August 18, 2020

Elton Lee
Phil Carmody
LMI – West Seattle Holdings, LLC
125 High Street
High Street Tower, 24th Floor
Boston, Massachusetts 02110

Re: Groundwater Monitoring Report, SKS Shell Station Site, Second Quarter 2020
LMI – West Seattle Holdings, LLC, PPCD No. 13-2-27556-2
Facility ID #39196282, Cleanup ID #6015
Project No. 160328

Dear Mr. Carmody:

This report has been prepared by Aspect Consulting, LLC (Aspect), to summarize the results of compliance groundwater monitoring in Second Quarter 2020 for the SKS Shell Station Site (Site; Figure 1) located at 3901 Southwest Alaska Street in Seattle, Washington. Postcleanup compliance sampling and reporting has been occurring since cleanup and redevelopment of the Site was completed in 2015, in accordance with Prospective Purchaser Consent Decree (PPCD) #13-2-27556-2 and Washington Administrative Code (WAC) Chapter 173-340. This report includes a brief background of the project, a description of the scope of work for the Second Quarter 2020 monitoring event, and a summary of the results in comparison to results from prior compliance monitoring events. The location of the Site is shown in Figure 1.

Background

Use of the Site property as an auto repair facility and subsequently as various gasoline refueling and service stations, from 1934 until 2013, resulted in soil and groundwater with gasoline-, diesel-, and heavy oil-range total petroleum hydrocarbons (TPH), benzene, toluene, ethylbenzene, and total xylenes (BTEX) at concentrations above Model Toxics Control Act (MTCA) Method A cleanup levels. The areas in which these contaminants have been found exceeding the MTCA cleanup levels constitute the Site, which consists of portions of the property located at 3901 Southwest Alaska Street, as well as the Southwest Alaska Street and Fauntleroy Way Southwest rights-of-way (ROW) adjoining on the north and west, respectively (Figure 2).

Cleanup action activities included remedial excavation that was completed in 2015, concurrently with property redevelopment and construction of the existing Whittaker building.[1] Excavation beyond the former SKS property boundaries was not feasible, and localized areas of petroleum contaminated soil remains beneath adjoining ROWs. Redevelopment was conducted in coordination with cleanup activities and redevelopment at the neighboring Kennedy-Huling

[1] The new building (known as The Whittaker) was completed in 2016 and extends across the northeast three quarters of the city block that fronts Fauntleroy Way Southwest, south of the Southwest Alaska Street intersection. The Whittaker apartment building complex includes both the former SKS Shell Station and Kennedy-Huling Brothers Sites.

Brothers Site (Voluntary Cleanup Program ID #NW2715), which received a No Further Action (NFA) determination in March 2019.

For more detail on the former SKS property history, extent of contamination, and remedial actions completed at the SKS Shell Station Site, refer to the Cleanup Action Plan[2] (CAP) and Cleanup Action Report[3] (CAR).

Compliance Groundwater Monitoring

Postcleanup compliance monitoring of groundwater began in March 2016 and is ongoing on a quarterly basis at the Site. The original compliance well network consisted of 15 wells (RW02 to RW05, MW101 to MW105, and MW108 to MW113) located in the Southwest Alaska Street ROW and sidewalk, the Fauntleroy Way Southwest ROW and sidewalk, and within the parking garage of the Whittaker building (Figure 2). Table 1 presents a summary of the construction details and status for each of the 15 original compliance groundwater monitoring wells for the Site.

As of First Quarter 2020, Washington State Department of Ecology (Ecology) approved discontinuing sampling at four of the original compliance wells (RW02, and MW101, MW102 and MW103), and approved decommissioning of MW103. Wells MW101 and MW102 continue to be accessed each quarter for water level measurements, but are not sampled for chemical analysis.[4] The existing compliance well network for the Site now consists of 11 wells for analytical sampling and 13 wells for water level monitoring. To date, 18 consecutive quarters of groundwater monitoring have been completed. The following sections describe the field and analysis methods and the analytical results.

Field and Analysis Methods

The Second Quarter 2020 groundwater monitoring event was completed on June 29–30, 2020.

On June 29, 2020, groundwater levels were measured in 12 existing wells; access to the 13th well, monitoring well MW110 in the Whittaker Building parking garage, was restricted so MW110 was not included in presampling Site-wide groundwater gauging. MW110 was gauged on June 30, 2020. Each water level measurement was recorded to the hundredth of a foot, relative to the top of the north side of the well casing. Groundwater elevations were calculated using the surveyed top of casing elevations. Depth to water measurements and water level elevations from the groundwater monitoring event are shown in Table 1 and on Figure 2.

Sampling was completed at the 11 compliance groundwater monitoring wells located on the Site and in the surrounding ROWs. All 11 wells were sampled using standard low-flow methodology.[5] Field parameters were collected during groundwater sampling—including depth to water, flow rate,

[2] SoundEarth Strategies, Inc. (SoundEarth), 2016, Cleanup Action Plan, SKS Shell Property, 3901 Southwest Alaska Street, Seattle, Washington, June 16, 2014.
[3] SoundEarth Strategies, Inc. (SoundEarth), 2016, Cleanup Action Report, SKS Shell Property, 3901 Southwest Alaska Street, Seattle, Washington, October 20, 2016.
[4] Consistent with approval from Mr. Myers in a January 6, 2020, email, monitoring wells MW101 and MW102 were monitored for depth to water, but were not sampled during this quarterly monitoring event.
[5] United States Environmental Protection Agency (EPA), 1996, Low Flow (Minimal Drawdown) Ground-Water Sampling Procedures, April 1996.

temperature, specific conductivity, dissolved oxygen, pH, oxidation reduction potential, and turbidity—and sampling occurred once all parameters had stabilized.[6] None of the well screens were fully submerged during sampling and the tubing intake was placed at the midpoint of the water column. Samples were collected in laboratory supplied bottleware, transported under standard chain of custody procedures, and submitted to Friedman and Bruya, Inc. of Seattle, Washington for laboratory chemical analysis of the following:

- Gasoline-, diesel- and oil-range TPH using Northwest Methods NWTPH-Gx and NWTPH-Dx
- BTEX using EPA Method 8021B

Wells MW104 and MW108 were purged dry before field parameters had stabilized, and sampling could be completed. Both were purged and allowed to recharge a minimum of three times before sampling was completed. A field duplicate for all analytes was collected at MW109.

With Ecology's approval, additional samples for monitored natural attenuation (MNA) analysis were collected at RW03, RW04, RW05, MW105, and MW111 to support the ongoing evaluation of possible *in-situ* chemical treatment injections. These samples were submitted to Friedman and Bruya, Inc. of Seattle, Washington for laboratory analysis of the following:

- Alkalinity
- Nitrate/Nitrite
- Sulfide/Sulfate
- Methane
- Total and dissolved Fe
- Total and dissolved Mn

Groundwater Monitoring Results

Groundwater Elevations and Flow Direction

Second Quarter 2020 groundwater elevations ranged from a low of 240.66 feet NAVD88 (MW113) to a high of 242.51 ft NAVD88 (MW101) (Table 1 and Figure 2). Groundwater elevations from the groundwater monitoring event were contoured to show generalized groundwater flow direction at the Site. As shown on Figure 2, groundwater flow across the Site area is generally toward the west with localized variability, ranging from west to south to southeast. Refer to the Findings section for a discussion of groundwater elevation and flow changes over the compliance monitoring period.

Analytical Results

Table A below presents a summary of the chemical analytical results for the Second Quarter 2020 monitoring event.

[6] Stabilization consists of the following over no less than 9 minutes: less than 10 percent change in dissolved oxygen and turbidity; less than 3 percent change in specific conductance; less than 10-millivolt change in oxidation-reduction potential; and less than 0.1 change in pH.

Table A. Summary of Q2 2020 Groundwater Analytical Results

Sample Location	Benzene	Gasoline-Range TPH	Diesel-Range TPH	Heavy Oil-Range TPH
MW104	< 1 U	< 100 U	**210 X**	< 250 U
MW105	< 1 U	< 100 U	< 50 U	< 250 U
MW108	< 1 U	< 100 U	**120 X**	< 250 U
MW109	< 1 U	< 100 U	< 50 U	< 250 U
MW110	< 1 U	< 100 U	< 50 U	< 250 U
MW111	< 1 U	< 100 U	< 50 U	< 250 U
MW112	< 1 U	< 100 U	< 50 U	< 250 U
MW113	< 1 U	< 100 U	**58 X**	< 250 U
RW03	**1.7**	**930**	**1200 X**	< 250 U
RW04	**1.5**	**900**	**730 X**	< 250 U
RW05	< 1 U	**160**	**230 X**	< 250 U
MTCA Method A Cleanup Level	5	1000/800[1]	500	500

Notes:
All concentrations are listed in ug/L (micrograms per liter)
Bold indicates a detected concentration; shading indicates a concentration that exceeds the MTCA Cleanup Level
[1]Gasoline-range TPH is measured against a lower cleanup level when benzene is present.
U – the analyte indicated was not detected above the laboratory reporting limit
X – chromatographic pattern did not match the standard used for quantification

Gasoline- and diesel-range TPH were detected in two wells (RW-03 and RW-04) at concentrations exceeding MTCA Method A cleanup levels (Figure 3). Complete compliance groundwater monitoring data for the wells sampled during this event is shown in Table 2 and chemical analytical results are summarized on Figure 3. Laboratory reports are included in Appendix A.

Findings

Groundwater Elevations and Flow Direction

Second Quarter 2020 groundwater elevations ranged from 240.66 feet NAVD88[7] to 242.51 feet, with the lowest elevation measured at MW113 located in the north end of the Whittaker building garage, west of the former SKS parcel. The groundwater flow directions are variable, ranging from west to south to southeast to west during the Second Quarter 2020 event. This local variability in groundwater flow direction is likely attributed to dewatering effects of the footing drains and stormwater sump below the northeast corner of the Whittaker building (Figure 2).

[7]All elevations are based on North American Vertical Datum 1988.

The inferred groundwater flow direction at the Site for the Second Quarter 2020 event and the measured seasonal variation in groundwater elevations are consistent with those recorded during previous sampling events occurring since construction of the Whittaker building in 2015–2016. Groundwater flow direction at the Site prior to construction (in 2015) was generally to the northeast, consistent with topography of the neighborhood, based on groundwater elevations measured during four preconstruction monitoring events.

Following construction of the Whittaker building and its footing drains and stormwater sump, generalized groundwater flow direction has reversed, and has been observed flowing generally to the south-southwest-southeast (radiating toward a subgrade sump that exists in the northeast corner of the Whittaker parking garage). Average seasonal Site-wide groundwater elevations also dropped relative to preconstruction levels since compliance groundwater monitoring began.

Groundwater Analytical Results

Gasoline-range TPH and diesel-range TPH were detected above the MTCA Method A cleanup levels in two compliance wells, RW03 and RW04, during the Second Quarter 2020 event (Figure 3). Wells RW03 and RW04 are located in the vicinity of gasoline-range TPH-contaminated soil that remains in place beyond the east extent of the 2015 remedial excavation (beneath the Fauntleroy Way Southwest sidewalk that abuts the subject property).

Gasoline and diesel exceedances at RW03 are generally consistent with data from prior compliance monitoring events since the 2015–2016 remedial action (about two to three times the MTCA Method A cleanup levels).

Gasoline and diesel exceedances at RW04 were not observed in compliance monitoring events[8] until the First Quarter 2020 event, but were again present during this Second Quarter 2020 event. Both gasoline- and diesel-range TPH exceeded MTCA Method A cleanup levels during the Second Quarter 2020 event at similar concentrations to that detected in First Quarter 2020. RW04 is located approximately 15 feet north of RW03, where gasoline- and diesel-range TPH have been detected above the MTCA Method A cleanup level in 13 of the 18 successive quarterly sampling events completed at the Site to date.

Fluctuating concentrations of contaminants of concern in groundwater, including occasional intermittent rebounds, have been consistently observed over the compliance groundwater monitoring period, and appear to reflect seasonal variability and/or be affected by changes in groundwater elevations and small-scale flow direction changes, possibly due to dewatering affects in the immediate Site area. However, concentrations of contaminants in groundwater continue to show an overall downward trend when evaluated collectively for the entire compliance monitoring well network and monitoring period. Trendlines fitted to benzene, gasoline-, and diesel-range TPH concentrations are shown on Figures 4 through 7, which include postconstruction time-series charts for all wells where contaminants of concern have been detected above MTCA Method A cleanup levels at any time during the past 8 quarterly sampling events (MW104, MW108, RW03, and RW04).

[8] Except for one slight exceedance of diesel-range TPH in December 2018 of 510 ug/l (the MTCA Method A cleanup level is 500 ug/l).

Data Validation

Aspect completed a Stage 2A data validation on the data reported from Friedman and Bruya, Inc., in accordance with U.S. Environmental Protection Agency (EPA) guidance[9] and Ecology's guidance. A data validation report is attached as Appendix B.

Although determined to be acceptable for use, the following should be noted when reviewing diesel-range TPH detections from the Second Quarter 2020 sampling:

- The laboratory flagged all diesel-range TPH detections with an "X" to indicate that the sample chromatographic patterns did not resemble the fuel standard used for quantitation.

All data were found to be acceptable for use as qualified. Validated data were submitted to Ecology's Environmental Information Management System (EIM) prior to the submittal of this report.

Recommendations

Contaminants of concern continue to be detected at concentrations above the applicable MTCA Method A cleanup levels in groundwater at 2 of 11 wells monitored at the Site, and continued quarterly groundwater monitoring is recommended. However, continued discussions about reducing the number of wells sampled and tested on this frequent of a basis is warranted. Aspect recommends discontinuing quarterly analytical sampling at wells MW112 and MW113, as described in the Request for Reduced Groundwater Monitoring letter dated August 18, 2020, submitted alongside this report.

Third Quarter 2020 groundwater monitoring is scheduled to occur in September 2020. Quarterly groundwater sampling will continue at the Site until contaminants of concern at all wells are detected below applicable MTCA Method A cleanup levels for four successive quarterly sampling events.

Limitations

Work for this project was performed for the LMI – West Seattle Holdings, LLC (Client), and this letter was prepared in accordance with generally accepted professional practices for the nature and conditions of work completed in the same or similar localities, at the time the work was performed. This letter does not represent a legal opinion. No other warranty, expressed or implied, is made.

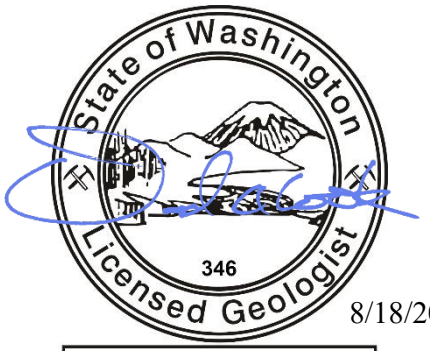
All reports prepared by Aspect Consulting for the Client apply only to the services described in the Agreement(s) with the Client. Aspect Consulting's original files/reports shall govern in the event of any dispute regarding the content of electronic documents furnished to others.

Please refer to Appendix C titled "Report Limitations and Guidelines for Use" for additional information governing the use of this report.

[9] United States Environmental Protection Agency, 2009, Guidance for Labeling Externally Validated Laboratory Analytical Data for Superfund Use, March 5, 2009.

Sincerely,

Aspect consulting, LLC



8/18/2020

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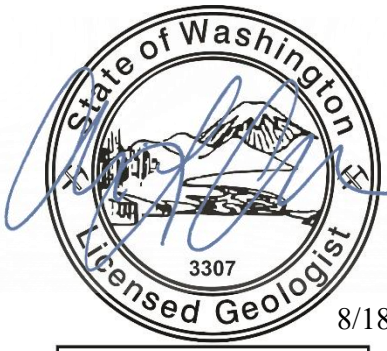

8/18/2020

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Attachments:
Table 1 – Compliance Groundwater Monitoring Well Network
Table 2 – Summary of Compliance Groundwater Monitoring Results
Figure 1 – Site Location
Figure 2 – Compliance Well Network and Groundwater Elevation Contours
Figure 3 – Groundwater Analytical Results
Figure 4 – MW104 Postconstruction Data
Figure 5 – RW03 Postconstruction Data
Figure 6 – RW04 Postconstruction Data
Figure 7 – MW108 Postconstruction Data
Appendix A – Laboratory Analytical Reports
Appendix B – Data Validation Report
Appendix C – Report Limitations and Guidelines for Use

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TABLES

Table 1. Compliance Groundwater Monitoring Well Network

Project 160328, SKS Shell Station Site, Seattle, Washington

Well Name[1]	Top of Casing Elevation (ft. NAVD88)	Well Diameter (in.)	Screen Length (ft.)	Total Depth (ft. bgs)	Screened Interval				Status	Last Accessed	Second Quarter 2020 Water Levels[2]	
					Top Depth (ft. bgs)	Bottom Depth (ft. bgs)	Top Elevation (ft. NAVD88)	Bottom Elevation (ft. NAVD88)			Depth to Water (ft. BTOC)	Elevation (ft. NAVD88)
RW01	--	4	15	40	25	40	--	--	Active, Not Used	--	--	--
RW02	268.60	4	15	39.5	24.5	39.5	244.10	229.10	Existing	Jun-17	--	--
RW03	269.50	4	15	39.6	24.6	39.6	244.90	229.90	Existing	June-20	28.36	241.14
RW04	269.22	4	15	40	25	40	244.22	229.22	Existing	June-20	28.09	241.13
RW05	269.09	4	15	40.5	25.5	40.5	243.59	228.59	Existing	June-20	28.07	241.02
MW101	269.54	2	10	30	20	30	249.54	239.54	Existing	June-20	27.03	242.51
MW102	269.06	2	10	31.5	20	30	249.06	239.06	Existing	June-20	27.01	242.05
MW103	269.55	2	10	31.5	20	30	249.55	239.55	Decommissioned	Dec-19	--	--
MW104	269.37	2	10	36.5	20	30	249.37	239.37	Existing	June-20	28.38	240.99
MW105	269.30	2	10	36.5	22	32	247.30	237.30	Existing	June-20	28.06	241.24
MW108	247.83	0.75	10	12.5	2.5	12.5	245.33	235.33	Existing	June-20	7.06	240.77
MW109	247.92	0.75	10	13	3	13	244.92	234.92	Existing	June-20	7.21	240.71
MW110	248.21	1	10	12	2	12	246.21	236.21	Existing	June-20	NA	NA
MW111	270.62	2	15	35	20	35	250.62	235.62	Existing	June-20	29.68	240.94
MW112	269.32	2	10	36	26	36	243.32	233.32	Existing	June-20	28.35	240.97
MW113	248.06	1	15	20	5	20	243.06	228.06	Existing	June-20	7.4	240.66

Notes

Wells in **bold** were sampled as part of the most recent sampling event. Ecology has approved discontinuation of groundwater sampling at wells RW02 and MW101 to MW103. Per Ecology's request, wells MW101 and MW102 are still included in the quarterly synoptic water level measurement.

[1]This table is not an all-inclusive list of all monitoring wells located historically on the Site. Only wells that have been used in post-construction compliance groundwater monitoring are shown. For full list of historical Site groundwater monitoring wells, see the Cleanup Action Report (SES, 2016).

[2]Synoptic water levels were measured on June 29, 2020.

BTOC = below Top of Casing (North)

ft = feet

NAVD88 = North American Vertical Datum 1988

in = inches

bgs = below ground surface

-- = not measured

NA = well was not accessible during the synoptic event and was not measured.

Table 2. Summary of Compliance Groundwater Monitoring Results

Project No. 160328, SKS Shell Station Site, Seattle, Washington

				BTEX				Total Petroleum Hydrocarbons (TPH)			TPH with Silica Gel	
			Analytes	Benzene	Toluene	Ethylbenzene	Total Xylenes	Gasoline-Range Organics	Diesel-Range Organics	Motor Oil-Range Organics	Diesel-Range Organics	Motor Oil-Range Organics
			Unit	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
			MTCA Method A Cleanup Level	5	1000	700	1000	1000 / 800	500	500	500	500
Sample Location[1]	Sample Date	Depth to Water (ft. BTOC)	Groundwater Elevation (ft. NAVD88)									
MW104	03/17/2016	26.41	242.94	**1.2**	**1.8**	**2.2**	**5.7**	**480**	**1200 X**	< 300 U	--	--
	06/24/2016	25.16	244.19	**2.5**	**2**	**3**	**9.5**	**940**	**3200**	< 250 U	--	--
	09/28/2016	25.55	243.80	**7.2**	< 1 U	**3.7**	**7.4**	**940**	**4000 X**	**340 X**	--	--
	12/23/2016	27.28	242.07	**2.1**	**2.1**	**17**	**27**	**2000**	**16000**	**380 X**	**180**	< 250 U
	03/17/2017	27.55	241.80	< 1 U	< 1 U	**8.5**	**10**	**1400**	**7900**	< 400 U	**290 X**	< 400 U
	06/15/2017	27.92	241.45	< 1 U	< 1 U	**4**	**3.1**	**700**	**3000**	< 300 U	**370**	< 250 U
	9/14/2017	28.21	241.16	< 1 U	< 1 U	**1.3**	< 3 U	**460**	**2200**	< 300 U	**230 X**	< 250 U
	12/12/2017	28.86	240.51	< 1 U	**1.1**	**1.3**	< 3 U	**340**	**780 X**	< 350 U	--	--
	3/22/2018	28.88	240.49	< 1 U	< 1 U	< 1 U	< 3 U	**220**	**590 X**	< 250 U	--	--
	06/21/2018	28.96	240.41	< 1 U	< 1 U	< 1 U	< 3 U	**130**	**720**	< 350 U	--	--
	09/17/2018	29.27	240.10	< 1 U	< 1 U	< 1 U	< 3 U	< 100 U	**480**	< 350 U	--	--
	12/18/2018	29.02	240.35	< 1 U	< 1 U	< 1 U	< 3 U	< 100 U	**390**	< 250 U	--	--
	03/14/2019	29.25	240.12	< 1 U	< 1 U	< 1 U	< 3 U	**170**	**690 X**	< 300 U	--	--
	06/06/2019	29.32	240.05	< 1 U	< 1 U	< 1 U	< 3 U	**210**	**750 X**	**290**	--	--
	09/12/19	Dry	--	Insufficient water for sampling								
	12/19/2019	29.01	240.36	< 1 U	< 1 U	< 1 U	< 3 U	< 100 U	**310 X**	**300 X**	--	--
	04/22/2020	28.78	240.59	< 1 U	< 1 U	< 1 U	< 3 U	< 100 U	**200 X**	< 250 U	--	--
	06/30/2020	29.50	239.87	< 1 U	< 1 U	< 1 U	< 3 U	< 100 U	**210 X**	< 250 U	--	--
MW105	06/13/2017	27.36	241.94	< 1 U	< 1 U	< 1 U	< 3 U	< 100 U	< 50 U	< 250 U	--	--
	9/13/2017	27.96	241.34	< 1 U	< 1 U	< 1 U	< 3 U	< 100 U	< 60 U	< 300 U	--	--
	12/12/2017	28.41	240.89	< 1 U	< 1 U	< 1 U	< 3 U	< 100 U	< 50 U	< 250 U	--	--
	3/22/2018	28.45	240.85	< 1 U	< 1 U	< 1 U	< 3 U	< 100 U	< 65 U	< 320 U	--	--
	06/21/2018	28.56	240.74	< 1 U	< 1 U	< 1 U	< 3 U	< 100 U	< 50 U	< 250 U	--	--
	09/17/2018	28.96	240.34	< 1 U	< 1 U	< 1 U	< 3 U	< 100 U	< 50 U	< 250 U	--	--
	12/18/2018	28.9	240.40	< 1 U	< 1 U	< 1 U	< 3 U	< 100 U	< 50 U	< 250 U	--	--
	03/14/2019	28.66	240.64	< 1 U	< 1 U	< 1 U	< 3 U	< 100 U	< 50 U	< 250 U	--	--
	06/06/2019	29.06	240.24	< 1 U	< 1 U	< 1 U	< 3 U	< 100 U	**96 X**	< 250 U	--	--
	09/12/2019	29.37	239.93	< 1 U	< 1 U	< 1 U	< 3 U	< 100 U	< 50 U	< 250 U	--	--
	12/18/2019	28.97	240.33	< 1 U	< 1 U	< 1 U	< 3 U	< 100 U	< 50 U	< 250 U	--	--
	04/21/2020	28.25	241.05	< 1 U	< 1 U	< 1 U	< 3 U	< 100 U	< 50 U	< 250 U	--	--
	06/29/2020	28.36	240.94	< 1 U	< 1 U	< 1 U	< 3 U	< 100 U	< 50 U	< 250 U	--	--
MW108	03/17/2016	5.52	--	< 1 U	< 1 U	< 1 U	< 3 U	< 100 U	**93 X**	< 300 U	--	--
	06/24/2016	3.33	--	< 1 U	< 1 U	< 1 U	< 3 U	< 100 U	< 50 U	< 250 U	--	--
	09/28/2016	3.85	--	< 1 U	< 1 U	< 1 U	< 3 U	< 100 U	< 60 U	< 300 U	--	--
	12/23/2016	6.56	--	< 1 U	< 1 U	< 1 U	< 3 U	< 100 U	**94 X**	< 350 U	< 70 U	< 350 U
	03/03/2017	6.64	--	< 1 U	< 1 U	< 1 U	< 3 U	< 100 U	< 80 U	< 400 U	< 80 U	< 400 U
	06/14/2017	7.06	240.77	< 1 U	< 1 U	< 1 U	< 3 U	< 100 U	**140 X**	< 250 U	--	--
	9/14/2017	6.69	241.14	< 1 U	< 1 U	< 1 U	< 3 U	< 100 U	**160 X**	< 250 U	--	--
	12/12/2017	7.7	240.13	< 1 U	< 1 U	< 1 U	< 3 U	< 100 U	< 50 U	< 250 U	--	--
	03/23/2018	7.44	240.39	< 1 U	< 1 U	< 1 U	< 3 U	< 100 U	**71 X**	< 250 U	--	--
	06/21/2018	7.75	240.08	< 1 U	< 1 U	< 1 U	< 3 U	< 100 U	**150 X**	< 450 U	--	--
	09/17/2018	7.83	240.00	< 1 U	< 1 U	< 1 U	< 3 U	< 100 U	**110**	< 480 U	--	--
	12/18/2018	7.98	239.85	< 1 U	< 1 U	< 1 U	< 3 U	< 100 U	< 50 U	< 250 U	--	--
	03/14/2019	7.78	240.05	< 1 U	< 1 U	< 1 U	< 3 U	< 100 U	**680 X**	< 350 U	--	--
	06/06/2019	7.87	239.96	< 1 U	< 1 U	< 1 U	< 3 U	< 100 U	**590 X**	< 250 U	--	--
	09/12/2019	8.28	239.55	< 1 U	< 1 U	< 1 U	< 3 U	**100**	**1200 X**	< 320 U	--	--
	12/18/2019	7.88	239.95	< 1 U	< 1 U	< 1 U	< 3 U	< 100 U	**280**	< 250 U	--	--
	04/22/2020	7.58	240.25	< 1 U	< 1 U	< 1 U	< 3 U	< 100 U	**160 X**	< 250 U	--	--
	06/30/2020	11.00	236.83	< 1 U	< 1 U	< 1 U	< 3 U	< 100 U	**120 X**	< 250 U	--	--

