	86	35 - 98
Terphenyl-d14	89	41 - 129

Project:

PAHs EPA 8270D/SIM

Matrix: Water Units: ug/L

Anglyto	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Analyte Client ID:	MW-205	ru-	Method	ricpareu	Allalyzeu	ı iagə
Laboratory ID:	08-173-02					
Naphthalene	ND	0.10	EPA 8270D/SIM	8-15-19	8-16-19	
2-Methylnaphthalene	ND	0.10	EPA 8270D/SIM	8-15-19	8-16-19	
1-Methylnaphthalene	ND	0.10	EPA 8270D/SIM	8-15-19	8-16-19	
Acenaphthylene	ND	0.10	EPA 8270D/SIM	8-15-19	8-16-19	
Acenaphthene	ND	0.10	EPA 8270D/SIM	8-15-19	8-16-19	
Fluorene	ND	0.10	EPA 8270D/SIM	8-15-19	8-16-19	
Phenanthrene	ND	0.10	EPA 8270D/SIM	8-15-19	8-16-19	
Anthracene	ND	0.10	EPA 8270D/SIM	8-15-19	8-16-19	
Fluoranthene	ND	0.10	EPA 8270D/SIM	8-15-19	8-16-19	
Pyrene	ND	0.10	EPA 8270D/SIM	8-15-19	8-16-19	
Benzo[a]anthracene	ND	0.010	EPA 8270D/SIM	8-15-19	8-16-19	
Chrysene	ND	0.010	EPA 8270D/SIM	8-15-19	8-16-19	
Benzo[b]fluoranthene	ND	0.010	EPA 8270D/SIM	8-15-19	8-16-19	
Benzo(j,k)fluoranthene	ND	0.010	EPA 8270D/SIM	8-15-19	8-16-19	
Benzo[a]pyrene	ND	0.010	EPA 8270D/SIM	8-15-19	8-16-19	
Indeno(1,2,3-c,d)pyrene	ND	0.010	EPA 8270D/SIM	8-15-19	8-16-19	
Dibenz[a,h]anthracene	ND	0.010	EPA 8270D/SIM	8-15-19	8-16-19	
Benzo[g,h,i]perylene	ND	0.010	EPA 8270D/SIM	8-15-19	8-16-19	
Surrogate:	Percent Recovery	Control Limits				
2-Fluorobiphenyl	78	27 - 106				
Pyrene-d10	87	35 - 98				

Pyrene-d10 96 41 - 129 Terphenyl-d14

Project:

PAHS EPA 8270D/SIM METHOD BLANK QUALITY CONTROL

Matrix: Water Units: ug/L

				Date	Date	
Analyte	Result	PQL	Method	Prepared	Analyzed	Flags
Laboratory ID:	MB0815W2					
Naphthalene	ND	0.10	EPA 8270D/SIM	8-15-19	8-16-19	
2-Methylnaphthalene	ND	0.10	EPA 8270D/SIM	8-15-19	8-16-19	
1-Methylnaphthalene	ND	0.10	EPA 8270D/SIM	8-15-19	8-16-19	
Acenaphthylene	ND	0.10	EPA 8270D/SIM	8-15-19	8-16-19	
Acenaphthene	ND	0.10	EPA 8270D/SIM	8-15-19	8-16-19	
Fluorene	ND	0.10	EPA 8270D/SIM	8-15-19	8-16-19	
Phenanthrene	ND	0.10	EPA 8270D/SIM	8-15-19	8-16-19	
Anthracene	ND	0.10	EPA 8270D/SIM	8-15-19	8-16-19	
Fluoranthene	ND	0.10	EPA 8270D/SIM	8-15-19	8-16-19	
Pyrene	ND	0.10	EPA 8270D/SIM	8-15-19	8-16-19	
Benzo[a]anthracene	ND	0.010	EPA 8270D/SIM	8-15-19	8-16-19	
Chrysene	ND	0.010	EPA 8270D/SIM	8-15-19	8-16-19	
Benzo[b]fluoranthene	ND	0.010	EPA 8270D/SIM	8-15-19	8-16-19	
Benzo(j,k)fluoranthene	ND	0.010	EPA 8270D/SIM	8-15-19	8-16-19	
Benzo[a]pyrene	ND	0.010	EPA 8270D/SIM	8-15-19	8-16-19	
Indeno(1,2,3-c,d)pyrene	ND	0.010	EPA 8270D/SIM	8-15-19	8-16-19	
Dibenz[a,h]anthracene	ND	0.010	EPA 8270D/SIM	8-15-19	8-16-19	
Benzo[g,h,i]perylene	ND	0.010	EPA 8270D/SIM	8-15-19	8-16-19	
Surrogate:	Percent Recovery	Control Limits				
2-Fluorobiphenyl	61	27 - 106				
Pyrene-d10	81	35 - 98				
Terphenyl-d14	84	41 - 129				

Project:

PAHS EPA 8270D/SIM SB/SBD QUALITY CONTROL

Matrix: Water Units: ug/L

					Per	cent	Recovery		RPD	
Analyte	Res	sult	Spike	Level	Rec	overy	Limits	RPD	Limit	Flags
SPIKE BLANKS										
Laboratory ID:	SB08	15W2								
	SB	SBD	SB	SBD	SB	SBD				
Naphthalene	0.439	0.341	0.500	0.500	88	68	36 - 99	25	40	
Acenaphthylene	0.396	0.402	0.500	0.500	79	80	45 - 113	2	32	
Acenaphthene	0.401	0.425	0.500	0.500	80	85	43 - 119	6	33	
Fluorene	0.417	0.418	0.500	0.500	83	84	48 - 114	0	30	
Phenanthrene	0.430	0.429	0.500	0.500	86	86	49 - 113	0	24	
Anthracene	0.424	0.431	0.500	0.500	85	86	50 - 113	2	25	
Fluoranthene	0.453	0.457	0.500	0.500	91	91	57 - 118	1	22	
Pyrene	0.477	0.487	0.500	0.500	95	97	56 - 128	2	32	
Benzo[a]anthracene	0.462	0.469	0.500	0.500	92	94	59 - 127	2	24	
Chrysene	0.453	0.463	0.500	0.500	91	93	57 - 122	2	24	
Benzo[b]fluoranthene	0.443	0.438	0.500	0.500	89	88	58 - 123	1	26	
Benzo(j,k)fluoranthene	0.441	0.457	0.500	0.500	88	91	60 - 123	4	22	
Benzo[a]pyrene	0.431	0.433	0.500	0.500	86	87	54 - 121	0	24	
Indeno(1,2,3-c,d)pyrene	0.435	0.431	0.500	0.500	87	86	55 - 125	1	26	
Dibenz[a,h]anthracene	0.439	0.443	0.500	0.500	88	89	57 - 127	1	25	
Benzo[g,h,i]perylene	0.433	0.439	0.500	0.500	87	88	54 - 122	1	25	
Surrogate:										
2-Fluorobiphenyl					69	70	27 - 106			
Pyrene-d10					88	84	35 - 98			
Terphenyl-d14					92	89	41 - 129			



Data Qualifiers and Abbreviations

- A Due to a high sample concentration, the amount spiked is insufficient for meaningful MS/MSD recovery data.
- B The analyte indicated was also found in the blank sample.
- C The duplicate RPD is outside control limits due to high result variability when analyte concentrations are within five times the quantitation limit.
- E The value reported exceeds the quantitation range and is an estimate.
- F Surrogate recovery data is not available due to the high concentration of coeluting target compounds.
- H The analyte indicated is a common laboratory solvent and may have been introduced during sample preparation, and be impacting the sample result.
- I Compound recovery is outside of the control limits.
- J The value reported was below the practical quantitation limit. The value is an estimate.
- K Sample duplicate RPD is outside control limits due to sample inhomogeneity. The sample was re-extracted and re-analyzed with similar results.
- L The RPD is outside of the control limits.
- M Hydrocarbons in the gasoline range are impacting the diesel range result.
- M1 Hydrocarbons in the gasoline range (toluene-naphthalene) are present in the sample.
- N Hydrocarbons in the lube oil range are impacting the diesel range result.
- N1 Hydrocarbons in diesel range are impacting lube oil range results.
- O Hydrocarbons indicative of heavier fuels are present in the sample and are impacting the gasoline result.
- P The RPD of the detected concentrations between the two columns is greater than 40.
- Q Surrogate recovery is outside of the control limits.
- S Surrogate recovery data is not available due to the necessary dilution of the sample.
- T The sample chromatogram is not similar to a typical _____.
- U The analyte was analyzed for, but was not detected above the reported sample quantitation limit.
- U1 The practical quantitation limit is elevated due to interferences present in the sample.
- V Matrix Spike/Matrix Spike Duplicate recoveries are outside control limits due to matrix effects.
- W Matrix Spike/Matrix Spike Duplicate RPD are outside control limits due to matrix effects.
- X Sample extract treated with a mercury cleanup procedure.
- X1- Sample extract treated with a sulfuric acid/silica gel cleanup procedure.
- Y The calibration verification for this analyte exceeded the 20% drift specified in methods 8260 & 8270, and therefore the reported result should be considered an estimate. The overall performance of the calibration verification standard met the acceptance criteria of the method.

