2017 Summary of investigations and remedial actions

Former Kelly-Moore Manufacturing Facility
5400–5580 Airport Way South
Project # 0146970060 Kelly-Moore Paint Company, Inc.

Prepared for:

Kelly-Moore Paint Company, Inc.
301 W Hurst Boulevard, Hurst, TX 76053

6/5/2018

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Prepared by:

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6/5/2018

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FORMER KELLY-MOORE MANUFACTURING FACILITY
2017 Summary of investigations and remedial actions
5400–5580 Airport Way South
Seattle, Washington

June 7, 2018
Project No. 0146970060

This report was prepared by the staff of Wood Environment & Infrastructure Solutions, Inc., under the supervision of the Hydrogeologist whose seal and signature appear hereon.

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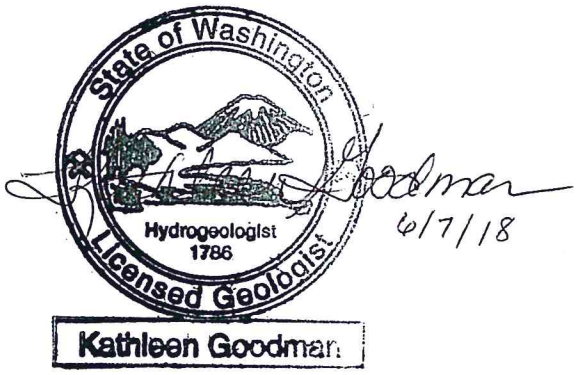

Kathleen Goodman, L.G., L.Hg.
Licensed Geologist/Hydrogeologist #1786
Expiration Date: September 6, 2018

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1.0 Introduction

Wood Environment & Infrastructure Solutions, Inc. (Wood), formerly Amec Foster Wheeler Environment & Infrastructure, Inc., prepared this report on behalf of Kelly-Moore Paint Company, Inc. (Kelly-Moore) for the former Kelly-Moore manufacturing facility located at 5400–5410 Airport Way South, in Seattle, Washington (the site) (Figure 1). This report provides a summary of groundwater samples collected since the Remedial Investigation, Feasibility Study, and Disproportionate Cost Analysis (RI/FS/DCA) was submitted to the Washington State Department of Ecology (Ecology) in March 2017 (Amec Foster Wheeler, 2017), as well as information regarding implementation of the remedial actions discussed in the RI/FS/DCA.

The RI/FS/DCA summarized the results of groundwater and soil sampling conducted since site activities began in 2011. Site activities conducted after March 2017 include dry and wet season groundwater sampling events, which were conducted in September 2017 and January 2018, respectively. Additionally, the soil vapor extraction (SVE) system was installed and started operating. While the air sparge system was also installed, it will not be operational until later in 2018. Details about the site activities conducted in 2017 are discussed below.

2.0 Groundwater sampling

Groundwater samples have been collected twice a year (during the wet and dry seasons) since June 2016. Tables 1 through 4 provide information on monitoring well construction, groundwater elevations, field parameters, and groundwater results.

2.1 Water level measurements and site hydrogeology

Monitoring well construction details are provided in Table 1. Depth-to-water measurements, top of casing (TOC) elevations, and groundwater elevations measured during the monitoring events are presented in Table 2. Groundwater depths were measured to the nearest 0.01 foot using a depth to water probe. Groundwater levels for each monitoring well were subtracted from the TOC elevations to determine groundwater elevations. TOC elevations were measured by Duane Hartman and Associates, of Seattle, Washington.

Groundwater elevation contours for water level measurements collected in September 2017 and January 2018 are presented on Figures 2 and 3. Water level measurements collected in September 2017 and January 2018 indicate that groundwater generally flows to the west-southwest. Groundwater elevations across the site vary seasonally, with higher groundwater elevations in the wet season and lower elevations in the dry season. The wet season/dry season range of elevations observed in 2017 was approximately 0.5 foot of elevation difference.

2.2 Groundwater sampling methodology

Groundwater samples were collected using low flow methodology (EPA, 1988) following the Additional Investigation Work Plan (Amec Foster Wheeler, 2016).

A peristaltic pump and new polyethylene tubing were used to collect groundwater from each well at a flow rate of approximately 100–200 milliliters per minute. Groundwater parameters were measured during purging using a YSI multi-parameter water quality meter and were recorded by hand on field data sheets (Appendix A). Parameters measured were turbidity, temperature, pH, dissolved oxygen, conductivity, and oxidation reduction potential (Table 3). Representative unfiltered groundwater samples were collected upon stabilization of the water quality parameters over the course of three consecutive measurements.

Groundwater sample containers were filled directly from the pump tubing and were immediately placed on ice. Samples were transported under chain-of-custody protocols to Onsite Environmental, Inc., in Redmond, Washington, for laboratory analyses. Each groundwater sample was analyzed for the following:

- Volatile organic compounds (VOCs) by U.S. Environmental Protection Agency (EPA) Method 8260C;
- Polycyclic aromatic hydrocarbons (PAHs) by EPA Method 8270D with selected ion monitoring for some compounds;
- Total metals (arsenic, barium, cadmium, chromium, lead, selenium and silver) by EPA Method 200.8 and total mercury by EPA Method 7470A;
- Total petroleum hydrocarbons (TPH) in the gasoline range (TPH-G) by Ecology method NWTPH Gx; and
- TPH in the diesel and motor oil ranges (TPH-D and TPH-O) by Ecology Method NWTPH-Dx.

Laboratory data packages and data validation memoranda are included in Appendix B.

3.0 Groundwater analytical results

Groundwater results for commonly detected compounds are presented in Table 4, along with the results for detected compounds in sampling events conducted since 2011.

3.1 Total petroleum hydrocarbons

The highest concentrations of TPH in the gasoline range have been observed in the groundwater from KMW-03, KMW-04, KMW-06, KMW-08, KMW-09, and KMW-10. Decreasing trends are observed in the groundwater samples collected from all of the monitoring wells except for from KMW-06, KMW-09, and KMW-10.

During the most recent sampling event conducted in January 2018, the concentrations of TPH in the gasoline range were below the Model Toxics Control Act (MTCA) Method A Cleanup Level of 800 micrograms per liter (µg/L) (where benzene is present) except for KMW-04 and KMW-06.

TPH-D and TPH-O have been detected in the groundwater from all of the monitoring wells at least once since sampling began in 2011, except for KMW-07. During the recent sampling event, the concentrations of TPH-D exceeded the MTCA Method A Cleanup Level of 500 µg/L in the groundwater collected from KMW-03R, KMW-04, KMW-06, KMW-09, and KMW-10.

3.2 Volatile organic compounds

Groundwater samples were analyzed for the full list of VOC compounds, and benzene, toluene, ethylbenzene and xylenes (BTEX) compounds were the most frequently detected VOCs, predominantly in the central area of the site where high concentrations of TPH-G have been detected. The BTEX detections are most significant in the groundwater from KMW-04 and do not appear to have decreased in concentration over time, unlike the TPH-G concentrations in the groundwater from KMW-04. We expect to see concentrations decrease in groundwater with the startup of the SVE system.

Other VOC compounds detected in the groundwater are 1,2,4-trimethylbenzene and 1,3,5-trimethylbenzene, which were detected in the groundwater collected from KMW-04 and KMW-10.

Chlorinated VOCs were not detected in groundwater samples collected from the monitoring wells during the 2017 and 2018 sampling events, which is consistent with historical results.

3.3 Polycyclic aromatic hydrocarbons

During the August 2017 and January 2018 sampling events, PAHs were detected in the groundwater collected from KMW-04, KMW-06, KMW-08, and KMW-09. During the January 2018 sampling event, the concentrations of total PAHs in groundwater ranged from below detection (KMW-02R, KMW-03R, KMW-04, KMW-07, and KMW-10) to 0.095 µg/L detected in the groundwater sample collected from KMW-06.

3.4 Metals

Groundwater samples were analyzed for total arsenic, barium, cadmium, chromium, lead, mercury, selenium, and silver. The concentrations of metals in the groundwater samples were generally below detection, except for arsenic. During the January 2018 sampling event, arsenic concentrations detected in the groundwater from monitoring wells KMW-04 and KMW-10 only slightly exceed the Ecology background level of 5.0 µg/L, at concentrations of 7.6 µg/L and 5.7 µg/L, respectively.

4.0 Soil vapor extraction/air sparge system installation

Soil vapor extraction (SVE) and air sparging were selected to address past releases of hydrocarbons associated with former paint manufacturing activities at this site. SVE uses a vacuum to extract soil vapors from the subsurface while air sparging volatilizes hydrocarbons in the saturated zone. Both methods introduce oxygen into the subsurface, which also promotes aerobic biodegradation of residual hydrocarbons.

During redevelopment construction of the new warehouse on the eastern part of the site in 2015, a series of seven horizontal SVE wells (SVE-01 through SVE-07) were installed. After building construction was completed, a second set of five horizontal SVE wells (SVE-09 through SVE-13) were installed in the parking lot on the western side of the site. A set of five air sparge wells were installed between the western SVE wells. Figure 4 shows the location of the SVE horizontal wells at the site, and Figure 5 shows the location of the air sparge wells. Appendix C contains the SVE well construction logs and the air sparge boring logs. The air sparge wells were permitted as class 5 Underground Injection Control (UIC) wells and a copy of the UIC permit is included in Appendix D.

The SVE wells installed under the building were routed to a common manifold (referred to as the eastern manifold) located in a walkway between the north warehouse and the south warehouse. The SVE wells installed on the west side of the building were routed to the western manifold, which is located in a fenced-off area near the treatment equipment. Figure 6 shows the layout of the SVE and air sparge system based on the current equipment configuration.

The SVE blower and air sparge compressor were installed adjacent to the western manifold along with a catalytic thermal oxidizer (CATOX) unit. The CATOX is used to treat the extracted soil vapor, as well as volatized hydrocarbon sparged from the shallow groundwater that are recovered by the western SVE wells. The treatment system was permitted with the Puget Sound Clean Air Agency. Their approval letter and a copy of the Notice of Completion are contained in Appendix E.

Figure 7 is a process and instrumentation diagram showing the SVE and air sparge systems and the treatment equipment. This equipment was installed over a period of several months from July through October 2017, with additional time needed to replace polyvinyl chloride pipes used to deliver air to the air sparge wells. Polyvinyl chloride piping is not suitable for use in aboveground piping. A cellular auto-dialer also was installed that will notify Wood personnel if the CATOX system shuts down due to high water in the knockout pot, or if the CATOX unit stops operating. The SVE system started operation on October 31, 2017. After two months of operation we installed a 250-gallon polyethylene tote to provide additional

storage of knockout water produced by the SVE wells. The high water shut-off switch formerly installed on the knockout pot was reinstalled in the tote.

After startup, a set of soil vapor samples were collected from the SVE wells, and as well as the influent and effluent to the CATOX system. Table 5 presents the analytical data for these initial SVE samples. In addition to the analytical data from the laboratory, a flame ionization detector (FID) was used to measure the concentration of hydrocarbons in the SVE wells and the influent and effluent from the CATOX unit. Table 6 lists the FID readings collected through March 2018. The calculated removal efficiencies based on the influent and effluent FID readings are presented in Table 7. Based on the FID readings, the SVE removal efficiencies remain in compliance with the PSCAA permit requirements.

As Table 6 shows, theThe SVE wells vary greatly in hydrocarbon content (Table 6). We are continuing to optimize the flow from the wells to maximize the concentration of hydrocarbons in the SVE influent. Once the SVE concentrations have decreased, the plan is to turn on the air sparge wells system, which will increase the hydrocarbon concentrations recovered by the SVE system. Eventually we may cycle the air sparge system to increase mixing in the subsurface.

5.0 Conclusions and recommendations

The following actions will be conducted before the end of 2018:

- Groundwater samples will be collected for the dry season sampling event in August 2018.
- Indoor air samples will be collected in order to assess baseline conditions prior to starting up the air sparge system. Soil vapor concentrations will be evaluated against results from baseline samples collected for the SVE system.
- Kelly Moore and Ecology would like to continue working together to take the necessary steps to eventually obtain "No Further Action" for the site. To that end, cleanup levels have been developed following the suggestions presented in our meeting on May 8, 2018. The cleanup levels are presented in Appendix F.

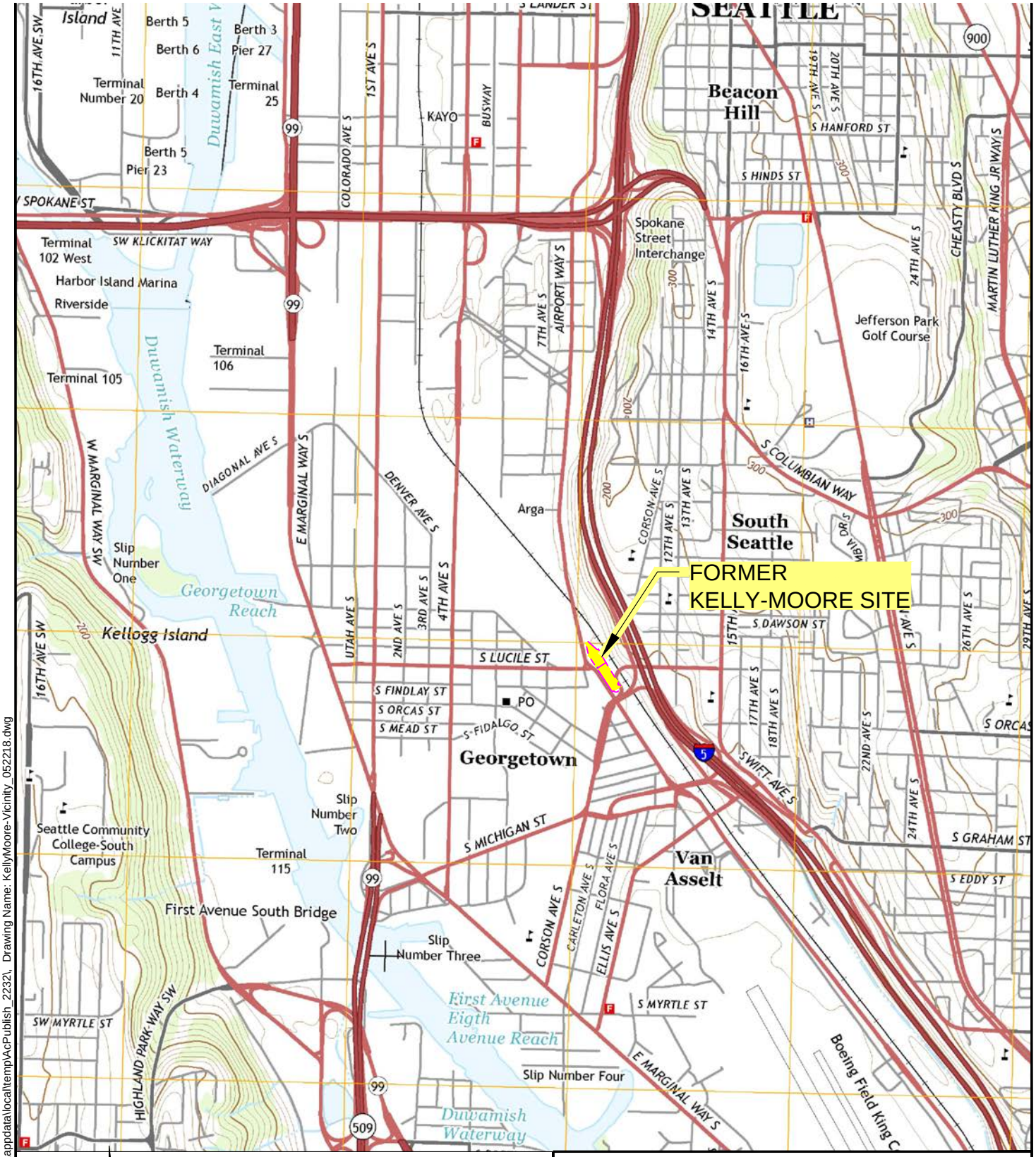
6.0 References

Amec Foster Wheeler Environment & Infrastructure, Inc. (Amec Foster Wheeler), 2017, Revised Remedial Investigation, Feasibility Study, and Disproportionate Cost Analysis, Former Kelly-Moore Manufacturing Facility, 5400–5580 Airport Way South, Seattle, Washington, March.

Amec Foster Wheeler, 2016, Additional Investigation Work Plan, Former Kelly-Moore Manufacturing Facility, 5400–5580 Airport Way South, Seattle, Washington, June.

U.S. Environmental Protection Agency (EPA), 1998, Groundwater Sampling Procedure Low Stress (Low Flow) Purging and Sampling, GW Sampling SOP, March 16.

Figures



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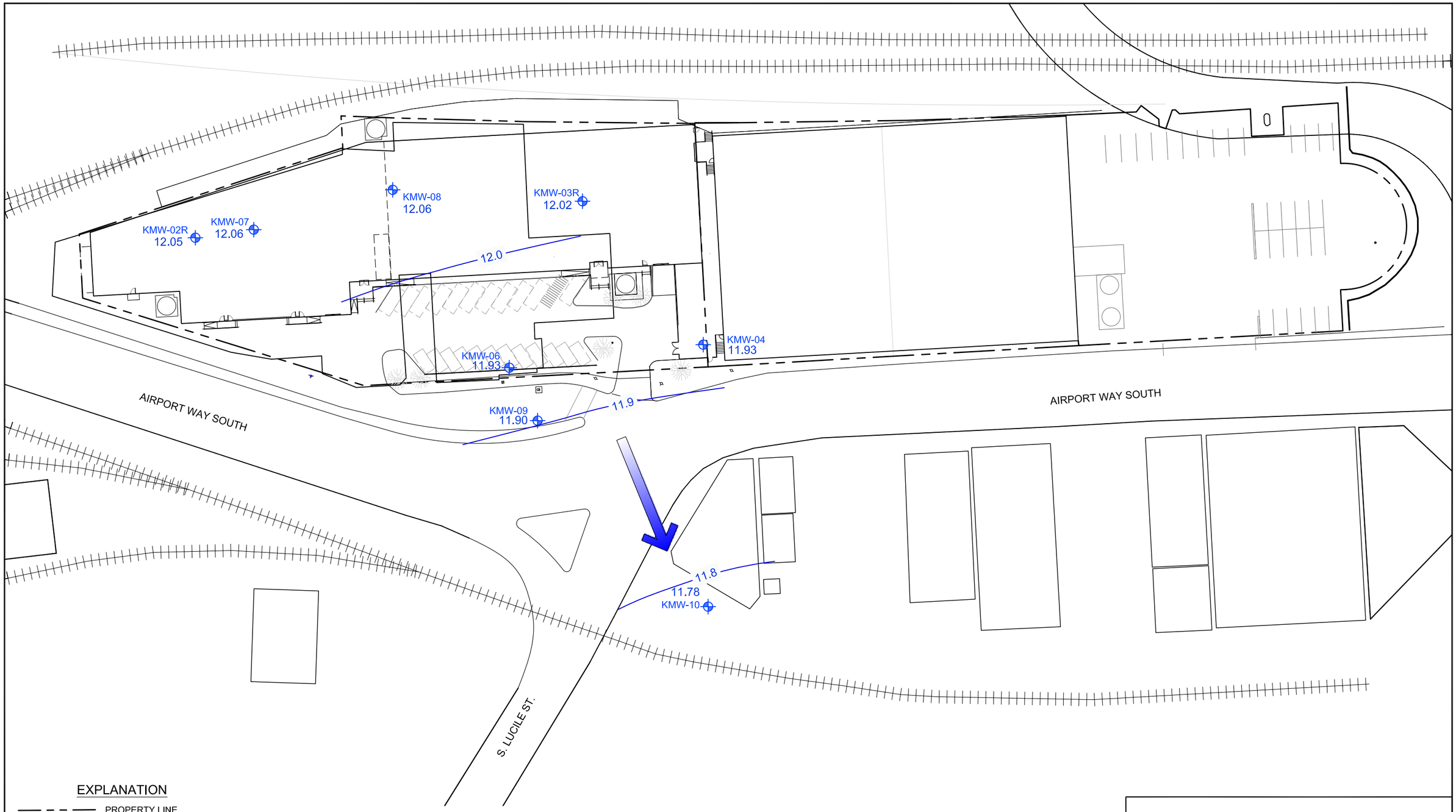
APPROXIMATE SCALE IN FEET

wood.

SITE LOCATION
Kelly-Moore Paint Company
Seattle, Washington

By: APS	Date: 05/22/18	Project No. 14697
Wood Environment & Infrastructure Solutions, Inc.		Figure 1



EXPLANATION

- PROPERTY LINE
- KMW-04 11.93 — MONITORING WELL LOCATION AND GROUNDWATER ELEVATION IN FEET BELOW MEAN SEA LEVEL (NAVD88-FT)
- 11.9 — GROUNDWATER ELEVATION CONTOUR
- GROUNDWATER FLOW DIRECTION
- RAILROAD TRACK

0 30 60

APPROXIMATE SCALE IN FEET

DRAWN BY: APS CHECKED BY: JB

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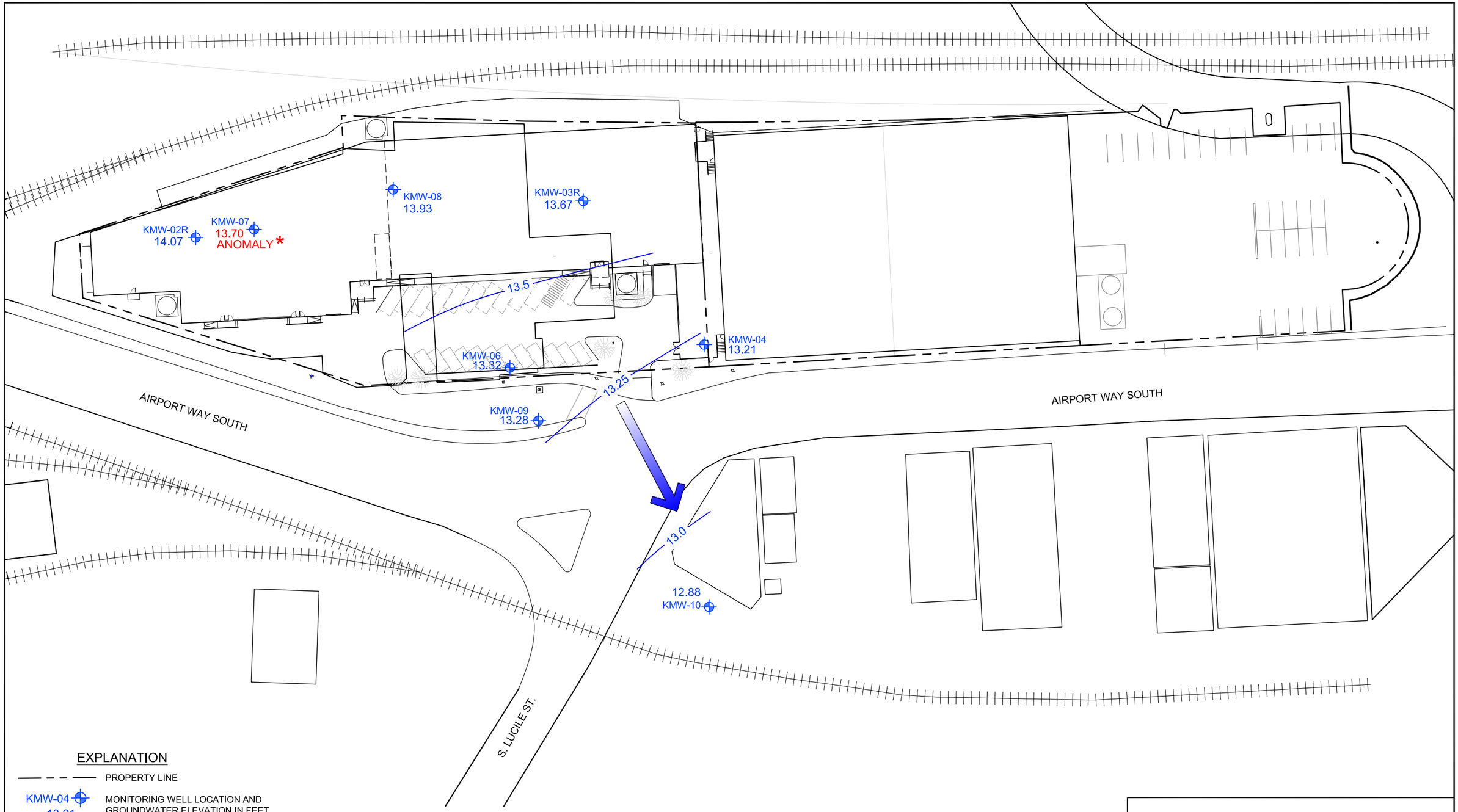
AUGUST 2017 DRY SEASON GROUNDWATER CONTOURS
Kelly-Moore Paint Company
Seattle, Washington

By: APS	Date: 05/21/18	Project No. 14697
Wood Environment & Infrastructure Solutions, Inc.		Figure **2**



EXPLANATION

- PROPERTY LINE
- KMW-04 13.21 — MONITORING WELL LOCATION AND GROUNDWATER ELEVATION IN FEET BELOW MEAN SEA LEVEL (NAVD88-FT)
- * — ANOMALOUS WATER LEVEL NOT USED FOR CONTOURING
- 13.5 — GROUNDWATER ELEVATION CONTOUR
- GROUNDWATER FLOW DIRECTION
- RAILROAD TRACK

0 30 60

APPROXIMATE SCALE IN FEET

DRAWN BY: APS CHECKED BY: JB

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JANUARY 2018 WET SEASON GROUNDWATER CONTOURS
Kelly-Moore Paint Company
Seattle, Washington

By: APS	Date: 05/21/18	Project No. 14697
Wood Environment & Infrastructure Solutions, Inc.		Figure 3

KMW-02R
KMW-07
KMW-08
KMW-03R
KMW-04
KMW-06
SVE-01
SVE-02
SVE-03
SVE-04
SVE-05
SVE-06
SVE-07
SVE-08
SVE-9
SVE-10
SVE-11
SVE-12
SVE-13
EASTERN MANIFOLD
WESTERN MANIFOLD
SEE DRAWING 6
AIRPORT WAY SOUTH
AIRPORT WAY SOUTH
OHE
SD
SS
W
GAS
CB

EXPLANATION

- PROPERTY LINE
- KMW-04 — MONITORING WELL LOCATION
- SVE-07 — EASTERN HORIZONTAL SOIL VAPOR EXTRACTION WELL LOCATION
- EASTERN SOIL VAPOR EXTRACTION WELL TRENCH LAYOUT
- SVE-12 — WESTERN HORIZONTAL SOIL VAPOR EXTRACTION WELL LOCATION
- WESTERN SOIL VAPOR EXTRACTION WELL TRENCH LAYOUT
- SD — STORMWATER LINE
- SS — SANITARY SEWER LINE
- GAS — GAS LINE
- OHE — OVERHEAD POWER LINE
- UNPAVED SURFACE

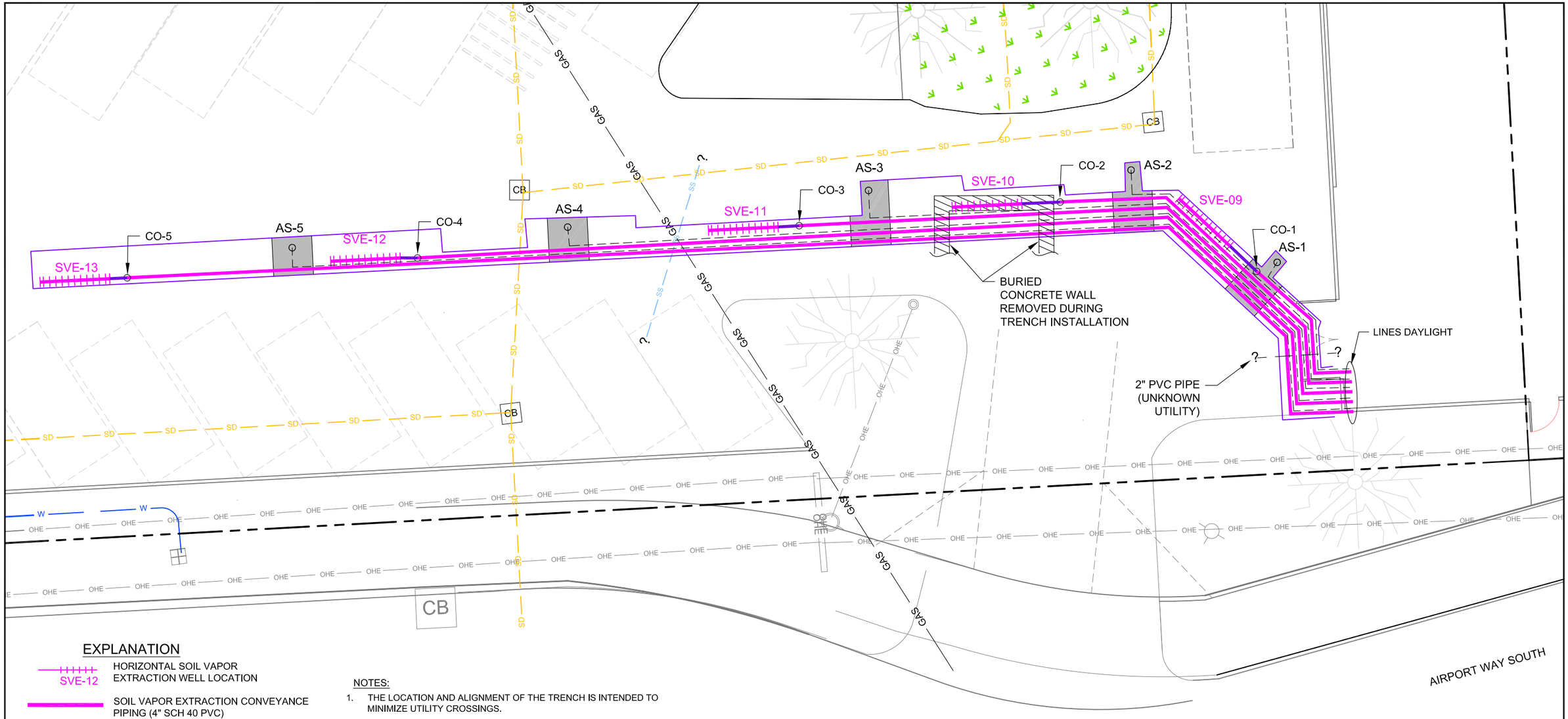
0 15 30
APPROXIMATE SCALE IN FEET

DRAWN BY: APS CHECKED BY: JB

S:\14697\016_2018-RIFS\KellyMoore-WesternSVEtrench_052218.dwg - FIG4-SITEPLAN - Jun, 04, 2018 12:18pm - adam.stenberg

SVE WELL LAYOUT
Kelly-Moore Paint Company
Seattle, Washington

By: APS	Date: 06/04/18	Project No. 14697
Wood Environment & Infrastructure Solutions, Inc.		Figure 4



EXPLANATION

- SVE-12 — HORIZONTAL SOIL VAPOR EXTRACTION WELL LOCATION
- SOIL VAPOR EXTRACTION CONVEYANCE PIPING (4" SCH 40 PVC)
- 4" PVC CLEANOUT
- AIR SPARGE LINE (1" SCH 80 PVC)
- AS-5 — AIR SPARGE WELL
- SD — STORMWATER LINE
- SS — SANITARY SEWER LINE
- TRENCH OUTLINE
- LOW PERMEABILITY FILL
- UNPAVED SURFACE

NOTES:

1. THE LOCATION AND ALIGNMENT OF THE TRENCH IS INTENDED TO MINIMIZE UTILITY CROSSINGS.
2. EXCAVATED SOIL WAS DISPOSED OFFSITE AS SOLID WASTE, EXCEPT THE PAVEMENT BASE COARSE.
3. PAVEMENT BASE COURSE WAS REUSED.
4. THE INTENT OF THE DESIGN IS TO CREATE HIGH PERMEABILITY ZONES FOR THE SVE PIPING, SEPARATED BY LOW PERMEABILITY BARRIERS.
5. ALL BACKFILL AROUND THE PIPING WAS 1.25" CLEAN GRAVEL.AND COVERED WITH A CONTINUOUS LAYER OF 20 MIL PVC GEOMEMBRANE. THE REMAINDER OF THE TRENCH WAS BACKFILLED WITH SEATTLE TYPE 17 UP TO THE PAVEMENT SUBGRADE.
6. THE LOW PERMEABILITY ZONES WAS BACKFILLED WITH SILTY SOIL MIXED CEMENT.

0 5 10
APPROXIMATE SCALE IN FEET

WESTERN SVE AND AIR SPARGE TRENCH
Kelly-Moore Paint Company
Seattle, Washington

By: APS	Date: 05/22/18	Project No. 14697
Wood Environment & Infrastructure Solutions, Inc.		Figure 5

DRAWN BY: APS CHECKED BY: JB

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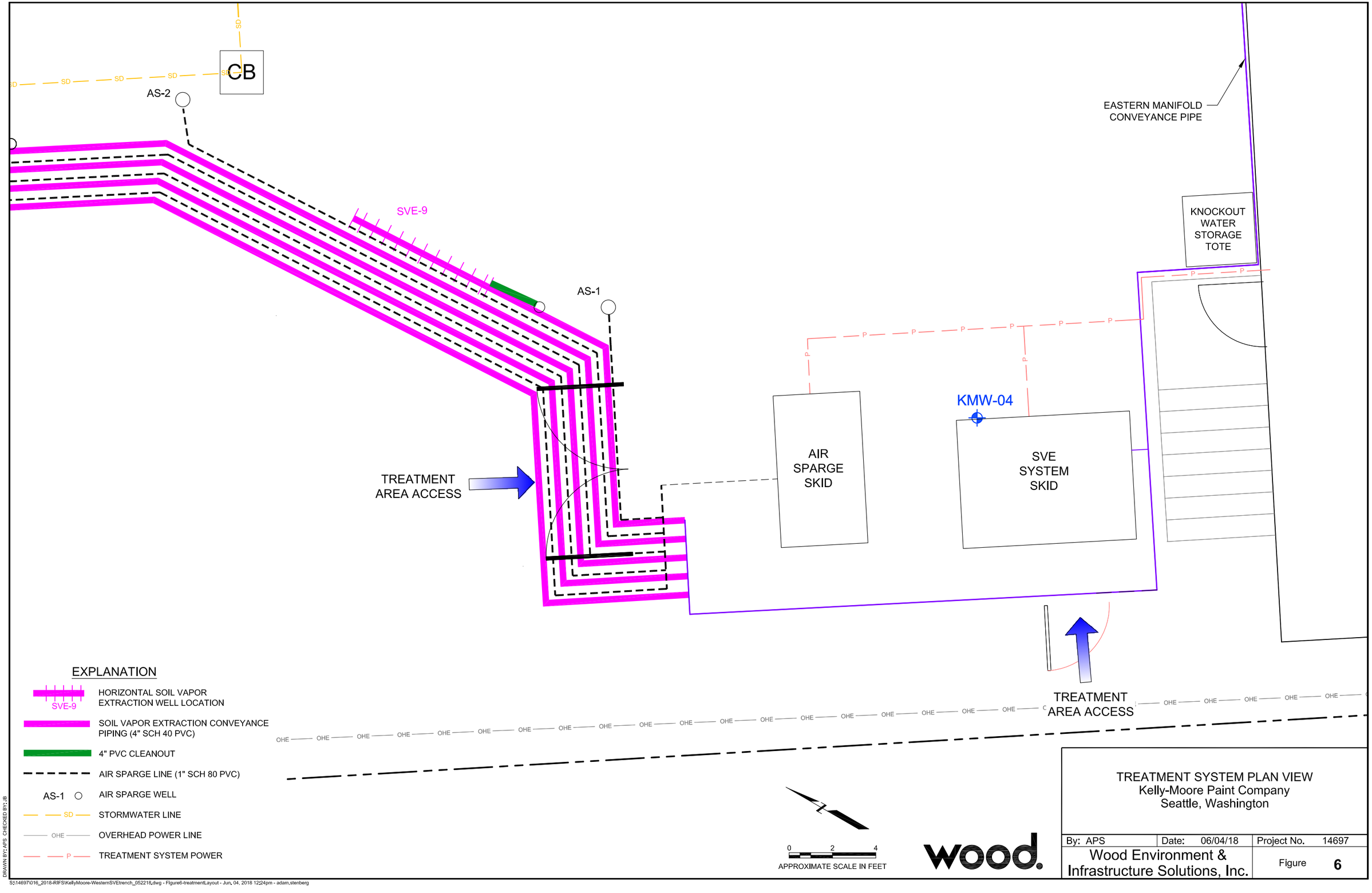

EXPLANATION

- SVE-9 — HORIZONTAL SOIL VAPOR EXTRACTION WELL LOCATION
- SOIL VAPOR EXTRACTION CONVEYANCE PIPING (4" SCH 40 PVC)
- 4" PVC CLEANOUT
- AIR SPARGE LINE (1" SCH 80 PVC)
- AS-1 — AIR SPARGE WELL
- SD — STORMWATER LINE
- OHE — OVERHEAD POWER LINE
- P — TREATMENT SYSTEM POWER

0 2 4

APPROXIMATE SCALE IN FEET

TREATMENT SYSTEM PLAN VIEW
Kelly-Moore Paint Company
Seattle, Washington

By: APS	Date: 06/04/18	Project No. 14697
Wood Environment & Infrastructure Solutions, Inc.		Figure 6

DRAWN BY: APS CHECKED BY: JB

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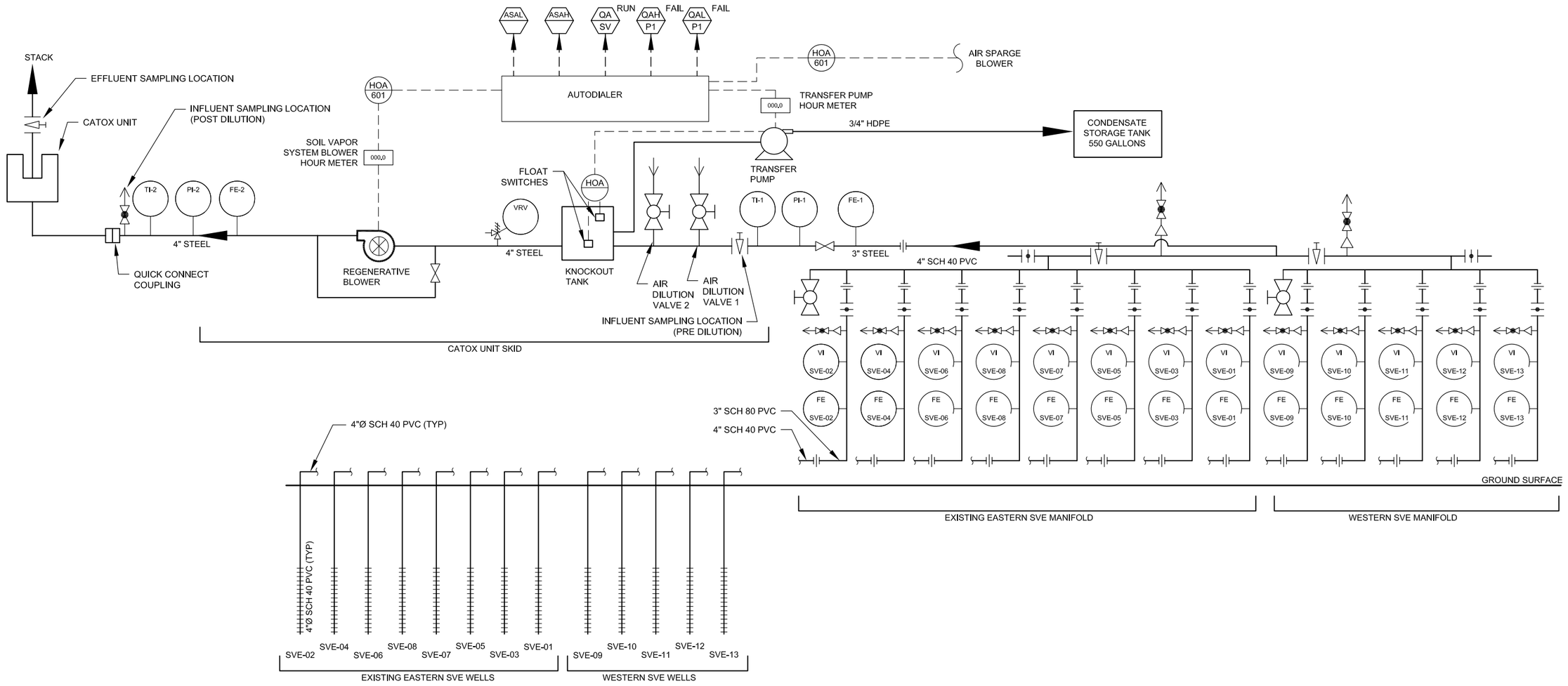

PIPING SYMBOLS

- UNION
- COMPRESSION PLUG
- BUTTERFLY VALVE
- GATE VALVE
- AIR DILUTION BALL VALVE
- REDUCER
- 1/4" SAMPLE PORT
- MICROSEEPS SAMPLE PORT

EQUIPMENT SYMBOLS

- REGENERATIVE BLOWER
- TRANSFER PUMP

INSTRUMENT LEGEND

- FIELD MOUNTED
- CONTROL PANEL MOUNTED
- VRV — VACUUM RELIEF VALVE

INSTRUMENT LEGEND CON'T

- VI — VACUUM INDICATOR
- TI — TEMPERATURE INDICATOR
- FE — FLOW ELEMENT
- HOA 601 — HAND OFF AUTO

INSTRUMENT LEGEND CON'T

- QA SV — EVENT ALARM
- QAL P1 — TRANSFER PUMP FAIL ALARM
- QAH P1 — TRANSFER PUMP HIGH LEVEL SWITCH FAIL ALARM
- ASAH — AIR SPARGE BLOWER HIGH PRESSURE ALARM
- ASAL — AIR SPARGE BLOWER LOW PRESSURE ALARM

ABBREVIATIONS

TYP	TYPICAL
PVC	POLYVINYL CHLORIDE
SCH	SCHEDULE
GAC	GRANULAR ACTIVATED CARBON

CATOX SYSTEM
PROCESS AND INSTRUMENTATION DIAGRAM
Kelly-Moore Paint Company
Seattle, Washington

By: APS	Date: 05/22/18	Project No. 14697
Wood Environment & Infrastructure Solutions, Inc.		Figure 7

DRAWN BY: APS CHECKED BY: JB

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Tables

TABLE 1: MONITORING WELL SURVEY DATA

Former Kelly-Moore Manufacturing Facility, Seattle, Washington

Well Name	WCS North Zone NAD 83(91)[3]		Ground Surface Elevation	Top of Casing Elevation
	Northing	Easting		
KMW-02R[1]	205743.9	1273010.4	22.01	21.63
KMW-03R[1]	205538.1	1273156.6	21.99	21.54
KMW-04[1]	205423.6	1273115.0	18.90	18.56
KMW-06[1]	205525.2	1273039.2	20.16	19.80
KMW-07[1]	205713.7	1273034.0	22.00	21.63
KMW-08[1]	205648.5	1273101.3	22.03	21.65
KMW-09[2]	205508.9	1273025.5	18.60	18.14
KMW-10[2]	205336.2	1272955.0	20.84	20.39

Notes:

1. Survey completed on June 30, 2016, by Duane Hartman and Associates.
2. Survey completed on December 13, 2016, by Duane Hartman and Associates.
3. Coordinate System and Zone: Washington State Plane, North Zone Coordinates.
   Horizontal Datum: NAD 83(91), North Zone, US feet.
   Vertical Datum: NAVD88, US feet.

Abbreviations:

NAD = North American Datum

NAVD88 = North American Vertical Datum of 1988

WCS = Washington Coordinate System

TABLE 2: GROUNDWATER ELEVATIONS

Former Kelly-Moore Manufacturing Facility, Seattle, Washington

Well ID	TOC Elevation (feet)[1]	Date	Depth to Water (feet below TOC)	Groundwater Elevation (feet)[1]
KMW-02R	21.63 [2]	8/31/2017	9.58	12.05
		1/26/2018	7.56	14.07
KMW-03R	21.54 [2]	8/31/2017	9.52	12.02
		1/26/2018	7.87	13.67
KMW-04	18.56 [2]	8/31/2017	6.63	11.93
		1/26/2018	5.35	13.21
KMW-06	19.80 [2]	8/31/2017	7.87	11.93
		1/26/2018	6.48	13.32
KMW-07	21.63 [2]	8/31/2017	9.57	12.06
		1/26/2018	7.93	13.70
KMW-08	21.65 [2]	8/31/2017	9.59	12.06
		1/26/2018	7.72	13.93
KMW-09	18.14 [3]	8/31/2017	6.24	11.90
		1/26/2018	4.86	13.28
KMW-10	20.39 [3]	8/31/2017	8.61	11.78
		1/26/2018	7.51	12.88

Notes:

1. Elevations in feet above mean sea level.
2. Surveys conducted on June 30, 2016. Vertical Datum: NAVD 88. Bench Mark: City of Seattle 2" Brass disk 3805-3801 located at the SW corner of Airport Way South and Corson Ave South, Elevation 18.532 feet
3. Surveys conducted on December 13, 2016. Same datum as June 30, 2016.

Abbreviations:

NAVD88 = North American Vertical Datum of 1988

TOC = top of casing

TABLE 3: GROUNDWATER PARAMETERS

Former Kelly-Moore Manufacturing Facility, Seattle, Washington

Monitoring Well	Date	pH	SC (ms/cm)	ORP (mv)	DO (mg/L)
KMW-02R	8/31/2017	5.89	0.175	142.9	0.21
	1/26/2018	5.99	0.199	150.9	0.28
KMW-03R	8/31/2017	7.07	0.477	-117.2	0.15
	1/26/2018	7.27	0.454	-102.2	0.19
KMW-04	8/31/2017	6.31	0.485	-92.0	0.07
	1/25/2018	6.40	0.276	-40.0	0.58
KMW-06	8/31/2017	6.35	0.453	-90.3	0.10
	1/24/2018	6.56	0.314	-91.4	0.24
KMW-07	8/31/2017	6.02	0.283	56.2	0.15
	1/26/2018	6.32	0.280	56.1	0.32
KMW-08	8/31/2017	6.15	0.177	1.90	0.10
	1/26/2018	5.98	0.526	32.9	0.50
KMW-09	8/31/2017	6.32	0.415	-95.1	0.21
	1/24/2018	6.56	0.396	-79.5	0.40
KMW-10	8/31/2017	6.21	0.567	-86.3	0.15
	1/25/2018	6.46	0.656	-69.4	0.28

Abbreviations

DO = disolved oxygen

mg/L = milligrams per liter

ms/cm = millisiemens per centimeter

mv = millivolts

ORP = oxidation reduction potential

SC = specific conductivity

TABLE 4: GROUNDWATER ANALYTICAL RESULTS[1, 2]

Former Kelly-Moore Manufacturing Facility, Seattle, Washington

Analyte	KMW-01			KMW-02/02R[3]							KMW-03/03R[4]										
	3/28/2011	8/4/2011	6/7/2013	3/28/2011	8/4/2011	6/7/2013	6/30/2016	11/10/2016	9/1/2017	1/26/2018	3/28/2011	3/28/2011 (D)	8/4/2011	4/4/2013	6/7/2013	3/10/2015	7/1/2016	11/10/2016	11/10/2016 (D)	9/1/2017	1/26/2018
Total Metals (µg/L)																					
Arsenic	3.3 U	3.3 U	--	3.3 U	3.3 U	--	3.3 U	3.3 U	3.3 U	3.3 U	3.3 U	3.3 U	3.3 U	--	--	--	3.3 U	3.3 U	3.3 U	3.3 U	3.3 U
Chromium	11 U	--	--	11 U	--	--	11 U	11 U	11 U	11 U	11 U	11 U	--	--	--	--	11 U	11 U	11 U	11 U	11 U
Copper	--	11 U	--	--	11 U	--	--	--	--	--	--	--	11 U	--	--	--	--	--	--	--	--
Lead	1.1 U	1.1 U	--	1.1 U	1.1 U	--	1.1 U	1.1 U	1.1 U	1.1 U	1.1 U	1.1 U	1.1 U	--	--	--	1.1 U	1.1 U	1.1 U	1.1 U	1.1 U
Mercury	--	--	--	--	--	--	0.5 U	0.50 U	0.50 U	0.50 U	--	--	--	--	--	--	0.5 U	0.50 U	0.50 U	0.50 U	0.50 U
Nickel	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Zinc	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Polycyclic Aromatic Hydrocarbons (µg/L)																					
Benzo(a)anthracene	0.0098 U	0.0095 U	--	0.0098 U	0.0096 U	--	0.0095 U	0.0094 U	0.0099 U	0.011 U	0.0096 U	0.0095 U	0.0095 U	--	--	--	**0.018**	0.0095 U	0.0095 U	0.0098 U	0.011 U
Benzo(a)pyrene	0.0098 U	0.0095 U	--	0.0098 U	0.0096 U	--	0.0095 U	0.0094 U	0.0099 U	0.011 U	0.0096 U	0.0095 U	0.0095 U	--	--	--	**0.011**	0.0095 U	0.0095 U	0.0098 U	0.011 U
Benzo(b)fluoranthene	0.0098 U	0.0095 U	--	0.0098 U	0.0096 U	--	0.0095 U	0.0094 U	0.0099 U	0.011 U	0.0096 U	0.0095 U	0.0095 U	--	--	--	**0.011**	0.0095 U	0.0095 U	0.0098 U	0.011 U
Benzo(ghi)perylene	0.0098 U	0.0095 U	--	0.0098 U	0.0096 U	--	0.0095 U	0.0094 U	0.0099 U	0.011 U	0.0096 U	0.0095 U	0.0095 U	--	--	--	**0.014**	0.0095 U	0.0095 U	0.0098 U	0.011 U
Benzo(j,k)fluoranthene	0.0098 U	0.0095 U	--	0.0098 U	0.0096 U	--	0.0095 U	0.0094 U	0.0099 U	0.011 U	0.0096 U	0.0095 U	0.0095 U	--	--	--	0.0095 U	0.0095 U	0.0095 U	0.0098 U	0.011 U
Chrysene	0.0098 U	0.0095 U	--	0.0098 U	0.0096 U	--	0.0095 U	0.0094 U	0.0099 U	0.011 U	0.0096 U	0.0095 U	0.0095 U	--	--	--	**0.012**	0.0095 U	0.0095 U	0.0098 U	0.011 U
Dibenz(a,h)anthracene	0.0098 U	0.0095 U	--	0.0098 U	0.0096 U	--	0.0095 U	0.0094 U	0.0099 U	0.011 U	0.0096 U	0.0095 U	0.0095 U	--	--	--	0.0095 U	0.0095 U	0.0095 U	0.0098 U	0.011 U
Indeno(1,2,3-cd)pyrene	0.0098 U	0.0095 U	--	0.0098 U	0.0096 U	--	0.0095 U	0.0094 U	0.0099 U	0.011 U	0.0096 U	0.0095 U	0.0095 U	--	--	--	**0.011**	0.0095 U	0.0095 U	0.0098 U	0.011 U
Total cPAHs	0.007 U	0.007 U		0.007 U	0.007 U	--	0.007 U	0.007 U	0.007 U	0.008 U	0.007 U	0.007 U	0.007 U	--	--	--	**0.016**	0.007 U	0.007 U	0.007 U	0.008 U
Polychlorinated Biphenyls (µg/L)																					
Aroclor 1016	--	--	--	--	--	--	0.047 U	--	--	--	--	--	--	--	--	--	0.047 U	--	--	--	--
Aroclor 1221	--	--	--	--	--	--	0.047 U	--	--	--	--	--	--	--	--	--	0.047 U	--	--	--	--
Aroclor 1232	--	--	--	--	--	--	0.047 U	--	--	--	--	--	--	--	--	--	0.047 U	--	--	--	--
Aroclor 1242	--	--	--	--	--	--	0.047 U	--	--	--	--	--	--	--	--	--	0.047 U	--	--	--	--
Aroclor 1248	--	--	--	--	--	--	0.047 U	--	--	--	--	--	--	--	--	--	0.047 U	--	--	--	--
Aroclor 1254	--	--	--	--	--	--	0.047 U	--	--	--	--	--	--	--	--	--	0.047 U	--	--	--	--
Aroclor 1260	--	--	--	--	--	--	0.047 U	--	--	--	--	--	--	--	--	--	0.047 U	--	--	--	--
Total Petroleum Hydrocarbons (µg/L)																					
Gasoline Range Organics	100 U	100 U	100 U	100 U	100 U	100 U	500 U	100 U	100 U	100 U	**7,700**	**7,000**	**6,100**	**1,800**	**1,100**	**1,100**	**300**	**130**	**170**	**270**	**150**
Diesel Range Organics	--	--	--	--	--	--	**260**	260 U	0.27 U	260 U	--	--	--	--	--	--	**660 J**	310 U	280 U	**330**	**510**
Lube Oil	--	--	--	--	--	--	410 U	410 U	0.43 U	410 U	--	--	--	--	--	--	410 U	410 U	410 U	430 U	410 U
Volatile Organic Compounds (µg/L)																					
1,2,4-Trimethylbenzene	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	--	--	--	1.0 U	0.20 U	--	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U
1,3,5-Trimethylbenzene	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	--	--	--	1.0 U	0.20 U	--	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U
Acetone	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	12 U	5.0 U	5.0 U	5.0 U	--	--	--	25 U	5.0 U	--	12 U	**7.9**	**6.5**	5.0 U	5.0 U
Benzene	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	**8.1**	**8.4**	4.0 U	1.0 U	**0.41**	--	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U
Ethylbenzene	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	**3,100**	**2,700**	**2,400**	**170**	**27**	--	**1.4**	**0.33**	**0.34**	0.20 U	0.20 U
m,p-Xylene	0.40 U	0.40 U	0.40 U	0.40 U	0.40 U	0.40 U	0.40 U	0.40 U	0.40 U	0.40 U	**18**	**18**	**7.1**	2.0 U	0.4 U	--	**2.1**	**1.0**	**0.97**	0.40 U	0.40 U
Naphthalene	1.0 U	1.0 U	1.4 U	1.0 U	1.0 U	1.4 U	1.0 U	1.3 U	1.0 U	1.0 U	--	--	--	**19**	**9.8**	--	1.0 U	1.3 U	1.3 U	1.0 U	1.0 U
o-Xylene	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	4.0 U	4.0 U	4.0 U	1.0 U	0.20 U	--	**0.35**	**0.35**	**0.37**	0.20 U	0.20 U
Toluene	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	4.0 U	4.0 U	4.0 U	5.0 U	1.0 U	--	**1.1**	1.0 U	1.0 U	1.0 U	1.0 U
Trichloroethene	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	--	--	--	1.0 U	0.20 U	--	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U
Vinyl Chloride	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	--	--	--	1.0 U	0.20 U	--	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U

TABLE 4: GROUNDWATER ANALYTICAL RESULTS[1, 2]

Former Kelly-Moore Manufacturing Facility, Seattle, Washington

Analyte	KMW-04										KMW-05			KMW-06				KMW-07			
	3/28/2011	8/4/2011	8/4/2011 (D)	6/7/2013	3/10/2015	6/30/2016	6/30/2016 (D)	11/11/2016	8/31/2017	1/25/2018	3/28/2011	8/4/2011	6/7/2013	6/30/2016	11/11/2016	8/31/2017	1/24/2018	7/1/2016	11/10/2016	9/1/2017	1/26/2018
Total Metals (µg/L)																					
Arsenic	**12**	**12**	**10**	--	--	**12**	**12**	**20**	**14**	**7.6**	3.3 U	3.3 U	--	3.5	3.4	3.3 U	3.3 U	3.3 U	3.3 U	3.3 U	3.3 U
Chromium	11 U	--	--	--	--	11 U	11 U	11 U	11 U	11 U	11 U	--	--	11 U	11 U	11 U	11 U	11 U	11 U	11 U	11 U
Copper	--	11 U	11 U	--	--	--	--	--	--	--	--	11 U	--	--	--	--	--	--	--	--	--
Lead	1.1 U	1.1 U	1.1 U	--	--	1.1 U	1.1 U	1.1 U	1.1 U	1.1 U	1.1 U	1.1 U	--	3.7	1.1	2.7	7.3	1.1 U	1.1 U	1.1 U	1.1 U
Mercury	--	--	--	--	--	0.5 U	0.5 U	0.50 U	0.50 U	0.50 U	--	--	--	0.5 U	0.50 U	0.50 U	0.50 U	0.5 U	0.50 U	0.50 U	0.50 U
Nickel	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Zinc	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Polycyclic Aromatic Hydrocarbons (µg/L)																					
Benzo(a)anthracene	0.012 U	0.0095 U	0.0095 U	--	--	**0.011**	**0.014**	0.0094 U	0.0096 U	0.010 U	0.0095 U	0.0095 U	--	**0.047**	**0.013**	**0.041**	**0.055**	0.0095 U	0.0095 U	0.0099 U	0.011 U
Benzo(a)pyrene	0.012 U	0.0095 U	0.0095 U	--	--	0.0095 UJ	**0.015 J**	0.0094 U	0.0096 U	0.010 U	0.0095 U	0.0095 U	--	**0.038**	**0.022**	**0.033**	**0.071**	0.0095 U	0.0095 U	0.0099 U	0.011 U
Benzo(b)fluoranthene	0.012 U	0.0095 U	0.0095 U	--	--	0.0095 UJ	**0.022 J**	0.0094 U	**0.0120**	0.010 U	0.0095 U	0.0095 U	--	**0.047**	**0.021**	**0.034**	**0.082**	0.0095 U	0.0095 U	0.0099 U	0.011 U
Benzo(ghi)perylene	0.012 U	0.0095 U	0.0095 U	--	--	0.0095 UJ	**0.023 J**	0.0094 U	0.0096 U	0.010 U	0.0095 U	0.0095 U	--	**0.041**	**0.024**	**0.025**	**0.056**	0.0095 U	0.0095 U	0.0099 U	0.011 U
Benzo(j,k)fluoranthene	0.012 U	0.0095 U	0.0095 U	--	--	0.0095 U	0.0095 U	0.0094 U	0.0096 U	0.010 U	0.0095 U	0.0095 U	--	**0.018**	**0.031**	**0.018**	**0.034**	0.0095 U	0.0095 U	0.0099 U	0.011 U
Chrysene	0.012 U	0.0095 U	0.0095 U	--	--	0.0095 U	0.0095 U	0.0094 U	**0.0100**	0.010 U	0.0095 U	0.0095 U	--	**0.035**	**0.028**	**0.032**	**0.062**	0.0095 U	0.0095 U	0.0099 U	0.011 U
Dibenz(a,h)anthracene	0.012 U	0.0095 U	0.0095 U	--	--	0.0095 U	0.0095 U	0.0094 U	0.0096 U	0.010 U	0.0095 U	0.0095 U	--	0.0095 U	0.0095 U	0.0095 U	**0.0110**	0.0095 U	0.0095 U	0.0099 U	0.011 U
Indeno(1,2,3-cd)pyrene	0.012 U	0.0095 U	0.0095 U	--	--	0.0095 UJ	**0.016 J**	0.0094 U	0.0096 U	0.010 U	0.0095 U	0.0095 U	--	**0.028**	**0.023**	**0.023**	**0.054**	0.0095 U	0.0095 U	0.0099 U	0.011 U
Total cPAHs	0.009 U	0.007 U	0.007 U	--	--	**0.008**	**0.020 J**	0.007 U	**0.008**	0.008 U	0.007 U	0.007 U		**0.050**	**0.030**	**0.045**	**0.095**	0.007 U	0.007 U	0.007 U	0.008 U
Polychlorinated Biphenyls (µg/L)																					
Aroclor 1016	--	--	--	--	--	0.048 U	0.047 U	--	--	--	--	--	--	0.047 U	--	--	--	0.047 U	--	--	--
Aroclor 1221	--	--	--	--	--	0.048 U	0.047 U	--	--	--	--	--	--	0.047 U	--	--	--	0.047 U	--	--	--
Aroclor 1232	--	--	--	--	--	0.048 U	0.047 U	--	--	--	--	--	--	0.047 U	--	--	--	0.047 U	--	--	--
Aroclor 1242	--	--	--	--	--	0.048 U	0.047 U	--	--	--	--	--	--	0.047 U	--	--	--	0.047 U	--	--	--
Aroclor 1248	--	--	--	--	--	0.048 U	0.047 U	--	--	--	--	--	--	0.047 U	--	--	--	0.047 U	--	--	--
Aroclor 1254	--	--	--	--	--	0.048 U	0.047 U	--	--	--	--	--	--	0.047 U	--	--	--	0.047 U	--	--	--
Aroclor 1260	--	--	--	--	--	0.048 U	0.047 U	--	--	--	--	--	--	0.047 U	--	--	--	0.047 U	--	--	--
Total Petroleum Hydrocarbons (µg/L)																					
Gasoline Range Organics	**75,000**	**55,000**	**50,000**	**48,000**	**27,000**	**27,000**	**27,000**	**63,000**	**8,000**	**9,000**	100 U	100 U	100 U	**2,700**	**850**	**1,600**	**1,300**	500 U	100 U	100 U	100 U
Diesel Range Organics	--	--	--	--	--	**3,000 J**	**2,700 J**	6,400 U	**1,600**	**1,700**	--	--	--	**5,400 J**	**3,500**	**4,400**	**4,200**	260 U	260 U	280 U	260 U
Lube Oil	--	--	--	--	--	**510**	**870**	410 U	440 U	410 U	--	--	--	**1,500 J**	**1,200**	**1,600**	**600**	410 U	420 U	450 U	410 U
Volatile Organic Compounds (µg/L)																					
1,2,4-Trimethylbenzene	--	--	--	**77**	--	**44 J**	**65 J**	**160**	**97**	**110**	--	--	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U
1,3,5-Trimethylbenzene	--	--	--	20 U	--	20 U	**20**	**52**	**30**	50 U	--	--	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U
Acetone	--	--	--	500 U	--	1,200 U	1,200 U	1,000 U	500 U	1300 U	--	--	5.0 U	12 U	5.0 U	5.0 U	5.0 U	12 U	**6.5**	5.0 U	5.0 U
Benzene	**10**	**13**	**13**	20 U	--	20 U	20 U	20 U	20 U	50 U	1.0 U	1.0 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U
Ethylbenzene	**5,700**	**3,700**	**3,400**	**3,400**	--	**3,700**	**4,300**	**5,200**	**4,300**	**4,700**	1.0 U	1.0 U	0.20 U	**0.38**	**0.25**	**0.27**	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U
m,p-Xylene	**12,000**	**8,500**	**7,700**	**6,800**	--	**7,100**	**7,900**	**12,000**	**7,800**	**12,000**	1.0 U	1.0 U	0.4 U	**1.4**	**0.92**	**1.6**	**0.42**	0.4 U	**0.44**	0.40 U	0.40 U
Naphthalene	--	--	--	140 U	--	100 U	100 U	100 U	100 U	250 U	--	--	1.4 U	1.0 U	1.3 U	1.0 U	1.0 U	1.0 U	1.3 U	1.0 U	1.0 U
o-Xylene	**3,400**	**2,100**	**1,900**	**2,200**	--	**1,700**	**1,700**	**3,600**	**1,900**	**3,600**	1.0 U	1.0 U	0.20 U	**0.64**	**0.49**	**0.47**	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U
Toluene	**7,400**	**5,800**	**5,500**	**3,800**	--	**1,400**	**1,300**	**5,300**	**980**	**5,500**	1.0 U	1.0 U	1 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Trichloroethene	--	--	--	20 U	--	20 U	20 U	20 U	20 U	50 U	--	--	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U
Vinyl Chloride	--	--	--	20 U	--	2.0 U	2.0 U	2.0 U	20 U	50 U	--	--	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U