Table 2. Summary of Compliance Groundwater Monitoring Results

Project No. 160328, SKS Shell Station Site, Seattle, Washington

				BTEX				Total Petroleum Hydrocarbons (TPH)			TPH with Silica Gel	
			Analytes	Benzene	Toluene	Ethylbenzene	Total Xylenes	Gasoline-Range Organics	Diesel-Range Organics	Motor Oil-Range Organics	Diesel-Range Organics	Motor Oil-Range Organics
			Unit	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
			MTCA Method A Cleanup Level	5	1000	700	1000	1000 / 800	500	500	500	500
Sample Location[1]	Sample Date	Depth to Water (ft. BTOC)	Groundwater Elevation (ft. NAVD88)									
MW109	03/17/2016	5.42	--	< 1 U	< 1 U	< 1 U	< 3 U	< 100 U	**97 X**	< 250 U	--	--
	06/24/2016	3.35	--	< 1 U	< 1 U	< 1 U	< 3 U	< 100 U	**160 X**	< 250 U	--	--
	09/28/2016	3.96	--	< 1 U	< 1 U	< 1 U	< 3 U	< 100 U	**260 X**	< 250 U	--	--
	12/23/2016	6.59	--	< 1 U	< 1 U	< 1 U	< 3 U	**250**	**430 X**	< 250 U	< 50 U	< 250 U
	03/03/2017	6.7	--	< 1 U	< 1 U	**1.2**	< 3 U	**370**	**490 X**	< 250 U	**55 X**	< 250 U
	06/14/2017	6.87	241.05	< 1 U	< 1 U	< 1 U	< 3 U	**220**	**330**	< 250 U	--	--
	09/14/2017	6.84	241.08	< 1 U	< 1 U	< 1 U	< 3 U	< 100 U	**140 X**	< 250 U	--	--
	12/12/2017	7.69	240.23	< 1 U	**1.1**	< 1 U	< 3 U	**150**	< 50 U	< 250 U	--	--
	03/23/2018	7.75	240.17	< 1 U	< 1 U	**1.3**	< 3 U	**190**	**110 X**	< 250 U	--	--
	06/21/2018	7.87	240.05	< 1 U	**1.2**	< 1 U	< 3 U	**190**	**200**	< 250 U	--	--
	09/17/2018	8.05	239.87	< 1 U	< 1 U	**1.8**	< 3 U	**150**	**110 X**	< 250 U	--	--
	12/18/2018	7.61	240.31	< 1 U	< 1 U	< 1 U	< 3 U	< 100 U	**61 X**	< 250 U	--	--
	03/14/2019	7.94	239.98	< 1 U	< 1 U	< 1 U	< 3 U	**140**	< 60 U	< 300 U	--	--
	06/06/2019	8.1	239.82	< 1 U	< 1 U	< 1 U	< 3 U	< 100 U	**140 X**	< 250 U	--	--
	09/12/2019	8.39	239.53	< 1 U	< 1 U	< 1 U	< 3 U	**110**	**110 X**	< 250 U	--	--
	12/18/2019	7.67	240.25	< 1 U	< 1 U	< 1 U	< 3 U	< 100 U	< 50 U	< 250 U	--	--
	04/22/2020	7.84	240.08	< 1 U	< 1 U	< 1 U	< 3 U	< 100 U	**100 X**	< 250 U	--	--
	06/30/2020	7.38	240.54	< 1 U	< 1 U	< 1 U	< 3 U	< 100 U	< 50 U	< 250 U	--	--
MW110	03/17/2016	5.7	--	< 1 U	< 1 U	< 1 U	< 3 U	< 100 U	< 50 U	< 250 U	--	--
	06/24/2016	3.56	--	< 1 U	< 1 U	< 1 U	< 3 U	< 100 U	**100 X**	< 250 U	--	--
	09/28/2016	4.19	--	< 1 U	< 1 U	< 1 U	< 3 U	< 100 U	**590 X**	**440**	--	--
	12/23/2016	6.96	--	**2.3**	< 1 U	**9.7**	**18**	**500**	**1200**	< 300 U	**68 X**	< 300 U
	03/03/2017	7.57	--	**2.1**	< 1 U	**9.3**	**4.7**	**570**	**1000 X**	< 250 U	**110 X**	< 250 U
	06/14/2017	7.78	240.43	< 1 U	< 1 U	**2**	< 3 U	**260**	**520**	< 250 U	--	--
	9/14/2017	7.44	240.77	< 1 U	< 1 U	< 1 U	< 3 U	< 100 U	**150 X**	< 250 U	--	--
	12/12/2017	8.02	240.19	< 1 U	< 1 U	< 1 U	< 3 U	< 100 U	**99 X**	< 250 U	--	--
	03/23/2018	8.05	240.16	--	--	--	--	--	**73 X**	< 250 U	--	--
	06/21/2018	8.15	240.06	< 1 U	< 1 U	< 1 U	< 3 U	< 100 U	**96 X**	< 250 U	--	--
	09/17/2018	8.4	239.81	< 1 U	< 1 U	< 1 U	< 3 U	< 100 U	< 50 U	< 250 U	--	--
	12/18/2018	7.98	240.23	< 1 U	< 1 U	< 1 U	< 3 U	< 100 U	< 50 U	< 250 U	--	--
	03/14/2019	8.2	240.01	< 1 U	< 1 U	< 1 U	< 3 U	< 100 U	**74 X**	< 300 U	--	--
	06/06/2019	8.3	239.91	< 1 U	< 1 U	< 1 U	< 3 U	< 100 U	**91 X**	< 250 U	--	--
	09/12/2019	9.03	239.18	< 1 U	< 1 U	< 1 U	< 3 U	< 100 U	**73 X**	< 180 U	--	--
	12/18/2019	7.68	240.53	< 1 U	< 1 U	< 1 U	< 3 U	< 100 U	< 50 U	< 250 U	--	--
	04/22/2020	8.15	240.06	< 1 U	< 1 U	< 1 U	< 3 U	< 100 U	**250 X**	< 250 U	--	--
	06/30/2020	7.52	240.69	< 1 U	< 1 U	< 1 U	< 3 U	< 100 U	< 50 U	< 250 U	--	--
MW111	10/09/2018	30.51	240.11	< 1 U	< 1 U	< 1 U	< 3 U	< 100 U	**55 X**	< 250 U	--	--
	12/18/2018	29.9	240.72	< 1 U	< 1 U	< 1 U	< 3 U	< 100 U	< 50 U	< 250 U	--	--
	03/14/2019	30.15	240.47	< 1 U	< 1 U	< 1 U	< 3 U	< 100 U	**83 X**	< 250 U	--	--
	06/06/2019	30.5	240.12	< 1 U	< 1 U	< 1 U	< 3 U	< 100 U	**84 X**	< 250 U	--	--
	09/13/2019	30.72	239.9	< 1 U	< 1 U	< 1 U	< 3 U	< 100 U	< 50 U	< 250 U	--	--
	12/18/2019	30.26	240.36	< 1 U	< 1 U	< 1 U	< 3 U	< 100 U	**94 X**	< 280 U	--	--
	04/22/2020	30.11	240.51	< 1 U	< 1 U	< 1 U	< 3 U	< 100 U	< 50 U	< 250 U	--	--
	06/30/2020	30.09	240.53	< 1 U	< 1 U	< 1 U	< 3 U	< 100 U	< 50 U	< 250 U	--	--
MW112	03/14/2019	28.88	240.44	< 1 U	< 1 U	< 1 U	< 3 U	< 100 U	**58 X**	< 250 U	--	--
	06/06/2019	29.15	240.17	< 1 U	< 1 U	< 1 U	< 3 U	< 100 U	**59 X**	< 250 U	--	--
	09/12/2019	29.44	239.88	< 1 U	< 1 U	< 1 U	< 3 U	< 100 U	< 50 U	< 250 U	--	--
	12/18/2019	28.65	240.67	< 1 U	< 1 U	< 1 U	< 3 U	< 100 U	**58 X**	< 250 U	--	--
	04/21/2020	28.78	240.54	< 1 U	< 1 U	< 1 U	< 3 U	< 100 U	< 50 U	< 250 U	--	--
	06/29/2020	28.63	240.69	< 1 U	< 1 U	< 1 U	< 3 U	< 100 U	< 50 U	< 250 U	--	--

Table 2. Summary of Compliance Groundwater Monitoring Results

Project No. 160328, SKS Shell Station Site, Seattle, Washington

				BTEX				Total Petroleum Hydrocarbons (TPH)			TPH with Silica Gel	
			Analytes	Benzene	Toluene	Ethylbenzene	Total Xylenes	Gasoline-Range Organics	Diesel-Range Organics	Motor Oil-Range Organics	Diesel-Range Organics	Motor Oil-Range Organics
			Unit	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
			MTCA Method A Cleanup Level	5	1000	700	1000	1000 / 800	500	500	500	500
Sample Location[1]	Sample Date	Depth to Water (ft. BTOC)	Groundwater Elevation (ft. NAVD88)									
MW113	03/23/2018	7.68	240.38	--	--	--	--	--	**93 X**	< 250 U	--	--
	06/21/2018	7.81	240.25	< 1 U	< 1 U	< 1 U	< 3 U	< 100 U	**71 X**	< 250 U	--	--
	09/17/2018	8.05	240.01	< 1 U	< 1 U	< 1 U	< 3 U	< 100 U	< 50 U	< 250 U	--	--
	12/18/2018	7.58	240.48	< 1 U	< 1 U	< 1 U	< 3 U	< 100 U	**100 X**	< 250 U	--	--
	03/14/2019	7.98	240.08	< 1 U	< 1 U	< 1 U	< 3 U	< 100 U	**79 X**	< 250 U	--	--
	06/06/2019	8.13	239.93	< 1 U	< 1 U	< 1 U	< 3 U	< 100 U	**89 X**	< 250 U	--	--
	09/12/2019	8.31	239.75	< 1 U	< 1 U	< 1 U	< 3 U	< 100 U	**87 X**	< 250 U	--	--
	12/18/2019	8.04	240.02	< 1 U	< 1 U	< 1 U	< 3 U	< 100 U	**80 X**	< 250 U	--	--
	04/21/2020	7.94	240.12	< 1 U	< 1 U	< 1 U	< 3 U	< 100 U	< 50 U	< 250 U	--	--
	06/30/2020	7.86	240.2	< 1 U	< 1 U	< 1 U	< 3 U	< 100 U	**58 X**	< 250 U	--	--
RW03	03/17/2016	26.23	--	**41**	**6.9**	**51**	**260**	**2300**	**1400 X**	< 250 U	--	--
	06/24/2016	25.4	--	**27**	**4.4**	**27**	**59**	**1600**	**3600**	< 250 U	--	--
	09/28/2016	25.71	--	**6.7**	< 1 U	**20**	**45**	**1100**	**2400 X**	< 300 U	--	--
	12/23/2016	26.77	--	**470**	**16**	**380**	**750**	**9000**	**11000**	< 300 U	**720 X**	< 300 U
	03/02/2017	27.22	--	**150**	< 10 U	**220**	**190**	**4900**	**11000 X**	< 250 U	**880 X**	< 250 U
	06/14/2017	27.91	241.59	**7**	< 1 U	**32**	**11**	**1300**	**1500**	< 250 U	**320 X**	< 250 U
	09/14/2017	28.3	241.2	**2.8**	**1.3**	**15**	**4.5**	**560**	**690 X**	< 300 U	**140 X**	< 300 U
	12/12/2017	28.82	240.68	**8.8**	**17**	**39**	**170**	**2500**	**1000 X**	< 300 U	--	--
	03/23/2018	28.85	240.65	**3**	**5.2**	**29**	**140**	**2100**	**760 X**	< 250 U	--	--
	06/22/2018	28.94	240.56	< 1 U	**2.3**	**31**	**34**	**730**	**740 X**	< 250 U	--	--
	09/17/2018	29.28	240.22	< 1 U	< 1 U	**11**	**15**	**370**	**430**	< 250 U	--	--
	12/18/2018	29.05	240.45	**6.5**	**5**	**75**	**250**	**2800**	**1600**	< 250 U	--	--
	03/15/2019	29.05	240.45	**1.9**	**1.7**	**46**	**140**	**1700**	**730 X**	< 250 U	--	--
	06/07/2019	29.35	240.15	< 1 U	< 1 U	**14**	**4.3**	**410**	**680 X**	< 250 U	--	--
	09/13/2019	29.81	239.69	< 1 U	< 1 U	**1.4**	**3**	**270**	**360 X**	< 250 U	--	--
	12/19/2019	29.13	240.37	**2.4**	< 1 U	**36**	**100**	**2200**	**1400 X**	< 250 U	--	--
	04/22/2020	28.58	240.92	< 1 U	< 1 U	**77**	**78**	**1400**	**700 X**	< 250 U	--	--
	06/29/2020	28.46	241.04	**1.7**	**1.3**	**75**	**41**	**930**	**1200 X**	< 250 U	--	--

Table 2. Summary of Compliance Groundwater Monitoring Results

Project No. 160328, SKS Shell Station Site, Seattle, Washington

			Analytes	BTEX				Total Petroleum Hydrocarbons (TPH)			TPH with Silica Gel	
				Benzene	Toluene	Ethylbenzene	Total Xylenes	Gasoline-Range Organics	Diesel-Range Organics	Motor Oil-Range Organics	Diesel-Range Organics	Motor Oil-Range Organics
			Unit	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
			MTCA Method A Cleanup Level	5	1000	700	1000	1000 / 800	500	500	500	500
Sample Location[1]	Sample Date	Depth to Water (ft. BTOC)	Groundwater Elevation (ft. NAVD88)									
RW04	06/14/2017	27.62	241.6	**2.5**	< 1 U	**16**	< 3 U	**790**	**400**	< 250 U	--	--
	09/14/2017	27.93	241.29	**6.4**	< 1 U	**26**	**21**	**400**	**330 X**	< 250 U	--	--
	12/12/2017	28.55	240.67	**3**	**1.1**	**12**	**5.2**	**360**	**200 X**	< 300 U	--	--
	03/22/2018	28.57	240.65	**1.5**	< 1 U	**14**	< 3 U	**450**	**500 X**	< 250 U	--	--
	06/21/2018	28.6	240.62	< 1 U	**2.6**	**4.8**	**4.5**	**360**	**400 X**	< 250 U	--	--
	09/17/2018	29.08	240.14	< 1 U	< 1 U	**1.5**	< 3 U	**130**	**120**	< 250 U	--	--
	12/18/2018	28.74	240.48	< 1 U	< 1 U	**1.1**	< 3 U	**160**	**510**	< 250 U	--	--
	03/15/2019	28.76	240.46	< 1 U	< 1 U	**1.9**	< 3 U	**300**	**310 X**	< 250 U	--	--
	06/07/2019	29.05	240.17	< 1 U	< 1 U	< 1 U	< 3 U	**240**	**470 X**	< 250 U	--	--
	09/13/2019	29.44	239.78	< 1 U	< 1 U	< 1 U	< 3 U	**180**	**290 X**	< 250 U	--	--
	12/18/2019	28.86	240.36	< 1 U	< 1 U	< 1 U	< 3 U	**160**	**250 X**	< 250 U	--	--
	04/22/2020	28.34	240.88	**2.9**	**1.2**	**83**	**36**	**1400**	**700 X**	< 250 U	--	--
	06/29/2020	28.3	240.92	**1.5**	< 1 U	**34**	< 3 U	**900**	**730 X**	< 250 U	--	--
RW05	06/14/2017	27.64	241.45	< 1 U	< 1 U	**4.4**	< 3 U	**400**	**470**	< 250 U	--	--
	09/14/2017	27.91	241.18	< 1 U	**1.2**	**1.5**	< 3 U	**280**	**300 X**	< 300 U	--	--
	12/12/2017	28.54	240.55	< 1 U	**1.3**	**1.5**	< 3 U	**230**	**170 X**	< 300 U	--	--
	03/22/2018	28.56	240.53	< 1 U	< 1 U	**1.4**	< 3 U	**180**	**140 X**	< 260 U	--	--
	06/21/2018	28.63	240.46	< 1 U	**1.4**	**1.4**	< 3 U	**140**	**180 X**	< 250 U	--	--
	09/17/2018	28.96	240.13	< 1 U	< 1 U	**2.1**	< 3 U	**140**	**140**	< 250 U	--	--
	12/18/2018	28.75	240.34	< 1 U	< 1 U	**1.4**	< 3 U	**110**	**160 X**	< 250 U	--	--
	03/14/2019	28.74	240.35	< 1 U	< 1 U	< 1 U	< 3 U	< 100 U	**120 X**	< 250 U	--	--
	06/06/2019	29.00	240.09	< 1 U	< 1 U	< 1 U	< 3 U	< 100 U	**99 X**	< 250 U	--	--
	09/12/2019	29.33	239.76	< 1 U	< 1 U	< 1 U	< 3 U	< 100 U	**190 X**	< 250 U	--	--
	12/19/2019	28.75	240.34	< 1 U	< 1 U	< 1 U	< 3 U	< 100 U	**130 X**	< 250 U	--	--
	04/21/2020	28.43	240.66	< 1 U	< 1 U	< 1 U	< 3 U	**140**	**420 X**	< 250 U	--	--
	06/30/2020	28.48	240.61	< 1 U	< 1 U	**1.5**	< 3 U	**160**	**230 X**	< 250 U	--	--

Notes

Bold = indicates concentrations of the analyte detected above the reporting limits.

Purple shaded = indicates concentration of the analyte detected above the Model Toxics Control Act (MTCA) Method A Cleanup Level

[1]This table is not an all-inclusive list of all monitoring wells located at the Site historically. Only compliance monitoring wells that are currently being accessed for quarterly compliance groundwater sampling are included in this table. Further, Table 2 only presents data from the post-cleanup compliance monitoring events for each well shown. Refer to the Cleanup Action Report (SES, 2016) and the Fourth Quarter 2019 Compliance Groundwater Monitoring Report (SES, 2019) for a full list of all historical Site wells and groundwater analytical data from samples collected prior to the start of compliance monitoring.

U = indicates analyte not detected at or above reporting limit shown.

J = indicates that the reported or calculated concentration is an estimate.

X = chromatographic pattern does not match fuel standard used for quantitation.