Z -

ND - Not Detected at PQL

PQL - Practical Quantitation Limit

RPD - Relative Percent Difference



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Chain of Custody

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Analytical Laboratory Testing Services 14648 NE 95th Street • Redmond, WA 98052 Phone: (425) 883-3881 • www.onsite-env.com	(in working days)	L	abora	tory	Numbe	r:	08	(450) (450)	17	3	- The second control of the second control o		on and a second		·				e e e e e e e e e e e e e e e e e e e
Project Number: 6552-1 Project Name: Project Manager: Wishing R. Hoffman ab ID Sample Identification	(Check One) Same Day 1 Day 2 Days 3 Days Standard (7 Days) (other) Date Time Sampled Sampled Matrix	Rumber of Containers NWTPH-HCID	NWTPH-Gx/BTEX NWTPH-Gx	NWTPH-Dx (☐ Acid / SG Clean-up)	Volatiles 8260C Halogenated Volatiles 8260C FDR FDA 8011 (Waters Only)	Semivolatiles 8270D/SIM	(with low-level PAHs) PAHs 8270D/SIM (low-level)	PCBs 8082A	Organochlorine Pesticides 8081B	Organophosphorus Pesticides 8270D/SIM	Chiorinated Acid Herbicides 8151A Total RCRA Metals	Total MTCA Metals	TCLP Metals	HEM (oil and grease) 1664A				% Moisture	
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Project:

PAHS EPA 8270D/SIM METHOD BLANK QUALITY CONTROL

Matrix: Water Units: ug/L

			Date	Date	
Result	PQL	Method	Prepared	Analyzed	Flags
MDOOAEVAO					
X1000	0.40	EDA 0070D/01M	0.45.40	0.40.40	
ND	0.10	EPA 8270D/SIM	8-15-19		
ND	0.10	EPA 8270D/SIM	8-15-19	8-16-19	
ND	0.10	EPA 8270D/SIM	8-15-19	8-16-19	
ND	0.10	EPA 8270D/SIM	8-15-19	8-16-19	
ND	0.10	EPA 8270D/SIM	8-15-19	8-16-19	
ND	0.10	EPA 8270D/SIM	8-15-19	8-16-19	
ND	0.10	EPA 8270D/SIM	8-15-19	8-16-19	
ND	0.10	EPA 8270D/SIM	8-15-19	8-16-19	
ND	0.010	EPA 8270D/SIM	8-15-19	8-16-19	
ND	0.010	EPA 8270D/SIM	8-15-19	8-16-19	
ND	0.010	EPA 8270D/SIM	8-15-19	8-16-19	
ND	0.010	EPA 8270D/SIM	8-15-19	8-16-19	
ND	0.010	EPA 8270D/SIM	8-15-19	8-16-19	
ND	0.010	EPA 8270D/SIM	8-15-19	8-16-19	
ND	0.010	EPA 8270D/SIM	8-15-19	8-16-19	
ND	0.010	EPA 8270D/SIM	8-15-19	8-16-19	
Percent Recovery	Control Limits				
61	27 - 106				
81	35 - 98				
84	41 - 129				
	MB0815W2 ND	MB0815W2 ND 0.10 ND 0.010 Percent Recovery Control Limits 61 27 - 106 81 35 - 98	MB0815W2 ND 0.10 EPA 8270D/SIM ND 0.010 EPA 8270D/S	Result PQL Method Prepared MB0815W2 ND 0.10 EPA 8270D/SIM 8-15-19 ND 0.010 EPA 8270D/SIM 8-15-19 ND </td <td>Result PQL Method Prepared Analyzed MB0815W2 ND 0.10 EPA 8270D/SIM 8-15-19 8-16-19 ND 0.010 EPA 8270D/SIM 8-15-19 8-16-19 ND 0.010 EPA 8270D/SIM 8-15-19 8-16-19 ND 0.010 EPA 8270D/SIM 8-15-19 8-16-19 ND</td>	Result PQL Method Prepared Analyzed MB0815W2 ND 0.10 EPA 8270D/SIM 8-15-19 8-16-19 ND 0.010 EPA 8270D/SIM 8-15-19 8-16-19 ND 0.010 EPA 8270D/SIM 8-15-19 8-16-19 ND 0.010 EPA 8270D/SIM 8-15-19 8-16-19 ND

Project:

PAHS EPA 8270D/SIM SB/SBD QUALITY CONTROL

Matrix: Water Units: ug/L

					Per	cent	Recovery		RPD	
Analyte	Re	sult	Spike	Level	Rec	overy	Limits	RPD	Limit	Flags
SPIKE BLANKS										
Laboratory ID:	SB08	15W2								
	SB_	SBD	SB	SBD	SB	SBD				
Naphthalene	0.439	0.341	0.500	0.500	88	68	36 - 99	25	40	
Acenaphthylene	0.396	0.402	0.500	0.500	79	80	45 - 113	2	32	
Acenaphthene	0.401	0.425	0.500	0.500	80	85	43 - 119	6	33	
Fluorene	0.417	0.418	0.500	0.500	83	84	48 - 114	0	30	
Phenanthrene	0.430	0.429	0.500	0.500	86	86	49 - 113	0	24	
Anthracene	0.424	0.431	0.500	0.500	85	86	50 - 113	2	25	
Fluoranthene	0.453	0.457	0.500	0.500	91	91	57 - 118	1	22	
Pyrene	0.477	0.487	0.500	0.500	95	97	56 - 128	2	32	
Benzo[a]anthracene	0.462	0.469	0.500	0.500	92	94	59 - 127	2	24	
Chrysene	0.453	0.463	0.500	0.500	91	93	57 - 122	2	24	
Benzo[b]fluoranthene	0.443	0.438	0.500	0.500	89	88	58 - 123	1	26	
Benzo(j,k)fluoranthene	0.441	0.457	0.500	0.500	88	91	60 - 123	4	22	
Benzo[a]pyrene	0.431	0.433	0.500	0.500	86	87	54 - 121	0	24	
Indeno(1,2,3-c,d)pyrene	0.435	0.431	0.500	0.500	87	86	55 - 125	1	26	
Dibenz[a,h]anthracene	0.439	0.443	0.500	0.500	88	89	57 - 127	1	25	
Benzo[g,h,i]perylene	0.433	0.439	0.500	0.500	87	88	54 - 122	11	25	
Surrogate:										
2-Fluorobiphenyl					69	70	27 - 106			
Pyrene-d10					88	84	35 - 98			
Terphenyl-d14					92	89	41 - 129			



Data Qualifiers and Abbreviations

- A Due to a high sample concentration, the amount spiked is insufficient for meaningful MS/MSD recovery data.
- B The analyte indicated was also found in the blank sample.
- C The duplicate RPD is outside control limits due to high result variability when analyte concentrations are within five times the quantitation limit.
- E The value reported exceeds the quantitation range and is an estimate.
- F Surrogate recovery data is not available due to the high concentration of coeluting target compounds.
- H The analyte indicated is a common laboratory solvent and may have been introduced during sample preparation, and be impacting the sample result.
- I Compound recovery is outside of the control limits.
- J The value reported was below the practical quantitation limit. The value is an estimate.
- K Sample duplicate RPD is outside control limits due to sample inhomogeneity. The sample was re-extracted and re-analyzed with similar results.
- L The RPD is outside of the control limits.
- M Hydrocarbons in the gasoline range are impacting the diesel range result.
- M1 Hydrocarbons in the gasoline range (toluene-naphthalene) are present in the sample.
- N Hydrocarbons in the lube oil range are impacting the diesel range result.
- N1 Hydrocarbons in diesel range are impacting lube oil range results.
- O Hydrocarbons indicative of heavier fuels are present in the sample and are impacting the gasoline result.
- P The RPD of the detected concentrations between the two columns is greater than 40.
- Q Surrogate recovery is outside of the control limits.
- S Surrogate recovery data is not available due to the necessary dilution of the sample.
- T The sample chromatogram is not similar to a typical _____
- U The analyte was analyzed for, but was not detected above the reported sample quantitation limit.
- U1 The practical quantitation limit is elevated due to interferences present in the sample.
- V Matrix Spike/Matrix Spike Duplicate recoveries are outside control limits due to matrix effects.
- W Matrix Spike/Matrix Spike Duplicate RPD are outside control limits due to matrix effects.
- X Sample extract treated with a mercury cleanup procedure.
- X1- Sample extract treated with a sulfuric acid/silica gel cleanup procedure.
- Y The calibration verification for this analyte exceeded the 20% drift specified in methods 8260 & 8270, and therefore the reported result should be considered an estimate. The overall performance of the calibration verification standard met the acceptance criteria of the method.

Z-

ND - Not Detected at PQL

PQL - Practical Quantitation Limit

RPD - Relative Percent Difference





Chain of Custody

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14648 NE 95th Street, Redmond, WA 98052 • (425) 883-3881

November 14, 2019

Chuck Lie Terra Associates, Inc. 12220 113th Avenue NE, Suite 130 Kirkland, WA 98034

Re:

Analytical Data for Project 6552-1 Laboratory Reference No. 1911-127

Dear Chuck:

Enclosed are the analytical results and associated quality control data for samples submitted on November 12, 2019.

The standard policy of OnSite Environmental, Inc. is to store your samples for 30 days from the date of receipt. If you require longer storage, please contact the laboratory.

We appreciate the opportunity to be of service to you on this project. If you have any questions concerning the data, or need additional information, please feel free to call me.

Sincerely,

David Baumeister Project Manager

Enclosures



Date of Report: November 14, 2019 Samples Submitted: November 12, 2019

Laboratory Reference: 1911-127

Project: 6552-1

Case Narrative

Samples were collected on November 12, 2019 and received by the laboratory on November 12, 2019. They were maintained at the laboratory at a temperature of 2° C to 6° C.

Please note that any and all soil sample results are reported on a dry-weight basis, unless otherwise noted below.

General QA/QC issues associated with the analytical data enclosed in this laboratory report will be indicated with a reference to a comment or explanation on the Data Qualifier page. More complex and involved QA/QC issues will be discussed in detail below.

Date of Report: November 14, 2019 Samples Submitted: November 12, 2019

Laboratory Reference: 1911-127

Project: 6552-1

DIESEL AND HEAVY OIL RANGE ORGANICS NWTPH-Dx

Matrix: Water Units: mg/L (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	MW-107					
Laboratory ID:	11-127-01					
Diesel Range Organics	0.42	0.21	NWTPH-Dx	11-13-19	11-13-19	
Lube Oil Range Organics	0.61	0.21	NWTPH-Dx	1 <u>1</u> -13-19	11-13-19	,
Surrogate:	Percent Recovery	Control Limits				
o-Terphenyl	125	50-150				

Date of Report: November 14, 2019 Samples Submitted: November 12, 2019

Laboratory Reference: 1911-127

Project: 6552-1

DIESEL AND HEAVY OIL RANGE ORGANICS NWTPH-Dx QUALITY CONTROL

Matrix: Water
Units: mg/L (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
METHOD BLANK						 :
Laboratory ID:	MB1113W1					
Diesel Range Organics	ND	0.20	NWTPH-Dx	11-13-19	11-13-19	
Lube Oil Range Organics	ND	0.20	NWTPH-Dx	11-13-19	11-13-19	
Surrogate:	Percent Recovery	Control Limits				
o-Terphenyl	105	<i>50-150</i>				

Analyte	Res	sult	Spike	Level	Source Result	Percent Recovery	Recovery Limits	RPD	RPD Limit	Flags
DUPLICATE										
Laboratory ID:	11-12	27-01				<u>. </u>	=			
	ORIG	DUP								
Diesel Range Organics	0.417	0.374	NA	NA		NA	NA	11	NA	
Lube Oil Range Organics	0.612	0.439	NA	NA		NA	NA	33	NA	
Surrogate:					·					
o-Terphenyl						125 103	50-150			