TABLE 4: GROUNDWATER ANALYTICAL RESULTS[1, 2]

Former Kelly-Moore Manufacturing Facility, Seattle, Washington

Analyte	KMW-08				KMW-09			KMW-10			
	7/1/2016	11/10/2016	9/1/2017	1/26/2018	11/11/2016	8/31/2017	1/24/2018	11/11/2016	8/31/2017	1/25/2018	1/25/2018 (D)
Total Metals (µg/L)											
Arsenic	3.3 U	3.3 U	3.3 U	3.3 U	3.3 U	3.3 U	3.3 U	**9.1**	**10**	**6.8**	**5.7**
Chromium	11 U	11 U	11 U	11 U	11 U	11 U	11 U	11 U	11 U	11 U	11 U
Copper	--	--	--	--	--	--	--	--	--	--	--
Lead	1.1 U	1.1 U	1.1 U	1.1 U	1.1 U	1.1 U	**3.0**	1.1 U	1.1 U	**1.1**	1.1 U
Mercury	0.5 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U
Nickel	--	--	--	--	--	--	--	--	--	--	--
Zinc	--	--	--	--	--	--	--	--	--	--	--
Polycyclic Aromatic Hydrocarbons (µg/L)											
Benzo(a)anthracene	**0.086**	**0.015**	**0.012**	**0.018**	0.0098 U	0.0098 U	**0.020**	0.0098 U	0.0094 U	0.011 U	0.011 U
Benzo(a)pyrene	**0.11**	**0.013**	0.010 U	**0.015**	0.0098 U	0.0098 U	**0.021**	0.0098 U	0.0094 U	0.011 U	0.011 U
Benzo(b)fluoranthene	**0.12**	**0.020**	0.010 U	**0.018**	0.0098 U	0.0098 U	**0.017**	0.0098 U	0.0094 U	0.011 U	0.011 U
Benzo(ghi)perylene	**0.1**	0.0095 U	0.010 U	0.012 U	0.0098 U	0.0098 U	**0.011**	0.0098 U	0.0094 U	0.011 U	0.011 U
Benzo(j,k)fluoranthene	**0.046**	0.0095 U	0.010 U	0.012 U	0.0098 U	0.0098 U	**0.015**	0.0098 U	0.0094 U	0.011 U	0.011 U
Chrysene	**0.09**	**0.042**	**0.012**	**0.028**	0.0098 U	0.0098 U	**0.018**	0.0098 U	0.0094 U	0.011 U	0.011 U
Dibenz(a,h)anthracene	**0.024**	0.0095 U	0.010 U	0.012 U	0.0098 U	0.0098 U	0.011 U	0.0098 U	0.0094 U	0.011 U	0.011 U
Indeno(1,2,3-cd)pyrene	**0.063**	0.0095 U	0.010 U	0.012 U	0.0098 U	0.0098 U	**0.0130**	0.0098 U	0.0094 U	0.011 U	0.011 U
Total cPAHs	**0.14**	**0.018**	**0.008**	**0.021**	0.007 U	0.007 U	**0.028**	0.007 U	0.007 U	0.008 U	0.008 U
Polychlorinated Biphenyls (µg/L)											
Aroclor 1016	0.047 U	--	--	--	--	--	--	--	--	--	--
Aroclor 1221	0.047 U	--	--	--	--	--	--	--	--	--	--
Aroclor 1232	0.047 U	--	--	--	--	--	--	--	--	--	--
Aroclor 1242	0.047 U	--	--	--	--	--	--	--	--	--	--
Aroclor 1248	0.047 U	--	--	--	--	--	--	--	--	--	--
Aroclor 1254	0.047 U	--	--	--	--	--	--	--	--	--	--
Aroclor 1260	0.047 U	--	--	--	--	--	--	--	--	--	--
Total Petroleum Hydrocarbons (µg/L)											
Gasoline Range Organics	**1,000**	**400**	**130**	**120**	**370**	**360**	**760**	**110**	**3,400**	**270**	**260**
Diesel Range Organics	**770 J**	370 U	300 U	**450**	**1,700**	**2300**	**3100**	1,300 U	**1,800**	**2,300**	**2,300**
Lube Oil	410 U	410 U	480 U	410 U	**660**	**810**	**690**	420 U	430 U	410 U	410 U
Volatile Organic Compounds (µg/L)											
1,2,4-Trimethylbenzene	0.20 U	0.20 U	0.20 U	0.20 U	0.2 U	0.20 U	0.20 U	**3.7**	**53**	**2.7**	**5.4**
1,3,5-Trimethylbenzene	0.20 U	0.20 U	0.20 U	0.20 U	0.2 U	0.20 U	0.20 U	**0.38**	**23**	**0.9**	**1.7**
Acetone	12 U	**10**	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	100 U	5.0 U	5.0 U
Benzene	0.20 U	**0.20**	0.20 U	0.20 U	0.2 U	0.20 U	0.20 U	**0.7**	**8.2**	0.20 U	0.20 U
Ethylbenzene	0.20 U	**0.31**	**0.36**	0.20 U	**3.1**	0.20 U	**0.44**	**1.6**	**810**	**14**	**30**
m,p-Xylene	0.4 U	**0.76**	**0.69**	0.40 U	**0.51**	0.40 U	0.40 U	**11**	**1100**	**28**	**65**
Naphthalene	**1.5**	1.3 U	1.0 U	1.0 U	1.3 U	1.0 U	1.0 U	1.3 U	20 U	1.0 U	1.0 U
o-Xylene	0.20 U	**0.34**	0.20 U	0.20 U	0.2 U	0.20 U	0.20 U	**0.29**	**22**	**0.42**	**0.58**
Toluene	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	20 U	**1.0**	**1.0**
Trichloroethene	0.20 U	0.20 U	0.20 U	0.20 U	0.2 U	0.20 U	0.20 U	0.2 U	4.0 U	0.20 U	0.20 U
Vinyl Chloride	0.20 U	0.20 U	0.20 U	0.20 U	0.2 U	0.20 U	0.20 U	0.2 U	4.0 U	0.20 U	0.20 U

Notes:

1. Data qualifiers are as follows:
   U = The analyte was not detected at the reporting limit indicated.
   J = The value is an estimate.
   UJ = The analyte was not detected at the estimated reporting limit indicated.
2. Bold values indicate detections.
3. KMW-02 was abandoned by backfilling with bentonite on February 4, 2015, and was replaced June 28, 2016.
4. KMW-03 was destroyed during building demolition on June 3, 2015, and was replaced June 27, 2016.

Abbreviations:

-- = not analyzed
µg/L = micrograms per liter
cPAHS = carcinogenic polycyclic aromatic hydrocarbons
(D) = duplicate sample collected
mg/L - milligram per liter
R = replaced

TABLE 5: SOIL VAPOR EXTRACTION SYSTEM ANALYTICAL SUMMARY[1, 2]

Former Kelly-Moore Manufacturing Facility, Seattle, Washington

Sample	Date	Benzene (ppmv)	TPH as Hexane (ppmv)
Western SVE Wells			
SVE-09	11/7/17	**0.069**	**310**
SVE-10	11/7/17	**0.53**	**820 J**
SVE-11	11/7/17	**0.069**	**220**
SVE-12	11/7/17	**0.44**	**1,400 J**
SVE-13	11/7/17	**0.23**	**600 J**
Eastern SVE Wells			
SVE-02	11/7/17	<0.03	**3.4**
SVE-04	11/7/17	<0.03	**310**
SVE-06	11/7/17	**0.041**	**280**
SVE-08	11/7/17	<0.03	**65**
SVE-07	11/7/17	<0.03	**82**
SVE-05	11/7/17	**0.50**	**2,200 J**
SVE-03	11/7/17	**1.1**	**1,900 J**
SVE-01	11/7/17	**0.14**	**450**
Influent	11/7/17	**0.18**	**650 J**
Effluent	11/7/17	<0.03	**28**

Notes:

1. **Bold** numbers indicate results above the reporting limits.
2. J = the result is estimated because the concentration exceeded the calibration range of the instrument.

Abbreviations:

ppmv = parts per million volume

TPH = total petroleum hydrocarbons

TABLE 6: FLAME IONIZATION DETECTOR READINGS

Former Kelly-Moore Manufacturing Facility, Seattle, Washington

Date	FID Readings[1] (ppmv)				
	12/13/2017	1/16/2018	2/13/2018	3/21/2018	4/24/2018
Western SVE Wells					
West Manifold	19.4	NM	NM	NM	NM
SVE-09	NM	0	53.5	53.5	7.6
SVE-10	54.5	55.5	258.1	258.1	14.4
SVE-11	NM	6.7	0.7	0.7	6.2
SVE-12	30.7	10.7	65.2	65.2	14.8
SVE-13	11.7	4.1	27.6	27.6	7.4
Eastern SVE Wells					
East Manifold	106.5	NM	NM	NM	NM
SVE-02	NM	0	0.4	0	0.1
SVE-04	NM	16.6	8.3	0	0.5
SVE-06	NM	52.5	24.5	20.8	13.9
SVE-08	NM	1.9	3.5	1.2	6.3
SVE-07	NM	4.7	4.2	24.8	7.5
SVE-05	1,105	828.9	483.7	1,811	43
SVE-03	446.8	246.7	85.9	622.8	21.8
SVE-01	11.0	6.3	2.7	2.1	5.8
Influent	85.6	72.3	16.4	45.2	6.8
Effluent	1.2	0.2	0.6	0.7	0.2

Notes:

1. FID calibrated to 100 parts per million hexane.

Abbreviations:

FID = flame ionization detector
NM = not measured
ppmv = parts per million by volume
SVE = soil vapor extraction

TABLE 7: SOIL VAPOR EXTRACTION SYSTEM REMOVAL EFFICIENCIES

Former Kelly-Moore Manufacturing Facility, Seattle, Washington

Date	Influent (ppm)	Effluent (ppm)	Removal Efficiency[1] (percent)
11/7/17	358.0	0.0	100.0%
11/15/17	547.5	3.7	99.3%
11/21/17	123.7	1.9	98.5%
12/5/17	59.6	0.2	99.7%
12/13/17	85.6	1.2	98.6%
1/16/18	72.3	0.2	99.7%
2/13/18	16.4	0.6	96.3%
3/21/18	45.0	0.7	98.4%
4/24/18	6.8	0.2	97.1%

Notes:

1. Removal efficiencies exceed the Puget Sound Clean Air Agency 95 percent standard for removal efficiency.

Abbreviations:

ppm - parts per million

Appendix A

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GROUNDWATER SAMPLING LOG
Low Flow Sampling

MONITORING WELL/PIEZOMETER NUMBER KMW-02R

Project Name: Kelly-Moore

Project Number: 14697.00008
Location: Seattle WA
Sampler: BH

Date: 9.1.17
Weather Conditions: Sunny 60's
Wind Speed/Direction: N/A

WELL INFORMATION

Casing Diameter (in): 2
Top of Casing Elevation (ft):
Initial Depth to Water (ft): 8.58
Wellhead Condition: Needs lock

Groundwater Elevation (ft):
Depth of Well Casing (ft):
Actual Purge Volume (gal): 2

PURGING MEASUREMENTS

WL (ft btoc)	Time	pH (std. units)	SC (ms/cm)	Temp. (°C)	ORP (mv)	DO (mg/L)	Turbidity (NTUs)	Notes
9.64	855	5.89	0.173	14.3	129.7	1.23	30.5	
9.65	900	5.87	0.176	14.2	156.5	0.51	178.1	
9.64	905	5.88	0.175	14.3	164.4	0.34	249.1	
9.64	910	5.89	0.175	14.4	153.9	0.27	248.1	
9.63	915	5.89	0.176	14.3	146.6	0.24	243.5	
9.63	918	5.89	0.176	14.3	144.6	0.22	243.7	
9.63	921	5.89	0.175	14.3	143.9	0.21	239.9	
9.63	923	5.89	0.175	14.3	142.9	0.21	238.0	

Sample ID No.: KMW-02R-9.1.17
Water Level Ind. Model & No.: Solinst Interface model 122
ORP/DO Meter Model & No.: YSI PRO DSS
Purge Equipment Used: Peri pump w/ dedicated tubing
Sampling Equipment Used: SAA

Purge Start Time: 0853
Purge Completion Time: 1035
Average Purge Rate (mL/min): 200
Analytical Lab: Onsite

Sample Collection Time: 0935
Purging Method: SAA
Sample Containers Used: Lab provided
Chemical Analyses: See COC

Other Field Observations: Purge water has strong odor

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GROUNDWATER SAMPLING LOG
Low Flow Sampling

MONITORING WELL/PIEZOMETER NUMBER KMW-03R

Project Name: Kelly Moore

Project Number: 14697.00008
Location: Seattle WA
Sampler: RH

Date: 9.1.17
Weather Conditions: Sunny 70's
Wind Speed/Direction: NA

WELL INFORMATION

Casing Diameter (in): 2
Top of Casing Elevation (ft):
Initial Depth to Water (ft): 9.53
Wellhead Condition: Reed's rock

Groundwater Elevation (ft):
Depth of Well Casing (ft):
Actual Purge Volume (gal): 2

PURGING MEASUREMENTS

WL (ft btoc)	Time	pH (std. units)	SC (ms/cm)	Temp. (°C)	ORP (mv)	DO (mg/L)	Turbidity (NTUs)	Notes
9.77	1407	7.05	0.749	15.9	-121.9	0.54	24.9	
9.78	1412	7.02	0.695	15.9	-121.5	0.30	74.9	
9.78	1417	7.05	0.563	15.9	-121.3	0.23	173.5	
9.72	1422	7.08	0.495	16.0	-119.4	0.18	312.7	
9.70	1425	7.08	0.485	16.1	-118.0	0.17	358.8	
	1428							
9.70	1431	7.07	0.479	16.1	-117.2	0.16	357.6	
9.70	1434	7.07	0.479	16.1	-116.7	0.15	363.9	
9.70	1437	7.07	0.477	16.1	-117.2	0.15	366.0	

Sample ID No.: KMW-03R.9.1.17
Water Level Ind. Model & No.: Solinst Interface Model 122
ORP/DO Meter Model & No.: YSI PRO DDS
Purge Equipment Used: Peri pump w/ dedicated tubing
Sampling Equipment Used: SPA

Purge Start Time: 1405
Purge Completion Time: 1500
Average Purge Rate (mL/min): 200
Analytical Lab: Pace

Sample Collection Time: 1440
Purging Method: SPA
Sample Containers Used: Lab provided
Chemical Analyses: See COC

Other Field Observations: Strong odor

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GROUNDWATER SAMPLING LOG
Low Flow Sampling

MONITORING WELL/PIEZOMETER NUMBER KMW-04

Project Name: Kelly-Moore

Project Number: 14697.00008
Location: Seattle, WA
Sampler: BH

Date: 8-31-17
Weather Conditions: Sunny 70's
Wind Speed/Direction: 5 mph - west

WELL INFORMATION

Casing Diameter (in): 2
Top of Casing Elevation (ft):
Initial Depth to Water (ft): 6.63
Wellhead Condition: Flooded + needs lock

Groundwater Elevation (ft):
Depth of Well Casing (ft):
Actual Purge Volume (gal): 2.5

PURGING MEASUREMENTS

WL (ft btoc)	Time	pH (std. units)	SC (ms/cm)	Temp. (°C)	ORP (mv)	DO (mg/L)	Turbidity (NTUs)	Notes
6.63	1612	6.35	0.533	15.7	-86.3	0.76	277.6	
6.65	1617	6.28	0.500	15.8	-87.2	0.11	112.1	
6.65	1682	6.29	0.487	16.0	-89.3	0.08	211.8	
6.66	1627	6.30	0.487	16.0	-90.5	0.07	313.1	
6.66	1632	6.30	0.487	16.0	-91.8	0.06	467.8	
6.66	1637	6.30	0.486	16.2	-91.9	0.07	451.6	
6.66	1639	6.31	0.486	16.2	-92.0	0.07	449.8	
6.65	1642	6.31	0.485	16.2	-91.9	0.07	451.7	
6.65	1645	6.31	0.485	16.1	-92.0	0.07	454.9	

Sample ID No.: KMW-04-8-31-17
Water Level Ind. Model & No.: Solinst Interface Model 122
ORP/DO Meter Model & No.: YSI Pro DSS
Purge Equipment Used: Peri pump w/ dedicated tubing
Sampling Equipment Used: SAA

Purge Start Time: 1610
Purge Completion Time: 1720
Average Purge Rate (mL/min): 200
Analytical Lab: Onsite

Sample Collection Time: 1650
Purging Method: SAA
Sample Containers Used: Lab provided
Chemical Analyses: See COC

Other Field Observations: WL meter periodically produced sustained tone (product). Range of depth of possible product < 0.01 @ / 6.65'. Purge water has sheen

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GROUNDWATER SAMPLING LOG
Low Flow Sampling

MONITORING WELL/PIEZOMETER NUMBER KMW-06

Project Name: Kelly Moore

Project Number: 14697.00003
Location: Seattle, WA
Sampler: BA

Date: 8-31-17
Weather Conditions: Sunny 70's
Wind Speed/Direction: 7mph NW

WELL INFORMATION

Casing Diameter (in): 2
Top of Casing Elevation (ft):
Initial Depth to Water (ft): 7.87
Wellhead Condition: ~~ok - secure~~ needs lock
BH 8-31-17

Groundwater Elevation (ft):
Depth of Well Casing (ft):
Actual Purge Volume (gal): 2

PURGING MEASUREMENTS

WL (ft btoc)	Time	pH (std. units)	SC (ms/cm)	Temp. (°C)	ORP (mv)	DO (mg/L)	Turbidity (NTUs)	Notes
7.87	1437	6.34	0.503	19.0	-78.5	0.36	68.8	
7.88	1442	6.33	0.481	18.7	-82.6	0.18	87.7	
7.88	1447	6.33	0.472	18.5	-86.4	0.13	119.2	
7.88	1452	6.34	0.463	18.4	-87.9	0.12	136.1	
7.88	1455	6.34	0.466	18.4	-88.8	0.11	162.0	
7.88	1458	6.34	0.468	18.4	-89.8	0.11	166.6	
7.88	1501	6.34	0.456	18.3	-89.9	0.10	170.6	
7.88	1504	6.34	0.457	18.3	-91.0	0.10	173.5	
7.88	1507	6.35	0.453	18.6	-90.3	0.10	179.2	

Sample ID No.: KMW-06-8.31.17
Water Level Ind. Model & No.: Solinst Interface model 122
ORP/DO Meter Model & No.: YSI PRO DSS
Purge Equipment Used: Peri pump w/ dedicated tubing
Sampling Equipment Used: SAA

Purge Start Time: 1435
Purge Completion Time: 1540
Average Purge Rate (mL/min): 200
Analytical Lab: Onsite

Sample Collection Time: 1510
Purging Method: SAA
Sample Containers Used: Lab provided
Chemical Analyses: See COC

Other Field Observations:

GROUNDWATER SAMPLING LOG
Low Flow Sampling

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MONITORING WELL/PIEZOMETER NUMBER KMW-07

Project Name: Kelly-Moore

Project Number: 14697.0008 **Date:** 9.1.17
Location: Seattle WA **Weather Conditions:** Sunny 70's
Sampler: BH **Wind Speed/Direction:** NA

WELL INFORMATION

Casing Diameter (in): 2 **Groundwater Elevation (ft):**
Top of Casing Elevation (ft): **Depth of Well Casing (ft):**
Initial Depth to Water (ft): 9.58 **Actual Purge Volume (gal):** 2.5
Wellhead Condition: Needs lock

PURGING MEASUREMENTS

WL (ft btoc)	Time	pH (std. units)	SC (ms/cm)	Temp. (°C)	ORP (mv)	DO (mg/L)	Turbidity (NTUs)	Notes
9.66	1110	6.17	0.324	15.2	48.3	1.10	107.8	
9.64	1115	6.06	0.306	15.0	50.0	0.38	311.0	
9.64	1120	6.04	0.298	15.0	56.7	0.29	380.6	
9.64	1125	6.03	0.292	15.0	57.8	0.25	437.9	
9.63	1130	6.02	0.290	15.1	59.3	0.29	441.6	
9.63	1135	6.02	0.288	15.1	59.1	0.20	480.5	
9.63	1138	6.02	0.288	15.1	58.9	0.18	498.3	
9.63	1141	6.02	0.286	14.9	59.0	0.17	522.0	
9.63	1144	6.01	0.284	14.9	59.3	0.15	529.1	
9.63	1147	6.02	0.283	14.9	56.2	0.15	531.2	

Sample ID No.: KMW-07-9.1.17
Water Level Ind. Model & No.: Solinst Interface Model 122
ORP/DO Meter Model & No.: YSI PRO DDS
Purge Equipment Used: Peri Pump w/ dedicated tubing
Sampling Equipment Used: SAA

Purge Start Time: 1105 **Sample Collection Time:** 1150
Purge Completion Time: 1230 **Purging Method:** SAA
Average Purge Rate (mL/min): 200 **Sample Containers Used:** Lab provided
Analytical Lab: Onsite **Chemical Analyses:** See COC

Other Field Observations: Evidence of free (Product). Range of depth of possible product 50.01 @ 9.64'
purge water has strong odor

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GROUNDWATER SAMPLING LOG
Low Flow Sampling

MONITORING WELL/PIEZOMETER NUMBER KMW-08

Project Name: Kelly Moore

Project Number: 14697.00008
Location: Seattle WA
Sampler: BTT

Date: 9.1.17
Weather Conditions: Sunny 70's
Wind Speed/Direction: NA

WELL INFORMATION

Casing Diameter (in): 2
Top of Casing Elevation (ft):
Initial Depth to Water (ft): 9.60
Wellhead Condition: Needs lock

Groundwater Elevation (ft):
Depth of Well Casing (ft):
Actual Purge Volume (gal): 5

PURGING MEASUREMENTS

WL (ft btoc)	Time	pH (std. units)	SC (ms/cm)	Temp. (°C)	ORP (mv)	DO (mg/L)	Turbidity (NTUs)	Notes
9.72	1242	6.21	0.177	14.2	-3.9	0.66	551.2	
9.72	1247	6.14	0.173	14.3	11.9	0.24	271.4	
9.72	1252	6.11	0.172	14.2	17.3	0.23	443.2	
9.75	1257	6.12	0.174	14.2	15.1	0.19	607.2	
9.70	1302	6.13	0.174	14.4	11.9	0.16	653.0	
9.70	1307	6.14	0.175	14.3	8.5	0.14	545.2	
9.70	1310	6.14	0.176	14.3	7.9	0.14	634.2	
9.70	1313	6.14	0.176	14.3	7.5	0.13	720.5	
9.70	1316	6.15	0.176	14.3	5.7	0.12	685.7	
9.70	1319	6.15	0.177	14.3	4.4	0.12	696.7	
9.70	1322	6.18	0.177	14.3	2.5	0.11	695.7	
9.70	btt	9.1.17						
9.71	1325	6.15	0.177	14.3	2.9	0.11	765.0	
9.71	1328	6.15	0.177	14.3	2.4	0.11	795.2	

Sample ID No.: KMW-08-9.1.17
Water Level Ind. Model & No.: Solinst Interface Model 122
ORP/DO Meter Model & No.: YSI PRO DDS
Purge Equipment Used: Peri pump w/ dedicated tubing
Sampling Equipment Used: SAA

Purge Start Time: 1240
Purge Completion Time: 1400
Average Purge Rate (mL/min): 200
Analytical Lab: Onsite

Sample Collection Time: 1340
Purging Method: SAA
Sample Containers Used: lab provided
Chemical Analyses: see COC

Other Field Observations: Strong odor

GROUNDWATER SAMPLING LOG
Low Flow Sampling

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MONITORING WELL/PIEZOMETER NUMBER KMW-08

Project Name: Kelley Moore

Project Number: 14697.09008

Location:

Sampler: BCT

Date: 9.1.17

Weather Conditions:

Wind Speed/Direction:

WELL INFORMATION

Casing Diameter (in):

Top of Casing Elevation (ft):

Initial Depth to Water (ft):

Wellhead Condition:

Groundwater Elevation (ft):

Depth of Well Casing (ft):

Actual Purge Volume (gal):

PURGING MEASUREMENTS

WL (ft btoc)	Time	pH (std. units)	SC (ms/cm)	Temp. (°C)	ORP (mv)	DO (mg/L)	Turbidity (NTUs)	Notes
9.71	1331	6.15	0.177	14.3	2.1	0.10	815.7	4/In 10'
9.71	1334	6.15	0.177	14.3	2.0	0.10	889.8	
9.71	1337	6.15	0.177	14.3	1.9	0.10	895.5	

Sample ID No.:

Water Level Ind. Model & No.:

ORP/DO Meter Model & No.:

Purge Equipment Used:

Sampling Equipment Used:

Purge Start Time:

Purge Completion Time:

Average Purge Rate (mL/min):

Analytical Lab:

Sample Collection Time:

Purging Method:

Sample Containers Used:

Chemical Analyses:

Other Field Observations:

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GROUNDWATER SAMPLING LOG
Low Flow Sampling

MONITORING WELL/PIEZOMETER NUMBER KMW-09

Project Name: Kelly-Moore

Project Number: 14697.00008
Location: Seattle WA
Sampler: DH

Date: 8.31.17
Weather Conditions: overcast 70's
Wind Speed/Direction: 4 mph / East

WELL INFORMATION

Casing Diameter (in): 2
Top of Casing Elevation (ft):
Initial Depth to Water (ft): 6.23
Wellhead Condition: OK - Secure

Groundwater Elevation (ft):
Depth of Well Casing (ft):
Actual Purge Volume (gal): 1.5

PURGING MEASUREMENTS

WL (ft btoc)	Time	pH (std. units)	SC (ms/cm)	Temp. (°C)	ORP (mv)	DO (mg/L)	Turbidity (NTUs)	Notes
6.24	1325	6.33	0.002	18.7	-106.7	6.45	278.9	
6.23	1327	6.31	0.441	16.7	-87.8	0.64	95.6	
6.24	1332	6.32	0.426	16.9	-93.9	0.34	76.1	
6.23	1337	6.32	0.420	16.9	-95.1	0.28	79.4	
6.23	1340	6.32	0.417	16.9	-95.3	0.24	85.8	
6.24	1343	6.32	0.415	16.9	-95.1	0.23	87.3	
6.24	1345	6.32	0.415	16.8	-95.1	0.21	93.5	

Sample ID No.: KMW-09-8.31.17
Water Level Ind. Model & No.: Solinst Interface Model 122
ORP/DO Meter Model & No.: YSI Pro Des
Purge Equipment Used: Peri pump w/dedicated tubing
Sampling Equipment Used: SAA

Purge Start Time: 1320
Purge Completion Time: 1415
Average Purge Rate (mL/min): 200
Analytical Lab: Eurofins

Sample Collection Time: 1350
Purging Method: SAA
Sample Containers Used: Lab provided
Chemical Analyses: See COC

Other Field Observations:

GROUNDWATER SAMPLING LOG
Low Flow Sampling

amec foster wheeler

MONITORING WELL/PIEZOMETER NUMBER KMW-10

Project Name: Kelly-Moore

Project Number: 14697.000008
Location: Seattle, WA
Sampler: BH

Date: 8/31/17
Weather Conditions: Overcast 65's
Wind Speed/Direction: NA

WELL INFORMATION

BH 8.31.17

Casing Diameter (in): 2
Top of Casing Elevation (ft):
Initial Depth to Water (ft): 8.60
Wellhead Condition: ok - secure

Groundwater Elevation (ft): 9.60
Depth of Well Casing (ft):
Actual Purge Volume (gal): 2 gal

PURGING MEASUREMENTS

WL (ft btoc)	Time	pH (std. units)	SC (ms/cm)	Temp. (°C)	ORP (mv)	DO (mg/L)	Turbidity (NTUs)	Notes
8.60	1125	6.20	0.568	17.3	-92.6	0.42	110.4	
8.62	1130	6.22	0.576	17.2	-79.3	0.61	189.4	
8.62	1135	6.21	0.576	16.6	-79.9	0.36	237.2	
8.62	1140	6.21	0.573	16.4	-84.6	0.22	267.6	
8.62	1145	6.21	0.572	16.4	-85.5	0.18	249.0	
8.62	1148	6.22	0.568	16.4	-85.8	0.17	250.7	
8.62	1151	6.22	0.568	16.4	-86.0	0.16	236.0	
8.62	1154	6.21	0.568	16.4	-86.1	0.15	230.3	
8.62	1158	6.21	0.567	16.3	-86.3	0.15	233.2	

Sample ID No.: KMW-10-8-31-17
Water Level Ind. Model & No.: Solinst Interface model 122
ORP/DO Meter Model & No.: YSI pro DSS
Purge Equipment Used: Peri pump w/ dedicated tubing
Sampling Equipment Used: SAA

Purge Start Time: 1124
Purge Completion Time: 1230
Average Purge Rate (mL/min): 200
Analytical Lab: Onsite

Sample Collection Time: 1200
Purging Method: SAA
Sample Containers Used: Lab provided
Chemical Analyses: See COC

Other Field Observations:

GROUNDWATER SAMPLING LOG
Low Flow Sampling

amec foster wheeler

MONITORING WELL/PIEZOMETER NUMBER KMW-02R

Project Name: Kelley Moore

Project Number: 01469-0060 **Date:** 1/26/18

Location: Seattle WA **Weather Conditions:** 40s cloudy

Sampler: K. Black **Wind Speed/Direction:**

WELL INFORMATION

Casing Diameter (in): 2" **Groundwater Elevation (ft):**

Top of Casing Elevation (ft): **Depth of Well Casing (ft):**

Initial Depth to Water (ft): 7.56 **Actual Purge Volume (gal):** 1 gal

Wellhead Condition: good

PURGING MEASUREMENTS

WL (ft btoc)	Time	pH (std. units)	SC (ms/cm)	Temp. (°C)	ORP (mv)	DO (mg/L)	Turbidity (NTUs)	Notes
7.56	1238	5.96	207.1	15.0	136.4	0.62	26.5	
7.56	1241	5.97	201.0	15.0	143.7	0.46	22.8	
7.56	1244	5.98	200.5	15.0	147.9	0.38	25.6	
7.57	1247	5.98	201.5	15.0	151.9	0.30	27.1	
7.57	1250	5.98	199.3	15.0	152.3	0.29	28.3	
7.57	1253	5.99	198.7	15.0	150.9	0.28	29.1	

Sample ID No.: KMW-02R-0126B

Water Level Ind. Model & No.:

ORP/DO Meter Model & No.:

Purge Equipment Used:

Sampling Equipment Used:

Purge Start Time: 1238 **Sample Collection Time:** 1255

Purge Completion Time: 1318 **Purging Method:**

Average Purge Rate (mL/min): 110 mL/min **Sample Containers Used:**

Analytical Lab: onsite env. **Chemical Analyses:**

Other Field Observations: tubing in well when open; upon removing tubing, reddish brown residue on tubing

GROUNDWATER SAMPLING LOG
Low Flow Sampling

amec foster wheeler

MONITORING WELL/PIEZOMETER NUMBER KMW-03R

Project Name:

Date: 1/26/18

Project Number: 0146970060

Weather Conditions: 40s overcast

Location: Seattle, WA

Sampler: K. Blaelly

Wind Speed/Direction: -

WELL INFORMATION

Casing Diameter (in): 2"

Top of Casing Elevation (ft):

Initial Depth to Water (ft): 7.89

Wellhead Condition:

Groundwater Elevation (ft):

Depth of Well Casing (ft):

Actual Purge Volume (gal): 0.5 gal

PURGING MEASUREMENTS

WL (ft btoc)	Time	pH (std. units)	SC (ms/cm)	Temp. (°C)	ORP (mv)	DO (mg/L)	Turbidity (NTUs)	Notes
7.91	0858	6.92	113.9	17.9	156.0	3.71	8.4	
7.95	0901	7.10	243.2	17.5	8.0	0.79	7.0	
7.99	0904	7.16	299.9	17.4	-9.9	0.65	4.9	
7.99	0907	7.21	332.8	17.3	-3.5	0.48	4.4	
7.99	0910	7.21	455.5	17.0	-61.1	0.35	6.3	
7.99	0913	7.25	447.7	16.9	-79.3	0.29	7.9	
7.99	0916	7.26	449.0	16.8	-84.0	0.29	11.2	
7.99	0919	7.26	451.4	16.9	-86.7	0.29	14.3	
8.00	0922	7.26	453.5	16.8	-90.6	0.27	21.6	
8.00	0925	7.26	454.0	16.8	-93.1	0.26	29.2	
8.00	0928	7.26	454.8	16.8	-95.1	0.25	37.0	
8.00	0931	7.26	455.6	16.8	-96.5	0.24	43.0	
8.00	0934	7.26	456.0	16.8	-98.7	0.24	50.6	
8.00	0937	7.26	455.7	16.8	-100.0	0.23	75.7	

Sample ID No.: KMW-03R-012618 → see pg. 2

Water Level Ind. Model & No.:

ORP/DO Meter Model & No.:

Purge Equipment Used:

Sampling Equipment Used:

Purge Start Time: 0855

Purge Completion Time: 1008

Average Purge Rate (mL/min): 100 mL/min

Analytical Lab: Onsite environmental

Sample Collection Time: 0945

Purging Method: low flow

Sample Containers Used:

Chemical Analyses:

Other Field Observations: tubing in well, when removed reddish brown & black res. dust. some suction in well

Final DTW = 8.04

amec foster wheeler

GROUNDWATER SAMPLING LOG
Low Flow Sampling

MONITORING WELL/PIEZOMETER NUMBER KMW-032

Project Name: _____ **Date:** _____

Project Number: See PG **Weather Conditions:** _____

Location: _____

Sampler: _____ **Wind Speed/Direction:** _____

WELL INFORMATION

Casing Diameter (in): _____ **Groundwater Elevation (ft):** _____

Top of Casing Elevation (ft): _____ **Depth of Well Casing (ft):** _____

Initial Depth to Water (ft): _____ **Actual Purge Volume (gal):** _____

Wellhead Condition: _____

PURGING MEASUREMENTS

WL (ft btoc)	Time	pH (std. units)	SC (ms/cm)	Temp. (°C)	ORP (mv)	DO (mg/L)	Turbidity (NTUs)	Notes
8.00	0940	7.06	454.3	17.0	-101.2	0.20	96.8	
8.00	0943	7.27	454.3	16.8	-102.2	0.14	105.0	
				Turbidity would not stabilize				
				purged for 45 min.				
				Sample well				

Sample ID No.: _____

Water Level Ind. Model & No.: _____

ORP/DO Meter Model & No.: _____

Purge Equipment Used: _____

Sampling Equipment Used: _____

Purge Start Time: _____ **Sample Collection Time:** _____

Purge Completion Time: _____ **Purging Method:** _____

Average Purge Rate (mL/min): _____ **Sample Containers Used:** _____

Analytical Lab: _____ **Chemical Analyses:** _____

Other Field Observations: _____

GROUNDWATER SAMPLING LOG
Low Flow Sampling

amec foster wheeler

MONITORING WELL/PIEZOMETER NUMBER KMW-04

Project Name: Former Kelly Moore

Date: 1/25/18

Project Number: 014697006O

Weather Conditions: raining 40s

Location: Seattle, WA

Sampler: K. Black

Wind Speed/Direction: —

WELL INFORMATION

Casing Diameter (in): 2"

Top of Casing Elevation (ft):

Initial Depth to Water (ft): 5.36

Wellhead Condition:

Groundwater Elevation (ft):

Depth of Well Casing (ft):

Actual Purge Volume (gal): 2

PURGING MEASUREMENTS

WL (ft btoc)	Time	pH (std. units)	SC (ms/cm)	Temp. (°C)	ORP (mv)	DO (mg/L)	Turbidity (NTUs)	Notes
5.36	1143	6.73	188.2	11.4	-2.4	1.99	41.7	
5.37	1146	6.48	201.4	11.4	-20.6	0.65	31.5	
5.37	1149	6.47	218.6	11.5	-27.9	0.53	28.7	
5.37	1152	6.45	229.6	11.5	-32.2	0.51	27.8	
5.37	1155	6.42	249.6	11.5	-36.5	0.46	25.8	
5.37	1158	6.41	264.5	11.5	-39.6	0.43	24.6	
5.37	1201	6.42	269.2	11.4	-40.2	0.60	23.8	
5.37	1204	6.41	269.9	11.3	-41.3	0.56	23.6	
5.37	1207	6.40	279.6	11.4	-42.6	0.56	19.3	
5.38	1210	6.40	278.3	11.4	-41.7	0.57	18.9	
5.38	1213	6.40	276.3	11.4	-40.0	0.58	18.3	

Sample ID No.: KMW-04-012518

Water Level Ind. Model & No.:

ORP/DO Meter Model & No.:

Purge Equipment Used:

Sampling Equipment Used:

Purge Start Time: 1140

Purge Completion Time: 1240

Average Purge Rate (mL/min): 200 mL/min

Analytical Lab:

Sample Collection Time: 1215

Purging Method: low flow

Sample Containers Used:

Chemical Analyses:

Other Field Observations: tubing present when open well black residue on tubing when opened

GROUNDWATER SAMPLING LOG
Low Flow Sampling

amec foster wheeler

MONITORING WELL/PIEZOMETER NUMBER KMW-06

Project Name: Kelley Moore

Project Number: 6148170060 **Date:** 1/24/18

Location: Seattle WA **Weather Conditions:** 50s rainy

Sampler: K. Black **Wind Speed/Direction:** —

WELL INFORMATION

Casing Diameter (in): 2" **Groundwater Elevation (ft):**

Top of Casing Elevation (ft): **Depth of Well Casing (ft):**

Initial Depth to Water (ft): 6.58 **Actual Purge Volume (gal):** 2 gal

Wellhead Condition: good

PURGING MEASUREMENTS

WL (ft btoc)	Time	pH (std. units)	SC (ms/cm)	Temp. (°C)	ORP (mv)	DO (mg/L)	Turbidity (NTUs)	Notes
6.59	1233	6.56	317.4	15.0	-67.4	0.66	14.6	
6.59	1236	6.56	321.4	15.1	-71.0	0.57	13.4	
6.59	1239	6.56	321.9	15.1	-76.9	0.45	15.8	
6.59	1242	6.56	322.2	15.3	-82.7	0.38	13.7	
6.59	1245	6.55	324.0	15.2	-87.4	0.29	12.7	
6.59	1248	6.56	324.0	15.4	-91.4	0.24	12.7	

Turb: 10% 7S

DO: 10% 7 0.5

SC 3%

Temp 3%

pH ±0.1

ORP ±10 ✓

Sample ID No.: KMW-06-012418

Water Level Ind. Model & No.:

ORP/DO Meter Model & No.:

Purge Equipment Used:

Sampling Equipment Used: Final DTW 6.59

Purge Start Time: 1225 **Sample Collection Time:** 12:50

Purge Completion Time: 1303 **Purging Method:** low flow peristaltic pump

Average Purge Rate (mL/min): 171 mL/min **Sample Containers Used:**

Analytical Lab: Onsite environmental **Chemical Analyses:** see COC

Other Field Observations: Poly tubing in well when opened initially black residue on poly tubing when removed from well

200mL/70s

amec foster wheeler

GROUNDWATER SAMPLING LOG
Low Flow Sampling

MONITORING WELL/PIEZOMETER NUMBER KMW-07

Project Name: Kelley Moore

Date: 1/26/18

Project Number: 0146970060

Weather Conditions: 40s rainy

Location: Seattle, WA

Sampler: K Black

Wind Speed/Direction: —

WELL INFORMATION

Casing Diameter (in): 2"

Top of Casing Elevation (ft):

Initial Depth to Water (ft): 7.64

Wellhead Condition: good

Groundwater Elevation (ft):

Depth of Well Casing (ft):

Actual Purge Volume (gal): 1.5

PURGING MEASUREMENTS

WL (ft btoc)	Time	pH (std. units)	SC (ms/cm)	Temp. (°C)	ORP (mv)	DO (mg/L)	Turbidity (NTUs)	Notes
7.64	1143	6.35	287.7	15.3	62.7	0.79	50.5	
7.64	1146	6.34	288.0	15.3	59.2	0.48	50.9	
7.64	1149	6.34	288.5	15.3	55.6	0.43	51.6	
7.64	1152	6.34	285.1	15.3	55.4	0.38	52.8	
7.64	1155	6.33	283.3	15.3	55.3	0.35	53.1	
7.64	1158	6.32	280.2	15.3	56.1	0.32	52.5	
	1200	collect	sample	→ well stabilized				

Sample ID No.: KMW-07-012618

Water Level Ind. Model & No.:

ORP/DO Meter Model & No.:

Purge Equipment Used:

Sampling Equipment Used:

Purge Start Time: 1140

Purge Completion Time: 1230

Average Purge Rate (mL/min): 190 mL/min

Analytical Lab: Onsite

Sample Collection Time: 1200

Purging Method:

Sample Containers Used:

Chemical Analyses:

Other Field Observations: tubing in well upon opening, when removed reddish brown residue on tubing

GROUNDWATER SAMPLING LOG
Low Flow Sampling

amec foster wheeler

MONITORING WELL/PIEZOMETER NUMBER KMW-08

Project Name: Kelley Moore

Project Number: 014697.0060 **Date:** 1/26/18

Location: Seattle, WA **Weather Conditions:** 40s rainy

Sampler: K. Black **Wind Speed/Direction:**

WELL INFORMATION

Casing Diameter (in): 2" **Groundwater Elevation (ft):**

Top of Casing Elevation (ft): **Depth of Well Casing (ft):**

Initial Depth to Water (ft): 7.77 **Actual Purge Volume (gal):** 1.5

Wellhead Condition:

PURGING MEASUREMENTS

WL (ft btoc)	Time	pH (std. units)	SC (ms/cm)	Temp. (°C)	ORP (mv)	DO (mg/L)	Turbidity (NTUs)	Notes
7.77	1043	5.87	498.5	15.3	44.2	0.66	59.8	cloudy
7.78	1046	5.90	508	15.2	43.1	0.61	40.0	
7.78	1049	5.93	512	15.2	41.7	0.59	35.1	
7.78	1052	5.95	521	15.2	38.7	0.54	31.1	
7.78	1055	5.97	523	15.2	35.3	0.52	31.6	
7.78	1058	5.98	526	15.2	32.9	0.50	29.2	

10% Turb
10% DO
SC 3%
Temp 3%
pH ±0.1
ORP ±10mV

Sample ID No.: KMW-08-012618

Water Level Ind. Model & No.:

ORP/DO Meter Model & No.:

Purge Equipment Used:

Sampling Equipment Used:

Purge Start Time: 1040 **Sample Collection Time:** 11:00

Purge Completion Time: 1105 **Purging Method:**

Average Purge Rate (mL/min): 180 mL/min **Sample Containers Used:**

Analytical Lab: onsite environmental **Chemical Analyses:**

Other Field Observations: tubing in well when open; when removed orangish brown w/ black residue on tubing

Final DTW = 7.79

GROUNDWATER SAMPLING LOG
Low Flow Sampling

amec foster wheeler

MONITORING WELL/PIEZOMETER NUMBER KMW-09

Project Name: Former Kelly Moore

Project Number: 01469060 **Date:** 1/24/18

Location: Seattle, WA **Weather Conditions:** 50°, rainy

Sampler: _____ **Wind Speed/Direction:** —

WELL INFORMATION

Casing Diameter (in): 2' **Groundwater Elevation (ft):** _____

Top of Casing Elevation (ft): 1 **Depth of Well Casing (ft):** _____

Initial Depth to Water (ft): 4.96 **Actual Purge Volume (gal):** 1 gal

Wellhead Condition: _____

PURGING MEASUREMENTS

WL (ft btoc)	Time	pH (std. units)	SC (ms/cm)	Temp. (°C)	ORP (mv)	DO (mg/L)	Turbidity (NTUs)	Notes
4.97	1424	6.55	382.9	13.6	-97.4	1.04	28.2	
4.97	1427	6.56	392.5	13.1	-83.5	0.79	27.6	
4.97	1430	6.56	391.1	13.6	-81.5	0.60	28.0	
4.98	1433	6.56	394.7	13.3	-80.6	0.60	26.6	
4.98	1436	6.56	394.1	13.3	-80.1	0.53	25.0	
4.98	1439	6.56	396.6	13.4	-80.0	0.46	24.2	
4.98	1442	6.56	396.2	13.4	-79.5	0.40	24.3	

Sample ID No.: KMW-09-012418

Water Level Ind. Model & No.: _____

ORP/DO Meter Model & No.: _____

Purge Equipment Used: _____

Sampling Equipment Used: _____ Final DTW = 4.96

Purge Start Time: 1420 **Sample Collection Time:** 1445

Purge Completion Time: 1436 **Purging Method:** _____

Average Purge Rate (mL/min): 110 ml/min **Sample Containers Used:** _____

Analytical Lab: Onsite **Chemical Analyses:** _____

Other Field Observations: tubing left in well from previous sampler (black residue) on tubing when removed.

amec foster wheeler

GROUNDWATER SAMPLING LOG
Low Flow Sampling

MONITORING WELL/PIEZOMETER NUMBER MW-10

Project Name: Former Kelley Moore
Date: 1/25/18
Project Number: 0146970060
Weather Conditions: rainy 40s
Location: Seattle, WA
Sampler: K. Black
Wind Speed/Direction: —

WELL INFORMATION

Casing Diameter (in): 2"
Top of Casing Elevation (ft):
Initial Depth to Water (ft): 7.51
Wellhead Condition:
Groundwater Elevation (ft):
Depth of Well Casing (ft):
Actual Purge Volume (gal): 2 gal

PURGING MEASUREMENTS

WL (ft btoc)	Time	pH (std. units)	SC (ms/cm)	Temp. (°C)	ORP (mv)	DO (mg/L)	Turbidity (NTUs)	Notes
7.51	0908	6.42	658	13.3	-62.2	0.64	56.1	
7.51	0911	6.44	656	13.4	-67.8	0.35	51.0	
7.51	0914	6.44	658	13.5	-68.5	0.38	52.4	
7.52	0917	6.44	660	13.2	-68.8	0.43	54.3	
7.52	0920	6.46	656	13.4	-70.3	0.33	50.8	
7.52	0923	6.46	655	13.3	-70.6	0.27	51.3	
7.52	0926	6.46	657	13.2	-70.6	0.29	50.6	
7.52	0929	6.46	656	13.2	-69.4	0.28	50.2	

Sample ID No.: KMW-10-012518 & KMW-109-012518
Water Level Ind. Model & No.:
ORP/DO Meter Model & No.:
Purge Equipment Used:
Sampling Equipment Used:

Purge Start Time: 0903
Purge Completion Time: 1045
Average Purge Rate (mL/min): 200 mL/min
Analytical Lab: onsite environmental
Sample Collection Time: 0930
Purging Method:
Sample Containers Used: 6 liter
Chemical Analyses:

Other Field Observations: tubing left in well; orangish brown residue on tubing when removed

Final DTW = 7.52

Appendix B

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

September 14, 2017

Crystal Thimsen
AMEC Foster Wheeler
Environment and Infrastructure, Inc.
One Union Square
600 University Street, Suite 600
Seattle, WA 98101

Re: Analytical Data for Project 14697.00008
Laboratory Reference No. 1709-019

Dear Crystal:

Enclosed are the analytical results and associated quality control data for samples submitted on September 1, 2017.

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: September 14, 2017
Samples Submitted: September 1, 2017
Laboratory Reference: 1709-019
Project: 14697.00008

Case Narrative

Samples were collected on August 31 and September 1, 2017 and received by the laboratory on September 1, 2017. 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.

PAHs EPA 8270D/SIM Analysis

Sample KMW-09-8-31-17 had one surrogate recovery out of control limits. This is within allowance of our standard operating procedure as long as the recovery is above 10%.

Dissolved Metals by EPA 200.8/7470A Analysis

Samples KMW-02R-9-1-17, KMW-07-9-1-17, and KMW-03R-9-1-17 were refiltered.

Please note that any other QA/QC issues associated with these extractions and analyses will be indicated with a footnote reference and discussed in detail on the Data Qualifier page.