E = result exceeded calibration range. Result usable for qualitative analysis of analyte presence, but numeric value should not be included in quantitate analysis.

ft = feet

BTOC = below top of casing (north)

NAVD88 = North American Vertical Datum 1988

ug/L = micrograms per liter

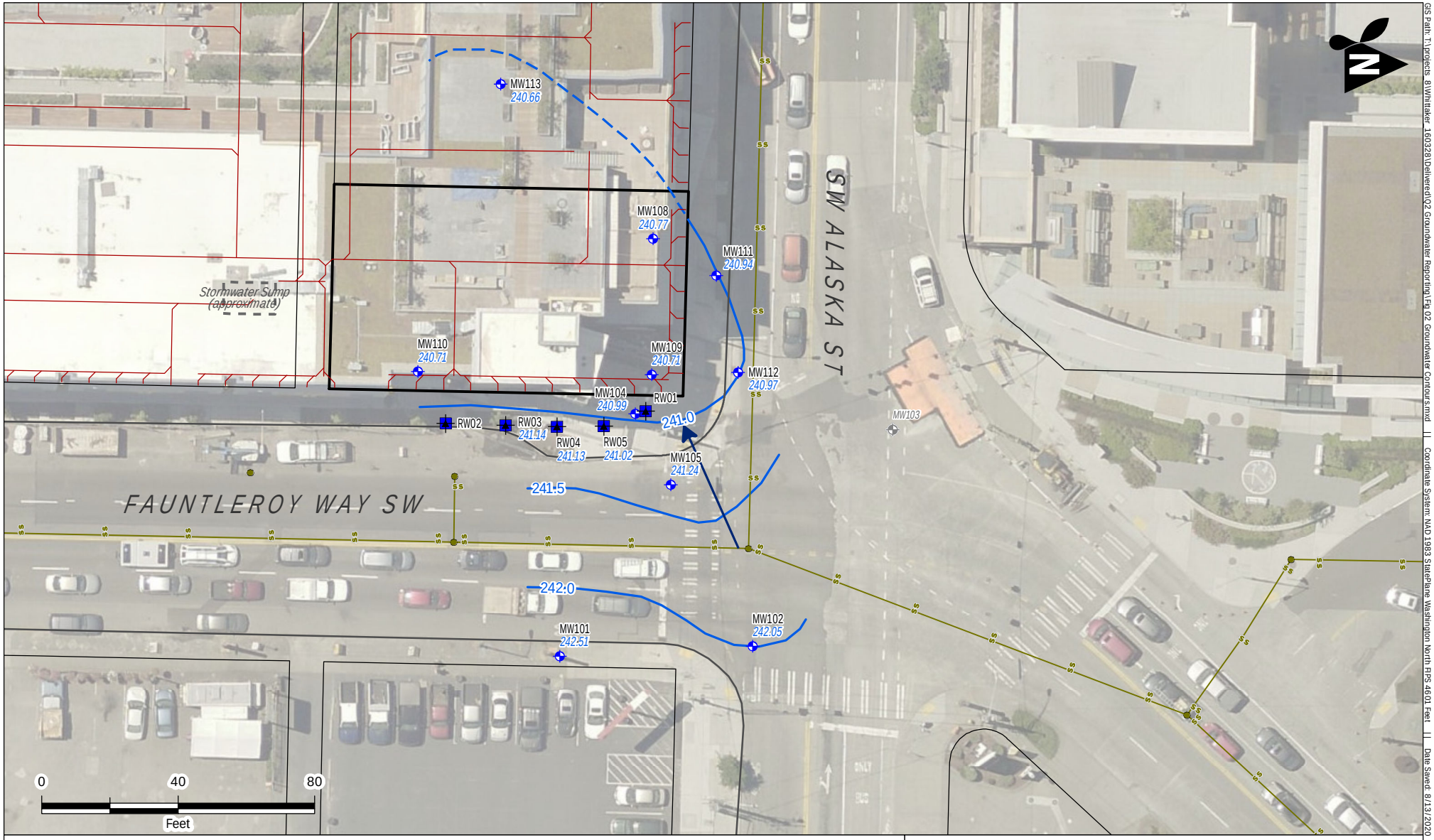
FIGURES

Site Location

Q2 2020 Groundwater Monitoring Report
SKS Shell Station Site
3901 Southwest Alaska Street
Seattle, Washington

Aspect CONSULTING	JUL-2020	BY: EAC / KB	FIGURE NO. 1
	PROJECT NO. 160328-006	REVISED BY: KB / RAP	

GIS Path: T:\projects_8\Whittaker_160328\Delivered\Q2 Groundwater Reporting\Fig 01 Vicinity Map.mxd || Coordinate System: NAD 1983 StatePlane Washington North FIPS 4601 Feet || Date Saved: 7/24/2020 || User: eorumbaker || Print Date: 7/24/2020



Exploration Name
MW113 240.66
Groundwater Elevation (ft)

Monitoring Well
Existing Remediation Well
Decommissioned Monitoring Well
Sewer Manhole
Sanitary Sewer
Footing Drain
Sidewalk Edge
Groundwater Flow Direction
Groundwater Elevation Contour (dashed where inferred)
SKS Shell Property
King County Parcel (2020)

Note:
- All features shown are approximate
- Only select prior borings are shown, refer to the Cleanup Action Report for additional historical boring locations

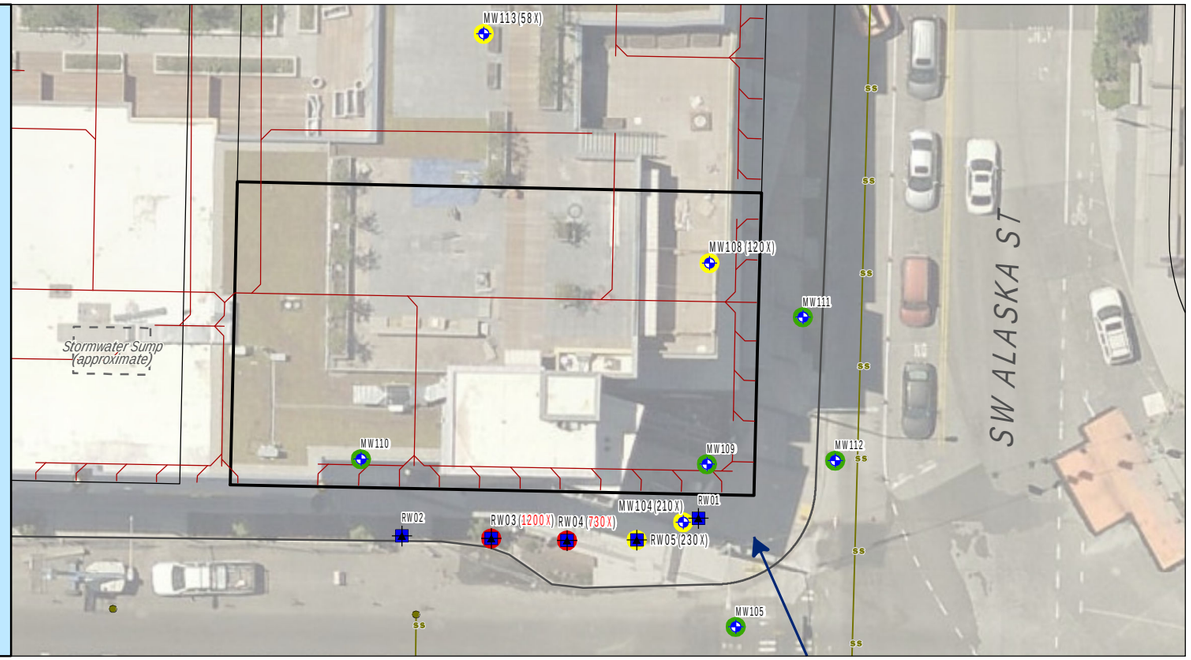
Compliance Well Network and Groundwater Elevation Contours

Q2 2020 Groundwater Monitoring Report
SKS Shell Station Site
3901 Southwest Alaska Street
Seattle, Washington

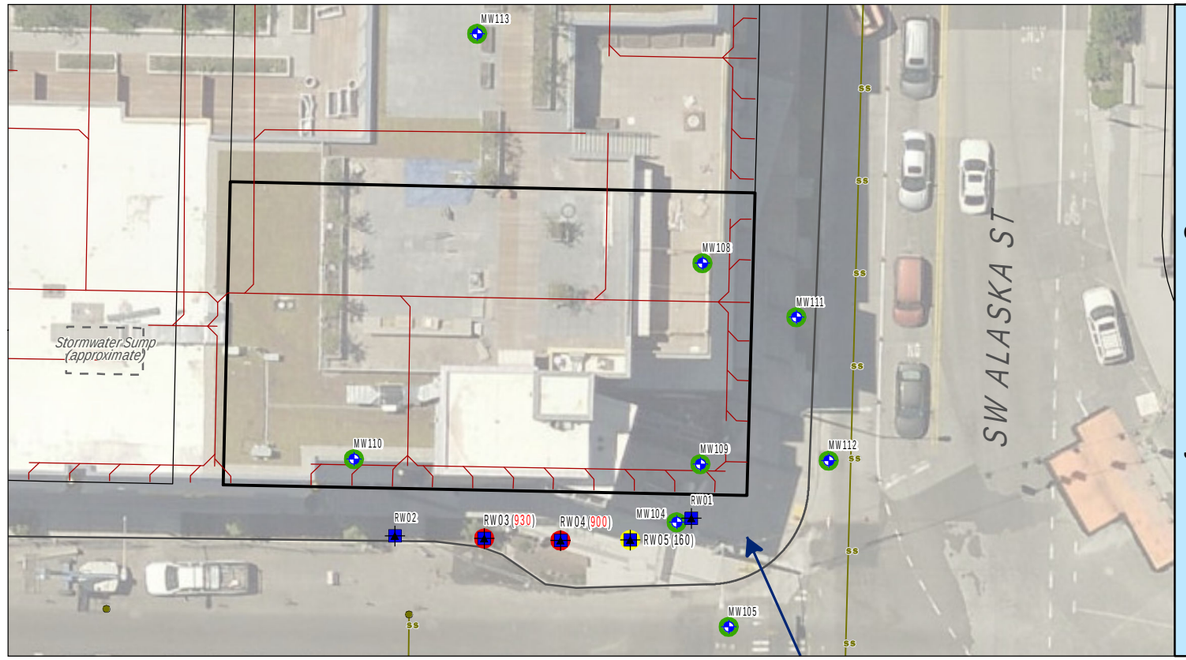
Aspect Consulting	AUG-2020	BY: EAC / KB	FIGURE NO. 2
	PROJECT NO. 160328-006	REVISED BY: - - -	

Basemap Layer Credits | | Pictometry, King County

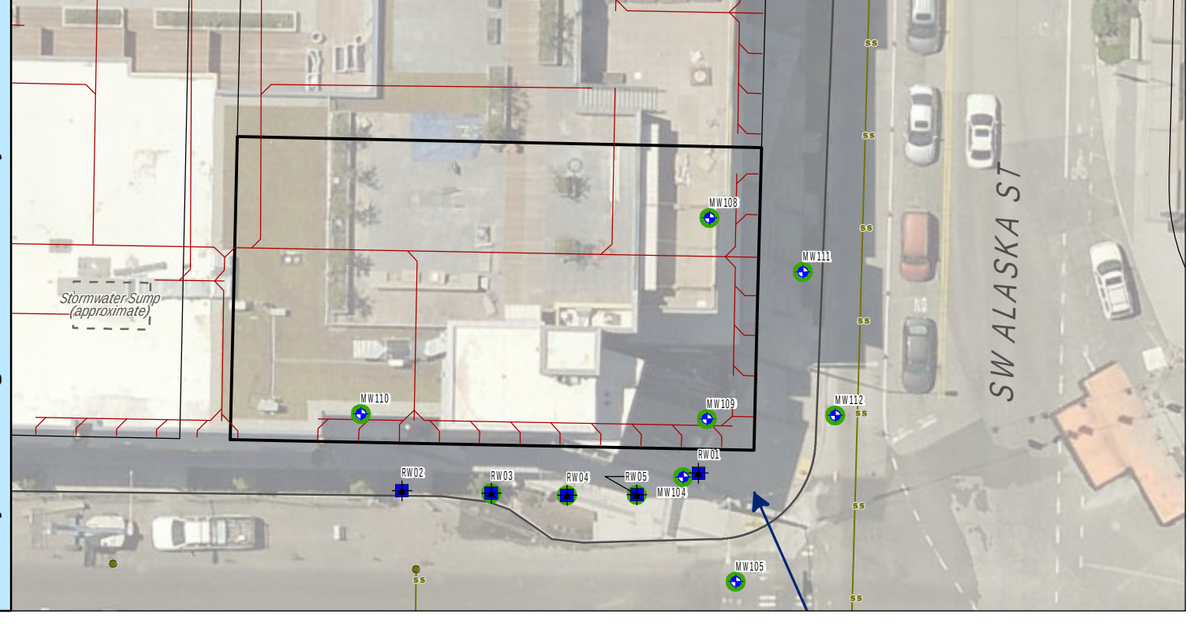
Diesel-Range Petroleum Hydrocarbons



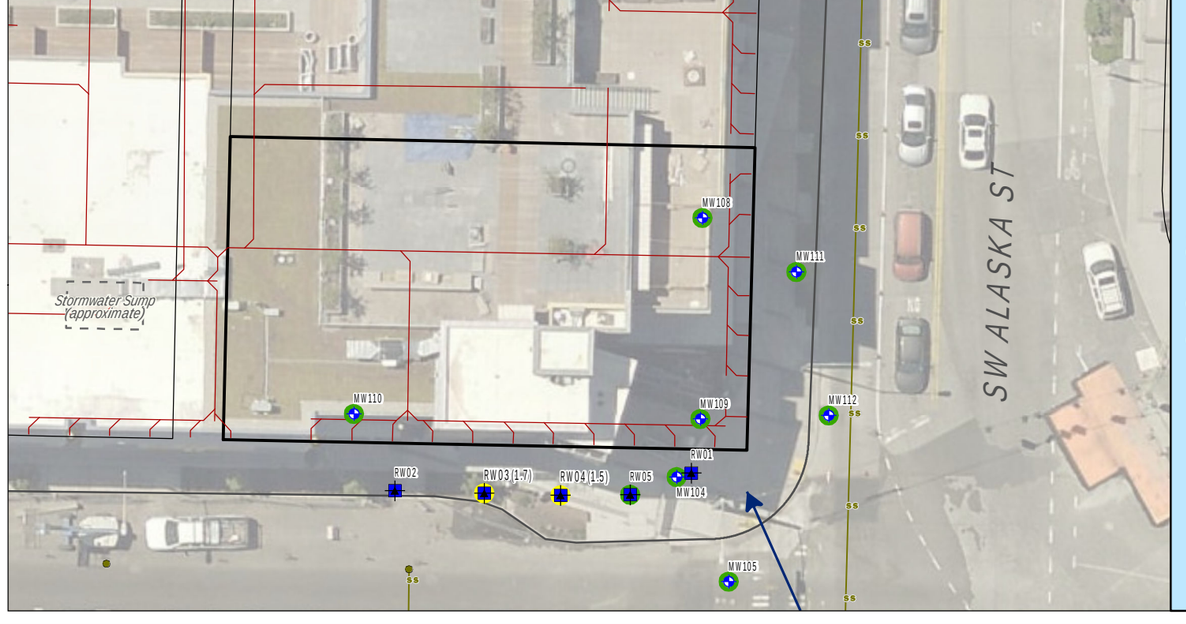
Gasoline-Range Petroleum Hydrocarbons



Heavy Oil-Range Petroleum Hydrocarbons



Benzene

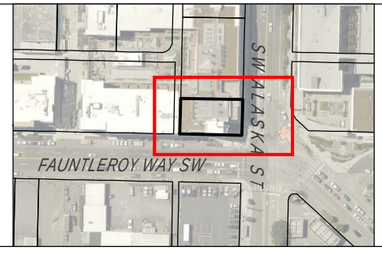


Analytical Results

- Contaminant indicated was detected at a concentration greater than the MTCA Method A cleanup level.
- Contaminant indicated was detected at concentrations less than the MTCA Method A cleanup level.
- Contaminant indicated was not detected.

Sample ID → RW03 (700 X) ← Maximum Detected Concentration of Contaminant (ug/L)

- Sewer Manhole
- Sanitary Sewer
- Footing Drain
- Sidewalk Edge
- SKS Shell Property
- King County Parcel (2020)
- Groundwater Flow Direction



0 30 Feet

Groundwater Analytical Results

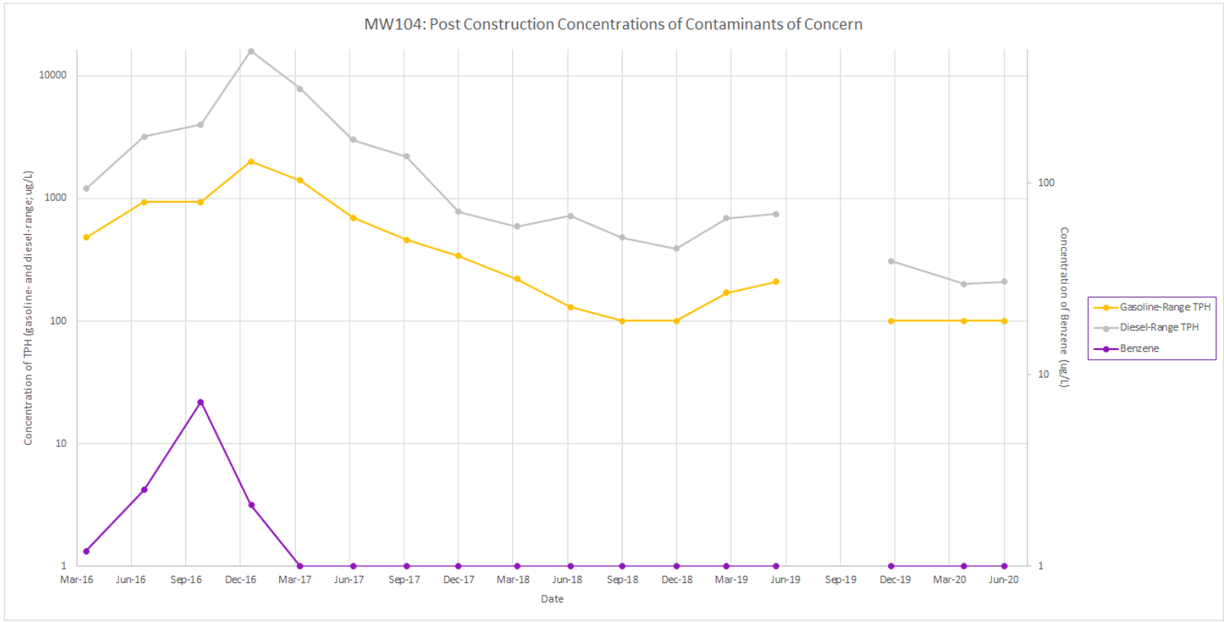
Q2 2020 Groundwater Monitoring Report
SKS Shell Station Site
3901 Southwest Alaska Street
Seattle, Washington

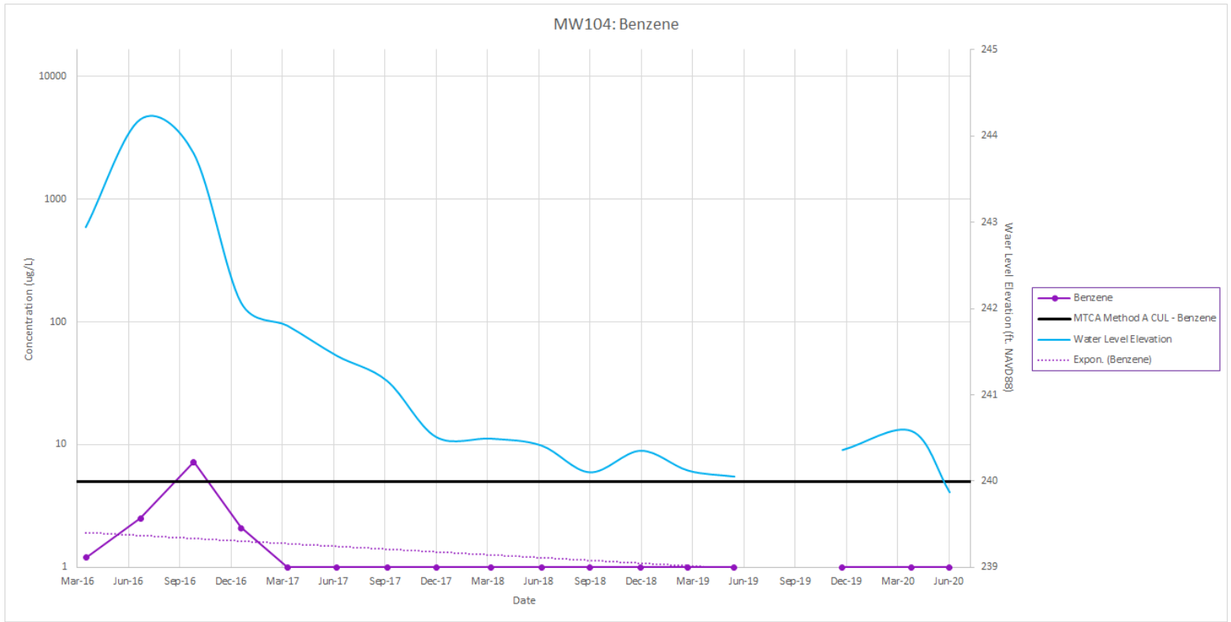
Aspect CONSULTING

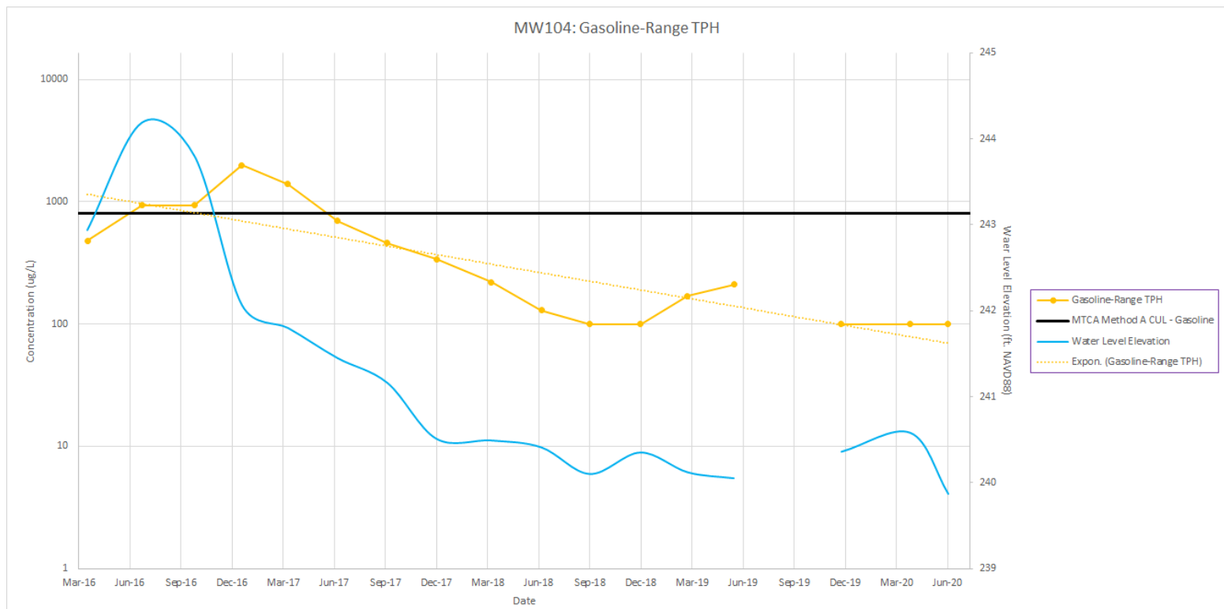
AUG-2020	BY: EAC / KB	FIGURE NO. 3
PROJECT NO. 160328-006	REVISED BY: AY / RAP	

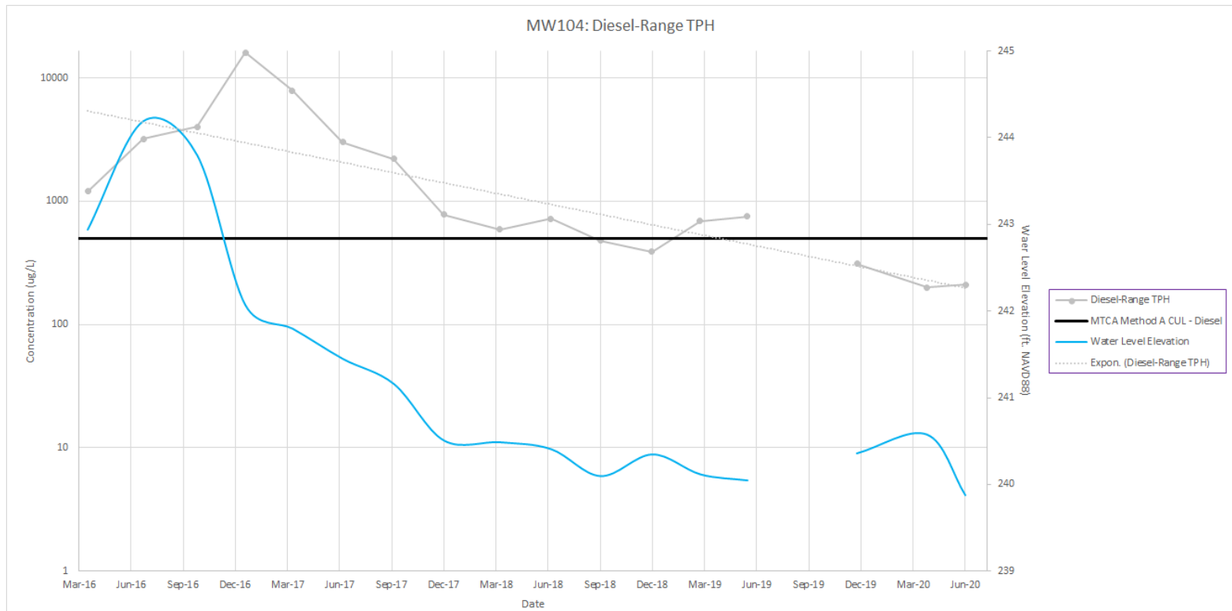
Basemap Layer Credits | | Pictometry, King County

GIS Path: T:\projects_81\Whittaker_160328\Deliverables\02 Groundwater Reporting\Fig 03 Groundwater Analytical Results.mxd || Coordinate System: NAD 1983 StatePlane Washington North FIPS 4601 Feet || Date Saved: 8/13/2020 || User: acochrane || Print Date: 8/13/2020