Data Qualifiers and Abbreviations

- A Due to a high sample concentration, the amount spiked is insufficient for meaningful MS/MSD recovery data.
- B The analyte indicated was also found in the blank sample.
- C The duplicate RPD is outside control limits due to high result variability when analyte concentrations are within five times the quantitation limit.
- E The value reported exceeds the quantitation range and is an estimate.
- F Surrogate recovery data is not available due to the high concentration of coeluting target compounds.
- H The analyte indicated is a common laboratory solvent and may have been introduced during sample preparation, and be impacting the sample result.
- I Compound recovery is outside of the control limits.
- J The value reported was below the practical quantitation limit. The value is an estimate.
- K Sample duplicate RPD is outside control limits due to sample inhomogeneity. The sample was re-extracted and re-analyzed with similar results.
- L The RPD is outside of the control limits.
- M Hydrocarbons in the gasoline range are impacting the diesel range result.
- M1 Hydrocarbons in the gasoline range (toluene-naphthalene) are present in the sample.
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- N1 Hydrocarbons in diesel range are impacting lube oil range results.
- O Hydrocarbons indicative of heavier fuels are present in the sample and are impacting the gasoline result.
- P The RPD of the detected concentrations between the two columns is greater than 40.
- Q Surrogate recovery is outside of the control limits.
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- T The sample chromatogram is not similar to a typical _____.
- U The analyte was analyzed for, but was not detected above the reported sample quantitation limit.
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- V Matrix Spike/Matrix Spike Duplicate recoveries are outside control limits due to matrix effects.
- W Matrix Spike/Matrix Spike Duplicate RPD are outside control limits due to matrix effects.
- X Sample extract treated with a mercury cleanup procedure.
- X1- Sample extract treated with a sulfuric acid/silica gel cleanup procedure.
- Y The calibration verification for this analyte exceeded the 20% drift specified in methods 8260 & 8270, and therefore the reported result should be considered an estimate. The overall performance of the calibration verification standard met the acceptance criteria of the method.

Z -

ND - Not Detected at PQL

PQL - Practical Quantitation Limit

RPD - Relative Percent Difference





Chain of Custody

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Phone: (425) 883-3881 • www.onsite-env.com Company: Project Number: (055) Project Name: Project Manager: Sampled by: Evan H. Eckl-66	Same 2 Day	-	1 Day	Rumber of Containers	NWTPH-HCID	NWTPH-Gx/BTEX	NWTPH-Gx	NWTPH-Dx (☐ Acid / SG Clean-up)	Volatiles 8260C Halogenated Volatiles 8260C	EDB EPA 8011 (Waters Only)	Semivolatiles 8270D/SIM (with low-level PAHs)	ts 8270D/SIM (low-level)	PCBs 8082A	Organochlorine Pesticides 8081B	Organophosphorus Pesticides 8270D/SIM	Chlorinated Acid Herbicides 8151A	Total RCRA Metals	Total MTCA Metals	TOLP Metals	HEM (oil and grease) 1664A					% Moisture
Lab ID Sample Identification	Sampled	Sampled	Matrix	ä	Ž	Ž	Ž.	Ž/	Š Ē		S Se	Ž.	8	ð	<u>0</u>	5	μ̈́	ĮŽ.	5	Ŧ					%
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14648 NE 95th Street, Redmond, WA 98052 • (425) 883-3881

November 27, 2019

Chuck Lie Terra Associates, Inc. 12220 113th Avenue NE, Suite 130 Kirkland, WA 98034

Re:

Analytical Data for Project 6552-1 Laboratory Reference No. 1911-127B

Dear Chuck:

Enclosed are the analytical results and associated quality control data for samples submitted on November 12, 2019.

The standard policy of OnSite Environmental, Inc. is to store your samples for 30 days from the date of receipt. If you require longer storage, please contact the laboratory.

We appreciate the opportunity to be of service to you on this project. If you have any questions concerning the data, or need additional information, please feel free to call me.

Sincerely,

David Baumeister Project Manager

Enclosures

Date

Date

Date of Report: November 27, 2019 Samples Submitted: November 12, 2019 Laboratory Reference: 1911-127B

Project: 6552-1

PAHs EPA 8270E/SIM

Matrix: Water Units: ug/L

Analyte	Result	PQL	Method	Prepared	Analyzed	Flags
Client ID:	MW-107					
Laboratory ID:	11-127-01					
Naphthalene	ND	0.094	EPA 8270E/SIM	11-15-19	11-15-19	
2-Methylnaphthalene	ND	0.094	EPA 8270E/SIM	11-15-19	11-15-19	
1-Methylnaphthalene	ND	0.094	EPA 8270E/SIM	11-15-19	11-15-19	
Acenaphthylene	ND	0.094	EPA 8270E/SIM	11-15-19	11-15-19	
Acenaphthene	ND	0.094	EPA 8270E/SIM	11-15-19	11-15-19	
Fluorene	ND	0.094	EPA 8270E/SIM	11-15-19	11-15-19	
Phenanthrene	ND	0.094	EPA 8270E/SIM	11-15-19	11-15-19	
Anthracene	ND	0.094	EPA 8270E/SIM	11-15-19	11-15-19	
Fluoranthene	ND	0.094	EPA 8270E/SIM	11-15-19	11-15-19	
Pyrene	ND	0.094	EPA 8270E/SIM	11-15-19	11-15-19	
Benzo[a]anthracene	ND	0.0094	EPA 8270E/SIM	11-15-19	11-15-19	
Chrysene	ND	0.0094	EPA 8270E/SIM	11-15-19	11-15-19	
Benzo[b]fluoranthene	ND	0.0094	EPA 8270E/SIM	11-15-19	11-15-19	
Benzo(j,k)fluoranthene	ND	0.0094	EPA 8270E/SIM	11-15-19	11-15-19	
Benzo[a]pyrene	ND	0.0094	EPA 8270E/SIM	11-15-19	11-15-19	
Indeno(1,2,3-c,d)pyrene	ND	0.0094	EPA 8270E/SIM	11-15-19	11-15-19	
Dibenz[a,h]anthracene	ND	0.0094	EPA 8270E/SIM	11-15-19	11-15-19	
Benzo[g,h,i]perylene	ND	0.0094	EPA 8270E/SIM	11-15-19	11-15-19	
Surrogate:	Percent Recovery	Control Limits				
2-Fluorobiphenyl	82	27 - 106				

Pyrene-d10 94 35 - 98 Terphenyl-d14 100 41 - 129

Project: 6552-1

PAHS EPA 8270E/SIM QUALITY CONTROL

Matrix: Water Units: ug/L

_				Date	Date	
Analyte	Result	PQL	Method	Prepared	Analyzed	Flags
METHOD BLANK		=				
Laboratory ID:	MB1115W1					
Naphthalene	ND	0.10	EPA 8270E/SIM	11-15-19	11-15-19	
2-Methylnaphthalene	ND	0.10	EPA 8270E/SIM	11-15-19	11-15-19	
1-Methylnaphthalene	ND	0.10	EPA 8270E/SIM	11-15-19	11-15-19	
Acenaphthylene	ND	0.10	EPA 8270E/SIM	11-15-19	11-15-19	
Acenaphthene	ND	0.10	EPA 8270E/SIM	11-15-19	11-15-19	
Fluorene	ND	0.10	EPA 8270E/SIM	11-15-19	11-15-19	
Phenanthrene	ND	0.10	EPA 8270E/SIM	11-15-19	11-15-19	
Anthracene	ND	0.10	EPA 8270E/SIM	11-15-19	11-15-19	
Fluoranthene	ND	0.10	EPA 8270E/SIM	11-15-19	11-15-19	
Pyrene	ND	0.10	EPA 8270E/SIM	11-15-19	11-15-19	
Benzo[a]anthracene	ND	0.010	EPA 8270E/SIM	11-15-19	11-15-19	
Chrysene	ND	0.010	EPA 8270E/SIM	11-15-19	11-15-19	
Benzo[b]fluoranthene	ND	0.010	EPA 8270E/SIM	11-15-19	11-15-19	
Benzo(j,k)fluoranthene	ND	0.010	EPA 8270E/SIM	11-15-19	11-15-19	
Benzo[a]pyrene	ND	0.010	EPA 8270E/SIM	11-15-19	11-15-19	
Indeno(1,2,3-c,d)pyrene	ND	0.010	EPA 8270E/SIM	11-15-19	11-15-19	
Dibenz[a,h]anthracene	ND	0.010	EPA 8270E/SIM	11-15-19	11-15-19	
Benzo[g,h,i]perylene	ND	0.010	EPA 8270E/SIM	11-15-19	11-15-19	
Surrogate:	Percent Recovery	Control Limits				
2-Fluorobiphenyl	<i>56</i>	27 - 106				
Pyrene-d10	95	<i>35 - 98</i>				
Terphenyl-d14	100	41 - 129				

Project: 6552-1

PAHS EPA 8270E/SIM QUALITY CONTROL

Matrix: Water Units: ug/L

					Per	cent	Recovery		RPD	
Analyte	Result		Spike	Spike Level		overy	Limits	RPD	Limit	Flags
SPIKE BLANKS										
Laboratory ID:	SB11	15W1								
	SB	SBD	SB	SBD	SB	SBD				
Naphthalene	0.373	0.337	0.500	0.500	75	67	36 - 99	10	40	
Acenaphthylene	0.433	0.384	0.500	0.500	87	77	45 - 113	12	32	
Acenaphthene	0.451	0.398	0.500	0.500	90	80	43 - 119	12	33	
Fluorene	0.445	0.410	0.500	0.500	89	82	48 - 114	8	30	
Phenanthrene	0.453	0.423	0.500	0.500	91	85	49 - 113	7	24	
Anthracene	0.453	0.428	0.500	0.500	91	86	50 - 113	6	25	
Fluoranthene	0.444	0.436	0.500	0.500	89	87	57 - 118	2	22	
Pyrene	0.496	0.438	0.500	0.500	99	88	56 - 128	12	32	
Benzo[a]anthracene	0.512	0.483	0.500	0.500	102	97	59 - 127	6	24	
Chrysene	0.470	0.456	0.500	0.500	94	91	57 - 122	3	24	
Benzo[b]fluoranthene	0.494	0.474	0.500	0.500	99	95	58 - 123	4	26	
Benzo(j,k)fluoranthene	0.481	0.454	0.500	0.500	96	91	60 - 123	6	22	
Benzo[a]pyrene	0.477	0.449	0.500	0.500	95	90	54 - 121	6	24	
Indeno(1,2,3-c,d)pyrene	0.499	0.459	0.500	0.500	100	92	55 - 125	8	26	
Dibenz[a,h]anthracene	0.488	0.471	0.500	0.500	98	94	57 - 127	4	25	
Benzo[g,h,i]perylene	0.479	0.464	0.500	0.500	96	93	54 - 122	3	25	
Surrogate:										
2-Fluorobiphenyl					76	67	27 - 106			
Pyrene-d10					91	83	<i>35 - 98</i>			
Terphenyl-d14					99	90	41 - 129			