Date of Report: September 14, 2017
Samples Submitted: September 1, 2017
Laboratory Reference: 1709-019
Project: 14697.00008

NWTPH-Gx

Matrix: Water
Units: ug/L (ppb)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**KMW-10-8-31-17**					
Laboratory ID:	09-019-01					
Gasoline	**3400**	100	NWTPH-Gx	9-7-17	9-7-17	
Surrogate:	*Percent Recovery*	*Control Limits*				
Fluorobenzene	*90*	*61-118*				
Client ID:	**KMW-09-8-31-17**					
Laboratory ID:	09-019-02					
Gasoline	**360**	100	NWTPH-Gx	9-7-17	9-7-17	O
Surrogate:	*Percent Recovery*	*Control Limits*				
Fluorobenzene	*82*	*61-118*				
Client ID:	**KMW-06-8-31-17**					
Laboratory ID:	09-019-03					
Gasoline	**1600**	100	NWTPH-Gx	9-7-17	9-7-17	O
Surrogate:	*Percent Recovery*	*Control Limits*				
Fluorobenzene	*94*	*61-118*				
Client ID:	**KMW-04-8-31-17**					
Laboratory ID:	09-019-04					
Gasoline	**8000**	100	NWTPH-Gx	9-7-17	9-7-17	
Surrogate:	*Percent Recovery*	*Control Limits*				
Fluorobenzene	*92*	*61-118*				
Client ID:	**KMW-02R-9-1-17**					
Laboratory ID:	09-019-05					
Gasoline	**ND**	100	NWTPH-Gx	9-7-17	9-7-17	
Surrogate:	*Percent Recovery*	*Control Limits*				
Fluorobenzene	*88*	*61-118*				
Client ID:	**KMW-07-9-1-17**					
Laboratory ID:	09-019-06					
Gasoline	**ND**	100	NWTPH-Gx	9-7-17	9-7-17	
Surrogate:	*Percent Recovery*	*Control Limits*				
Fluorobenzene	*94*	*61-118*				

Date of Report: September 14, 2017
Samples Submitted: September 1, 2017
Laboratory Reference: 1709-019
Project: 14697.00008

NWTPH-Gx

Matrix: Water
Units: ug/L (ppb)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**KMW-08-9-1-17**					
Laboratory ID:	09-019-07					
Gasoline	**130**	100	NWTPH-Gx	9-13-17	9-13-17	
Surrogate:	*Percent Recovery*	*Control Limits*				
Fluorobenzene	*89*	*61-118*				
Client ID:	**KMW-03R-9-1-17**					
Laboratory ID:	09-019-08					
Gasoline	**270**	100	NWTPH-Gx	9-13-17	9-13-17	
Surrogate:	*Percent Recovery*	*Control Limits*				
Fluorobenzene	*85*	*61-118*				
Client ID:	**TRIP BLANK**					
Laboratory ID:	09-019-09					
Gasoline	**ND**	100	NWTPH-Gx	9-7-17	9-7-17	
Surrogate:	*Percent Recovery*	*Control Limits*				
Fluorobenzene	*97*	*61-118*				

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NWTPH-Gx
QUALITY CONTROL

Matrix: Water
Units: ug/L (ppb)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
METHOD BLANK						
Laboratory ID:	MB0907W1					
Gasoline	**ND**	100	NWTPH-Gx	9-7-17	9-7-17	
Surrogate:	*Percent Recovery*	*Control Limits*				
Fluorobenzene	*89*	*61-118*				
Laboratory ID:	MB0913W1					
Gasoline	**ND**	100	NWTPH-Gx	9-13-17	9-13-17	
Surrogate:	*Percent Recovery*	*Control Limits*				
Fluorobenzene	*97*	*61-118*				

Analyte	Result		Spike Level	Source Result	Percent Recovery	Recovery Limits	RPD	RPD Limit	Flags
DUPLICATE									
Laboratory ID:	09-019-05								
	ORIG	DUP							
Gasoline	**ND**	**ND**	NA	NA	NA	NA	NA	30	
Surrogate:									
Fluorobenzene					*88*	*103*	*61-118*		

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NWTPH-Dx

Matrix: Water
Units: mg/L (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**KMW-10-8-31-17**					
Laboratory ID:	09-019-01					
Diesel Range Organics	**1.8**	0.27	NWTPH-Dx	9-8-17	9-8-17	M
Lube Oil Range Organics	**ND**	0.43	NWTPH-Dx	9-8-17	9-8-17	
Surrogate:	*Percent Recovery*	*Control Limits*				
o-Terphenyl	*91*	*50-150*				
Client ID:	**KMW-09-8-31-17**					
Laboratory ID:	09-019-02					
Diesel Range Organics	**2.3**	0.27	NWTPH-Dx	9-8-17	9-8-17	
Lube Oil Range Organics	**0.81**	0.43	NWTPH-Dx	9-8-17	9-8-17	N1
Surrogate:	*Percent Recovery*	*Control Limits*				
o-Terphenyl	*85*	*50-150*				
Client ID:	**KMW-06-8-31-17**					
Laboratory ID:	09-019-03					
Diesel Range Organics	**4.4**	0.26	NWTPH-Dx	9-8-17	9-8-17	M
Lube Oil Range Organics	**ND**	1.6	NWTPH-Dx	9-8-17	9-8-17	U1
Surrogate:	*Percent Recovery*	*Control Limits*				
o-Terphenyl	*106*	*50-150*				
Client ID:	**KMW-04-8-31-17**					
Laboratory ID:	09-019-04					
Diesel Range Organics	**1.6**	0.27	NWTPH-Dx	9-8-17	9-8-17	M
Lube Oil Range Organics	**ND**	0.44	NWTPH-Dx	9-8-17	9-8-17	
Surrogate:	*Percent Recovery*	*Control Limits*				
o-Terphenyl	*94*	*50-150*				
Client ID:	**KMW-02R-9-1-17**					
Laboratory ID:	09-019-05					
Diesel Range Organics	**ND**	0.27	NWTPH-Dx	9-8-17	9-8-17	
Lube Oil Range Organics	**ND**	0.43	NWTPH-Dx	9-8-17	9-8-17	
Surrogate:	*Percent Recovery*	*Control Limits*				
o-Terphenyl	*87*	*50-150*				
Client ID:	**KMW-07-9-1-17**					
Laboratory ID:	09-019-06					
Diesel Range Organics	**ND**	0.28	NWTPH-Dx	9-8-17	9-8-17	
Lube Oil Range Organics	**ND**	0.45	NWTPH-Dx	9-8-17	9-8-17	
Surrogate:	*Percent Recovery*	*Control Limits*				
o-Terphenyl	*108*	*50-150*				

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NWTPH-Dx

Matrix: Water
Units: mg/L (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**KMW-08-9-1-17**					
Laboratory ID:	09-019-07					
Diesel Range Organics	**ND**	0.30	NWTPH-Dx	9-8-17	9-8-17	
Lube Oil Range Organics	**ND**	0.48	NWTPH-Dx	9-8-17	9-8-17	
Surrogate:	*Percent Recovery*	*Control Limits*				
o-Terphenyl	*95*	*50-150*				
Client ID:	**KMW-03R-9-1-17**					
Laboratory ID:	09-019-08					
Diesel Range Organics	**0.33**	0.27	NWTPH-Dx	9-8-17	9-8-17	M
Lube Oil Range Organics	**ND**	0.43	NWTPH-Dx	9-8-17	9-8-17	
Surrogate:	*Percent Recovery*	*Control Limits*				
o-Terphenyl	*103*	*50-150*				

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Project: 14697.00008

NWTPH-Dx
QUALITY CONTROL

Matrix: Water
Units: mg/L (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
METHOD BLANK						
Laboratory ID:	MB0908W1					
Diesel Range Organics	**ND**	0.25	NWTPH-Dx	9-8-17	9-8-17	
Lube Oil Range Organics	**ND**	0.40	NWTPH-Dx	9-8-17	9-8-17	
Surrogate:	*Percent Recovery*	*Control Limits*				
o-Terphenyl	*85*	*50-150*				

Analyte	Result		Spike Level		Source Result	Percent Recovery	Recovery Limits	RPD	RPD Limit	Flags
DUPLICATE										
Laboratory ID:	09-019-05									
	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						*87* *104*	*50-150*			
SPIKE BLANK										
Laboratory ID:	SB0908W1									
Diesel Fuel #2	**0.815**		1.00		NA	**82**	58-113	NA	NA	
Surrogate:										
o-Terphenyl						*112*	*50-150*			

Date of Report: September 14, 2017
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Project: 14697.00008

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Matrix: Water
Units: ug/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**KMW-10-8-31-17**					
Laboratory ID:	09-019-01					
Dichlorodifluoromethane	ND	4.0	EPA 8260C	9-7-17	9-7-17	
Chloromethane	ND	20	EPA 8260C	9-7-17	9-7-17	
Vinyl Chloride	ND	4.0	EPA 8260C	9-7-17	9-7-17	
Bromomethane	ND	7.2	EPA 8260C	9-7-17	9-7-17	
Chloroethane	ND	20	EPA 8260C	9-7-17	9-7-17	
Trichlorofluoromethane	ND	4.0	EPA 8260C	9-7-17	9-7-17	
1,1-Dichloroethene	ND	4.0	EPA 8260C	9-7-17	9-7-17	
Acetone	ND	100	EPA 8260C	9-7-17	9-7-17	
Iodomethane	ND	40	EPA 8260C	9-7-17	9-7-17	
Carbon Disulfide	ND	4.0	EPA 8260C	9-7-17	9-7-17	
Methylene Chloride	ND	40	EPA 8260C	9-7-17	9-7-17	
(trans) 1,2-Dichloroethene	ND	4.0	EPA 8260C	9-7-17	9-7-17	
Methyl t-Butyl Ether	ND	4.0	EPA 8260C	9-7-17	9-7-17	
1,1-Dichloroethane	ND	4.0	EPA 8260C	9-7-17	9-7-17	
Vinyl Acetate	ND	20	EPA 8260C	9-7-17	9-7-17	
2,2-Dichloropropane	ND	4.0	EPA 8260C	9-7-17	9-7-17	
(cis) 1,2-Dichloroethene	ND	4.0	EPA 8260C	9-7-17	9-7-17	
2-Butanone	ND	100	EPA 8260C	9-7-17	9-7-17	
Bromochloromethane	ND	4.0	EPA 8260C	9-7-17	9-7-17	
Chloroform	ND	4.0	EPA 8260C	9-7-17	9-7-17	
1,1,1-Trichloroethane	ND	4.0	EPA 8260C	9-7-17	9-7-17	
Carbon Tetrachloride	ND	4.0	EPA 8260C	9-7-17	9-7-17	
1,1-Dichloropropene	ND	4.0	EPA 8260C	9-7-17	9-7-17	
Benzene	8.2	4.0	EPA 8260C	9-7-17	9-7-17	
1,2-Dichloroethane	ND	4.0	EPA 8260C	9-7-17	9-7-17	
Trichloroethene	ND	4.0	EPA 8260C	9-7-17	9-7-17	
1,2-Dichloropropane	ND	4.0	EPA 8260C	9-7-17	9-7-17	
Dibromomethane	ND	4.0	EPA 8260C	9-7-17	9-7-17	
Bromodichloromethane	ND	4.0	EPA 8260C	9-7-17	9-7-17	
2-Chloroethyl Vinyl Ether	ND	26	EPA 8260C	9-7-17	9-7-17	
(cis) 1,3-Dichloropropene	ND	4.0	EPA 8260C	9-7-17	9-7-17	
Methyl Isobutyl Ketone	ND	40	EPA 8260C	9-7-17	9-7-17	
Toluene	ND	20	EPA 8260C	9-7-17	9-7-17	
(trans) 1,3-Dichloropropene	ND	4.0	EPA 8260C	9-7-17	9-7-17	

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Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**KMW-10-8-31-17**					
Laboratory ID:	09-019-01					
1,1,2-Trichloroethane	ND	4.0	EPA 8260C	9-7-17	9-7-17	
Tetrachloroethene	ND	4.0	EPA 8260C	9-7-17	9-7-17	
1,3-Dichloropropane	ND	4.0	EPA 8260C	9-7-17	9-7-17	
2-Hexanone	ND	40	EPA 8260C	9-7-17	9-7-17	
Dibromochloromethane	ND	4.0	EPA 8260C	9-7-17	9-7-17	
1,2-Dibromoethane	ND	4.0	EPA 8260C	9-7-17	9-7-17	
Chlorobenzene	ND	4.0	EPA 8260C	9-7-17	9-7-17	
1,1,1,2-Tetrachloroethane	ND	4.0	EPA 8260C	9-7-17	9-7-17	
Ethylbenzene	810	4.0	EPA 8260C	9-7-17	9-7-17	
m,p-Xylene	1100	20	EPA 8260C	9-8-17	9-8-17	
o-Xylene	22	4.0	EPA 8260C	9-7-17	9-7-17	
Styrene	ND	4.0	EPA 8260C	9-7-17	9-7-17	
Bromoform	ND	20	EPA 8260C	9-7-17	9-7-17	
Isopropylbenzene	20	4.0	EPA 8260C	9-7-17	9-7-17	
Bromobenzene	ND	4.0	EPA 8260C	9-7-17	9-7-17	
1,1,2,2-Tetrachloroethane	ND	4.0	EPA 8260C	9-7-17	9-7-17	
1,2,3-Trichloropropane	ND	4.0	EPA 8260C	9-7-17	9-7-17	
n-Propylbenzene	18	4.0	EPA 8260C	9-7-17	9-7-17	
2-Chlorotoluene	ND	4.0	EPA 8260C	9-7-17	9-7-17	
4-Chlorotoluene	ND	4.0	EPA 8260C	9-7-17	9-7-17	
1,3,5-Trimethylbenzene	23	4.0	EPA 8260C	9-7-17	9-7-17	
tert-Butylbenzene	ND	4.0	EPA 8260C	9-7-17	9-7-17	
1,2,4-Trimethylbenzene	53	4.0	EPA 8260C	9-7-17	9-7-17	
sec-Butylbenzene	ND	4.0	EPA 8260C	9-7-17	9-7-17	
1,3-Dichlorobenzene	ND	4.0	EPA 8260C	9-7-17	9-7-17	
p-Isopropyltoluene	ND	4.0	EPA 8260C	9-7-17	9-7-17	
1,4-Dichlorobenzene	ND	4.0	EPA 8260C	9-7-17	9-7-17	
1,2-Dichlorobenzene	ND	4.0	EPA 8260C	9-7-17	9-7-17	
n-Butylbenzene	ND	4.0	EPA 8260C	9-7-17	9-7-17	
1,2-Dibromo-3-chloropropane	ND	20	EPA 8260C	9-7-17	9-7-17	
1,2,4-Trichlorobenzene	ND	4.0	EPA 8260C	9-7-17	9-7-17	
Hexachlorobutadiene	ND	4.0	EPA 8260C	9-7-17	9-7-17	
Naphthalene	ND	20	EPA 8260C	9-7-17	9-7-17	
1,2,3-Trichlorobenzene	ND	4.0	EPA 8260C	9-7-17	9-7-17	
Surrogate:	*Percent Recovery*	*Control Limits*				
Dibromofluoromethane	*99*	*77-129*				
Toluene-d8	*98*	*80-127*				
4-Bromofluorobenzene	*98*	*78-125*				

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Matrix: Water
Units: ug/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**KMW-09-8-31-17**					
Laboratory ID:	09-019-02					
Dichlorodifluoromethane	ND	0.20	EPA 8260C	9-7-17	9-7-17	
Chloromethane	ND	1.0	EPA 8260C	9-7-17	9-7-17	
Vinyl Chloride	ND	0.20	EPA 8260C	9-7-17	9-7-17	
Bromomethane	ND	0.36	EPA 8260C	9-7-17	9-7-17	
Chloroethane	ND	1.0	EPA 8260C	9-7-17	9-7-17	
Trichlorofluoromethane	ND	0.20	EPA 8260C	9-7-17	9-7-17	
1,1-Dichloroethene	ND	0.20	EPA 8260C	9-7-17	9-7-17	
Acetone	ND	5.0	EPA 8260C	9-7-17	9-7-17	
Iodomethane	ND	2.0	EPA 8260C	9-7-17	9-7-17	
Carbon Disulfide	0.21	0.20	EPA 8260C	9-7-17	9-7-17	
Methylene Chloride	ND	2.0	EPA 8260C	9-7-17	9-7-17	
(trans) 1,2-Dichloroethene	ND	0.20	EPA 8260C	9-7-17	9-7-17	
Methyl t-Butyl Ether	ND	0.20	EPA 8260C	9-7-17	9-7-17	
1,1-Dichloroethane	ND	0.20	EPA 8260C	9-7-17	9-7-17	
Vinyl Acetate	ND	1.0	EPA 8260C	9-7-17	9-7-17	
2,2-Dichloropropane	ND	0.20	EPA 8260C	9-7-17	9-7-17	
(cis) 1,2-Dichloroethene	ND	0.20	EPA 8260C	9-7-17	9-7-17	
2-Butanone	ND	5.0	EPA 8260C	9-7-17	9-7-17	
Bromochloromethane	ND	0.20	EPA 8260C	9-7-17	9-7-17	
Chloroform	ND	0.20	EPA 8260C	9-7-17	9-7-17	
1,1,1-Trichloroethane	ND	0.20	EPA 8260C	9-7-17	9-7-17	
Carbon Tetrachloride	ND	0.20	EPA 8260C	9-7-17	9-7-17	
1,1-Dichloropropene	ND	0.20	EPA 8260C	9-7-17	9-7-17	
Benzene	ND	0.20	EPA 8260C	9-7-17	9-7-17	
1,2-Dichloroethane	ND	0.20	EPA 8260C	9-7-17	9-7-17	
Trichloroethene	ND	0.20	EPA 8260C	9-7-17	9-7-17	
1,2-Dichloropropane	ND	0.20	EPA 8260C	9-7-17	9-7-17	
Dibromomethane	ND	0.20	EPA 8260C	9-7-17	9-7-17	
Bromodichloromethane	ND	0.20	EPA 8260C	9-7-17	9-7-17	
2-Chloroethyl Vinyl Ether	ND	1.3	EPA 8260C	9-7-17	9-7-17	
(cis) 1,3-Dichloropropene	ND	0.20	EPA 8260C	9-7-17	9-7-17	
Methyl Isobutyl Ketone	ND	2.0	EPA 8260C	9-7-17	9-7-17	
Toluene	ND	1.0	EPA 8260C	9-7-17	9-7-17	
(trans) 1,3-Dichloropropene	ND	0.20	EPA 8260C	9-7-17	9-7-17	

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Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**KMW-09-8-31-17**					
Laboratory ID:	09-019-02					
1,1,2-Trichloroethane	ND	0.20	EPA 8260C	9-7-17	9-7-17	
Tetrachloroethene	ND	0.20	EPA 8260C	9-7-17	9-7-17	
1,3-Dichloropropane	ND	0.20	EPA 8260C	9-7-17	9-7-17	
2-Hexanone	ND	2.0	EPA 8260C	9-7-17	9-7-17	
Dibromochloromethane	ND	0.20	EPA 8260C	9-7-17	9-7-17	
1,2-Dibromoethane	ND	0.20	EPA 8260C	9-7-17	9-7-17	
Chlorobenzene	ND	0.20	EPA 8260C	9-7-17	9-7-17	
1,1,1,2-Tetrachloroethane	ND	0.20	EPA 8260C	9-7-17	9-7-17	
Ethylbenzene	0.36	0.20	EPA 8260C	9-7-17	9-7-17	
m,p-Xylene	0.69	0.40	EPA 8260C	9-7-17	9-7-17	
o-Xylene	ND	0.20	EPA 8260C	9-7-17	9-7-17	
Styrene	ND	0.20	EPA 8260C	9-7-17	9-7-17	
Bromoform	ND	1.0	EPA 8260C	9-7-17	9-7-17	
Isopropylbenzene	11	0.20	EPA 8260C	9-7-17	9-7-17	
Bromobenzene	ND	0.20	EPA 8260C	9-7-17	9-7-17	
1,1,2,2-Tetrachloroethane	ND	0.20	EPA 8260C	9-7-17	9-7-17	
1,2,3-Trichloropropane	ND	0.20	EPA 8260C	9-7-17	9-7-17	
n-Propylbenzene	12	0.20	EPA 8260C	9-7-17	9-7-17	
2-Chlorotoluene	ND	0.20	EPA 8260C	9-7-17	9-7-17	
4-Chlorotoluene	ND	0.20	EPA 8260C	9-7-17	9-7-17	
1,3,5-Trimethylbenzene	ND	0.20	EPA 8260C	9-7-17	9-7-17	
tert-Butylbenzene	ND	0.20	EPA 8260C	9-7-17	9-7-17	
1,2,4-Trimethylbenzene	ND	0.20	EPA 8260C	9-7-17	9-7-17	
sec-Butylbenzene	0.91	0.20	EPA 8260C	9-7-17	9-7-17	
1,3-Dichlorobenzene	ND	0.20	EPA 8260C	9-7-17	9-7-17	
p-Isopropyltoluene	ND	0.20	EPA 8260C	9-7-17	9-7-17	
1,4-Dichlorobenzene	ND	0.20	EPA 8260C	9-7-17	9-7-17	
1,2-Dichlorobenzene	ND	0.20	EPA 8260C	9-7-17	9-7-17	
n-Butylbenzene	0.49	0.20	EPA 8260C	9-7-17	9-7-17	
1,2-Dibromo-3-chloropropane	ND	1.0	EPA 8260C	9-7-17	9-7-17	
1,2,4-Trichlorobenzene	ND	0.20	EPA 8260C	9-7-17	9-7-17	
Hexachlorobutadiene	ND	0.20	EPA 8260C	9-7-17	9-7-17	
Naphthalene	ND	1.0	EPA 8260C	9-7-17	9-7-17	
1,2,3-Trichlorobenzene	ND	0.20	EPA 8260C	9-7-17	9-7-17	
Surrogate:	*Percent Recovery*	*Control Limits*				
Dibromofluoromethane	*92*	*77-129*				
Toluene-d8	*95*	*80-127*				
4-Bromofluorobenzene	*99*	*78-125*				

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Matrix: Water
Units: ug/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**KMW-06-8-31-17**					
Laboratory ID:	09-019-03					
Dichlorodifluoromethane	ND	0.20	EPA 8260C	9-7-17	9-7-17	
Chloromethane	ND	1.0	EPA 8260C	9-7-17	9-7-17	
Vinyl Chloride	ND	0.20	EPA 8260C	9-7-17	9-7-17	
Bromomethane	ND	0.36	EPA 8260C	9-7-17	9-7-17	
Chloroethane	ND	1.0	EPA 8260C	9-7-17	9-7-17	
Trichlorofluoromethane	ND	0.20	EPA 8260C	9-7-17	9-7-17	
1,1-Dichloroethene	ND	0.20	EPA 8260C	9-7-17	9-7-17	
Acetone	ND	5.0	EPA 8260C	9-7-17	9-7-17	
Iodomethane	ND	2.0	EPA 8260C	9-7-17	9-7-17	
Carbon Disulfide	ND	0.20	EPA 8260C	9-7-17	9-7-17	
Methylene Chloride	ND	2.0	EPA 8260C	9-7-17	9-7-17	
(trans) 1,2-Dichloroethene	ND	0.20	EPA 8260C	9-7-17	9-7-17	
Methyl t-Butyl Ether	ND	0.20	EPA 8260C	9-7-17	9-7-17	
1,1-Dichloroethane	ND	0.20	EPA 8260C	9-7-17	9-7-17	
Vinyl Acetate	ND	1.0	EPA 8260C	9-7-17	9-7-17	
2,2-Dichloropropane	ND	0.20	EPA 8260C	9-7-17	9-7-17	
(cis) 1,2-Dichloroethene	ND	0.20	EPA 8260C	9-7-17	9-7-17	
2-Butanone	ND	5.0	EPA 8260C	9-7-17	9-7-17	
Bromochloromethane	ND	0.20	EPA 8260C	9-7-17	9-7-17	
Chloroform	ND	0.20	EPA 8260C	9-7-17	9-7-17	
1,1,1-Trichloroethane	ND	0.20	EPA 8260C	9-7-17	9-7-17	
Carbon Tetrachloride	ND	0.20	EPA 8260C	9-7-17	9-7-17	
1,1-Dichloropropene	ND	0.20	EPA 8260C	9-7-17	9-7-17	
Benzene	ND	0.20	EPA 8260C	9-7-17	9-7-17	
1,2-Dichloroethane	ND	0.20	EPA 8260C	9-7-17	9-7-17	
Trichloroethene	ND	0.20	EPA 8260C	9-7-17	9-7-17	
1,2-Dichloropropane	ND	0.20	EPA 8260C	9-7-17	9-7-17	
Dibromomethane	ND	0.20	EPA 8260C	9-7-17	9-7-17	
Bromodichloromethane	ND	0.20	EPA 8260C	9-7-17	9-7-17	
2-Chloroethyl Vinyl Ether	ND	1.3	EPA 8260C	9-7-17	9-7-17	
(cis) 1,3-Dichloropropene	ND	0.20	EPA 8260C	9-7-17	9-7-17	
Methyl Isobutyl Ketone	ND	2.0	EPA 8260C	9-7-17	9-7-17	
Toluene	ND	1.0	EPA 8260C	9-7-17	9-7-17	
(trans) 1,3-Dichloropropene	ND	0.20	EPA 8260C	9-7-17	9-7-17	

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Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**KMW-06-8-31-17**					
Laboratory ID:	09-019-03					
1,1,2-Trichloroethane	ND	0.20	EPA 8260C	9-7-17	9-7-17	
Tetrachloroethene	ND	0.20	EPA 8260C	9-7-17	9-7-17	
1,3-Dichloropropane	ND	0.20	EPA 8260C	9-7-17	9-7-17	
2-Hexanone	ND	2.0	EPA 8260C	9-7-17	9-7-17	
Dibromochloromethane	ND	0.20	EPA 8260C	9-7-17	9-7-17	
1,2-Dibromoethane	ND	0.20	EPA 8260C	9-7-17	9-7-17	
Chlorobenzene	ND	0.20	EPA 8260C	9-7-17	9-7-17	
1,1,1,2-Tetrachloroethane	ND	0.20	EPA 8260C	9-7-17	9-7-17	
Ethylbenzene	0.27	0.20	EPA 8260C	9-7-17	9-7-17	
m,p-Xylene	1.6	0.40	EPA 8260C	9-7-17	9-7-17	
o-Xylene	0.47	0.20	EPA 8260C	9-7-17	9-7-17	
Styrene	ND	0.20	EPA 8260C	9-7-17	9-7-17	
Bromoform	ND	1.0	EPA 8260C	9-7-17	9-7-17	
Isopropylbenzene	26	0.20	EPA 8260C	9-7-17	9-7-17	
Bromobenzene	ND	0.20	EPA 8260C	9-7-17	9-7-17	
1,1,2,2-Tetrachloroethane	ND	0.20	EPA 8260C	9-7-17	9-7-17	
1,2,3-Trichloropropane	ND	0.20	EPA 8260C	9-7-17	9-7-17	
n-Propylbenzene	37	0.20	EPA 8260C	9-7-17	9-7-17	
2-Chlorotoluene	ND	0.20	EPA 8260C	9-7-17	9-7-17	
4-Chlorotoluene	ND	0.20	EPA 8260C	9-7-17	9-7-17	
1,3,5-Trimethylbenzene	ND	0.20	EPA 8260C	9-7-17	9-7-17	
tert-Butylbenzene	0.36	0.20	EPA 8260C	9-7-17	9-7-17	
1,2,4-Trimethylbenzene	ND	0.20	EPA 8260C	9-7-17	9-7-17	
sec-Butylbenzene	3.7	0.20	EPA 8260C	9-7-17	9-7-17	
1,3-Dichlorobenzene	ND	0.20	EPA 8260C	9-7-17	9-7-17	
p-Isopropyltoluene	ND	0.20	EPA 8260C	9-7-17	9-7-17	
1,4-Dichlorobenzene	ND	0.20	EPA 8260C	9-7-17	9-7-17	
1,2-Dichlorobenzene	ND	0.20	EPA 8260C	9-7-17	9-7-17	
n-Butylbenzene	2.3	0.20	EPA 8260C	9-7-17	9-7-17	
1,2-Dibromo-3-chloropropane	ND	1.0	EPA 8260C	9-7-17	9-7-17	
1,2,4-Trichlorobenzene	ND	0.20	EPA 8260C	9-7-17	9-7-17	
Hexachlorobutadiene	ND	0.20	EPA 8260C	9-7-17	9-7-17	
Naphthalene	ND	1.0	EPA 8260C	9-7-17	9-7-17	
1,2,3-Trichlorobenzene	ND	0.20	EPA 8260C	9-7-17	9-7-17	
Surrogate:	*Percent Recovery*	*Control Limits*				
Dibromofluoromethane	*100*	*77-129*				
Toluene-d8	*97*	*80-127*				
4-Bromofluorobenzene	*109*	*78-125*				

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Matrix: Water
Units: ug/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**KMW-04-8-31-17**					
Laboratory ID:	09-019-04					
Dichlorodifluoromethane	ND	20	EPA 8260C	9-7-17	9-7-17	
Chloromethane	ND	100	EPA 8260C	9-7-17	9-7-17	
Vinyl Chloride	ND	20	EPA 8260C	9-7-17	9-7-17	
Bromomethane	ND	36	EPA 8260C	9-7-17	9-7-17	
Chloroethane	ND	100	EPA 8260C	9-7-17	9-7-17	
Trichlorofluoromethane	ND	20	EPA 8260C	9-7-17	9-7-17	
1,1-Dichloroethene	ND	20	EPA 8260C	9-7-17	9-7-17	
Acetone	ND	500	EPA 8260C	9-7-17	9-7-17	
Iodomethane	ND	200	EPA 8260C	9-7-17	9-7-17	
Carbon Disulfide	ND	20	EPA 8260C	9-7-17	9-7-17	
Methylene Chloride	ND	200	EPA 8260C	9-7-17	9-7-17	
(trans) 1,2-Dichloroethene	ND	20	EPA 8260C	9-7-17	9-7-17	
Methyl t-Butyl Ether	ND	20	EPA 8260C	9-7-17	9-7-17	
1,1-Dichloroethane	ND	20	EPA 8260C	9-7-17	9-7-17	
Vinyl Acetate	ND	100	EPA 8260C	9-7-17	9-7-17	
2,2-Dichloropropane	ND	20	EPA 8260C	9-7-17	9-7-17	
(cis) 1,2-Dichloroethene	ND	20	EPA 8260C	9-7-17	9-7-17	
2-Butanone	ND	500	EPA 8260C	9-7-17	9-7-17	
Bromochloromethane	ND	20	EPA 8260C	9-7-17	9-7-17	
Chloroform	ND	20	EPA 8260C	9-7-17	9-7-17	
1,1,1-Trichloroethane	ND	20	EPA 8260C	9-7-17	9-7-17	
Carbon Tetrachloride	ND	20	EPA 8260C	9-7-17	9-7-17	
1,1-Dichloropropene	ND	20	EPA 8260C	9-7-17	9-7-17	
Benzene	ND	20	EPA 8260C	9-7-17	9-7-17	
1,2-Dichloroethane	ND	20	EPA 8260C	9-7-17	9-7-17	
Trichloroethene	ND	20	EPA 8260C	9-7-17	9-7-17	
1,2-Dichloropropane	ND	20	EPA 8260C	9-7-17	9-7-17	
Dibromomethane	ND	20	EPA 8260C	9-7-17	9-7-17	
Bromodichloromethane	ND	20	EPA 8260C	9-7-17	9-7-17	
2-Chloroethyl Vinyl Ether	ND	130	EPA 8260C	9-7-17	9-7-17	
(cis) 1,3-Dichloropropene	ND	20	EPA 8260C	9-7-17	9-7-17	
Methyl Isobutyl Ketone	ND	200	EPA 8260C	9-7-17	9-7-17	
Toluene	980	100	EPA 8260C	9-7-17	9-7-17	
(trans) 1,3-Dichloropropene	ND	20	EPA 8260C	9-7-17	9-7-17	

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Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**KMW-04-8-31-17**					
Laboratory ID:	09-019-04					
1,1,2-Trichloroethane	ND	20	EPA 8260C	9-7-17	9-7-17	
Tetrachloroethene	ND	20	EPA 8260C	9-7-17	9-7-17	
1,3-Dichloropropane	ND	20	EPA 8260C	9-7-17	9-7-17	
2-Hexanone	ND	200	EPA 8260C	9-7-17	9-7-17	
Dibromochloromethane	ND	20	EPA 8260C	9-7-17	9-7-17	
1,2-Dibromoethane	ND	20	EPA 8260C	9-7-17	9-7-17	
Chlorobenzene	ND	20	EPA 8260C	9-7-17	9-7-17	
1,1,1,2-Tetrachloroethane	ND	20	EPA 8260C	9-7-17	9-7-17	
Ethylbenzene	4300	20	EPA 8260C	9-7-17	9-7-17	
m,p-Xylene	7800	40	EPA 8260C	9-7-17	9-7-17	
o-Xylene	1900	20	EPA 8260C	9-7-17	9-7-17	
Styrene	ND	20	EPA 8260C	9-7-17	9-7-17	
Bromoform	ND	100	EPA 8260C	9-7-17	9-7-17	
Isopropylbenzene	63	20	EPA 8260C	9-7-17	9-7-17	
Bromobenzene	ND	20	EPA 8260C	9-7-17	9-7-17	
1,1,2,2-Tetrachloroethane	ND	20	EPA 8260C	9-7-17	9-7-17	
1,2,3-Trichloropropane	ND	20	EPA 8260C	9-7-17	9-7-17	
n-Propylbenzene	63	20	EPA 8260C	9-7-17	9-7-17	
2-Chlorotoluene	ND	20	EPA 8260C	9-7-17	9-7-17	
4-Chlorotoluene	ND	20	EPA 8260C	9-7-17	9-7-17	
1,3,5-Trimethylbenzene	30	20	EPA 8260C	9-7-17	9-7-17	
tert-Butylbenzene	ND	20	EPA 8260C	9-7-17	9-7-17	
1,2,4-Trimethylbenzene	97	20	EPA 8260C	9-7-17	9-7-17	
sec-Butylbenzene	ND	20	EPA 8260C	9-7-17	9-7-17	
1,3-Dichlorobenzene	ND	20	EPA 8260C	9-7-17	9-7-17	
p-Isopropyltoluene	ND	20	EPA 8260C	9-7-17	9-7-17	
1,4-Dichlorobenzene	ND	20	EPA 8260C	9-7-17	9-7-17	
1,2-Dichlorobenzene	ND	20	EPA 8260C	9-7-17	9-7-17	
n-Butylbenzene	ND	20	EPA 8260C	9-7-17	9-7-17	
1,2-Dibromo-3-chloropropane	ND	100	EPA 8260C	9-7-17	9-7-17	
1,2,4-Trichlorobenzene	ND	20	EPA 8260C	9-7-17	9-7-17	
Hexachlorobutadiene	ND	20	EPA 8260C	9-7-17	9-7-17	
Naphthalene	ND	100	EPA 8260C	9-7-17	9-7-17	
1,2,3-Trichlorobenzene	ND	20	EPA 8260C	9-7-17	9-7-17	
Surrogate:	*Percent Recovery*	*Control Limits*				
Dibromofluoromethane	*97*	*77-129*				
Toluene-d8	*98*	*80-127*				
4-Bromofluorobenzene	*99*	*78-125*				

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Matrix: Water
Units: ug/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**KMW-2R-9-1-17**					
Laboratory ID:	09-019-05					
Dichlorodifluoromethane	ND	0.20	EPA 8260C	9-7-17	9-7-17	
Chloromethane	ND	1.0	EPA 8260C	9-7-17	9-7-17	
Vinyl Chloride	ND	0.20	EPA 8260C	9-7-17	9-7-17	
Bromomethane	ND	0.36	EPA 8260C	9-7-17	9-7-17	
Chloroethane	ND	1.0	EPA 8260C	9-7-17	9-7-17	
Trichlorofluoromethane	ND	0.20	EPA 8260C	9-7-17	9-7-17	
1,1-Dichloroethene	ND	0.20	EPA 8260C	9-7-17	9-7-17	
Acetone	ND	5.0	EPA 8260C	9-7-17	9-7-17	
Iodomethane	ND	2.0	EPA 8260C	9-7-17	9-7-17	
Carbon Disulfide	ND	0.20	EPA 8260C	9-7-17	9-7-17	
Methylene Chloride	ND	2.0	EPA 8260C	9-7-17	9-7-17	
(trans) 1,2-Dichloroethene	ND	0.20	EPA 8260C	9-7-17	9-7-17	
Methyl t-Butyl Ether	ND	0.20	EPA 8260C	9-7-17	9-7-17	
1,1-Dichloroethane	ND	0.20	EPA 8260C	9-7-17	9-7-17	
Vinyl Acetate	ND	1.0	EPA 8260C	9-7-17	9-7-17	
2,2-Dichloropropane	ND	0.20	EPA 8260C	9-7-17	9-7-17	
(cis) 1,2-Dichloroethene	ND	0.20	EPA 8260C	9-7-17	9-7-17	
2-Butanone	ND	5.0	EPA 8260C	9-7-17	9-7-17	
Bromochloromethane	ND	0.20	EPA 8260C	9-7-17	9-7-17	
Chloroform	ND	0.20	EPA 8260C	9-7-17	9-7-17	
1,1,1-Trichloroethane	ND	0.20	EPA 8260C	9-7-17	9-7-17	
Carbon Tetrachloride	ND	0.20	EPA 8260C	9-7-17	9-7-17	
1,1-Dichloropropene	ND	0.20	EPA 8260C	9-7-17	9-7-17	
Benzene	ND	0.20	EPA 8260C	9-7-17	9-7-17	
1,2-Dichloroethane	ND	0.20	EPA 8260C	9-7-17	9-7-17	
Trichloroethene	ND	0.20	EPA 8260C	9-7-17	9-7-17	
1,2-Dichloropropane	ND	0.20	EPA 8260C	9-7-17	9-7-17	
Dibromomethane	ND	0.20	EPA 8260C	9-7-17	9-7-17	
Bromodichloromethane	ND	0.20	EPA 8260C	9-7-17	9-7-17	
2-Chloroethyl Vinyl Ether	ND	1.3	EPA 8260C	9-7-17	9-7-17	
(cis) 1,3-Dichloropropene	ND	0.20	EPA 8260C	9-7-17	9-7-17	
Methyl Isobutyl Ketone	ND	2.0	EPA 8260C	9-7-17	9-7-17	
Toluene	ND	1.0	EPA 8260C	9-7-17	9-7-17	
(trans) 1,3-Dichloropropene	ND	0.20	EPA 8260C	9-7-17	9-7-17	

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Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**KMW-2R-9-1-17**					
Laboratory ID:	09-019-05					
1,1,2-Trichloroethane	ND	0.20	EPA 8260C	9-7-17	9-7-17	
Tetrachloroethene	ND	0.20	EPA 8260C	9-7-17	9-7-17	
1,3-Dichloropropane	ND	0.20	EPA 8260C	9-7-17	9-7-17	
2-Hexanone	ND	2.0	EPA 8260C	9-7-17	9-7-17	
Dibromochloromethane	ND	0.20	EPA 8260C	9-7-17	9-7-17	
1,2-Dibromoethane	ND	0.20	EPA 8260C	9-7-17	9-7-17	
Chlorobenzene	ND	0.20	EPA 8260C	9-7-17	9-7-17	
1,1,1,2-Tetrachloroethane	ND	0.20	EPA 8260C	9-7-17	9-7-17	
Ethylbenzene	ND	0.20	EPA 8260C	9-7-17	9-7-17	
m,p-Xylene	ND	0.40	EPA 8260C	9-7-17	9-7-17	
o-Xylene	ND	0.20	EPA 8260C	9-7-17	9-7-17	
Styrene	ND	0.20	EPA 8260C	9-7-17	9-7-17	
Bromoform	ND	1.0	EPA 8260C	9-7-17	9-7-17	
Isopropylbenzene	ND	0.20	EPA 8260C	9-7-17	9-7-17	
Bromobenzene	ND	0.20	EPA 8260C	9-7-17	9-7-17	
1,1,2,2-Tetrachloroethane	ND	0.20	EPA 8260C	9-7-17	9-7-17	
1,2,3-Trichloropropane	ND	0.20	EPA 8260C	9-7-17	9-7-17	
n-Propylbenzene	ND	0.20	EPA 8260C	9-7-17	9-7-17	
2-Chlorotoluene	ND	0.20	EPA 8260C	9-7-17	9-7-17	
4-Chlorotoluene	ND	0.20	EPA 8260C	9-7-17	9-7-17	
1,3,5-Trimethylbenzene	ND	0.20	EPA 8260C	9-7-17	9-7-17	
tert-Butylbenzene	ND	0.20	EPA 8260C	9-7-17	9-7-17	
1,2,4-Trimethylbenzene	ND	0.20	EPA 8260C	9-7-17	9-7-17	
sec-Butylbenzene	ND	0.20	EPA 8260C	9-7-17	9-7-17	
1,3-Dichlorobenzene	ND	0.20	EPA 8260C	9-7-17	9-7-17	
p-Isopropyltoluene	ND	0.20	EPA 8260C	9-7-17	9-7-17	
1,4-Dichlorobenzene	ND	0.20	EPA 8260C	9-7-17	9-7-17	
1,2-Dichlorobenzene	ND	0.20	EPA 8260C	9-7-17	9-7-17	
n-Butylbenzene	ND	0.20	EPA 8260C	9-7-17	9-7-17	
1,2-Dibromo-3-chloropropane	ND	1.0	EPA 8260C	9-7-17	9-7-17	
1,2,4-Trichlorobenzene	ND	0.20	EPA 8260C	9-7-17	9-7-17	
Hexachlorobutadiene	ND	0.20	EPA 8260C	9-7-17	9-7-17	
Naphthalene	ND	1.0	EPA 8260C	9-7-17	9-7-17	
1,2,3-Trichlorobenzene	ND	0.20	EPA 8260C	9-7-17	9-7-17	
Surrogate:	*Percent Recovery*	*Control Limits*				
Dibromofluoromethane	*96*	*77-129*				
Toluene-d8	*100*	*80-127*				
4-Bromofluorobenzene	*97*	*78-125*				

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Samples Submitted: September 1, 2017
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Project: 14697.00008

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Matrix: Water
Units: ug/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**KMW-07-9-1-17**					
Laboratory ID:	09-019-06					
Dichlorodifluoromethane	ND	0.20	EPA 8260C	9-7-17	9-7-17	
Chloromethane	ND	1.0	EPA 8260C	9-7-17	9-7-17	
Vinyl Chloride	ND	0.20	EPA 8260C	9-7-17	9-7-17	
Bromomethane	ND	0.36	EPA 8260C	9-7-17	9-7-17	
Chloroethane	ND	1.0	EPA 8260C	9-7-17	9-7-17	
Trichlorofluoromethane	ND	0.20	EPA 8260C	9-7-17	9-7-17	
1,1-Dichloroethene	ND	0.20	EPA 8260C	9-7-17	9-7-17	
Acetone	ND	5.0	EPA 8260C	9-7-17	9-7-17	
Iodomethane	ND	2.0	EPA 8260C	9-7-17	9-7-17	
Carbon Disulfide	0.26	0.20	EPA 8260C	9-7-17	9-7-17	
Methylene Chloride	ND	2.0	EPA 8260C	9-7-17	9-7-17	
(trans) 1,2-Dichloroethene	ND	0.20	EPA 8260C	9-7-17	9-7-17	
Methyl t-Butyl Ether	ND	0.20	EPA 8260C	9-7-17	9-7-17	
1,1-Dichloroethane	ND	0.20	EPA 8260C	9-7-17	9-7-17	
Vinyl Acetate	ND	1.0	EPA 8260C	9-7-17	9-7-17	
2,2-Dichloropropane	ND	0.20	EPA 8260C	9-7-17	9-7-17	
(cis) 1,2-Dichloroethene	ND	0.20	EPA 8260C	9-7-17	9-7-17	
2-Butanone	ND	5.0	EPA 8260C	9-7-17	9-7-17	
Bromochloromethane	ND	0.20	EPA 8260C	9-7-17	9-7-17	
Chloroform	ND	0.20	EPA 8260C	9-7-17	9-7-17	
1,1,1-Trichloroethane	ND	0.20	EPA 8260C	9-7-17	9-7-17	
Carbon Tetrachloride	ND	0.20	EPA 8260C	9-7-17	9-7-17	
1,1-Dichloropropene	ND	0.20	EPA 8260C	9-7-17	9-7-17	
Benzene	ND	0.20	EPA 8260C	9-7-17	9-7-17	
1,2-Dichloroethane	ND	0.20	EPA 8260C	9-7-17	9-7-17	
Trichloroethene	ND	0.20	EPA 8260C	9-7-17	9-7-17	
1,2-Dichloropropane	ND	0.20	EPA 8260C	9-7-17	9-7-17	
Dibromomethane	ND	0.20	EPA 8260C	9-7-17	9-7-17	
Bromodichloromethane	ND	0.20	EPA 8260C	9-7-17	9-7-17	
2-Chloroethyl Vinyl Ether	ND	1.3	EPA 8260C	9-7-17	9-7-17	
(cis) 1,3-Dichloropropene	ND	0.20	EPA 8260C	9-7-17	9-7-17	
Methyl Isobutyl Ketone	ND	2.0	EPA 8260C	9-7-17	9-7-17	
Toluene	ND	1.0	EPA 8260C	9-7-17	9-7-17	
(trans) 1,3-Dichloropropene	ND	0.20	EPA 8260C	9-7-17	9-7-17	

Date of Report: September 14, 2017
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Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**KMW-07-9-1-17**					
Laboratory ID:	09-019-06					
1,1,2-Trichloroethane	ND	0.20	EPA 8260C	9-7-17	9-7-17	
Tetrachloroethene	ND	0.20	EPA 8260C	9-7-17	9-7-17	
1,3-Dichloropropane	ND	0.20	EPA 8260C	9-7-17	9-7-17	
2-Hexanone	ND	2.0	EPA 8260C	9-7-17	9-7-17	
Dibromochloromethane	ND	0.20	EPA 8260C	9-7-17	9-7-17	
1,2-Dibromoethane	ND	0.20	EPA 8260C	9-7-17	9-7-17	
Chlorobenzene	ND	0.20	EPA 8260C	9-7-17	9-7-17	
1,1,1,2-Tetrachloroethane	ND	0.20	EPA 8260C	9-7-17	9-7-17	
Ethylbenzene	ND	0.20	EPA 8260C	9-7-17	9-7-17	
m,p-Xylene	ND	0.40	EPA 8260C	9-7-17	9-7-17	
o-Xylene	ND	0.20	EPA 8260C	9-7-17	9-7-17	
Styrene	ND	0.20	EPA 8260C	9-7-17	9-7-17	
Bromoform	ND	1.0	EPA 8260C	9-7-17	9-7-17	
Isopropylbenzene	ND	0.20	EPA 8260C	9-7-17	9-7-17	
Bromobenzene	ND	0.20	EPA 8260C	9-7-17	9-7-17	
1,1,2,2-Tetrachloroethane	ND	0.20	EPA 8260C	9-7-17	9-7-17	
1,2,3-Trichloropropane	ND	0.20	EPA 8260C	9-7-17	9-7-17	
n-Propylbenzene	ND	0.20	EPA 8260C	9-7-17	9-7-17	
2-Chlorotoluene	ND	0.20	EPA 8260C	9-7-17	9-7-17	
4-Chlorotoluene	ND	0.20	EPA 8260C	9-7-17	9-7-17	
1,3,5-Trimethylbenzene	ND	0.20	EPA 8260C	9-7-17	9-7-17	
tert-Butylbenzene	ND	0.20	EPA 8260C	9-7-17	9-7-17	
1,2,4-Trimethylbenzene	ND	0.20	EPA 8260C	9-7-17	9-7-17	
sec-Butylbenzene	0.29	0.20	EPA 8260C	9-7-17	9-7-17	
1,3-Dichlorobenzene	ND	0.20	EPA 8260C	9-7-17	9-7-17	
p-Isopropyltoluene	ND	0.20	EPA 8260C	9-7-17	9-7-17	
1,4-Dichlorobenzene	ND	0.20	EPA 8260C	9-7-17	9-7-17	
1,2-Dichlorobenzene	ND	0.20	EPA 8260C	9-7-17	9-7-17	
n-Butylbenzene	ND	0.20	EPA 8260C	9-7-17	9-7-17	
1,2-Dibromo-3-chloropropane	ND	1.0	EPA 8260C	9-7-17	9-7-17	
1,2,4-Trichlorobenzene	ND	0.20	EPA 8260C	9-7-17	9-7-17	
Hexachlorobutadiene	ND	0.20	EPA 8260C	9-7-17	9-7-17	
Naphthalene	ND	1.0	EPA 8260C	9-7-17	9-7-17	
1,2,3-Trichlorobenzene	ND	0.20	EPA 8260C	9-7-17	9-7-17	
Surrogate:	*Percent Recovery*	*Control Limits*				
Dibromofluoromethane	*101*	*77-129*				
Toluene-d8	*103*	*80-127*				
4-Bromofluorobenzene	*103*	*78-125*				

Date of Report: September 14, 2017
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Matrix: Water
Units: ug/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**KMW-08-9-1-17**					
Laboratory ID:	09-019-07					
Dichlorodifluoromethane	ND	0.20	EPA 8260C	9-7-17	9-7-17	
Chloromethane	ND	1.0	EPA 8260C	9-7-17	9-7-17	
Vinyl Chloride	ND	0.20	EPA 8260C	9-7-17	9-7-17	
Bromomethane	ND	0.36	EPA 8260C	9-7-17	9-7-17	
Chloroethane	ND	1.0	EPA 8260C	9-7-17	9-7-17	
Trichlorofluoromethane	ND	0.20	EPA 8260C	9-7-17	9-7-17	
1,1-Dichloroethene	ND	0.20	EPA 8260C	9-7-17	9-7-17	
Acetone	ND	5.0	EPA 8260C	9-7-17	9-7-17	
Iodomethane	ND	2.0	EPA 8260C	9-7-17	9-7-17	
Carbon Disulfide	ND	0.20	EPA 8260C	9-7-17	9-7-17	
Methylene Chloride	ND	2.0	EPA 8260C	9-7-17	9-7-17	
(trans) 1,2-Dichloroethene	ND	0.20	EPA 8260C	9-7-17	9-7-17	
Methyl t-Butyl Ether	ND	0.20	EPA 8260C	9-7-17	9-7-17	
1,1-Dichloroethane	ND	0.20	EPA 8260C	9-7-17	9-7-17	
Vinyl Acetate	ND	1.0	EPA 8260C	9-7-17	9-7-17	
2,2-Dichloropropane	ND	0.20	EPA 8260C	9-7-17	9-7-17	
(cis) 1,2-Dichloroethene	ND	0.20	EPA 8260C	9-7-17	9-7-17	
2-Butanone	ND	5.0	EPA 8260C	9-7-17	9-7-17	
Bromochloromethane	ND	0.20	EPA 8260C	9-7-17	9-7-17	
Chloroform	ND	0.20	EPA 8260C	9-7-17	9-7-17	
1,1,1-Trichloroethane	ND	0.20	EPA 8260C	9-7-17	9-7-17	
Carbon Tetrachloride	ND	0.20	EPA 8260C	9-7-17	9-7-17	
1,1-Dichloropropene	ND	0.20	EPA 8260C	9-7-17	9-7-17	
Benzene	ND	0.20	EPA 8260C	9-7-17	9-7-17	
1,2-Dichloroethane	ND	0.20	EPA 8260C	9-7-17	9-7-17	
Trichloroethene	ND	0.20	EPA 8260C	9-7-17	9-7-17	
1,2-Dichloropropane	ND	0.20	EPA 8260C	9-7-17	9-7-17	
Dibromomethane	ND	0.20	EPA 8260C	9-7-17	9-7-17	
Bromodichloromethane	ND	0.20	EPA 8260C	9-7-17	9-7-17	
2-Chloroethyl Vinyl Ether	ND	1.3	EPA 8260C	9-7-17	9-7-17	
(cis) 1,3-Dichloropropene	ND	0.20	EPA 8260C	9-7-17	9-7-17	
Methyl Isobutyl Ketone	ND	2.0	EPA 8260C	9-7-17	9-7-17	
Toluene	ND	1.0	EPA 8260C	9-7-17	9-7-17	
(trans) 1,3-Dichloropropene	ND	0.20	EPA 8260C	9-7-17	9-7-17	

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Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**KMW-08-9-1-17**					
Laboratory ID:	09-019-07					
1,1,2-Trichloroethane	ND	0.20	EPA 8260C	9-7-17	9-7-17	
Tetrachloroethene	ND	0.20	EPA 8260C	9-7-17	9-7-17	
1,3-Dichloropropane	ND	0.20	EPA 8260C	9-7-17	9-7-17	
2-Hexanone	ND	2.0	EPA 8260C	9-7-17	9-7-17	
Dibromochloromethane	ND	0.20	EPA 8260C	9-7-17	9-7-17	
1,2-Dibromoethane	ND	0.20	EPA 8260C	9-7-17	9-7-17	
Chlorobenzene	ND	0.20	EPA 8260C	9-7-17	9-7-17	
1,1,1,2-Tetrachloroethane	ND	0.20	EPA 8260C	9-7-17	9-7-17	
Ethylbenzene	ND	0.20	EPA 8260C	9-7-17	9-7-17	
m,p-Xylene	ND	0.40	EPA 8260C	9-7-17	9-7-17	
o-Xylene	ND	0.20	EPA 8260C	9-7-17	9-7-17	
Styrene	ND	0.20	EPA 8260C	9-7-17	9-7-17	
Bromoform	ND	1.0	EPA 8260C	9-7-17	9-7-17	
Isopropylbenzene	0.79	0.20	EPA 8260C	9-7-17	9-7-17	
Bromobenzene	ND	0.20	EPA 8260C	9-7-17	9-7-17	
1,1,2,2-Tetrachloroethane	ND	0.20	EPA 8260C	9-7-17	9-7-17	
1,2,3-Trichloropropane	ND	0.20	EPA 8260C	9-7-17	9-7-17	
n-Propylbenzene	0.84	0.20	EPA 8260C	9-7-17	9-7-17	
2-Chlorotoluene	ND	0.20	EPA 8260C	9-7-17	9-7-17	
4-Chlorotoluene	ND	0.20	EPA 8260C	9-7-17	9-7-17	
1,3,5-Trimethylbenzene	ND	0.20	EPA 8260C	9-7-17	9-7-17	
tert-Butylbenzene	0.24	0.20	EPA 8260C	9-7-17	9-7-17	
1,2,4-Trimethylbenzene	ND	0.20	EPA 8260C	9-7-17	9-7-17	
sec-Butylbenzene	2.2	0.20	EPA 8260C	9-7-17	9-7-17	
1,3-Dichlorobenzene	ND	0.20	EPA 8260C	9-7-17	9-7-17	
p-Isopropyltoluene	ND	0.20	EPA 8260C	9-7-17	9-7-17	
1,4-Dichlorobenzene	ND	0.20	EPA 8260C	9-7-17	9-7-17	
1,2-Dichlorobenzene	ND	0.20	EPA 8260C	9-7-17	9-7-17	
n-Butylbenzene	0.51	0.20	EPA 8260C	9-7-17	9-7-17	
1,2-Dibromo-3-chloropropane	ND	1.0	EPA 8260C	9-7-17	9-7-17	
1,2,4-Trichlorobenzene	ND	0.20	EPA 8260C	9-7-17	9-7-17	
Hexachlorobutadiene	ND	0.20	EPA 8260C	9-7-17	9-7-17	
Naphthalene	ND	1.0	EPA 8260C	9-7-17	9-7-17	
1,2,3-Trichlorobenzene	ND	0.20	EPA 8260C	9-7-17	9-7-17	
Surrogate:	*Percent Recovery*	*Control Limits*				
Dibromofluoromethane	*97*	*77-129*				
Toluene-d8	*102*	*80-127*				
4-Bromofluorobenzene	*100*	*78-125*				

Date of Report: September 14, 2017
Samples Submitted: September 1, 2017
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Project: 14697.00008

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Matrix: Water
Units: ug/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**KMW-03R-9-1-17**					
Laboratory ID:	09-019-08					
Dichlorodifluoromethane	ND	0.20	EPA 8260C	9-7-17	9-7-17	
Chloromethane	ND	1.0	EPA 8260C	9-7-17	9-7-17	
Vinyl Chloride	ND	0.20	EPA 8260C	9-7-17	9-7-17	
Bromomethane	ND	0.36	EPA 8260C	9-7-17	9-7-17	
Chloroethane	ND	1.0	EPA 8260C	9-7-17	9-7-17	
Trichlorofluoromethane	ND	0.20	EPA 8260C	9-7-17	9-7-17	
1,1-Dichloroethene	ND	0.20	EPA 8260C	9-7-17	9-7-17	
Acetone	ND	5.0	EPA 8260C	9-7-17	9-7-17	
Iodomethane	ND	2.0	EPA 8260C	9-7-17	9-7-17	
Carbon Disulfide	ND	0.20	EPA 8260C	9-7-17	9-7-17	
Methylene Chloride	ND	2.0	EPA 8260C	9-7-17	9-7-17	
(trans) 1,2-Dichloroethene	ND	0.20	EPA 8260C	9-7-17	9-7-17	
Methyl t-Butyl Ether	ND	0.20	EPA 8260C	9-7-17	9-7-17	
1,1-Dichloroethane	ND	0.20	EPA 8260C	9-7-17	9-7-17	
Vinyl Acetate	ND	1.0	EPA 8260C	9-7-17	9-7-17	
2,2-Dichloropropane	ND	0.20	EPA 8260C	9-7-17	9-7-17	
(cis) 1,2-Dichloroethene	ND	0.20	EPA 8260C	9-7-17	9-7-17	
2-Butanone	ND	5.0	EPA 8260C	9-7-17	9-7-17	
Bromochloromethane	ND	0.20	EPA 8260C	9-7-17	9-7-17	
Chloroform	ND	0.20	EPA 8260C	9-7-17	9-7-17	
1,1,1-Trichloroethane	ND	0.20	EPA 8260C	9-7-17	9-7-17	
Carbon Tetrachloride	ND	0.20	EPA 8260C	9-7-17	9-7-17	
1,1-Dichloropropene	ND	0.20	EPA 8260C	9-7-17	9-7-17	
Benzene	ND	0.20	EPA 8260C	9-7-17	9-7-17	
1,2-Dichloroethane	ND	0.20	EPA 8260C	9-7-17	9-7-17	
Trichloroethene	ND	0.20	EPA 8260C	9-7-17	9-7-17	
1,2-Dichloropropane	ND	0.20	EPA 8260C	9-7-17	9-7-17	
Dibromomethane	ND	0.20	EPA 8260C	9-7-17	9-7-17	
Bromodichloromethane	ND	0.20	EPA 8260C	9-7-17	9-7-17	
2-Chloroethyl Vinyl Ether	ND	1.3	EPA 8260C	9-7-17	9-7-17	
(cis) 1,3-Dichloropropene	ND	0.20	EPA 8260C	9-7-17	9-7-17	
Methyl Isobutyl Ketone	ND	2.0	EPA 8260C	9-7-17	9-7-17	
Toluene	ND	1.0	EPA 8260C	9-7-17	9-7-17	
(trans) 1,3-Dichloropropene	ND	0.20	EPA 8260C	9-7-17	9-7-17	

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Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**KMW-03R-9-1-17**					
Laboratory ID:	09-019-08					
1,1,2-Trichloroethane	ND	0.20	EPA 8260C	9-7-17	9-7-17	
Tetrachloroethene	ND	0.20	EPA 8260C	9-7-17	9-7-17	
1,3-Dichloropropane	ND	0.20	EPA 8260C	9-7-17	9-7-17	
2-Hexanone	ND	2.0	EPA 8260C	9-7-17	9-7-17	
Dibromochloromethane	ND	0.20	EPA 8260C	9-7-17	9-7-17	
1,2-Dibromoethane	ND	0.20	EPA 8260C	9-7-17	9-7-17	
Chlorobenzene	ND	0.20	EPA 8260C	9-7-17	9-7-17	
1,1,1,2-Tetrachloroethane	ND	0.20	EPA 8260C	9-7-17	9-7-17	
Ethylbenzene	ND	0.20	EPA 8260C	9-7-17	9-7-17	
m,p-Xylene	ND	0.40	EPA 8260C	9-7-17	9-7-17	
o-Xylene	ND	0.20	EPA 8260C	9-7-17	9-7-17	
Styrene	ND	0.20	EPA 8260C	9-7-17	9-7-17	
Bromoform	ND	1.0	EPA 8260C	9-7-17	9-7-17	
Isopropylbenzene	9.2	0.20	EPA 8260C	9-7-17	9-7-17	
Bromobenzene	ND	0.20	EPA 8260C	9-7-17	9-7-17	
1,1,2,2-Tetrachloroethane	ND	0.20	EPA 8260C	9-7-17	9-7-17	
1,2,3-Trichloropropane	ND	0.20	EPA 8260C	9-7-17	9-7-17	
n-Propylbenzene	17	0.20	EPA 8260C	9-7-17	9-7-17	
2-Chlorotoluene	ND	0.20	EPA 8260C	9-7-17	9-7-17	
4-Chlorotoluene	ND	0.20	EPA 8260C	9-7-17	9-7-17	
1,3,5-Trimethylbenzene	ND	0.20	EPA 8260C	9-7-17	9-7-17	
tert-Butylbenzene	0.32	0.20	EPA 8260C	9-7-17	9-7-17	
1,2,4-Trimethylbenzene	ND	0.20	EPA 8260C	9-7-17	9-7-17	
sec-Butylbenzene	2.2	0.20	EPA 8260C	9-7-17	9-7-17	
1,3-Dichlorobenzene	ND	0.20	EPA 8260C	9-7-17	9-7-17	
p-Isopropyltoluene	ND	0.20	EPA 8260C	9-7-17	9-7-17	
1,4-Dichlorobenzene	ND	0.20	EPA 8260C	9-7-17	9-7-17	
1,2-Dichlorobenzene	ND	0.20	EPA 8260C	9-7-17	9-7-17	
n-Butylbenzene	0.67	0.20	EPA 8260C	9-7-17	9-7-17	
1,2-Dibromo-3-chloropropane	ND	1.0	EPA 8260C	9-7-17	9-7-17	
1,2,4-Trichlorobenzene	ND	0.20	EPA 8260C	9-7-17	9-7-17	
Hexachlorobutadiene	ND	0.20	EPA 8260C	9-7-17	9-7-17	
Naphthalene	ND	1.0	EPA 8260C	9-7-17	9-7-17	
1,2,3-Trichlorobenzene	ND	0.20	EPA 8260C	9-7-17	9-7-17	
Surrogate:	*Percent Recovery*	*Control Limits*				
Dibromofluoromethane	*89*	*77-129*				
Toluene-d8	*95*	*80-127*				
4-Bromofluorobenzene	*96*	*78-125*				

Date of Report: September 14, 2017
Samples Submitted: September 1, 2017
Laboratory Reference: 1709-019
Project: 14697.00008

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Matrix: Water
Units: ug/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**TRIP BLANK**					
Laboratory ID:	09-019-09					
Dichlorodifluoromethane	ND	0.20	EPA 8260C	9-7-17	9-7-17	
Chloromethane	ND	1.0	EPA 8260C	9-7-17	9-7-17	
Vinyl Chloride	ND	0.20	EPA 8260C	9-7-17	9-7-17	
Bromomethane	ND	0.36	EPA 8260C	9-7-17	9-7-17	
Chloroethane	ND	1.0	EPA 8260C	9-7-17	9-7-17	
Trichlorofluoromethane	ND	0.20	EPA 8260C	9-7-17	9-7-17	
1,1-Dichloroethene	ND	0.20	EPA 8260C	9-7-17	9-7-17	
Acetone	ND	5.0	EPA 8260C	9-7-17	9-7-17	
Iodomethane	ND	2.0	EPA 8260C	9-7-17	9-7-17	
Carbon Disulfide	ND	0.20	EPA 8260C	9-7-17	9-7-17	
Methylene Chloride	ND	2.0	EPA 8260C	9-7-17	9-7-17	
(trans) 1,2-Dichloroethene	ND	0.20	EPA 8260C	9-7-17	9-7-17	
Methyl t-Butyl Ether	ND	0.20	EPA 8260C	9-7-17	9-7-17	
1,1-Dichloroethane	ND	0.20	EPA 8260C	9-7-17	9-7-17	
Vinyl Acetate	ND	1.0	EPA 8260C	9-7-17	9-7-17	
2,2-Dichloropropane	ND	0.20	EPA 8260C	9-7-17	9-7-17	
(cis) 1,2-Dichloroethene	ND	0.20	EPA 8260C	9-7-17	9-7-17	
2-Butanone	ND	5.0	EPA 8260C	9-7-17	9-7-17	
Bromochloromethane	ND	0.20	EPA 8260C	9-7-17	9-7-17	
Chloroform	ND	0.20	EPA 8260C	9-7-17	9-7-17	
1,1,1-Trichloroethane	ND	0.20	EPA 8260C	9-7-17	9-7-17	
Carbon Tetrachloride	ND	0.20	EPA 8260C	9-7-17	9-7-17	
1,1-Dichloropropene	ND	0.20	EPA 8260C	9-7-17	9-7-17	
Benzene	ND	0.20	EPA 8260C	9-7-17	9-7-17	
1,2-Dichloroethane	ND	0.20	EPA 8260C	9-7-17	9-7-17	
Trichloroethene	ND	0.20	EPA 8260C	9-7-17	9-7-17	
1,2-Dichloropropane	ND	0.20	EPA 8260C	9-7-17	9-7-17	
Dibromomethane	ND	0.20	EPA 8260C	9-7-17	9-7-17	
Bromodichloromethane	ND	0.20	EPA 8260C	9-7-17	9-7-17	
2-Chloroethyl Vinyl Ether	ND	1.3	EPA 8260C	9-7-17	9-7-17	
(cis) 1,3-Dichloropropene	ND	0.20	EPA 8260C	9-7-17	9-7-17	
Methyl Isobutyl Ketone	ND	2.0	EPA 8260C	9-7-17	9-7-17	
Toluene	ND	1.0	EPA 8260C	9-7-17	9-7-17	
(trans) 1,3-Dichloropropene	ND	0.20	EPA 8260C	9-7-17	9-7-17	

Date of Report: September 14, 2017
Samples Submitted: September 1, 2017
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Project: 14697.00008

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Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**TRIP BLANK**					
Laboratory ID:	09-019-09					
1,1,2-Trichloroethane	ND	0.20	EPA 8260C	9-7-17	9-7-17	
Tetrachloroethene	ND	0.20	EPA 8260C	9-7-17	9-7-17	
1,3-Dichloropropane	ND	0.20	EPA 8260C	9-7-17	9-7-17	
2-Hexanone	ND	2.0	EPA 8260C	9-7-17	9-7-17	
Dibromochloromethane	ND	0.20	EPA 8260C	9-7-17	9-7-17	
1,2-Dibromoethane	ND	0.20	EPA 8260C	9-7-17	9-7-17	
Chlorobenzene	ND	0.20	EPA 8260C	9-7-17	9-7-17	
1,1,1,2-Tetrachloroethane	ND	0.20	EPA 8260C	9-7-17	9-7-17	
Ethylbenzene	ND	0.20	EPA 8260C	9-7-17	9-7-17	
m,p-Xylene	ND	0.40	EPA 8260C	9-7-17	9-7-17	
o-Xylene	ND	0.20	EPA 8260C	9-7-17	9-7-17	
Styrene	ND	0.20	EPA 8260C	9-7-17	9-7-17	
Bromoform	ND	1.0	EPA 8260C	9-7-17	9-7-17	
Isopropylbenzene	ND	0.20	EPA 8260C	9-7-17	9-7-17	
Bromobenzene	ND	0.20	EPA 8260C	9-7-17	9-7-17	
1,1,2,2-Tetrachloroethane	ND	0.20	EPA 8260C	9-7-17	9-7-17	
1,2,3-Trichloropropane	ND	0.20	EPA 8260C	9-7-17	9-7-17	
n-Propylbenzene	ND	0.20	EPA 8260C	9-7-17	9-7-17	
2-Chlorotoluene	ND	0.20	EPA 8260C	9-7-17	9-7-17	
4-Chlorotoluene	ND	0.20	EPA 8260C	9-7-17	9-7-17	
1,3,5-Trimethylbenzene	ND	0.20	EPA 8260C	9-7-17	9-7-17	
tert-Butylbenzene	ND	0.20	EPA 8260C	9-7-17	9-7-17	
1,2,4-Trimethylbenzene	ND	0.20	EPA 8260C	9-7-17	9-7-17	
sec-Butylbenzene	ND	0.20	EPA 8260C	9-7-17	9-7-17	
1,3-Dichlorobenzene	ND	0.20	EPA 8260C	9-7-17	9-7-17	
p-Isopropyltoluene	ND	0.20	EPA 8260C	9-7-17	9-7-17	
1,4-Dichlorobenzene	ND	0.20	EPA 8260C	9-7-17	9-7-17	
1,2-Dichlorobenzene	ND	0.20	EPA 8260C	9-7-17	9-7-17	
n-Butylbenzene	ND	0.20	EPA 8260C	9-7-17	9-7-17	
1,2-Dibromo-3-chloropropane	ND	1.0	EPA 8260C	9-7-17	9-7-17	
1,2,4-Trichlorobenzene	ND	0.20	EPA 8260C	9-7-17	9-7-17	
Hexachlorobutadiene	ND	0.20	EPA 8260C	9-7-17	9-7-17	
Naphthalene	ND	1.0	EPA 8260C	9-7-17	9-7-17	
1,2,3-Trichlorobenzene	ND	0.20	EPA 8260C	9-7-17	9-7-17	
Surrogate:	*Percent Recovery*	*Control Limits*				
Dibromofluoromethane	*98*	*77-129*				
Toluene-d8	*99*	*80-127*				
4-Bromofluorobenzene	*96*	*78-125*				