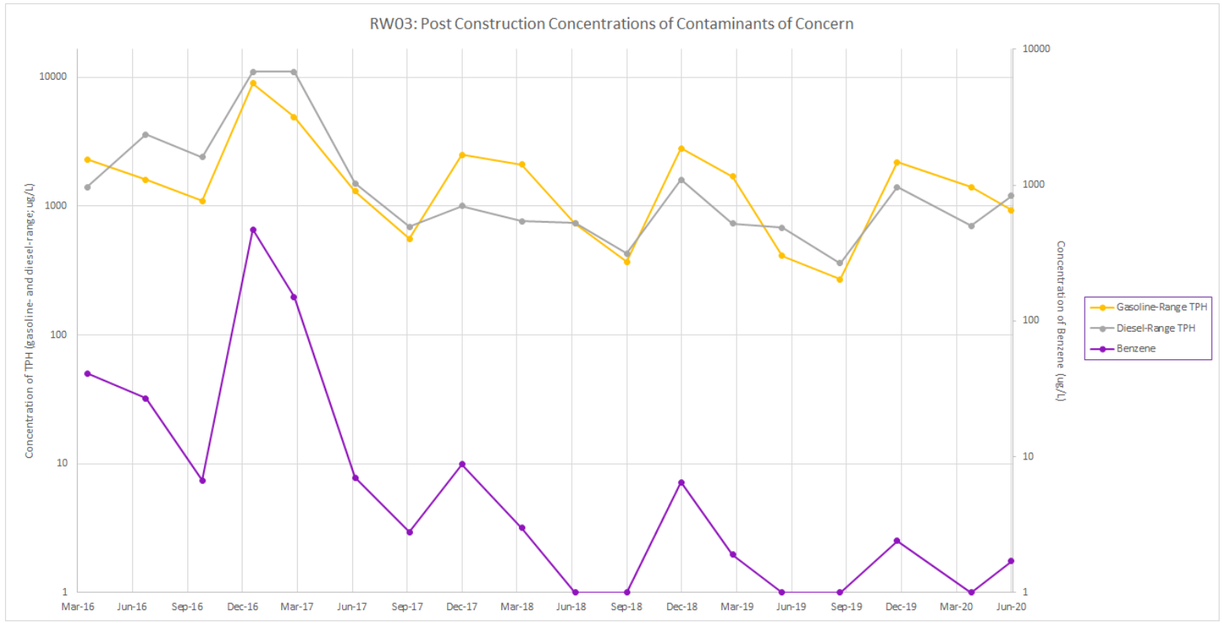


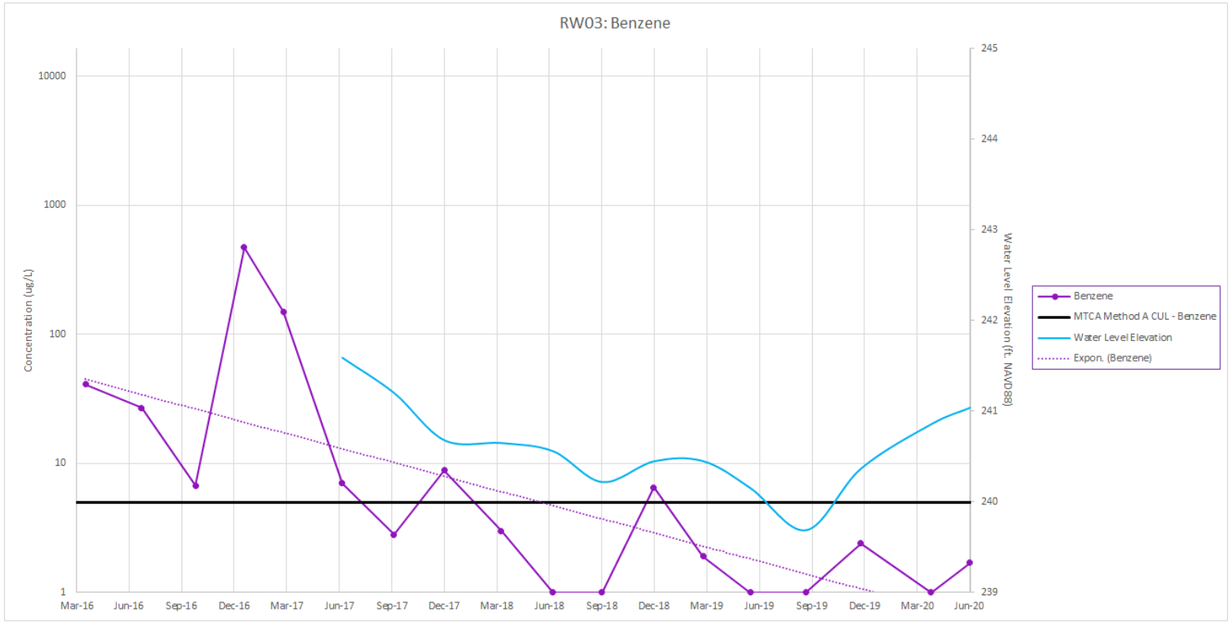
Notes:
-Laboratory reporting limit for benzene is 1 ug/L
-Laboratory reporting limit for gasoline-range TPH is 100 ug/L
-Laboratory reporting limit for diesel-range TPH is 50 ug/L

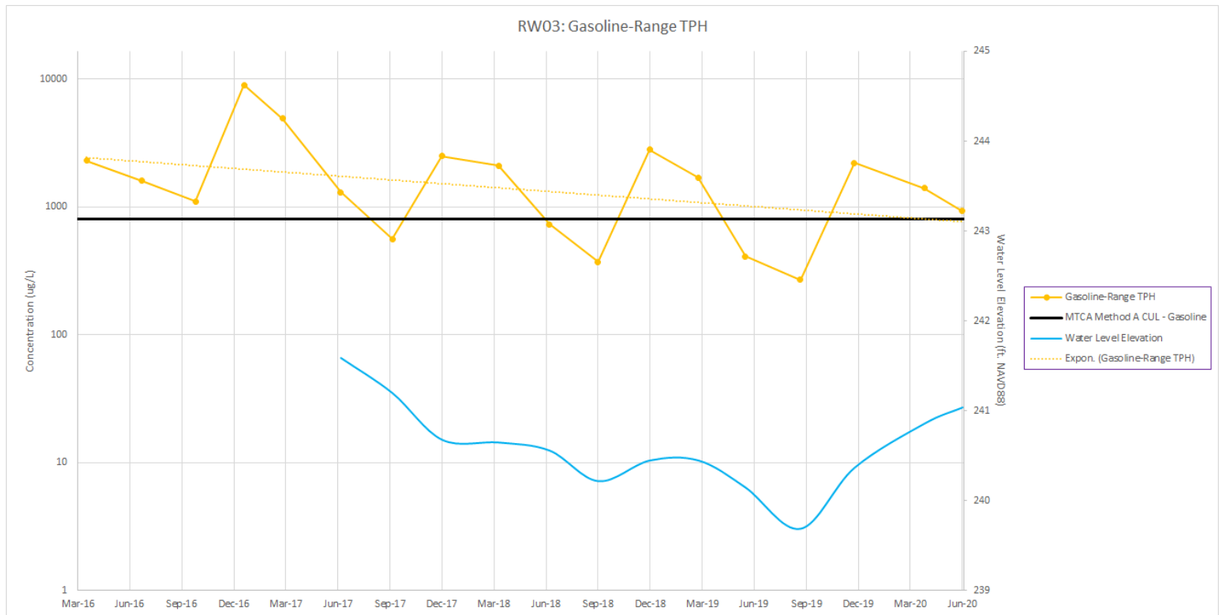
MW104 Postconstruction Data

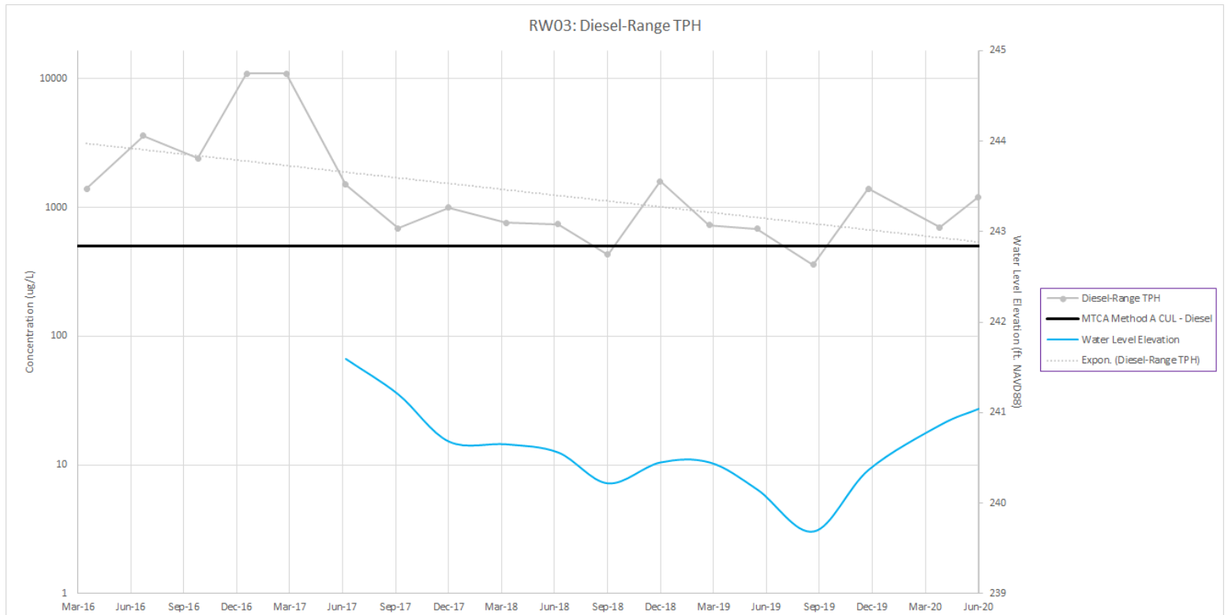
Q2 2020 Groundwater Monitoring Report
SKS Shell Station SIte
Seattle, Washington

Aspect Consulting	JUL-2020	BY: KB	FIGURE NO. 4
	PROJECT NO. 160328	REVISED BY: ---	







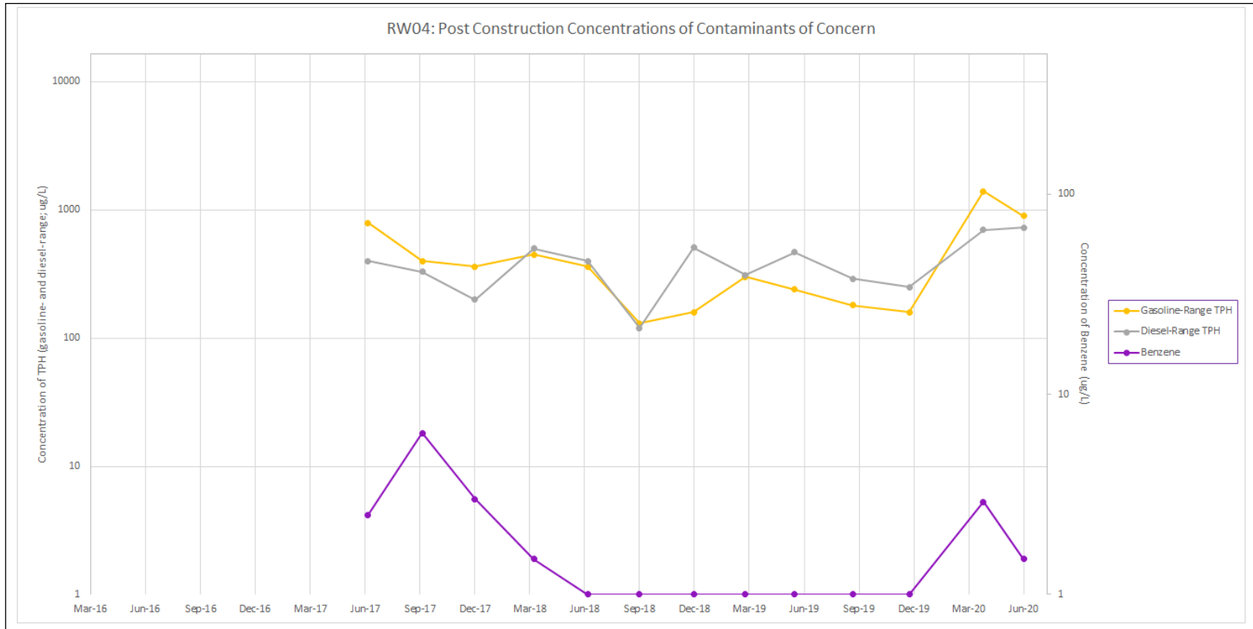


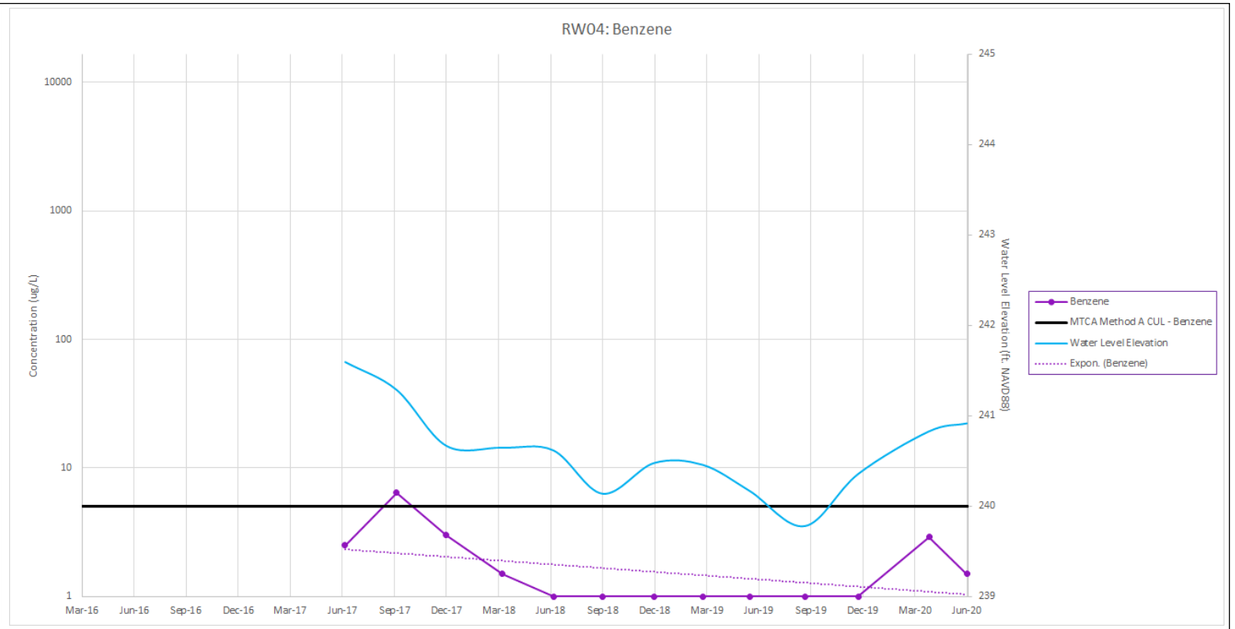
Notes:
-Laboratory reporting limit for benzene is 1 ug/L
-Laboratory reporting limit for gasoline-range TPH is 100 ug/L
-Laboratory reporting limit for diesel-range TPH is 50 ug/L

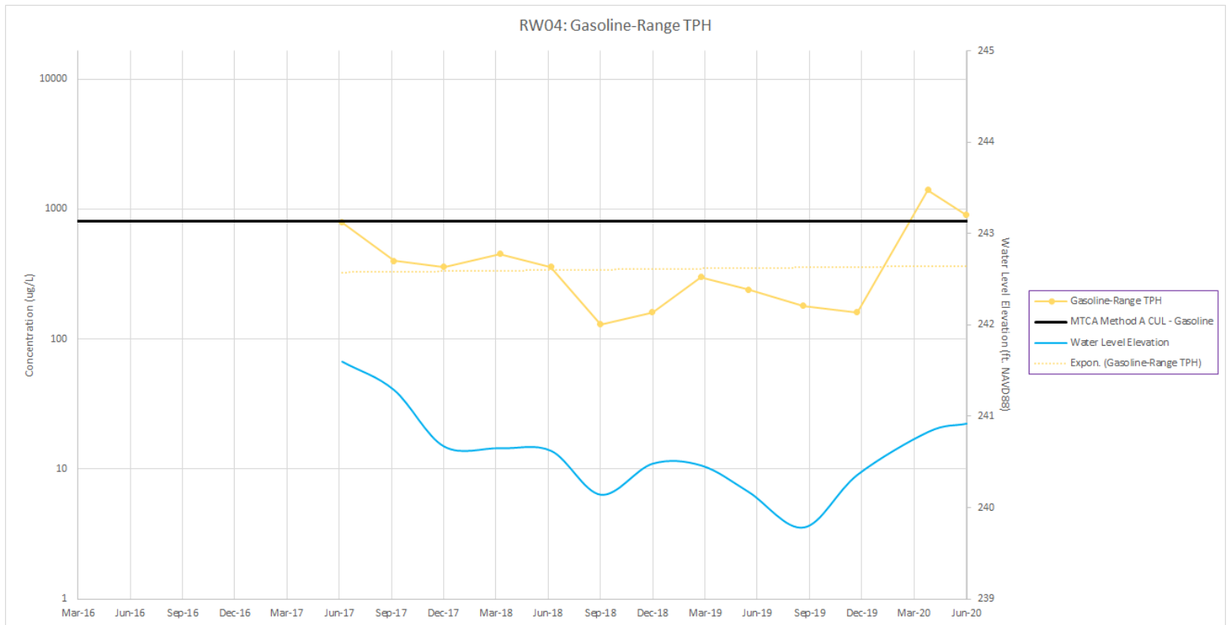
RW03 Postconstruction Data

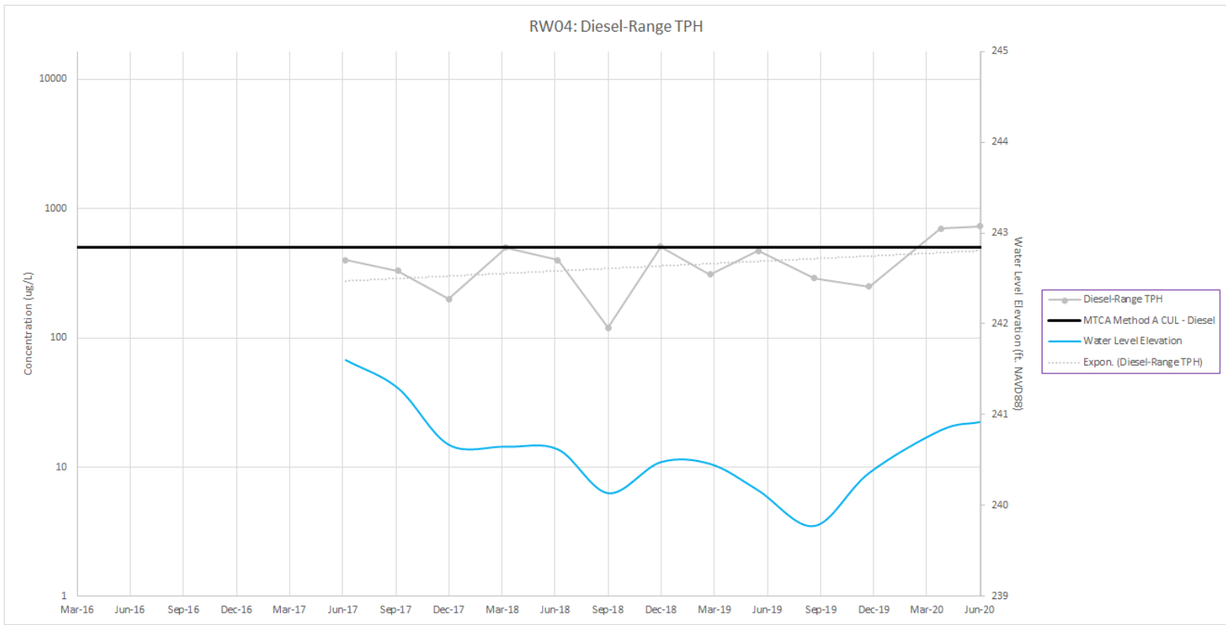
Q2 2020 Groundwater Monitoring Report
SKS Shell Station SIte
Seattle, Washington

Aspect Consulting	JUL-2020	BY: KB	FIGURE NO. 5
	PROJECT NO. 160328	REVISED BY: ---	







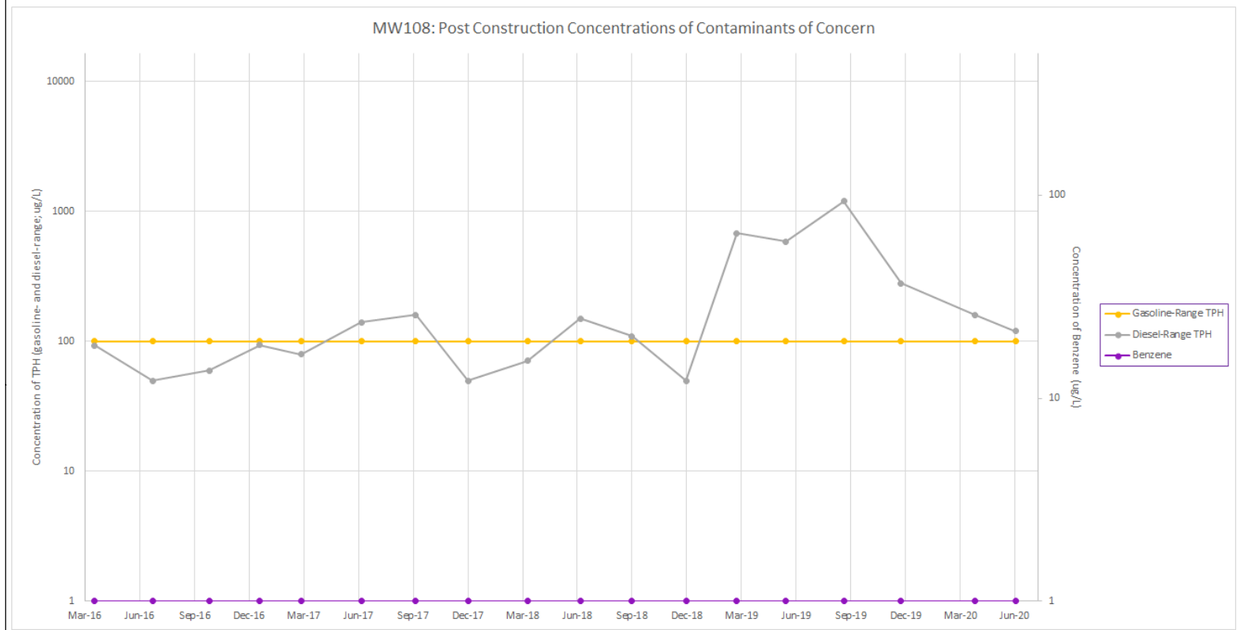


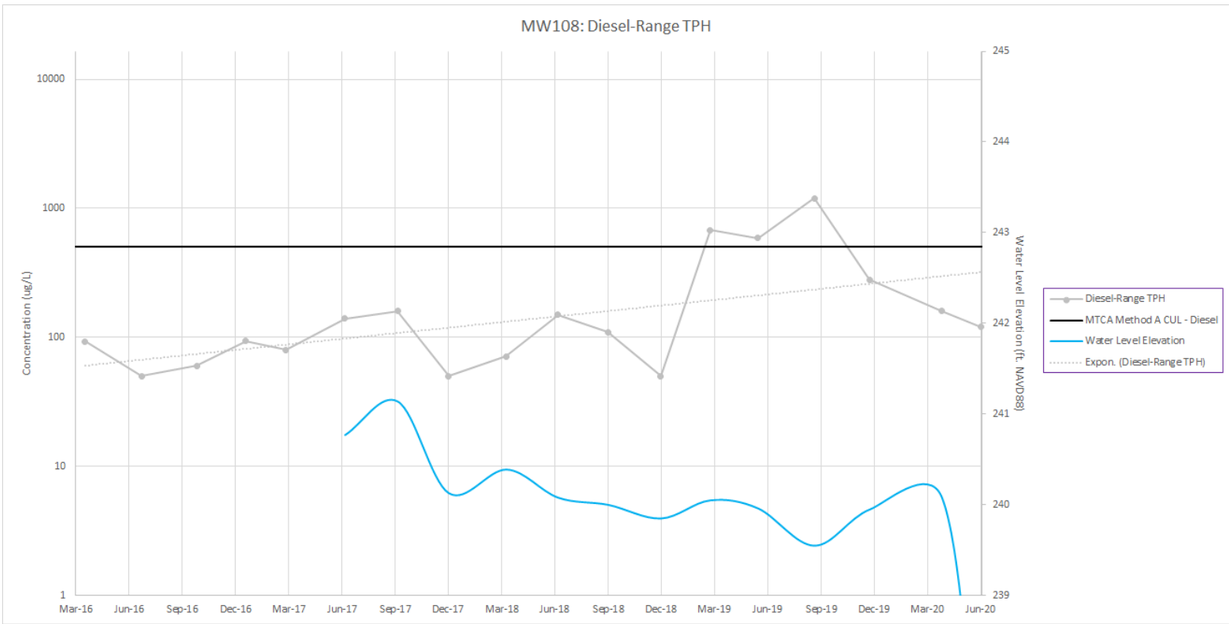
Notes:
-Laboratory reporting limit for benzene is 1 ug/L
-Laboratory reporting limit for gasoline-range TPH is 100 ug/L
-Laboratory reporting limit for diesel-range TPH is 50 ug/L

RW04 Postconstruction Data

Q2 2020 Groundwater Monitoring Report
SKS Shell Station SIte
Seattle, Washington

Aspect Consulting	JUL-2020	BY: KB	FIGURE NO. 6
	PROJECT NO. 160328	REVISED BY: ---	





Notes:

-Benzene and gasoline-range TPH have not been detected above the laboratory reporting limit during compliance monitoring at MW108

--Laboratory reporting limit for diesel-range TPH is 50 ug/L

MW108 Postconstruction Data

Q2 2020 Groundwater Monitoring Report
SKS Shell Station SIte
Seattle, Washington

Aspect Consulting	JUL-2020	BY: KB	FIGURE NO. 7
	PROJECT NO. 160328	REVISED BY: ---	

APPENDIX A

Laboratory Analytical Reports

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

James E. Bruya, Ph.D.
Yelena Aravkina, M.S.
Michael Erdahl, B.S.
Arina Podnozova, B.S.
Eric Young, B.S.