Project: 6552-1

VOLATILE PETROLEUM HYDROCARBONS

Matrix: Water Units: ug/L (ppb)

			Date	Date	
Result	PQL	Method	Prepared	Analyzed	Flags
MW-107				·	
11-127-01					
ND	50	NWTPH-VPH	11-19-19	11-19-19	
ND	50	NWTPH-VPH	11-19-19	11-19-19	
ND	50	NWTPH-VPH	11-19-19	11-19-19	
ND	50	NWTPH-VPH	11-19-19	11-19-19	
NA		NWTPH-VPH	11-19-19	11-19-19	
ND	50	NWTPH-VPH	11-19-19	11-19-19	
ND	50	NWTPH-VPH	11-19-19	11-19-19	
ND	50	NWTPH-VPH	11-19-19	11-19-19	
NA		NWTPH-VPH	11-19-19	11-19-19	
ND	10	EPA 8021B	11-19-19	11-19-19	
ND	1.0	EPA 8021B	11-19-19	11-19-19	
ND	1.0	EPA 8021B	11-19-19	11-19-19	
ND	1.0	EPA 8021B	11-19-19	11-19-19	
ND	1.0	EPA 8021B	11-19-19	11-19-19	
ND	1.0	EPA 8021B	11-19-19	11-19-19	
	MW-107 11-127-01 ND ND ND ND ND ND NA ND	MW-107 11-127-01 ND 50 ND 50 ND 50 ND 50 ND 50 ND 50 NA ND 50 ND 50 ND 50 ND 10 ND 10 ND 1.0 ND 1.0 ND 1.0 ND 1.0	MW-107 11-127-01 ND 50 NWTPH-VPH ND 10 EPA 8021B ND 1.0 EPA 8021B ND 1.0 EPA 8021B ND 1.0 EPA 8021B ND 1.0 EPA 8021B	Result PQL Method Prepared MW-107 11-127-01 11-127-01 ND 50 NWTPH-VPH 11-19-19 ND 50 NWTPH-VPH 11-19-19 ND 50 NWTPH-VPH 11-19-19 NA NWTPH-VPH 11-19-19 ND 50 NWTPH-VPH 11-19-19 ND 50 NWTPH-VPH 11-19-19 ND 50 NWTPH-VPH 11-19-19 NA NWTPH-VPH 11-19-19 NA NWTPH-VPH 11-19-19 ND 1.0 EPA 8021B 11-19-19	Result PQL Method Prepared Analyzed MW-107 11-127-01 11-127-01 11-19-19 11-19-19 11-19-19 ND 50 NWTPH-VPH 11-19-19 11-19-19 11-19-19 ND 10 EPA 8021B 11-19-19 11-19-19 11-19-19 ND 1.0 EPA 8021B

Surrogate:

Percent Recovery Control Limits

Fluorobenzene

81

60-122

Project: 6552-1

VOLATILE PETROLEUM HYDROCARBONS QUALITY CONTROL

Matrix: Water Units: ug/L (ppb)

			Date	Date	
Result	PQL	Method	Prepared	Analyzed	Flags
		**			
MB1119W1					
ND	50	NWTPH-VPH	11-19-19	11-19-19	
ND	50	NWTPH-VPH	11-19-19	11-19-19	
ND	50	NWTPH-VPH	11-19-19	11-19-19	
ND	50	NWTPH-VPH	11-19-19	11-19-19	
NA		NWTPH-VPH	11-19-19	11-19-19	
ND	50	NWTPH-VPH	11-19-19	11-19-19	
ND	50	NWTPH-VPH	11-19-19	11-19-19	
ND	50	NWTPH-VPH	11-19-19	11-19-19	
NA		NWTPH-VPH	11-19-19	11-19-19	
ND	10	EPA 8021B	11-19-19	11-19-19	
ND	1.0	EPA 8021B	11-19-19	11-19-19	
ND	1.0	EPA 8021B	11-19-19	11-19-19	
ND	1.0	EPA 8021B	11-19-19	11-19-19	
ND	1.0	EPA 8021B	11-19-19	11-19-19	
ND	1.0	EPA 8021B	11-19-19	11-19-19	
	MB1119W1 ND ND ND NA ND ND ND ND ND ND	MB1119W1 ND 50 ND 50 ND 50 ND 50 NA ND 50 NA ND 50 ND 50 ND 50 ND 10 ND 1.0 ND 1.0 ND 1.0 ND 1.0	MB1119W1 ND 50 NWTPH-VPH ND 50 NWTPH-VPH ND 50 NWTPH-VPH ND 50 NWTPH-VPH NA NWTPH-VPH ND 50 NWTPH-VPH ND 50 NWTPH-VPH NA NWTPH-VPH NA NWTPH-VPH ND 10 EPA 8021B ND 1.0 EPA 8021B	MB1119W1 ND 50 NWTPH-VPH 11-19-19 NA NWTPH-VPH 11-19-19 ND 10 EPA 8021B 11-19-19 ND 1.0 EPA 8021B 11-19-19	Result PQL Method Prepared Analyzed MB1119W1 MD 50 NWTPH-VPH 11-19-19 11-19-19 ND 50 NWTPH-VPH 11-19-19 11-19-19 ND 50 NWTPH-VPH 11-19-19 11-19-19 ND 50 NWTPH-VPH 11-19-19 11-19-19 NA NWTPH-VPH 11-19-19 11-19-19 ND 50 NWTPH-VPH 11-19-19 11-19-19 ND 10 EPA 8021B 11-19-19 11-19-19 ND 1.0 EPA 8021B 11-19-19 11-19-19 ND 1.0 EPA 8021B 11-19-19 11-19-19 ND 1.0 EPA 8021B 11-19-19

Surrogate:

Percent Recovery Control Limits

Fluorobenzene

81

60-122

Analyte	Res	sult	Spike	Level	Source Result	_	rcent	Recovery Limits	RPD	RPD Limit	Flags
SPIKE BLANKS											
Laboratory ID:	SB11	19W1									
	SB	SBD	SB	SBD		SB	SBD				
Benzene	47.7	48.5	50.0	50.0		95	97	76-120	2	11	
Toluene	48.3	46.2	50.0	50.0		97	92	80-116	4	12	
Ethyl Benzene	48.2	45.7	50.0	50.0		96	91	80-116	5	12	
m,p-Xylene	48.8	46.0	50.0	50.0		98	92	76-117	6	12	
o-Xylene	48.1	46.2	50.0	50.0		96	92	79-114	4	11	
Surrogate:							•				
Fluorobenzene						86	88	60-122			



Data Qualifiers and Abbreviations

- A Due to a high sample concentration, the amount spiked is insufficient for meaningful MS/MSD recovery data.
- B The analyte indicated was also found in the blank sample.
- C The duplicate RPD is outside control limits due to high result variability when analyte concentrations are within five times the quantitation limit.
- E The value reported exceeds the quantitation range and is an estimate.
- F Surrogate recovery data is not available due to the high concentration of coeluting target compounds.
- H The analyte indicated is a common laboratory solvent and may have been introduced during sample preparation, and be impacting the sample result.
- I Compound recovery is outside of the control limits.
- J The value reported was below the practical quantitation limit. The value is an estimate.
- K Sample duplicate RPD is outside control limits due to sample inhomogeneity. The sample was re-extracted and re-analyzed with similar results.
- L The RPD is outside of the control limits.
- M Hydrocarbons in the gasoline range are impacting the diesel range result.
- M1 Hydrocarbons in the gasoline range (toluene-naphthalene) are present in the sample.
- N Hydrocarbons in the lube oil range are impacting the diesel range result.
- N1 Hydrocarbons in diesel range are impacting lube oil range results.
- O Hydrocarbons indicative of heavier fuels are present in the sample and are impacting the gasoline result.
- P The RPD of the detected concentrations between the two columns is greater than 40.
- Q Surrogate recovery is outside of the control limits.
- S Surrogate recovery data is not available due to the necessary dilution of the sample.
- T The sample chromatogram is not similar to a typical .
- U The analyte was analyzed for, but was not detected above the reported sample quantitation limit.
- U1 The practical quantitation limit is elevated due to interferences present in the sample.
- V Matrix Spike/Matrix Spike Duplicate recoveries are outside control limits due to matrix effects.
- W Matrix Spike/Matrix Spike Duplicate RPD are outside control limits due to matrix effects.
- X Sample extract treated with a mercury cleanup procedure.
- X1- Sample extract treated with a sulfuric acid/silica gel cleanup procedure.
- Y The calibration verification for this analyte exceeded the 20% drift specified in methods 8260 & 8270, and therefore the reported result should be considered an estimate. The overall performance of the calibration verification standard met the acceptance criteria of the method.

Z -

ND - Not Detected at PQL

PQL - Practical Quantitation Limit

RPD - Relative Percent Difference





November 27, 2019

Mr. David Baumeister OnSite Environmental, Inc. 14648 NE 95th Street Redmond, WA 98052

Dear Mr. Baumeister,

On November 15th, 1 sample was received by our laboratory and assigned our laboratory project number EV19110118. The project was identified as your Project #6552-1, Laboratory Ref #11-127. The sample identification and requested analyses are outlined on the attached chain of custody record.

No abnormalities or nonconformances were observed during the analyses of the project samples.

Please do not hesitate to call me if you have any questions or if I can be of further assistance.

Sincerely,

ALS Laboratory Group

Rick Bagan

Laboratory Director



CERTIFICATE OF ANALYSIS

CLIENT:

OnSite Environmental, Inc.