Date of Report: September 14, 2017
Samples Submitted: September 1, 2017
Laboratory Reference: 1709-019
Project: 14697.00008

VOLATILES EPA 8260C
METHOD BLANK QUALITY CONTROL
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Matrix: Water
Units: ug/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Laboratory ID:	MB0907W1					
Dichlorodifluoromethane	ND	0.20	EPA 8260C	9-7-17	9-7-17	
Chloromethane	ND	1.0	EPA 8260C	9-7-17	9-7-17	
Vinyl Chloride	ND	0.20	EPA 8260C	9-7-17	9-7-17	
Bromomethane	ND	0.36	EPA 8260C	9-7-17	9-7-17	
Chloroethane	ND	1.0	EPA 8260C	9-7-17	9-7-17	
Trichlorofluoromethane	ND	0.20	EPA 8260C	9-7-17	9-7-17	
1,1-Dichloroethene	ND	0.20	EPA 8260C	9-7-17	9-7-17	
Acetone	ND	5.0	EPA 8260C	9-7-17	9-7-17	
Iodomethane	ND	2.0	EPA 8260C	9-7-17	9-7-17	
Carbon Disulfide	ND	0.20	EPA 8260C	9-7-17	9-7-17	
Methylene Chloride	ND	2.0	EPA 8260C	9-7-17	9-7-17	
(trans) 1,2-Dichloroethene	ND	0.20	EPA 8260C	9-7-17	9-7-17	
Methyl t-Butyl Ether	ND	0.20	EPA 8260C	9-7-17	9-7-17	
1,1-Dichloroethane	ND	0.20	EPA 8260C	9-7-17	9-7-17	
Vinyl Acetate	ND	1.0	EPA 8260C	9-7-17	9-7-17	
2,2-Dichloropropane	ND	0.20	EPA 8260C	9-7-17	9-7-17	
(cis) 1,2-Dichloroethene	ND	0.20	EPA 8260C	9-7-17	9-7-17	
2-Butanone	ND	5.0	EPA 8260C	9-7-17	9-7-17	
Bromochloromethane	ND	0.20	EPA 8260C	9-7-17	9-7-17	
Chloroform	ND	0.20	EPA 8260C	9-7-17	9-7-17	
1,1,1-Trichloroethane	ND	0.20	EPA 8260C	9-7-17	9-7-17	
Carbon Tetrachloride	ND	0.20	EPA 8260C	9-7-17	9-7-17	
1,1-Dichloropropene	ND	0.20	EPA 8260C	9-7-17	9-7-17	
Benzene	ND	0.20	EPA 8260C	9-7-17	9-7-17	
1,2-Dichloroethane	ND	0.20	EPA 8260C	9-7-17	9-7-17	
Trichloroethene	ND	0.20	EPA 8260C	9-7-17	9-7-17	
1,2-Dichloropropane	ND	0.20	EPA 8260C	9-7-17	9-7-17	
Dibromomethane	ND	0.20	EPA 8260C	9-7-17	9-7-17	
Bromodichloromethane	ND	0.20	EPA 8260C	9-7-17	9-7-17	
2-Chloroethyl Vinyl Ether	ND	1.3	EPA 8260C	9-7-17	9-7-17	
(cis) 1,3-Dichloropropene	ND	0.20	EPA 8260C	9-7-17	9-7-17	
Methyl Isobutyl Ketone	ND	2.0	EPA 8260C	9-7-17	9-7-17	
Toluene	ND	1.0	EPA 8260C	9-7-17	9-7-17	
(trans) 1,3-Dichloropropene	ND	0.20	EPA 8260C	9-7-17	9-7-17	

Date of Report: September 14, 2017
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METHOD BLANK QUALITY CONTROL
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Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Laboratory ID:	MB0907W1					
1,1,2-Trichloroethane	ND	0.20	EPA 8260C	9-7-17	9-7-17	
Tetrachloroethene	ND	0.20	EPA 8260C	9-7-17	9-7-17	
1,3-Dichloropropane	ND	0.20	EPA 8260C	9-7-17	9-7-17	
2-Hexanone	ND	2.0	EPA 8260C	9-7-17	9-7-17	
Dibromochloromethane	ND	0.20	EPA 8260C	9-7-17	9-7-17	
1,2-Dibromoethane	ND	0.20	EPA 8260C	9-7-17	9-7-17	
Chlorobenzene	ND	0.20	EPA 8260C	9-7-17	9-7-17	
1,1,1,2-Tetrachloroethane	ND	0.20	EPA 8260C	9-7-17	9-7-17	
Ethylbenzene	ND	0.20	EPA 8260C	9-7-17	9-7-17	
m,p-Xylene	ND	0.40	EPA 8260C	9-7-17	9-7-17	
o-Xylene	ND	0.20	EPA 8260C	9-7-17	9-7-17	
Styrene	ND	0.20	EPA 8260C	9-7-17	9-7-17	
Bromoform	ND	1.0	EPA 8260C	9-7-17	9-7-17	
Isopropylbenzene	ND	0.20	EPA 8260C	9-7-17	9-7-17	
Bromobenzene	ND	0.20	EPA 8260C	9-7-17	9-7-17	
1,1,2,2-Tetrachloroethane	ND	0.20	EPA 8260C	9-7-17	9-7-17	
1,2,3-Trichloropropane	ND	0.20	EPA 8260C	9-7-17	9-7-17	
n-Propylbenzene	ND	0.20	EPA 8260C	9-7-17	9-7-17	
2-Chlorotoluene	ND	0.20	EPA 8260C	9-7-17	9-7-17	
4-Chlorotoluene	ND	0.20	EPA 8260C	9-7-17	9-7-17	
1,3,5-Trimethylbenzene	ND	0.20	EPA 8260C	9-7-17	9-7-17	
tert-Butylbenzene	ND	0.20	EPA 8260C	9-7-17	9-7-17	
1,2,4-Trimethylbenzene	ND	0.20	EPA 8260C	9-7-17	9-7-17	
sec-Butylbenzene	ND	0.20	EPA 8260C	9-7-17	9-7-17	
1,3-Dichlorobenzene	ND	0.20	EPA 8260C	9-7-17	9-7-17	
p-Isopropyltoluene	ND	0.20	EPA 8260C	9-7-17	9-7-17	
1,4-Dichlorobenzene	ND	0.20	EPA 8260C	9-7-17	9-7-17	
1,2-Dichlorobenzene	ND	0.20	EPA 8260C	9-7-17	9-7-17	
n-Butylbenzene	ND	0.20	EPA 8260C	9-7-17	9-7-17	
1,2-Dibromo-3-chloropropane	ND	1.0	EPA 8260C	9-7-17	9-7-17	
1,2,4-Trichlorobenzene	ND	0.20	EPA 8260C	9-7-17	9-7-17	
Hexachlorobutadiene	ND	0.20	EPA 8260C	9-7-17	9-7-17	
Naphthalene	ND	1.0	EPA 8260C	9-7-17	9-7-17	
1,2,3-Trichlorobenzene	ND	0.20	EPA 8260C	9-7-17	9-7-17	
Surrogate:	*Percent Recovery*	*Control Limits*				
Dibromofluoromethane	*99*	*77-129*				
Toluene-d8	*102*	*80-127*				
4-Bromofluorobenzene	*97*	*78-125*				

Date of Report: September 14, 2017
Samples Submitted: September 1, 2017
Laboratory Reference: 1709-019
Project: 14697.00008

VOLATILES EPA 8260C
METHOD BLANK QUALITY CONTROL
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Matrix: Water
Units: ug/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Laboratory ID:	MB0908W1					
Dichlorodifluoromethane	ND	0.20	EPA 8260C	9-8-17	9-8-17	
Chloromethane	ND	1.0	EPA 8260C	9-8-17	9-8-17	
Vinyl Chloride	ND	0.20	EPA 8260C	9-8-17	9-8-17	
Bromomethane	ND	0.20	EPA 8260C	9-8-17	9-8-17	
Chloroethane	ND	1.0	EPA 8260C	9-8-17	9-8-17	
Trichlorofluoromethane	ND	0.20	EPA 8260C	9-8-17	9-8-17	
1,1-Dichloroethene	ND	0.20	EPA 8260C	9-8-17	9-8-17	
Acetone	ND	5.0	EPA 8260C	9-8-17	9-8-17	
Iodomethane	ND	1.3	EPA 8260C	9-8-17	9-8-17	
Carbon Disulfide	ND	0.20	EPA 8260C	9-8-17	9-8-17	
Methylene Chloride	ND	2.0	EPA 8260C	9-8-17	9-8-17	
(trans) 1,2-Dichloroethene	ND	0.20	EPA 8260C	9-8-17	9-8-17	
Methyl t-Butyl Ether	ND	0.20	EPA 8260C	9-8-17	9-8-17	
1,1-Dichloroethane	ND	0.20	EPA 8260C	9-8-17	9-8-17	
Vinyl Acetate	ND	1.0	EPA 8260C	9-8-17	9-8-17	
2,2-Dichloropropane	ND	0.20	EPA 8260C	9-8-17	9-8-17	
(cis) 1,2-Dichloroethene	ND	0.20	EPA 8260C	9-8-17	9-8-17	
2-Butanone	ND	5.0	EPA 8260C	9-8-17	9-8-17	
Bromochloromethane	ND	0.20	EPA 8260C	9-8-17	9-8-17	
Chloroform	ND	0.20	EPA 8260C	9-8-17	9-8-17	
1,1,1-Trichloroethane	ND	0.20	EPA 8260C	9-8-17	9-8-17	
Carbon Tetrachloride	ND	0.20	EPA 8260C	9-8-17	9-8-17	
1,1-Dichloropropene	ND	0.20	EPA 8260C	9-8-17	9-8-17	
Benzene	ND	0.20	EPA 8260C	9-8-17	9-8-17	
1,2-Dichloroethane	ND	0.20	EPA 8260C	9-8-17	9-8-17	
Trichloroethene	ND	0.20	EPA 8260C	9-8-17	9-8-17	
1,2-Dichloropropane	ND	0.20	EPA 8260C	9-8-17	9-8-17	
Dibromomethane	ND	0.20	EPA 8260C	9-8-17	9-8-17	
Bromodichloromethane	ND	0.20	EPA 8260C	9-8-17	9-8-17	
2-Chloroethyl Vinyl Ether	ND	1.3	EPA 8260C	9-8-17	9-8-17	
(cis) 1,3-Dichloropropene	ND	0.20	EPA 8260C	9-8-17	9-8-17	
Methyl Isobutyl Ketone	ND	2.0	EPA 8260C	9-8-17	9-8-17	
Toluene	ND	1.0	EPA 8260C	9-8-17	9-8-17	
(trans) 1,3-Dichloropropene	ND	0.20	EPA 8260C	9-8-17	9-8-17	

Date of Report: September 14, 2017
Samples Submitted: September 1, 2017
Laboratory Reference: 1709-019
Project: 14697.00008

VOLATILES EPA 8260C
METHOD BLANK QUALITY CONTROL
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Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Laboratory ID:	MB0908W1					
1,1,2-Trichloroethane	ND	0.20	EPA 8260C	9-8-17	9-8-17	
Tetrachloroethene	ND	0.20	EPA 8260C	9-8-17	9-8-17	
1,3-Dichloropropane	ND	0.20	EPA 8260C	9-8-17	9-8-17	
2-Hexanone	ND	2.0	EPA 8260C	9-8-17	9-8-17	
Dibromochloromethane	ND	0.20	EPA 8260C	9-8-17	9-8-17	
1,2-Dibromoethane	ND	0.20	EPA 8260C	9-8-17	9-8-17	
Chlorobenzene	ND	0.20	EPA 8260C	9-8-17	9-8-17	
1,1,1,2-Tetrachloroethane	ND	0.20	EPA 8260C	9-8-17	9-8-17	
Ethylbenzene	ND	0.20	EPA 8260C	9-8-17	9-8-17	
m,p-Xylene	ND	0.40	EPA 8260C	9-8-17	9-8-17	
o-Xylene	ND	0.20	EPA 8260C	9-8-17	9-8-17	
Styrene	ND	0.20	EPA 8260C	9-8-17	9-8-17	
Bromoform	ND	1.0	EPA 8260C	9-8-17	9-8-17	
Isopropylbenzene	ND	0.20	EPA 8260C	9-8-17	9-8-17	
Bromobenzene	ND	0.20	EPA 8260C	9-8-17	9-8-17	
1,1,2,2-Tetrachloroethane	ND	0.20	EPA 8260C	9-8-17	9-8-17	
1,2,3-Trichloropropane	ND	0.20	EPA 8260C	9-8-17	9-8-17	
n-Propylbenzene	ND	0.20	EPA 8260C	9-8-17	9-8-17	
2-Chlorotoluene	ND	0.20	EPA 8260C	9-8-17	9-8-17	
4-Chlorotoluene	ND	0.20	EPA 8260C	9-8-17	9-8-17	
1,3,5-Trimethylbenzene	ND	0.20	EPA 8260C	9-8-17	9-8-17	
tert-Butylbenzene	ND	0.20	EPA 8260C	9-8-17	9-8-17	
1,2,4-Trimethylbenzene	ND	0.20	EPA 8260C	9-8-17	9-8-17	
sec-Butylbenzene	ND	0.20	EPA 8260C	9-8-17	9-8-17	
1,3-Dichlorobenzene	ND	0.20	EPA 8260C	9-8-17	9-8-17	
p-Isopropyltoluene	ND	0.20	EPA 8260C	9-8-17	9-8-17	
1,4-Dichlorobenzene	ND	0.20	EPA 8260C	9-8-17	9-8-17	
1,2-Dichlorobenzene	ND	0.20	EPA 8260C	9-8-17	9-8-17	
n-Butylbenzene	ND	0.20	EPA 8260C	9-8-17	9-8-17	
1,2-Dibromo-3-chloropropane	ND	1.0	EPA 8260C	9-8-17	9-8-17	
1,2,4-Trichlorobenzene	ND	0.20	EPA 8260C	9-8-17	9-8-17	
Hexachlorobutadiene	ND	0.20	EPA 8260C	9-8-17	9-8-17	
Naphthalene	ND	1.0	EPA 8260C	9-8-17	9-8-17	
1,2,3-Trichlorobenzene	ND	0.20	EPA 8260C	9-8-17	9-8-17	
Surrogate:	*Percent Recovery*	*Control Limits*				
Dibromofluoromethane	*104*	*77-129*				
Toluene-d8	*101*	*80-127*				
4-Bromofluorobenzene	*101*	*78-125*				

Date of Report: September 14, 2017
Samples Submitted: September 1, 2017
Laboratory Reference: 1709-019
Project: 14697.00008

VOLATILES EPA 8260C
SB/SBD QUALITY CONTROL

Matrix: Water
Units: ug/L

Analyte	Result		Spike Level		Percent Recovery		Recovery Limits	RPD	RPD Limit	Flags
SPIKE BLANKS										
Laboratory ID:	SB0908W1									
	SB	SBD	SB	SBD	SB	SBD				
1,1-Dichloroethene	**8.95**	**8.71**	10.0	10.0	90	87	63-127	3	17	
Benzene	**9.85**	**9.67**	10.0	10.0	99	97	76-121	2	12	
Trichloroethene	**8.93**	**8.95**	10.0	10.0	89	90	64-120	0	15	
Toluene	**9.67**	**9.60**	10.0	10.0	97	96	82-120	1	13	
Chlorobenzene	**9.77**	**9.67**	10.0	10.0	98	97	80-120	1	14	
Surrogate:										
Dibromofluoromethane					*100*	*104*	*77-129*			
Toluene-d8					*100*	*101*	*80-127*			
4-Bromofluorobenzene					*97*	*100*	*78-125*			

Date of Report: September 14, 2017
Samples Submitted: September 1, 2017
Laboratory Reference: 1709-019
Project: 14697.00008

VOLATILES EPA 8260C
MS/MSD QUALITY CONTROL

Matrix: Water
Units: ug/L

Analyte	Result		Spike Level		Source Result	Percent Recovery		Recovery Limits	RPD	RPD Limit	Flags
MATRIX SPIKES											
Laboratory ID:	09-019-05										
	MS	MSD	MS	MSD		MS	MSD				
1,1-Dichloroethene	**8.98**	**9.66**	10.0	10.0	ND	90	97	65-119	7	15	
Benzene	**9.35**	**10.3**	10.0	10.0	ND	94	103	75-117	10	15	
Trichloroethene	**9.33**	**9.89**	10.0	10.0	ND	93	99	66-120	6	15	
Toluene	**9.48**	**10.2**	10.0	10.0	ND	95	102	79-120	7	15	
Chlorobenzene	**9.79**	**10.6**	10.0	10.0	ND	98	106	76-120	8	15	
Surrogate:											
Dibromofluoromethane						*99*	*104*	*77-129*			
Toluene-d8						*98*	*101*	*80-127*			
4-Bromofluorobenzene						*96*	*98*	*78-125*			

Date of Report: September 14, 2017
Samples Submitted: September 1, 2017
Laboratory Reference: 1709-019
Project: 14697.00008

PAHs EPA 8270D/SIM

Matrix: Water
Units: ug/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**KMW-10-8-31-17**					
Laboratory ID:	09-019-01					
Naphthalene	**0.42**	0.094	EPA 8270D/SIM	9-5-17	9-6-17	
2-Methylnaphthalene	**ND**	0.094	EPA 8270D/SIM	9-5-17	9-6-17	
1-Methylnaphthalene	**ND**	0.094	EPA 8270D/SIM	9-5-17	9-6-17	
Acenaphthylene	**ND**	0.094	EPA 8270D/SIM	9-5-17	9-6-17	
Acenaphthene	**ND**	0.094	EPA 8270D/SIM	9-5-17	9-6-17	
Fluorene	**ND**	0.094	EPA 8270D/SIM	9-5-17	9-6-17	
Phenanthrene	**ND**	0.094	EPA 8270D/SIM	9-5-17	9-6-17	
Anthracene	**ND**	0.094	EPA 8270D/SIM	9-5-17	9-6-17	
Fluoranthene	**ND**	0.094	EPA 8270D/SIM	9-5-17	9-6-17	
Pyrene	**ND**	0.094	EPA 8270D/SIM	9-5-17	9-6-17	
Benzo[a]anthracene	**ND**	0.0094	EPA 8270D/SIM	9-5-17	9-6-17	
Chrysene	**ND**	0.0094	EPA 8270D/SIM	9-5-17	9-6-17	
Benzo[b]fluoranthene	**ND**	0.0094	EPA 8270D/SIM	9-5-17	9-6-17	
Benzo(j,k)fluoranthene	**ND**	0.0094	EPA 8270D/SIM	9-5-17	9-6-17	
Benzo[a]pyrene	**ND**	0.0094	EPA 8270D/SIM	9-5-17	9-6-17	
Indeno(1,2,3-c,d)pyrene	**ND**	0.0094	EPA 8270D/SIM	9-5-17	9-6-17	
Dibenz[a,h]anthracene	**ND**	0.0094	EPA 8270D/SIM	9-5-17	9-6-17	
Benzo[g,h,i]perylene	**ND**	0.0094	EPA 8270D/SIM	9-5-17	9-6-17	
Surrogate:	*Percent Recovery*	*Control Limits*				
2-Fluorobiphenyl	*54*	*30 - 124*				
Pyrene-d10	*50*	*40 - 143*				
Terphenyl-d14	*75*	*27 - 127*				

Date of Report: September 14, 2017
Samples Submitted: September 1, 2017
Laboratory Reference: 1709-019
Project: 14697.00008

PAHs EPA 8270D/SIM

Matrix: Water
Units: ug/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**KMW-09-8-31-17**					
Laboratory ID:	09-019-02					
Naphthalene	**ND**	0.098	EPA 8270D/SIM	9-5-17	9-6-17	
2-Methylnaphthalene	**ND**	0.098	EPA 8270D/SIM	9-5-17	9-6-17	
1-Methylnaphthalene	**0.32**	0.098	EPA 8270D/SIM	9-5-17	9-6-17	
Acenaphthylene	**ND**	0.098	EPA 8270D/SIM	9-5-17	9-6-17	
Acenaphthene	**1.0**	0.098	EPA 8270D/SIM	9-5-17	9-6-17	
Fluorene	**0.19**	0.098	EPA 8270D/SIM	9-5-17	9-6-17	
Phenanthrene	**ND**	0.098	EPA 8270D/SIM	9-5-17	9-6-17	
Anthracene	**0.16**	0.098	EPA 8270D/SIM	9-5-17	9-6-17	
Fluoranthene	**ND**	0.098	EPA 8270D/SIM	9-5-17	9-6-17	
Pyrene	**ND**	0.098	EPA 8270D/SIM	9-5-17	9-6-17	
Benzo[a]anthracene	**ND**	0.0098	EPA 8270D/SIM	9-5-17	9-6-17	
Chrysene	**ND**	0.0098	EPA 8270D/SIM	9-5-17	9-6-17	
Benzo[b]fluoranthene	**ND**	0.0098	EPA 8270D/SIM	9-5-17	9-6-17	
Benzo(j,k)fluoranthene	**ND**	0.0098	EPA 8270D/SIM	9-5-17	9-6-17	
Benzo[a]pyrene	**ND**	0.0098	EPA 8270D/SIM	9-5-17	9-6-17	
Indeno(1,2,3-c,d)pyrene	**ND**	0.0098	EPA 8270D/SIM	9-5-17	9-6-17	
Dibenz[a,h]anthracene	**ND**	0.0098	EPA 8270D/SIM	9-5-17	9-6-17	
Benzo[g,h,i]perylene	**ND**	0.0098	EPA 8270D/SIM	9-5-17	9-6-17	
Surrogate:	*Percent Recovery*	*Control Limits*				
2-Fluorobiphenyl	*33*	*30 - 124*				
Pyrene-d10	*32*	*40 - 143*				Q
Terphenyl-d14	*46*	*27 - 127*				

Date of Report: September 14, 2017
Samples Submitted: September 1, 2017
Laboratory Reference: 1709-019
Project: 14697.00008

PAHs EPA 8270D/SIM

Matrix: Water
Units: ug/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**KMW-06-8-31-17**					
Laboratory ID:	09-019-03					
Naphthalene	**0.12**	0.095	EPA 8270D/SIM	9-5-17	9-6-17	
2-Methylnaphthalene	**0.79**	0.095	EPA 8270D/SIM	9-5-17	9-6-17	
1-Methylnaphthalene	**3.1**	0.095	EPA 8270D/SIM	9-5-17	9-6-17	
Acenaphthylene	**0.25**	0.095	EPA 8270D/SIM	9-5-17	9-6-17	
Acenaphthene	**1.9**	0.095	EPA 8270D/SIM	9-5-17	9-6-17	
Fluorene	**0.75**	0.095	EPA 8270D/SIM	9-5-17	9-6-17	
Phenanthrene	**0.12**	0.095	EPA 8270D/SIM	9-5-17	9-6-17	
Anthracene	**1.0**	0.095	EPA 8270D/SIM	9-5-17	9-6-17	
Fluoranthene	**0.10**	0.095	EPA 8270D/SIM	9-5-17	9-6-17	
Pyrene	**0.10**	0.095	EPA 8270D/SIM	9-5-17	9-6-17	
Benzo[a]anthracene	**0.041**	0.0095	EPA 8270D/SIM	9-5-17	9-6-17	
Chrysene	**0.032**	0.0095	EPA 8270D/SIM	9-5-17	9-6-17	
Benzo[b]fluoranthene	**0.034**	0.0095	EPA 8270D/SIM	9-5-17	9-6-17	
Benzo(j,k)fluoranthene	**0.018**	0.0095	EPA 8270D/SIM	9-5-17	9-6-17	
Benzo[a]pyrene	**0.033**	0.0095	EPA 8270D/SIM	9-5-17	9-6-17	
Indeno(1,2,3-c,d)pyrene	**0.023**	0.0095	EPA 8270D/SIM	9-5-17	9-6-17	
Dibenz[a,h]anthracene	**ND**	0.0095	EPA 8270D/SIM	9-5-17	9-6-17	
Benzo[g,h,i]perylene	**0.025**	0.0095	EPA 8270D/SIM	9-5-17	9-6-17	
Surrogate:	*Percent Recovery*	*Control Limits*				
2-Fluorobiphenyl	*57*	*30 - 124*				
Pyrene-d10	*53*	*40 - 143*				
Terphenyl-d14	*77*	*27 - 127*				

Date of Report: September 14, 2017
Samples Submitted: September 1, 2017
Laboratory Reference: 1709-019
Project: 14697.00008

PAHs EPA 8270D/SIM

Matrix: Water
Units: ug/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**KMW-04-8-31-17**					
Laboratory ID:	09-019-04					
Naphthalene	**2.9**	0.096	EPA 8270D/SIM	9-5-17	9-6-17	
2-Methylnaphthalene	**0.40**	0.096	EPA 8270D/SIM	9-5-17	9-6-17	
1-Methylnaphthalene	**0.33**	0.096	EPA 8270D/SIM	9-5-17	9-6-17	
Acenaphthylene	**ND**	0.096	EPA 8270D/SIM	9-5-17	9-6-17	
Acenaphthene	**0.35**	0.096	EPA 8270D/SIM	9-5-17	9-6-17	
Fluorene	**ND**	0.096	EPA 8270D/SIM	9-5-17	9-6-17	
Phenanthrene	**ND**	0.096	EPA 8270D/SIM	9-5-17	9-6-17	
Anthracene	**ND**	0.096	EPA 8270D/SIM	9-5-17	9-6-17	
Fluoranthene	**ND**	0.096	EPA 8270D/SIM	9-5-17	9-6-17	
Pyrene	**ND**	0.096	EPA 8270D/SIM	9-5-17	9-6-17	
Benzo[a]anthracene	**ND**	0.0096	EPA 8270D/SIM	9-5-17	9-6-17	
Chrysene	**0.010**	0.0096	EPA 8270D/SIM	9-5-17	9-6-17	
Benzo[b]fluoranthene	**0.012**	0.0096	EPA 8270D/SIM	9-5-17	9-6-17	
Benzo(j,k)fluoranthene	**ND**	0.0096	EPA 8270D/SIM	9-5-17	9-6-17	
Benzo[a]pyrene	**ND**	0.0096	EPA 8270D/SIM	9-5-17	9-6-17	
Indeno(1,2,3-c,d)pyrene	**ND**	0.0096	EPA 8270D/SIM	9-5-17	9-6-17	
Dibenz[a,h]anthracene	**ND**	0.0096	EPA 8270D/SIM	9-5-17	9-6-17	
Benzo[g,h,i]perylene	**ND**	0.0096	EPA 8270D/SIM	9-5-17	9-6-17	
Surrogate:	*Percent Recovery*	*Control Limits*				
2-Fluorobiphenyl	*50*	*30 - 124*				
Pyrene-d10	*42*	*40 - 143*				
Terphenyl-d14	*75*	*27 - 127*				

Date of Report: September 14, 2017
Samples Submitted: September 1, 2017
Laboratory Reference: 1709-019
Project: 14697.00008

PAHs EPA 8270D/SIM

Matrix: Water
Units: ug/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**KMW-2R-9-1-17**					
Laboratory ID:	09-019-05					
Naphthalene	**ND**	0.099	EPA 8270D/SIM	9-5-17	9-6-17	
2-Methylnaphthalene	**ND**	0.099	EPA 8270D/SIM	9-5-17	9-6-17	
1-Methylnaphthalene	**ND**	0.099	EPA 8270D/SIM	9-5-17	9-6-17	
Acenaphthylene	**ND**	0.099	EPA 8270D/SIM	9-5-17	9-6-17	
Acenaphthene	**ND**	0.099	EPA 8270D/SIM	9-5-17	9-6-17	
Fluorene	**ND**	0.099	EPA 8270D/SIM	9-5-17	9-6-17	
Phenanthrene	**ND**	0.099	EPA 8270D/SIM	9-5-17	9-6-17	
Anthracene	**ND**	0.099	EPA 8270D/SIM	9-5-17	9-6-17	
Fluoranthene	**ND**	0.099	EPA 8270D/SIM	9-5-17	9-6-17	
Pyrene	**ND**	0.099	EPA 8270D/SIM	9-5-17	9-6-17	
Benzo[a]anthracene	**ND**	0.0099	EPA 8270D/SIM	9-5-17	9-6-17	
Chrysene	**ND**	0.0099	EPA 8270D/SIM	9-5-17	9-6-17	
Benzo[b]fluoranthene	**ND**	0.0099	EPA 8270D/SIM	9-5-17	9-6-17	
Benzo(j,k)fluoranthene	**ND**	0.0099	EPA 8270D/SIM	9-5-17	9-6-17	
Benzo[a]pyrene	**ND**	0.0099	EPA 8270D/SIM	9-5-17	9-6-17	
Indeno(1,2,3-c,d)pyrene	**ND**	0.0099	EPA 8270D/SIM	9-5-17	9-6-17	
Dibenz[a,h]anthracene	**ND**	0.0099	EPA 8270D/SIM	9-5-17	9-6-17	
Benzo[g,h,i]perylene	**ND**	0.0099	EPA 8270D/SIM	9-5-17	9-6-17	
Surrogate:	*Percent Recovery*	*Control Limits*				
2-Fluorobiphenyl	*77*	*30 - 124*				
Pyrene-d10	*64*	*40 - 143*				
Terphenyl-d14	*80*	*27 - 127*				

Date of Report: September 14, 2017
Samples Submitted: September 1, 2017
Laboratory Reference: 1709-019
Project: 14697.00008

PAHs EPA 8270D/SIM

Matrix: Water
Units: ug/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**KMW-07-9-1-17**					
Laboratory ID:	09-019-06					
Naphthalene	**ND**	0.099	EPA 8270D/SIM	9-5-17	9-6-17	
2-Methylnaphthalene	**ND**	0.099	EPA 8270D/SIM	9-5-17	9-6-17	
1-Methylnaphthalene	**ND**	0.099	EPA 8270D/SIM	9-5-17	9-6-17	
Acenaphthylene	**ND**	0.099	EPA 8270D/SIM	9-5-17	9-6-17	
Acenaphthene	**ND**	0.099	EPA 8270D/SIM	9-5-17	9-6-17	
Fluorene	**ND**	0.099	EPA 8270D/SIM	9-5-17	9-6-17	
Phenanthrene	**ND**	0.099	EPA 8270D/SIM	9-5-17	9-6-17	
Anthracene	**ND**	0.099	EPA 8270D/SIM	9-5-17	9-6-17	
Fluoranthene	**ND**	0.099	EPA 8270D/SIM	9-5-17	9-6-17	
Pyrene	**ND**	0.099	EPA 8270D/SIM	9-5-17	9-6-17	
Benzo[a]anthracene	**ND**	0.0099	EPA 8270D/SIM	9-5-17	9-6-17	
Chrysene	**ND**	0.0099	EPA 8270D/SIM	9-5-17	9-6-17	
Benzo[b]fluoranthene	**ND**	0.0099	EPA 8270D/SIM	9-5-17	9-6-17	
Benzo(j,k)fluoranthene	**ND**	0.0099	EPA 8270D/SIM	9-5-17	9-6-17	
Benzo[a]pyrene	**ND**	0.0099	EPA 8270D/SIM	9-5-17	9-6-17	
Indeno(1,2,3-c,d)pyrene	**ND**	0.0099	EPA 8270D/SIM	9-5-17	9-6-17	
Dibenz[a,h]anthracene	**ND**	0.0099	EPA 8270D/SIM	9-5-17	9-6-17	
Benzo[g,h,i]perylene	**ND**	0.0099	EPA 8270D/SIM	9-5-17	9-6-17	
Surrogate:	*Percent Recovery*	*Control Limits*				
2-Fluorobiphenyl	*48*	*30 - 124*				
Pyrene-d10	*55*	*40 - 143*				
Terphenyl-d14	*69*	*27 - 127*				

Date of Report: September 14, 2017
Samples Submitted: September 1, 2017
Laboratory Reference: 1709-019
Project: 14697.00008

PAHs EPA 8270D/SIM

Matrix: Water
Units: ug/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**KMW-08-9-1-17**					
Laboratory ID:	09-019-07					
Naphthalene	**ND**	0.10	EPA 8270D/SIM	9-8-17	9-8-17	
2-Methylnaphthalene	**ND**	0.10	EPA 8270D/SIM	9-8-17	9-8-17	
1-Methylnaphthalene	**ND**	0.10	EPA 8270D/SIM	9-8-17	9-8-17	
Acenaphthylene	**ND**	0.10	EPA 8270D/SIM	9-8-17	9-8-17	
Acenaphthene	**0.18**	0.10	EPA 8270D/SIM	9-8-17	9-8-17	
Fluorene	**0.29**	0.10	EPA 8270D/SIM	9-8-17	9-8-17	
Phenanthrene	**ND**	0.10	EPA 8270D/SIM	9-8-17	9-8-17	
Anthracene	**ND**	0.10	EPA 8270D/SIM	9-8-17	9-8-17	
Fluoranthene	**0.11**	0.10	EPA 8270D/SIM	9-8-17	9-8-17	
Pyrene	**ND**	0.10	EPA 8270D/SIM	9-8-17	9-8-17	
Benzo[a]anthracene	**0.012**	0.010	EPA 8270D/SIM	9-8-17	9-8-17	
Chrysene	**0.012**	0.010	EPA 8270D/SIM	9-8-17	9-8-17	
Benzo[b]fluoranthene	**ND**	0.010	EPA 8270D/SIM	9-8-17	9-8-17	
Benzo(j,k)fluoranthene	**ND**	0.010	EPA 8270D/SIM	9-8-17	9-8-17	
Benzo[a]pyrene	**ND**	0.010	EPA 8270D/SIM	9-8-17	9-8-17	
Indeno(1,2,3-c,d)pyrene	**ND**	0.010	EPA 8270D/SIM	9-8-17	9-8-17	
Dibenz[a,h]anthracene	**ND**	0.010	EPA 8270D/SIM	9-8-17	9-8-17	
Benzo[g,h,i]perylene	**ND**	0.010	EPA 8270D/SIM	9-8-17	9-8-17	
Surrogate:	*Percent Recovery*	*Control Limits*				
2-Fluorobiphenyl	*43*	*30 - 124*				
Pyrene-d10	*42*	*40 - 143*				
Terphenyl-d14	*47*	*27 - 127*				

Date of Report: September 14, 2017
Samples Submitted: September 1, 2017
Laboratory Reference: 1709-019
Project: 14697.00008

PAHs EPA 8270D/SIM

Matrix: Water
Units: ug/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**KMW-03R-9-1-17**					
Laboratory ID:	09-019-08					
Naphthalene	**ND**	0.098	EPA 8270D/SIM	9-8-17	9-8-17	
2-Methylnaphthalene	**ND**	0.098	EPA 8270D/SIM	9-8-17	9-8-17	
1-Methylnaphthalene	**ND**	0.098	EPA 8270D/SIM	9-8-17	9-8-17	
Acenaphthylene	**ND**	0.098	EPA 8270D/SIM	9-8-17	9-8-17	
Acenaphthene	**0.22**	0.098	EPA 8270D/SIM	9-8-17	9-8-17	
Fluorene	**0.29**	0.098	EPA 8270D/SIM	9-8-17	9-8-17	
Phenanthrene	**0.16**	0.098	EPA 8270D/SIM	9-8-17	9-8-17	
Anthracene	**ND**	0.098	EPA 8270D/SIM	9-8-17	9-8-17	
Fluoranthene	**ND**	0.098	EPA 8270D/SIM	9-8-17	9-8-17	
Pyrene	**ND**	0.098	EPA 8270D/SIM	9-8-17	9-8-17	
Benzo[a]anthracene	**ND**	0.0098	EPA 8270D/SIM	9-8-17	9-8-17	
Chrysene	**ND**	0.0098	EPA 8270D/SIM	9-8-17	9-8-17	
Benzo[b]fluoranthene	**ND**	0.0098	EPA 8270D/SIM	9-8-17	9-8-17	
Benzo(j,k)fluoranthene	**ND**	0.0098	EPA 8270D/SIM	9-8-17	9-8-17	
Benzo[a]pyrene	**ND**	0.0098	EPA 8270D/SIM	9-8-17	9-8-17	
Indeno(1,2,3-c,d)pyrene	**ND**	0.0098	EPA 8270D/SIM	9-8-17	9-8-17	
Dibenz[a,h]anthracene	**ND**	0.0098	EPA 8270D/SIM	9-8-17	9-8-17	
Benzo[g,h,i]perylene	**ND**	0.0098	EPA 8270D/SIM	9-8-17	9-8-17	
Surrogate:	*Percent Recovery*	*Control Limits*				
2-Fluorobiphenyl	*76*	*30 - 124*				
Pyrene-d10	*89*	*40 - 143*				
Terphenyl-d14	*112*	*27 - 127*				

Date of Report: September 14, 2017
Samples Submitted: September 1, 2017
Laboratory Reference: 1709-019
Project: 14697.00008

PAHs EPA 8270D/SIM
METHOD BLANK QUALITY CONTROL

Matrix: Water
Units: ug/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Laboratory ID:	MB0905W1					
Naphthalene	**ND**	0.10	EPA 8270D/SIM	9-5-17	9-6-17	
2-Methylnaphthalene	**ND**	0.10	EPA 8270D/SIM	9-5-17	9-6-17	
1-Methylnaphthalene	**ND**	0.10	EPA 8270D/SIM	9-5-17	9-6-17	
Acenaphthylene	**ND**	0.10	EPA 8270D/SIM	9-5-17	9-6-17	
Acenaphthene	**ND**	0.10	EPA 8270D/SIM	9-5-17	9-6-17	
Fluorene	**ND**	0.10	EPA 8270D/SIM	9-5-17	9-6-17	
Phenanthrene	**ND**	0.10	EPA 8270D/SIM	9-5-17	9-6-17	
Anthracene	**ND**	0.10	EPA 8270D/SIM	9-5-17	9-6-17	
Fluoranthene	**ND**	0.10	EPA 8270D/SIM	9-5-17	9-6-17	
Pyrene	**ND**	0.10	EPA 8270D/SIM	9-5-17	9-6-17	
Benzo[a]anthracene	**ND**	0.010	EPA 8270D/SIM	9-5-17	9-6-17	
Chrysene	**ND**	0.010	EPA 8270D/SIM	9-5-17	9-6-17	
Benzo[b]fluoranthene	**ND**	0.010	EPA 8270D/SIM	9-5-17	9-6-17	
Benzo(j,k)fluoranthene	**ND**	0.010	EPA 8270D/SIM	9-5-17	9-6-17	
Benzo[a]pyrene	**ND**	0.010	EPA 8270D/SIM	9-5-17	9-6-17	
Indeno(1,2,3-c,d)pyrene	**ND**	0.010	EPA 8270D/SIM	9-5-17	9-6-17	
Dibenz[a,h]anthracene	**ND**	0.010	EPA 8270D/SIM	9-5-17	9-6-17	
Benzo[g,h,i]perylene	**ND**	0.010	EPA 8270D/SIM	9-5-17	9-6-17	
Surrogate:	*Percent Recovery*	*Control Limits*				
2-Fluorobiphenyl	*65*	*30 - 124*				
Pyrene-d10	*64*	*40 - 143*				
Terphenyl-d14	*78*	*27 - 127*				

Date of Report: September 14, 2017
Samples Submitted: September 1, 2017
Laboratory Reference: 1709-019
Project: 14697.00008

PAHs EPA 8270D/SIM
METHOD BLANK QUALITY CONTROL

Matrix: Water
Units: ug/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Laboratory ID:	MB0908W1					
Naphthalene	**ND**	0.10	EPA 8270D/SIM	9-8-17	9-8-17	
2-Methylnaphthalene	**ND**	0.10	EPA 8270D/SIM	9-8-17	9-8-17	
1-Methylnaphthalene	**ND**	0.10	EPA 8270D/SIM	9-8-17	9-8-17	
Acenaphthylene	**ND**	0.10	EPA 8270D/SIM	9-8-17	9-8-17	
Acenaphthene	**ND**	0.10	EPA 8270D/SIM	9-8-17	9-8-17	
Fluorene	**ND**	0.10	EPA 8270D/SIM	9-8-17	9-8-17	
Phenanthrene	**ND**	0.10	EPA 8270D/SIM	9-8-17	9-8-17	
Anthracene	**ND**	0.10	EPA 8270D/SIM	9-8-17	9-8-17	
Fluoranthene	**ND**	0.10	EPA 8270D/SIM	9-8-17	9-8-17	
Pyrene	**ND**	0.10	EPA 8270D/SIM	9-8-17	9-8-17	
Benzo[a]anthracene	**ND**	0.010	EPA 8270D/SIM	9-8-17	9-8-17	
Chrysene	**ND**	0.010	EPA 8270D/SIM	9-8-17	9-8-17	
Benzo[b]fluoranthene	**ND**	0.010	EPA 8270D/SIM	9-8-17	9-8-17	
Benzo(j,k)fluoranthene	**ND**	0.010	EPA 8270D/SIM	9-8-17	9-8-17	
Benzo[a]pyrene	**ND**	0.010	EPA 8270D/SIM	9-8-17	9-8-17	
Indeno(1,2,3-c,d)pyrene	**ND**	0.010	EPA 8270D/SIM	9-8-17	9-8-17	
Dibenz[a,h]anthracene	**ND**	0.010	EPA 8270D/SIM	9-8-17	9-8-17	
Benzo[g,h,i]perylene	**ND**	0.010	EPA 8270D/SIM	9-8-17	9-8-17	
Surrogate:	*Percent Recovery*	*Control Limits*				
2-Fluorobiphenyl	*76*	*30 - 124*				
Pyrene-d10	*93*	*40 - 143*				
Terphenyl-d14	*104*	*27 - 127*				

Date of Report: September 14, 2017
Samples Submitted: September 1, 2017
Laboratory Reference: 1709-019
Project: 14697.00008

PAHs EPA 8270D/SIM
MS/MSD QUALITY CONTROL

Matrix: Water
Units: ug/L

Analyte	Result		Spike Level		Source Result	Percent Recovery		Recovery Limits	RPD	RPD Limit	Flags
MATRIX SPIKES											
Laboratory ID:	09-019-05										
	MS	MSD	MS	MSD		MS	MSD				
Naphthalene	**0.272**	**0.313**	0.490	0.496	ND	56	63	29 - 101	14	47	
Acenaphthylene	**0.318**	**0.341**	0.490	0.496	ND	65	69	20 - 117	7	50	
Acenaphthene	**0.327**	**0.350**	0.490	0.496	ND	67	71	37 - 109	7	43	
Fluorene	**0.345**	**0.372**	0.490	0.496	ND	70	75	47 - 108	8	34	
Phenanthrene	**0.355**	**0.368**	0.490	0.496	ND	72	74	49 - 109	4	28	
Anthracene	**0.425**	**0.463**	0.490	0.496	ND	87	93	34 - 140	9	32	
Fluoranthene	**0.382**	**0.409**	0.490	0.496	ND	78	82	45 - 120	7	39	
Pyrene	**0.382**	**0.405**	0.490	0.496	ND	78	82	42 - 133	6	39	
Benzo[a]anthracene	**0.391**	**0.414**	0.490	0.496	ND	80	83	71 - 117	6	28	
Chrysene	**0.414**	**0.445**	0.490	0.496	ND	84	90	53 - 110	7	25	
Benzo[b]fluoranthene	**0.343**	**0.350**	0.490	0.496	ND	70	71	53 - 123	2	37	
Benzo(j,k)fluoranthene	**0.456**	**0.498**	0.490	0.496	ND	93	100	52 - 119	9	41	
Benzo[a]pyrene	**0.344**	**0.367**	0.490	0.496	ND	70	74	37 - 129	6	33	
Indeno(1,2,3-c,d)pyrene	**0.365**	**0.374**	0.490	0.496	ND	74	75	45 - 128	2	31	
Dibenz[a,h]anthracene	**0.378**	**0.411**	0.490	0.496	ND	77	83	54 - 120	8	30	
Benzo[g,h,i]perylene	**0.386**	**0.402**	0.490	0.496	ND	79	81	49 - 117	4	29	
Surrogate:											
2-Fluorobiphenyl						*67*	*74*	*30 - 124*			
Pyrene-d10						*77*	*82*	*40 - 143*			
Terphenyl-d14						*86*	*91*	*27 - 127*			

Date of Report: September 14, 2017
Samples Submitted: September 1, 2017
Laboratory Reference: 1709-019
Project: 14697.00008

PAHs EPA 8270D/SIM
SB/SBD QUALITY CONTROL

Matrix: Water
Units: ug/L

Analyte	Result		Spike Level		Percent Recovery		Recovery Limits	RPD	RPD Limit	Flags
SPIKE BLANKS										
Laboratory ID:	SB0905W1									
	SB	SBD	SB	SBD	SB	SBD				
Naphthalene	**0.267**	**0.273**	0.500	0.500	53	55	29 - 101	2	47	
Acenaphthylene	**0.286**	**0.293**	0.500	0.500	57	59	20 - 117	2	50	
Acenaphthene	**0.313**	**0.297**	0.500	0.500	63	59	37 - 109	5	43	
Fluorene	**0.310**	**0.322**	0.500	0.500	62	64	47 - 108	4	34	
Phenanthrene	**0.324**	**0.325**	0.500	0.500	65	65	49 - 109	0	28	
Anthracene	**0.345**	**0.344**	0.500	0.500	69	69	34 - 140	0	32	
Fluoranthene	**0.345**	**0.344**	0.500	0.500	69	69	45 - 120	0	39	
Pyrene	**0.396**	**0.356**	0.500	0.500	79	71	42 - 133	11	39	
Benzo[a]anthracene	**0.373**	**0.374**	0.500	0.500	75	75	71 - 117	0	28	
Chrysene	**0.323**	**0.335**	0.500	0.500	65	67	53 - 110	4	25	
Benzo[b]fluoranthene	**0.341**	**0.310**	0.500	0.500	68	62	53 - 123	10	37	
Benzo(j,k)fluoranthene	**0.339**	**0.320**	0.500	0.500	68	64	52 - 119	6	41	
Benzo[a]pyrene	**0.335**	**0.341**	0.500	0.500	67	68	37 - 129	2	33	
Indeno(1,2,3-c,d)pyrene	**0.346**	**0.305**	0.500	0.500	69	61	45 - 128	13	31	
Dibenz[a,h]anthracene	**0.345**	**0.308**	0.500	0.500	69	62	54 - 120	11	30	
Benzo[g,h,i]perylene	**0.338**	**0.296**	0.500	0.500	68	59	49 - 117	13	29	
Surrogate:										
2-Fluorobiphenyl					*63*	*60*	*30 - 124*			
Pyrene-d10					*65*	*65*	*40 - 143*			
Terphenyl-d14					*84*	*77*	*27 - 127*			

Date of Report: September 14, 2017
Samples Submitted: September 1, 2017
Laboratory Reference: 1709-019
Project: 14697.00008

PAHs EPA 8270D/SIM
SB/SBD QUALITY CONTROL

Matrix: Water
Units: ug/L

Analyte	Result		Spike Level		Percent Recovery		Recovery Limits	RPD	RPD Limit	Flags
SPIKE BLANKS										
Laboratory ID:	SB0908W1									
	SB	SBD	SB	SBD	SB	SBD				
Naphthalene	**0.368**	**0.366**	0.500	0.500	74	73	29 - 101	1	47	
Acenaphthylene	**0.434**	**0.433**	0.500	0.500	87	87	20 - 117	0	50	
Acenaphthene	**0.411**	**0.416**	0.500	0.500	82	83	37 - 109	1	43	
Fluorene	**0.455**	**0.445**	0.500	0.500	91	89	47 - 108	2	34	
Phenanthrene	**0.430**	**0.422**	0.500	0.500	86	84	49 - 109	2	28	
Anthracene	**0.454**	**0.514**	0.500	0.500	91	103	34 - 140	12	32	
Fluoranthene	**0.492**	**0.488**	0.500	0.500	98	98	45 - 120	1	39	
Pyrene	**0.495**	**0.483**	0.500	0.500	99	97	42 - 133	2	39	
Benzo[a]anthracene	**0.503**	**0.520**	0.500	0.500	101	104	71 - 117	3	28	
Chrysene	**0.467**	**0.486**	0.500	0.500	93	97	53 - 110	4	25	
Benzo[b]fluoranthene	**0.503**	**0.521**	0.500	0.500	101	104	53 - 123	4	37	
Benzo(j,k)fluoranthene	**0.471**	**0.503**	0.500	0.500	94	101	52 - 119	7	41	
Benzo[a]pyrene	**0.466**	**0.478**	0.500	0.500	93	96	37 - 129	3	33	
Indeno(1,2,3-c,d)pyrene	**0.487**	**0.491**	0.500	0.500	97	98	45 - 128	1	31	
Dibenz[a,h]anthracene	**0.506**	**0.520**	0.500	0.500	101	104	54 - 120	3	30	
Benzo[g,h,i]perylene	**0.501**	**0.518**	0.500	0.500	100	104	49 - 117	3	29	
Surrogate:										
2-Fluorobiphenyl					*91*	*94*	*30 - 124*			
Pyrene-d10					*97*	*96*	*40 - 143*			
Terphenyl-d14					*110*	*110*	*27 - 127*			

Date of Report: September 14, 2017
Samples Submitted: September 1, 2017
Laboratory Reference: 1709-019
Project: 14697.00008

TOTAL METALS
EPA 200.8/7470A

Matrix: Water
Units: ug/L (ppb)

Analyte	Result	PQL	EPA Method	Date Prepared	Date Analyzed	Flags
Lab ID:	09-019-01					
Client ID:	**KMW-10-8-31-17**					
Arsenic	**10**	3.3	200.8	9-12-17	9-12-17	
Barium	**ND**	28	200.8	9-12-17	9-12-17	
Cadmium	**ND**	4.4	200.8	9-12-17	9-12-17	
Chromium	**ND**	11	200.8	9-12-17	9-12-17	
Lead	**ND**	1.1	200.8	9-12-17	9-12-17	
Mercury	**ND**	0.50	7470A	9-7-17	9-7-17	
Selenium	**ND**	5.6	200.8	9-12-17	9-12-17	
Silver	**ND**	11	200.8	9-12-17	9-12-17	
Lab ID:	09-019-02					
Client ID:	**KMW-09-8-31-17**					
Arsenic	**ND**	3.3	200.8	9-12-17	9-12-17	
Barium	**ND**	28	200.8	9-12-17	9-12-17	
Cadmium	**ND**	4.4	200.8	9-12-17	9-12-17	
Chromium	**ND**	11	200.8	9-12-17	9-12-17	
Lead	**ND**	1.1	200.8	9-12-17	9-12-17	
Mercury	**ND**	0.50	7470A	9-7-17	9-7-17	
Selenium	**ND**	5.6	200.8	9-12-17	9-12-17	
Silver	**ND**	11	200.8	9-12-17	9-12-17	

Date of Report: September 14, 2017
Samples Submitted: September 1, 2017
Laboratory Reference: 1709-019
Project: 14697.00008

TOTAL METALS
EPA 200.8/7470A

Matrix: Water
Units: ug/L (ppb)

Analyte	Result	PQL	EPA Method	Date Prepared	Date Analyzed	Flags
Lab ID:	09-019-03					
Client ID:	**KMW-06-8-31-17**					
Arsenic	**ND**	3.3	200.8	9-12-17	9-12-17	
Barium	**ND**	28	200.8	9-12-17	9-12-17	
Cadmium	**ND**	4.4	200.8	9-12-17	9-12-17	
Chromium	**ND**	11	200.8	9-12-17	9-12-17	
Lead	**2.7**	1.1	200.8	9-12-17	9-12-17	
Mercury	**ND**	0.50	7470A	9-7-17	9-7-17	
Selenium	**ND**	5.6	200.8	9-12-17	9-12-17	
Silver	**ND**	11	200.8	9-12-17	9-12-17	
Lab ID:	09-019-04					
Client ID:	**KMW-04-8-31-17**					
Arsenic	**14**	3.3	200.8	9-12-17	9-12-17	
Barium	**ND**	28	200.8	9-12-17	9-12-17	
Cadmium	**ND**	4.4	200.8	9-12-17	9-12-17	
Chromium	**ND**	11	200.8	9-12-17	9-12-17	
Lead	**ND**	1.1	200.8	9-12-17	9-12-17	
Mercury	**ND**	0.50	7470A	9-7-17	9-7-17	
Selenium	**ND**	5.6	200.8	9-12-17	9-12-17	
Silver	**ND**	11	200.8	9-12-17	9-12-17	

Date of Report: September 14, 2017
Samples Submitted: September 1, 2017
Laboratory Reference: 1709-019
Project: 14697.00008

TOTAL METALS
EPA 200.8/7470A

Matrix: Water
Units: ug/L (ppb)

Analyte	Result	PQL	EPA Method	Date Prepared	Date Analyzed	Flags
Lab ID:	09-019-05					
Client ID:	**KMW-02R-9-1-17**					
Arsenic	**ND**	3.3	200.8	9-12-17	9-12-17	
Barium	**ND**	28	200.8	9-12-17	9-12-17	
Cadmium	**ND**	4.4	200.8	9-12-17	9-12-17	
Chromium	**ND**	11	200.8	9-12-17	9-12-17	
Lead	**ND**	1.1	200.8	9-12-17	9-12-17	
Mercury	**ND**	0.50	7470A	9-7-17	9-7-17	
Selenium	**ND**	5.6	200.8	9-12-17	9-12-17	
Silver	**ND**	11	200.8	9-12-17	9-12-17	
Lab ID:	09-019-06					
Client ID:	**KMW-07-9-1-17**					
Arsenic	**ND**	3.3	200.8	9-12-17	9-12-17	
Barium	**ND**	28	200.8	9-12-17	9-12-17	
Cadmium	**ND**	4.4	200.8	9-12-17	9-12-17	
Chromium	**ND**	11	200.8	9-12-17	9-12-17	
Lead	**ND**	1.1	200.8	9-12-17	9-12-17	
Mercury	**ND**	0.50	7470A	9-7-17	9-7-17	
Selenium	**ND**	5.6	200.8	9-12-17	9-12-17	
Silver	**ND**	11	200.8	9-12-17	9-12-17	

Date of Report: September 14, 2017
Samples Submitted: September 1, 2017
Laboratory Reference: 1709-019
Project: 14697.00008

TOTAL METALS
EPA 200.8/7470A

Matrix: Water
Units: ug/L (ppb)

Analyte	Result	PQL	EPA Method	Date Prepared	Date Analyzed	Flags
Lab ID:	09-019-07					
Client ID:	**KMW-08-9-1-17**					
Arsenic	**ND**	3.3	200.8	9-12-17	9-12-17	
Barium	**ND**	28	200.8	9-12-17	9-12-17	
Cadmium	**ND**	4.4	200.8	9-12-17	9-12-17	
Chromium	**ND**	11	200.8	9-12-17	9-12-17	
Lead	**ND**	1.1	200.8	9-12-17	9-12-17	
Mercury	**ND**	0.50	7470A	9-7-17	9-7-17	
Selenium	**ND**	5.6	200.8	9-12-17	9-12-17	
Silver	**ND**	11	200.8	9-12-17	9-12-17	
Lab ID:	09-019-08					
Client ID:	**KMW-03R-9-1-17**					
Arsenic	**ND**	3.3	200.8	9-12-17	9-12-17	
Barium	**ND**	28	200.8	9-12-17	9-12-17	
Cadmium	**ND**	4.4	200.8	9-12-17	9-12-17	
Chromium	**ND**	11	200.8	9-12-17	9-12-17	
Lead	**ND**	1.1	200.8	9-12-17	9-12-17	
Mercury	**ND**	0.50	7470A	9-7-17	9-7-17	
Selenium	**ND**	5.6	200.8	9-12-17	9-12-17	
Silver	**ND**	11	200.8	9-12-17	9-12-17	

Date of Report: September 14, 2017
Samples Submitted: September 1, 2017
Laboratory Reference: 1709-019
Project: 14697.00008

TOTAL METALS
EPA 200.8/7470A
METHOD BLANK QUALITY CONTROL

Date Extracted: 9-7&12-17
Date Analyzed: 9-7&12-17

Matrix: Water
Units: ug/L (ppb)

Lab ID: MB0907W1&MB0912WM1

Analyte	Method	Result	PQL
Arsenic	200.8	**ND**	3.3
Barium	200.8	**ND**	28
Cadmium	200.8	**ND**	4.4
Chromium	200.8	**ND**	11
Lead	200.8	**ND**	1.1
Mercury	7470A	**ND**	0.50
Selenium	200.8	**ND**	5.6
Silver	200.8	**ND**	11

Date of Report: September 14, 2017
Samples Submitted: September 1, 2017
Laboratory Reference: 1709-019
Project: 14697.00008

TOTAL METALS
EPA 200.8/7470A
DUPLICATE QUALITY CONTROL

Date Extracted: 9-7&12-17
Date Analyzed: 9-7&12-17

Matrix: Water
Units: ug/L (ppb)

Lab ID: 09-019-05

Analyte	Sample Result	Duplicate Result	RPD	PQL	Flags
Arsenic	**ND**	**ND**	NA	3.3	
Barium	**ND**	**ND**	NA	28	
Cadmium	**ND**	**ND**	NA	4.4	
Chromium	**ND**	**ND**	NA	11	
Lead	**ND**	**ND**	NA	1.1	
Mercury	**ND**	**ND**	NA	0.50	
Selenium	**ND**	**ND**	NA	5.6	
Silver	**ND**	**ND**	NA	11	

Date of Report: September 14, 2017
Samples Submitted: September 1, 2017
Laboratory Reference: 1709-019
Project: 14697.00008

TOTAL METALS
EPA 200.8/7470A
MS/MSD QUALITY CONTROL

Date Extracted: 9-7&12-17
Date Analyzed: 9-7&12-17

Matrix: Water
Units: ug/L (ppb)

Lab ID: 09-019-05

Analyte	Spike Level	MS	Percent Recovery	MSD	Percent Recovery	RPD	Flags
Arsenic	222	**242**	109	**245**	110	1	
Barium	222	**225**	101	**227**	102	1	
Cadmium	222	**242**	109	**244**	110	1	
Chromium	222	**201**	90	**207**	93	3	
Lead	222	**225**	101	**229**	103	2	
Mercury	12.5	**12.9**	103	**12.8**	102	1	
Selenium	222	**255**	115	**251**	113	2	
Silver	222	**234**	106	**243**	109	4	

Date of Report: September 14, 2017
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Project: 14697.00008

TOTAL METALS
EPA 200.8/7470A
SPIKE BLANK QUALITY CONTROL

Date Extracted: 9-7&12-17
Date Analyzed: 9-7&12-17

Matrix: Water
Units: ug/L (ppb)

Lab ID: SB0907W1&SB0912WM1

Analyte	Method	Spike Level	Result	Percent Recovery
Arsenic	200.8	222	**226**	102
Barium	200.8	222	**214**	96
Cadmium	200.8	222	**228**	103
Chromium	200.8	222	**195**	88
Lead	200.8	222	**221**	100
Mercury	7470A	12.5	**13.1**	105
Selenium	200.8	222	**238**	107
Silver	200.8	222	**226**	102