3012 16th Avenue West
Seattle, WA 98119-2029
(206) 285-8282
fbi@isomedia.com
www.friedmanandbruya.com

July 6, 2020

Kristin Beck, Project Manager
Aspect Consulting, LLC
350 Madison Ave. N.
Bainbridge Island, WA 98110-1810

Dear Ms Beck:

Included are the results from the testing of material submitted on June 29, 2020 from the Whittaker-SKS Shell PO 160328, F&BI 006496 project. There are 6 pages included in this report. Any samples that may remain are currently scheduled for disposal in 30 days, or as directed by the Chain of Custody document. If you would like us to return your samples or arrange for long term storage at our offices, please contact us as soon as possible.

We appreciate this opportunity to be of service to you and hope you will call if you have any questions.

Sincerely,

FRIEDMAN & BRUYA, INC.

Michael Erdahl
Project Manager

Enclosures
c: Data Aspect
ASP0706R.DOC

CASE NARRATIVE

This case narrative encompasses samples received on June 29, 2020 by Friedman & Bruya, Inc. from the Aspect Consulting, LLC Whittaker-SKS Shell PO 160328, F&BI 006496 project. Samples were logged in under the laboratory ID's listed below.

Laboratory ID	Aspect Consulting, LLC
006496 -01	MW105-062920
006496 -02	MW112-062920
006496 -03	RW03-062920
006496 -04	RW04-062920

All quality control requirements were acceptable.

Date of Report: 07/06/20
Date Received: 06/29/20
Project: Whittaker-SKS Shell PO 160328, F&BI 006496
Date Extracted: 06/30/20
Date Analyzed: 07/01/20

RESULTS FROM THE ANALYSIS OF WATER SAMPLES FOR BENZENE, TOLUENE, ETHYLBENZENE, XYLENES AND TPH AS GASOLINE USING METHODS 8021B AND NWTPH-Gx

Results Reported as ug/L (ppb)

Sample ID Laboratory ID	Benzene	Toluene	Ethyl Benzene	Total Xylenes	Gasoline Range	Surrogate (% Recovery) (Limit 52-124)
MW105-062920 006496-01	<1	<1	<1	<3	<100	87
MW112-062920 006496-02	<1	<1	<1	<3	<100	88
RW03-062920 006496-03	1.7	1.3	75	41	930	88
RW04-062920 006496-04	1.5	<1	34	<3	900	90
Method Blank 00-1328 MB	<1	<1	<1	<3	<100	90

Date of Report: 07/06/20
Date Received: 06/29/20
Project: Whittaker-SKS Shell PO 160328, F&BI 006496
Date Extracted: 06/30/20
Date Analyzed: 06/30/20

RESULTS FROM THE ANALYSIS OF WATER SAMPLES FOR TOTAL PETROLEUM HYDROCARBONS AS DIESEL AND MOTOR OIL USING METHOD NWTPH-Dx

Results Reported as ug/L (ppb)

Sample ID Laboratory ID	Diesel Range (C_{10}-C_{25})	Motor Oil Range (C_{25}-C_{36})	Surrogate (% Recovery) (Limit 41-152)
MW105-062920 006496-01	<50	<250	105
MW112-062920 006496-02	<50	<250	102
RW03-062920 006496-03	1,200 x	<250	107
RW04-062920 006496-04	730 x	<250	101
Method Blank 00-1485 MB2	<50	<250	99

Date of Report: 07/06/20
Date Received: 06/29/20
Project: Whittaker-SKS Shell PO 160328, F&BI 006496

QUALITY ASSURANCE RESULTS FOR THE ANALYSIS OF WATER SAMPLES FOR BENZENE, TOLUENE, ETHYLBENZENE, XYLENES, AND TPH AS GASOLINE USING EPA METHOD 8021B AND NWTPH-Gx

Laboratory Code: 006483-02 (Duplicate)

Analyte	Reporting Units	Sample Result	Duplicate Result	RPD (Limit 20)
Benzene	ug/L (ppb)	<1	<1	nm
Toluene	ug/L (ppb)	<1	<1	nm
Ethylbenzene	ug/L (ppb)	<1	<1	nm
Xylenes	ug/L (ppb)	<3	<3	nm
Gasoline	ug/L (ppb)	<100	<100	nm

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Acceptance Criteria
Benzene	ug/L (ppb)	50	106	65-118
Toluene	ug/L (ppb)	50	105	72-122
Ethylbenzene	ug/L (ppb)	50	107	73-126
Xylenes	ug/L (ppb)	150	105	74-118
Gasoline	ug/L (ppb)	1,000	104	69-134

Date of Report: 07/06/20
Date Received: 06/29/20
Project: Whittaker-SKS Shell PO 160328, F&BI 006496

QUALITY ASSURANCE RESULTS FOR THE ANALYSIS OF WATER SAMPLES FOR TOTAL PETROLEUM HYDROCARBONS AS DIESEL EXTENDED USING METHOD NWTPH-Dx

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Percent Recovery LCSD	Acceptance Criteria	RPD (Limit 20)
Diesel Extended	ug/L (ppb)	2,500	92	104	63-142	12

Data Qualifiers & Definitions

a - The analyte was detected at a level less than five times the reporting limit. The RPD results may not provide reliable information on the variability of the analysis.

b - The analyte was spiked at a level that was less than five times that present in the sample. Matrix spike recoveries may not be meaningful.

ca - The calibration results for the analyte were outside of acceptance criteria. The value reported is an estimate.

c - The presence of the analyte may be due to carryover from previous sample injections.

cf - The sample was centrifuged prior to analysis.

d - The sample was diluted. Detection limits were raised and surrogate recoveries may not be meaningful.

dv - Insufficient sample volume was available to achieve normal reporting limits.

f - The sample was laboratory filtered prior to analysis.

fb - The analyte was detected in the method blank.

fc - The analyte is a common laboratory and field contaminant.

hr - The sample and duplicate were reextracted and reanalyzed. RPD results were still outside of control limits. Variability is attributed to sample inhomogeneity.

hs - Headspace was present in the container used for analysis.

ht – The analysis was performed outside the method or client-specified holding time requirement.

ip - Recovery fell outside of control limits due to sample matrix effects.

j - The analyte concentration is reported below the lowest calibration standard. The value reported is an estimate.

J - The internal standard associated with the analyte is out of control limits. The reported concentration is an estimate.

jl - The laboratory control sample(s) percent recovery and/or RPD were out of control limits. The reported concentration should be considered an estimate.

js - The surrogate associated with the analyte is out of control limits. The reported concentration should be considered an estimate.

lc - The presence of the analyte is likely due to laboratory contamination.

L - The reported concentration was generated from a library search.

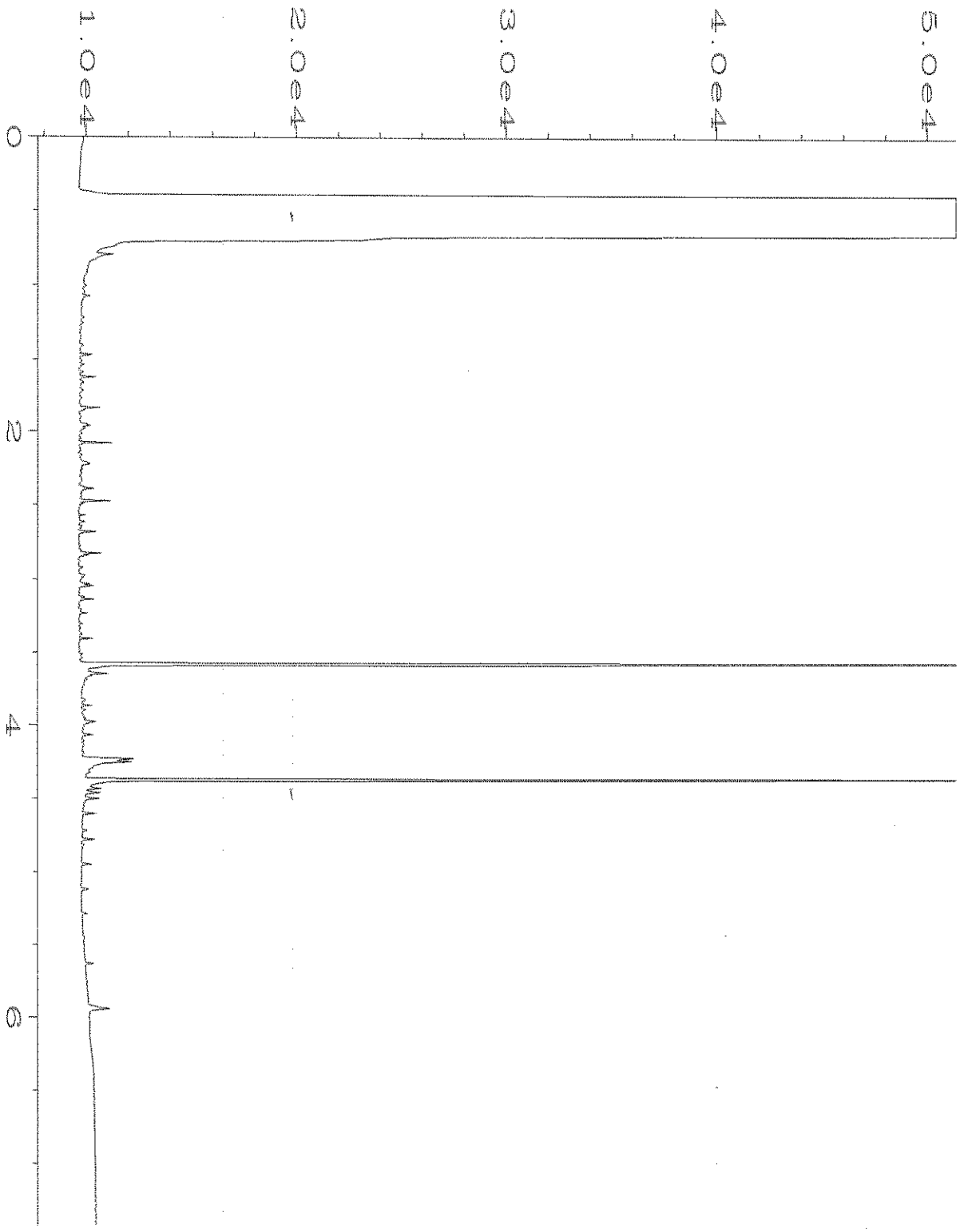
nm - The analyte was not detected in one or more of the duplicate analyses. Therefore, calculation of the RPD is not applicable.

pc - The sample was received with incorrect preservation or in a container not approved by the method. The value reported should be considered an estimate.

ve - The analyte response exceeded the valid instrument calibration range. The value reported is an estimate.

vo - The value reported fell outside the control limits established for this analyte.

x - The sample chromatographic pattern does not resemble the fuel standard used for quantitation.



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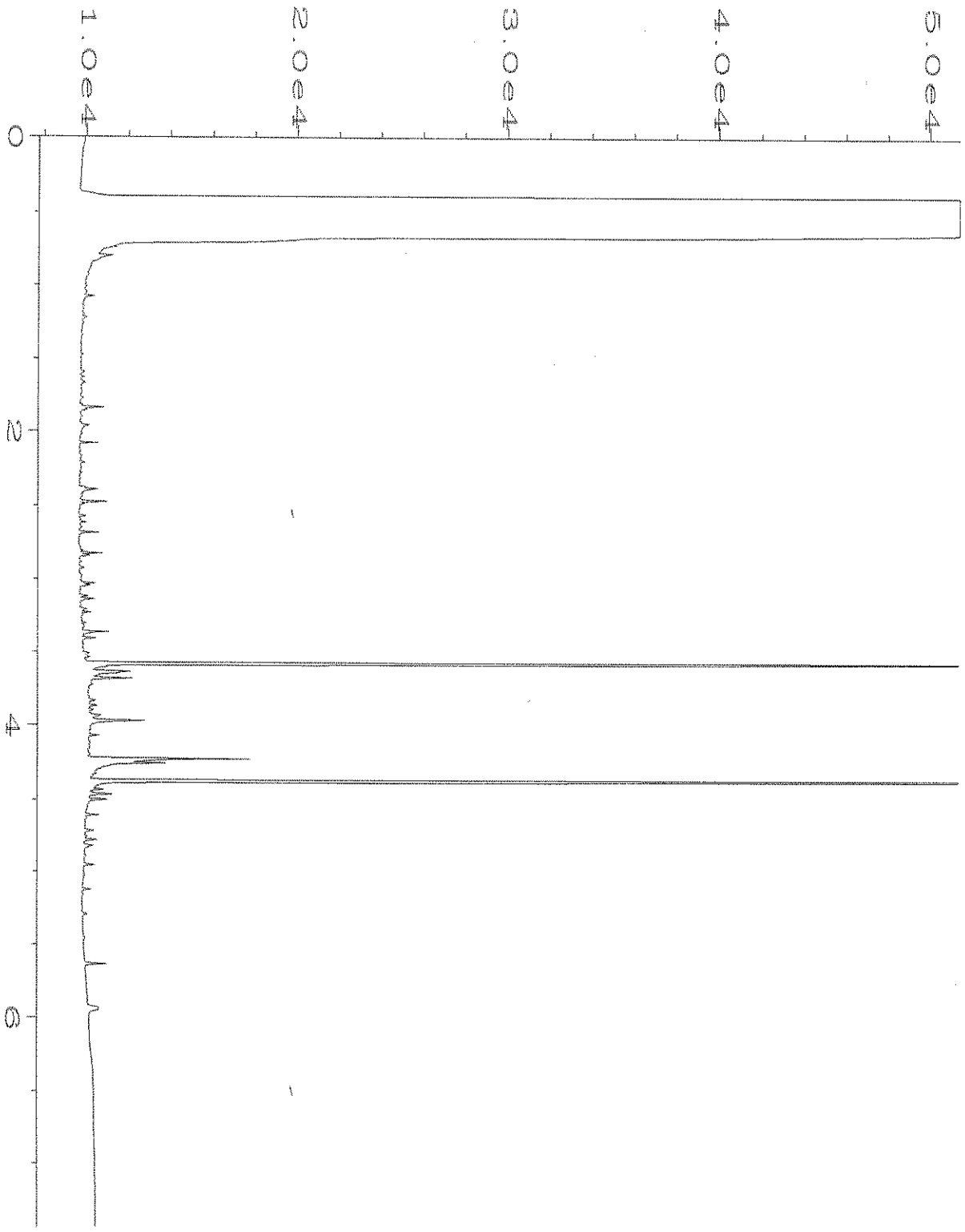
Operator : TL
Instrument : GC1
Sample Name : 006496-01
Run Time Bar Code:
Acquired on : 30 Jun 20 12:16 PM
Report Created on: 01 Jul 20 07:37 AM

Page Number : 1
Vial Number : 10
Injection Number : 1
Sequence Line : 3
Instrument Method: DX.MTH
Analysis Method : DX.MTH



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Operator : TL
Instrument : GC1
Sample Name : 006496-02
Run Time Bar Code:
Acquired on : 30 Jun 20 12:28 PM
Report Created on: 01 Jul 20 07:37 AM

Page Number : 1
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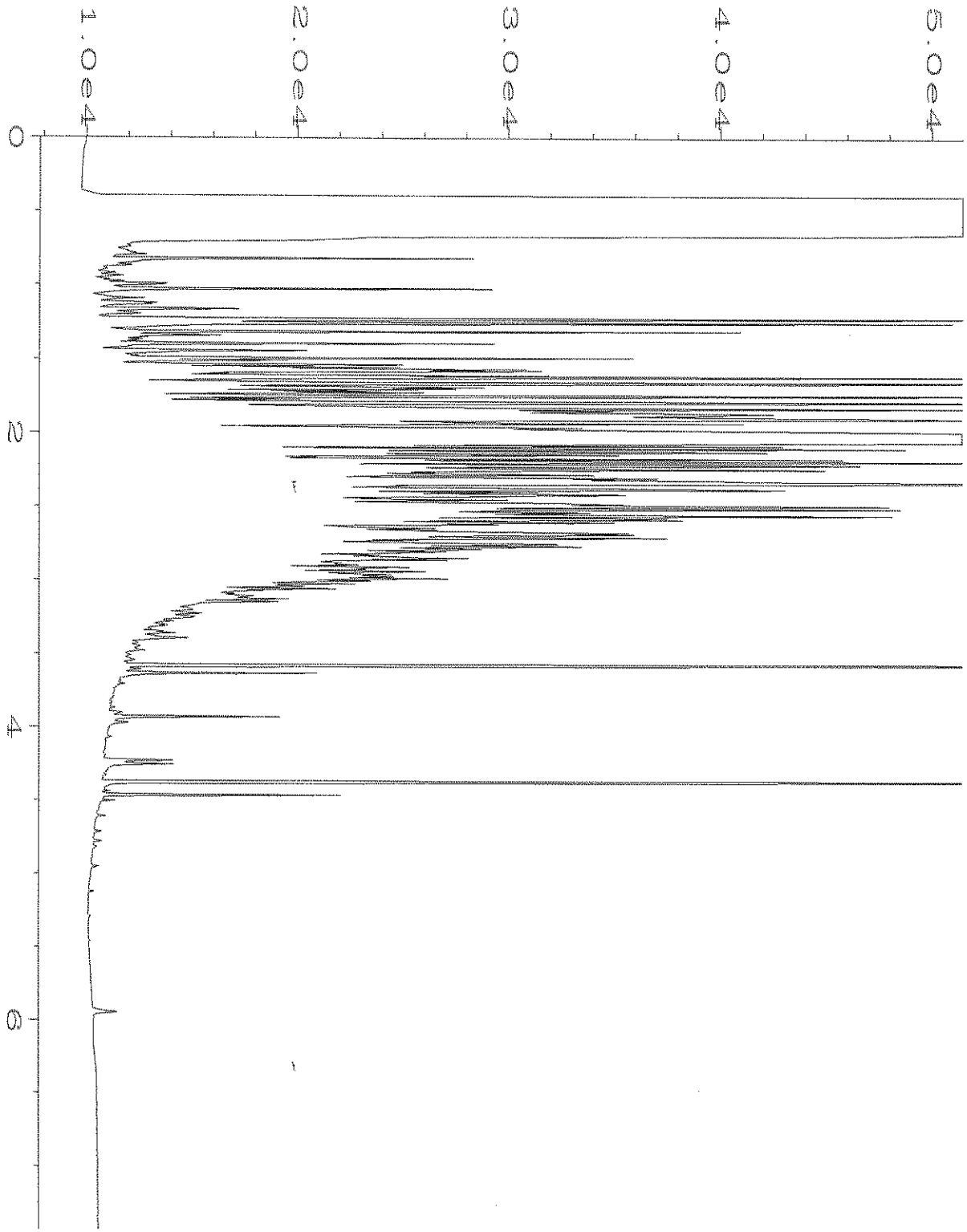
Injection Number : 1
Sequence Line : 3
Instrument Method: DX.MTH
Analysis Method : DX.MTH



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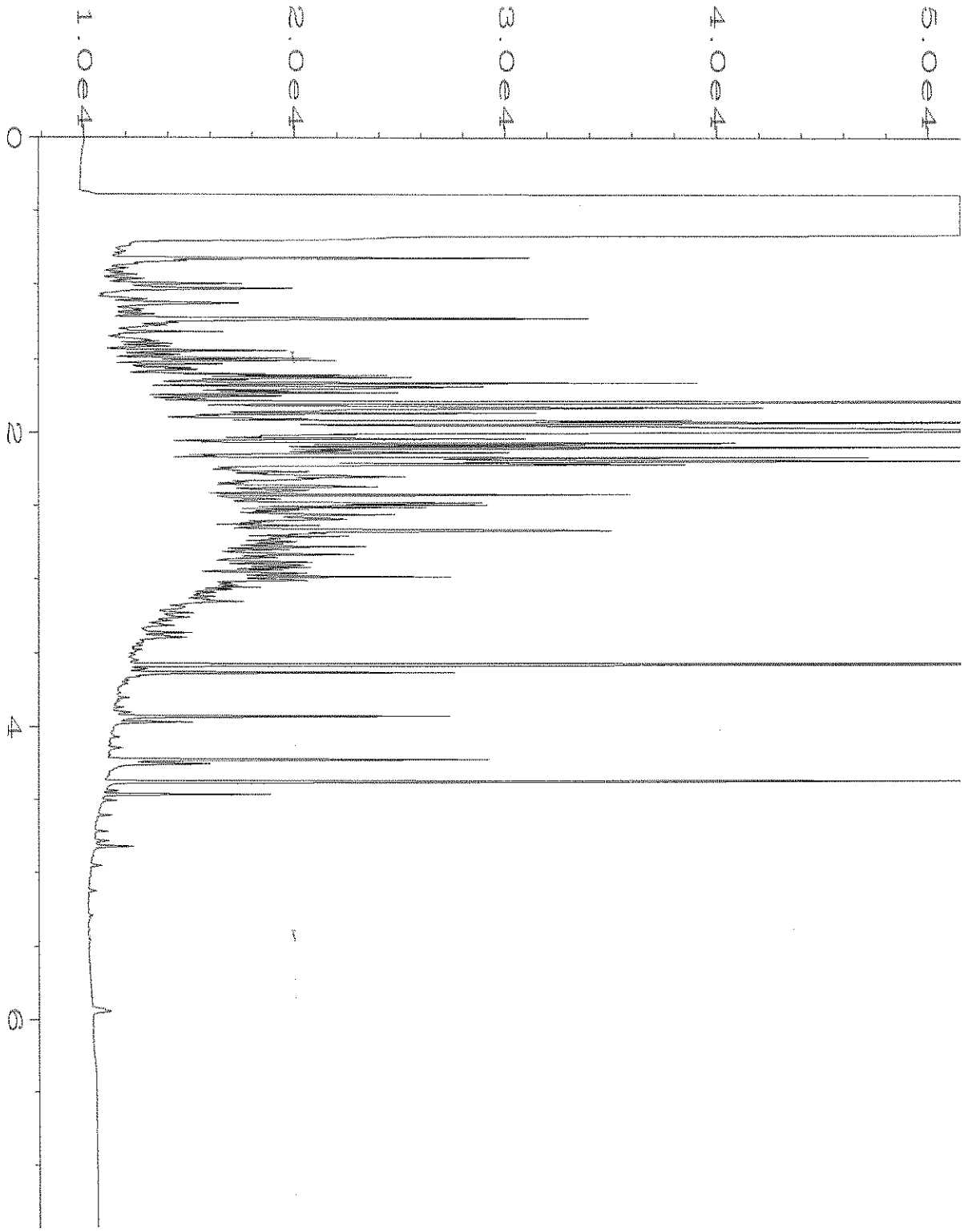
Operator : TL
Instrument : GC1
Sample Name : 006496-03
Run Time Bar Code:
Acquired on : 30 Jun 20 12:40 PM
Report Created on: 01 Jul 20 07:37 AM

Page Number : 1
Vial Number : 12
Injection Number : 1
Sequence Line : 3
Instrument Method: DX.MTH
Analysis Method : DX.MTH