DATE: ALS JOB#: 11/27/2019 EV19110118

14648 NE 95th Street Redmond, WA 98052

ALS JOB#.
ALS SAMPLE#:

EV19110118-01

CLIENT CONTACT: David Baumeister

DATE RECEIVED:

11/15/2019

CLIENT PROJECT:

Project #6552-1, Laboratory Ref #11-127

COLLECTION DATE:

11/12/2019 11:00:00 AM

CLIENT SAMPLE ID

MW-107

WDOE ACCREDITATION: (

C601

SAMPLE DATA RESULTS

ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS Date	ANALYSIS BY
>C8-C10 Aliphatics	NWEPH	U	50	1	UG/L	11/20/2019	EBS
>C10-C12 Aliphatics	NWEPH	U	50	1	UG/L	11/20/2019	EBS
>C12-C16 Aliphatics	NWEPH	U	50	1	UG/L	11/20/2019	EBS
>C16-C21 Aliphatics	NWEPH	U	50	1	UG/L	11/20/2019	EBS
>C21-C34 Aliphatics	NWEPH	U	50	1	UG/L	11/20/2019	EBS
>C8-C10 Aromatics	NWEPH	U	50	1	UG/L	11/20/2019	EBS
>C10-C12 Aromatics	NWEPH	U	50	1	UG/L	11/20/2019	EBS
>C12-C16 Aromatics	NWEPH	U	50	1	UG/L	11/20/2019	EBS
>C16-C21 Aromatics	NWEPH	U	50	1	UG/L	11/20/2019	EBS
>C21-C34 Aromatics	NWEPH	U	50	1	UG/L	11/20/2019	EBS
SURROGATE	METHOD	%REC				ANALYSIS DATE	ANALYSIS BY

			ANALYSIS A	ANALYSIS
SURROGATE	METHOD	%REC	DATE	BY
C25	NWEPH	112	11/20/2019	EBS
p-Terphenyl	NWEPH	88.8	11/20/2019	EBS

U - Analyte analyzed for but not detected at level above reporting limit.



CERTIFICATE OF ANALYSIS

CLIENT:

OnSite Environmental, Inc.

14648 NE 95th Street

ALS SDG#:

11/27/2019

Redmond, WA 98052

WDOE ACCREDITATION:

DATE:

EV19110118 C601

CLIENT CONTACT:

David Baumeister

CLIENT PROJECT:

Project #6552-1, Laboratory Ref #11-127

LABORATORY BLANK RESULTS

MB-111819W - Batch R351474 - Water by NWEPH

S ANALYSIS
BY
9 EBS
1 1 1

U - Analyte analyzed for but not detected at level above reporting limit.

MB-111819W - Batch R351475 - Water by NWEPH

				REPORTING	ANALYSIS	ANALYSIS	
ANALYTE	METHOD	RESULTS	UNITS	LIMITS	DATE	BY	
>C8-C10 Aliphatics	NWEPH	U	UG/L	50	11/20/2019	EBS	
>C10-C12 Aliphatics	NWEPH	U	UG/L	50	11/20/2019	EBS	
>C12-C16 Aliphatics	NWEPH	U	UG/L	50	11/20/2019	EBS	
>C16-C21 Aliphatics	NWEPH	U	UG/L	50	11/20/2019	EBS	
>C21-C34 Aliphatics	NWEPH	U	UG/L	50	11/20/2019	EBS	

U - Analyte analyzed for but not detected at level above reporting limit.



CERTIFICATE OF ANALYSIS

CLIENT:

OnSite Environmental, Inc.

14648 NE 95th Street

ALS SDG#:

11/27/2019 EV19110118

Redmond, WA 98052

WDOE ACCREDITATION:

DATE:

C601

CLIENT CONTACT:

David Baumeister

CLIENT PROJECT:

Project #6552-1, Laboratory Ref #11-127

LABORATORY CONTROL SAMPLE RESULTS

ALS Test Batch ID: R351474 - Water by NWEPH

				LIN	NITS	ANALYSIS	ANALYSIS BY
SPIKED COMPOUND	METHOD	%REC	RPD QUAL	MIN	MAX	DATE	
>C8-C10 Aromatics - BS	NWEPH	90.7		70	130	11/20/2019	EBS
>C8-C10 Aromatics - BSD	NWEPH	82.0	10	70	130	11/20/2019	EBS
>C10-C12 Aromatics - BS	NWEPH	96.6		70	130	11/20/2019	EBS
>C10-C12 Aromatics - BSD	NWEPH	90.4	7	70	130	11/20/2019	EBS
>C12-C16 Aromatics - BS	NWEPH	106		70	130	11/20/2019	EBS
>C12-C16 Aromatics - BSD	NWEPH	103	3	70	130	11/20/2019	EBS
>C16-C21 Aromatics - BS	NWEPH	108		70	130	11/20/2019	EBS
>C16-C21 Aromatics - BSD	NWEPH	107	0	70	130	11/20/2019	EBS
>C21-C34 Aromatics - BS	NWEPH	114		70	130	11/20/2019	EBS
>C21-C34 Aromatics - BSD	NWEPH	117	2	70	130	11/20/2019	EBS

ALS Test Batch ID: R351475 - Water by NWEPH

				LIN	MITS	ANALYSIS	ANALYSIS BY
SPIKED COMPOUND	METHOD	%REC	RPD QUAL	MIN	MAX	DATE	
>C8-C10 Aliphatics - BS	NWEPH	77.4		70	130	11/20/2019	EBS
>C8-C10 Aliphatics - BSD	NWEPH	75.2	3	70	130	11/20/2019	EBS
>C10-C12 Aliphatics - BS	NWEPH	93.5		70	130	11/20/2019	EBS
>C10-C12 Aliphatics - BSD	NWEPH	89.9	4	70	130	11/20/2019	EBS
>C12-C16 Aliphatics - BS	NWEPH	98.3		70	130	11/20/2019	EBS
>C12-C16 Aliphatics - BSD	NWEPH	99.9	2	70	130	11/20/2019	EBS
>C16-C21 Aliphatics - BS	NWEPH	102		70	130	11/20/2019	EBS
>C16-C21 Aliphatics - BSD	NWEPH	104	2	70	130	11/20/2019	EBS
>C21-C34 Aliphatics - BS	NWEPH	100		70	130	11/20/2019	EBS
>C21-C34 Aliphatics - BSD	NWEPH	103	3	70	130	11/20/2019	EBS

APPROVED BY

Laboratory Director

Page 4



14648 NE 95th Street, Redmond, WA 98052 · (425) 883-3881

Laboratory: ALS Environmental

Attention: Rick Bagan

8620 Holly Drive Everett, WA 98208

Phone Number: (425) 356-2600

Turnaround Request

2 Day 1 Day 3 Day

Standard Other:

Laboratory Reference #: 11-127

Project Manager: David Baumeister

email: dbaumeister@onsite-env.com

Project Number: 6552-1

Project Name:

Date Time # of Lab ID Sample Identification Sampled Sampled Matrix Cont. Requested Analyses MW-107 11/12/19 11:00 W EPH Signature Company Time Comments/Special Instructions Relinquished by: Received by: Relinquished by: 2:1 Received by: Relinquished by: Received by:

ÁN OnSite Environmental Inc.

Chain of Custody

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Page		of	3

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	883-3891 • www.onsite-env.com	Same 2 Day Stand	nger] 1 Day	Rumber of Containers	NWTPH-HCID	NWTPH-Gx/BTEX	NWTPH-Gx	NWTPH-Dx (Acid / SG Clean-up)	Volatiles 8250C Halonemated Volatiles 8260C	EDB EPA 8011 (Waters Only)	nivolatiles 8270D/SIM	(WILL IOW-level) PAHs 8270D/SIM (Iow-level)	PCBs 8082A	Organochlorine Pesticides 8081B	Organophosphorus Pesticides 8270D/SIM	Chlorinated Acid Herbicides 8151A	Total RCRA Metals	Total MTCA Metals	TCLP Metals	HEM (oil and grease) 1664A	Ž,	3		% Moisture
Lab ID Sa	mpte identification	Date Sampled	Sampled	Mairix	ž	Ž	NZ.	Š	Ž	ğ İ		l light	I A	18	ĮŠ.	<u>Ş</u> ,	5	10,	<u>5</u>	2	뽀		\rightarrow		- 8
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14648 NE 95th Street, Redmond, WA 98052 • (425) 883-3881

February 6, 2020

Chuck Lie Terra Associates, Inc. 12220 113th Avenue NE, Suite 130 Kirkland, WA 98034

Re:

Analytical Data for Project 6552-1 Laboratory Reference No. 2001-337

Dear Chuck:

Enclosed are the analytical results and associated quality control data for samples submitted on January 31, 2020.

The standard policy of OnSite Environmental, Inc. is to store your samples for 30 days from the date of receipt. If you require longer storage, please contact the laboratory.

We appreciate the opportunity to be of service to you on this project. If you have any questions concerning the data, or need additional information, please feel free to call me.

Sincerely,

David Baumeister Project Manager

Enclosures



Project: 6552-1

GASOLINE RANGE ORGANICS/BTEX NWTPH-Gx/EPA 8021B

Matrix: Water Units: ug/L (ppb)

				Date	Date	
Analyte	Result	PQL	Method	Prepared	Analyzed	Flags
Client ID:	MW-206					
Laboratory ID:	01-337-01					
Benzene	ND	0.50	EPA 8021B	1-31-20	1-31-20	
Toluene	ND	1.0	EPA 8021B	1-31-20	1-31-20	
Ethyl Benzene	ND	1.0	EPA 8021B	1-31-20	1-31-20	
m,p-Xylene	ND	1.0	EPA 8021B	1-31-20	1-31-20	
o-Xylene	ND	1.0	EPA 8021B	1-31-20	1-31-20	
Gasoline	ND	100	NWTPH-Gx	1-31-20	1-31-20	
Surrogate:	Percent Recovery	Control Limits				
Fluorobenzene	111	59 -122				
Client ID:	MW-205					
Laboratory ID:	01-337-02					
Benzene	ND	0.50	EPA 8021B	1-31-20	1-31-20	
Toluene	ND	1.0	EPA 8021B	1-31-20	1-31-20	
Ethyl Benzene	ND	1.0	EPA 8021B	1-31-20	1-31-20	
m,p-Xylene	ND	1.0	EPA 8021B	1-31-20	1-31-20	
o-Xylene	ND	1.0	EPA 8021B	1-31-20	1-31-20	
Gasoline	ND	100	NWTPH-Gx	1-31-20	1-31-20	
Surrogate:	Percent Recovery	Control Limits				
Fluorobenzene	95	59-122				
Client ID:	MW-201					
Laboratory ID:	01-337-03					
Benzene	ND	0.50	EPA 8021B	1-31-20	1-31-20	
Toluene	ND	1.0	EPA 8021B	1-31-20	1-31-20	
Ethyl Benzene	ND	1.0	EPA 8021B	1-31-20	1-31-20	
m,p-Xylene	ND	1.0	EPA 8021B	1-31-20	1-31-20	
o-Xylene	ND	1.0	EPA 8021B	1-31-20	1-31-20	
Gasoline	ND	100	NWTPH-Gx	1-31-20	1-31-20	
Surrogate:	Percent Recovery	Control Limits				
Fluorobenzene	98	59-122				