Date of Report: September 14, 2017
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Laboratory Reference: 1709-019
Project: 14697.00008

DISSOLVED METALS
EPA 200.8/7470A

Matrix: Water
Units: ug/L (ppb)

Analyte	Result	PQL	EPA Method	Date Prepared	Date Analyzed	Flags
Lab ID:	09-019-01					
Client ID:	**KMW-10-8-31-17**					
Arsenic	**ND**	3.0	200.8	9-1-17	9-12-17	
Barium	**ND**	25	200.8	9-1-17	9-12-17	
Cadmium	**ND**	4.0	200.8	9-1-17	9-12-17	
Chromium	**ND**	10	200.8	9-1-17	9-12-17	
Lead	**ND**	1.0	200.8	9-1-17	9-12-17	
Mercury	**ND**	0.50	7470A	9-1-17	9-7-17	
Selenium	**ND**	5.0	200.8	9-1-17	9-12-17	
Silver	**ND**	10	200.8	9-1-17	9-12-17	
Lab ID:	09-019-02					
Client ID:	**KMW-09-8-31-17**					
Arsenic	**ND**	3.0	200.8	9-1-17	9-12-17	
Barium	**ND**	25	200.8	9-1-17	9-12-17	
Cadmium	**ND**	4.0	200.8	9-1-17	9-12-17	
Chromium	**ND**	10	200.8	9-1-17	9-12-17	
Lead	**ND**	1.0	200.8	9-1-17	9-12-17	
Mercury	**ND**	0.50	7470A	9-1-17	9-7-17	
Selenium	**ND**	5.0	200.8	9-1-17	9-12-17	
Silver	**ND**	10	200.8	9-1-17	9-12-17	

Date of Report: September 14, 2017
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Project: 14697.00008

DISSOLVED METALS
EPA 200.8/7470A

Matrix: Water
Units: ug/L (ppb)

Analyte	Result	PQL	EPA Method	Date Prepared	Date Analyzed	Flags
Lab ID:	09-019-03					
Client ID:	**KMW-06-8-31-17**					
Arsenic	**ND**	3.0	200.8	9-1-17	9-12-17	
Barium	**ND**	25	200.8	9-1-17	9-12-17	
Cadmium	**ND**	4.0	200.8	9-1-17	9-12-17	
Chromium	**ND**	10	200.8	9-1-17	9-12-17	
Lead	**1.1**	1.0	200.8	9-1-17	9-12-17	
Mercury	**ND**	0.50	7470A	9-1-17	9-7-17	
Selenium	**ND**	5.0	200.8	9-1-17	9-12-17	
Silver	**ND**	10	200.8	9-1-17	9-12-17	
Lab ID:	09-019-04					
Client ID:	**KMW-04-8-31-17**					
Arsenic	**5.1**	3.0	200.8	9-1-17	9-12-17	
Barium	**ND**	25	200.8	9-1-17	9-12-17	
Cadmium	**ND**	4.0	200.8	9-1-17	9-12-17	
Chromium	**ND**	10	200.8	9-1-17	9-12-17	
Lead	**ND**	1.0	200.8	9-1-17	9-12-17	
Mercury	**ND**	0.50	7470A	9-1-17	9-7-17	
Selenium	**ND**	5.0	200.8	9-1-17	9-12-17	
Silver	**ND**	10	200.8	9-1-17	9-12-17	

Date of Report: September 14, 2017
Samples Submitted: September 1, 2017
Laboratory Reference: 1709-019
Project: 14697.00008

DISSOLVED METALS
EPA 200.8/7470A

Matrix: Water
Units: ug/L (ppb)

Analyte	Result	PQL	EPA Method	Date Prepared	Date Analyzed	Flags
Lab ID:	09-019-05					
Client ID:	**KMW-02R-9-1-17**					
Arsenic	**ND**	3.0	200.8	9-1-17	9-12-17	
Barium	**ND**	25	200.8	9-1-17	9-12-17	
Cadmium	**ND**	4.0	200.8	9-1-17	9-12-17	
Chromium	**ND**	10	200.8	9-1-17	9-12-17	
Lead	**ND**	1.0	200.8	9-12-17	9-12-17	
Mercury	**ND**	0.50	7470A	9-1-17	9-7-17	
Selenium	**ND**	5.0	200.8	9-1-17	9-12-17	
Silver	**ND**	10	200.8	9-1-17	9-12-17	
Lab ID:	09-019-06					
Client ID:	**KMW-07-9-1-17**					
Arsenic	**ND**	3.0	200.8	9-1-17	9-12-17	
Barium	**ND**	25	200.8	9-1-17	9-12-17	
Cadmium	**ND**	4.0	200.8	9-1-17	9-12-17	
Chromium	**ND**	10	200.8	9-1-17	9-12-17	
Lead	**ND**	1.0	200.8	9-12-17	9-12-17	
Mercury	**ND**	0.50	7470A	9-1-17	9-7-17	
Selenium	**ND**	5.0	200.8	9-1-17	9-12-17	
Silver	**ND**	10	200.8	9-1-17	9-12-17	

Date of Report: September 14, 2017
Samples Submitted: September 1, 2017
Laboratory Reference: 1709-019
Project: 14697.00008

DISSOLVED METALS
EPA 200.8/7470A

Matrix: Water
Units: ug/L (ppb)

Analyte	Result	PQL	EPA Method	Date Prepared	Date Analyzed	Flags
Lab ID:	09-019-07					
Client ID:	**KMW-08-9-1-17**					
Arsenic	**ND**	3.0	200.8	9-1-17	9-12-17	
Barium	**ND**	25	200.8	9-1-17	9-12-17	
Cadmium	**ND**	4.0	200.8	9-1-17	9-12-17	
Chromium	**ND**	10	200.8	9-1-17	9-12-17	
Lead	**ND**	1.0	200.8	9-1-17	9-12-17	
Mercury	**ND**	0.50	7470A	9-1-17	9-7-17	
Selenium	**ND**	5.0	200.8	9-1-17	9-12-17	
Silver	**ND**	10	200.8	9-1-17	9-12-17	
Lab ID:	09-019-08					
Client ID:	**KMW-03R-9-1-17**					
Arsenic	**ND**	3.0	200.8	9-1-17	9-12-17	
Barium	**ND**	25	200.8	9-1-17	9-12-17	
Cadmium	**ND**	4.0	200.8	9-1-17	9-12-17	
Chromium	**ND**	10	200.8	9-1-17	9-12-17	
Lead	**ND**	1.0	200.8	9-12-17	9-12-17	
Mercury	**ND**	0.50	7470A	9-1-17	9-7-17	
Selenium	**ND**	5.0	200.8	9-1-17	9-12-17	
Silver	**ND**	10	200.8	9-1-17	9-12-17	

Date of Report: September 14, 2017
Samples Submitted: September 1, 2017
Laboratory Reference: 1709-019
Project: 14697.00008

DISSOLVED METALS
EPA 200.8/7470A
METHOD BLANK QUALITY CONTROL

Date Filtered: 9-1-17
Date Analyzed: 9-7&12-17

Matrix: Water
Units: ug/L (ppb)

Lab ID: MB0901F1

Analyte	Method	Result	PQL
Arsenic	200.8	**ND**	3.0
Barium	200.8	**ND**	25
Cadmium	200.8	**ND**	4.0
Chromium	200.8	**ND**	10
Lead	200.8	**ND**	1.0
Mercury	7470A	**ND**	0.50
Selenium	200.8	**ND**	5.0
Silver	200.8	**ND**	10

Date of Report: September 14, 2017
Samples Submitted: September 1, 2017
Laboratory Reference: 1709-019
Project: 14697.00008

DISSOLVED LEAD
EPA 200.8
METHOD BLANK QUALITY CONTROL

Date Filtered:	9-12-17
Date Analyzed:	9-12-17
Matrix:	Water
Units:	ug/L (ppb)
Lab ID:	MB0912F1

Analyte	Method	Result	PQL
Lead	200.8	**ND**	1.0

Date of Report: September 14, 2017
Samples Submitted: September 1, 2017
Laboratory Reference: 1709-019
Project: 14697.00008

DISSOLVED METALS
EPA 200.8/7470A
DUPLICATE QUALITY CONTROL

Date Filtered: 9-1&12-17
Date Analyzed: 9-7&12-17

Matrix: Water
Units: ug/L (ppb)

Lab ID: 09-019-05

Analyte	Sample Result	Duplicate Result	RPD	PQL	Flags
Arsenic	**ND**	**ND**	NA	3.0	
Barium	**ND**	**ND**	NA	25	
Cadmium	**ND**	**ND**	NA	4.0	
Chromium	**ND**	**ND**	NA	10	
Lead	**ND**	**ND**	NA	1.0	
Mercury	**ND**	**ND**	NA	0.50	
Selenium	**ND**	**ND**	NA	5.0	
Silver	**ND**	**ND**	NA	10	

Date of Report: September 14, 2017
Samples Submitted: September 1, 2017
Laboratory Reference: 1709-019
Project: 14697.00008

DISSOLVED METALS
EPA 200.8/7470A
MS/MSD QUALITY CONTROL

Date Filtered: 9-1&12-17
Date Analyzed: 9-7&12-17

Matrix: Water
Units: ug/L (ppb)

Lab ID: 09-019-05

Analyte	Spike Level	MS	Percent Recovery	MSD	Percent Recovery	RPD	Flags
Arsenic	200	**214**	107	**213**	107	0	
Barium	200	**193**	97	**194**	97	1	
Cadmium	200	**212**	106	**215**	107	1	
Chromium	200	**177**	89	**180**	90	1	
Lead	200	**194**	97	**194**	97	0	
Mercury	12.5	**12.9**	103	**13.1**	105	1	
Selenium	200	**214**	107	**220**	110	3	
Silver	200	**172**	86	**170**	85	1	

Date of Report: September 14, 2017
Samples Submitted: September 1, 2017
Laboratory Reference: 1709-019
Project: 14697.00008

DISSOLVED METALS
EPA 200.8/7470A
SPIKE BLANK QUALITY CONTROL

Date Filtered: 9-1-17
Date Analyzed: 9-7&12-17

Matrix: Water
Units: ug/L (ppb)

Lab ID: SB0901F1

Analyte	Method	Spike Level	Result	Percent Recovery
Arsenic	200.8	200	**208**	104
Barium	200.8	200	**189**	95
Cadmium	200.8	200	**212**	106
Chromium	200.8	200	**178**	89
Lead	200.8	200	**195**	97
Mercury	7470A	12.5	**12.8**	102
Selenium	200.8	200	**214**	107
Silver	200.8	200	**170**	85

Date of Report: September 14, 2017
Samples Submitted: September 1, 2017
Laboratory Reference: 1709-019
Project: 14697.00008

DISSOLVED LEAD
EPA 200.8
SPIKE BLANK QUALITY CONTROL

Date Filtered: 9-12-17
Date Analyzed: 9-12-17

Matrix: Water
Units: ug/L (ppb)

Lab ID: SB0912F1

Analyte	Method	Spike Level	Result	Percent Recovery
Lead	200.8	200	**195**	98

OnSite Environmental Inc.

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-napthalene) 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

Chain of Custody

Page 1 of 1

OnSite Environmental Inc.
Analytical Laboratory Testing Services
14648 NE 95th Street • Redmond, WA 98052
Phone: (425) 883-3881 • www.onsite-env.com

Company: AMEC FW
Project Number: 14697.00008
Project Name: Kelly-Moore
Project Manager: Crystal Thimsen
Sampled by: Brian Haderlie

Turnaround Request (in working days)
(Check One)
☐ Same Day ☐ 1 Day
☐ 2 Days ☐ 3 Days
☒ Standard (7 Days) (TPH analysis 5 Days)
☐ _____ (other)

Laboratory Number: 09-019

Lab ID	Sample Identification	Date Sampled	Time Sampled	Matrix	Number of Containers
1	KMW-10-8-31-17	8-31-17	1200	W	11
2	KMW-09-8-31-17	8-31-17	1350	W	11
3	KMW-06-8-31-17	8-31-17	1510	W	11
4	KMW-04-8-31-17	8-31-17	1650	W	11
5	KMW-02R-9-1-17	9-1-17	0935	W	33
6	KMW-07-9-1-17	9-1-17	1150	W	11
7	KMW-08-9-1-17	9-1-17	1340	W	11
8	KMW-03R-9-1-17	9-1-17	1440	W	11
9	TRIP BLANK	-	-	W	9

Sample ID	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)	PAHs 8270D/SIM (low-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	Total Metals - RCRA 8	Dissolved Metals - 200.8			% Moisture
1			X	X	X				X									X	X			
2			X	X	X				X									X	X			
3			X	X	X				X									X	X			
4			X	X	X				X									X	X			
5			X	X	X				X									X	X			
6			X	X	X				X									X	X			
7			X	X	X				X									X	X			
8			X	X	X				X									X	X			
9			X		X																	

	Signature	Company	Date	Time
Relinquished	Brian Haderlie	AFW	9-1-17	1505
Received		speed	9-1-17	1505
Relinquished				
Received		ORE	9/11/17	1620
Relinquished				
Received				
Reviewed/Date		Reviewed/Date		

Comments/Special Instructions
lab will filter dissolved metals, dissolved metals unpreserved
KMW-02R MS/MSD

Data Package: Standard ☐ Level III ☐ Level IV ☐

Chromatograms with final report ☐ Electronic Data Deliverables (EDDs) ☐

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

February 2, 2018

Kathleen Goodman
AMEC Foster Wheeler
Environment and Infrastructure, Inc.
One Union Square
600 University Street, Suite 600
Seattle, WA 98101

Re: Analytical Data for Project 0146970060
Laboratory Reference No. 1801-261

Dear Kathleen:

Enclosed are the analytical results and associated quality control data for samples submitted on January 25, 2018.

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: February 2, 2018
Samples Submitted: January 25, 2018
Laboratory Reference: 1801-261
Project: 0146970060

Case Narrative

Samples were collected on January 24, 2018 and received by the laboratory on January 25, 2018. 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: February 2, 2018
Samples Submitted: January 25, 2018
Laboratory Reference: 1801-261
Project: 0146970060

NWTPH-Gx

Matrix: Water
Units: ug/L (ppb)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**KMW-06-012418**					
Laboratory ID:	01-261-01					
Gasoline	**1300**	100	NWTPH-Gx	1-26-18	1-26-18	
Surrogate:	*Percent Recovery*	*Control Limits*				
Fluorobenzene	*81*	*66-114*				
Client ID:	**KMW-09-012418**					
Laboratory ID:	01-261-02					
Gasoline	**760**	100	NWTPH-Gx	1-26-18	1-26-18	
Surrogate:	*Percent Recovery*	*Control Limits*				
Fluorobenzene	*78*	*66-114*				

Date of Report: February 2, 2018
Samples Submitted: January 25, 2018
Laboratory Reference: 1801-261
Project: 0146970060

NWTPH-Gx
QUALITY CONTROL

Matrix: Water
Units: ug/L (ppb)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
METHOD BLANK						
Laboratory ID:	MB0126W1					
Gasoline	**ND**	100	NWTPH-Gx	1-26-18	1-26-18	
Surrogate:	*Percent Recovery*	*Control Limits*				
Fluorobenzene	*94*	*66-114*				

Analyte	Result		Spike Level		Source Result	Percent Recovery		Recovery Limits	RPD	RPD Limit	Flags
DUPLICATE											
Laboratory ID:	01-271-01										
	ORIG	DUP									
Gasoline	**265**	**256**	NA	NA		NA		NA	3	30	
Surrogate:											
Fluorobenzene						*89*	*81*	*66-114*			

Date of Report: February 2, 2018
Samples Submitted: January 25, 2018
Laboratory Reference: 1801-261
Project: 0146970060

NWTPH-Dx

Matrix: Water
Units: mg/L (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**KMW-06-012418**					
Laboratory ID:	01-261-01					
Diesel Range Organics	**4.2**	0.26	NWTPH-Dx	1-29-18	1-29-18	
Lube Oil Range Organics	**0.60**	0.41	NWTPH-Dx	1-29-18	1-29-18	
Surrogate:	*Percent Recovery*	*Control Limits*				
o-Terphenyl	*84*	*50-150*				
Client ID:	**KMW-09-012418**					
Laboratory ID:	01-261-02					
Diesel Range Organics	**3.1**	0.26	NWTPH-Dx	1-29-18	1-29-18	
Lube Oil Range Organics	**0.69**	0.41	NWTPH-Dx	1-29-18	1-29-18	
Surrogate:	*Percent Recovery*	*Control Limits*				
o-Terphenyl	*87*	*50-150*				

Date of Report: February 2, 2018
Samples Submitted: January 25, 2018
Laboratory Reference: 1801-261
Project: 0146970060

NWTPH-Dx
QUALITY CONTROL

Matrix: Water
Units: mg/L (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
METHOD BLANK						
Laboratory ID:	MB0129W1					
Diesel Range Organics	**ND**	0.25	NWTPH-Dx	1-29-18	1-29-18	
Lube Oil Range Organics	**ND**	0.40	NWTPH-Dx	1-29-18	1-29-18	
Surrogate:	*Percent Recovery*	*Control Limits*				
o-Terphenyl	*93*	*50-150*				

Analyte	Result		Spike Level		Source Result	Percent Recovery	Recovery Limits	RPD	RPD Limit	Flags
DUPLICATE										
Laboratory ID:	01-271-01									
	ORIG	DUP								
Diesel Range Organics	**2.30**	**2.22**	NA	NA		NA	NA	4	NA	
Lube Oil Range	**ND**	**ND**	NA	NA		NA	NA	NA	NA	
Surrogate:										
o-Terphenyl						*83*	*80*	*50-150*		
SPIKE BLANK										
Laboratory ID:	SB0129W1									
Diesel Fuel #2	**0.784**		1.00		NA	**78**	58-113	NA	NA	
Surrogate:										
o-Terphenyl						*90*	*50-150*			

Date of Report: February 2, 2018
Samples Submitted: January 25, 2018
Laboratory Reference: 1801-261
Project: 0146970060

VOLATILES EPA 8260C
page 1 of 2

Matrix: Water
Units: ug/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**KMW-06-012418**					
Laboratory ID:	01-261-01					
Dichlorodifluoromethane	ND	0.20	EPA 8260C	1-29-18	1-29-18	
Chloromethane	ND	1.0	EPA 8260C	1-29-18	1-29-18	
Vinyl Chloride	ND	0.20	EPA 8260C	1-29-18	1-29-18	
Bromomethane	ND	0.20	EPA 8260C	1-29-18	1-29-18	
Chloroethane	ND	1.0	EPA 8260C	1-29-18	1-29-18	
Trichlorofluoromethane	ND	0.20	EPA 8260C	1-29-18	1-29-18	
1,1-Dichloroethene	ND	0.20	EPA 8260C	1-29-18	1-29-18	
Acetone	ND	5.0	EPA 8260C	1-29-18	1-29-18	
Iodomethane	ND	1.0	EPA 8260C	1-29-18	1-29-18	
Carbon Disulfide	1.1	0.20	EPA 8260C	1-29-18	1-29-18	
Methylene Chloride	ND	1.0	EPA 8260C	1-29-18	1-29-18	
(trans) 1,2-Dichloroethene	ND	0.20	EPA 8260C	1-29-18	1-29-18	
Methyl t-Butyl Ether	ND	0.20	EPA 8260C	1-29-18	1-29-18	
1,1-Dichloroethane	ND	0.20	EPA 8260C	1-29-18	1-29-18	
Vinyl Acetate	ND	1.0	EPA 8260C	1-29-18	1-29-18	
2,2-Dichloropropane	ND	0.20	EPA 8260C	1-29-18	1-29-18	
(cis) 1,2-Dichloroethene	ND	0.20	EPA 8260C	1-29-18	1-29-18	
2-Butanone	ND	5.0	EPA 8260C	1-29-18	1-29-18	
Bromochloromethane	ND	0.20	EPA 8260C	1-29-18	1-29-18	
Chloroform	ND	0.20	EPA 8260C	1-29-18	1-29-18	
1,1,1-Trichloroethane	ND	0.20	EPA 8260C	1-29-18	1-29-18	
Carbon Tetrachloride	ND	0.20	EPA 8260C	1-29-18	1-29-18	
1,1-Dichloropropene	ND	0.20	EPA 8260C	1-29-18	1-29-18	
Benzene	ND	0.20	EPA 8260C	1-29-18	1-29-18	
1,2-Dichloroethane	ND	0.20	EPA 8260C	1-29-18	1-29-18	
Trichloroethene	ND	0.20	EPA 8260C	1-29-18	1-29-18	
1,2-Dichloropropane	ND	0.20	EPA 8260C	1-29-18	1-29-18	
Dibromomethane	ND	0.20	EPA 8260C	1-29-18	1-29-18	
Bromodichloromethane	ND	0.20	EPA 8260C	1-29-18	1-29-18	
2-Chloroethyl Vinyl Ether	ND	1.0	EPA 8260C	1-29-18	1-29-18	
(cis) 1,3-Dichloropropene	ND	0.20	EPA 8260C	1-29-18	1-29-18	
Methyl Isobutyl Ketone	ND	2.0	EPA 8260C	1-29-18	1-29-18	
Toluene	ND	1.0	EPA 8260C	1-29-18	1-29-18	
(trans) 1,3-Dichloropropene	ND	0.20	EPA 8260C	1-29-18	1-29-18	

Date of Report: February 2, 2018
Samples Submitted: January 25, 2018
Laboratory Reference: 1801-261
Project: 0146970060

VOLATILES EPA 8260C
page 2 of 2

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**KMW-06-012418**					
Laboratory ID:	01-261-01					
1,1,2-Trichloroethane	ND	0.20	EPA 8260C	1-29-18	1-29-18	
Tetrachloroethene	ND	0.20	EPA 8260C	1-29-18	1-29-18	
1,3-Dichloropropane	ND	0.20	EPA 8260C	1-29-18	1-29-18	
2-Hexanone	ND	2.0	EPA 8260C	1-29-18	1-29-18	
Dibromochloromethane	ND	0.20	EPA 8260C	1-29-18	1-29-18	
1,2-Dibromoethane	ND	0.20	EPA 8260C	1-29-18	1-29-18	
Chlorobenzene	ND	0.20	EPA 8260C	1-29-18	1-29-18	
1,1,1,2-Tetrachloroethane	ND	0.20	EPA 8260C	1-29-18	1-29-18	
Ethylbenzene	ND	0.20	EPA 8260C	1-29-18	1-29-18	
m,p-Xylene	0.42	0.40	EPA 8260C	1-29-18	1-29-18	
o-Xylene	ND	0.20	EPA 8260C	1-29-18	1-29-18	
Styrene	ND	0.20	EPA 8260C	1-29-18	1-29-18	
Bromoform	ND	1.0	EPA 8260C	1-29-18	1-29-18	
Isopropylbenzene	8.1	0.20	EPA 8260C	1-29-18	1-29-18	
Bromobenzene	ND	0.20	EPA 8260C	1-29-18	1-29-18	
1,1,2,2-Tetrachloroethane	ND	0.20	EPA 8260C	1-29-18	1-29-18	
1,2,3-Trichloropropane	ND	0.20	EPA 8260C	1-29-18	1-29-18	
n-Propylbenzene	9.5	0.20	EPA 8260C	1-29-18	1-29-18	
2-Chlorotoluene	ND	0.20	EPA 8260C	1-29-18	1-29-18	
4-Chlorotoluene	ND	0.20	EPA 8260C	1-29-18	1-29-18	
1,3,5-Trimethylbenzene	ND	0.20	EPA 8260C	1-29-18	1-29-18	
tert-Butylbenzene	ND	0.20	EPA 8260C	1-29-18	1-29-18	
1,2,4-Trimethylbenzene	ND	0.20	EPA 8260C	1-29-18	1-29-18	
sec-Butylbenzene	1.2	0.20	EPA 8260C	1-29-18	1-29-18	
1,3-Dichlorobenzene	ND	0.20	EPA 8260C	1-29-18	1-29-18	
p-Isopropyltoluene	ND	0.20	EPA 8260C	1-29-18	1-29-18	
1,4-Dichlorobenzene	ND	0.20	EPA 8260C	1-29-18	1-29-18	
1,2-Dichlorobenzene	ND	0.20	EPA 8260C	1-29-18	1-29-18	
n-Butylbenzene	1.0	0.20	EPA 8260C	1-29-18	1-29-18	
1,2-Dibromo-3-chloropropane	ND	1.0	EPA 8260C	1-29-18	1-29-18	
1,2,4-Trichlorobenzene	ND	0.20	EPA 8260C	1-29-18	1-29-18	
Hexachlorobutadiene	ND	0.20	EPA 8260C	1-29-18	1-29-18	
Naphthalene	ND	1.0	EPA 8260C	1-29-18	1-29-18	
1,2,3-Trichlorobenzene	ND	0.20	EPA 8260C	1-29-18	1-29-18	
Surrogate:	*Percent Recovery*	*Control Limits*				
Dibromofluoromethane	*99*	*75-127*				
Toluene-d8	*102*	*80-127*				
4-Bromofluorobenzene	*114*	*78-125*				

Date of Report: February 2, 2018
Samples Submitted: January 25, 2018
Laboratory Reference: 1801-261
Project: 0146970060

VOLATILES EPA 8260C
page 1 of 2

Matrix: Water
Units: ug/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**KMW-09-012418**					
Laboratory ID:	01-261-02					
Dichlorodifluoromethane	ND	0.20	EPA 8260C	1-29-18	1-29-18	
Chloromethane	ND	1.0	EPA 8260C	1-29-18	1-29-18	
Vinyl Chloride	ND	0.20	EPA 8260C	1-29-18	1-29-18	
Bromomethane	ND	0.20	EPA 8260C	1-29-18	1-29-18	
Chloroethane	ND	1.0	EPA 8260C	1-29-18	1-29-18	
Trichlorofluoromethane	ND	0.20	EPA 8260C	1-29-18	1-29-18	
1,1-Dichloroethene	ND	0.20	EPA 8260C	1-29-18	1-29-18	
Acetone	ND	5.0	EPA 8260C	1-29-18	1-29-18	
Iodomethane	ND	1.0	EPA 8260C	1-29-18	1-29-18	
Carbon Disulfide	ND	0.20	EPA 8260C	1-29-18	1-29-18	
Methylene Chloride	ND	1.0	EPA 8260C	1-29-18	1-29-18	
(trans) 1,2-Dichloroethene	ND	0.20	EPA 8260C	1-29-18	1-29-18	
Methyl t-Butyl Ether	ND	0.20	EPA 8260C	1-29-18	1-29-18	
1,1-Dichloroethane	ND	0.20	EPA 8260C	1-29-18	1-29-18	
Vinyl Acetate	ND	1.0	EPA 8260C	1-29-18	1-29-18	
2,2-Dichloropropane	ND	0.20	EPA 8260C	1-29-18	1-29-18	
(cis) 1,2-Dichloroethene	ND	0.20	EPA 8260C	1-29-18	1-29-18	
2-Butanone	ND	5.0	EPA 8260C	1-29-18	1-29-18	
Bromochloromethane	ND	0.20	EPA 8260C	1-29-18	1-29-18	
Chloroform	ND	0.20	EPA 8260C	1-29-18	1-29-18	
1,1,1-Trichloroethane	ND	0.20	EPA 8260C	1-29-18	1-29-18	
Carbon Tetrachloride	ND	0.20	EPA 8260C	1-29-18	1-29-18	
1,1-Dichloropropene	ND	0.20	EPA 8260C	1-29-18	1-29-18	
Benzene	ND	0.20	EPA 8260C	1-29-18	1-29-18	
1,2-Dichloroethane	ND	0.20	EPA 8260C	1-29-18	1-29-18	
Trichloroethene	ND	0.20	EPA 8260C	1-29-18	1-29-18	
1,2-Dichloropropane	ND	0.20	EPA 8260C	1-29-18	1-29-18	
Dibromomethane	ND	0.20	EPA 8260C	1-29-18	1-29-18	
Bromodichloromethane	ND	0.20	EPA 8260C	1-29-18	1-29-18	
2-Chloroethyl Vinyl Ether	ND	1.0	EPA 8260C	1-29-18	1-29-18	
(cis) 1,3-Dichloropropene	ND	0.20	EPA 8260C	1-29-18	1-29-18	
Methyl Isobutyl Ketone	ND	2.0	EPA 8260C	1-29-18	1-29-18	
Toluene	ND	1.0	EPA 8260C	1-29-18	1-29-18	
(trans) 1,3-Dichloropropene	ND	0.20	EPA 8260C	1-29-18	1-29-18	

Date of Report: February 2, 2018
Samples Submitted: January 25, 2018
Laboratory Reference: 1801-261
Project: 0146970060

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Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**KMW-09-012418**					
Laboratory ID:	01-261-02					
1,1,2-Trichloroethane	ND	0.20	EPA 8260C	1-29-18	1-29-18	
Tetrachloroethene	ND	0.20	EPA 8260C	1-29-18	1-29-18	
1,3-Dichloropropane	ND	0.20	EPA 8260C	1-29-18	1-29-18	
2-Hexanone	ND	2.0	EPA 8260C	1-29-18	1-29-18	
Dibromochloromethane	ND	0.20	EPA 8260C	1-29-18	1-29-18	
1,2-Dibromoethane	ND	0.20	EPA 8260C	1-29-18	1-29-18	
Chlorobenzene	ND	0.20	EPA 8260C	1-29-18	1-29-18	
1,1,1,2-Tetrachloroethane	ND	0.20	EPA 8260C	1-29-18	1-29-18	
Ethylbenzene	0.44	0.20	EPA 8260C	1-29-18	1-29-18	
m,p-Xylene	ND	0.40	EPA 8260C	1-29-18	1-29-18	
o-Xylene	ND	0.20	EPA 8260C	1-29-18	1-29-18	
Styrene	ND	0.20	EPA 8260C	1-29-18	1-29-18	
Bromoform	ND	1.0	EPA 8260C	1-29-18	1-29-18	
Isopropylbenzene	7.1	0.20	EPA 8260C	1-29-18	1-29-18	
Bromobenzene	ND	0.20	EPA 8260C	1-29-18	1-29-18	
1,1,2,2-Tetrachloroethane	ND	0.20	EPA 8260C	1-29-18	1-29-18	
1,2,3-Trichloropropane	ND	0.20	EPA 8260C	1-29-18	1-29-18	
n-Propylbenzene	7.4	0.20	EPA 8260C	1-29-18	1-29-18	
2-Chlorotoluene	ND	0.20	EPA 8260C	1-29-18	1-29-18	
4-Chlorotoluene	ND	0.20	EPA 8260C	1-29-18	1-29-18	
1,3,5-Trimethylbenzene	ND	0.20	EPA 8260C	1-29-18	1-29-18	
tert-Butylbenzene	ND	0.20	EPA 8260C	1-29-18	1-29-18	
1,2,4-Trimethylbenzene	ND	0.20	EPA 8260C	1-29-18	1-29-18	
sec-Butylbenzene	0.70	0.20	EPA 8260C	1-29-18	1-29-18	
1,3-Dichlorobenzene	ND	0.20	EPA 8260C	1-29-18	1-29-18	
p-Isopropyltoluene	ND	0.20	EPA 8260C	1-29-18	1-29-18	
1,4-Dichlorobenzene	ND	0.20	EPA 8260C	1-29-18	1-29-18	
1,2-Dichlorobenzene	ND	0.20	EPA 8260C	1-29-18	1-29-18	
n-Butylbenzene	0.52	0.20	EPA 8260C	1-29-18	1-29-18	
1,2-Dibromo-3-chloropropane	ND	1.0	EPA 8260C	1-29-18	1-29-18	
1,2,4-Trichlorobenzene	ND	0.20	EPA 8260C	1-29-18	1-29-18	
Hexachlorobutadiene	ND	0.20	EPA 8260C	1-29-18	1-29-18	
Naphthalene	ND	1.0	EPA 8260C	1-29-18	1-29-18	
1,2,3-Trichlorobenzene	ND	0.20	EPA 8260C	1-29-18	1-29-18	
Surrogate:	*Percent Recovery*	*Control Limits*				
Dibromofluoromethane	*103*	*75-127*				
Toluene-d8	*102*	*80-127*				
4-Bromofluorobenzene	*104*	*78-125*				

Date of Report: February 2, 2018
Samples Submitted: January 25, 2018
Laboratory Reference: 1801-261
Project: 0146970060

VOLATILES by EPA 8260C
METHOD BLANK QUALITY CONTROL
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Matrix: Water
Units: ug/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Laboratory ID:	MB0129W1					
Dichlorodifluoromethane	ND	0.20	EPA 8260C	1-29-18	1-29-18	
Chloromethane	ND	1.0	EPA 8260C	1-29-18	1-29-18	
Vinyl Chloride	ND	0.20	EPA 8260C	1-29-18	1-29-18	
Bromomethane	ND	0.20	EPA 8260C	1-29-18	1-29-18	
Chloroethane	ND	1.0	EPA 8260C	1-29-18	1-29-18	
Trichlorofluoromethane	ND	0.20	EPA 8260C	1-29-18	1-29-18	
1,1-Dichloroethene	ND	0.20	EPA 8260C	1-29-18	1-29-18	
Acetone	ND	5.0	EPA 8260C	1-29-18	1-29-18	
Iodomethane	ND	1.0	EPA 8260C	1-29-18	1-29-18	
Carbon Disulfide	ND	0.20	EPA 8260C	1-29-18	1-29-18	
Methylene Chloride	ND	1.0	EPA 8260C	1-29-18	1-29-18	
(trans) 1,2-Dichloroethene	ND	0.20	EPA 8260C	1-29-18	1-29-18	
Methyl t-Butyl Ether	ND	0.20	EPA 8260C	1-29-18	1-29-18	
1,1-Dichloroethane	ND	0.20	EPA 8260C	1-29-18	1-29-18	
Vinyl Acetate	ND	1.0	EPA 8260C	1-29-18	1-29-18	
2,2-Dichloropropane	ND	0.20	EPA 8260C	1-29-18	1-29-18	
(cis) 1,2-Dichloroethene	ND	0.20	EPA 8260C	1-29-18	1-29-18	
2-Butanone	ND	5.0	EPA 8260C	1-29-18	1-29-18	
Bromochloromethane	ND	0.20	EPA 8260C	1-29-18	1-29-18	
Chloroform	ND	0.20	EPA 8260C	1-29-18	1-29-18	
1,1,1-Trichloroethane	ND	0.20	EPA 8260C	1-29-18	1-29-18	
Carbon Tetrachloride	ND	0.20	EPA 8260C	1-29-18	1-29-18	
1,1-Dichloropropene	ND	0.20	EPA 8260C	1-29-18	1-29-18	
Benzene	ND	0.20	EPA 8260C	1-29-18	1-29-18	
1,2-Dichloroethane	ND	0.20	EPA 8260C	1-29-18	1-29-18	
Trichloroethene	ND	0.20	EPA 8260C	1-29-18	1-29-18	
1,2-Dichloropropane	ND	0.20	EPA 8260C	1-29-18	1-29-18	
Dibromomethane	ND	0.20	EPA 8260C	1-29-18	1-29-18	
Bromodichloromethane	ND	0.20	EPA 8260C	1-29-18	1-29-18	
2-Chloroethyl Vinyl Ether	ND	1.0	EPA 8260C	1-29-18	1-29-18	
(cis) 1,3-Dichloropropene	ND	0.20	EPA 8260C	1-29-18	1-29-18	
Methyl Isobutyl Ketone	ND	2.0	EPA 8260C	1-29-18	1-29-18	
Toluene	ND	1.0	EPA 8260C	1-29-18	1-29-18	
(trans) 1,3-Dichloropropene	ND	0.20	EPA 8260C	1-29-18	1-29-18	

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VOLATILES by EPA 8260C
METHOD BLANK QUALITY CONTROL
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Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Laboratory ID:	MB0129W1					
1,1,2-Trichloroethane	ND	0.20	EPA 8260C	1-29-18	1-29-18	
Tetrachloroethene	ND	0.20	EPA 8260C	1-29-18	1-29-18	
1,3-Dichloropropane	ND	0.20	EPA 8260C	1-29-18	1-29-18	
2-Hexanone	ND	2.0	EPA 8260C	1-29-18	1-29-18	
Dibromochloromethane	ND	0.20	EPA 8260C	1-29-18	1-29-18	
1,2-Dibromoethane	ND	0.20	EPA 8260C	1-29-18	1-29-18	
Chlorobenzene	ND	0.20	EPA 8260C	1-29-18	1-29-18	
1,1,1,2-Tetrachloroethane	ND	0.20	EPA 8260C	1-29-18	1-29-18	
Ethylbenzene	ND	0.20	EPA 8260C	1-29-18	1-29-18	
m,p-Xylene	ND	0.40	EPA 8260C	1-29-18	1-29-18	
o-Xylene	ND	0.20	EPA 8260C	1-29-18	1-29-18	
Styrene	ND	0.20	EPA 8260C	1-29-18	1-29-18	
Bromoform	ND	1.0	EPA 8260C	1-29-18	1-29-18	
Isopropylbenzene	ND	0.20	EPA 8260C	1-29-18	1-29-18	
Bromobenzene	ND	0.20	EPA 8260C	1-29-18	1-29-18	
1,1,2,2-Tetrachloroethane	ND	0.20	EPA 8260C	1-29-18	1-29-18	
1,2,3-Trichloropropane	ND	0.20	EPA 8260C	1-29-18	1-29-18	
n-Propylbenzene	ND	0.20	EPA 8260C	1-29-18	1-29-18	
2-Chlorotoluene	ND	0.20	EPA 8260C	1-29-18	1-29-18	
4-Chlorotoluene	ND	0.20	EPA 8260C	1-29-18	1-29-18	
1,3,5-Trimethylbenzene	ND	0.20	EPA 8260C	1-29-18	1-29-18	
tert-Butylbenzene	ND	0.20	EPA 8260C	1-29-18	1-29-18	
1,2,4-Trimethylbenzene	ND	0.20	EPA 8260C	1-29-18	1-29-18	
sec-Butylbenzene	ND	0.20	EPA 8260C	1-29-18	1-29-18	
1,3-Dichlorobenzene	ND	0.20	EPA 8260C	1-29-18	1-29-18	
p-Isopropyltoluene	ND	0.20	EPA 8260C	1-29-18	1-29-18	
1,4-Dichlorobenzene	ND	0.20	EPA 8260C	1-29-18	1-29-18	
1,2-Dichlorobenzene	ND	0.20	EPA 8260C	1-29-18	1-29-18	
n-Butylbenzene	ND	0.20	EPA 8260C	1-29-18	1-29-18	
1,2-Dibromo-3-chloropropane	ND	1.0	EPA 8260C	1-29-18	1-29-18	
1,2,4-Trichlorobenzene	ND	0.20	EPA 8260C	1-29-18	1-29-18	
Hexachlorobutadiene	ND	0.20	EPA 8260C	1-29-18	1-29-18	
Naphthalene	ND	1.0	EPA 8260C	1-29-18	1-29-18	
1,2,3-Trichlorobenzene	ND	0.20	EPA 8260C	1-29-18	1-29-18	
Surrogate:	*Percent Recovery*	*Control Limits*				
Dibromofluoromethane	*102*	*75-127*				
Toluene-d8	*107*	*80-127*				
4-Bromofluorobenzene	*96*	*78-125*				

Date of Report: February 2, 2018
Samples Submitted: January 25, 2018
Laboratory Reference: 1801-261
Project: 0146970060

VOLATILES by EPA 8260C
MS/MSD QUALITY CONTROL

Matrix: Water
Units: ug/L

Analyte	Result		Spike Level		Source Result	Percent Recovery		Recovery Limits	RPD	RPD Limit	Flags
MATRIX SPIKES											
Laboratory ID:	01-271-01										
	MS	MSD	MS	MSD		MS	MSD				
1,1-Dichloroethene	**8.70**	**9.68**	10.0	10.0	ND	87	97	58-121	11	28	
Benzene	**9.39**	**10.4**	10.0	10.0	ND	94	104	67-122	10	27	
Trichloroethene	**8.37**	**9.52**	10.0	10.0	ND	84	95	60-120	13	28	
Toluene	**9.42**	**10.5**	10.0	10.0	ND	94	105	66-131	11	28	
Chlorobenzene	**8.95**	**9.76**	10.0	10.0	ND	90	98	73-120	9	24	
Surrogate:											
Dibromofluoromethane						*94*	*97*	*75-127*			
Toluene-d8						*95*	*100*	*80-127*			
4-Bromofluorobenzene						*94*	*99*	*78-125*			

Date of Report: February 2, 2018
Samples Submitted: January 25, 2018
Laboratory Reference: 1801-261
Project: 0146970060

VOLATILES by EPA 8260C
SPIKE BLANK QUALITY CONTROL

Matrix: Water
Units: ug/L

Analyte	Result	Spike Level	Percent Recovery	Recovery Limits	Flags
SPIKE BLANK					
Laboratory ID:	SB0129W1				
1,1-Dichloroethene	**9.35**	10.0	94	63-126	
Benzene	**9.55**	10.0	96	78-122	
Trichloroethene	**9.18**	10.0	92	63-120	
Toluene	**10.0**	10.0	100	79-124	
Chlorobenzene	**9.60**	10.0	96	78-120	
Surrogate:					
Dibromofluoromethane			*97*	*75-127*	
Toluene-d8			*102*	*80-127*	
4-Bromofluorobenzene			*94*	*78-125*	

Date of Report: February 2, 2018
Samples Submitted: January 25, 2018
Laboratory Reference: 1801-261
Project: 0146970060

PAHs EPA 8270D/SIM

Matrix: Water
Units: ug/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**KMW-06-012418**					
Laboratory ID:	01-261-01					
Naphthalene	**ND**	0.11	EPA 8270D/SIM	1-30-18	1-30-18	
2-Methylnaphthalene	**ND**	0.11	EPA 8270D/SIM	1-30-18	1-30-18	
1-Methylnaphthalene	**1.3**	0.11	EPA 8270D/SIM	1-30-18	1-30-18	
Acenaphthylene	**0.13**	0.11	EPA 8270D/SIM	1-30-18	1-30-18	
Acenaphthene	**2.5**	0.11	EPA 8270D/SIM	1-30-18	1-30-18	
Fluorene	**0.56**	0.11	EPA 8270D/SIM	1-30-18	1-30-18	
Phenanthrene	**ND**	0.11	EPA 8270D/SIM	1-30-18	1-30-18	
Anthracene	**0.41**	0.11	EPA 8270D/SIM	1-30-18	1-30-18	
Fluoranthene	**0.12**	0.11	EPA 8270D/SIM	1-30-18	1-30-18	
Pyrene	**0.22**	0.11	EPA 8270D/SIM	1-30-18	1-30-18	
Benzo[a]anthracene	**0.055**	0.011	EPA 8270D/SIM	1-30-18	1-30-18	
Chrysene	**0.062**	0.011	EPA 8270D/SIM	1-30-18	1-30-18	
Benzo[b]fluoranthene	**0.082**	0.011	EPA 8270D/SIM	1-30-18	1-30-18	
Benzo(j,k)fluoranthene	**0.034**	0.011	EPA 8270D/SIM	1-30-18	1-30-18	
Benzo[a]pyrene	**0.071**	0.011	EPA 8270D/SIM	1-30-18	1-30-18	
Indeno(1,2,3-c,d)pyrene	**0.054**	0.011	EPA 8270D/SIM	1-30-18	1-30-18	
Dibenz[a,h]anthracene	**ND**	0.011	EPA 8270D/SIM	1-30-18	1-30-18	
Benzo[g,h,i]perylene	**0.056**	0.011	EPA 8270D/SIM	1-30-18	1-30-18	
Surrogate:	*Percent Recovery*	*Control Limits*				
2-Fluorobiphenyl	*96*	*25 - 107*				
Pyrene-d10	*70*	*28 - 103*				
Terphenyl-d14	*112*	*36 - 129*				

Date of Report: February 2, 2018
Samples Submitted: January 25, 2018
Laboratory Reference: 1801-261
Project: 0146970060

PAHs EPA 8270D/SIM

Matrix: Water
Units: ug/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**KMW-09-012418**					
Laboratory ID:	01-261-02					
Naphthalene	**ND**	0.11	EPA 8270D/SIM	1-30-18	1-30-18	
2-Methylnaphthalene	**ND**	0.11	EPA 8270D/SIM	1-30-18	1-30-18	
1-Methylnaphthalene	**ND**	0.11	EPA 8270D/SIM	1-30-18	1-30-18	
Acenaphthylene	**0.32**	0.11	EPA 8270D/SIM	1-30-18	1-30-18	
Acenaphthene	**2.4**	0.11	EPA 8270D/SIM	1-30-18	1-30-18	
Fluorene	**0.22**	0.11	EPA 8270D/SIM	1-30-18	1-30-18	
Phenanthrene	**ND**	0.11	EPA 8270D/SIM	1-30-18	1-30-18	
Anthracene	**0.62**	0.11	EPA 8270D/SIM	1-30-18	1-30-18	
Fluoranthene	**ND**	0.11	EPA 8270D/SIM	1-30-18	1-30-18	
Pyrene	**ND**	0.11	EPA 8270D/SIM	1-30-18	1-30-18	
Benzo[a]anthracene	**0.020**	0.011	EPA 8270D/SIM	1-30-18	1-30-18	
Chrysene	**0.018**	0.011	EPA 8270D/SIM	1-30-18	1-30-18	
Benzo[b]fluoranthene	**0.017**	0.011	EPA 8270D/SIM	1-30-18	1-30-18	
Benzo(j,k)fluoranthene	**0.015**	0.011	EPA 8270D/SIM	1-30-18	1-30-18	
Benzo[a]pyrene	**0.021**	0.011	EPA 8270D/SIM	1-30-18	1-30-18	
Indeno(1,2,3-c,d)pyrene	**0.013**	0.011	EPA 8270D/SIM	1-30-18	1-30-18	
Dibenz[a,h]anthracene	**ND**	0.011	EPA 8270D/SIM	1-30-18	1-30-18	
Benzo[g,h,i]perylene	**0.011**	0.011	EPA 8270D/SIM	1-30-18	1-30-18	
Surrogate:	*Percent Recovery*	*Control Limits*				
2-Fluorobiphenyl	*76*	*25 - 107*				
Pyrene-d10	*70*	*28 - 103*				
Terphenyl-d14	*111*	*36 - 129*				

Date of Report: February 2, 2018
Samples Submitted: January 25, 2018
Laboratory Reference: 1801-261
Project: 0146970060

PAHs EPA 8270D/SIM
METHOD BLANK QUALITY CONTROL

Matrix: Water
Units: ug/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Laboratory ID:	MB0130W1					
Naphthalene	**ND**	0.10	EPA 8270D/SIM	1-30-18	1-30-18	
2-Methylnaphthalene	**ND**	0.10	EPA 8270D/SIM	1-30-18	1-30-18	
1-Methylnaphthalene	**ND**	0.10	EPA 8270D/SIM	1-30-18	1-30-18	
Acenaphthylene	**ND**	0.10	EPA 8270D/SIM	1-30-18	1-30-18	
Acenaphthene	**ND**	0.10	EPA 8270D/SIM	1-30-18	1-30-18	
Fluorene	**ND**	0.10	EPA 8270D/SIM	1-30-18	1-30-18	
Phenanthrene	**ND**	0.10	EPA 8270D/SIM	1-30-18	1-30-18	
Anthracene	**ND**	0.10	EPA 8270D/SIM	1-30-18	1-30-18	
Fluoranthene	**ND**	0.10	EPA 8270D/SIM	1-30-18	1-30-18	
Pyrene	**ND**	0.10	EPA 8270D/SIM	1-30-18	1-30-18	
Benzo[a]anthracene	**ND**	0.010	EPA 8270D/SIM	1-30-18	1-30-18	
Chrysene	**ND**	0.010	EPA 8270D/SIM	1-30-18	1-30-18	
Benzo[b]fluoranthene	**ND**	0.010	EPA 8270D/SIM	1-30-18	1-30-18	
Benzo(j,k)fluoranthene	**ND**	0.010	EPA 8270D/SIM	1-30-18	1-30-18	
Benzo[a]pyrene	**ND**	0.010	EPA 8270D/SIM	1-30-18	1-30-18	
Indeno(1,2,3-c,d)pyrene	**ND**	0.010	EPA 8270D/SIM	1-30-18	1-30-18	
Dibenz[a,h]anthracene	**ND**	0.010	EPA 8270D/SIM	1-30-18	1-30-18	
Benzo[g,h,i]perylene	**ND**	0.010	EPA 8270D/SIM	1-30-18	1-30-18	
Surrogate:	*Percent Recovery*	*Control Limits*				
2-Fluorobiphenyl	*56*	*25 - 107*				
Pyrene-d10	*75*	*28 - 103*				
Terphenyl-d14	*84*	*36 - 129*				

Date of Report: February 2, 2018
Samples Submitted: January 25, 2018
Laboratory Reference: 1801-261
Project: 0146970060

PAHs EPA 8270D/SIM
MS/MSD QUALITY CONTROL

Matrix: Water
Units: ug/L

Analyte	Result		Spike Level		Source Result	Percent Recovery		Recovery Limits	RPD	RPD Limit	Flags
MATRIX SPIKES											
Laboratory ID:	01-271-01										
	MS	MSD	MS	MSD		MS	MSD				
Naphthalene	**0.421**	**0.469**	0.588	0.569	ND	72	82	27 - 106	11	35	
Acenaphthylene	**0.518**	**0.526**	0.588	0.569	ND	88	92	20 - 117	2	34	
Acenaphthene	**0.648**	**0.582**	0.588	0.569	ND	110	102	30 - 114	11	32	
Fluorene	**0.552**	**0.529**	0.588	0.569	ND	94	93	36 - 116	4	28	
Phenanthrene	**0.494**	**0.501**	0.588	0.569	ND	84	88	31 - 122	1	26	
Anthracene	**0.589**	**0.586**	0.588	0.569	ND	100	103	33 - 144	1	26	
Fluoranthene	**0.498**	**0.505**	0.588	0.569	ND	85	89	44 - 120	1	25	
Pyrene	**0.506**	**0.517**	0.588	0.569	ND	86	91	40 - 130	2	29	
Benzo[a]anthracene	**0.571**	**0.595**	0.588	0.569	ND	97	105	47 - 131	4	27	
Chrysene	**0.556**	**0.547**	0.588	0.569	ND	95	96	48 - 120	2	29	
Benzo[b]fluoranthene	**0.560**	**0.563**	0.588	0.569	ND	95	99	42 - 128	1	29	
Benzo(j,k)fluoranthene	**0.537**	**0.555**	0.588	0.569	ND	91	98	46 - 121	3	27	
Benzo[a]pyrene	**0.556**	**0.570**	0.588	0.569	ND	95	100	34 - 121	2	29	
Indeno(1,2,3-c,d)pyrene	**0.551**	**0.573**	0.588	0.569	ND	94	101	39 - 128	4	28	
Dibenz[a,h]anthracene	**0.557**	**0.572**	0.588	0.569	ND	95	101	39 - 125	3	30	
Benzo[g,h,i]perylene	**0.522**	**0.535**	0.588	0.569	ND	89	94	41 - 122	2	29	
Surrogate:											
2-Fluorobiphenyl						*53*	*58*	*25 - 107*			
Pyrene-d10						*71*	*74*	*28 - 103*			
Terphenyl-d14						*98*	*101*	*36 - 129*			

Date of Report: February 2, 2018
Samples Submitted: January 25, 2018
Laboratory Reference: 1801-261
Project: 0146970060

PAHs EPA 8270D/SIM
SPIKE BLANK QUALITY CONTROL

Matrix: Water
Units: ug/L

Analyte	Result	Spike Level	Percent Recovery	Recovery Limits	Flags
SPIKE BLANK					
Laboratory ID:	SB0130W1				
	SB	SB	SB		
Naphthalene	**0.360**	0.500	72	27 - 106	
Acenaphthylene	**0.387**	0.500	77	20 - 117	
Acenaphthene	**0.461**	0.500	92	30 - 114	
Fluorene	**0.454**	0.500	91	36 - 116	
Phenanthrene	**0.458**	0.500	92	31 - 122	
Anthracene	**0.480**	0.500	96	33 - 144	
Fluoranthene	**0.488**	0.500	98	44 - 120	
Pyrene	**0.566**	0.500	113	40 - 130	
Benzo[a]anthracene	**0.503**	0.500	101	47 - 131	
Chrysene	**0.498**	0.500	100	48 - 120	
Benzo[b]fluoranthene	**0.491**	0.500	98	42 - 128	
Benzo(j,k)fluoranthene	**0.489**	0.500	98	46 - 121	
Benzo[a]pyrene	**0.502**	0.500	100	34 - 121	
Indeno(1,2,3-c,d)pyrene	**0.522**	0.500	104	39 - 128	
Dibenz[a,h]anthracene	**0.528**	0.500	106	39 - 125	
Benzo[g,h,i]perylene	**0.518**	0.500	104	41 - 122	
Surrogate:					
2-Fluorobiphenyl			*83*	*25 - 107*	
Pyrene-d10			*85*	*28 - 103*	
Terphenyl-d14			*103*	*36 - 129*	

Date of Report: February 2, 2018
Samples Submitted: January 25, 2018
Laboratory Reference: 1801-261
Project: 0146970060

TOTAL METALS
EPA 200.8/7470A

Matrix: Water
Units: ug/L (ppb)

Analyte	Result	PQL	EPA Method	Date Prepared	Date Analyzed	Flags
Lab ID:	01-261-01					
Client ID:	**KMW-06-012418**					
Arsenic	**ND**	3.3	200.8	1-31-18	1-31-18	
Barium	**ND**	28	200.8	1-31-18	1-31-18	
Cadmium	**ND**	4.4	200.8	1-31-18	1-31-18	
Chromium	**ND**	11	200.8	1-31-18	1-31-18	
Lead	**7.3**	1.1	200.8	1-31-18	1-31-18	
Mercury	**ND**	0.50	7470A	1-30-18	1-30-18	
Selenium	**ND**	5.6	200.8	1-31-18	1-31-18	
Silver	**ND**	11	200.8	1-31-18	1-31-18	
Lab ID:	01-261-02					
Client ID:	**KMW-09-012418**					
Arsenic	**ND**	3.3	200.8	1-31-18	1-31-18	
Barium	**ND**	28	200.8	1-31-18	1-31-18	
Cadmium	**ND**	4.4	200.8	1-31-18	1-31-18	
Chromium	**ND**	11	200.8	1-31-18	1-31-18	
Lead	**3.0**	1.1	200.8	1-31-18	1-31-18	
Mercury	**ND**	0.50	7470A	1-30-18	1-30-18	
Selenium	**ND**	5.6	200.8	1-31-18	1-31-18	
Silver	**ND**	11	200.8	1-31-18	1-31-18	

Date of Report: February 2, 2018
Samples Submitted: January 25, 2018
Laboratory Reference: 1801-261
Project: 0146970060

TOTAL METALS
EPA 200.8/7470A
METHOD BLANK QUALITY CONTROL

Date Extracted: 1-30&31-18
Date Analyzed: 1-30&31-18

Matrix: Water
Units: ug/L (ppb)

Lab ID: MB0130W1&MB0131WM1

Analyte	Method	Result	PQL
Arsenic	200.8	**ND**	3.3
Barium	200.8	**ND**	28
Cadmium	200.8	**ND**	4.4
Chromium	200.8	**ND**	11
Lead	200.8	**ND**	1.1
Mercury	7470A	**ND**	0.50
Selenium	200.8	**ND**	5.6
Silver	200.8	**ND**	11

Date of Report: February 2, 2018
Samples Submitted: January 25, 2018
Laboratory Reference: 1801-261
Project: 0146970060

TOTAL METALS
EPA 200.8/7470A
DUPLICATE QUALITY CONTROL

Date Extracted: 1-30&31-18
Date Analyzed: 1-30&31-18

Matrix: Water
Units: ug/L (ppb)

Lab ID: 01-271-01

Analyte	Sample Result	Duplicate Result	RPD	PQL	Flags
Arsenic	**6.78**	**6.33**	7	3.3	
Barium	**ND**	**ND**	NA	28	
Cadmium	**ND**	**ND**	NA	4.4	
Chromium	**ND**	**ND**	NA	11	
Lead	**1.12**	**ND**	NA	1.1	
Mercury	**ND**	**ND**	NA	0.50	
Selenium	**ND**	**ND**	NA	5.6	
Silver	**ND**	**ND**	NA	11	

Date of Report: February 2, 2018
Samples Submitted: January 25, 2018
Laboratory Reference: 1801-261
Project: 0146970060

TOTAL METALS
EPA 200.8/7470A
MS/MSD QUALITY CONTROL

Date Extracted: 1-30&31-18
Date Analyzed: 1-30&31-18

Matrix: Water
Units: ug/L (ppb)

Lab ID: 01-271-01

Analyte	Spike Level	MS	Percent Recovery	MSD	Percent Recovery	RPD	Flags
Arsenic	222	**227**	99	**233**	102	3	
Barium	222	**224**	101	**222**	100	1	
Cadmium	222	**228**	103	**231**	104	1	
Chromium	222	**211**	95	**216**	97	2	
Lead	222	**207**	93	**207**	93	0	
Mercury	12.5	**12.3**	98	**12.4**	99	1	
Selenium	222	**231**	104	**232**	104	0	
Silver	222	**196**	88	**202**	91	3	

Date of Report: February 2, 2018
Samples Submitted: January 25, 2018
Laboratory Reference: 1801-261
Project: 0146970060

TOTAL METALS
EPA 200.8/7470A
SPIKE BLANK QUALITY CONTROL

Date Extracted: 1-30&31-18
Date Analyzed: 1-30&31-18

Matrix: Water
Units: ug/L (ppb)

Lab ID: SB0130W1&SB0131WM1

Analyte	Method	Spike Level	SB Result	Percent Recovery
Arsenic	200.8	222	**228**	103
Barium	200.8	222	**212**	96
Cadmium	200.8	222	**224**	101
Chromium	200.8	222	**210**	95
Lead	200.8	222	**217**	98
Mercury	7470A	12.5	**12.6**	101
Selenium	200.8	222	**240**	108
Silver	200.8	222	**207**	93

OnSite Environmental Inc.

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

Chain of Custody

Page 1 of 1

OnSite Environmental Inc.
Analytical Laboratory Testing Services
14648 NE 95th Street • Redmond, WA 98052
Phone: (425) 883-3881 • www.onsite-env.com

Company: AmecFoster Wheeler
Project Number: 014697
Project Name: Kelly-Moore
Project Manager: Kathleen Goodman
Sampled by: K. Black

Turnaround Request (in working days)

(Check One)

☐ Same Day ☐ 1 Day
☐ 2 Days ☐ 3 Days
☒ Standard (7 Days) (TPH analysis 5 Days)
☐ _____ (other)

Laboratory Number: 01-261

Lab ID	Sample Identification	Date Sampled	Time Sampled	Matrix	Number 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)	PAHs 8270D/SIM (low-level)	PCBs 8082A	Organochlorine Pesticides 8081B	Organophosphorus Pesticides 8270D/SIM	Chlorinated Acid Herbicides 8151A	Total RCRA Metals 8	Total MTCA Metals	TCLP Metals	HEM (oil and grease) 1664A					% Moisture
1	KMW-06-012418	1/24/18	1250	W	10			X	X	X				X					X								
2	KMW-09-012418	1/24/18	1445	W	10			X	X	X				X					X								

	Signature	Company	Date	Time
Relinquished	Kyle Black	AmecFoster Wheeler	1/24/18	1635
Received	AmecFoster Wheeler Office Custody seal	AmecFW	1/24/18	1625
Relinquished	William Young (AmecFoster Wheeler office w/ custody seal)	AmecFW	01/25/18	10:54
Received	Eileen Clark	Alpha	1/25/18	10:55
Relinquished	Eileen Clark	Alpha	1-25-18	12:15
Received		CSE	1/25/18	1215
Reviewed/Date		Reviewed/Date		

Comments/Special Instructions

Data Package: Standard ☐ Level III ☐ Level IV ☐

Chromatograms with final report ☐ Electronic Data Deliverables (EDDs) ☐

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

February 2, 2018

Kathleen Goodman
AMEC Foster Wheeler
Environment and Infrastructure, Inc.
One Union Square
600 University Street, Suite 600
Seattle, WA 98101

Re: Analytical Data for Project 0146970060
Laboratory Reference No. 1801-271

Dear Kathleen:

Enclosed are the analytical results and associated quality control data for samples submitted on January 25, 2018.