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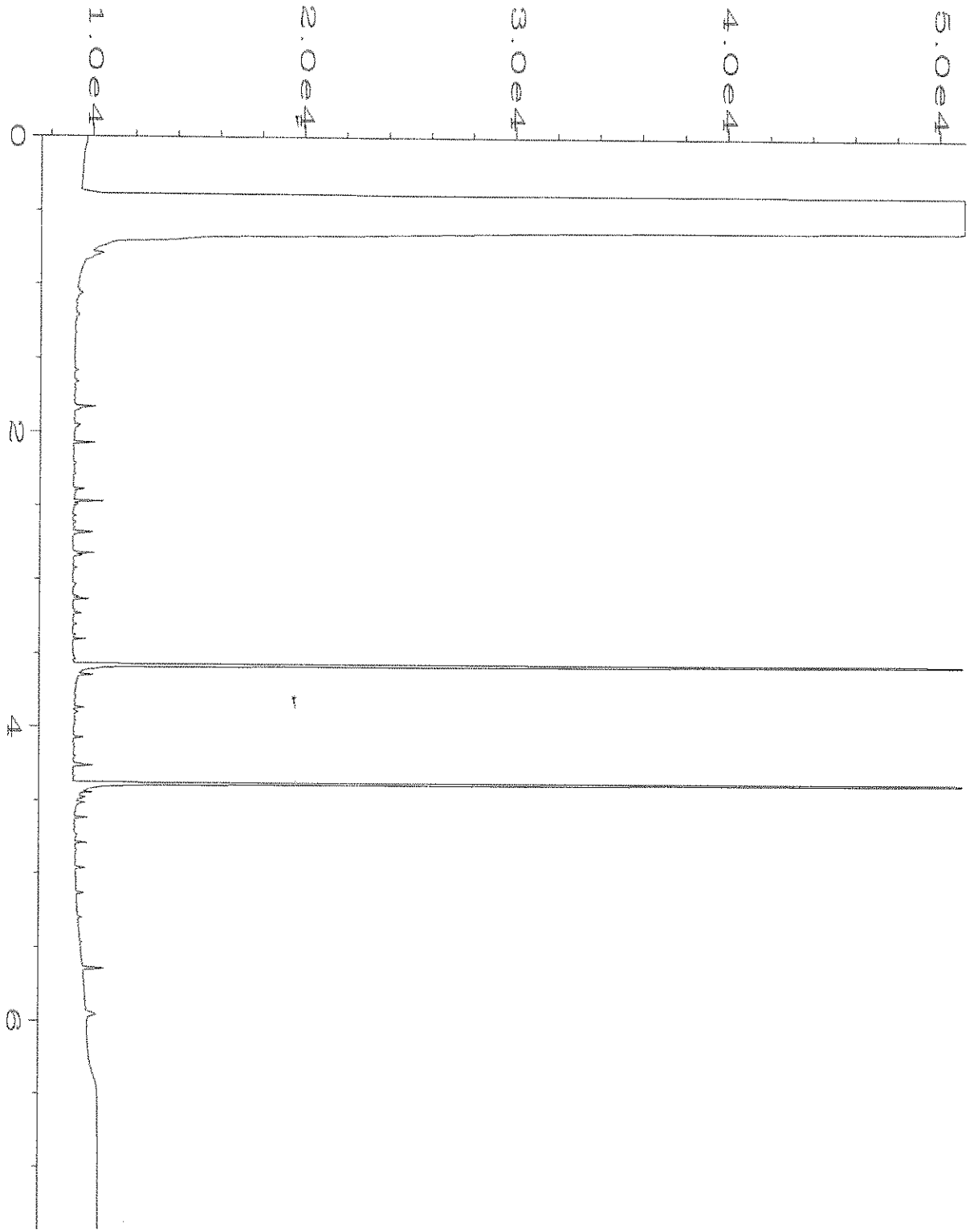
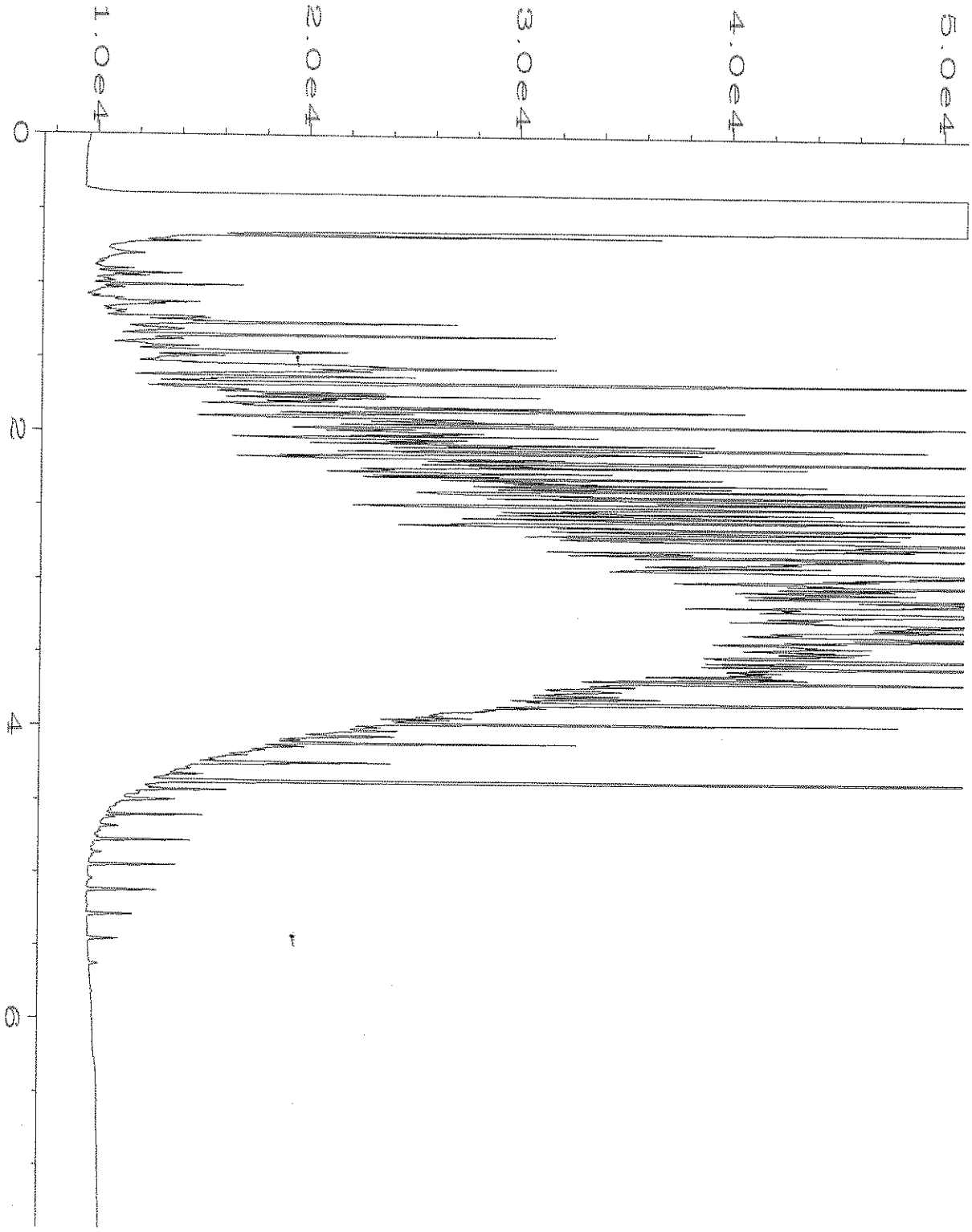
Operator	: TL	Page Number	: 1
Instrument	: GC1	Vial Number	: 13
Sample Name	: 006496-04	Injection Number	: 1
Run Time Bar Code:		Sequence Line	: 3
Acquired on	: 30 Jun 20 12:52 PM	Instrument Method	: DX.MTH
Report Created on	: 01 Jul 20 07:37 AM	Analysis Method	: DX.MTH



Data File Name : C:\HPCHEM\1\DATA\06-30-20\006F0301.D
Operator : TL
Instrument : GC1
Sample Name : 00-1485 mb2
Run Time Bar Code:
Acquired on : 30 Jun 20 11:32 AM
Report Created on: 01 Jul 20 07:37 AM

Page Number : 1
Vial Number : 6
Injection Number : 1
Sequence Line : 3
Instrument Method: DX.MTH
Analysis Method : DX.MTH



Data File Name : C:\HPCHEM\1\DATA\06-30-20\003F0201.D
Operator : TL
Instrument : GC1
Sample Name : 500 Dx 60-170C
Run Time Bar Code:
Acquired on : 30 Jun 20 05:53 AM
Report Created on: 01 Jul 20 07:37 AM

Page Number : 1
Vial Number : 3
Injection Number : 1
Sequence Line : 2
Instrument Method: DX.MTH
Analysis Method : DX.MTH

SAMPLE CHAIN OF CUSTODY

Q06496 ME 06/29/20

Page # 1 of 1 Day

Report To Kristin Beck

Company Aspect Consulting

Address

City, State, ZIP

Phone 2063385838 Email kbeck@aspectconsulting.com

SAMPLERS (*signature*) B Call

PROJECT NAME: Whittaker-SKS Shell

PO #: 160328

REMARKS

Project specific RLs? - Yes / No

INVOICE TO

TURNAROUND TIME VW2

☒ Standard turnaround

☐ RUSH

Rush charges authorized by:

SAMPLE DISPOSAL

☐ Archive samples

☐ Other

Default: Dispose after 30 days

Sample ID	Lab ID	Date Sampled	Time Sampled	Sample Type	# of Jars	NWTPH-Dx	NWTPH-Gx	BTEX EPA 8021	NWTPH-HCID	VOCs EPA 8260	PAHs EPA 8270	PCBs EPA 8082					Notes
MW105-062920	01(A-D)	6/29/20	1125	GW	4	X	X	X									
MW112-062920	02	↓	1210	↓	↓	↓	↓	↓									
RW03-062920	03	↓	1330	↓	↓	↓	↓	↓									
RW04-062920	04	↓	1445	↓	↓	↓	↓	↓									

ANALYSES REQUESTED

SIGNATURE	PRINT NAME	COMPANY	DATE	TIME
Relinquished by: B Call	Barbara Call	Aspect	6/29/20	1630
Received by:	Kelsey Lessig	FBI	6/29/20	16:36
Relinquished by:				
Received by:		Samples received at 3 °C		

Friedman & Bruya, Inc.
3012 16th Avenue West
Seattle, WA 98119-2029
Ph. (206) 285-8282

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

James E. Bruya, Ph.D.
Yelena Aravkina, M.S.
Michael Erdahl, B.S.
Arina Podnozova, B.S.
Eric Young, B.S.

3012 16th Avenue West
Seattle, WA 98119-2029
(206) 285-8282
fbi@isomedia.com
www.friedmanandbruya.com

July 6, 2020

Kristin Beck, Project Manager
Aspect Consulting, LLC
350 Madison Ave. N.
Bainbridge Island, WA 98110-1810

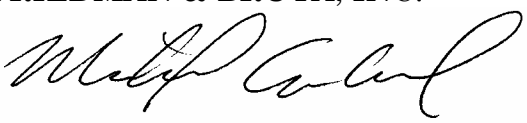
Dear Ms Beck:

Included are the results from the testing of material submitted on June 30, 2020 from the Whittaker-SKS Shell PO 160328, F&BI 006520 project. There are 6 pages included in this report. Any samples that may remain are currently scheduled for disposal in 30 days, or as directed by the Chain of Custody document. If you would like us to return your samples or arrange for long term storage at our offices, please contact us as soon as possible.

We appreciate this opportunity to be of service to you and hope you will call if you have any questions.

Sincerely,

FRIEDMAN & BRUYA, INC.



Michael Erdahl
Project Manager

Enclosures
c: Data Aspect
ASP0706R.DOC

CASE NARRATIVE

This case narrative encompasses samples received on June 30, 2020 by Friedman & Bruya, Inc. from the Aspect Consulting, LLC Whittaker-SKS Shell PO 160328, F&BI 006520 project. Samples were logged in under the laboratory ID's listed below.

Laboratory ID	Aspect Consulting, LLC
006520 -01	RW05-063020
006520 -02	MW111-063020
006520 -03	MW113-063020
006520 -04	MW109-063020
006520 -05	FD-063020
006520 -06	MW110-063020
006520 -07	MW104-063020
006520 -08	MW108-063020

All quality control requirements were acceptable.

Date of Report: 07/06/20
Date Received: 06/30/20
Project: Whittaker-SKS Shell PO 160328, F&BI 006520
Date Extracted: 07/01/20
Date Analyzed: 07/01/20

RESULTS FROM THE ANALYSIS OF WATER SAMPLES FOR BENZENE, TOLUENE, ETHYLBENZENE, XYLENES AND TPH AS GASOLINE USING METHODS 8021B AND NWTPH-Gx

Results Reported as ug/L (ppb)

Sample ID Laboratory ID	Benzene	Toluene	Ethyl Benzene	Total Xylenes	Gasoline Range	Surrogate (% Recovery) (Limit 52-124)
RW05-063020 006520-01	<1	<1	1.5	<3	160	83
MW111-063020 006520-02	<1	<1	<1	<3	<100	85
MW113-063020 006520-03	<1	<1	<1	<3	<100	86
MW109-063020 006520-04	<1	<1	<1	<3	<100	87
FD-063020 006520-05	<1	<1	<1	<3	<100	84
MW110-063020 006520-06	<1	<1	<1	<3	<100	87
MW104-063020 006520-07	<1	<1	<1	<3	<100	87
MW108-063020 006520-08	<1	<1	<1	<3	<100	87
Method Blank 00-1329 MB	<1	<1	<1	<3	<100	84

Date of Report: 07/06/20
Date Received: 06/30/20
Project: Whittaker-SKS Shell PO 160328, F&BI 006520
Date Extracted: 07/01/20
Date Analyzed: 07/01/20

RESULTS FROM THE ANALYSIS OF WATER SAMPLES FOR TOTAL PETROLEUM HYDROCARBONS AS DIESEL AND MOTOR OIL USING METHOD NWTPH-Dx

Results Reported as ug/L (ppb)

Sample ID Laboratory ID	Diesel Range (C_{10}-C_{25})	Motor Oil Range (C_{25}-C_{36})	Surrogate (% Recovery) (Limit 41-152)
RW05-063020 006520-01	230 x	<250	99
MW111-063020 006520-02	<50	<250	101
MW113-063020 006520-03	58 x	<250	104
MW109-063020 006520-04	<50	<250	107
FD-063020 006520-05	<50	<250	102
MW110-063020 006520-06	<50	<250	84
MW104-063020 006520-07	210 x	<250	106
MW108-063020 006520-08	120 x	<250	106
Method Blank 00-1536 MB	<50	<250	98

Date of Report: 07/06/20
Date Received: 06/30/20
Project: Whittaker-SKS Shell PO 160328, F&BI 006520

QUALITY ASSURANCE RESULTS FOR THE ANALYSIS OF WATER SAMPLES FOR BENZENE, TOLUENE, ETHYLBENZENE, XYLENES, AND TPH AS GASOLINE USING EPA METHOD 8021B AND NWTPH-Gx

Laboratory Code: 006503-01 (Duplicate)

Analyte	Reporting Units	Sample Result	Duplicate Result	RPD (Limit 20)
Benzene	ug/L (ppb)	<1	<1	nm
Toluene	ug/L (ppb)	<1	<1	nm
Ethylbenzene	ug/L (ppb)	<1	<1	nm
Xylenes	ug/L (ppb)	<3	<3	nm
Gasoline	ug/L (ppb)	<100	<100	nm

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Acceptance Criteria
Benzene	ug/L (ppb)	50	112	65-118
Toluene	ug/L (ppb)	50	114	72-122
Ethylbenzene	ug/L (ppb)	50	115	73-126
Xylenes	ug/L (ppb)	150	112	74-118
Gasoline	ug/L (ppb)	1,000	109	69-134

Date of Report: 07/06/20
Date Received: 06/30/20
Project: Whittaker-SKS Shell PO 160328, F&BI 006520

QUALITY ASSURANCE RESULTS FOR THE ANALYSIS OF WATER SAMPLES FOR TOTAL PETROLEUM HYDROCARBONS AS DIESEL EXTENDED USING METHOD NWTPH-Dx

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Percent Recovery LCSD	Acceptance Criteria	RPD (Limit 20)
Diesel Extended	ug/L (ppb)	2,500	92	104	63-142	12

Data Qualifiers & Definitions

a - The analyte was detected at a level less than five times the reporting limit. The RPD results may not provide reliable information on the variability of the analysis.

b - The analyte was spiked at a level that was less than five times that present in the sample. Matrix spike recoveries may not be meaningful.

ca - The calibration results for the analyte were outside of acceptance criteria. The value reported is an estimate.

c - The presence of the analyte may be due to carryover from previous sample injections.

cf - The sample was centrifuged prior to analysis.

d - The sample was diluted. Detection limits were raised and surrogate recoveries may not be meaningful.

dv - Insufficient sample volume was available to achieve normal reporting limits.

f - The sample was laboratory filtered prior to analysis.

fb - The analyte was detected in the method blank.

fc - The analyte is a common laboratory and field contaminant.

hr - The sample and duplicate were reextracted and reanalyzed. RPD results were still outside of control limits. Variability is attributed to sample inhomogeneity.

hs - Headspace was present in the container used for analysis.

ht – The analysis was performed outside the method or client-specified holding time requirement.

ip - Recovery fell outside of control limits due to sample matrix effects.

j - The analyte concentration is reported below the lowest calibration standard. The value reported is an estimate.

J - The internal standard associated with the analyte is out of control limits. The reported concentration is an estimate.

jl - The laboratory control sample(s) percent recovery and/or RPD were out of control limits. The reported concentration should be considered an estimate.

js - The surrogate associated with the analyte is out of control limits. The reported concentration should be considered an estimate.

lc - The presence of the analyte is likely due to laboratory contamination.

L - The reported concentration was generated from a library search.

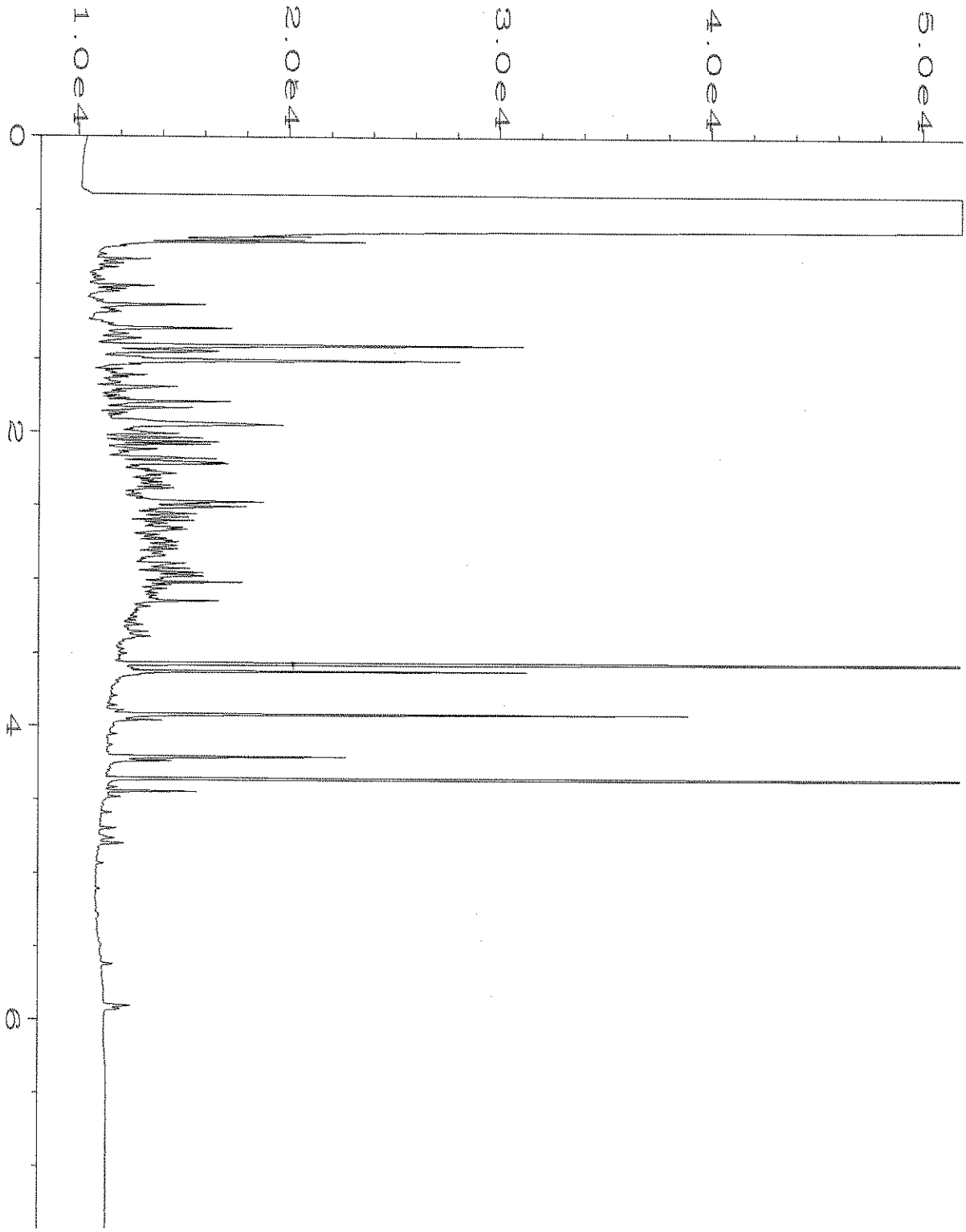
nm - The analyte was not detected in one or more of the duplicate analyses. Therefore, calculation of the RPD is not applicable.

pc - The sample was received with incorrect preservation or in a container not approved by the method. The value reported should be considered an estimate.

ve - The analyte response exceeded the valid instrument calibration range. The value reported is an estimate.

vo - The value reported fell outside the control limits established for this analyte.

x - The sample chromatographic pattern does not resemble the fuel standard used for quantitation.