Project: 6552-1

GASOLINE RANGE ORGANICS/BTEX NWTPH-Gx/EPA 8021B

Matrix: Water Units: ug/L (ppb)

				Date	Date	
Analyte	Result	PQL	Method	Prepared	Analyzed	Flags
Client ID:	MW-108					
Laboratory ID:	01-337-04					
Benzene	ND	0.50	EPA 8021B	1-31-20	1-31-20	
Toluene	ND	1.0	EPA 8021B	1-31-20	1-31-20	
Ethyl Benzene	ND	1.0	EPA 8021B	1-31-20	1-31-20	
m,p-Xylene	ND	1.0	EPA 8021B	1-31-20	1-31-20	
o-Xylene	ND	1.0	EPA 8021B	1-31-20	1-31-20	
Gasoline	ND	100	NWTPH-Gx	1-31-20	1-31-20	
Surrogate:	Percent Recovery	Control Limits				
Fluorobenzene	98	5 9 -122				
Client ID:	MW-7a					
Laboratory ID:	01-337-05					
Benzene	ND	0.50	EPA 8021B	1-31-20	1-31-20	
Toluene	ND	1.0	EPA 8021B	1-31-20	1-31-20	
Ethyl Benzene	ND	1.0	EPA 8021B	1-31-20	1-31-20	
m,p-Xylene	ND	1.0	EPA 8021B	1-31-20	1-31-20	
o-Xylene	ND	1.0	EPA 8021B	1-31-20	1-31-20	
Gasoline	ND	100	NWTPH-Gx	1-31-20	1-31-20	
Surrogate:	Percent Recovery	Control Limits				
Fluorobenzene	97	59-122				
Client ID:	MW-109					
Laboratory ID:	01-337-06					
Benzene	ND	0.50	EPA 8021B	1-31-20	1-31-20	
Toluene	ND	1.0	EPA 8021B	1-31-20	1-31-20	
Ethyl Benzene	ND	1.0	EPA 8021B	1-31-20	1-31-20	
m,p-Xylene	ND	1.0	EPA 8021B	1-31-20	1-31-20	
o-Xylene	ND	1.0	EPA 8021B	1-31-20	1-31-20	
Gasoline	ND	100	NWTPH-Gx	1-31-20	1-31-20	
Surrogate:	Percent Recovery	Control Limits				
Fluorobenzene	99	59-122				

Project: 6552-1

GASOLINE RANGE ORGANICS/BTEX NWTPH-Gx/EPA 8021B

Matrix: Water
Units: ug/L (ppb)

,				Date	Date	
Analyte	Result	PQL	Method	Prepared	Analyzed	Flags
Client ID:	MW-202					
Laboratory ID:	01-337-07					
Benzene	1.3	0.50	EPA 8021B	1-31-20	1-31-20	
Toluene	ND	1.0	EPA 8021B	1-31-20	1-31-20	
Ethyl Benzene	1100	20	EPA 8021B	2-3-20	2-3-20	
m,p-Xylene	4000	50	EPA 8021B	2-4-20	2-4-20	
o-Xylene	110	20	EPA 8021B	2-3-20	2-3-20	
Gasoline	15000	2000	NWTPH-Gx	2-3-20	2-3-20	T
Surrogate:	Percent Recovery	Control Limits				
Fluorobenzene	99	59-122				
Client ID:	MW-203					
Laboratory ID:	01-337-08					
Benzene	ND	0.50	EPA 8021B	1-31-20	1-31-20	
Toluene	ND	1.0	EPA 8021B	1-31-20	1-31-20	
Ethyl Benzene	ND	1.0	EPA 8021B	1-31-20	1-31-20	
m,p-Xylene	ND	1.0	EPA 8021B	1-31-20	1-31-20	
o-Xylene	ND	1.0	EPA 8021B	1-31-20	1-31-20	
Gasoline	ND	100	NWTPH-Gx	1-31-20	1-31-20	
Surrogate:	Percent Recovery	Control Limits				
Fluorobenzene	98	59-122				
Client ID:	MW-107					
Laboratory ID:	01-337-09					
Benzene	ND	0.50	EPA 8021B	1-31-20	1-31-20	
Toluene	ND	1.0	EPA 8021B	1-31-20	1-31-20	
Ethyl Benzene	ND	1.0	EPA 8021B	1-31-20	1-31-20	
m,p-Xylene	ND	1.0	EPA 8021B	1-31-20	1-31-20	
o-Xylene	ND	1.0	EPA 8021B	1-31-20	1-31-20	
Gasoline	ND	100	NWTPH-Gx	1-31-20	1-31-20	
Surrogate:	Percent Recovery	Control Limits				
Fluorobenzene	98	59-122				

Project: 6552-1

GASOLINE RANGE ORGANICS/BTEX NWTPH-Gx/EPA 8021B

Matrix: Water Units: ug/L (ppb)

0 (11 /				Date	Date	
Analyte	Result	PQL	Method	Prepared	Analyzed	Flags
Client ID:	MW-204	·				
Laboratory ID:	01-337-10					
Benzene	ND	0.50	EPA 8021B	2-3-20	2-3-20	
Toluene	ND	1.0	EPA 8021B	2-3-20	2-3-20	
Ethyl Benzene	ND	1.0	EPA 8021B	2-3-20	2-3-20	
m,p-Xylene	ND	1.0	EPA 8021B	2-3-20	2-3-20	
o-Xylene	ND	1.0	EPA 8021B	2-3-20	2-3-20	
Gasoline	270	100	NWTPH-Gx	2-3-20	2-3-20	0
Surrogate:	Percent Recovery	Control Limits				
Fluorobenzene	102	59-122				
Client ID:	MW-6					
Laboratory ID:	01-337-11					
Benzene	ND	0.50	EPA 8021B	1-31-20	1-31-20	
Toluene	ND	1.0	EPA 8021B	1-31-20	1-31-20	
Ethyl Benzene	ND	1.0	EPA 8021B	1-31-20	1-31-20	
m,p-Xylene	ND	1.0	EPA 8021B	1-31-20	1-31-20	
o-Xylene	ND	1.0	EPA 8021B	1-31-20	1-31-20	
Gasoline	ND	100	NWTPH-Gx	1-31-20	1-31-20	
Surrogate:	Percent Recovery	Control Limits				
Fluorobenzene	98	59-122				

59-122

Project: 6552-1

GASOLINE RANGE ORGANICS/BTEX NWTPH-Gx/EPA 8021B QUALITY CONTROL

Matrix: Water
Units: ug/L (ppb)

Units: ug/L (ppb)				Date	Date	
Analyte	Result	PQL	Method	Prepared	Analyzed	Flags
METHOD BLANK						
Laboratory ID:	MB0131W1					
Benzene	ND	0.50	EPA 8021B	1-31-20	1-31-20	
Toluene	ND	1.0	EPA 8021B	1-31-20	1-31-20	
Ethyl Benzene	ND	1.0	EPA 8021B	1-31-20	1-31-20	
m,p-Xylene	ND	1.0	EPA 8021B	1-31-20	1-31-20	
o-Xylene	ND	1.0	EPA 8021B	1-31-20	1-31-20	
Gasoline	ND	100	NWTPH-Gx	1-31-20	1-31-20	
Surrogate:	Percent Recovery	Control Limits				
Fluorobenzene	98	59-122				
Laboratory ID:	MB0131W2					
Benzene	ND	0.50	EPA 8021B	1-31-20	1-31-20	
Toluene	ND	1.0	EPA 8021B	1-31-20	1-31-20	
Ethyl Benzene	ND	1.0	EPA 8021B	1-31-20	1-31-20	
m,p-Xylene	ND	1.0	EPA 8021B	1-31-20	1-31-20	
o-Xylene	ND	1.0	EPA 8021B	1-31-20	1-31-20	
Gasoline	ND	100	NWTPH-Gx	1-31-20	1-31-20	
Surrogate:	Percent Recovery	Control Limits				
Fluorobenzene	98	59-122				
Laboratory ID:	MB0203W1					
Benzene	ND	0.50	EPA 8021B	2-3-20	2-3-20	
Toluene	ND	1.0	EPA 8021B	2-3-20	2-3-20	
Ethyl Benzene	ND	1.0	EPA 8021B	2-3-20	2-3-20	
m,p-Xylene	ND	1.0	EPA 8021B	2-3-20	2-3-20	
o-Xylene	ND	1.0	EPA 8021B	2-3-20	2-3-20	
Gasoline	ND	100	NWTPH-Gx	2-3-20	2-3-20	
Surrogate:	Percent Recovery	Control Limits				
Fluorobenzene	104	59-122				
Laboratory ID:	MB0204W1					
Benzene	ND	0.50	EPA 8021B	2-4-20	2-4-20	
Toluene	ND	1.0	EPA 8021B	2-4-20	2-4-20	
Ethyl Benzene	ND	1.0	EPA 8021B	2-4-20	2-4-20	
m,p-Xylene	ND	1.0	EPA 8021B	2-4-20	2-4-20	
o-Xylene	ND	1.0	EPA 8021B	2-4-20	2-4-20	
Gasoline	ND	100	NWTPH-Gx	2-4-20	2-4-20	
Gasonne						
Surrogate:	Percent Recovery	Control Limits				

Project: 6552-1

GASOLINE RANGE ORGANICS/BTEX NWTPH-Gx/EPA 8021B QUALITY CONTROL

Matrix: Water
Units: ug/L (ppb)