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: February 2, 2018
Samples Submitted: January 25, 2018
Laboratory Reference: 1801-271
Project: 0146970060

Case Narrative

Samples were collected on January 25, 2018 and received by the laboratory on January 25, 2018. 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: February 2, 2018
Samples Submitted: January 25, 2018
Laboratory Reference: 1801-271
Project: 0146970060

NWTPH-Gx

Matrix: Water
Units: ug/L (ppb)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**KMW-10-012518**					
Laboratory ID:	01-271-01					
Gasoline	**270**	100	NWTPH-Gx	1-26-18	1-26-18	
Surrogate:	*Percent Recovery*	*Control Limits*				
Fluorobenzene	*89*	*66-114*				
Client ID:	**KMW-109-012518**					
Laboratory ID:	01-271-02					
Gasoline	**260**	100	NWTPH-Gx	1-26-18	1-26-18	
Surrogate:	*Percent Recovery*	*Control Limits*				
Fluorobenzene	*82*	*66-114*				
Client ID:	**Trip Blank**					
Laboratory ID:	01-271-03					
Gasoline	**ND**	100	NWTPH-Gx	1-26-18	1-26-18	
Surrogate:	*Percent Recovery*	*Control Limits*				
Fluorobenzene	*93*	*66-114*				
Client ID:	**KMW-04-012518**					
Laboratory ID:	01-271-04					
Gasoline	**9000**	100	NWTPH-Gx	1-26-18	1-26-18	
Surrogate:	*Percent Recovery*	*Control Limits*				
Fluorobenzene	*79*	*66-114*				

Date of Report: February 2, 2018
Samples Submitted: January 25, 2018
Laboratory Reference: 1801-271
Project: 0146970060

NWTPH-Gx
QUALITY CONTROL

Matrix: Water
Units: ug/L (ppb)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
METHOD BLANK						
Laboratory ID:	MB0126W1					
Gasoline	**ND**	100	NWTPH-Gx	1-26-18	1-26-18	
Surrogate:	*Percent Recovery*	*Control Limits*				
Fluorobenzene	*94*	*66-114*				

Analyte	Result		Spike Level		Source Result	Percent Recovery		Recovery Limits	RPD	RPD Limit	Flags
DUPLICATE											
Laboratory ID:	01-271-01										
	ORIG	DUP									
Gasoline	**265**	**256**	NA	NA		NA		NA	3	30	
Surrogate:											
Fluorobenzene						*89*	*81*	*66-114*			

Date of Report: February 2, 2018
Samples Submitted: January 25, 2018
Laboratory Reference: 1801-271
Project: 0146970060

NWTPH-Dx

Matrix: Water
Units: mg/L (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**KMW-10-012518**					
Laboratory ID:	01-271-01					
Diesel Range Organics	**2.3**	0.26	NWTPH-Dx	1-29-18	1-29-18	
Lube Oil Range Organics	**ND**	0.41	NWTPH-Dx	1-29-18	1-29-18	
Surrogate:	*Percent Recovery*	*Control Limits*				
o-Terphenyl	*83*	*50-150*				
Client ID:	**KMW-109-012518**					
Laboratory ID:	01-271-02					
Diesel Range Organics	**2.3**	0.26	NWTPH-Dx	1-29-18	1-29-18	
Lube Oil Range Organics	**ND**	0.41	NWTPH-Dx	1-29-18	1-29-18	
Surrogate:	*Percent Recovery*	*Control Limits*				
o-Terphenyl	*85*	*50-150*				
Client ID:	**KMW-04-012518**					
Laboratory ID:	01-271-04					
Diesel Range Organics	**1.7**	0.26	NWTPH-Dx	1-29-18	1-29-18	
Lube Oil Range Organics	**ND**	0.41	NWTPH-Dx	1-29-18	1-29-18	
Surrogate:	*Percent Recovery*	*Control Limits*				
o-Terphenyl	*71*	*50-150*				

Date of Report: February 2, 2018
Samples Submitted: January 25, 2018
Laboratory Reference: 1801-271
Project: 0146970060

NWTPH-Dx
QUALITY CONTROL

Matrix: Water
Units: mg/L (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
METHOD BLANK						
Laboratory ID:	MB0129W1					
Diesel Range Organics	**ND**	0.25	NWTPH-Dx	1-29-18	1-29-18	
Lube Oil Range Organics	**ND**	0.40	NWTPH-Dx	1-29-18	1-29-18	
Surrogate:	*Percent Recovery*	*Control Limits*				
o-Terphenyl	*93*	*50-150*				

Analyte	Result		Spike Level		Source Result	Percent Recovery	Recovery Limits	RPD	RPD Limit	Flags
DUPLICATE										
Laboratory ID:	01-271-01									
	ORIG	DUP								
Diesel Range Organics	**2.30**	**2.22**	NA	NA		NA	NA	4	NA	
Lube Oil Range	**ND**	**ND**	NA	NA		NA	NA	NA	NA	
Surrogate:										
o-Terphenyl						*83*	*80*	*50-150*		
SPIKE BLANK										
Laboratory ID:	SB0129W1									
Diesel Fuel #2	**0.784**		1.00		NA	**78**	58-113	NA	NA	
Surrogate:										
o-Terphenyl						*90*	*50-150*			

Date of Report: February 2, 2018
Samples Submitted: January 25, 2018
Laboratory Reference: 1801-271
Project: 0146970060

VOLATILES EPA 8260C
page 1 of 2

Matrix: Water
Units: ug/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**KMW-10-012518**					
Laboratory ID:	01-271-01					
Dichlorodifluoromethane	ND	0.20	EPA 8260C	1-29-18	1-29-18	
Chloromethane	ND	1.0	EPA 8260C	1-29-18	1-29-18	
Vinyl Chloride	ND	0.20	EPA 8260C	1-29-18	1-29-18	
Bromomethane	ND	0.20	EPA 8260C	1-29-18	1-29-18	
Chloroethane	ND	1.0	EPA 8260C	1-29-18	1-29-18	
Trichlorofluoromethane	ND	0.20	EPA 8260C	1-29-18	1-29-18	
1,1-Dichloroethene	ND	0.20	EPA 8260C	1-29-18	1-29-18	
Acetone	ND	5.0	EPA 8260C	1-29-18	1-29-18	
Iodomethane	ND	1.0	EPA 8260C	1-29-18	1-29-18	
Carbon Disulfide	ND	0.20	EPA 8260C	1-29-18	1-29-18	
Methylene Chloride	ND	1.0	EPA 8260C	1-29-18	1-29-18	
(trans) 1,2-Dichloroethene	ND	0.20	EPA 8260C	1-29-18	1-29-18	
Methyl t-Butyl Ether	ND	0.20	EPA 8260C	1-29-18	1-29-18	
1,1-Dichloroethane	ND	0.20	EPA 8260C	1-29-18	1-29-18	
Vinyl Acetate	ND	1.0	EPA 8260C	1-29-18	1-29-18	
2,2-Dichloropropane	ND	0.20	EPA 8260C	1-29-18	1-29-18	
(cis) 1,2-Dichloroethene	ND	0.20	EPA 8260C	1-29-18	1-29-18	
2-Butanone	ND	5.0	EPA 8260C	1-29-18	1-29-18	
Bromochloromethane	ND	0.20	EPA 8260C	1-29-18	1-29-18	
Chloroform	ND	0.20	EPA 8260C	1-29-18	1-29-18	
1,1,1-Trichloroethane	ND	0.20	EPA 8260C	1-29-18	1-29-18	
Carbon Tetrachloride	ND	0.20	EPA 8260C	1-29-18	1-29-18	
1,1-Dichloropropene	ND	0.20	EPA 8260C	1-29-18	1-29-18	
Benzene	ND	0.20	EPA 8260C	1-29-18	1-29-18	
1,2-Dichloroethane	ND	0.20	EPA 8260C	1-29-18	1-29-18	
Trichloroethene	ND	0.20	EPA 8260C	1-29-18	1-29-18	
1,2-Dichloropropane	ND	0.20	EPA 8260C	1-29-18	1-29-18	
Dibromomethane	ND	0.20	EPA 8260C	1-29-18	1-29-18	
Bromodichloromethane	ND	0.20	EPA 8260C	1-29-18	1-29-18	
2-Chloroethyl Vinyl Ether	ND	1.0	EPA 8260C	1-29-18	1-29-18	
(cis) 1,3-Dichloropropene	ND	0.20	EPA 8260C	1-29-18	1-29-18	
Methyl Isobutyl Ketone	ND	2.0	EPA 8260C	1-29-18	1-29-18	
Toluene	ND	1.0	EPA 8260C	1-29-18	1-29-18	
(trans) 1,3-Dichloropropene	ND	0.20	EPA 8260C	1-29-18	1-29-18	

Date of Report: February 2, 2018
Samples Submitted: January 25, 2018
Laboratory Reference: 1801-271
Project: 0146970060

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Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**KMW-10-012518**					
Laboratory ID:	01-271-01					
1,1,2-Trichloroethane	ND	0.20	EPA 8260C	1-29-18	1-29-18	
Tetrachloroethene	ND	0.20	EPA 8260C	1-29-18	1-29-18	
1,3-Dichloropropane	ND	0.20	EPA 8260C	1-29-18	1-29-18	
2-Hexanone	ND	2.0	EPA 8260C	1-29-18	1-29-18	
Dibromochloromethane	ND	0.20	EPA 8260C	1-29-18	1-29-18	
1,2-Dibromoethane	ND	0.20	EPA 8260C	1-29-18	1-29-18	
Chlorobenzene	ND	0.20	EPA 8260C	1-29-18	1-29-18	
1,1,1,2-Tetrachloroethane	ND	0.20	EPA 8260C	1-29-18	1-29-18	
Ethylbenzene	14	0.20	EPA 8260C	1-29-18	1-29-18	
m,p-Xylene	28	0.40	EPA 8260C	1-29-18	1-29-18	
o-Xylene	0.42	0.20	EPA 8260C	1-29-18	1-29-18	
Styrene	ND	0.20	EPA 8260C	1-29-18	1-29-18	
Bromoform	ND	1.0	EPA 8260C	1-29-18	1-29-18	
Isopropylbenzene	3.8	0.20	EPA 8260C	1-29-18	1-29-18	
Bromobenzene	ND	0.20	EPA 8260C	1-29-18	1-29-18	
1,1,2,2-Tetrachloroethane	ND	0.20	EPA 8260C	1-29-18	1-29-18	
1,2,3-Trichloropropane	ND	0.20	EPA 8260C	1-29-18	1-29-18	
n-Propylbenzene	3.6	0.20	EPA 8260C	1-29-18	1-29-18	
2-Chlorotoluene	ND	0.20	EPA 8260C	1-29-18	1-29-18	
4-Chlorotoluene	ND	0.20	EPA 8260C	1-29-18	1-29-18	
1,3,5-Trimethylbenzene	0.90	0.20	EPA 8260C	1-29-18	1-29-18	
tert-Butylbenzene	ND	0.20	EPA 8260C	1-29-18	1-29-18	
1,2,4-Trimethylbenzene	2.7	0.20	EPA 8260C	1-29-18	1-29-18	
sec-Butylbenzene	ND	0.20	EPA 8260C	1-29-18	1-29-18	
1,3-Dichlorobenzene	ND	0.20	EPA 8260C	1-29-18	1-29-18	
p-Isopropyltoluene	ND	0.20	EPA 8260C	1-29-18	1-29-18	
1,4-Dichlorobenzene	ND	0.20	EPA 8260C	1-29-18	1-29-18	
1,2-Dichlorobenzene	ND	0.20	EPA 8260C	1-29-18	1-29-18	
n-Butylbenzene	ND	0.20	EPA 8260C	1-29-18	1-29-18	
1,2-Dibromo-3-chloropropane	ND	1.0	EPA 8260C	1-29-18	1-29-18	
1,2,4-Trichlorobenzene	ND	0.20	EPA 8260C	1-29-18	1-29-18	
Hexachlorobutadiene	ND	0.20	EPA 8260C	1-29-18	1-29-18	
Naphthalene	ND	1.0	EPA 8260C	1-29-18	1-29-18	
1,2,3-Trichlorobenzene	ND	0.20	EPA 8260C	1-29-18	1-29-18	
Surrogate:	*Percent Recovery*	*Control Limits*				
Dibromofluoromethane	*93*	*75-127*				
Toluene-d8	*97*	*80-127*				
4-Bromofluorobenzene	*95*	*78-125*				

Date of Report: February 2, 2018
Samples Submitted: January 25, 2018
Laboratory Reference: 1801-271
Project: 0146970060

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Matrix: Water
Units: ug/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**KMW-109-012518**					
Laboratory ID:	01-271-02					
Dichlorodifluoromethane	ND	0.20	EPA 8260C	1-29-18	1-29-18	
Chloromethane	ND	1.0	EPA 8260C	1-29-18	1-29-18	
Vinyl Chloride	ND	0.20	EPA 8260C	1-29-18	1-29-18	
Bromomethane	ND	0.20	EPA 8260C	1-29-18	1-29-18	
Chloroethane	ND	1.0	EPA 8260C	1-29-18	1-29-18	
Trichlorofluoromethane	ND	0.20	EPA 8260C	1-29-18	1-29-18	
1,1-Dichloroethene	ND	0.20	EPA 8260C	1-29-18	1-29-18	
Acetone	ND	5.0	EPA 8260C	1-29-18	1-29-18	
Iodomethane	ND	1.0	EPA 8260C	1-29-18	1-29-18	
Carbon Disulfide	ND	0.20	EPA 8260C	1-29-18	1-29-18	
Methylene Chloride	ND	1.0	EPA 8260C	1-29-18	1-29-18	
(trans) 1,2-Dichloroethene	ND	0.20	EPA 8260C	1-29-18	1-29-18	
Methyl t-Butyl Ether	ND	0.20	EPA 8260C	1-29-18	1-29-18	
1,1-Dichloroethane	ND	0.20	EPA 8260C	1-29-18	1-29-18	
Vinyl Acetate	ND	1.0	EPA 8260C	1-29-18	1-29-18	
2,2-Dichloropropane	ND	0.20	EPA 8260C	1-29-18	1-29-18	
(cis) 1,2-Dichloroethene	ND	0.20	EPA 8260C	1-29-18	1-29-18	
2-Butanone	ND	5.0	EPA 8260C	1-29-18	1-29-18	
Bromochloromethane	ND	0.20	EPA 8260C	1-29-18	1-29-18	
Chloroform	ND	0.20	EPA 8260C	1-29-18	1-29-18	
1,1,1-Trichloroethane	ND	0.20	EPA 8260C	1-29-18	1-29-18	
Carbon Tetrachloride	ND	0.20	EPA 8260C	1-29-18	1-29-18	
1,1-Dichloropropene	ND	0.20	EPA 8260C	1-29-18	1-29-18	
Benzene	ND	0.20	EPA 8260C	1-29-18	1-29-18	
1,2-Dichloroethane	ND	0.20	EPA 8260C	1-29-18	1-29-18	
Trichloroethene	ND	0.20	EPA 8260C	1-29-18	1-29-18	
1,2-Dichloropropane	ND	0.20	EPA 8260C	1-29-18	1-29-18	
Dibromomethane	ND	0.20	EPA 8260C	1-29-18	1-29-18	
Bromodichloromethane	ND	0.20	EPA 8260C	1-29-18	1-29-18	
2-Chloroethyl Vinyl Ether	ND	1.0	EPA 8260C	1-29-18	1-29-18	
(cis) 1,3-Dichloropropene	ND	0.20	EPA 8260C	1-29-18	1-29-18	
Methyl Isobutyl Ketone	ND	2.0	EPA 8260C	1-29-18	1-29-18	
Toluene	ND	1.0	EPA 8260C	1-29-18	1-29-18	
(trans) 1,3-Dichloropropene	ND	0.20	EPA 8260C	1-29-18	1-29-18	

Date of Report: February 2, 2018
Samples Submitted: January 25, 2018
Laboratory Reference: 1801-271
Project: 0146970060

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Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**KMW-109-012518**					
Laboratory ID:	01-271-02					
1,1,2-Trichloroethane	ND	0.20	EPA 8260C	1-29-18	1-29-18	
Tetrachloroethene	ND	0.20	EPA 8260C	1-29-18	1-29-18	
1,3-Dichloropropane	ND	0.20	EPA 8260C	1-29-18	1-29-18	
2-Hexanone	ND	2.0	EPA 8260C	1-29-18	1-29-18	
Dibromochloromethane	ND	0.20	EPA 8260C	1-29-18	1-29-18	
1,2-Dibromoethane	ND	0.20	EPA 8260C	1-29-18	1-29-18	
Chlorobenzene	ND	0.20	EPA 8260C	1-29-18	1-29-18	
1,1,1,2-Tetrachloroethane	ND	0.20	EPA 8260C	1-29-18	1-29-18	
Ethylbenzene	30	0.20	EPA 8260C	1-29-18	1-29-18	
m,p-Xylene	65	0.40	EPA 8260C	1-29-18	1-29-18	
o-Xylene	0.58	0.20	EPA 8260C	1-29-18	1-29-18	
Styrene	ND	0.20	EPA 8260C	1-29-18	1-29-18	
Bromoform	ND	1.0	EPA 8260C	1-29-18	1-29-18	
Isopropylbenzene	6.5	0.20	EPA 8260C	1-29-18	1-29-18	
Bromobenzene	ND	0.20	EPA 8260C	1-29-18	1-29-18	
1,1,2,2-Tetrachloroethane	ND	0.20	EPA 8260C	1-29-18	1-29-18	
1,2,3-Trichloropropane	ND	0.20	EPA 8260C	1-29-18	1-29-18	
n-Propylbenzene	5.6	0.20	EPA 8260C	1-29-18	1-29-18	
2-Chlorotoluene	ND	0.20	EPA 8260C	1-29-18	1-29-18	
4-Chlorotoluene	ND	0.20	EPA 8260C	1-29-18	1-29-18	
1,3,5-Trimethylbenzene	1.7	0.20	EPA 8260C	1-29-18	1-29-18	
tert-Butylbenzene	ND	0.20	EPA 8260C	1-29-18	1-29-18	
1,2,4-Trimethylbenzene	5.4	0.20	EPA 8260C	1-29-18	1-29-18	
sec-Butylbenzene	ND	0.20	EPA 8260C	1-29-18	1-29-18	
1,3-Dichlorobenzene	ND	0.20	EPA 8260C	1-29-18	1-29-18	
p-Isopropyltoluene	ND	0.20	EPA 8260C	1-29-18	1-29-18	
1,4-Dichlorobenzene	ND	0.20	EPA 8260C	1-29-18	1-29-18	
1,2-Dichlorobenzene	ND	0.20	EPA 8260C	1-29-18	1-29-18	
n-Butylbenzene	ND	0.20	EPA 8260C	1-29-18	1-29-18	
1,2-Dibromo-3-chloropropane	ND	1.0	EPA 8260C	1-29-18	1-29-18	
1,2,4-Trichlorobenzene	ND	0.20	EPA 8260C	1-29-18	1-29-18	
Hexachlorobutadiene	ND	0.20	EPA 8260C	1-29-18	1-29-18	
Naphthalene	ND	1.0	EPA 8260C	1-29-18	1-29-18	
1,2,3-Trichlorobenzene	ND	0.20	EPA 8260C	1-29-18	1-29-18	
Surrogate:	*Percent Recovery*	*Control Limits*				
Dibromofluoromethane	*101*	*75-127*				
Toluene-d8	*102*	*80-127*				
4-Bromofluorobenzene	*106*	*78-125*				

Date of Report: February 2, 2018
Samples Submitted: January 25, 2018
Laboratory Reference: 1801-271
Project: 0146970060

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Matrix: Water
Units: ug/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**Trip Blank**					
Laboratory ID:	01-271-03					
Dichlorodifluoromethane	ND	0.20	EPA 8260C	1-29-18	1-29-18	
Chloromethane	ND	1.0	EPA 8260C	1-29-18	1-29-18	
Vinyl Chloride	ND	0.20	EPA 8260C	1-29-18	1-29-18	
Bromomethane	ND	0.20	EPA 8260C	1-29-18	1-29-18	
Chloroethane	ND	1.0	EPA 8260C	1-29-18	1-29-18	
Trichlorofluoromethane	ND	0.20	EPA 8260C	1-29-18	1-29-18	
1,1-Dichloroethene	ND	0.20	EPA 8260C	1-29-18	1-29-18	
Acetone	ND	5.0	EPA 8260C	1-29-18	1-29-18	
Iodomethane	ND	1.0	EPA 8260C	1-29-18	1-29-18	
Carbon Disulfide	ND	0.20	EPA 8260C	1-29-18	1-29-18	
Methylene Chloride	ND	1.0	EPA 8260C	1-29-18	1-29-18	
(trans) 1,2-Dichloroethene	ND	0.20	EPA 8260C	1-29-18	1-29-18	
Methyl t-Butyl Ether	ND	0.20	EPA 8260C	1-29-18	1-29-18	
1,1-Dichloroethane	ND	0.20	EPA 8260C	1-29-18	1-29-18	
Vinyl Acetate	ND	1.0	EPA 8260C	1-29-18	1-29-18	
2,2-Dichloropropane	ND	0.20	EPA 8260C	1-29-18	1-29-18	
(cis) 1,2-Dichloroethene	ND	0.20	EPA 8260C	1-29-18	1-29-18	
2-Butanone	ND	5.0	EPA 8260C	1-29-18	1-29-18	
Bromochloromethane	ND	0.20	EPA 8260C	1-29-18	1-29-18	
Chloroform	ND	0.20	EPA 8260C	1-29-18	1-29-18	
1,1,1-Trichloroethane	ND	0.20	EPA 8260C	1-29-18	1-29-18	
Carbon Tetrachloride	ND	0.20	EPA 8260C	1-29-18	1-29-18	
1,1-Dichloropropene	ND	0.20	EPA 8260C	1-29-18	1-29-18	
Benzene	ND	0.20	EPA 8260C	1-29-18	1-29-18	
1,2-Dichloroethane	ND	0.20	EPA 8260C	1-29-18	1-29-18	
Trichloroethene	ND	0.20	EPA 8260C	1-29-18	1-29-18	
1,2-Dichloropropane	ND	0.20	EPA 8260C	1-29-18	1-29-18	
Dibromomethane	ND	0.20	EPA 8260C	1-29-18	1-29-18	
Bromodichloromethane	ND	0.20	EPA 8260C	1-29-18	1-29-18	
2-Chloroethyl Vinyl Ether	ND	1.0	EPA 8260C	1-29-18	1-29-18	
(cis) 1,3-Dichloropropene	ND	0.20	EPA 8260C	1-29-18	1-29-18	
Methyl Isobutyl Ketone	ND	2.0	EPA 8260C	1-29-18	1-29-18	
Toluene	ND	1.0	EPA 8260C	1-29-18	1-29-18	
(trans) 1,3-Dichloropropene	ND	0.20	EPA 8260C	1-29-18	1-29-18	

Date of Report: February 2, 2018
Samples Submitted: January 25, 2018
Laboratory Reference: 1801-271
Project: 0146970060

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Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**Trip Blank**					
Laboratory ID:	01-271-03					
1,1,2-Trichloroethane	ND	0.20	EPA 8260C	1-29-18	1-29-18	
Tetrachloroethene	ND	0.20	EPA 8260C	1-29-18	1-29-18	
1,3-Dichloropropane	ND	0.20	EPA 8260C	1-29-18	1-29-18	
2-Hexanone	ND	2.0	EPA 8260C	1-29-18	1-29-18	
Dibromochloromethane	ND	0.20	EPA 8260C	1-29-18	1-29-18	
1,2-Dibromoethane	ND	0.20	EPA 8260C	1-29-18	1-29-18	
Chlorobenzene	ND	0.20	EPA 8260C	1-29-18	1-29-18	
1,1,1,2-Tetrachloroethane	ND	0.20	EPA 8260C	1-29-18	1-29-18	
Ethylbenzene	ND	0.20	EPA 8260C	1-29-18	1-29-18	
m,p-Xylene	ND	0.40	EPA 8260C	1-29-18	1-29-18	
o-Xylene	ND	0.20	EPA 8260C	1-29-18	1-29-18	
Styrene	ND	0.20	EPA 8260C	1-29-18	1-29-18	
Bromoform	ND	1.0	EPA 8260C	1-29-18	1-29-18	
Isopropylbenzene	ND	0.20	EPA 8260C	1-29-18	1-29-18	
Bromobenzene	ND	0.20	EPA 8260C	1-29-18	1-29-18	
1,1,2,2-Tetrachloroethane	ND	0.20	EPA 8260C	1-29-18	1-29-18	
1,2,3-Trichloropropane	ND	0.20	EPA 8260C	1-29-18	1-29-18	
n-Propylbenzene	ND	0.20	EPA 8260C	1-29-18	1-29-18	
2-Chlorotoluene	ND	0.20	EPA 8260C	1-29-18	1-29-18	
4-Chlorotoluene	ND	0.20	EPA 8260C	1-29-18	1-29-18	
1,3,5-Trimethylbenzene	ND	0.20	EPA 8260C	1-29-18	1-29-18	
tert-Butylbenzene	ND	0.20	EPA 8260C	1-29-18	1-29-18	
1,2,4-Trimethylbenzene	ND	0.20	EPA 8260C	1-29-18	1-29-18	
sec-Butylbenzene	ND	0.20	EPA 8260C	1-29-18	1-29-18	
1,3-Dichlorobenzene	ND	0.20	EPA 8260C	1-29-18	1-29-18	
p-Isopropyltoluene	ND	0.20	EPA 8260C	1-29-18	1-29-18	
1,4-Dichlorobenzene	ND	0.20	EPA 8260C	1-29-18	1-29-18	
1,2-Dichlorobenzene	ND	0.20	EPA 8260C	1-29-18	1-29-18	
n-Butylbenzene	ND	0.20	EPA 8260C	1-29-18	1-29-18	
1,2-Dibromo-3-chloropropane	ND	1.0	EPA 8260C	1-29-18	1-29-18	
1,2,4-Trichlorobenzene	ND	0.20	EPA 8260C	1-29-18	1-29-18	
Hexachlorobutadiene	ND	0.20	EPA 8260C	1-29-18	1-29-18	
Naphthalene	ND	1.0	EPA 8260C	1-29-18	1-29-18	
1,2,3-Trichlorobenzene	ND	0.20	EPA 8260C	1-29-18	1-29-18	
Surrogate:	*Percent Recovery*	*Control Limits*				
Dibromofluoromethane	*100*	*75-127*				
Toluene-d8	*105*	*80-127*				
4-Bromofluorobenzene	*96*	*78-125*				

Date of Report: February 2, 2018
Samples Submitted: January 25, 2018
Laboratory Reference: 1801-271
Project: 0146970060

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Matrix: Water
Units: ug/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**KMW-04-012518**					
Laboratory ID:	01-271-04					
Dichlorodifluoromethane	ND	50	EPA 8260C	1-29-18	1-29-18	
Chloromethane	ND	250	EPA 8260C	1-29-18	1-29-18	
Vinyl Chloride	ND	50	EPA 8260C	1-29-18	1-29-18	
Bromomethane	ND	50	EPA 8260C	1-29-18	1-29-18	
Chloroethane	ND	250	EPA 8260C	1-29-18	1-29-18	
Trichlorofluoromethane	ND	50	EPA 8260C	1-29-18	1-29-18	
1,1-Dichloroethene	ND	50	EPA 8260C	1-29-18	1-29-18	
Acetone	ND	1300	EPA 8260C	1-29-18	1-29-18	
Iodomethane	ND	250	EPA 8260C	1-29-18	1-29-18	
Carbon Disulfide	ND	50	EPA 8260C	1-29-18	1-29-18	
Methylene Chloride	ND	250	EPA 8260C	1-29-18	1-29-18	
(trans) 1,2-Dichloroethene	ND	50	EPA 8260C	1-29-18	1-29-18	
Methyl t-Butyl Ether	ND	50	EPA 8260C	1-29-18	1-29-18	
1,1-Dichloroethane	ND	50	EPA 8260C	1-29-18	1-29-18	
Vinyl Acetate	ND	250	EPA 8260C	1-29-18	1-29-18	
2,2-Dichloropropane	ND	50	EPA 8260C	1-29-18	1-29-18	
(cis) 1,2-Dichloroethene	ND	50	EPA 8260C	1-29-18	1-29-18	
2-Butanone	ND	1300	EPA 8260C	1-29-18	1-29-18	
Bromochloromethane	ND	50	EPA 8260C	1-29-18	1-29-18	
Chloroform	ND	50	EPA 8260C	1-29-18	1-29-18	
1,1,1-Trichloroethane	ND	50	EPA 8260C	1-29-18	1-29-18	
Carbon Tetrachloride	ND	50	EPA 8260C	1-29-18	1-29-18	
1,1-Dichloropropene	ND	50	EPA 8260C	1-29-18	1-29-18	
Benzene	ND	50	EPA 8260C	1-29-18	1-29-18	
1,2-Dichloroethane	ND	50	EPA 8260C	1-29-18	1-29-18	
Trichloroethene	ND	50	EPA 8260C	1-29-18	1-29-18	
1,2-Dichloropropane	ND	50	EPA 8260C	1-29-18	1-29-18	
Dibromomethane	ND	50	EPA 8260C	1-29-18	1-29-18	
Bromodichloromethane	ND	50	EPA 8260C	1-29-18	1-29-18	
2-Chloroethyl Vinyl Ether	ND	250	EPA 8260C	1-29-18	1-29-18	
(cis) 1,3-Dichloropropene	ND	50	EPA 8260C	1-29-18	1-29-18	
Methyl Isobutyl Ketone	ND	500	EPA 8260C	1-29-18	1-29-18	
Toluene	5500	250	EPA 8260C	1-29-18	1-29-18	
(trans) 1,3-Dichloropropene	ND	50	EPA 8260C	1-29-18	1-29-18	

Date of Report: February 2, 2018
Samples Submitted: January 25, 2018
Laboratory Reference: 1801-271
Project: 0146970060

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Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**KMW-04-012518**					
Laboratory ID:	01-271-04					
1,1,2-Trichloroethane	ND	50	EPA 8260C	1-29-18	1-29-18	
Tetrachloroethene	ND	50	EPA 8260C	1-29-18	1-29-18	
1,3-Dichloropropane	ND	50	EPA 8260C	1-29-18	1-29-18	
2-Hexanone	ND	500	EPA 8260C	1-29-18	1-29-18	
Dibromochloromethane	ND	50	EPA 8260C	1-29-18	1-29-18	
1,2-Dibromoethane	ND	50	EPA 8260C	1-29-18	1-29-18	
Chlorobenzene	ND	50	EPA 8260C	1-29-18	1-29-18	
1,1,1,2-Tetrachloroethane	ND	50	EPA 8260C	1-29-18	1-29-18	
Ethylbenzene	4700	50	EPA 8260C	1-29-18	1-29-18	
m,p-Xylene	12000	100	EPA 8260C	1-29-18	1-29-18	
o-Xylene	3600	50	EPA 8260C	1-29-18	1-29-18	
Styrene	ND	50	EPA 8260C	1-29-18	1-29-18	
Bromoform	ND	250	EPA 8260C	1-29-18	1-29-18	
Isopropylbenzene	ND	50	EPA 8260C	1-29-18	1-29-18	
Bromobenzene	ND	50	EPA 8260C	1-29-18	1-29-18	
1,1,2,2-Tetrachloroethane	ND	50	EPA 8260C	1-29-18	1-29-18	
1,2,3-Trichloropropane	ND	50	EPA 8260C	1-29-18	1-29-18	
n-Propylbenzene	ND	50	EPA 8260C	1-29-18	1-29-18	
2-Chlorotoluene	ND	50	EPA 8260C	1-29-18	1-29-18	
4-Chlorotoluene	ND	50	EPA 8260C	1-29-18	1-29-18	
1,3,5-Trimethylbenzene	ND	50	EPA 8260C	1-29-18	1-29-18	
tert-Butylbenzene	ND	50	EPA 8260C	1-29-18	1-29-18	
1,2,4-Trimethylbenzene	110	50	EPA 8260C	1-29-18	1-29-18	
sec-Butylbenzene	ND	50	EPA 8260C	1-29-18	1-29-18	
1,3-Dichlorobenzene	ND	50	EPA 8260C	1-29-18	1-29-18	
p-Isopropyltoluene	ND	50	EPA 8260C	1-29-18	1-29-18	
1,4-Dichlorobenzene	ND	50	EPA 8260C	1-29-18	1-29-18	
1,2-Dichlorobenzene	ND	50	EPA 8260C	1-29-18	1-29-18	
n-Butylbenzene	ND	50	EPA 8260C	1-29-18	1-29-18	
1,2-Dibromo-3-chloropropane	ND	250	EPA 8260C	1-29-18	1-29-18	
1,2,4-Trichlorobenzene	ND	50	EPA 8260C	1-29-18	1-29-18	
Hexachlorobutadiene	ND	50	EPA 8260C	1-29-18	1-29-18	
Naphthalene	ND	250	EPA 8260C	1-29-18	1-29-18	
1,2,3-Trichlorobenzene	ND	50	EPA 8260C	1-29-18	1-29-18	
Surrogate:	*Percent Recovery*	*Control Limits*				
Dibromofluoromethane	*97*	*75-127*				
Toluene-d8	*100*	*80-127*				
4-Bromofluorobenzene	*101*	*78-125*				

Date of Report: February 2, 2018
Samples Submitted: January 25, 2018
Laboratory Reference: 1801-271
Project: 0146970060

VOLATILES by EPA 8260C
METHOD BLANK QUALITY CONTROL
page 1 of 2

Matrix: Water
Units: ug/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Laboratory ID:	MB0129W1					
Dichlorodifluoromethane	ND	0.20	EPA 8260C	1-29-18	1-29-18	
Chloromethane	ND	1.0	EPA 8260C	1-29-18	1-29-18	
Vinyl Chloride	ND	0.20	EPA 8260C	1-29-18	1-29-18	
Bromomethane	ND	0.20	EPA 8260C	1-29-18	1-29-18	
Chloroethane	ND	1.0	EPA 8260C	1-29-18	1-29-18	
Trichlorofluoromethane	ND	0.20	EPA 8260C	1-29-18	1-29-18	
1,1-Dichloroethene	ND	0.20	EPA 8260C	1-29-18	1-29-18	
Acetone	ND	5.0	EPA 8260C	1-29-18	1-29-18	
Iodomethane	ND	1.0	EPA 8260C	1-29-18	1-29-18	
Carbon Disulfide	ND	0.20	EPA 8260C	1-29-18	1-29-18	
Methylene Chloride	ND	1.0	EPA 8260C	1-29-18	1-29-18	
(trans) 1,2-Dichloroethene	ND	0.20	EPA 8260C	1-29-18	1-29-18	
Methyl t-Butyl Ether	ND	0.20	EPA 8260C	1-29-18	1-29-18	
1,1-Dichloroethane	ND	0.20	EPA 8260C	1-29-18	1-29-18	
Vinyl Acetate	ND	1.0	EPA 8260C	1-29-18	1-29-18	
2,2-Dichloropropane	ND	0.20	EPA 8260C	1-29-18	1-29-18	
(cis) 1,2-Dichloroethene	ND	0.20	EPA 8260C	1-29-18	1-29-18	
2-Butanone	ND	5.0	EPA 8260C	1-29-18	1-29-18	
Bromochloromethane	ND	0.20	EPA 8260C	1-29-18	1-29-18	
Chloroform	ND	0.20	EPA 8260C	1-29-18	1-29-18	
1,1,1-Trichloroethane	ND	0.20	EPA 8260C	1-29-18	1-29-18	
Carbon Tetrachloride	ND	0.20	EPA 8260C	1-29-18	1-29-18	
1,1-Dichloropropene	ND	0.20	EPA 8260C	1-29-18	1-29-18	
Benzene	ND	0.20	EPA 8260C	1-29-18	1-29-18	
1,2-Dichloroethane	ND	0.20	EPA 8260C	1-29-18	1-29-18	
Trichloroethene	ND	0.20	EPA 8260C	1-29-18	1-29-18	
1,2-Dichloropropane	ND	0.20	EPA 8260C	1-29-18	1-29-18	
Dibromomethane	ND	0.20	EPA 8260C	1-29-18	1-29-18	
Bromodichloromethane	ND	0.20	EPA 8260C	1-29-18	1-29-18	
2-Chloroethyl Vinyl Ether	ND	1.0	EPA 8260C	1-29-18	1-29-18	
(cis) 1,3-Dichloropropene	ND	0.20	EPA 8260C	1-29-18	1-29-18	
Methyl Isobutyl Ketone	ND	2.0	EPA 8260C	1-29-18	1-29-18	
Toluene	ND	1.0	EPA 8260C	1-29-18	1-29-18	
(trans) 1,3-Dichloropropene	ND	0.20	EPA 8260C	1-29-18	1-29-18	

Date of Report: February 2, 2018
Samples Submitted: January 25, 2018
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Project: 0146970060

VOLATILES by EPA 8260C
METHOD BLANK QUALITY CONTROL
page 2 of 2

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Laboratory ID:	MB0129W1					
1,1,2-Trichloroethane	ND	0.20	EPA 8260C	1-29-18	1-29-18	
Tetrachloroethene	ND	0.20	EPA 8260C	1-29-18	1-29-18	
1,3-Dichloropropane	ND	0.20	EPA 8260C	1-29-18	1-29-18	
2-Hexanone	ND	2.0	EPA 8260C	1-29-18	1-29-18	
Dibromochloromethane	ND	0.20	EPA 8260C	1-29-18	1-29-18	
1,2-Dibromoethane	ND	0.20	EPA 8260C	1-29-18	1-29-18	
Chlorobenzene	ND	0.20	EPA 8260C	1-29-18	1-29-18	
1,1,1,2-Tetrachloroethane	ND	0.20	EPA 8260C	1-29-18	1-29-18	
Ethylbenzene	ND	0.20	EPA 8260C	1-29-18	1-29-18	
m,p-Xylene	ND	0.40	EPA 8260C	1-29-18	1-29-18	
o-Xylene	ND	0.20	EPA 8260C	1-29-18	1-29-18	
Styrene	ND	0.20	EPA 8260C	1-29-18	1-29-18	
Bromoform	ND	1.0	EPA 8260C	1-29-18	1-29-18	
Isopropylbenzene	ND	0.20	EPA 8260C	1-29-18	1-29-18	
Bromobenzene	ND	0.20	EPA 8260C	1-29-18	1-29-18	
1,1,2,2-Tetrachloroethane	ND	0.20	EPA 8260C	1-29-18	1-29-18	
1,2,3-Trichloropropane	ND	0.20	EPA 8260C	1-29-18	1-29-18	
n-Propylbenzene	ND	0.20	EPA 8260C	1-29-18	1-29-18	
2-Chlorotoluene	ND	0.20	EPA 8260C	1-29-18	1-29-18	
4-Chlorotoluene	ND	0.20	EPA 8260C	1-29-18	1-29-18	
1,3,5-Trimethylbenzene	ND	0.20	EPA 8260C	1-29-18	1-29-18	
tert-Butylbenzene	ND	0.20	EPA 8260C	1-29-18	1-29-18	
1,2,4-Trimethylbenzene	ND	0.20	EPA 8260C	1-29-18	1-29-18	
sec-Butylbenzene	ND	0.20	EPA 8260C	1-29-18	1-29-18	
1,3-Dichlorobenzene	ND	0.20	EPA 8260C	1-29-18	1-29-18	
p-Isopropyltoluene	ND	0.20	EPA 8260C	1-29-18	1-29-18	
1,4-Dichlorobenzene	ND	0.20	EPA 8260C	1-29-18	1-29-18	
1,2-Dichlorobenzene	ND	0.20	EPA 8260C	1-29-18	1-29-18	
n-Butylbenzene	ND	0.20	EPA 8260C	1-29-18	1-29-18	
1,2-Dibromo-3-chloropropane	ND	1.0	EPA 8260C	1-29-18	1-29-18	
1,2,4-Trichlorobenzene	ND	0.20	EPA 8260C	1-29-18	1-29-18	
Hexachlorobutadiene	ND	0.20	EPA 8260C	1-29-18	1-29-18	
Naphthalene	ND	1.0	EPA 8260C	1-29-18	1-29-18	
1,2,3-Trichlorobenzene	ND	0.20	EPA 8260C	1-29-18	1-29-18	
Surrogate:	*Percent Recovery*	*Control Limits*				
Dibromofluoromethane	*102*	*75-127*				
Toluene-d8	*107*	*80-127*				
4-Bromofluorobenzene	*96*	*78-125*				

Date of Report: February 2, 2018
Samples Submitted: January 25, 2018
Laboratory Reference: 1801-271
Project: 0146970060

VOLATILES by EPA 8260C
MS/MSD QUALITY CONTROL

Matrix: Water
Units: ug/L

Analyte	Result		Spike Level		Source Result	Percent Recovery		Recovery Limits	RPD	RPD Limit	Flags
MATRIX SPIKES											
Laboratory ID:	01-271-01										
	MS	MSD	MS	MSD		MS	MSD				
1,1-Dichloroethene	**8.70**	**9.68**	10.0	10.0	ND	87	97	58-121	11	28	
Benzene	**9.39**	**10.4**	10.0	10.0	ND	94	104	67-122	10	27	
Trichloroethene	**8.37**	**9.52**	10.0	10.0	ND	84	95	60-120	13	28	
Toluene	**9.42**	**10.5**	10.0	10.0	ND	94	105	66-131	11	28	
Chlorobenzene	**8.95**	**9.76**	10.0	10.0	ND	90	98	73-120	9	24	
Surrogate:											
Dibromofluoromethane						*94*	*97*	*75-127*			
Toluene-d8						*95*	*100*	*80-127*			
4-Bromofluorobenzene						*94*	*99*	*78-125*			

Date of Report: February 2, 2018
Samples Submitted: January 25, 2018
Laboratory Reference: 1801-271
Project: 0146970060

VOLATILES by EPA 8260C
SPIKE BLANK QUALITY CONTROL

Matrix: Water
Units: ug/L

Analyte	Result	Spike Level	Percent Recovery	Recovery Limits	Flags
SPIKE BLANK					
Laboratory ID:	SB0129W1				
1,1-Dichloroethene	**9.35**	10.0	94	63-126	
Benzene	**9.55**	10.0	96	78-122	
Trichloroethene	**9.18**	10.0	92	63-120	
Toluene	**10.0**	10.0	100	79-124	
Chlorobenzene	**9.60**	10.0	96	78-120	
Surrogate:					
Dibromofluoromethane			*97*	*75-127*	
Toluene-d8			*102*	*80-127*	
4-Bromofluorobenzene			*94*	*78-125*	

Date of Report: February 2, 2018
Samples Submitted: January 25, 2018
Laboratory Reference: 1801-271
Project: 0146970060

PAHs EPA 8270D/SIM

Matrix: Water
Units: ug/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**KMW-10-012518**					
Laboratory ID:	01-271-01					
Naphthalene	**ND**	0.11	EPA 8270D/SIM	1-30-18	1-30-18	
2-Methylnaphthalene	**ND**	0.11	EPA 8270D/SIM	1-30-18	1-30-18	
1-Methylnaphthalene	**ND**	0.11	EPA 8270D/SIM	1-30-18	1-30-18	
Acenaphthylene	**ND**	0.11	EPA 8270D/SIM	1-30-18	1-30-18	
Acenaphthene	**ND**	0.11	EPA 8270D/SIM	1-30-18	1-30-18	
Fluorene	**ND**	0.11	EPA 8270D/SIM	1-30-18	1-30-18	
Phenanthrene	**ND**	0.11	EPA 8270D/SIM	1-30-18	1-30-18	
Anthracene	**ND**	0.11	EPA 8270D/SIM	1-30-18	1-30-18	
Fluoranthene	**ND**	0.11	EPA 8270D/SIM	1-30-18	1-30-18	
Pyrene	**ND**	0.11	EPA 8270D/SIM	1-30-18	1-30-18	
Benzo[a]anthracene	**ND**	0.011	EPA 8270D/SIM	1-30-18	1-30-18	
Chrysene	**ND**	0.011	EPA 8270D/SIM	1-30-18	1-30-18	
Benzo[b]fluoranthene	**ND**	0.011	EPA 8270D/SIM	1-30-18	1-30-18	
Benzo(j,k)fluoranthene	**ND**	0.011	EPA 8270D/SIM	1-30-18	1-30-18	
Benzo[a]pyrene	**ND**	0.011	EPA 8270D/SIM	1-30-18	1-30-18	
Indeno(1,2,3-c,d)pyrene	**ND**	0.011	EPA 8270D/SIM	1-30-18	1-30-18	
Dibenz[a,h]anthracene	**ND**	0.011	EPA 8270D/SIM	1-30-18	1-30-18	
Benzo[g,h,i]perylene	**ND**	0.011	EPA 8270D/SIM	1-30-18	1-30-18	
Surrogate:	*Percent Recovery*	*Control Limits*				
2-Fluorobiphenyl	*58*	*25 - 107*				
Pyrene-d10	*71*	*28 - 103*				
Terphenyl-d14	*96*	*36 - 129*				

Date of Report: February 2, 2018
Samples Submitted: January 25, 2018
Laboratory Reference: 1801-271
Project: 0146970060

PAHs EPA 8270D/SIM

Matrix: Water
Units: ug/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**KMW-109-012518**					
Laboratory ID:	01-271-02					
Naphthalene	**0.15**	0.11	EPA 8270D/SIM	1-30-18	1-30-18	
2-Methylnaphthalene	**ND**	0.11	EPA 8270D/SIM	1-30-18	1-30-18	
1-Methylnaphthalene	**ND**	0.11	EPA 8270D/SIM	1-30-18	1-30-18	
Acenaphthylene	**ND**	0.11	EPA 8270D/SIM	1-30-18	1-30-18	
Acenaphthene	**ND**	0.11	EPA 8270D/SIM	1-30-18	1-30-18	
Fluorene	**ND**	0.11	EPA 8270D/SIM	1-30-18	1-30-18	
Phenanthrene	**ND**	0.11	EPA 8270D/SIM	1-30-18	1-30-18	
Anthracene	**0.13**	0.11	EPA 8270D/SIM	1-30-18	1-30-18	
Fluoranthene	**ND**	0.11	EPA 8270D/SIM	1-30-18	1-30-18	
Pyrene	**ND**	0.11	EPA 8270D/SIM	1-30-18	1-30-18	
Benzo[a]anthracene	**ND**	0.011	EPA 8270D/SIM	1-30-18	1-30-18	
Chrysene	**ND**	0.011	EPA 8270D/SIM	1-30-18	1-30-18	
Benzo[b]fluoranthene	**ND**	0.011	EPA 8270D/SIM	1-30-18	1-30-18	
Benzo(j,k)fluoranthene	**ND**	0.011	EPA 8270D/SIM	1-30-18	1-30-18	
Benzo[a]pyrene	**ND**	0.011	EPA 8270D/SIM	1-30-18	1-30-18	
Indeno(1,2,3-c,d)pyrene	**ND**	0.011	EPA 8270D/SIM	1-30-18	1-30-18	
Dibenz[a,h]anthracene	**ND**	0.011	EPA 8270D/SIM	1-30-18	1-30-18	
Benzo[g,h,i]perylene	**ND**	0.011	EPA 8270D/SIM	1-30-18	1-30-18	
Surrogate:	*Percent Recovery*	*Control Limits*				
2-Fluorobiphenyl	*60*	*25 - 107*				
Pyrene-d10	*75*	*28 - 103*				
Terphenyl-d14	*106*	*36 - 129*				

Date of Report: February 2, 2018
Samples Submitted: January 25, 2018
Laboratory Reference: 1801-271
Project: 0146970060

PAHs EPA 8270D/SIM

Matrix: Water
Units: ug/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**KMW-04-012518**					
Laboratory ID:	01-271-04					
Naphthalene	**3.7**	0.10	EPA 8270D/SIM	1-30-18	1-30-18	
2-Methylnaphthalene	**0.46**	0.10	EPA 8270D/SIM	1-30-18	1-30-18	
1-Methylnaphthalene	**0.36**	0.10	EPA 8270D/SIM	1-30-18	1-30-18	
Acenaphthylene	**ND**	0.10	EPA 8270D/SIM	1-30-18	1-30-18	
Acenaphthene	**ND**	0.10	EPA 8270D/SIM	1-30-18	1-30-18	
Fluorene	**ND**	0.10	EPA 8270D/SIM	1-30-18	1-30-18	
Phenanthrene	**ND**	0.10	EPA 8270D/SIM	1-30-18	1-30-18	
Anthracene	**0.30**	0.10	EPA 8270D/SIM	1-30-18	1-30-18	
Fluoranthene	**ND**	0.10	EPA 8270D/SIM	1-30-18	1-30-18	
Pyrene	**ND**	0.10	EPA 8270D/SIM	1-30-18	1-30-18	
Benzo[a]anthracene	**ND**	0.010	EPA 8270D/SIM	1-30-18	1-30-18	
Chrysene	**ND**	0.010	EPA 8270D/SIM	1-30-18	1-30-18	
Benzo[b]fluoranthene	**ND**	0.010	EPA 8270D/SIM	1-30-18	1-30-18	
Benzo(j,k)fluoranthene	**ND**	0.010	EPA 8270D/SIM	1-30-18	1-30-18	
Benzo[a]pyrene	**ND**	0.010	EPA 8270D/SIM	1-30-18	1-30-18	
Indeno(1,2,3-c,d)pyrene	**ND**	0.010	EPA 8270D/SIM	1-30-18	1-30-18	
Dibenz[a,h]anthracene	**ND**	0.010	EPA 8270D/SIM	1-30-18	1-30-18	
Benzo[g,h,i]perylene	**ND**	0.010	EPA 8270D/SIM	1-30-18	1-30-18	
Surrogate:	*Percent Recovery*	*Control Limits*				
2-Fluorobiphenyl	*54*	*25 - 107*				
Pyrene-d10	*65*	*28 - 103*				
Terphenyl-d14	*95*	*36 - 129*				

Date of Report: February 2, 2018
Samples Submitted: January 25, 2018
Laboratory Reference: 1801-271
Project: 0146970060

PAHs EPA 8270D/SIM
METHOD BLANK QUALITY CONTROL

Matrix: Water
Units: ug/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Laboratory ID:	MB0130W1					
Naphthalene	**ND**	0.10	EPA 8270D/SIM	1-30-18	1-30-18	
2-Methylnaphthalene	**ND**	0.10	EPA 8270D/SIM	1-30-18	1-30-18	
1-Methylnaphthalene	**ND**	0.10	EPA 8270D/SIM	1-30-18	1-30-18	
Acenaphthylene	**ND**	0.10	EPA 8270D/SIM	1-30-18	1-30-18	
Acenaphthene	**ND**	0.10	EPA 8270D/SIM	1-30-18	1-30-18	
Fluorene	**ND**	0.10	EPA 8270D/SIM	1-30-18	1-30-18	
Phenanthrene	**ND**	0.10	EPA 8270D/SIM	1-30-18	1-30-18	
Anthracene	**ND**	0.10	EPA 8270D/SIM	1-30-18	1-30-18	
Fluoranthene	**ND**	0.10	EPA 8270D/SIM	1-30-18	1-30-18	
Pyrene	**ND**	0.10	EPA 8270D/SIM	1-30-18	1-30-18	
Benzo[a]anthracene	**ND**	0.010	EPA 8270D/SIM	1-30-18	1-30-18	
Chrysene	**ND**	0.010	EPA 8270D/SIM	1-30-18	1-30-18	
Benzo[b]fluoranthene	**ND**	0.010	EPA 8270D/SIM	1-30-18	1-30-18	
Benzo(j,k)fluoranthene	**ND**	0.010	EPA 8270D/SIM	1-30-18	1-30-18	
Benzo[a]pyrene	**ND**	0.010	EPA 8270D/SIM	1-30-18	1-30-18	
Indeno(1,2,3-c,d)pyrene	**ND**	0.010	EPA 8270D/SIM	1-30-18	1-30-18	
Dibenz[a,h]anthracene	**ND**	0.010	EPA 8270D/SIM	1-30-18	1-30-18	
Benzo[g,h,i]perylene	**ND**	0.010	EPA 8270D/SIM	1-30-18	1-30-18	
Surrogate:	*Percent Recovery*	*Control Limits*				
2-Fluorobiphenyl	*56*	*25 - 107*				
Pyrene-d10	*75*	*28 - 103*				
Terphenyl-d14	*84*	*36 - 129*				

Date of Report: February 2, 2018
Samples Submitted: January 25, 2018
Laboratory Reference: 1801-271
Project: 0146970060

PAHs EPA 8270D/SIM
MS/MSD QUALITY CONTROL

Matrix: Water
Units: ug/L

Analyte	Result		Spike Level		Source Result	Percent Recovery		Recovery Limits	RPD	RPD Limit	Flags
MATRIX SPIKES											
Laboratory ID:	01-271-01										
	MS	MSD	MS	MSD		MS	MSD				
Naphthalene	**0.421**	**0.469**	0.588	0.569	ND	72	82	27 - 106	11	35	
Acenaphthylene	**0.518**	**0.526**	0.588	0.569	ND	88	92	20 - 117	2	34	
Acenaphthene	**0.648**	**0.582**	0.588	0.569	ND	110	102	30 - 114	11	32	
Fluorene	**0.552**	**0.529**	0.588	0.569	ND	94	93	36 - 116	4	28	
Phenanthrene	**0.494**	**0.501**	0.588	0.569	ND	84	88	31 - 122	1	26	
Anthracene	**0.589**	**0.586**	0.588	0.569	ND	100	103	33 - 144	1	26	
Fluoranthene	**0.498**	**0.505**	0.588	0.569	ND	85	89	44 - 120	1	25	
Pyrene	**0.506**	**0.517**	0.588	0.569	ND	86	91	40 - 130	2	29	
Benzo[a]anthracene	**0.571**	**0.595**	0.588	0.569	ND	97	105	47 - 131	4	27	
Chrysene	**0.556**	**0.547**	0.588	0.569	ND	95	96	48 - 120	2	29	
Benzo[b]fluoranthene	**0.560**	**0.563**	0.588	0.569	ND	95	99	42 - 128	1	29	
Benzo(j,k)fluoranthene	**0.537**	**0.555**	0.588	0.569	ND	91	98	46 - 121	3	27	
Benzo[a]pyrene	**0.556**	**0.570**	0.588	0.569	ND	95	100	34 - 121	2	29	
Indeno(1,2,3-c,d)pyrene	**0.551**	**0.573**	0.588	0.569	ND	94	101	39 - 128	4	28	
Dibenz[a,h]anthracene	**0.557**	**0.572**	0.588	0.569	ND	95	101	39 - 125	3	30	
Benzo[g,h,i]perylene	**0.522**	**0.535**	0.588	0.569	ND	89	94	41 - 122	2	29	
Surrogate:											
2-Fluorobiphenyl						*53*	*58*	*25 - 107*			
Pyrene-d10						*71*	*74*	*28 - 103*			
Terphenyl-d14						*98*	*101*	*36 - 129*			

Date of Report: February 2, 2018
Samples Submitted: January 25, 2018
Laboratory Reference: 1801-271
Project: 0146970060

PAHs EPA 8270D/SIM
SPIKE BLANK QUALITY CONTROL

Matrix: Water
Units: ug/L

Analyte	Result	Spike Level	Percent Recovery	Recovery Limits	Flags
SPIKE BLANK					
Laboratory ID:	SB0130W1				
	SB	SB	SB		
Naphthalene	**0.360**	0.500	72	27 - 106	
Acenaphthylene	**0.387**	0.500	77	20 - 117	
Acenaphthene	**0.461**	0.500	92	30 - 114	
Fluorene	**0.454**	0.500	91	36 - 116	
Phenanthrene	**0.458**	0.500	92	31 - 122	
Anthracene	**0.480**	0.500	96	33 - 144	
Fluoranthene	**0.488**	0.500	98	44 - 120	
Pyrene	**0.566**	0.500	113	40 - 130	
Benzo[a]anthracene	**0.503**	0.500	101	47 - 131	
Chrysene	**0.498**	0.500	100	48 - 120	
Benzo[b]fluoranthene	**0.491**	0.500	98	42 - 128	
Benzo(j,k)fluoranthene	**0.489**	0.500	98	46 - 121	
Benzo[a]pyrene	**0.502**	0.500	100	34 - 121	
Indeno(1,2,3-c,d)pyrene	**0.522**	0.500	104	39 - 128	
Dibenz[a,h]anthracene	**0.528**	0.500	106	39 - 125	
Benzo[g,h,i]perylene	**0.518**	0.500	104	41 - 122	
Surrogate:					
2-Fluorobiphenyl			*83*	*25 - 107*	
Pyrene-d10			*85*	*28 - 103*	
Terphenyl-d14			*103*	*36 - 129*	

Date of Report: February 2, 2018
Samples Submitted: January 25, 2018
Laboratory Reference: 1801-271
Project: 0146970060

TOTAL METALS
EPA 200.8/7470A

Matrix: Water
Units: ug/L (ppb)

Analyte	Result	PQL	EPA Method	Date Prepared	Date Analyzed	Flags
Lab ID:	01-261-01					
Client ID:	**KMW-06-012418**					
Arsenic	**ND**	3.3	200.8	1-31-18	1-31-18	
Barium	**ND**	28	200.8	1-31-18	1-31-18	
Cadmium	**ND**	4.4	200.8	1-31-18	1-31-18	
Chromium	**ND**	11	200.8	1-31-18	1-31-18	
Lead	**7.3**	1.1	200.8	1-31-18	1-31-18	
Mercury	**ND**	0.50	7470A	1-30-18	1-30-18	
Selenium	**ND**	5.6	200.8	1-31-18	1-31-18	
Silver	**ND**	11	200.8	1-31-18	1-31-18	
Lab ID:	01-261-02					
Client ID:	**KMW-09-012418**					
Arsenic	**ND**	3.3	200.8	1-31-18	1-31-18	
Barium	**ND**	28	200.8	1-31-18	1-31-18	
Cadmium	**ND**	4.4	200.8	1-31-18	1-31-18	
Chromium	**ND**	11	200.8	1-31-18	1-31-18	
Lead	**3.0**	1.1	200.8	1-31-18	1-31-18	
Mercury	**ND**	0.50	7470A	1-30-18	1-30-18	
Selenium	**ND**	5.6	200.8	1-31-18	1-31-18	
Silver	**ND**	11	200.8	1-31-18	1-31-18	

Date of Report: February 2, 2018
Samples Submitted: January 25, 2018
Laboratory Reference: 1801-271
Project: 0146970060

TOTAL METALS
EPA 200.8/7470A
METHOD BLANK QUALITY CONTROL

Date Extracted: 1-30&31-18
Date Analyzed: 1-30&31-18

Matrix: Water
Units: ug/L (ppb)

Lab ID: MB0130W1&MB0131WM1

Analyte	Method	Result	PQL
Arsenic	200.8	**ND**	3.3
Barium	200.8	**ND**	28
Cadmium	200.8	**ND**	4.4
Chromium	200.8	**ND**	11
Lead	200.8	**ND**	1.1
Mercury	7470A	**ND**	0.50
Selenium	200.8	**ND**	5.6
Silver	200.8	**ND**	11

Date of Report: February 2, 2018
Samples Submitted: January 25, 2018
Laboratory Reference: 1801-271
Project: 0146970060

TOTAL METALS
EPA 200.8/7470A
DUPLICATE QUALITY CONTROL

Date Extracted: 1-30&31-18
Date Analyzed: 1-30&31-18

Matrix: Water
Units: ug/L (ppb)

Lab ID: 01-271-01

Analyte	Sample Result	Duplicate Result	RPD	PQL	Flags
Arsenic	**6.78**	**6.33**	7	3.3	
Barium	**ND**	**ND**	NA	28	
Cadmium	**ND**	**ND**	NA	4.4	
Chromium	**ND**	**ND**	NA	11	
Lead	**1.12**	**ND**	NA	1.1	
Mercury	**ND**	**ND**	NA	0.50	
Selenium	**ND**	**ND**	NA	5.6	
Silver	**ND**	**ND**	NA	11	

Date of Report: February 2, 2018
Samples Submitted: January 25, 2018
Laboratory Reference: 1801-271
Project: 0146970060

TOTAL METALS
EPA 200.8/7470A
MS/MSD QUALITY CONTROL

Date Extracted: 1-30&31-18
Date Analyzed: 1-30&31-18

Matrix: Water
Units: ug/L (ppb)

Lab ID: 01-271-01

Analyte	Spike Level	MS	Percent Recovery	MSD	Percent Recovery	RPD	Flags
Arsenic	222	**227**	99	**233**	102	3	
Barium	222	**224**	101	**222**	100	1	
Cadmium	222	**228**	103	**231**	104	1	
Chromium	222	**211**	95	**216**	97	2	
Lead	222	**207**	93	**207**	93	0	
Mercury	12.5	**12.3**	98	**12.4**	99	1	
Selenium	222	**231**	104	**232**	104	0	
Silver	222	**196**	88	**202**	91	3	

Date of Report: February 2, 2018
Samples Submitted: January 25, 2018
Laboratory Reference: 1801-271
Project: 0146970060

TOTAL METALS
EPA 200.8/7470A
SPIKE BLANK QUALITY CONTROL

Date Extracted: 1-30&31-18
Date Analyzed: 1-30&31-18

Matrix: Water
Units: ug/L (ppb)

Lab ID: SB0130W1&SB0131WM1

Analyte	Method	Spike Level	SB Result	Percent Recovery
Arsenic	200.8	222	**228**	103
Barium	200.8	222	**212**	96
Cadmium	200.8	222	**224**	101
Chromium	200.8	222	**210**	95
Lead	200.8	222	**217**	98
Mercury	7470A	12.5	**12.6**	101
Selenium	200.8	222	**240**	108
Silver	200.8	222	**207**	93

OnSite Environmental Inc.