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Acquired on : 01 Jul 20 02:54 PM
Report Created on: 02 Jul 20 02:40 PM

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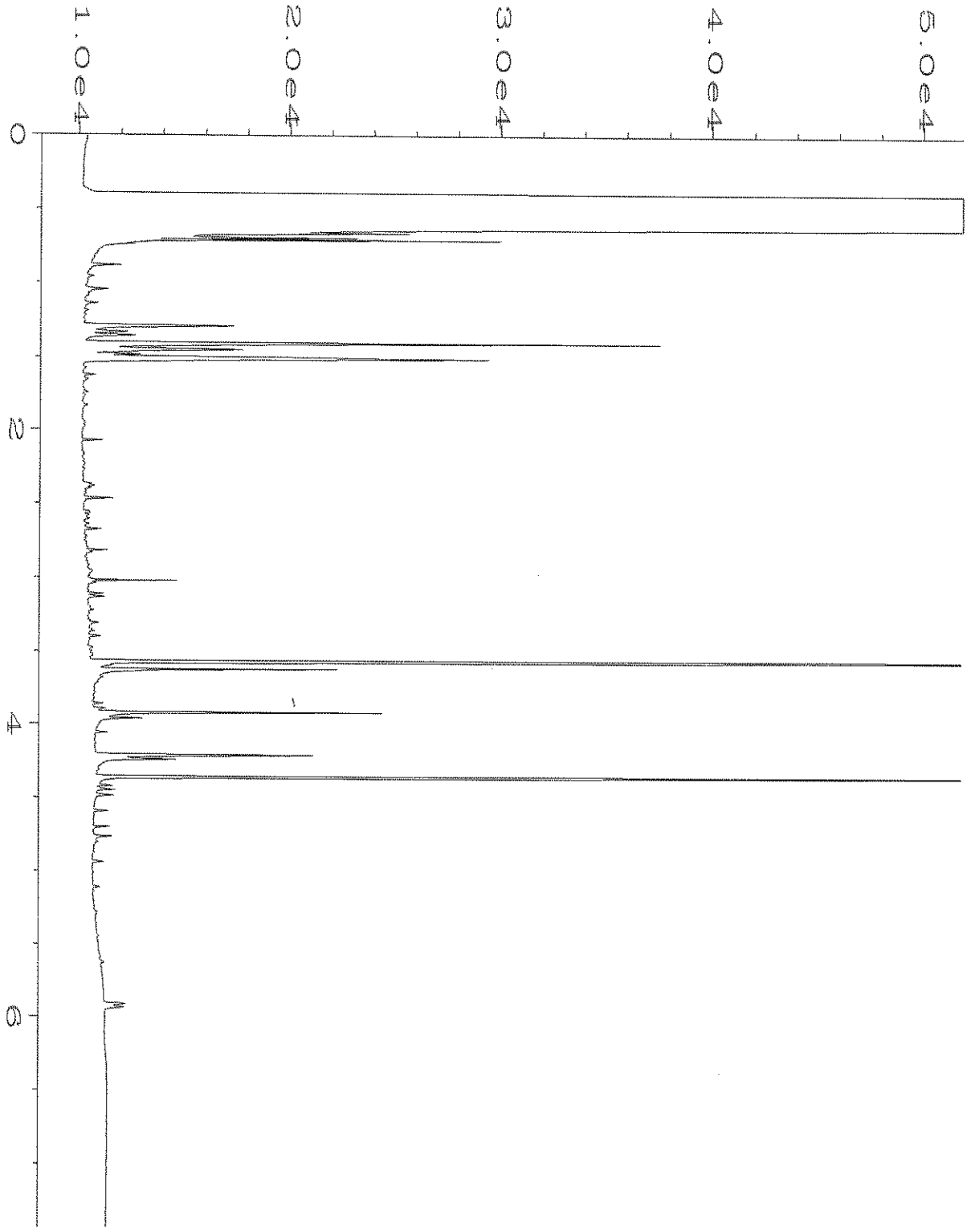
Analysis Method : DX.MTH



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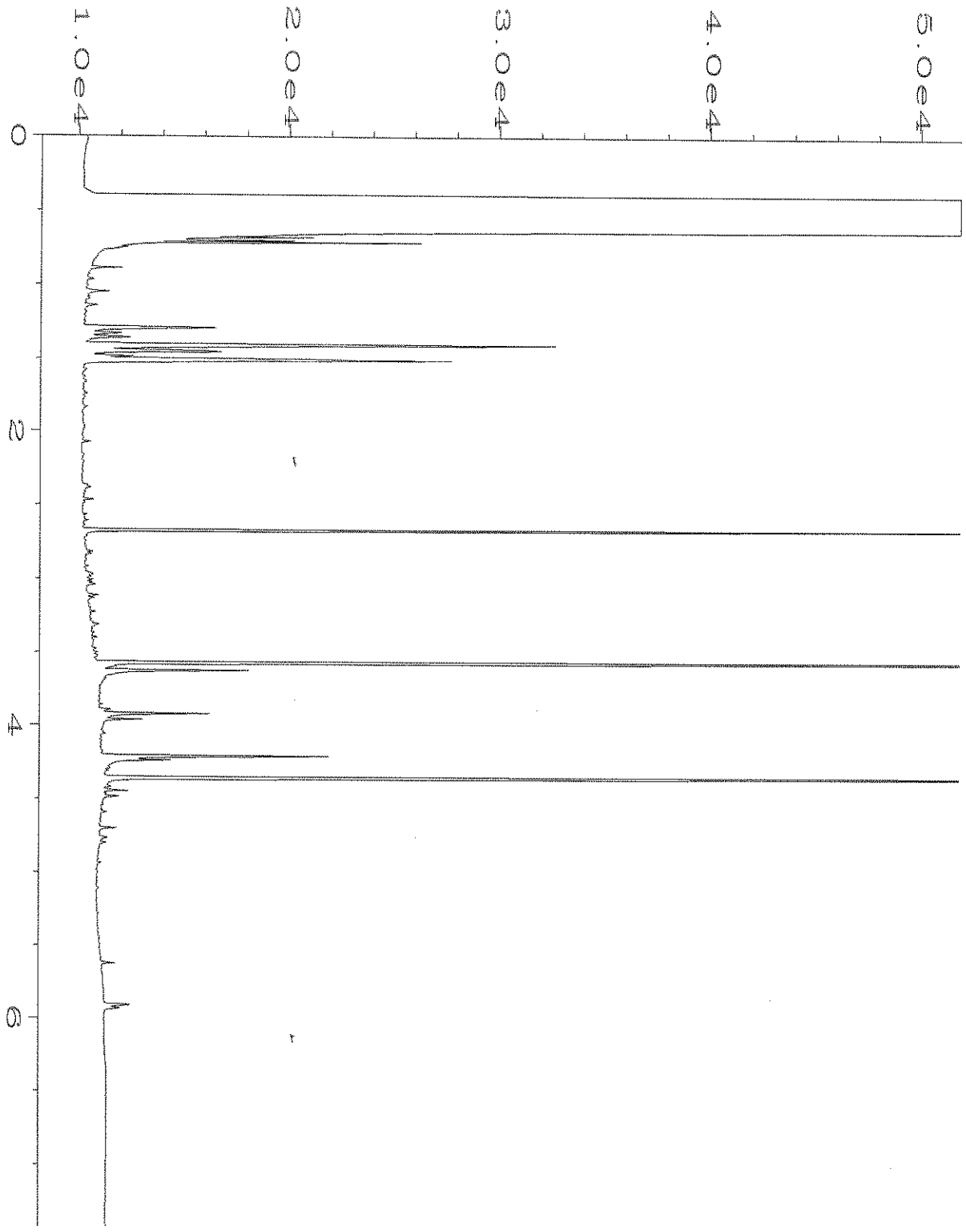

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Instrument : GC1
Sample Name : 006520-03
Run Time Bar Code:
Acquired on : 01 Jul 20 03:18 PM
Report Created on: 02 Jul 20 02:38 PM

Page Number : 1
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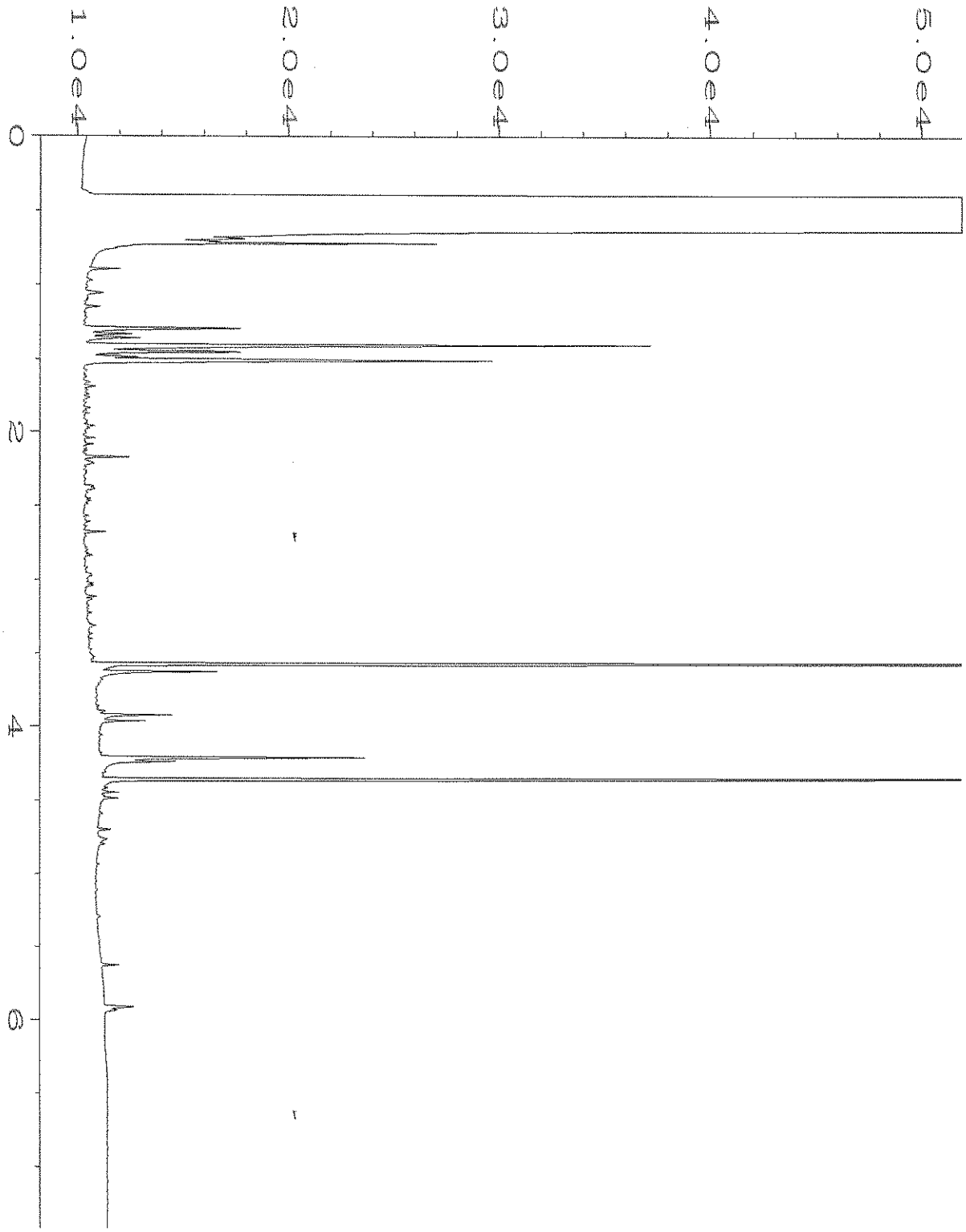
Injection Number : 1
Sequence Line : 7
Instrument Method: DX.MTH
Analysis Method : DX.MTH



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Operator : TL
Instrument : GC1
Sample Name : 006520-04
Run Time Bar Code:
Acquired on : 01 Jul 20 03:30 PM
Report Created on: 02 Jul 20 02:38 PM

Page Number : 1
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Sequence Line : 7
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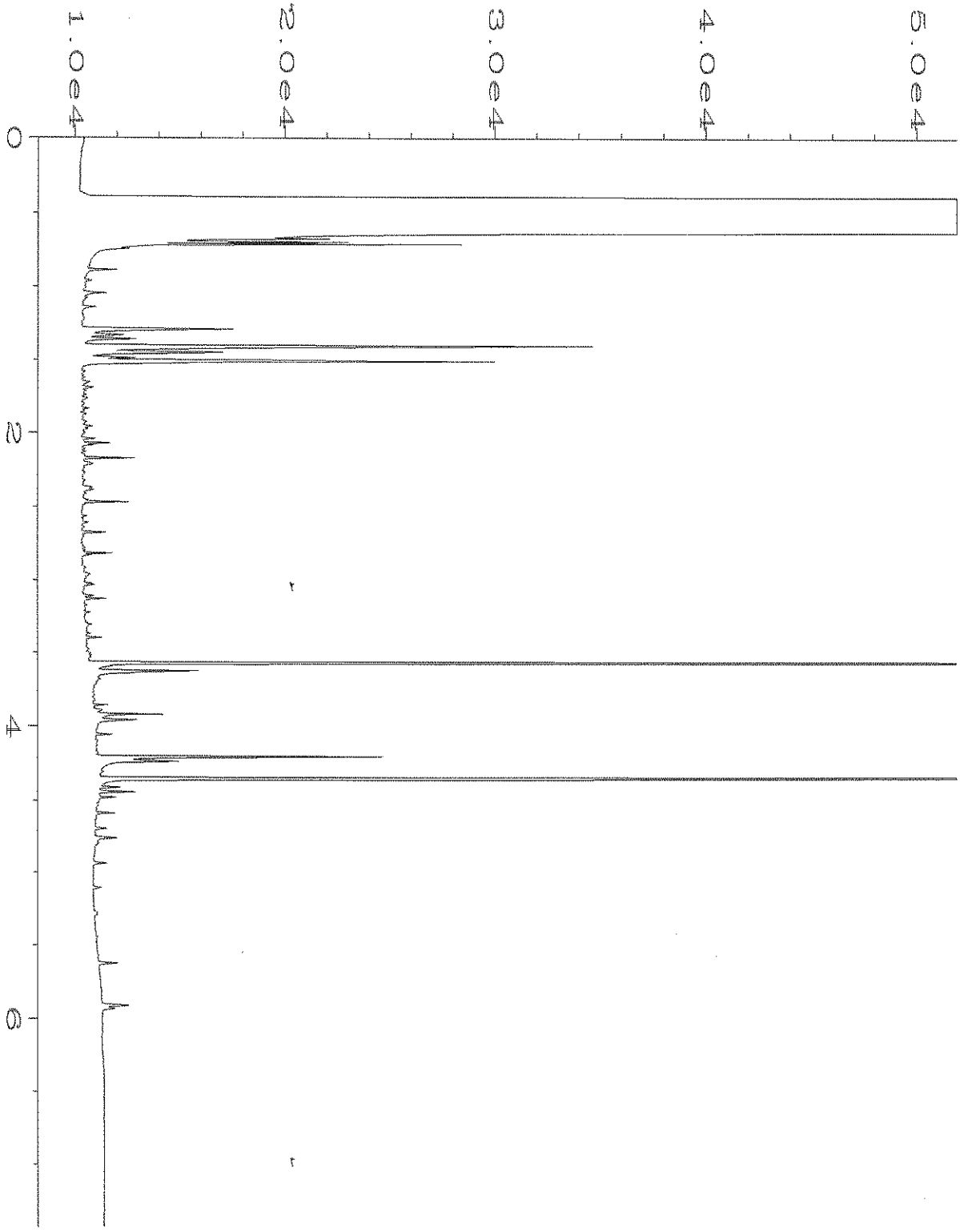
Analysis Method : DX.MTH



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Sample Name : 006520-05
Run Time Bar Code:
Acquired on : 01 Jul 20 03:41 PM
Report Created on: 02 Jul 20 02:39 PM

Page Number : 1
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Injection Number : 1
Sequence Line : 7
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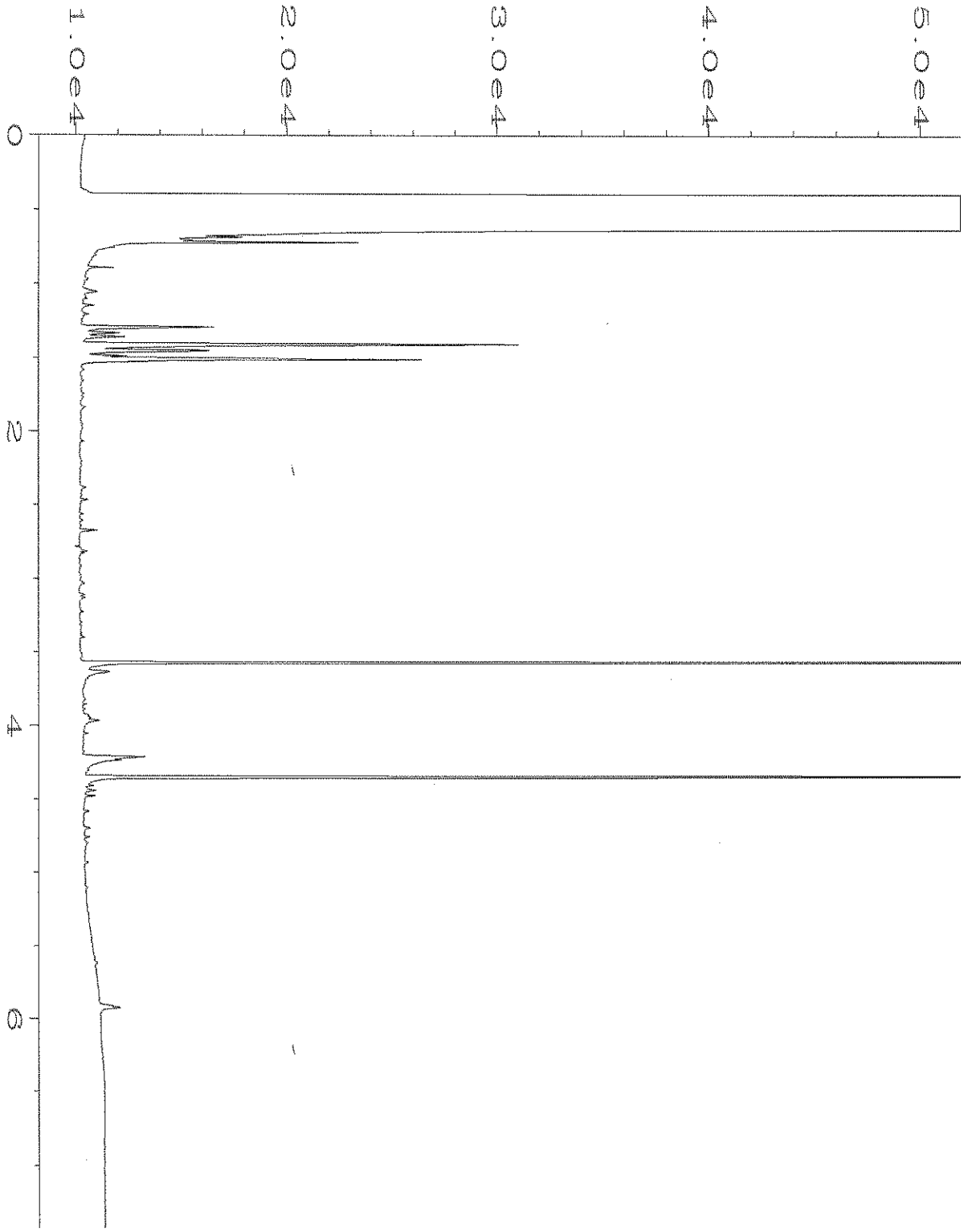
Analysis Method : DX.MTH



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Operator : TL
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Sample Name : 006520-06
Run Time Bar Code:
Acquired on : 01 Jul 20 03:53 PM
Report Created on: 02 Jul 20 02:39 PM

Page Number : 1
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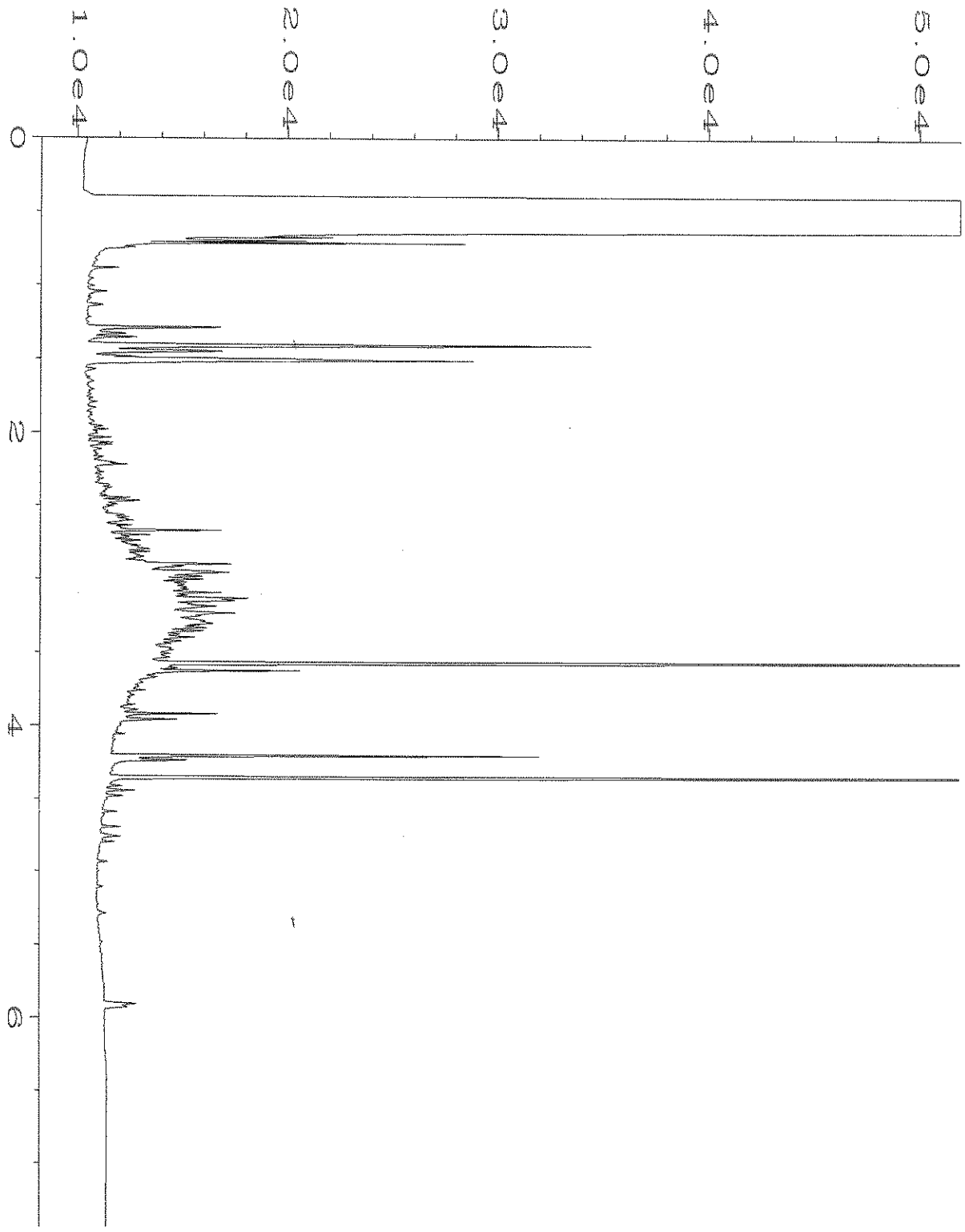
Analysis Method : DX.MTH



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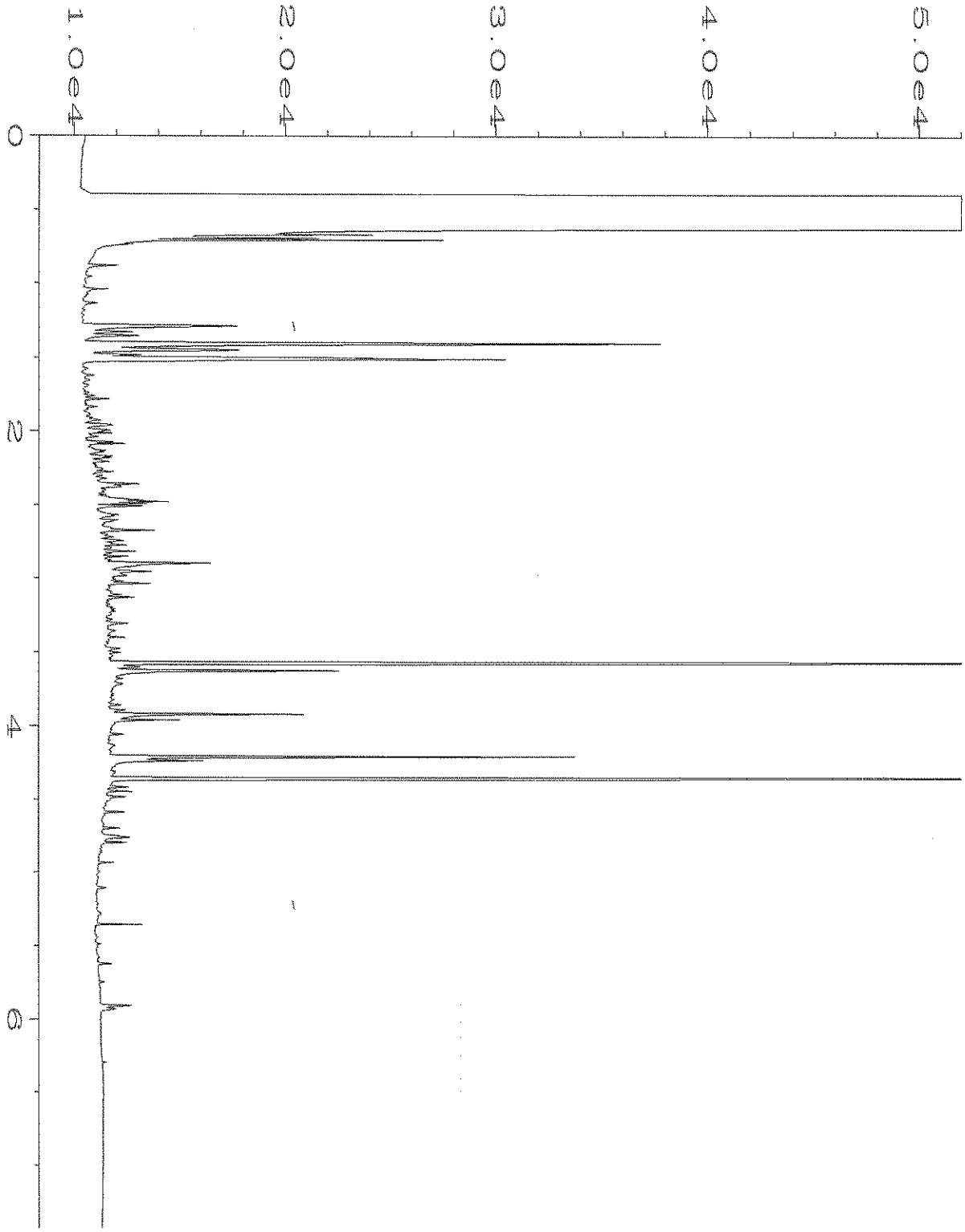