					Source	Per	cent	Recovery		RPD	
Analyte	Res	ult	Spike	Level	Result	Reco	very	Limits	RPD	Limit	Flags
DUPLICATE											
Laboratory ID:	01-33										
	ORIG	DUP									
Benzene	ND	ND	NA	NA		N	Α	NA	NA	30	
Toluene	ND	ND	NA	NA		N	Α	NA	NA	30	
Ethyl Benzene	ND	ND	NA	NA		N	Α	NA	NA	30	
m,p-Xylene	ND	ND	NA	NA		N	Α	NA	NA	30	
o-Xylene	ND	ND	NA	NA		N	Α	NA	NA	30	
Gasoline	ND	ND	NA	NA_		N	Α	NA	NA	30	
Surrogate:											
Fluorobenzene						111	100	59-122			
Laboratory ID:	01-33	37-02									
	ORIG	DUP									
Benzene	ND	ND	NA	NA		N	Α	NA	NA	30	
Toluene	ND	ND	NA	NA		N	Α	NA	NA	30	
Ethyl Benzene	ND	ND	NA	NA		N	Α	NA	NA	30	
m,p-Xylene	ND	ND	NA	NA		N	Α	NA	NA	30	
o-Xylene	ND	ND	NA	NA		N	Α	NA	NA	30	
Gasoline	ND	ND	NA	NA_		N	Α	NA	NA	30	
Surrogate:											
Fluorobenzene						95	102	59-122			
SPIKE BLANKS											
Laboratory ID:	SB013	31W1									
	SB	SBD	SB	SBD		SB	SBD				
Benzene	53.3	51.6	50.0	50.0		107	103	76-120	3	11	
Toluene	55.4	53.4	50.0	50.0		111	107	80-116	4	12	
Ethyl Benzene	56.1	54.7	50.0	50.0		112	109	80-116	3	12	
m,p-Xylene	55.7	55.2	50.0	50.0		111	110	76-117	1	12	
o-Xylene	55.1	52.9	50.0	50.0		110	106	79-114	4	11	
Surrogate:		14109									
Fluorobenzene						110	106	59-122			

Project: 6552-1

DIESEL AND HEAVY OIL RANGE ORGANICS NWTPH-Dx QUALITY CONTROL

Matrix: Water Units: mg/L (ppm)

				Date	Date	
Analyte	Result	PQL	Method	Prepared	Analyzed	Flags
METHOD BLANK				-		
Laboratory ID:	MB0203W1					
Diesel Range Organics	ND	0.20	NWTPH-Dx	2-3-20	2-3-20	
Lube Oil Range Organics	ND	0.20	NWTPH-Dx	2-3-20	2-3-20	
Surrogate:	Percent Recovery	Control Limits				
o-Terphenyl	108	50-150				
Laboratory ID:	MB0203W1					
Diesel Range Organics	ND	0.20	NWTPH-Dx	2-3-20	2-3-20	X1
Lube Oil Range Organics	ND	0.20	NWTPH-Dx	2-3-20	2-3-20	X1
Surrogate:	Percent Recovery	Control Limits				
o-Terphenyl	114	50-150				

					Source	Percent	Recovery		RPD	
Analyte	Res	sult	Spike	Level	el Result Recovery		Limits	RPD	Limit	Flags
DUPLICATE							-			
Laboratory ID:	SB02	03W1								
	ORIG	DUP							_	
Diesel Fuel #2	0.515	0.480	NA	NA		NA	NA	7	NA	
Lube Oil Range	ND	ND	NA	NA		NA	NA	NA	NA	
Surrogate:										
o-Terphenyl						118 110	50-150			
Laboratory ID:	SB02	03W <u>1</u>								
	ORIG	DUP								
Diesel Fuel #2	0.595	0.562	NA	NA		NA	NA	6	NA	X1
Lube Oil Range	ND	ND	NA	NA		NA	NA	NA	NA	X1
Surrogate: o-Terphenyl				<u>-</u>		126 124	50-150			

Project: 6552-1

PAHs EPA 8270E/SIM

Matrix: Water Units: ug/L

				Date	Date	
Analyte	Result	PQL	Method	Prepared	Analyzed	Flags
Client ID:	MW-206					
Laboratory ID:	01-337-01					
Naphthalene	ND	0.095	EPA 8270E/SIM	1-31-20	2-3-20	
2-Methylnaphthalene	ND	0.095	EPA 8270E/SIM	1-31-20	2-3-20	
1-Methylnaphthalene	ND	0.095	EPA 8270E/SIM	1-31-20	2-3-20	
Acenaphthylene	ND	0.095	EPA 8270E/SIM	1-31-20	2-3-20	
Acenaphthene	ND	0.095	EPA 8270E/SIM	1-31-20	2-3-20	
Fluorene	ND	0.095	EPA 8270E/SIM	1-31-20	2-3-20	
Phenanthrene	ND	0.095	EPA 8270E/SIM	1-31-20	2-3-20	
Anthracene	ND	0.095	EPA 8270E/SIM	1-31-20	2-3-20	
Fluoranthene	ND	0.095	EPA 8270E/SIM	1-31-20	2-3-20	
Pyrene	ND	0.095	EPA 8270E/SIM	1-31-20	2-3-20	
Benzo[a]anthracene	ND	0.0095	EPA 8270E/SIM	1-31-20	2-3-20	
Chrysene	ND	0.0095	EPA 8270E/SIM	1-31-20	2-3-20	
Benzo[b]fluoranthene	ND	0.0095	EPA 8270E/SIM	1-31-20	2-3-20	
Benzo(j,k)fluoranthene	ND	0.0095	EPA 8270E/SIM	1-31-20	2-3-20	
Benzo[a]pyrene	ND	0.0095	EPA 8270E/SIM	1-31-20	2-3-20	
Indeno(1,2,3-c,d)pyrene	ND	0.0095	EPA 8270E/SIM	1-31-20	2-3-20	
Dibenz[a,h]anthracene	ND	0.0095	EPA 8270E/SIM	1-31-20	2-3-20	
Benzo[g,h,i]perylene	ND	0.0095	EPA 8270E/SIM	1-31-20	2-3-20	
Surrogate:	Percent Recovery	Control Limits				
2-Fluorobiphenyl	66	27 - 106				
Pyrene-d10	82	<i>35 - 98</i>				
Terphenyl-d14	101	41 - 129				

Project: 6552-1

PAHs EPA 8270E/SIM

Matrix: Water Units: ug/L

				Date	Date	
Analyte	Result	PQL	Method	Prepared	Analyzed	Flags
Client ID:	MW-205					
Laboratory ID:	01-337-02					
Naphthalene	0.25	0.094	EPA 8270E/SIM	1-31-20	2-3-20	
2-Methylnaphthalene	ND	0.094	EPA 8270E/SIM	1-31-20	2-3-20	
1-Methylnaphthalene	ND	0.094	EPA 8270E/SIM	1-31-20	2-3-20	
Acenaphthylene	ND	0.094	EPA 8270E/SIM	1-31-20	2-3-20	
Acenaphthene	ND	0.094	EPA 8270E/SIM	1-31-20	2-3-20	
Fluorene	ND	0.094	EPA 8270E/SIM	1-31-20	2-3-20	
Phenanthrene	ND	0.094	EPA 8270E/SIM	1-31-20	2-3-20	
Anthracene	ND	0.094	EPA 8270E/SIM	1-31-20	2-3-20	
Fluoranthene	ND	0.094	EPA 8270E/SIM	1-31-20	2-3-20	
Pyrene	ND	0.094	EPA 8270E/SIM	1-31-20	2-3-20	
Benzo[a]anthracene	ND	0.0094	EPA 8270E/SIM	1-31-20	2-3-20	
Chrysene	ND	0.0094	EPA 8270E/SIM	1-31-20	2-3-20	
Benzo[b]fluoranthene	ND	0.0094	EPA 8270E/SIM	1-31-20	2-3-20	
Benzo(j,k)fluoranthene	ND	0.0094	EPA 8270E/SIM	1-31-20	2-3-20	
Benzo[a]pyrene	ND	0.0094	EPA 8270E/SIM	1-31-20	2-3-20	
Indeno(1,2,3-c,d)pyrene	ND	0.0094	EPA 8270E/SIM	1-31-20	2-3-20	
Dibenz[a,h]anthracene	ND	0.0094	EPA 8270E/SIM	1-31-20	2-3-20	
Benzo[g,h,i]perylene	ND	0.0094	EPA 8270E/SIM	1-31-20	2-3-20	
Surrogate:	Percent Recovery	Control Limits			·	
2-Fluorobiphenyl	72	27 - 106				
Pyrene-d10	91	35 - 98				
•						

Project: 6552-1

PAHs EPA 8270E/SIM **QUALITY CONTROL**

Matrix: Water Units: ug/L

				Date	Date	
Analyte	Result	PQL	Method	Prepared	Analyzed	Flags
METHOD BLANK						
Laboratory ID:	MB0131W2					
Naphthalene	ND	0.10	EPA 8270E/SIM	1-31-20	1-31-20	
2-Methylnaphthalene	ND	0.10	EPA 8270E/SIM	1-31-20	1-31-20	
1-Methylnaphthalene	ND	0.10	EPA 8270E/SIM	1-31-20	1-31-20	
Acenaphthylene	ND	0.10	EPA 8270E/SIM	1-31-20	1-31-20	
Acenaphthene	ND	0.10	EPA 8270E/SIM	1-31-20	1-31-20	
Fluorene	ND	0.10	EPA 8270E/SIM	1-31-20	1-31-20	
Phenanthrene	ND	0.10	EPA 8270E/SIM	1-31-20	1-31-20	
Anthracene	ND	0.10	EPA 8270E/SIM	1-31-20	1-31-20	
Fluoranthene	ND	0.10	EPA 8270E/SIM	1-31-20	1-31-20	
Pyrene	ND	0.10	EPA 8270E/SIM	1-31-20	1-31-20	
Benzo[a]anthracene	ND	0.010	EPA 8270E/SIM	1-31-20	1-31-20	
Chrysene	ND	0.010	EPA 8270E/SIM	1-31-20	1-31-20	
Benzo[b]fluoranthene	ND	0.010	EPA 8270E/SIM	1-31-20	1-31-20	
Benzo(j,k)fluoranthene	ND	0.010	EPA 8270E/SIM	1-31-20	1-31-20	
Benzo[a]pyrene	ND	0.010	EPA 8270E/SIM	1-31-20	1-31-20	
Indeno(1,2,3-c,d)pyrene	ND	0.010	EPA 8270E/SIM	1-31-20	1-31-20	
Dibenz[a,h]anthracene	ND	0.010	EPA 8270E/SIM	1-31-20	1-31-20	
Benzo[g,h,i]perylene	ND	0.010	EPA 8270E/SIM	1-31-20	1-31-20	
Surrogate:	Percent Recovery	Control Limits				
2-Fluorobiphenyl	64	27 - 106				
Pyrene-d10	97	35 - 98				
Terphenyl-d14	116	41 - 129				