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

Chain of Custody

Page 1 of 1

OnSite Environmental Inc.
Analytical Laboratory Testing Services
14648 NE 95th Street • Redmond, WA 98052
Phone: (425) 883-3881 • www.onsite-env.com

Laboratory Number: 01-271

Company: Amec Foster Wheeler
Project Number: 014697
Project Name: Kelly-Moore
Project Manager: Kathleen Goodman
Sampled by: K. Black

Turnaround Request (in working days)
(Check One)
☐ Same Day ☐ 1 Day
☐ 2 Days ☐ 3 Days
☒ Standard (7 Days) (TPH analysis 5 Days)
☐ _____ (other)

Lab ID	Sample Identification	Date Sampled	Time Sampled	Matrix	Number 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)	PAHs 8270D/SIM (low-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	% Moisture
1	KMW-10-012518 **	1/25/18	0930	W	19			X	X	X				X					X	KS			
2	KMW-109-012518	1/25/18	1020	W	10			X	X	X				X					X				
3	Trip Blank	-	—	W	3		X	X		X													
4	KMW-04-012518	1/25/18	1215	W	10		↑ NO!	X	X	X				X					X				

	Signature	Company	Date	Time
Relinquished	Kori Black	Amec Foster Wheeler	1/25/18	1348
Received	Amec FW office w/ custody seal		1/25/18	1349
Relinquished	Amec FW office w/ custody seal	Amec FW (William Young)	1/25/18	1511
Received		ACPHA	1/25/18	1511
Relinquished		ALPHA	1/25/18	1602
Received		ONE	1/25/18	1602
Reviewed/Date		Reviewed/Date		

Comments/Special Instructions
** Extra volume for MS/MSD

Data Package: Standard ☐ Level III ☐ Level IV ☐
Chromatograms with final report ☐ Electronic Data Deliverables (EDDs) ☐

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

February 2, 2018

Kathleen Goodman
AMEC Foster Wheeler
Environment and Infrastructure, Inc.
One Union Square
600 University Street, Suite 600
Seattle, WA 98101

Re: Analytical Data for Project 0146970060
Laboratory Reference No. 1801-282

Dear Kathleen:

Enclosed are the analytical results and associated quality control data for samples submitted on January 26, 2018.

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: February 2, 2018
Samples Submitted: January 26, 2018
Laboratory Reference: 1801-282
Project: 0146970060

Case Narrative

Samples were collected on January 26, 2018 and received by the laboratory on January 26, 2018. 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: February 2, 2018
Samples Submitted: January 26, 2018
Laboratory Reference: 1801-282
Project: 0146970060

NWTPH-Gx

Matrix: Water
Units: ug/L (ppb)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**KMW-03R-012618**					
Laboratory ID:	01-282-01					
Gasoline	**150**	100	NWTPH-Gx	1-29-18	1-29-18	
Surrogate:	*Percent Recovery*	*Control Limits*				
Fluorobenzene	*78*	*66-114*				
Client ID:	**KMW-08-012618**					
Laboratory ID:	01-282-02					
Gasoline	**120**	100	NWTPH-Gx	1-29-18	1-29-18	
Surrogate:	*Percent Recovery*	*Control Limits*				
Fluorobenzene	*72*	*66-114*				
Client ID:	**KMW-07-012618**					
Laboratory ID:	01-282-03					
Gasoline	**ND**	100	NWTPH-Gx	1-29-18	1-29-18	
Surrogate:	*Percent Recovery*	*Control Limits*				
Fluorobenzene	*92*	*66-114*				
Client ID:	**KMW-02R-012618**					
Laboratory ID:	01-282-04					
Gasoline	**ND**	100	NWTPH-Gx	1-29-18	1-29-18	
Surrogate:	*Percent Recovery*	*Control Limits*				
Fluorobenzene	*77*	*66-114*				
Client ID:	**Trip Blanks**					
Laboratory ID:	01-282-05					
Gasoline	**ND**	100	NWTPH-Gx	1-29-18	1-29-18	
Surrogate:	*Percent Recovery*	*Control Limits*				
Fluorobenzene	*77*	*66-114*				

Date of Report: February 2, 2018
Samples Submitted: January 26, 2018
Laboratory Reference: 1801-282
Project: 0146970060

NWTPH-Gx
QUALITY CONTROL

Matrix: Water
Units: ug/L (ppb)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
METHOD BLANK						
Laboratory ID:	MB0129W2					
Gasoline	**ND**	100	NWTPH-Gx	1-29-18	1-29-18	
Surrogate:	*Percent Recovery*	*Control Limits*				
Fluorobenzene	*92*	*66-114*				

Analyte	Result		Spike Level		Source Result	Percent Recovery		Recovery Limits	RPD	RPD Limit	Flags
DUPLICATE											
Laboratory ID:	01-282-03										
	ORIG	DUP									
Gasoline	**ND**	**ND**	NA	NA		NA		NA	NA	30	
Surrogate:											
Fluorobenzene						*92*	*92*	*66-114*			

Date of Report: February 2, 2018
Samples Submitted: January 26, 2018
Laboratory Reference: 1801-282
Project: 0146970060

NWTPH-Dx

Matrix: Water
Units: mg/L (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**KMW-03R-012618**					
Laboratory ID:	01-282-01					
Diesel Range Organics	**0.51**	0.26	NWTPH-Dx	1-29-18	1-29-18	
Lube Oil Range Organics	**ND**	0.41	NWTPH-Dx	1-29-18	1-29-18	
Surrogate:	*Percent Recovery*	*Control Limits*				
o-Terphenyl	*80*	*50-150*				
Client ID:	**KMW-08-012618**					
Laboratory ID:	01-282-02					
Diesel Range Organics	**0.45**	0.25	NWTPH-Dx	1-29-18	1-29-18	
Lube Oil Range Organics	**ND**	0.41	NWTPH-Dx	1-29-18	1-29-18	
Surrogate:	*Percent Recovery*	*Control Limits*				
o-Terphenyl	*98*	*50-150*				
Client ID:	**KMW-07-012618**					
Laboratory ID:	01-282-03					
Diesel Range Organics	**ND**	0.26	NWTPH-Dx	1-29-18	1-29-18	
Lube Oil Range Organics	**ND**	0.41	NWTPH-Dx	1-29-18	1-29-18	
Surrogate:	*Percent Recovery*	*Control Limits*				
o-Terphenyl	*94*	*50-150*				
Client ID:	**KMW-02R-012618**					
Laboratory ID:	01-282-04					
Diesel Range Organics	**ND**	0.26	NWTPH-Dx	1-29-18	1-29-18	
Lube Oil Range Organics	**ND**	0.41	NWTPH-Dx	1-29-18	1-29-18	
Surrogate:	*Percent Recovery*	*Control Limits*				
o-Terphenyl	*95*	*50-150*				

Date of Report: February 2, 2018
Samples Submitted: January 26, 2018
Laboratory Reference: 1801-282
Project: 0146970060

NWTPH-Dx
QUALITY CONTROL

Matrix: Water
Units: mg/L (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
METHOD BLANK						
Laboratory ID:	MB0129W1					
Diesel Range Organics	**ND**	0.25	NWTPH-Dx	1-29-18	1-29-18	
Lube Oil Range Organics	**ND**	0.40	NWTPH-Dx	1-29-18	1-29-18	
Surrogate:	*Percent Recovery*	*Control Limits*				
o-Terphenyl	*93*	*50-150*				

Analyte	Result		Spike Level		Source Result	Percent Recovery	Recovery Limits	RPD	RPD Limit	Flags
DUPLICATE										
Laboratory ID:	01-271-01									
	ORIG	DUP								
Diesel Range Organics	**2.30**	**2.22**	NA	NA		NA	NA	4	NA	
Lube Oil Range	**ND**	**ND**	NA	NA		NA	NA	NA	NA	
Surrogate:										
o-Terphenyl						*83*	*80*	*50-150*		
SPIKE BLANK										
Laboratory ID:	SB0129W1									
Diesel Fuel #2	**0.784**		1.00		NA	**78**	58-113	NA	NA	
Surrogate:										
o-Terphenyl						*90*	*50-150*			

Date of Report: February 2, 2018
Samples Submitted: January 26, 2018
Laboratory Reference: 1801-282
Project: 0146970060

VOLATILES EPA 8260C
page 1 of 2

Matrix: Water
Units: ug/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**KMW-03R-012618**					
Laboratory ID:	01-282-01					
Dichlorodifluoromethane	ND	0.20	EPA 8260C	1-29-18	1-29-18	
Chloromethane	ND	1.0	EPA 8260C	1-29-18	1-29-18	
Vinyl Chloride	ND	0.20	EPA 8260C	1-29-18	1-29-18	
Bromomethane	ND	0.20	EPA 8260C	1-29-18	1-29-18	
Chloroethane	ND	1.0	EPA 8260C	1-29-18	1-29-18	
Trichlorofluoromethane	ND	0.20	EPA 8260C	1-29-18	1-29-18	
1,1-Dichloroethene	ND	0.20	EPA 8260C	1-29-18	1-29-18	
Acetone	ND	5.0	EPA 8260C	1-29-18	1-29-18	
Iodomethane	ND	1.0	EPA 8260C	1-29-18	1-29-18	
Carbon Disulfide	ND	0.20	EPA 8260C	1-29-18	1-29-18	
Methylene Chloride	ND	1.0	EPA 8260C	1-29-18	1-29-18	
(trans) 1,2-Dichloroethene	ND	0.20	EPA 8260C	1-29-18	1-29-18	
Methyl t-Butyl Ether	ND	0.20	EPA 8260C	1-29-18	1-29-18	
1,1-Dichloroethane	ND	0.20	EPA 8260C	1-29-18	1-29-18	
Vinyl Acetate	ND	1.0	EPA 8260C	1-29-18	1-29-18	
2,2-Dichloropropane	ND	0.20	EPA 8260C	1-29-18	1-29-18	
(cis) 1,2-Dichloroethene	ND	0.20	EPA 8260C	1-29-18	1-29-18	
2-Butanone	ND	5.0	EPA 8260C	1-29-18	1-29-18	
Bromochloromethane	ND	0.20	EPA 8260C	1-29-18	1-29-18	
Chloroform	ND	0.20	EPA 8260C	1-29-18	1-29-18	
1,1,1-Trichloroethane	ND	0.20	EPA 8260C	1-29-18	1-29-18	
Carbon Tetrachloride	ND	0.20	EPA 8260C	1-29-18	1-29-18	
1,1-Dichloropropene	ND	0.20	EPA 8260C	1-29-18	1-29-18	
Benzene	ND	0.20	EPA 8260C	1-29-18	1-29-18	
1,2-Dichloroethane	ND	0.20	EPA 8260C	1-29-18	1-29-18	
Trichloroethene	ND	0.20	EPA 8260C	1-29-18	1-29-18	
1,2-Dichloropropane	ND	0.20	EPA 8260C	1-29-18	1-29-18	
Dibromomethane	ND	0.20	EPA 8260C	1-29-18	1-29-18	
Bromodichloromethane	ND	0.20	EPA 8260C	1-29-18	1-29-18	
2-Chloroethyl Vinyl Ether	ND	1.0	EPA 8260C	1-29-18	1-29-18	
(cis) 1,3-Dichloropropene	ND	0.20	EPA 8260C	1-29-18	1-29-18	
Methyl Isobutyl Ketone	ND	2.0	EPA 8260C	1-29-18	1-29-18	
Toluene	ND	1.0	EPA 8260C	1-29-18	1-29-18	
(trans) 1,3-Dichloropropene	ND	0.20	EPA 8260C	1-29-18	1-29-18	

Date of Report: February 2, 2018
Samples Submitted: January 26, 2018
Laboratory Reference: 1801-282
Project: 0146970060

VOLATILES EPA 8260C
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Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**KMW-03R-012618**					
Laboratory ID:	01-282-01					
1,1,2-Trichloroethane	ND	0.20	EPA 8260C	1-29-18	1-29-18	
Tetrachloroethene	ND	0.20	EPA 8260C	1-29-18	1-29-18	
1,3-Dichloropropane	ND	0.20	EPA 8260C	1-29-18	1-29-18	
2-Hexanone	ND	2.0	EPA 8260C	1-29-18	1-29-18	
Dibromochloromethane	ND	0.20	EPA 8260C	1-29-18	1-29-18	
1,2-Dibromoethane	ND	0.20	EPA 8260C	1-29-18	1-29-18	
Chlorobenzene	ND	0.20	EPA 8260C	1-29-18	1-29-18	
1,1,1,2-Tetrachloroethane	ND	0.20	EPA 8260C	1-29-18	1-29-18	
Ethylbenzene	ND	0.20	EPA 8260C	1-29-18	1-29-18	
m,p-Xylene	ND	0.40	EPA 8260C	1-29-18	1-29-18	
o-Xylene	ND	0.20	EPA 8260C	1-29-18	1-29-18	
Styrene	ND	0.20	EPA 8260C	1-29-18	1-29-18	
Bromoform	ND	1.0	EPA 8260C	1-29-18	1-29-18	
Isopropylbenzene	7.2	0.20	EPA 8260C	1-29-18	1-29-18	
Bromobenzene	ND	0.20	EPA 8260C	1-29-18	1-29-18	
1,1,2,2-Tetrachloroethane	ND	0.20	EPA 8260C	1-29-18	1-29-18	
1,2,3-Trichloropropane	ND	0.20	EPA 8260C	1-29-18	1-29-18	
n-Propylbenzene	12	0.20	EPA 8260C	1-29-18	1-29-18	
2-Chlorotoluene	ND	0.20	EPA 8260C	1-29-18	1-29-18	
4-Chlorotoluene	ND	0.20	EPA 8260C	1-29-18	1-29-18	
1,3,5-Trimethylbenzene	ND	0.20	EPA 8260C	1-29-18	1-29-18	
tert-Butylbenzene	0.22	0.20	EPA 8260C	1-29-18	1-29-18	
1,2,4-Trimethylbenzene	ND	0.20	EPA 8260C	1-29-18	1-29-18	
sec-Butylbenzene	1.7	0.20	EPA 8260C	1-29-18	1-29-18	
1,3-Dichlorobenzene	ND	0.20	EPA 8260C	1-29-18	1-29-18	
p-Isopropyltoluene	ND	0.20	EPA 8260C	1-29-18	1-29-18	
1,4-Dichlorobenzene	ND	0.20	EPA 8260C	1-29-18	1-29-18	
1,2-Dichlorobenzene	ND	0.20	EPA 8260C	1-29-18	1-29-18	
n-Butylbenzene	0.50	0.20	EPA 8260C	1-29-18	1-29-18	
1,2-Dibromo-3-chloropropane	ND	1.0	EPA 8260C	1-29-18	1-29-18	
1,2,4-Trichlorobenzene	ND	0.20	EPA 8260C	1-29-18	1-29-18	
Hexachlorobutadiene	ND	0.20	EPA 8260C	1-29-18	1-29-18	
Naphthalene	ND	1.0	EPA 8260C	1-29-18	1-29-18	
1,2,3-Trichlorobenzene	ND	0.20	EPA 8260C	1-29-18	1-29-18	
Surrogate:	*Percent Recovery*	*Control Limits*				
Dibromofluoromethane	*100*	*75-127*				
Toluene-d8	*100*	*80-127*				
4-Bromofluorobenzene	*100*	*78-125*				

Date of Report: February 2, 2018
Samples Submitted: January 26, 2018
Laboratory Reference: 1801-282
Project: 0146970060

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Matrix: Water
Units: ug/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**KMW-08-012618**					
Laboratory ID:	01-282-02					
Dichlorodifluoromethane	ND	0.20	EPA 8260C	1-29-18	1-29-18	
Chloromethane	ND	1.0	EPA 8260C	1-29-18	1-29-18	
Vinyl Chloride	ND	0.20	EPA 8260C	1-29-18	1-29-18	
Bromomethane	ND	0.20	EPA 8260C	1-29-18	1-29-18	
Chloroethane	ND	1.0	EPA 8260C	1-29-18	1-29-18	
Trichlorofluoromethane	ND	0.20	EPA 8260C	1-29-18	1-29-18	
1,1-Dichloroethene	ND	0.20	EPA 8260C	1-29-18	1-29-18	
Acetone	ND	5.0	EPA 8260C	1-29-18	1-29-18	
Iodomethane	ND	1.0	EPA 8260C	1-29-18	1-29-18	
Carbon Disulfide	ND	0.20	EPA 8260C	1-29-18	1-29-18	
Methylene Chloride	ND	1.0	EPA 8260C	1-29-18	1-29-18	
(trans) 1,2-Dichloroethene	ND	0.20	EPA 8260C	1-29-18	1-29-18	
Methyl t-Butyl Ether	ND	0.20	EPA 8260C	1-29-18	1-29-18	
1,1-Dichloroethane	ND	0.20	EPA 8260C	1-29-18	1-29-18	
Vinyl Acetate	ND	1.0	EPA 8260C	1-29-18	1-29-18	
2,2-Dichloropropane	ND	0.20	EPA 8260C	1-29-18	1-29-18	
(cis) 1,2-Dichloroethene	ND	0.20	EPA 8260C	1-29-18	1-29-18	
2-Butanone	ND	5.0	EPA 8260C	1-29-18	1-29-18	
Bromochloromethane	ND	0.20	EPA 8260C	1-29-18	1-29-18	
Chloroform	ND	0.20	EPA 8260C	1-29-18	1-29-18	
1,1,1-Trichloroethane	ND	0.20	EPA 8260C	1-29-18	1-29-18	
Carbon Tetrachloride	ND	0.20	EPA 8260C	1-29-18	1-29-18	
1,1-Dichloropropene	ND	0.20	EPA 8260C	1-29-18	1-29-18	
Benzene	ND	0.20	EPA 8260C	1-29-18	1-29-18	
1,2-Dichloroethane	ND	0.20	EPA 8260C	1-29-18	1-29-18	
Trichloroethene	ND	0.20	EPA 8260C	1-29-18	1-29-18	
1,2-Dichloropropane	ND	0.20	EPA 8260C	1-29-18	1-29-18	
Dibromomethane	ND	0.20	EPA 8260C	1-29-18	1-29-18	
Bromodichloromethane	ND	0.20	EPA 8260C	1-29-18	1-29-18	
2-Chloroethyl Vinyl Ether	ND	1.0	EPA 8260C	1-29-18	1-29-18	
(cis) 1,3-Dichloropropene	ND	0.20	EPA 8260C	1-29-18	1-29-18	
Methyl Isobutyl Ketone	ND	2.0	EPA 8260C	1-29-18	1-29-18	
Toluene	ND	1.0	EPA 8260C	1-29-18	1-29-18	
(trans) 1,3-Dichloropropene	ND	0.20	EPA 8260C	1-29-18	1-29-18	

Date of Report: February 2, 2018
Samples Submitted: January 26, 2018
Laboratory Reference: 1801-282
Project: 0146970060

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Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**KMW-08-012618**					
Laboratory ID:	01-282-02					
1,1,2-Trichloroethane	ND	0.20	EPA 8260C	1-29-18	1-29-18	
Tetrachloroethene	ND	0.20	EPA 8260C	1-29-18	1-29-18	
1,3-Dichloropropane	ND	0.20	EPA 8260C	1-29-18	1-29-18	
2-Hexanone	ND	2.0	EPA 8260C	1-29-18	1-29-18	
Dibromochloromethane	ND	0.20	EPA 8260C	1-29-18	1-29-18	
1,2-Dibromoethane	ND	0.20	EPA 8260C	1-29-18	1-29-18	
Chlorobenzene	ND	0.20	EPA 8260C	1-29-18	1-29-18	
1,1,1,2-Tetrachloroethane	ND	0.20	EPA 8260C	1-29-18	1-29-18	
Ethylbenzene	ND	0.20	EPA 8260C	1-29-18	1-29-18	
m,p-Xylene	ND	0.40	EPA 8260C	1-29-18	1-29-18	
o-Xylene	ND	0.20	EPA 8260C	1-29-18	1-29-18	
Styrene	ND	0.20	EPA 8260C	1-29-18	1-29-18	
Bromoform	ND	1.0	EPA 8260C	1-29-18	1-29-18	
Isopropylbenzene	0.95	0.20	EPA 8260C	1-29-18	1-29-18	
Bromobenzene	ND	0.20	EPA 8260C	1-29-18	1-29-18	
1,1,2,2-Tetrachloroethane	ND	0.20	EPA 8260C	1-29-18	1-29-18	
1,2,3-Trichloropropane	ND	0.20	EPA 8260C	1-29-18	1-29-18	
n-Propylbenzene	0.85	0.20	EPA 8260C	1-29-18	1-29-18	
2-Chlorotoluene	ND	0.20	EPA 8260C	1-29-18	1-29-18	
4-Chlorotoluene	ND	0.20	EPA 8260C	1-29-18	1-29-18	
1,3,5-Trimethylbenzene	ND	0.20	EPA 8260C	1-29-18	1-29-18	
tert-Butylbenzene	0.29	0.20	EPA 8260C	1-29-18	1-29-18	
1,2,4-Trimethylbenzene	ND	0.20	EPA 8260C	1-29-18	1-29-18	
sec-Butylbenzene	2.3	0.20	EPA 8260C	1-29-18	1-29-18	
1,3-Dichlorobenzene	ND	0.20	EPA 8260C	1-29-18	1-29-18	
p-Isopropyltoluene	ND	0.20	EPA 8260C	1-29-18	1-29-18	
1,4-Dichlorobenzene	ND	0.20	EPA 8260C	1-29-18	1-29-18	
1,2-Dichlorobenzene	ND	0.20	EPA 8260C	1-29-18	1-29-18	
n-Butylbenzene	0.39	0.20	EPA 8260C	1-29-18	1-29-18	
1,2-Dibromo-3-chloropropane	ND	1.0	EPA 8260C	1-29-18	1-29-18	
1,2,4-Trichlorobenzene	ND	0.20	EPA 8260C	1-29-18	1-29-18	
Hexachlorobutadiene	ND	0.20	EPA 8260C	1-29-18	1-29-18	
Naphthalene	ND	1.0	EPA 8260C	1-29-18	1-29-18	
1,2,3-Trichlorobenzene	ND	0.20	EPA 8260C	1-29-18	1-29-18	
Surrogate:	*Percent Recovery*	*Control Limits*				
Dibromofluoromethane	*100*	*75-127*				
Toluene-d8	*101*	*80-127*				
4-Bromofluorobenzene	*101*	*78-125*				

Date of Report: February 2, 2018
Samples Submitted: January 26, 2018
Laboratory Reference: 1801-282
Project: 0146970060

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Matrix: Water
Units: ug/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**KMW-07-012618**					
Laboratory ID:	01-282-03					
Dichlorodifluoromethane	ND	0.20	EPA 8260C	1-29-18	1-29-18	
Chloromethane	ND	1.0	EPA 8260C	1-29-18	1-29-18	
Vinyl Chloride	ND	0.20	EPA 8260C	1-29-18	1-29-18	
Bromomethane	ND	0.20	EPA 8260C	1-29-18	1-29-18	
Chloroethane	ND	1.0	EPA 8260C	1-29-18	1-29-18	
Trichlorofluoromethane	ND	0.20	EPA 8260C	1-29-18	1-29-18	
1,1-Dichloroethene	ND	0.20	EPA 8260C	1-29-18	1-29-18	
Acetone	ND	5.0	EPA 8260C	1-29-18	1-29-18	
Iodomethane	ND	1.0	EPA 8260C	1-29-18	1-29-18	
Carbon Disulfide	ND	0.20	EPA 8260C	1-29-18	1-29-18	
Methylene Chloride	ND	1.0	EPA 8260C	1-29-18	1-29-18	
(trans) 1,2-Dichloroethene	ND	0.20	EPA 8260C	1-29-18	1-29-18	
Methyl t-Butyl Ether	ND	0.20	EPA 8260C	1-29-18	1-29-18	
1,1-Dichloroethane	ND	0.20	EPA 8260C	1-29-18	1-29-18	
Vinyl Acetate	ND	1.0	EPA 8260C	1-29-18	1-29-18	
2,2-Dichloropropane	ND	0.20	EPA 8260C	1-29-18	1-29-18	
(cis) 1,2-Dichloroethene	ND	0.20	EPA 8260C	1-29-18	1-29-18	
2-Butanone	ND	5.0	EPA 8260C	1-29-18	1-29-18	
Bromochloromethane	ND	0.20	EPA 8260C	1-29-18	1-29-18	
Chloroform	ND	0.20	EPA 8260C	1-29-18	1-29-18	
1,1,1-Trichloroethane	ND	0.20	EPA 8260C	1-29-18	1-29-18	
Carbon Tetrachloride	ND	0.20	EPA 8260C	1-29-18	1-29-18	
1,1-Dichloropropene	ND	0.20	EPA 8260C	1-29-18	1-29-18	
Benzene	ND	0.20	EPA 8260C	1-29-18	1-29-18	
1,2-Dichloroethane	ND	0.20	EPA 8260C	1-29-18	1-29-18	
Trichloroethene	ND	0.20	EPA 8260C	1-29-18	1-29-18	
1,2-Dichloropropane	ND	0.20	EPA 8260C	1-29-18	1-29-18	
Dibromomethane	ND	0.20	EPA 8260C	1-29-18	1-29-18	
Bromodichloromethane	ND	0.20	EPA 8260C	1-29-18	1-29-18	
2-Chloroethyl Vinyl Ether	ND	1.0	EPA 8260C	1-29-18	1-29-18	
(cis) 1,3-Dichloropropene	ND	0.20	EPA 8260C	1-29-18	1-29-18	
Methyl Isobutyl Ketone	ND	2.0	EPA 8260C	1-29-18	1-29-18	
Toluene	ND	1.0	EPA 8260C	1-29-18	1-29-18	
(trans) 1,3-Dichloropropene	ND	0.20	EPA 8260C	1-29-18	1-29-18	

Date of Report: February 2, 2018
Samples Submitted: January 26, 2018
Laboratory Reference: 1801-282
Project: 0146970060

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Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**KMW-07-012618**					
Laboratory ID:	01-282-03					
1,1,2-Trichloroethane	ND	0.20	EPA 8260C	1-29-18	1-29-18	
Tetrachloroethene	ND	0.20	EPA 8260C	1-29-18	1-29-18	
1,3-Dichloropropane	ND	0.20	EPA 8260C	1-29-18	1-29-18	
2-Hexanone	ND	2.0	EPA 8260C	1-29-18	1-29-18	
Dibromochloromethane	ND	0.20	EPA 8260C	1-29-18	1-29-18	
1,2-Dibromoethane	ND	0.20	EPA 8260C	1-29-18	1-29-18	
Chlorobenzene	ND	0.20	EPA 8260C	1-29-18	1-29-18	
1,1,1,2-Tetrachloroethane	ND	0.20	EPA 8260C	1-29-18	1-29-18	
Ethylbenzene	ND	0.20	EPA 8260C	1-29-18	1-29-18	
m,p-Xylene	ND	0.40	EPA 8260C	1-29-18	1-29-18	
o-Xylene	ND	0.20	EPA 8260C	1-29-18	1-29-18	
Styrene	ND	0.20	EPA 8260C	1-29-18	1-29-18	
Bromoform	ND	1.0	EPA 8260C	1-29-18	1-29-18	
Isopropylbenzene	ND	0.20	EPA 8260C	1-29-18	1-29-18	
Bromobenzene	ND	0.20	EPA 8260C	1-29-18	1-29-18	
1,1,2,2-Tetrachloroethane	ND	0.20	EPA 8260C	1-29-18	1-29-18	
1,2,3-Trichloropropane	ND	0.20	EPA 8260C	1-29-18	1-29-18	
n-Propylbenzene	ND	0.20	EPA 8260C	1-29-18	1-29-18	
2-Chlorotoluene	ND	0.20	EPA 8260C	1-29-18	1-29-18	
4-Chlorotoluene	ND	0.20	EPA 8260C	1-29-18	1-29-18	
1,3,5-Trimethylbenzene	ND	0.20	EPA 8260C	1-29-18	1-29-18	
tert-Butylbenzene	ND	0.20	EPA 8260C	1-29-18	1-29-18	
1,2,4-Trimethylbenzene	ND	0.20	EPA 8260C	1-29-18	1-29-18	
sec-Butylbenzene	ND	0.20	EPA 8260C	1-29-18	1-29-18	
1,3-Dichlorobenzene	ND	0.20	EPA 8260C	1-29-18	1-29-18	
p-Isopropyltoluene	ND	0.20	EPA 8260C	1-29-18	1-29-18	
1,4-Dichlorobenzene	ND	0.20	EPA 8260C	1-29-18	1-29-18	
1,2-Dichlorobenzene	ND	0.20	EPA 8260C	1-29-18	1-29-18	
n-Butylbenzene	ND	0.20	EPA 8260C	1-29-18	1-29-18	
1,2-Dibromo-3-chloropropane	ND	1.0	EPA 8260C	1-29-18	1-29-18	
1,2,4-Trichlorobenzene	ND	0.20	EPA 8260C	1-29-18	1-29-18	
Hexachlorobutadiene	ND	0.20	EPA 8260C	1-29-18	1-29-18	
Naphthalene	ND	1.0	EPA 8260C	1-29-18	1-29-18	
1,2,3-Trichlorobenzene	ND	0.20	EPA 8260C	1-29-18	1-29-18	
Surrogate:	*Percent Recovery*	*Control Limits*				
Dibromofluoromethane	*101*	*75-127*				
Toluene-d8	*103*	*80-127*				
4-Bromofluorobenzene	*98*	*78-125*				

Date of Report: February 2, 2018
Samples Submitted: January 26, 2018
Laboratory Reference: 1801-282
Project: 0146970060

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Matrix: Water
Units: ug/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**KMW-02R-012618**					
Laboratory ID:	01-282-04					
Dichlorodifluoromethane	ND	0.20	EPA 8260C	1-29-18	1-29-18	
Chloromethane	ND	1.0	EPA 8260C	1-29-18	1-29-18	
Vinyl Chloride	ND	0.20	EPA 8260C	1-29-18	1-29-18	
Bromomethane	ND	0.20	EPA 8260C	1-29-18	1-29-18	
Chloroethane	ND	1.0	EPA 8260C	1-29-18	1-29-18	
Trichlorofluoromethane	ND	0.20	EPA 8260C	1-29-18	1-29-18	
1,1-Dichloroethene	ND	0.20	EPA 8260C	1-29-18	1-29-18	
Acetone	ND	5.0	EPA 8260C	1-29-18	1-29-18	
Iodomethane	ND	1.0	EPA 8260C	1-29-18	1-29-18	
Carbon Disulfide	ND	0.20	EPA 8260C	1-29-18	1-29-18	
Methylene Chloride	ND	1.0	EPA 8260C	1-29-18	1-29-18	
(trans) 1,2-Dichloroethene	ND	0.20	EPA 8260C	1-29-18	1-29-18	
Methyl t-Butyl Ether	ND	0.20	EPA 8260C	1-29-18	1-29-18	
1,1-Dichloroethane	ND	0.20	EPA 8260C	1-29-18	1-29-18	
Vinyl Acetate	ND	1.0	EPA 8260C	1-29-18	1-29-18	
2,2-Dichloropropane	ND	0.20	EPA 8260C	1-29-18	1-29-18	
(cis) 1,2-Dichloroethene	ND	0.20	EPA 8260C	1-29-18	1-29-18	
2-Butanone	ND	5.0	EPA 8260C	1-29-18	1-29-18	
Bromochloromethane	ND	0.20	EPA 8260C	1-29-18	1-29-18	
Chloroform	ND	0.20	EPA 8260C	1-29-18	1-29-18	
1,1,1-Trichloroethane	ND	0.20	EPA 8260C	1-29-18	1-29-18	
Carbon Tetrachloride	ND	0.20	EPA 8260C	1-29-18	1-29-18	
1,1-Dichloropropene	ND	0.20	EPA 8260C	1-29-18	1-29-18	
Benzene	ND	0.20	EPA 8260C	1-29-18	1-29-18	
1,2-Dichloroethane	ND	0.20	EPA 8260C	1-29-18	1-29-18	
Trichloroethene	ND	0.20	EPA 8260C	1-29-18	1-29-18	
1,2-Dichloropropane	ND	0.20	EPA 8260C	1-29-18	1-29-18	
Dibromomethane	ND	0.20	EPA 8260C	1-29-18	1-29-18	
Bromodichloromethane	ND	0.20	EPA 8260C	1-29-18	1-29-18	
2-Chloroethyl Vinyl Ether	ND	1.0	EPA 8260C	1-29-18	1-29-18	
(cis) 1,3-Dichloropropene	ND	0.20	EPA 8260C	1-29-18	1-29-18	
Methyl Isobutyl Ketone	ND	2.0	EPA 8260C	1-29-18	1-29-18	
Toluene	ND	1.0	EPA 8260C	1-29-18	1-29-18	
(trans) 1,3-Dichloropropene	ND	0.20	EPA 8260C	1-29-18	1-29-18	

Date of Report: February 2, 2018
Samples Submitted: January 26, 2018
Laboratory Reference: 1801-282
Project: 0146970060

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Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**KMW-02R-012618**					
Laboratory ID:	01-282-04					
1,1,2-Trichloroethane	ND	0.20	EPA 8260C	1-29-18	1-29-18	
Tetrachloroethene	ND	0.20	EPA 8260C	1-29-18	1-29-18	
1,3-Dichloropropane	ND	0.20	EPA 8260C	1-29-18	1-29-18	
2-Hexanone	ND	2.0	EPA 8260C	1-29-18	1-29-18	
Dibromochloromethane	ND	0.20	EPA 8260C	1-29-18	1-29-18	
1,2-Dibromoethane	ND	0.20	EPA 8260C	1-29-18	1-29-18	
Chlorobenzene	ND	0.20	EPA 8260C	1-29-18	1-29-18	
1,1,1,2-Tetrachloroethane	ND	0.20	EPA 8260C	1-29-18	1-29-18	
Ethylbenzene	ND	0.20	EPA 8260C	1-29-18	1-29-18	
m,p-Xylene	ND	0.40	EPA 8260C	1-29-18	1-29-18	
o-Xylene	ND	0.20	EPA 8260C	1-29-18	1-29-18	
Styrene	ND	0.20	EPA 8260C	1-29-18	1-29-18	
Bromoform	ND	1.0	EPA 8260C	1-29-18	1-29-18	
Isopropylbenzene	ND	0.20	EPA 8260C	1-29-18	1-29-18	
Bromobenzene	ND	0.20	EPA 8260C	1-29-18	1-29-18	
1,1,2,2-Tetrachloroethane	ND	0.20	EPA 8260C	1-29-18	1-29-18	
1,2,3-Trichloropropane	ND	0.20	EPA 8260C	1-29-18	1-29-18	
n-Propylbenzene	ND	0.20	EPA 8260C	1-29-18	1-29-18	
2-Chlorotoluene	ND	0.20	EPA 8260C	1-29-18	1-29-18	
4-Chlorotoluene	ND	0.20	EPA 8260C	1-29-18	1-29-18	
1,3,5-Trimethylbenzene	ND	0.20	EPA 8260C	1-29-18	1-29-18	
tert-Butylbenzene	ND	0.20	EPA 8260C	1-29-18	1-29-18	
1,2,4-Trimethylbenzene	ND	0.20	EPA 8260C	1-29-18	1-29-18	
sec-Butylbenzene	ND	0.20	EPA 8260C	1-29-18	1-29-18	
1,3-Dichlorobenzene	ND	0.20	EPA 8260C	1-29-18	1-29-18	
p-Isopropyltoluene	ND	0.20	EPA 8260C	1-29-18	1-29-18	
1,4-Dichlorobenzene	ND	0.20	EPA 8260C	1-29-18	1-29-18	
1,2-Dichlorobenzene	ND	0.20	EPA 8260C	1-29-18	1-29-18	
n-Butylbenzene	ND	0.20	EPA 8260C	1-29-18	1-29-18	
1,2-Dibromo-3-chloropropane	ND	1.0	EPA 8260C	1-29-18	1-29-18	
1,2,4-Trichlorobenzene	ND	0.20	EPA 8260C	1-29-18	1-29-18	
Hexachlorobutadiene	ND	0.20	EPA 8260C	1-29-18	1-29-18	
Naphthalene	ND	1.0	EPA 8260C	1-29-18	1-29-18	
1,2,3-Trichlorobenzene	ND	0.20	EPA 8260C	1-29-18	1-29-18	
Surrogate:	*Percent Recovery*	*Control Limits*				
Dibromofluoromethane	*102*	*75-127*				
Toluene-d8	*103*	*80-127*				
4-Bromofluorobenzene	*100*	*78-125*				

Date of Report: February 2, 2018
Samples Submitted: January 26, 2018
Laboratory Reference: 1801-282
Project: 0146970060

VOLATILES EPA 8260C
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Matrix: Water
Units: ug/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**Trip Blanks**					
Laboratory ID:	01-282-05					
Dichlorodifluoromethane	ND	0.20	EPA 8260C	1-29-18	1-29-18	
Chloromethane	ND	1.0	EPA 8260C	1-29-18	1-29-18	
Vinyl Chloride	ND	0.20	EPA 8260C	1-29-18	1-29-18	
Bromomethane	ND	0.20	EPA 8260C	1-29-18	1-29-18	
Chloroethane	ND	1.0	EPA 8260C	1-29-18	1-29-18	
Trichlorofluoromethane	ND	0.20	EPA 8260C	1-29-18	1-29-18	
1,1-Dichloroethene	ND	0.20	EPA 8260C	1-29-18	1-29-18	
Acetone	ND	5.0	EPA 8260C	1-29-18	1-29-18	
Iodomethane	ND	1.0	EPA 8260C	1-29-18	1-29-18	
Carbon Disulfide	ND	0.20	EPA 8260C	1-29-18	1-29-18	
Methylene Chloride	ND	1.0	EPA 8260C	1-29-18	1-29-18	
(trans) 1,2-Dichloroethene	ND	0.20	EPA 8260C	1-29-18	1-29-18	
Methyl t-Butyl Ether	ND	0.20	EPA 8260C	1-29-18	1-29-18	
1,1-Dichloroethane	ND	0.20	EPA 8260C	1-29-18	1-29-18	
Vinyl Acetate	ND	1.0	EPA 8260C	1-29-18	1-29-18	
2,2-Dichloropropane	ND	0.20	EPA 8260C	1-29-18	1-29-18	
(cis) 1,2-Dichloroethene	ND	0.20	EPA 8260C	1-29-18	1-29-18	
2-Butanone	ND	5.0	EPA 8260C	1-29-18	1-29-18	
Bromochloromethane	ND	0.20	EPA 8260C	1-29-18	1-29-18	
Chloroform	ND	0.20	EPA 8260C	1-29-18	1-29-18	
1,1,1-Trichloroethane	ND	0.20	EPA 8260C	1-29-18	1-29-18	
Carbon Tetrachloride	ND	0.20	EPA 8260C	1-29-18	1-29-18	
1,1-Dichloropropene	ND	0.20	EPA 8260C	1-29-18	1-29-18	
Benzene	ND	0.20	EPA 8260C	1-29-18	1-29-18	
1,2-Dichloroethane	ND	0.20	EPA 8260C	1-29-18	1-29-18	
Trichloroethene	ND	0.20	EPA 8260C	1-29-18	1-29-18	
1,2-Dichloropropane	ND	0.20	EPA 8260C	1-29-18	1-29-18	
Dibromomethane	ND	0.20	EPA 8260C	1-29-18	1-29-18	
Bromodichloromethane	ND	0.20	EPA 8260C	1-29-18	1-29-18	
2-Chloroethyl Vinyl Ether	ND	1.0	EPA 8260C	1-29-18	1-29-18	
(cis) 1,3-Dichloropropene	ND	0.20	EPA 8260C	1-29-18	1-29-18	
Methyl Isobutyl Ketone	ND	2.0	EPA 8260C	1-29-18	1-29-18	
Toluene	ND	1.0	EPA 8260C	1-29-18	1-29-18	
(trans) 1,3-Dichloropropene	ND	0.20	EPA 8260C	1-29-18	1-29-18	

Date of Report: February 2, 2018
Samples Submitted: January 26, 2018
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Project: 0146970060

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Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**Trip Blanks**					
Laboratory ID:	01-282-05					
1,1,2-Trichloroethane	ND	0.20	EPA 8260C	1-29-18	1-29-18	
Tetrachloroethene	ND	0.20	EPA 8260C	1-29-18	1-29-18	
1,3-Dichloropropane	ND	0.20	EPA 8260C	1-29-18	1-29-18	
2-Hexanone	ND	2.0	EPA 8260C	1-29-18	1-29-18	
Dibromochloromethane	ND	0.20	EPA 8260C	1-29-18	1-29-18	
1,2-Dibromoethane	ND	0.20	EPA 8260C	1-29-18	1-29-18	
Chlorobenzene	ND	0.20	EPA 8260C	1-29-18	1-29-18	
1,1,1,2-Tetrachloroethane	ND	0.20	EPA 8260C	1-29-18	1-29-18	
Ethylbenzene	ND	0.20	EPA 8260C	1-29-18	1-29-18	
m,p-Xylene	ND	0.40	EPA 8260C	1-29-18	1-29-18	
o-Xylene	ND	0.20	EPA 8260C	1-29-18	1-29-18	
Styrene	ND	0.20	EPA 8260C	1-29-18	1-29-18	
Bromoform	ND	1.0	EPA 8260C	1-29-18	1-29-18	
Isopropylbenzene	ND	0.20	EPA 8260C	1-29-18	1-29-18	
Bromobenzene	ND	0.20	EPA 8260C	1-29-18	1-29-18	
1,1,2,2-Tetrachloroethane	ND	0.20	EPA 8260C	1-29-18	1-29-18	
1,2,3-Trichloropropane	ND	0.20	EPA 8260C	1-29-18	1-29-18	
n-Propylbenzene	ND	0.20	EPA 8260C	1-29-18	1-29-18	
2-Chlorotoluene	ND	0.20	EPA 8260C	1-29-18	1-29-18	
4-Chlorotoluene	ND	0.20	EPA 8260C	1-29-18	1-29-18	
1,3,5-Trimethylbenzene	ND	0.20	EPA 8260C	1-29-18	1-29-18	
tert-Butylbenzene	ND	0.20	EPA 8260C	1-29-18	1-29-18	
1,2,4-Trimethylbenzene	ND	0.20	EPA 8260C	1-29-18	1-29-18	
sec-Butylbenzene	ND	0.20	EPA 8260C	1-29-18	1-29-18	
1,3-Dichlorobenzene	ND	0.20	EPA 8260C	1-29-18	1-29-18	
p-Isopropyltoluene	ND	0.20	EPA 8260C	1-29-18	1-29-18	
1,4-Dichlorobenzene	ND	0.20	EPA 8260C	1-29-18	1-29-18	
1,2-Dichlorobenzene	ND	0.20	EPA 8260C	1-29-18	1-29-18	
n-Butylbenzene	ND	0.20	EPA 8260C	1-29-18	1-29-18	
1,2-Dibromo-3-chloropropane	ND	1.0	EPA 8260C	1-29-18	1-29-18	
1,2,4-Trichlorobenzene	ND	0.20	EPA 8260C	1-29-18	1-29-18	
Hexachlorobutadiene	ND	0.20	EPA 8260C	1-29-18	1-29-18	
Naphthalene	ND	1.0	EPA 8260C	1-29-18	1-29-18	
1,2,3-Trichlorobenzene	ND	0.20	EPA 8260C	1-29-18	1-29-18	
Surrogate:	*Percent Recovery*	*Control Limits*				
Dibromofluoromethane	*100*	*75-127*				
Toluene-d8	*104*	*80-127*				
4-Bromofluorobenzene	*95*	*78-125*				

Date of Report: February 2, 2018
Samples Submitted: January 26, 2018
Laboratory Reference: 1801-282
Project: 0146970060

VOLATILES by EPA 8260C
METHOD BLANK QUALITY CONTROL
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Matrix: Water
Units: ug/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Laboratory ID:	MB0129W1					
Dichlorodifluoromethane	ND	0.20	EPA 8260C	1-29-18	1-29-18	
Chloromethane	ND	1.0	EPA 8260C	1-29-18	1-29-18	
Vinyl Chloride	ND	0.20	EPA 8260C	1-29-18	1-29-18	
Bromomethane	ND	0.20	EPA 8260C	1-29-18	1-29-18	
Chloroethane	ND	1.0	EPA 8260C	1-29-18	1-29-18	
Trichlorofluoromethane	ND	0.20	EPA 8260C	1-29-18	1-29-18	
1,1-Dichloroethene	ND	0.20	EPA 8260C	1-29-18	1-29-18	
Acetone	ND	5.0	EPA 8260C	1-29-18	1-29-18	
Iodomethane	ND	1.0	EPA 8260C	1-29-18	1-29-18	
Carbon Disulfide	ND	0.20	EPA 8260C	1-29-18	1-29-18	
Methylene Chloride	ND	1.0	EPA 8260C	1-29-18	1-29-18	
(trans) 1,2-Dichloroethene	ND	0.20	EPA 8260C	1-29-18	1-29-18	
Methyl t-Butyl Ether	ND	0.20	EPA 8260C	1-29-18	1-29-18	
1,1-Dichloroethane	ND	0.20	EPA 8260C	1-29-18	1-29-18	
Vinyl Acetate	ND	1.0	EPA 8260C	1-29-18	1-29-18	
2,2-Dichloropropane	ND	0.20	EPA 8260C	1-29-18	1-29-18	
(cis) 1,2-Dichloroethene	ND	0.20	EPA 8260C	1-29-18	1-29-18	
2-Butanone	ND	5.0	EPA 8260C	1-29-18	1-29-18	
Bromochloromethane	ND	0.20	EPA 8260C	1-29-18	1-29-18	
Chloroform	ND	0.20	EPA 8260C	1-29-18	1-29-18	
1,1,1-Trichloroethane	ND	0.20	EPA 8260C	1-29-18	1-29-18	
Carbon Tetrachloride	ND	0.20	EPA 8260C	1-29-18	1-29-18	
1,1-Dichloropropene	ND	0.20	EPA 8260C	1-29-18	1-29-18	
Benzene	ND	0.20	EPA 8260C	1-29-18	1-29-18	
1,2-Dichloroethane	ND	0.20	EPA 8260C	1-29-18	1-29-18	
Trichloroethene	ND	0.20	EPA 8260C	1-29-18	1-29-18	
1,2-Dichloropropane	ND	0.20	EPA 8260C	1-29-18	1-29-18	
Dibromomethane	ND	0.20	EPA 8260C	1-29-18	1-29-18	
Bromodichloromethane	ND	0.20	EPA 8260C	1-29-18	1-29-18	
2-Chloroethyl Vinyl Ether	ND	1.0	EPA 8260C	1-29-18	1-29-18	
(cis) 1,3-Dichloropropene	ND	0.20	EPA 8260C	1-29-18	1-29-18	
Methyl Isobutyl Ketone	ND	2.0	EPA 8260C	1-29-18	1-29-18	
Toluene	ND	1.0	EPA 8260C	1-29-18	1-29-18	
(trans) 1,3-Dichloropropene	ND	0.20	EPA 8260C	1-29-18	1-29-18	

Date of Report: February 2, 2018
Samples Submitted: January 26, 2018
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VOLATILES by EPA 8260C
METHOD BLANK QUALITY CONTROL
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Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Laboratory ID:	MB0129W1					
1,1,2-Trichloroethane	ND	0.20	EPA 8260C	1-29-18	1-29-18	
Tetrachloroethene	ND	0.20	EPA 8260C	1-29-18	1-29-18	
1,3-Dichloropropane	ND	0.20	EPA 8260C	1-29-18	1-29-18	
2-Hexanone	ND	2.0	EPA 8260C	1-29-18	1-29-18	
Dibromochloromethane	ND	0.20	EPA 8260C	1-29-18	1-29-18	
1,2-Dibromoethane	ND	0.20	EPA 8260C	1-29-18	1-29-18	
Chlorobenzene	ND	0.20	EPA 8260C	1-29-18	1-29-18	
1,1,1,2-Tetrachloroethane	ND	0.20	EPA 8260C	1-29-18	1-29-18	
Ethylbenzene	ND	0.20	EPA 8260C	1-29-18	1-29-18	
m,p-Xylene	ND	0.40	EPA 8260C	1-29-18	1-29-18	
o-Xylene	ND	0.20	EPA 8260C	1-29-18	1-29-18	
Styrene	ND	0.20	EPA 8260C	1-29-18	1-29-18	
Bromoform	ND	1.0	EPA 8260C	1-29-18	1-29-18	
Isopropylbenzene	ND	0.20	EPA 8260C	1-29-18	1-29-18	
Bromobenzene	ND	0.20	EPA 8260C	1-29-18	1-29-18	
1,1,2,2-Tetrachloroethane	ND	0.20	EPA 8260C	1-29-18	1-29-18	
1,2,3-Trichloropropane	ND	0.20	EPA 8260C	1-29-18	1-29-18	
n-Propylbenzene	ND	0.20	EPA 8260C	1-29-18	1-29-18	
2-Chlorotoluene	ND	0.20	EPA 8260C	1-29-18	1-29-18	
4-Chlorotoluene	ND	0.20	EPA 8260C	1-29-18	1-29-18	
1,3,5-Trimethylbenzene	ND	0.20	EPA 8260C	1-29-18	1-29-18	
tert-Butylbenzene	ND	0.20	EPA 8260C	1-29-18	1-29-18	
1,2,4-Trimethylbenzene	ND	0.20	EPA 8260C	1-29-18	1-29-18	
sec-Butylbenzene	ND	0.20	EPA 8260C	1-29-18	1-29-18	
1,3-Dichlorobenzene	ND	0.20	EPA 8260C	1-29-18	1-29-18	
p-Isopropyltoluene	ND	0.20	EPA 8260C	1-29-18	1-29-18	
1,4-Dichlorobenzene	ND	0.20	EPA 8260C	1-29-18	1-29-18	
1,2-Dichlorobenzene	ND	0.20	EPA 8260C	1-29-18	1-29-18	
n-Butylbenzene	ND	0.20	EPA 8260C	1-29-18	1-29-18	
1,2-Dibromo-3-chloropropane	ND	1.0	EPA 8260C	1-29-18	1-29-18	
1,2,4-Trichlorobenzene	ND	0.20	EPA 8260C	1-29-18	1-29-18	
Hexachlorobutadiene	ND	0.20	EPA 8260C	1-29-18	1-29-18	
Naphthalene	ND	1.0	EPA 8260C	1-29-18	1-29-18	
1,2,3-Trichlorobenzene	ND	0.20	EPA 8260C	1-29-18	1-29-18	
Surrogate:	*Percent Recovery*	*Control Limits*				
Dibromofluoromethane	*102*	*75-127*				
Toluene-d8	*107*	*80-127*				
4-Bromofluorobenzene	*96*	*78-125*				

Date of Report: February 2, 2018
Samples Submitted: January 26, 2018
Laboratory Reference: 1801-282
Project: 0146970060

VOLATILES by EPA 8260C
MS/MSD QUALITY CONTROL

Matrix: Water
Units: ug/L

Analyte	Result		Spike Level		Source Result	Percent Recovery		Recovery Limits	RPD	RPD Limit	Flags
MATRIX SPIKES											
Laboratory ID:	01-271-01										
	MS	MSD	MS	MSD		MS	MSD				
1,1-Dichloroethene	**8.70**	**9.68**	10.0	10.0	ND	87	97	58-121	11	28	
Benzene	**9.39**	**10.4**	10.0	10.0	ND	94	104	67-122	10	27	
Trichloroethene	**8.37**	**9.52**	10.0	10.0	ND	84	95	60-120	13	28	
Toluene	**9.42**	**10.5**	10.0	10.0	ND	94	105	66-131	11	28	
Chlorobenzene	**8.95**	**9.76**	10.0	10.0	ND	90	98	73-120	9	24	
Surrogate:											
Dibromofluoromethane						*94*	*97*	*75-127*			
Toluene-d8						*95*	*100*	*80-127*			
4-Bromofluorobenzene						*94*	*99*	*78-125*			

Date of Report: February 2, 2018
Samples Submitted: January 26, 2018
Laboratory Reference: 1801-282
Project: 0146970060

VOLATILES by EPA 8260C
SPIKE BLANK QUALITY CONTROL

Matrix: Water
Units: ug/L

Analyte	Result	Spike Level	Percent Recovery	Recovery Limits	Flags
SPIKE BLANK					
Laboratory ID:	SB0129W1				
1,1-Dichloroethene	**9.35**	10.0	94	63-126	
Benzene	**9.55**	10.0	96	78-122	
Trichloroethene	**9.18**	10.0	92	63-120	
Toluene	**10.0**	10.0	100	79-124	
Chlorobenzene	**9.60**	10.0	96	78-120	
Surrogate:					
Dibromofluoromethane			*97*	*75-127*	
Toluene-d8			*102*	*80-127*	
4-Bromofluorobenzene			*94*	*78-125*	

Date of Report: February 2, 2018
Samples Submitted: January 26, 2018
Laboratory Reference: 1801-282
Project: 0146970060

PAHs EPA 8270D/SIM

Matrix: Water
Units: ug/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**KMW-03R-012618**					
Laboratory ID:	01-282-01					
Naphthalene	**ND**	0.11	EPA 8270D/SIM	1-30-18	1-30-18	
2-Methylnaphthalene	**ND**	0.11	EPA 8270D/SIM	1-30-18	1-30-18	
1-Methylnaphthalene	**ND**	0.11	EPA 8270D/SIM	1-30-18	1-30-18	
Acenaphthylene	**ND**	0.11	EPA 8270D/SIM	1-30-18	1-30-18	
Acenaphthene	**0.22**	0.11	EPA 8270D/SIM	1-30-18	1-30-18	
Fluorene	**0.18**	0.11	EPA 8270D/SIM	1-30-18	1-30-18	
Phenanthrene	**ND**	0.11	EPA 8270D/SIM	1-30-18	1-30-18	
Anthracene	**ND**	0.11	EPA 8270D/SIM	1-30-18	1-30-18	
Fluoranthene	**ND**	0.11	EPA 8270D/SIM	1-30-18	1-30-18	
Pyrene	**ND**	0.11	EPA 8270D/SIM	1-30-18	1-30-18	
Benzo[a]anthracene	**ND**	0.011	EPA 8270D/SIM	1-30-18	1-30-18	
Chrysene	**ND**	0.011	EPA 8270D/SIM	1-30-18	1-30-18	
Benzo[b]fluoranthene	**ND**	0.011	EPA 8270D/SIM	1-30-18	1-30-18	
Benzo(j,k)fluoranthene	**ND**	0.011	EPA 8270D/SIM	1-30-18	1-30-18	
Benzo[a]pyrene	**ND**	0.011	EPA 8270D/SIM	1-30-18	1-30-18	
Indeno(1,2,3-c,d)pyrene	**ND**	0.011	EPA 8270D/SIM	1-30-18	1-30-18	
Dibenz[a,h]anthracene	**ND**	0.011	EPA 8270D/SIM	1-30-18	1-30-18	
Benzo[g,h,i]perylene	**ND**	0.011	EPA 8270D/SIM	1-30-18	1-30-18	
Surrogate:	*Percent Recovery*	*Control Limits*				
2-Fluorobiphenyl	*57*	*25 - 107*				
Pyrene-d10	*83*	*28 - 103*				
Terphenyl-d14	*96*	*36 - 129*				

Date of Report: February 2, 2018
Samples Submitted: January 26, 2018
Laboratory Reference: 1801-282
Project: 0146970060

PAHs EPA 8270D/SIM

Matrix: Water
Units: ug/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**KMW-08-012618**					
Laboratory ID:	01-282-02					
Naphthalene	**ND**	0.12	EPA 8270D/SIM	1-30-18	1-30-18	
2-Methylnaphthalene	**ND**	0.12	EPA 8270D/SIM	1-30-18	1-30-18	
1-Methylnaphthalene	**ND**	0.12	EPA 8270D/SIM	1-30-18	1-30-18	
Acenaphthylene	**ND**	0.12	EPA 8270D/SIM	1-30-18	1-30-18	
Acenaphthene	**0.29**	0.12	EPA 8270D/SIM	1-30-18	1-30-18	
Fluorene	**0.33**	0.12	EPA 8270D/SIM	1-30-18	1-30-18	
Phenanthrene	**ND**	0.12	EPA 8270D/SIM	1-30-18	1-30-18	
Anthracene	**0.13**	0.12	EPA 8270D/SIM	1-30-18	1-30-18	
Fluoranthene	**0.20**	0.12	EPA 8270D/SIM	1-30-18	1-30-18	
Pyrene	**0.22**	0.12	EPA 8270D/SIM	1-30-18	1-30-18	
Benzo[a]anthracene	**0.018**	0.012	EPA 8270D/SIM	1-30-18	1-30-18	
Chrysene	**0.028**	0.012	EPA 8270D/SIM	1-30-18	1-30-18	
Benzo[b]fluoranthene	**0.018**	0.012	EPA 8270D/SIM	1-30-18	1-30-18	
Benzo(j,k)fluoranthene	**ND**	0.012	EPA 8270D/SIM	1-30-18	1-30-18	
Benzo[a]pyrene	**0.015**	0.012	EPA 8270D/SIM	1-30-18	1-30-18	
Indeno(1,2,3-c,d)pyrene	**ND**	0.012	EPA 8270D/SIM	1-30-18	1-30-18	
Dibenz[a,h]anthracene	**ND**	0.012	EPA 8270D/SIM	1-30-18	1-30-18	
Benzo[g,h,i]perylene	**ND**	0.012	EPA 8270D/SIM	1-30-18	1-30-18	
Surrogate:	*Percent Recovery*	*Control Limits*				
2-Fluorobiphenyl	*51*	*25 - 107*				
Pyrene-d10	*73*	*28 - 103*				
Terphenyl-d14	*84*	*36 - 129*				

Date of Report: February 2, 2018
Samples Submitted: January 26, 2018
Laboratory Reference: 1801-282
Project: 0146970060