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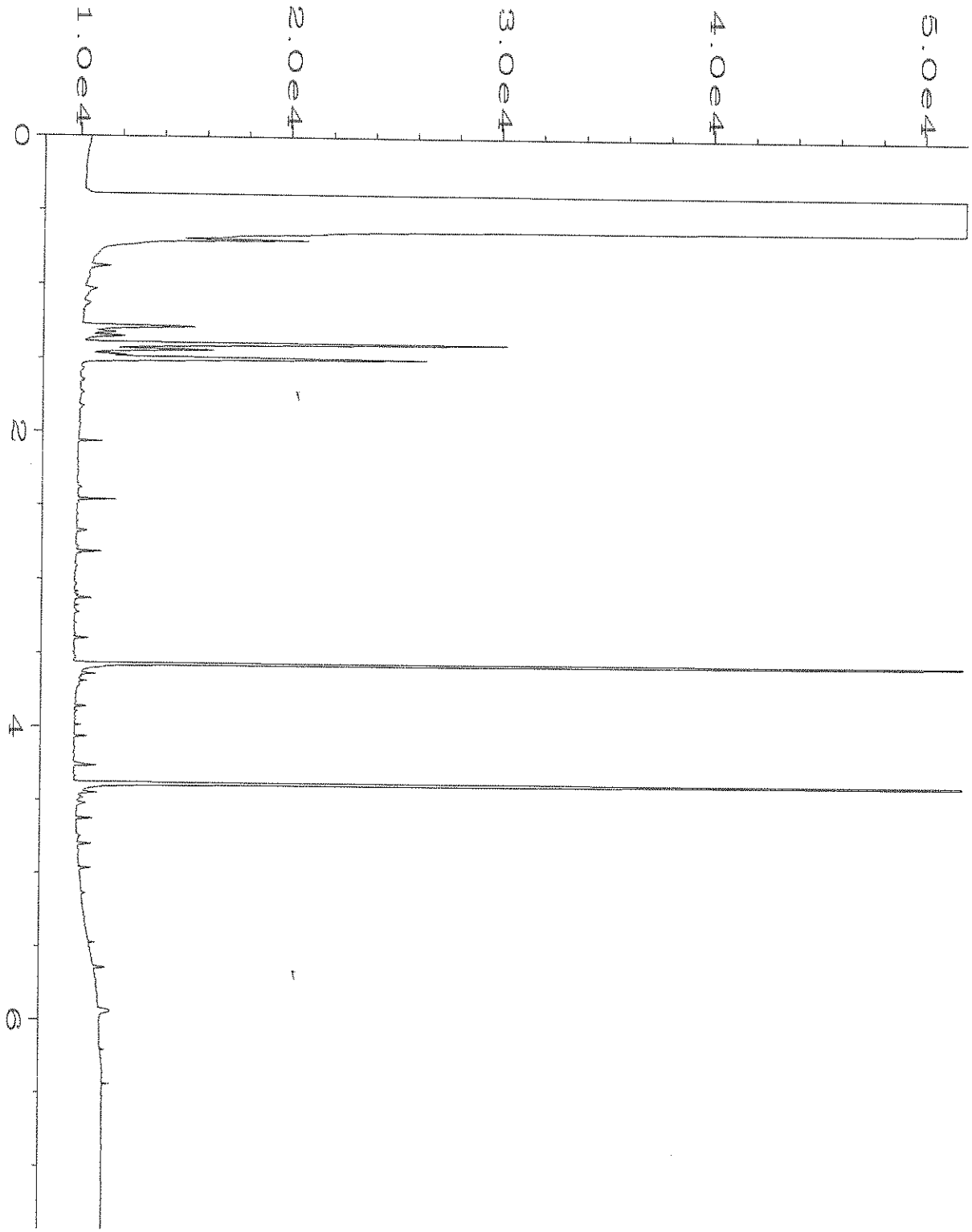

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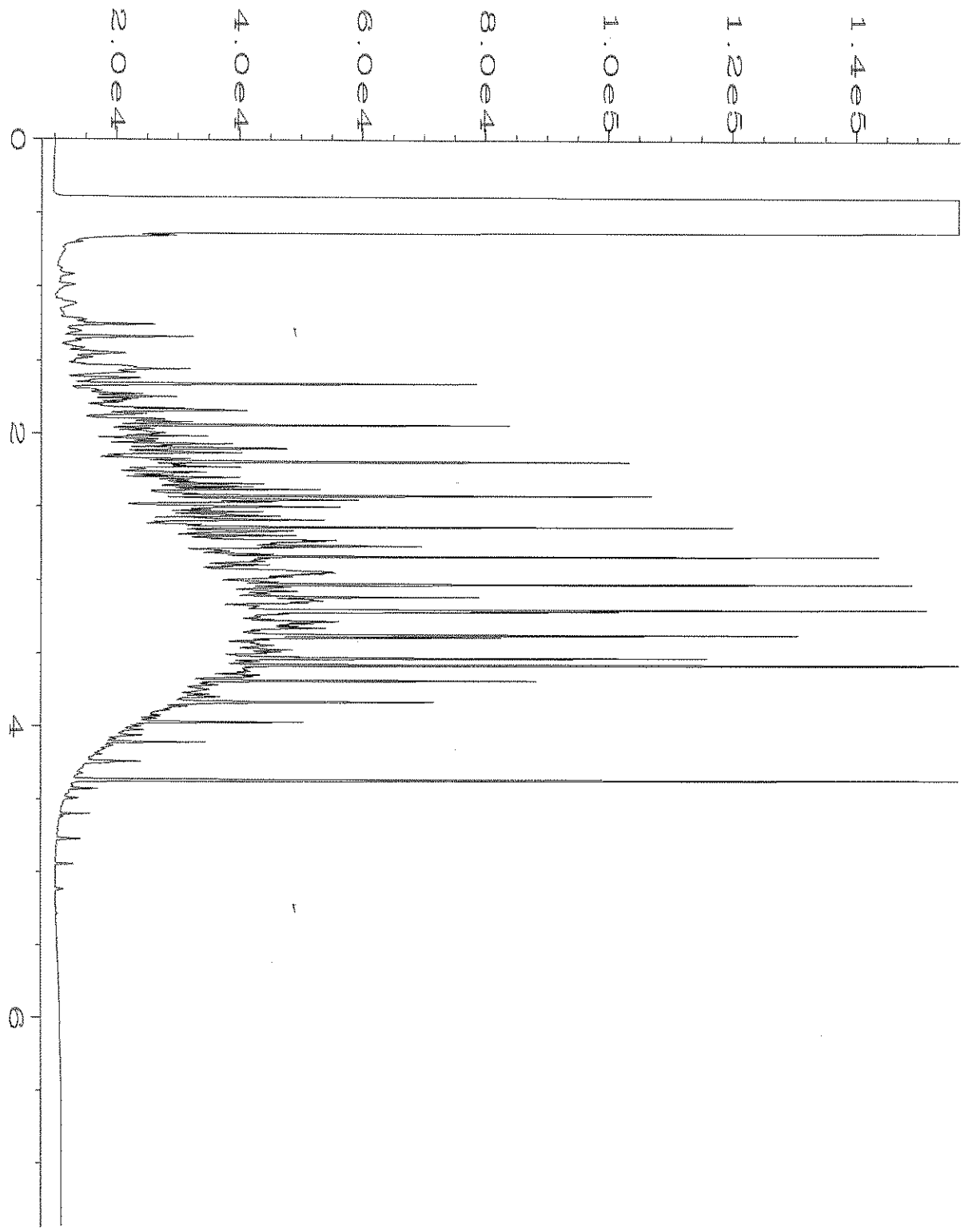
Operator : TL
Instrument : GC1
Sample Name : 00-1536 mb
Run Time Bar Code:
Acquired on : 01 Jul 20 02:21 PM
Report Created on: 02 Jul 20 02:38 PM

Page Number : 1
Vial Number : 16
Injection Number : 1
Sequence Line : 7
Instrument Method: DX.MTH
Analysis Method : DX.MTH



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Operator : TL
Instrument : GC1
Sample Name : 500 Dx 60-170C
Run Time Bar Code:
Acquired on : 01 Jul 20 05:38 AM
Report Created on: 02 Jul 20 02:38 PM

Page Number : 1
Vial Number : 3
Injection Number : 1
Sequence Line : 2
Instrument Method: DX.MTH
Analysis Method : DX.MTH

006520

SAMPLE CHAIN OF CUSTODY

ME 06/30/20

Page # 1 of 1 DOY

Report To Kristin Beck

Company Aspect Consulting

Address

City, State, ZIP

Phone 2069385838 Email kbeck@aspectconsulting.com

SAMPLERS (*signature*) BCH

PROJECT NAME Whittaker-SLCS Shell

PO # 160328

REMARKS

Project specific RLs? - Yes / No

INVOICE TO

TURNAROUND TIME
- [x] Standard turnaround
- [ ] RUSH
- Rush charges authorized by:

SAMPLE DISPOSAL
- [ ] Archive samples
- [ ] Other
- Default: Dispose after 30 days

Sample ID	Lab ID	Date Sampled	Time Sampled	Sample Type	# of Jars	ANALYSES REQUESTED: NWTPH-Dx	NWTPH-Gx	BTEX EPA 8021	NWTPH-HCID	VOCs EPA 8260	PAHs EPA 8270	PCBs EPA 8082					Notes
RW05-063020	01 A-D	6/30/20	0705	GW	4	X	X	X									
MW111-063020	02		0845														
MW113-063020	03		1105														
MW109-063020	04		1200														
FD-063020	05		1200														
MW110-063020	06		1255														
MW104-063020	07		1335														
MW108-063020	08		1400														
																	Samples ~~received~~ at 3 °C

SIGNATURE	PRINT NAME	COMPANY	DATE	TIME
Relinquished by: B Cell	Baker Call	Aspect	6/30/20	1530
Received by: Hong	HONG NGUYEN	FPBI	✓	✓
Relinquished by:				
Received by:				

Friedman & Bruya, Inc.
3012 16th Avenue West
Seattle, WA 98119-2029
Ph. (206) 285-8282

APPENDIX B

Data Validation Report

DATA VALIDATION REPORT

Whittaker Groundwater Sampling
June 2020
SDGs 006496, 006520

Prepared by:

Aspect Consulting, LLC
710 Second Ave, Suite 550
Seattle, WA 98104

Project No. 160328 • July 2020

Contents

1 Introduction

This report summarizes the findings of the U.S. Environmental Protection Agency (EPA) Stage 2A data validation performed on analytical data for groundwater samples collected in June 2020 for the Whittaker Environmental Review Quarterly Groundwater Monitoring. This data quality review is divided into sections by sample delivery group (SDG). A complete list of samples and analyses for each SDG is provided in the Sample Index at the beginning of each section.

Samples were sent to Friedman & Bruya in Seattle, Washington for analysis of various parameters. The analytical methods are summarized in Table 1 below:

Table 1. Analytical Methods

Analysis	Method	Lab	Validation Level
BTEX	SW8021B	Friedman & Bruya	2A
Gasoline	NWTPH-Gx	Friedman & Bruya	2A
Diesel and Motor Oil	NWTPH-Dx	Friedman & Bruya	2A

Data assigned a J/UJ qualifier (estimated) may be used for site evaluation purposes, but the reasons for qualification should be considered when interpreting sample concentrations. Values without qualification meet all data measurement quality objectives and are suitable for use.

Data qualifier definitions and a summary table of the qualified data are included in the Qualified Data Summary at the end of this report. Data qualifiers have been incorporated into the project chemistry database to reflect the validation in this report.

2 Data Validation Findings for SDG 006496

Samples in this SDG, and the chemical analyses performed on them, are tabulated below. The sections below describe the results of the data quality review for this SDG by analyte group (analysis).

Table 2. Sample Index

Sample Name	Sample Date	SW8021B	NWTPH-Gx	NWTPH-Dx
MW105-062920	6/29/20	X	X	X
MW112-062920	6/29/20	X	X	X
RW03-062920	6/29/20	X	X	X
RW04-062920	6/29/20	X	X	X

2.1 Sample Receipt and Preservation

All samples were received in good condition and in the correct containers and no qualification was necessary.

2.2 BTEX and Gasoline (SW 8021B and NWTPH-Gx)

2.2.1 Holding Times

Samples were analyzed within the requisite holding time. No qualification or action was needed.

2.2.2 Method Blanks

Target analytes were not detected at or above the reporting levels in the method blank. No qualification or action was needed.

2.2.3 Laboratory Control Samples

All LCS %R were within the laboratory specified control limits. No qualification or action was needed.

2.2.4 Surrogates

All surrogate %R values were within laboratory specified control limits. No qualification or action was needed.

2.2.5 Overall Assessment

Accuracy was acceptable based on the LCS %R. The data are of known quality and are acceptable for use as qualified.

2.3 Diesel and Motor Oil (NWTPH-Dx)

2.3.1 Holding Times

Samples were analyzed within the requisite holding time. No qualification or action was needed.

2.3.2 Method Blanks

Target analytes were not detected at or above the reporting levels in the method blank. No qualification or action was needed.

2.3.3 Laboratory Control Samples and Duplicates

All LCS/LCSD %R and RPD were within the laboratory specified control limits. No qualification or action was needed.

2.3.4 Surrogates

All surrogate %R values were within laboratory specified control limits. No qualification or action was needed.

2.3.5 Laboratory Flags

The laboratory flagged all diesel detections with an “x” to indicate that the sample chromatographic patterns did not resemble the fuel standard used for quantitation. The results were qualified accordingly (X).

2.3.6 Overall Assessment

Accuracy was acceptable based on the LCS/LCSD %R. Precision was acceptable based on the LCSD RPD values. The data are of known quality and are acceptable for use as qualified.

3 Data Validation Findings for SDG 006520

Samples in this SDG, and the chemical analyses performed on them, are tabulated below. The sections below describe the results of the data quality review for this SDG by analyte group (analysis).

Table 3. Sample Index

Sample Name	Sample Date	SW8021B	NWTPH-Gx	NWTPH-Dx
RW05-063020	6/30/20	X	X	X
MW111-063020	6/30/20	X	X	X
MW113-063020	6/30/20	X	X	X
MW109-063020	6/30/20	X	X	X
FD-063020	6/30/20	X	X	X
MW110-063020	6/30/20	X	X	X
MW104-063020	6/30/20	X	X	X
MW108-063020	6/30/20	X	X	X

3.1 Sample Receipt and Preservation

All samples were received in good condition and in the correct containers and no qualification was necessary.

Note that sample FD-063020 is a field duplicate of MW109-063020.

3.2 BTEX and Gasoline (SW 8021B and NWTPH-Gx)

3.2.1 Holding Times

Samples were analyzed within the requisite holding time. No qualification or action was needed.

3.2.2 Method Blanks

Target analytes were not detected at or above the reporting levels in the method blank. No qualification or action was needed.

3.2.3 Laboratory Control Samples

All LCS %R were within the laboratory specified control limits. No qualification or action was needed.

3.2.4 Surrogates

All surrogate %R values were within laboratory specified control limits. No qualification or action was needed.

3.2.5 Field Duplicate

All FD RPD were within the 35% control limit. No qualification or action was needed.

3.2.6 Overall Assessment

Accuracy was acceptable based on the LCS %R. Precision was acceptable based on the FD RPD values. The data are of known quality and are acceptable for use as qualified.

3.3 Diesel and Motor Oil (NWTPH-Dx)

3.3.1 Holding Times

Samples were analyzed within the requisite holding time. No qualification or action was needed.

3.3.2 Method Blanks

Target analytes were not detected at or above the reporting levels in the method blank. No qualification or action was needed.

3.3.3 Laboratory Control Samples and Duplicates

All LCS/LCSD %R and RPD were within the laboratory specified control limits. No qualification or action was needed.

3.3.4 Surrogates

All surrogate %R values were within laboratory specified control limits. No qualification or action was needed.

3.3.5 Field Duplicate

All FD RPD were within the 35% control limit. No qualification or action was needed.

3.3.6 Laboratory Flags

The laboratory flagged all diesel detections with an "X" to indicate that the sample chromatographic patterns did not resemble the fuel standard used for quantitation. The results were qualified accordingly (X).

3.3.7 Overall Assessment

Accuracy was acceptable based on the LCS/LCSD %R. Precision was acceptable based on the LCSD and FD RPD values. The data are of known quality and are acceptable for use as qualified.

4 Qualified Data Summary

Qualified sample results are listed below. Results just flagged nondetect (U) by lab with no further qualification necessary are not listed.

Table 4. Qualified Data Summary

Sample ID	Method	Analyte	Qualifier	Reason
RW03-062920	NWTPH-Dx	Diesel Range Organics	X	Chrom pattern did not match fuel standard
RW04-062920	NWTPH-Dx	Diesel Range Organics	X	Chrom pattern did not match fuel standard
MW104-063020	NWTPH-Dx	Diesel Range Organics	X	Chrom pattern did not match fuel standard
MW108-063020	NWTPH-Dx	Diesel Range Organics	X	Chrom pattern did not match fuel standard
MW113-063020	NWTPH-Dx	Diesel Range Organics	X	Chrom pattern did not match fuel standard
RW05-063020	NWTPH-Dx	Diesel Range Organics	X	Chrom pattern did not match fuel standard

Table 5. Data Qualifier Definitions

Data Qualifier	Definition
J	The analyte was detected above the reported quantitation limit, and the reported concentration was an estimated value.
R	The sample results are unusable due to the quality of the data generated because certain criteria were not met. The analyte may or may not be present in the sample.
U	The analyte was analyzed for but was considered not detected at the reporting limit or reported value.
UJ	The analyte was analyzed for, and the associated quantitation limit was an estimated value.
X	The analyte chromatographic pattern did not match that of the fuel standard used for quantitation.

5 Acronyms and Definitions

%D – Percent Difference
%R – Percent Recovery
ASTM – American Standard Test Method
COC – Chain of Custody
EB – Equipment Blank
EPA – Environmental Protection Agency
FB – Field Blank
FD – Field Duplicate
HCID – Hydrocarbon Identification
LCS – Laboratory Control Sample
LCSD – Laboratory Control Sample Duplicate
LD – Laboratory Duplicate
MB – Method Blank
MDL – Method Detection Limit
MS – Matrix Spike
MSD – Matrix Spike Duplicate
NWTPH – Northwest Total Petroleum Hydrocarbon
PCB – Polychlorinated Biphenyl
PFAS – Polyfluoroalkyl Substances
PPCP – Pharmaceuticals and Personal Care Products
QAPP – Quality Assurance Project Plan
QC – Quality Control
RL – Reporting Limit
RPD – Relative Percent Difference
SDG – Sample Delivery Group
SM – Standard Methods
SVOC – Semi-Volatile Organic Compound
SW – Solid Waste
TB – Trip Blank
TCLP – Toxicity Characteristic Leaching Procedure
TPH – Total Petroleum Hydrocarbon
VOC – Volatile Organic Compound

APPENDIX C

Report Limitations and Guidelines for Use

REPORT LIMITATIONS AND USE GUIDELINES

Reliance Conditions for Third Parties

This report was prepared for the exclusive use of the Client. No other party may rely on this report or the product of our services without the express written consent of Aspect Consulting, LLC (Aspect). This limitation is to provide our firm with reasonable protection against liability claims by third parties with whom there would otherwise be no contractual conditions or limitations and guidelines governing their use of the report. Within the limitations of scope, schedule and budget, our services have been executed in accordance with our Agreement with the Client and recognized standards of professionals in the same locality and involving similar conditions.

Services for Specific Purposes, Persons and Projects

Aspect has performed the services in general accordance with the scope and limitations of our Agreement. This report has been prepared for the exclusive use of the Client and their authorized third parties, approved in writing by Aspect. This report is not intended for use by others, and the information contained herein is not applicable to other properties.

This report is not, and should not, be construed as a warranty or guarantee regarding the presence or absence of hazardous substances or petroleum products that may affect the subject property. The report is not intended to make any representation concerning title or ownership to the subject property. If real property records were reviewed, they were reviewed for the sole purpose of determining the subject property's historical uses. All findings, conclusions, and recommendations stated in this report are based on the data and information provided to Aspect, current use of the subject property, and observations and conditions that existed on the date and time of the report.

Aspect structures its services to meet the specific needs of our clients. Because each environmental study is unique, each environmental report is unique, prepared solely for the specific client and subject property. This report should not be applied for any purpose or project except the purpose described in the Agreement.

This Report Is Project-Specific

Aspect considered a number of unique, project-specific factors when establishing the Scope of Work for this project and report. You should not rely on this report if it was:

- Not prepared for you
- Not prepared for the specific purpose identified in the Agreement
- Not prepared for the specific real property assessed
- Completed before important changes occurred concerning the subject property, project or governmental regulatory actions

If changes are made to the project or subject property after the date of this report, Aspect should be retained to assess the impact of the changes with respect to the conclusions contained in the report.

Geoscience Interpretations

The geoscience practices (geotechnical engineering, geology, and environmental science) require interpretation of spatial information that can make them less exact than other engineering and natural science disciplines. It is important to recognize this limitation in evaluating the content of the report. If you are unclear how these "Report Limitations and Use Guidelines" apply to your project or site, you should contact Aspect.

Discipline-Specific Reports Are Not Interchangeable

The equipment, techniques and personnel used to perform an environmental study differ significantly from those used to perform a geotechnical or geologic study and vice versa. For that reason, a geotechnical engineering or geologic report does not usually address any environmental findings, conclusions or recommendations; e.g., about the likelihood of encountering underground storage tanks or regulated contaminants. Similarly, environmental reports are not used to address geotechnical or geologic concerns regarding the subject property.

Environmental Regulations Are Not Static

Some hazardous substances or petroleum products may be present near the subject property in quantities or under conditions that may have led, or may lead, to contamination of the subject property, but are not included in current local, state or federal regulatory definitions of hazardous substances or petroleum products or do not otherwise present potential liability. Changes may occur in the standards for appropriate inquiry or regulatory definitions of hazardous substance and petroleum products; therefore, this report has a limited useful life.

Property Conditions Change Over Time

This report is based on conditions that existed at the time the study was performed. The findings and conclusions of this report may be affected by the passage of time (for example, Phase I ESA reports are applicable for 180 days), by events such as a change in property use or occupancy, or by natural events, such as floods, earthquakes, slope failure or groundwater fluctuations. If more than six months have passed since issuance of our report, or if any of the described events may have occurred following the issuance of the report, you should contact Aspect so that we may evaluate whether changed conditions affect the continued reliability or applicability of our conclusions and recommendations.

Phase I ESAs – Uncertainty Remains After Completion

Aspect has performed the services in general accordance with the scope and limitations of our Agreement and the current version of the “Standard Practice for Environmental Site Assessments: Phase I Environmental Site Assessment Process”, ASTM E1527, and U.S. Environmental Protection Agency (EPA)'s Federal Standard 40 CFR Part 312 "Innocent Landowners, Standards for Conducting All Appropriate Inquiries".

No ESA can wholly eliminate uncertainty regarding the potential for recognized environmental conditions in connection with subject property. Performance of an ESA study is intended to reduce, but not eliminate, uncertainty regarding the potential for environmental conditions affecting the subject property. There is always a potential that areas with contamination that were not identified during this ESA exist at the subject property or in the study area. Further evaluation of such potential would require additional research, subsurface exploration, sampling and/or testing.

Historical Information Provided by Others

Aspect has relied upon information provided by others in our description of historical conditions and in our review of regulatory databases and files. The available data does not provide definitive information with regard to all past uses, operations or incidents affecting the subject property or adjacent properties. Aspect makes no warranties or guarantees regarding the accuracy or completeness of information provided or compiled by others.

Exclusion of Mold, Fungus, Radon, Lead, and HBM

Aspect’s services do not include the investigation, detection, prevention or assessment of the presence of molds, fungi, spores, bacteria, and viruses, and/or any of their byproducts. Accordingly, this report does not include any interpretations, recommendations, findings, or conclusions regarding the detection, assessment, prevention or abatement of molds, fungi, spores, bacteria, and viruses, and/or any of their byproducts. Aspect’s services also do not include the investigation or assessment of hazardous building materials (HBM) such as asbestos, polychlorinated biphenyls (PCBs) in light ballasts, lead based paint, asbestos-containing building materials, urea-formaldehyde insulation in on-site structures or debris or any other HBMs. Aspect’s services do not include an evaluation of radon or lead in drinking water, unless specifically requested.