Project: 6552-1

PAHS EPA 8270E/SIM QUALITY CONTROL

Matrix: Water Units: ug/L

SPIKE BLANKS Laboratory ID: SB 0131W2 SB SBD SB SBD SB SBD Naphthalene 0.291 0.264 0.500 0.500 58 53 36 - 99 10 Acenaphthylene 0.401 0.367 0.500 0.500 80 73 45 - 113 9 Acenaphthene 0.333 0.317 0.500 0.500 67 63 43 - 119 5 Fluorene 0.361 0.335 0.500 0.500 72 67 48 - 114 7 Phenanthrene 0.392 0.390 0.500 0.500 78 78 49 - 113 1	RPD	RPD		Recovery	cent	Per					
Laboratory ID: SB0131W2 SB SBD SB SBD SB SBD Naphthalene 0.291 0.264 0.500 0.500 58 53 36 - 99 10 Acenaphthylene 0.401 0.367 0.500 0.500 80 73 45 - 113 9 Acenaphthene 0.333 0.317 0.500 0.500 67 63 43 - 119 5 Fluorene 0.361 0.335 0.500 0.500 72 67 48 - 114 7 Phenanthrene 0.392 0.390 0.500 0.500 78 78 49 - 113 1	imit Flag	Limit	RPD	Limits	overy	Level Recov		Result Spike		Analyte	
SB SBD SB SBD SB SBD Naphthalene 0.291 0.264 0.500 0.500 58 53 36 - 99 10 Acenaphthylene 0.401 0.367 0.500 0.500 80 73 45 - 113 9 Acenaphthene 0.333 0.317 0.500 0.500 67 63 43 - 119 5 Fluorene 0.361 0.335 0.500 0.500 72 67 48 - 114 7 Phenanthrene 0.392 0.390 0.500 0.500 78 78 49 - 113 1											SPIKE BLANKS
Naphthalene 0.291 0.264 0.500 0.500 58 53 36 - 99 10 Acenaphthylene 0.401 0.367 0.500 0.500 80 73 45 - 113 9 Acenaphthene 0.333 0.317 0.500 0.500 67 63 43 - 119 5 Fluorene 0.361 0.335 0.500 0.500 72 67 48 - 114 7 Phenanthrene 0.392 0.390 0.500 0.500 78 78 49 - 113 1									31W2	SB01	Laboratory ID:
Acenaphthylene 0.401 0.367 0.500 0.500 80 73 45 - 113 9 Acenaphthene 0.333 0.317 0.500 0.500 67 63 43 - 119 5 Fluorene 0.361 0.335 0.500 0.500 72 67 48 - 114 7 Phenanthrene 0.392 0.390 0.500 0.500 78 78 49 - 113 1					SBD	SB	SBD	SB	SBD	SB	
Acenaphthene 0.333 0.317 0.500 0.500 67 63 43 - 119 5 Fluorene 0.361 0.335 0.500 0.500 72 67 48 - 114 7 Phenanthrene 0.392 0.390 0.500 0.500 78 78 49 - 113 1	40	40	10	36 - 99	53	58	0.500	0.500	0.264	0.291	Naphthalene
Fluorene 0.361 0.335 0.500 0.500 72 67 48 - 114 7 Phenanthrene 0.392 0.390 0.500 0.500 78 78 49 - 113 1	32	32	9	45 - 113	73	80	0.500	0.500	0.367	0.401	Acenaphthylene
Phenanthrene 0.392 0.390 0.500 0.500 78 78 49 - 113 1	33	33	5	43 - 119	63	67	0.500	0.500	0.317	0.333	Acenaphthene
	30	30	7	48 - 114	67	72	0.500	0.500	0.335	0.361	Fluorene
Anthracene 0.397 0.388 0.500 0.500 79 78 50 - 113 2	24	24	1	49 - 113	78	78	0.500	0.500	0.390	0.392	Phenanthrene
	25	25	2	50 - 113	78	79	0.500	0.500	0.388	0.397	Anthracene
Fluoranthene 0.419 0.410 0.500 0.500 84 82 57 - 118 2	22	22	2	57 - 118	82	84	0.500	0.500	0.410	0.419	Fluoranthene
Pyrene 0.441 0.463 0.500 0.500 88 93 56 - 128 5	32	32	5	56 - 128	93	88	0.500	0.500	0.463	0.441	Pyrene
Benzo[a]anthracene 0.487 0.501 0.500 0.500 97 100 59 - 127 3	24	24	3	59 - 127	100	97	0.500	0.500	0.501	0.487	Benzo[a]anthracene
Chrysene 0.485 0.495 0.500 0.500 97 99 57 - 122 2	24	24	2	57 - 122	99	97	0.500	0.500	0.495	0.485	Chrysene
Benzo[b]fluoranthene 0.528 0.541 0.500 0.500 106 108 58 - 123 2	26	26	2	58 - 123	108	106	0.500	0.500	0.541	0.528	Benzo[b]fluoranthene
Benzo(j,k)fluoranthene 0.491 0.491 0.500 0.500 98 98 60 - 123 0	22	22	0	60 - 123	98	98	0.500	0.500	0.491	0.491	Benzo(j,k)fluoranthene
Benzo[a]pyrene 0.470 0.479 0.500 0.500 94 96 54 - 121 2	24	24	2	54 - 121	96	94	0.500	0.500	0.479	0.470	Benzo[a]pyrene
Indeno(1,2,3-c,d)pyrene 0.501 0.507 0.500 0.500 100 101 55 - 125 1	26	26	1	55 - 125	101	100	0.500	0.500	0.507	0.501	Indeno(1,2,3-c,d)pyrene
Dibenz[a,h]anthracene 0.484 0.496 0.500 0.500 97 99 57 - 127 2	25	25	2	57 - 127	99	97	0.500	0.500	0.496	0.484	Dibenz[a,h]anthracene
Benzo[g,h,i]perylene 0.489 0.498 0.500 0.500 98 100 54 - 122 2	25	25	2	54 - 122	100	98	0.500	0.500	0.498	0.489	Benzo[g,h,i]perylene
Surrogate:											Surrogate:
2-Fluorobiphenyl 67 62 27 - 106				27 - 106	62	67					2-Fluorobiphenyl
Pyrene-d10 98 98 35 - 98				35 - 98	98	98					Pyrene-d10
Terphenyl-d14 118 41 - 129				41 - 129	118	118					Terphenyl-d14



Data Qualifiers and Abbreviations

- A Due to a high sample concentration, the amount spiked is insufficient for meaningful MS/MSD recovery data.
- B The analyte indicated was also found in the blank sample.
- C The duplicate RPD is outside control limits due to high result variability when analyte concentrations are within five times the quantitation limit.
- E The value reported exceeds the quantitation range and is an estimate.
- F Surrogate recovery data is not available due to the high concentration of coeluting target compounds.
- H The analyte indicated is a common laboratory solvent and may have been introduced during sample preparation, and be impacting the sample result.
- I Compound recovery is outside of the control limits.
- J The value reported was below the practical quantitation limit. The value is an estimate.
- K Sample duplicate RPD is outside control limits due to sample inhomogeneity. The sample was re-extracted and re-analyzed with similar results.
- L The RPD is outside of the control limits.
- M Hydrocarbons in the gasoline range are impacting the diesel range result.
- M1 Hydrocarbons in the gasoline range (toluene-naphthalene) are present in the sample.
- N Hydrocarbons in the lube oil range are impacting the diesel range result.
- N1 Hydrocarbons in diesel range are impacting lube oil range results.
- O Hydrocarbons indicative of heavier fuels are present in the sample and are impacting the gasoline result.
- P The RPD of the detected concentrations between the two columns is greater than 40.
- Q Surrogate recovery is outside of the control limits.
- S Surrogate recovery data is not available due to the necessary dilution of the sample.
- T The sample chromatogram is not similar to a typical . .
- U The analyte was analyzed for, but was not detected above the reported sample quantitation limit.
- U1 The practical quantitation limit is elevated due to interferences present in the sample.
- V Matrix Spike/Matrix Spike Duplicate recoveries are outside control limits due to matrix effects.
- W Matrix Spike/Matrix Spike Duplicate RPD are outside control limits due to matrix effects.
- X Sample extract treated with a mercury cleanup procedure.
- X1- Sample extract treated with a sulfuric acid/silica gel cleanup procedure.
- Y The calibration verification for this analyte exceeded the 20% drift specified in methods 8260 & 8270, and therefore the reported result should be considered an estimate. The overall performance of the calibration verification standard met the acceptance criteria of the method.
- T-- The chromatogram is not similar to a typical gas.
- ND Not Detected at PQL
- PQL Practical Quantitation Limit
- RPD Relative Percent Difference





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Analytical Laboratory Testing Services 14648 NE 95th Street • Redmond, WA 98052	Turnaround Request (in working days)	Laboratory Number:	01-337
Phone: (425) 883-3881 • www.onsite-env.com Company: TAT Project Number:	(Check One) Same Day 1 Day 2 Days 3 Days	(dn-t	81B 8270D/SIM 1151A
Project Name:	Standard (7 Days)	3G Clear 2260C	level) des 8081 cides 81
Project Manager: Chuck Le Sampled by: Evan H. Eckhes Lab ID Sample Identification	(other) Date Time Sampled Sampled Matrix	Reminer of Containers NWTPH-HCID NWTPH-Gx/BTEX NWTPH-Gx NWTPH-Cx NWTPH-Dx (Semivolatiles 8270D/SIM (with low-level PAHs) PAHs 8270D/SIM (low-level) PCBs 6082A Organochlorine Pesticides 8081B Organophosphorus Pesticides 8270D/SIM Chlorinated Acid Herbicides 8151A Total MTCA Metals TCLP Metals HEM (oil and grease) 1664A NUNTPH-DX (L. ACA) % Moisture
	1-30 6:40 W	5 X	
1 MW-202e 2 MW-205	1-30 9:40	5 ×	
2 MW-205 3 MW-201	1-3011:30	3 X	
4 MW-1076	1-30 2:30	$7 \times \times$	
1. A. D. C. co. A.	1-30 13:40	3 X	
G MW-109	1-30 14:30	3 X	
7 MW-202	1-30 15:40	5 X X	
4 MW-203	1-31 7:15	3 X	
9 MW-107	1-3 6:30	7 X X	
10 MW-204	1-3/8,00 V	3 X	
Relinquished Signature	Company	Date Time	Comments/Special Instructions
Received Water Ciscur	OSE	1/3/20 1420	
Relinquished			
Received Relinquished	TERRENCE TO AND A THE CONTRACT OF THE CONTRACT		
Received			Data Package: Standard ☐ Level III ☐ Level IV ☐
Reviewed/Date	Reviewed/Date		Chromatograms with final report Electronic Data Deliverables (EDDs)