PAHs EPA 8270D/SIM

Matrix: Water
Units: ug/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**KMW-07-012618**					
Laboratory ID:	01-282-03					
Naphthalene	**ND**	0.11	EPA 8270D/SIM	1-30-18	1-30-18	
2-Methylnaphthalene	**ND**	0.11	EPA 8270D/SIM	1-30-18	1-30-18	
1-Methylnaphthalene	**ND**	0.11	EPA 8270D/SIM	1-30-18	1-30-18	
Acenaphthylene	**ND**	0.11	EPA 8270D/SIM	1-30-18	1-30-18	
Acenaphthene	**ND**	0.11	EPA 8270D/SIM	1-30-18	1-30-18	
Fluorene	**ND**	0.11	EPA 8270D/SIM	1-30-18	1-30-18	
Phenanthrene	**ND**	0.11	EPA 8270D/SIM	1-30-18	1-30-18	
Anthracene	**0.11**	0.11	EPA 8270D/SIM	1-30-18	1-30-18	
Fluoranthene	**ND**	0.11	EPA 8270D/SIM	1-30-18	1-30-18	
Pyrene	**ND**	0.11	EPA 8270D/SIM	1-30-18	1-30-18	
Benzo[a]anthracene	**ND**	0.011	EPA 8270D/SIM	1-30-18	1-30-18	
Chrysene	**ND**	0.011	EPA 8270D/SIM	1-30-18	1-30-18	
Benzo[b]fluoranthene	**ND**	0.011	EPA 8270D/SIM	1-30-18	1-30-18	
Benzo(j,k)fluoranthene	**ND**	0.011	EPA 8270D/SIM	1-30-18	1-30-18	
Benzo[a]pyrene	**ND**	0.011	EPA 8270D/SIM	1-30-18	1-30-18	
Indeno(1,2,3-c,d)pyrene	**ND**	0.011	EPA 8270D/SIM	1-30-18	1-30-18	
Dibenz[a,h]anthracene	**ND**	0.011	EPA 8270D/SIM	1-30-18	1-30-18	
Benzo[g,h,i]perylene	**ND**	0.011	EPA 8270D/SIM	1-30-18	1-30-18	
Surrogate:	*Percent Recovery*	*Control Limits*				
2-Fluorobiphenyl	*66*	*25 - 107*				
Pyrene-d10	*83*	*28 - 103*				
Terphenyl-d14	*93*	*36 - 129*				

Date of Report: February 2, 2018
Samples Submitted: January 26, 2018
Laboratory Reference: 1801-282
Project: 0146970060

PAHs EPA 8270D/SIM

Matrix: Water
Units: ug/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**KMW-02R-012618**					
Laboratory ID:	01-282-04					
Naphthalene	**ND**	0.11	EPA 8270D/SIM	1-30-18	1-30-18	
2-Methylnaphthalene	**ND**	0.11	EPA 8270D/SIM	1-30-18	1-30-18	
1-Methylnaphthalene	**ND**	0.11	EPA 8270D/SIM	1-30-18	1-30-18	
Acenaphthylene	**ND**	0.11	EPA 8270D/SIM	1-30-18	1-30-18	
Acenaphthene	**ND**	0.11	EPA 8270D/SIM	1-30-18	1-30-18	
Fluorene	**ND**	0.11	EPA 8270D/SIM	1-30-18	1-30-18	
Phenanthrene	**ND**	0.11	EPA 8270D/SIM	1-30-18	1-30-18	
Anthracene	**ND**	0.11	EPA 8270D/SIM	1-30-18	1-30-18	
Fluoranthene	**ND**	0.11	EPA 8270D/SIM	1-30-18	1-30-18	
Pyrene	**ND**	0.11	EPA 8270D/SIM	1-30-18	1-30-18	
Benzo[a]anthracene	**ND**	0.011	EPA 8270D/SIM	1-30-18	1-30-18	
Chrysene	**ND**	0.011	EPA 8270D/SIM	1-30-18	1-30-18	
Benzo[b]fluoranthene	**ND**	0.011	EPA 8270D/SIM	1-30-18	1-30-18	
Benzo(j,k)fluoranthene	**ND**	0.011	EPA 8270D/SIM	1-30-18	1-30-18	
Benzo[a]pyrene	**ND**	0.011	EPA 8270D/SIM	1-30-18	1-30-18	
Indeno(1,2,3-c,d)pyrene	**ND**	0.011	EPA 8270D/SIM	1-30-18	1-30-18	
Dibenz[a,h]anthracene	**ND**	0.011	EPA 8270D/SIM	1-30-18	1-30-18	
Benzo[g,h,i]perylene	**ND**	0.011	EPA 8270D/SIM	1-30-18	1-30-18	
Surrogate:	*Percent Recovery*	*Control Limits*				
2-Fluorobiphenyl	*64*	*25 - 107*				
Pyrene-d10	*76*	*28 - 103*				
Terphenyl-d14	*87*	*36 - 129*				

Date of Report: February 2, 2018
Samples Submitted: January 26, 2018
Laboratory Reference: 1801-282
Project: 0146970060

PAHs EPA 8270D/SIM
METHOD BLANK QUALITY CONTROL

Matrix: Water
Units: ug/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Laboratory ID:	MB0130W1					
Naphthalene	**ND**	0.10	EPA 8270D/SIM	1-30-18	1-30-18	
2-Methylnaphthalene	**ND**	0.10	EPA 8270D/SIM	1-30-18	1-30-18	
1-Methylnaphthalene	**ND**	0.10	EPA 8270D/SIM	1-30-18	1-30-18	
Acenaphthylene	**ND**	0.10	EPA 8270D/SIM	1-30-18	1-30-18	
Acenaphthene	**ND**	0.10	EPA 8270D/SIM	1-30-18	1-30-18	
Fluorene	**ND**	0.10	EPA 8270D/SIM	1-30-18	1-30-18	
Phenanthrene	**ND**	0.10	EPA 8270D/SIM	1-30-18	1-30-18	
Anthracene	**ND**	0.10	EPA 8270D/SIM	1-30-18	1-30-18	
Fluoranthene	**ND**	0.10	EPA 8270D/SIM	1-30-18	1-30-18	
Pyrene	**ND**	0.10	EPA 8270D/SIM	1-30-18	1-30-18	
Benzo[a]anthracene	**ND**	0.010	EPA 8270D/SIM	1-30-18	1-30-18	
Chrysene	**ND**	0.010	EPA 8270D/SIM	1-30-18	1-30-18	
Benzo[b]fluoranthene	**ND**	0.010	EPA 8270D/SIM	1-30-18	1-30-18	
Benzo(j,k)fluoranthene	**ND**	0.010	EPA 8270D/SIM	1-30-18	1-30-18	
Benzo[a]pyrene	**ND**	0.010	EPA 8270D/SIM	1-30-18	1-30-18	
Indeno(1,2,3-c,d)pyrene	**ND**	0.010	EPA 8270D/SIM	1-30-18	1-30-18	
Dibenz[a,h]anthracene	**ND**	0.010	EPA 8270D/SIM	1-30-18	1-30-18	
Benzo[g,h,i]perylene	**ND**	0.010	EPA 8270D/SIM	1-30-18	1-30-18	
Surrogate:	*Percent Recovery*	*Control Limits*				
2-Fluorobiphenyl	*56*	*25 - 107*				
Pyrene-d10	*75*	*28 - 103*				
Terphenyl-d14	*84*	*36 - 129*				

Date of Report: February 2, 2018
Samples Submitted: January 26, 2018
Laboratory Reference: 1801-282
Project: 0146970060

PAHs EPA 8270D/SIM
MS/MSD QUALITY CONTROL

Matrix: Water
Units: ug/L

Analyte	Result		Spike Level		Source Result	Percent Recovery		Recovery Limits	RPD	RPD Limit	Flags
MATRIX SPIKES											
Laboratory ID:	01-271-01										
	MS	MSD	MS	MSD		MS	MSD				
Naphthalene	**0.421**	**0.469**	0.588	0.569	ND	72	82	27 - 106	11	35	
Acenaphthylene	**0.518**	**0.526**	0.588	0.569	ND	88	92	20 - 117	2	34	
Acenaphthene	**0.648**	**0.582**	0.588	0.569	ND	110	102	30 - 114	11	32	
Fluorene	**0.552**	**0.529**	0.588	0.569	ND	94	93	36 - 116	4	28	
Phenanthrene	**0.494**	**0.501**	0.588	0.569	ND	84	88	31 - 122	1	26	
Anthracene	**0.589**	**0.586**	0.588	0.569	ND	100	103	33 - 144	1	26	
Fluoranthene	**0.498**	**0.505**	0.588	0.569	ND	85	89	44 - 120	1	25	
Pyrene	**0.506**	**0.517**	0.588	0.569	ND	86	91	40 - 130	2	29	
Benzo[a]anthracene	**0.571**	**0.595**	0.588	0.569	ND	97	105	47 - 131	4	27	
Chrysene	**0.556**	**0.547**	0.588	0.569	ND	95	96	48 - 120	2	29	
Benzo[b]fluoranthene	**0.560**	**0.563**	0.588	0.569	ND	95	99	42 - 128	1	29	
Benzo(j,k)fluoranthene	**0.537**	**0.555**	0.588	0.569	ND	91	98	46 - 121	3	27	
Benzo[a]pyrene	**0.556**	**0.570**	0.588	0.569	ND	95	100	34 - 121	2	29	
Indeno(1,2,3-c,d)pyrene	**0.551**	**0.573**	0.588	0.569	ND	94	101	39 - 128	4	28	
Dibenz[a,h]anthracene	**0.557**	**0.572**	0.588	0.569	ND	95	101	39 - 125	3	30	
Benzo[g,h,i]perylene	**0.522**	**0.535**	0.588	0.569	ND	89	94	41 - 122	2	29	
Surrogate:											
2-Fluorobiphenyl						*53*	*58*	*25 - 107*			
Pyrene-d10						*71*	*74*	*28 - 103*			
Terphenyl-d14						*98*	*101*	*36 - 129*			

Date of Report: February 2, 2018
Samples Submitted: January 26, 2018
Laboratory Reference: 1801-282
Project: 0146970060

PAHs EPA 8270D/SIM
SPIKE BLANK QUALITY CONTROL

Matrix: Water
Units: ug/L

Analyte	Result	Spike Level	Percent Recovery	Recovery Limits	Flags
SPIKE BLANK					
Laboratory ID:	SB0130W1				
	SB	SB	SB		
Naphthalene	**0.360**	0.500	72	27 - 106	
Acenaphthylene	**0.387**	0.500	77	20 - 117	
Acenaphthene	**0.461**	0.500	92	30 - 114	
Fluorene	**0.454**	0.500	91	36 - 116	
Phenanthrene	**0.458**	0.500	92	31 - 122	
Anthracene	**0.480**	0.500	96	33 - 144	
Fluoranthene	**0.488**	0.500	98	44 - 120	
Pyrene	**0.566**	0.500	113	40 - 130	
Benzo[a]anthracene	**0.503**	0.500	101	47 - 131	
Chrysene	**0.498**	0.500	100	48 - 120	
Benzo[b]fluoranthene	**0.491**	0.500	98	42 - 128	
Benzo(j,k)fluoranthene	**0.489**	0.500	98	46 - 121	
Benzo[a]pyrene	**0.502**	0.500	100	34 - 121	
Indeno(1,2,3-c,d)pyrene	**0.522**	0.500	104	39 - 128	
Dibenz[a,h]anthracene	**0.528**	0.500	106	39 - 125	
Benzo[g,h,i]perylene	**0.518**	0.500	104	41 - 122	
Surrogate:					
2-Fluorobiphenyl			*83*	*25 - 107*	
Pyrene-d10			*85*	*28 - 103*	
Terphenyl-d14			*103*	*36 - 129*	

Date of Report: February 2, 2018
Samples Submitted: January 26, 2018
Laboratory Reference: 1801-282
Project: 0146970060

TOTAL METALS
EPA 200.8/7470A

Matrix: Water
Units: ug/L (ppb)

Analyte	Result	PQL	EPA Method	Date Prepared	Date Analyzed	Flags
Lab ID:	01-282-01					
Client ID:	**KMW-03R-012618**					
Arsenic	**ND**	3.3	200.8	1-31-18	1-31-18	
Barium	**ND**	28	200.8	1-31-18	1-31-18	
Cadmium	**ND**	4.4	200.8	1-31-18	1-31-18	
Chromium	**ND**	11	200.8	1-31-18	1-31-18	
Lead	**ND**	1.1	200.8	1-31-18	1-31-18	
Mercury	**ND**	0.50	7470A	1-30-18	1-30-18	
Selenium	**ND**	5.6	200.8	1-31-18	1-31-18	
Silver	**ND**	11	200.8	1-31-18	1-31-18	
Lab ID:	01-282-02					
Client ID:	**KMW-08-012618**					
Arsenic	**ND**	3.3	200.8	1-31-18	1-31-18	
Barium	**45**	28	200.8	1-31-18	1-31-18	
Cadmium	**ND**	4.4	200.8	1-31-18	1-31-18	
Chromium	**ND**	11	200.8	1-31-18	1-31-18	
Lead	**ND**	1.1	200.8	1-31-18	1-31-18	
Mercury	**ND**	0.50	7470A	1-30-18	1-30-18	
Selenium	**ND**	5.6	200.8	1-31-18	1-31-18	
Silver	**ND**	11	200.8	1-31-18	1-31-18	

Date of Report: February 2, 2018
Samples Submitted: January 26, 2018
Laboratory Reference: 1801-282
Project: 0146970060

TOTAL METALS
EPA 200.8/7470A

Matrix: Water
Units: ug/L (ppb)

Analyte	Result	PQL	EPA Method	Date Prepared	Date Analyzed	Flags
Lab ID:	01-282-03					
Client ID:	**KMW-07-012618**					
Arsenic	**ND**	3.3	200.8	1-31-18	1-31-18	
Barium	**ND**	28	200.8	1-31-18	1-31-18	
Cadmium	**ND**	4.4	200.8	1-31-18	1-31-18	
Chromium	**ND**	11	200.8	1-31-18	1-31-18	
Lead	**ND**	1.1	200.8	1-31-18	1-31-18	
Mercury	**ND**	0.50	7470A	1-30-18	1-30-18	
Selenium	**ND**	5.6	200.8	1-31-18	1-31-18	
Silver	**ND**	11	200.8	1-31-18	1-31-18	
Lab ID:	01-282-04					
Client ID:	**KMW-02R-012618**					
Arsenic	**ND**	3.3	200.8	1-31-18	1-31-18	
Barium	**ND**	28	200.8	1-31-18	1-31-18	
Cadmium	**ND**	4.4	200.8	1-31-18	1-31-18	
Chromium	**ND**	11	200.8	1-31-18	1-31-18	
Lead	**ND**	1.1	200.8	1-31-18	1-31-18	
Mercury	**ND**	0.50	7470A	1-30-18	1-30-18	
Selenium	**ND**	5.6	200.8	1-31-18	1-31-18	
Silver	**ND**	11	200.8	1-31-18	1-31-18	

Date of Report: February 2, 2018
Samples Submitted: January 26, 2018
Laboratory Reference: 1801-282
Project: 0146970060

TOTAL METALS
EPA 200.8/7470A
METHOD BLANK QUALITY CONTROL

Date Extracted: 1-30&31-18
Date Analyzed: 1-30&31-18

Matrix: Water
Units: ug/L (ppb)

Lab ID: MB0130W1&MB0131WM1

Analyte	Method	Result	PQL
Arsenic	200.8	**ND**	3.3
Barium	200.8	**ND**	28
Cadmium	200.8	**ND**	4.4
Chromium	200.8	**ND**	11
Lead	200.8	**ND**	1.1
Mercury	7470A	**ND**	0.50
Selenium	200.8	**ND**	5.6
Silver	200.8	**ND**	11

Date of Report: February 2, 2018
Samples Submitted: January 26, 2018
Laboratory Reference: 1801-282
Project: 0146970060

TOTAL METALS
EPA 200.8/7470A
DUPLICATE QUALITY CONTROL

Date Extracted: 1-30&31-18
Date Analyzed: 1-30&31-18

Matrix: Water
Units: ug/L (ppb)

Lab ID: 01-271-01

Analyte	Sample Result	Duplicate Result	RPD	PQL	Flags
Arsenic	**6.78**	**6.33**	7	3.3	
Barium	**ND**	**ND**	NA	28	
Cadmium	**ND**	**ND**	NA	4.4	
Chromium	**ND**	**ND**	NA	11	
Lead	**1.12**	**ND**	NA	1.1	
Mercury	**ND**	**ND**	NA	0.50	
Selenium	**ND**	**ND**	NA	5.6	
Silver	**ND**	**ND**	NA	11	

Date of Report: February 2, 2018
Samples Submitted: January 26, 2018
Laboratory Reference: 1801-282
Project: 0146970060

TOTAL METALS
EPA 200.8/7470A
MS/MSD QUALITY CONTROL

Date Extracted: 1-30&31-18
Date Analyzed: 1-30&31-18

Matrix: Water
Units: ug/L (ppb)

Lab ID: 01-271-01

Analyte	Spike Level	MS	Percent Recovery	MSD	Percent Recovery	RPD	Flags
Arsenic	222	**227**	99	**233**	102	3	
Barium	222	**224**	101	**222**	100	1	
Cadmium	222	**228**	103	**231**	104	1	
Chromium	222	**211**	95	**216**	97	2	
Lead	222	**207**	93	**207**	93	0	
Mercury	12.5	**12.3**	98	**12.4**	99	1	
Selenium	222	**231**	104	**232**	104	0	
Silver	222	**196**	88	**202**	91	3	

Date of Report: February 2, 2018
Samples Submitted: January 26, 2018
Laboratory Reference: 1801-282
Project: 0146970060

TOTAL METALS
EPA 200.8/7470A
SPIKE BLANK QUALITY CONTROL

Date Extracted: 1-30&31-18
Date Analyzed: 1-30&31-18

Matrix: Water
Units: ug/L (ppb)

Lab ID: SB0130W1&SB0131WM1

Analyte	Method	Spike Level	SB Result	Percent Recovery
Arsenic	200.8	222	**228**	103
Barium	200.8	222	**212**	96
Cadmium	200.8	222	**224**	101
Chromium	200.8	222	**210**	95
Lead	200.8	222	**217**	98
Mercury	7470A	12.5	**12.6**	101
Selenium	200.8	222	**240**	108
Silver	200.8	222	**207**	93

OnSite Environmental Inc.

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

Chain of Custody

Page 1 of 1

OnSite Environmental Inc.
Analytical Laboratory Testing Services
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Phone: (425) 883-3881 • www.onsite-env.com

Laboratory Number: 01-282

Company: Amec Foster Wheeler
Project Number: 014697
Project Name: Kelly Moore
Project Manager: Kathleen Goodman
Sampled by: K. Black

Turnaround Request (in working days)
(Check One)
☐ Same Day ☐ 1 Day
☐ 2 Days ☐ 3 Days
☒ Standard (7 Days) (TPH analysis 5 Days)
☐ _____ (other)

Lab ID	Sample Identification	Date Sampled	Time Sampled	Matrix	Number 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)	PAHs 8270D/SIM (low-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	% Moisture
1	KMW-03R-012618	1/26/18	0945	W	10			X	X	X				X					X				
2	KMW-08-012618	1/26/18	1100	W	10			X	X	X				X					X				
3	KMW-07-012618	1/26/18	1200	W	10			X	X	X				X					X				
4	KMW-02R-012618	1/26/18	1255	W	10			X	X	X				X					X				
5	Trip Blanks	—	—	W	4			X		X													

	Signature	Company	Date	Time	Comments/Special Instructions
Relinquished	Mari Black	Amec Foster Wheeler	1/26/18	1442	
Received	Office Sealed w/ packing tape		1/26/18	1442	
Relinquished	Mengjie Cao	Amec Foster Wheeler	1/26/18	15.02	
Received		ALPHA	1/26/18	1502	
Relinquished		ALPHA	1/26/18	16:18	
Received			1/26/18	1618	Data Package: Standard ☐ Level III ☐ Level IV ☐
Reviewed/Date		Reviewed/Date			Chromatograms with final report ☐ Electronic Data Deliverables (EDDs) ☐

Appendix C

Please print, sign and return to the Department of Ecology

RESOURCE PROTECTION WELL REPORT

CURRENT Notice of Intent No. RE11442

(SUBMIT ONE WELL REPORT PER WELL INSTALLED) SVE-01

Construction/Decommission *("x" in box)*

- [x] Construction
- [ ] Decommission

ORIGINAL INSTALLATION Notice of Intent Number: RE11442

Consulting Firm AMEC Foster Wheeler

Unique Ecology Well IDTag No. BCB316

WELL CONSTRUCTION CERTIFICATION: I constructed and/or accept responsibility for construction of this well, and its compliance with all Washington well construction standards. Materials used and the information reported above are true to my best knowledge and belief.

☐ Driller ☒ Engineer ☐ Trainee

Name (Print Last, First Name) Hsieh, Pat

Driller/Engineer /Trainee Signature

Driller or Trainee License No. 45361

If trainee, licensed driller's Signature and License Number:

Type of Well *("x in box)*

- [x] Resource Protection
- [ ] Geotech Soil Boring

Property Owner Robert Stetson - Kelley-Moore Paint Company Inc.

Site Address 5400 Airport Way South

City Seattle County King

Location SW 1/4-1/4 NE 1/4 Sec 20 Twn 24N R 4E

EWM ☐ or WWM ☐

Lat/Long (s, t, r still REQUIRED) Lat Deg ____ Min ____ Sec ____

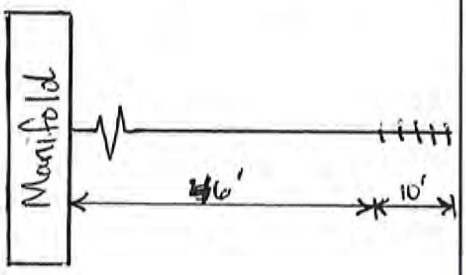
Long Deg ____ Min ____ Sec ____

Tax Parcel No. 3868400270

Cased or Uncased Diameter 4" Static Level NA

Work/Decommission Start Date 6/24/15

Work/Decommission Completed Date 6/25/15

Construction Design	Well Data	Formation Description
Horizontal Soil Vapor extraction well.  	Name: SVE-01 Length: 10'-0" Type: 0.020" slot screen sch. 40 pvc Well screened within vadose zone at 7' below ground surface	Black silty sand, Medium sands.

SCALE: 1"= N/A PAGE 1 OF 10

Please print, sign and return to the Department of Ecology

RESOURCE PROTECTION WELL REPORT

CURRENT Notice of Intent No. RE11442

(SUBMIT ONE WELL REPORT PER WELL INSTALLED) SVE-02

Construction/Decommission *("x" in box)*

- [x] Construction
- [ ] Decommission

ORIGINAL INSTALLATION Notice of Intent Number: RE11442

Consulting Firm AMEC Foster Wheeler

Unique Ecology Well IDTag No. BCB317

WELL CONSTRUCTION CERTIFICATION: I constructed and/or accept responsibility for construction of this well, and its compliance with all Washington well construction standards. Materials used and the information reported above are true to my best knowledge and belief.

- [ ] Driller [x] Engineer [ ] Trainee

Name (Print Last, First Name) Hsieh, Pat

Driller/Engineer /Trainee Signature

Driller or Trainee License No. 45361

If trainee, licensed driller's Signature and License Number:

Type of Well *("x in box)*

- [x] Resource Protection
- [ ] Geotech Soil Boring

Property Owner Robert Stetson - Kelley-Moore Paint Company Inc.

Site Address 5400 Airport Way South

City Seattle County King

Location SW 1/4-1/4 NE 1/4 Sec 20 Twn 24N R 4E

EWM [ ] or WWM [ ]

Lat/Long (s, t, r still REQUIRED) Lat Deg ____ Min ____ Sec ____

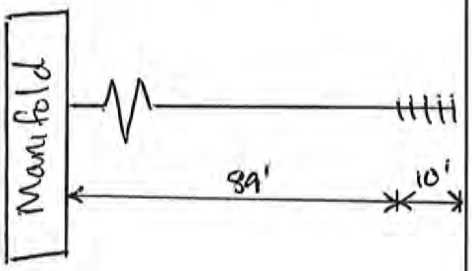
Long Deg ____ Min ____ Sec ____

Tax Parcel No. 3868400270

Cased or Uncased Diameter 4" Static Level NA

Work/Decommission Start Date 6/24/15

Work/Decommission Completed Date 6/25/15

Construction Design	Well Data	Formation Description
Horizontal Soil Vapor extraction well 	Name: SVE-02 Length: 10'-0" Type: 0.020" slot screen sch. 40 pvc Well screened within vadose zone at 7' below ground surface	Brown gravelly sands

SCALE: 1"= N/A PAGE 2 OF 10

Please print, sign and return to the Department of Ecology

RESOURCE PROTECTION WELL REPORT

CURRENT Notice of Intent No. RE11442

(SUBMIT ONE WELL REPORT PER WELL INSTALLED) SVE-03

Construction/Decommission *("x" in box)*

- [x] Construction
- [ ] Decommission

ORIGINAL INSTALLATION Notice of Intent Number: RE11442

Consulting Firm AMEC Foster Wheeler

Unique Ecology Well IDTag No. BCB318

WELL CONSTRUCTION CERTIFICATION: I constructed and/or accept responsibility for construction of this well, and its compliance with all Washington well construction standards. Materials used and the information reported above are true to my best knowledge and belief.

☐ Driller ☒ Engineer ☐ Trainee

Name (Print Last, First Name) Hsieh, Pat

Driller/Engineer /Trainee Signature

Driller or Trainee License No. 45361

If trainee, licensed driller's Signature and License Number:

Type of Well *("x in box)*

- [x] Resource Protection
- [ ] Geotech Soil Boring

Property Owner Robert Stetson - Kelley-Moore Paint Company Inc.

Site Address 5400 Airport Way South

City Seattle County King

Location SW 1/4-1/4 NE 1/4 Sec 20 Twn 24N R 4E

EWM ☐ or WWM ☐

Lat/Long (s, t, r still REQUIRED) Lat Deg ____ Min ____ Sec ____

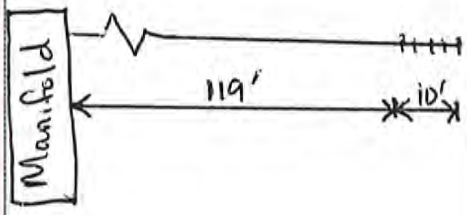
Long Deg ____ Min ____ Sec ____

Tax Parcel No. 3868400270

Cased or Uncased Diameter 4" Static Level NA

Work/Decommission Start Date 6/23/15

Work/Decommission Completed Date 6/25/15

Construction Design	Well Data	Formation Description
Horizontal ~~Vap~~ Soil Vapor extraction well  	Name: SVE-03 Length: 10' - 0" Type: 0.020" slot screen sch. 40 PVC Well screened within vadose zone at 7' below ground surface	Black silty, medium Sands.

SCALE: 1"= N/A PAGE 3 OF 10

Please print, sign and return to the Department of Ecology

RESOURCE PROTECTION WELL REPORT

CURRENT Notice of Intent No. RE11442

(SUBMIT ONE WELL REPORT PER WELL INSTALLED) SVE-04

Construction/Decommission *("x" in box)*

- [x] Construction
- [ ] Decommission

ORIGINAL INSTALLATION Notice of Intent Number: RE11442

Consulting Firm AMEC Foster Wheeler

Unique Ecology Well IDTag No. BCB322

WELL CONSTRUCTION CERTIFICATION: I constructed and/or accept responsibility for construction of this well, and its compliance with all Washington well construction standards. Materials used and the information reported above are true to my best knowledge and belief.

☐ Driller ☒ Engineer ☐ Trainee

Name (Print Last, First Name) Hsieh, Pat

Driller/Engineer /Trainee Signature

Driller or Trainee License No. 45361

If trainee, licensed driller's Signature and License Number:

Type of Well *("x in box)*

- [x] Resource Protection
- [ ] Geotech Soil Boring

Property Owner Robert Stetson - Kelley-Moore Paint Company Inc.

Site Address 5400 Airport Way South

City Seattle County King

Location SW 1/4-1/4 NE 1/4 Sec 20 Twn 24N R 4E

EWM ☐ or WWM ☐

Lat/Long (s, t, r still REQUIRED) Lat Deg ____ Min ____ Sec ____

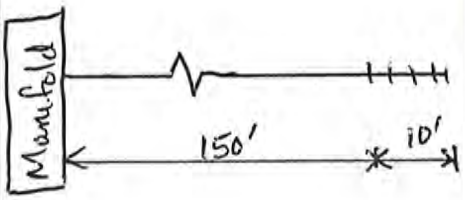
Long Deg ____ Min ____ Sec ____

Tax Parcel No. 3868400270

Cased or Uncased Diameter 4" Static Level NA

Work/Decommission Start Date 6/23/15

Work/Decommission Completed Date 6/25/15

Construction Design	Well Data	Formation Description
Horizontal soil vapor extraction well 	Name: SVE-04 Length: 10'-0" Type: 0.020" slot screen sch. 40 PVC Well screened within vadose zone at 7' below ground surface	Black silty medium sands

SCALE: 1"= N/A PAGE 4 OF 10

Please print, sign and return to the Department of Ecology

RESOURCE PROTECTION WELL REPORT

CURRENT Notice of Intent No. RE11442

(SUBMIT ONE WELL REPORT PER WELL INSTALLED) SVE-05

Construction/Decommission *("x" in box)*

- [x] Construction
- [ ] Decommission

ORIGINAL INSTALLATION Notice of Intent Number: RE11442

Consulting Firm AMEC Foster Wheeler

Unique Ecology Well IDTag No. BCB323

WELL CONSTRUCTION CERTIFICATION: I constructed and/or accept responsibility for construction of this well, and its compliance with all Washington well construction standards. Materials used and the information reported above are true to my best knowledge and belief.

☐ Driller ☒ Engineer ☐ Trainee

Name (Print Last, First Name) Hsieh, Pat

Driller/Engineer /Trainee Signature

Driller or Trainee License No. 45561

If trainee, licensed driller's Signature and License Number:

Type of Well *("x in box)*

- [x] Resource Protection
- [ ] Geotech Soil Boring

Property Owner Robert Stetson - Kelley-Moore Paint Company Inc.

Site Address 5400 Airport Way South

City Seattle County King

Location SW 1/4-1/4 NE 1/4 Sec 20 Twn 24N R 4E

EWM ☐ or WWM ☐

Lat/Long (s, t, r still REQUIRED) Lat Deg ____ Min ____ Sec ____

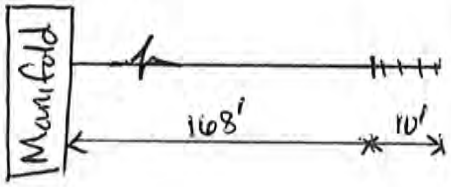
Long Deg ____ Min ____ Sec ____

Tax Parcel No. 3868400270

Cased or Uncased Diameter 4" Static Level NA

Work/Decommission Start Date 6/22/15

Work/Decommission Completed Date 6/25/15

Construction Design	Well Data	Formation Description
Horizontal soil vapor extraction well  	Name: SVE-05 Length: 10'-0" Type: 0.020" slot screen Sch. 40 PVC Well screened within vadose zone at 7' below ground surface.	Black silty medium sands.

SCALE: 1"= N/A PAGE 5 OF 10

Please print, sign and return to the Department of Ecology

RESOURCE PROTECTION WELL REPORT

CURRENT Notice of Intent No. RE11442

(SUBMIT ONE WELL REPORT PER WELL INSTALLED) SVE-016

Construction/Decommission *("x" in box)*

- [x] Construction
- [ ] Decommission

ORIGINAL INSTALLATION Notice of Intent Number: RE11442

Consulting Firm AMEC Foster Wheeler

Unique Ecology Well IDTag No. BCB325

WELL CONSTRUCTION CERTIFICATION: I constructed and/or accept responsibility for construction of this well, and its compliance with all Washington well construction standards. Materials used and the information reported above are true to my best knowledge and belief.

- [ ] Driller [x] Engineer [ ] Trainee

Name (Print Last, First Name) Hsieh, Pat

Driller/Engineer /Trainee Signature

Driller or Trainee License No. 45361

If trainee, licensed driller's Signature and License Number:

Type of Well *("x in box)*

- [x] Resource Protection
- [ ] Geotech Soil Boring

Property Owner Robert Stetson - Kelley-Moore Paint Company Inc.

Site Address 5400 Airport Way South

City Seattle County King

Location SW 1/4-1/4 NE 1/4 Sec 20 Twn 24N R 4E

EWM [ ] or WWM [ ]

Lat/Long (s, t, r still REQUIRED) Lat Deg _____ Min _____ Sec _____

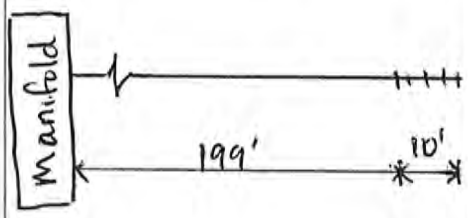
Long Deg _____ Min _____ Sec _____

Tax Parcel No. 3868400270

Cased or Uncased Diameter 4" Static Level NA

Work/Decommission Start Date 6/19/15

Work/Decommission Completed Date 6/25/15

Construction Design	Well Data	Formation Description
Horizontal Soil Vapor extraction well 	Name: SVE-016 Length: 10'-0" Type: 0.020" slot screen Sch 40 PVC Well screened in vadose zone at 7' below ground surface	Black silty medium sands.

SCALE: 1"= N/A PAGE 16 OF 18

Please print, sign and return to the Department of Ecology

RESOURCE PROTECTION WELL REPORT

CURRENT Notice of Intent No. RE11442

(SUBMIT ONE WELL REPORT PER WELL INSTALLED) SVE-07

Construction/Decommission *("x" in box)*

- [x] Construction
- [ ] Decommission

ORIGINAL INSTALLATION Notice of Intent Number: RE11442

Consulting Firm AMEC Foster Wheeler

Unique Ecology Well IDTag No. BCB326

WELL CONSTRUCTION CERTIFICATION: I constructed and/or accept responsibility for construction of this well, and its compliance with all Washington well construction standards. Materials used and the information reported above are true to my best knowledge and belief.

- [ ] Driller [x] Engineer [ ] Trainee

Name (Print Last, First Name) Hsieh, Pat

Driller/Engineer /Trainee Signature

Driller or Trainee License No. 45361

If trainee, licensed driller's Signature and License Number:

Type of Well *("x in box)*

- [x] Resource Protection
- [ ] Geotech Soil Boring

Property Owner Robert Stetson - Kelley-Moore Paint Company Inc.

Site Address 5400 Airport Way South

City Seattle County King

Location SW 1/4-1/4 NE 1/4 Sec 20 Twn 24N R 4E

EWM [ ] or WWM [ ]

Lat/Long (s, t, r still REQUIRED) Lat Deg ____ Min ____ Sec ____

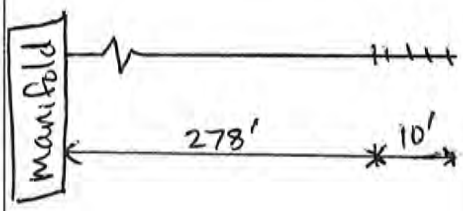
Long Deg ____ Min ____ Sec ____

Tax Parcel No. 3868400270

Cased or Uncased Diameter 4" Static Level NA

Work/Decommission Start Date 6/18/15

Work/Decommission Completed Date 6/25/15

Construction Design	Well Data	Formation Description
Horizontal Soil Vapor Extraction well 	Name: SVE-07 Length: 10'-0" Type: 0.020" slot screen Sch 40 PVC Well screened within vadose zone at 7' below ground surface	Black silty medium sands.

SCALE: 1"= N/A PAGE 7 OF 10

Please print, sign and return to the Department of Ecology

RESOURCE PROTECTION WELL REPORT

CURRENT Notice of Intent No. RE11442

(SUBMIT ONE WELL REPORT PER WELL INSTALLED) SVE-08

Construction/Decommission *("x" in box)*

- [x] Construction
- [ ] Decommission

ORIGINAL INSTALLATION Notice of Intent Number: RE11442

Consulting Firm AMEC Foster Wheeler

Unique Ecology Well IDTag No. BCB327

WELL CONSTRUCTION CERTIFICATION: I constructed and/or accept responsibility for construction of this well, and its compliance with all Washington well construction standards. Materials used and the information reported above are true to my best knowledge and belief.

☐ Driller ☒ Engineer ☐ Trainee

Name (Print Last, First Name) Hsieh, Pat

Driller/Engineer /Trainee Signature

Driller or Trainee License No. 45361

If trainee, licensed driller's Signature and License Number:

Type of Well *("x in box)*

- [x] Resource Protection
- [ ] Geotech Soil Boring

Property Owner Robert Stetson - Kelley-Moore Paint Company Inc.

Site Address 5400 Airport Way South

City Seattle County King

Location SW 1/4-1/4 NE 1/4 Sec 20 Twn 24N R 4E

EWM ☐ or WWM ☐

Lat/Long (s, t, r still REQUIRED) Lat Deg ____ Min ____ Sec ____

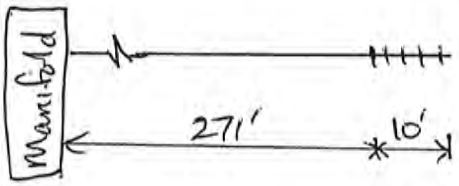
Long Deg ____ Min ____ Sec ____

Tax Parcel No. 3868400270

Cased or Uncased Diameter 4" Static Level NA

Work/Decommission Start Date 6/18/15

Work/Decommission Completed Date 6/25/15

Construction Design	Well Data	Formation Description
Horizontal Soil Vapor Extraction well  	Name: SVE-08 Length: 10'-0" Type: 0.020" slot screen Sch 40 PVC Well screened within vadose zone at 7' below ground surface.	Black silty medium Sands

SCALE: 1"= N/A PAGE 8 OF 10

Please print, sign and return to the Department of Ecology

RESOURCE PROTECTION WELL REPORT

CURRENT Notice of Intent No. RE11442

(SUBMIT ONE WELL REPORT PER WELL INSTALLED) SVE-09

Construction/Decommission *("x" in box)*

- [x] Construction
- [ ] Decommission

ORIGINAL INSTALLATION Notice of Intent Number: RE11442

Consulting Firm AMEC Foster Wheeler

Unique Ecology Well IDTag No. BCB328

WELL CONSTRUCTION CERTIFICATION: I constructed and/or accept responsibility for construction of this well, and its compliance with all Washington well construction standards. Materials used and the information reported above are true to my best knowledge and belief.

☐ Driller ☒ Engineer ☐ Trainee

Name (Print Last, First Name) Hsieh, Pat

Driller/Engineer /Trainee Signature

Driller or Trainee License No. 45361

If trainee, licensed driller's Signature and License Number:

Type of Well *("x in box)*

- [x] Resource Protection
- [ ] Geotech Soil Boring

Property Owner Robert Stetson - Kelley-Moore Paint Company Inc.

Site Address 5400 Airport Way South

City Seattle County King

Location SW 1/4-1/4 NE 1/4 Sec 20 Twn 24N R 4E

EWM ☐ or WWM ☐

Lat/Long (s, t, r still REQUIRED) Lat Deg ____ Min ____ Sec ____

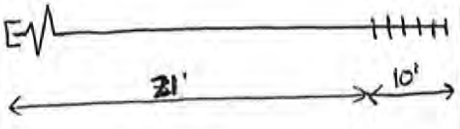
Long Deg ____ Min ____ Sec ____

Tax Parcel No. 3868400270

Cased or Uncased Diameter 4" Static Level NA

Work/Decommission Start Date 10/15/2015

Work/Decommission Completed Date 10/15/2015

Construction Design	Well Data	Formation Description
Horizontal soil vapor extraction well.  	Name: SVE-09 Screen length: 10'-0" Type: 0.020" slotted screen, Sch. 40 PVC Well is screened within vadose zone at 4' below ground surface. Well head is capped and buried; it will be connected to treatment manifold during system commissioning	Black silty sand, medium sands.

SCALE: 1"= NA PAGE 9 OF 10

Please print, sign and return to the Department of Ecology

RESOURCE PROTECTION WELL REPORT

CURRENT Notice of Intent No. RE11442

(SUBMIT ONE WELL REPORT PER WELL INSTALLED) SVE-10

Construction/Decommission *("x" in box)*

- [x] Construction
- [ ] Decommission

ORIGINAL INSTALLATION Notice of Intent Number: RE11442

Consulting Firm AMEC Foster Wheeler

Unique Ecology Well IDTag No. BCB332

WELL CONSTRUCTION CERTIFICATION: I constructed and/or accept responsibility for construction of this well, and its compliance with all Washington well construction standards. Materials used and the information reported above are true to my best knowledge and belief.

- [ ] Driller [x] Engineer [ ] Trainee

Name (Print Last, First Name) Hsieh, Pat

Driller/Engineer /Trainee Signature

Driller or Trainee License No. 45361

If trainee, licensed driller's Signature and License Number:

Type of Well *("x in box)*

- [x] Resource Protection
- [ ] Geotech Soil Boring

Property Owner Robert Stetson - Kelley-Moore Paint Company Inc.

Site Address 5400 Airport Way South

City Seattle County King

Location SW 1/4-1/4 NE 1/4 Sec 20 Twn 24N R 4E

EWM [ ] or WWM [ ]

Lat/Long (s, t, r still REQUIRED) Lat Deg ____ Min ____ Sec ____

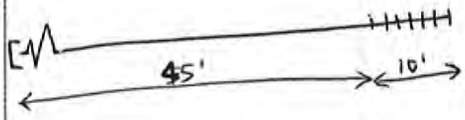
Long Deg ____ Min ____ Sec ____

Tax Parcel No. 3868400270

Cased or Uncased Diameter 4" Static Level NA

Work/Decommission Start Date 10/15/2015

Work/Decommission Completed Date 10/19/2015

Construction Design	Well Data	Formation Description
Horizontal soil vapor extraction well.  	Name: SVE-10 Screen length: 10'-0" Type: 0.020" slotted screen Sch. 40 PVC well is screened within vadose zone at 4' below ground surface. Well head is capped and buried; it will be connected to treatment manifold during system commissioning.	Black silty sand, medium sands.

SCALE: 1"= NA PAGE 10 OF 10

Please print, sign and return to the Department of Ecology

RESOURCE PROTECTION WELL REPORT

CURRENT Notice of Intent No. RE11868

(SUBMIT ONE WELL REPORT PER WELL INSTALLED) SVE-11

Construction/Decommission *("x" in box)*

- [x] Construction
- [ ] Decommission

ORIGINAL INSTALLATION Notice of Intent Number: RE11868

Consulting Firm AMEC Foster Wheeler

Unique Ecology Well IDTag No. BCB333

WELL CONSTRUCTION CERTIFICATION: I constructed and/or accept responsibility for construction of this well, and its compliance with all Washington well construction standards. Materials used and the information reported above are true to my best knowledge and belief.

☐ Driller ☒ Engineer ☐ Trainee

Name (Print Last, First Name) Hsieh, Pat

Driller/Engineer /Trainee Signature

Driller or Trainee License No. 45361

If trainee, licensed driller's Signature and License Number:

Type of Well *("x in box)*

- [x] Resource Protection
- [ ] Geotech Soil Boring

Property Owner Robert Stetson - Kelley-Moore Paint Company Inc.

Site Address 5400 Airport Way South

City Seattle County King

Location SW 1/4-1/4 NE 1/4 Sec 20 Twn 24N R 4E

EWM ☐ or WWM ☐

Lat/Long (s, t, r still REQUIRED) Lat Deg ____ Min ____ Sec ____

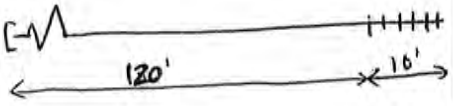
Long Deg ____ Min ____ Sec ____

Tax Parcel No. 3868400270

Cased or Uncased Diameter 4" Static Level ____

Work/Decommission Start Date 10/15/2015

Work/Decommission Completed Date 10/24/2015

Construction Design	Well Data	Formation Description
Horizontal soil vapor extraction well.  	Name: SVE-11 Screen length: 10'-0" Type: 0.020" slotted screen, Sch. 40 PVC Well is screened within vadose zone at 4' below ground surface. Well head is capped and buried; it will be connected to treatment manifold during system commissioning.	Black silty sand, medium sands.

SCALE: 1"= NA PAGE 1 OF 2

Please print, sign and return to the Department of Ecology

RESOURCE PROTECTION WELL REPORT

CURRENT Notice of Intent No. RE11868

(SUBMIT ONE WELL REPORT PER WELL INSTALLED) SVE-12

Construction/Decommission *("x" in box)*

- [x] Construction
- [ ] Decommission

ORIGINAL INSTALLATION Notice of Intent Number: RE11868

Consulting Firm AMEC Foster Wheeler

Unique Ecology Well IDTag No. BJK722

WELL CONSTRUCTION CERTIFICATION: I constructed and/or accept responsibility for construction of this well, and its compliance with all Washington well construction standards. Materials used and the information reported above are true to my best knowledge and belief.

☐ Driller ☒ Engineer ☐ Trainee

Name (Print Last, First Name) Hsieh, Pat

Driller/Engineer /Trainee Signature

Driller or Trainee License No. 45361

If trainee, licensed driller's Signature and License Number:

Type of Well *("x in box)*

- [x] Resource Protection
- [ ] Geotech Soil Boring

Property Owner Robert Stetson - Kelley-Moore Paint Company Inc.

Site Address 5400 Airport Way South

City Seattle County King

Location SW 1/4-1/4 NE 1/4 Sec 20 Twn 24N R 4E

EWM ☐ or WWM ☐

Lat/Long (s, t, r still REQUIRED) Lat Deg ____ Min ____ Sec ____

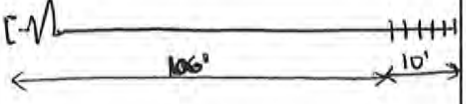
Long Deg ____ Min ____ Sec ____

Tax Parcel No. 3868400270

Cased or Uncased Diameter 4" Static Level ____

Work/Decommission Start Date 10/15/2015

Work/Decommission Completed Date 10/21/2015

Construction Design	Well Data	Formation Description
Horizontal well for soil vapor extraction.  	Name: SVE-12 Screen length: 10'-0" Type: 0.020" slotted screen, Sch. 40 PVC Well is screened within the vadose zone at 4' below ground surface. Well head is capped and buried; it will be connected to the treatment manifold during system commissioning.	Black silty medium sands.

SCALE: 1"= NA PAGE 2 OF 2

PROJECT: Former Kelly-Moore Paint Company - Air Sparge Well Installation Seattle, Washington	**Log of Well No. AS-1**
BORING LOCATION: S. parking lot, S. south end of trench by system area fence	GROUND SURFACE ELEVATION AND DATUM: Ground surface
DRILLING CONTRACTOR: Cascade Drilling, Inc.	DATE STARTED: 11/4/16 / DATE FINISHED: 11/4/16
DRILLING METHOD: Hollow-stem auger	TOTAL DEPTH (ft.): 19.0 / SCREEN INTERVAL (ft.): 13.5-18.5
DRILLING EQUIPMENT: CME 75	DEPTH TO WATER: / FIRST / COMPL. / CASING: 2" Schedule 40 PVC
SAMPLING METHOD: Split spoon sampler	LOGGED BY: K. Black
HAMMER WEIGHT: 300 lb / DROP: 30"	RESPONSIBLE PROFESSIONAL: J. Long / REG. NO. L.Hg. 1354

DEPTH (feet)	SAMPLES: Sample No.	SAMPLES: Sample	SAMPLES: Blows/ Foot	OVM Reading	DESCRIPTION NAME (USCS): color, moist, % by wt., plast. density, structure, cementation, react. w/HCl, geo. inter. Surface Elevation: Not surveyed	WELL CONSTRUCTION DETAILS AND/OR DRILLING REMARKS
0					ASPHALTIC CONCRETE	Traffic Rated Well Box
1					SILTY SAND (SM): very dark grayish brown (2.5Y 3/2), moist, 75% medium to coarse sand, 20% low plasticity fines, 5% fine gravel	Concrete to Ground Surface
2						
3			2 1 1			
4				44.4	POORLY-GRADED SAND (SP): very dark gray (2.5Y 3/1), moist, 95% fine to coarse sand, 5% low plasticity fines	Bentonite Grout
5						
6						
7			0 0 1	5346	hydrocarbon odor, sheen observed	2" Sch. 40 Casing
8					wet, light sheen	
9			1 2 2			
10				50.5		20/40 Filter Sand
11						
12						2/12 Filter Sand
13			3 4 5			
14						2" Sch. 40 PVC 0.010 Screen
15				20.9		

OAKWELLV (REV. 8/2011)

PROJECT: Former Kelly-Moore Paint Company - Air Sparge Well Installation
Seattle, Washington

Log of Well No. AS-1 (cont'd)

DEPTH (feet)	SAMPLES: Sample No.	SAMPLES: Sample	SAMPLES: Blows/ Foot	OVM Reading	DESCRIPTION NAME (USCS): color, moist, % by wt., plast. density, structure, cementation, react. w/HCl, geo. inter.	WELL CONSTRUCTION DETAILS AND/OR DRILLING REMARKS
15			2 5 5		POORLY-GRADED SAND (SP): Continued	2/12 Filter Sand
16			4 6 7		SILTY SAND (SM): very dark gray (2.5Y 3/1), wet, 85% fine to medium sand, 15% low plasticity fines	
17				7.9		2" Sch. 40 PVC 0.010 Screen
18					POORLY-GRADED SAND (SP): very dark gray (2.5Y 3/1), wet, 95% fine to medium sand, 5% low plasticity fines, trace coarse gravel	2" Sch. 40 PVC Endcap
19					Ecology Well ID BJY 327	
20						
21						
22						
23						
24						
25						
26						
27						
28						
29						
30						
31						
32						
33						

OAKWELLV (REV. 8/2011)

PROJECT: Former Kelly-Moore Paint Company - Air Sparge Well Installation Seattle, Washington	**Log of Well No. AS-2**
BORING LOCATION: S. parking lot, 20ft west of silo	GROUND SURFACE ELEVATION AND DATUM: Ground surface
DRILLING CONTRACTOR: Cascade Drilling, Inc.	DATE STARTED: 11/3/16 / DATE FINISHED: 11/3/16
DRILLING METHOD: Hollow-stem auger	TOTAL DEPTH (ft.): 19.0 / SCREEN INTERVAL (ft.): 13.5-18.5
DRILLING EQUIPMENT: CME 75	DEPTH TO WATER: FIRST / COMPL. / CASING: 2" Schedule 40 PVC
SAMPLING METHOD: Split spoon sampler	LOGGED BY: K. Black
HAMMER WEIGHT: 300 lb / DROP: 30"	RESPONSIBLE PROFESSIONAL: J. Long / REG. NO. L.Hg. 1354

DEPTH (feet)	SAMPLES: Sample No.	SAMPLES: Sample	SAMPLES: Blows/ Foot	OVM Reading	DESCRIPTION NAME (USCS): color, moist, % by wt., plast. density, structure, cementation, react. w/HCl, geo. inter.	WELL CONSTRUCTION DETAILS AND/OR DRILLING REMARKS
					Surface Elevation: Not surveyed	
0					ASPHALTIC CONCRETE	Traffic Rated Well Box
1					SILTY SAND with GRAVEL (SM): light brownish gray (2.5Y 6/2), moist, 65% fine to coarse sand, %20 low plasticity fines, 15% fine to coarse gravel	Concrete to Ground Surface
2						
3			4 3 3		POORLY-GRADED SAND with SILT (SP-SM): very dark gray (2.5Y 3/1), moist, 90% fine to coarse sand, 10% low plasticity fines	
4				1.8		
5						Bentonite Grout
6						
7						2" Sch. 40 Casing
8						
9			2 2 2		wet, trace fine to coarse gravels	
10				38.1		20/40 Filter Sand
11			4 6 9		woody debris	
12						2/12 Filter Sand
13			2 5 6			
14			2 4 7			2" Sch. 40 PVC 0.010 Screen
15						

OAKWELLV (REV. 8/2011)

PROJECT: Former Kelly-Moore Paint Company - Air Sparge Well Installation
Seattle, Washington

Log of Well No. AS-2 (cont'd)

DEPTH (feet)	SAMPLES: Sample No.	SAMPLES: Sample	SAMPLES: Blows/ Foot	OVM Reading	DESCRIPTION NAME (USCS): color, moist, % by wt., plast. density, structure, cementation, react. w/HCl, geo. inter.	WELL CONSTRUCTION DETAILS AND/OR DRILLING REMARKS
15				2.3	POORLY-GRADED SAND with SILT (SP-SM): Continued woody debris	2/12 Filter Sand
16			2 3 7			
17					SILTY SAND (SM): dark gray (2.5Y 4/1), wet, 70% fine sand, 30% low plasticity fines	2" Sch. 40 PVC 0.010 Screen
18				0.6		2" Sch. 40 PVC Endcap
19					Ecology Well ID BJY 328	
20						
21						
22						
23						
24						
25						
26						
27						
28						
29						
30						
31						
32						
33						

OAKWELLV (REV. 8/2011)

PROJECT: Former Kelly-Moore Paint Company - Air Sparge Well Installation Seattle, Washington	**Log of Well No. AS-3**
BORING LOCATION: Mid parking lot, NW of silo	GROUND SURFACE ELEVATION AND DATUM: Ground surface
DRILLING CONTRACTOR: Cascade Drilling, Inc.	DATE STARTED: 11/3/16 / DATE FINISHED: 11/3/16
DRILLING METHOD: Hollow-stem auger	TOTAL DEPTH (ft.): 19.0 / SCREEN INTERVAL (ft.): 13.5-18.5
DRILLING EQUIPMENT: CME 75	DEPTH TO WATER: FIRST / COMPL. / CASING: 2" Schedule 40 PVC
SAMPLING METHOD: Split spoon sampler	LOGGED BY: K. Black
HAMMER WEIGHT: 300 lb / DROP: 30"	RESPONSIBLE PROFESSIONAL: J. Long / REG. NO. L.Hg. 1354

DEPTH (feet)	SAMPLES: Sample No.	SAMPLES: Sample	SAMPLES: Blows/ Foot	OVM Reading	DESCRIPTION NAME (USCS): color, moist, % by wt., plast. density, structure, cementation, react. w/HCl, geo. inter. Surface Elevation: Not surveyed	WELL CONSTRUCTION DETAILS AND/OR DRILLING REMARKS
0					ASPHALTIC CONCRETE	Traffic Rated Well Box
1					SILTY SAND with GRAVEL (SM): light brownish gray (2.5Y 6/2), moist, 50% fine to coarse sand, 30% fine to coarse gravel, 20% low plasticity fines, trace cobles	Concrete to Ground Surface
2						
3			5 6 6	1.2		
4						
5						Bentonite Grout
6						
7						2" Sch. 40 Casing
8			2 2 3			
9				3.9	POORLY-GRADED SAND (SP): black (2.5Y 2.5/1), wet, 95% fine to coarse sand, 5% fines, trace fine gravel	
10						20/40 Filter Sand
11						
12			2 3 3			2/12 Filter Sand
13						
14			4 6 7			2" Sch. 40 PVC 0.010 Screen
15						

OAKWELLV (REV. 8/2011)

PROJECT: Former Kelly-Moore Paint Company - Air Sparge Well Installation
Seattle, Washington

Log of Well No. AS-3 (cont'd)

DEPTH (feet)	SAMPLES: Sample No.	SAMPLES: Sample	SAMPLES: Blows/ Foot	OVM Reading	DESCRIPTION NAME (USCS): color, moist, % by wt., plast. density, structure, cementation, react. w/HCl, geo. inter.	WELL CONSTRUCTION DETAILS AND/OR DRILLING REMARKS
15				2.6	POORLY-GRADED SAND (SP): Continued	
16			5 5 6			2/12 Filter Sand
17			5 5 5			2" Sch. 40 PVC 0.010 Screen
18				1.8	SILTY SAND (SM): very dark gray (2.5Y 3/1), wet, 85% fine to medium sand, 15% low plasticity fines	2" Sch. 40 PVC Endcap
19					Ecology Well ID BJY 325	
20						
21						
22						
23						
24						
25						
26						
27						
28						
29						
30						
31						
32						
33						

OAKWELLV (REV. 8/2011)

PROJECT: Former Kelly-Moore Paint Company - Air Sparge Well Installation
Seattle, Washington

Log of Well No. AS-4

BORING LOCATION: Mid parking lot, between AS-3 and AS-5	GROUND SURFACE ELEVATION AND DATUM: Ground surface		
DRILLING CONTRACTOR: Cascade Drilling, Inc.	DATE STARTED: 11/3/16	DATE FINISHED: 11/3/16	
DRILLING METHOD: Hollow-stem auger	TOTAL DEPTH (ft.): 19.0	SCREEN INTERVAL (ft.): 13.5-18.5	
DRILLING EQUIPMENT: CME 75	DEPTH TO WATER: FIRST	COMPL.	CASING: 2" Schedule 40 PVC
SAMPLING METHOD: Split spoon sampler	LOGGED BY: K. Black		
HAMMER WEIGHT: 300 lb / DROP: 30"	RESPONSIBLE PROFESSIONAL: J. Long	REG. NO. L.Hg. 1354	

DEPTH (feet)	SAMPLES: Sample No.	SAMPLES: Sample	SAMPLES: Blows/ Foot	OVM Reading	DESCRIPTION: NAME (USCS): color, moist, % by wt., plast. density, structure, cementation, react. w/HCl, geo. inter.
					Surface Elevation: Not surveyed
0					ASPHALTIC CONCRETE
1					SILTY SAND (SM): grayish brown (2.5Y 5/2), moist, 75% fine to coarse sand, 20% low plasticity fines, 5% fine to coarse gravel, some woody debris
2					
3					
4			3 2 2	16.7	
5					
6					
7					
8			3 2 2		
9				1.4	POORLY-GRADED SAND (SP): very dark gray (2.5Y 3/1), wet, 95% fine to coarse sand, 5% fines
10					wet
11					
12					
13			3 4 5		trace fine gravel
14			4 4 5		SILTY SAND (SM): very dark gray (2.5Y 3/1), wet, 85% fine to medium sand, 15% low plasticity fines
15					

WELL CONSTRUCTION DETAILS AND/OR DRILLING REMARKS

- Traffic Rated Well Box
- Concrete to Ground Surface
- Bentonite Grout
- 2" Sch. 40 Casing
- 20/40 Filter Sand
- 2/12 Filter Sand
- 2" Sch. 40 PVC 0.010 Screen

OAKWELLV (REV. 8/2011)

PROJECT: Former Kelly-Moore Paint Company - Air Sparge Well Installation
Seattle, Washington

Log of Well No. AS-4 (cont'd)

DEPTH (feet)	SAMPLES: Sample No.	SAMPLES: Sample	SAMPLES: Blows/ Foot	OVM Reading	DESCRIPTION NAME (USCS): color, moist, % by wt., plast. density, structure, cementation, react. w/HCl, geo. inter.	WELL CONSTRUCTION DETAILS AND/OR DRILLING REMARKS
15				1.4	SILTY SAND (SM): Continued	
16			5 4 4		POORLY-GRADED SAND (SP): very dark gray (2.5Y 3/1), wet, 95% fine to medium sand, 5% low plasticity fines	2/12 Filter Sand
17			2 3 4		SILTY SAND (SM): very dark gray (2.5Y 3/1), wet, 85% fine to medium sand, 15% low to medium plasticity fines	2" Sch. 40 PVC 0.010 Screen
18				1.2		2" Sch. 40 PVC Endcap
19					Ecology Well ID BJY 326	
20						
21						
22						
23						
24						
25						
26						
27						
28						
29						
30						
31						
32						
33						

OAKWELLV (REV. 8/2011)

PROJECT: Former Kelly-Moore Paint Company - Air Sparge Well Installation Seattle, Washington	**Log of Well No. AS-5**
BORING LOCATION: Mid parking lot, north end of trash system	GROUND SURFACE ELEVATION AND DATUM: Ground surface
DRILLING CONTRACTOR: Cascade Drilling, Inc.	DATE STARTED: 11/4/16 / DATE FINISHED: 11/4/16
DRILLING METHOD: Hollow-stem auger	TOTAL DEPTH (ft.): 19.0 / SCREEN INTERVAL (ft.): 13.5-18.5
DRILLING EQUIPMENT: CME 75	DEPTH TO WATER: / FIRST: / COMPL.: / CASING: 2" Schedule 40 PVC
SAMPLING METHOD: Split spoon sampler	LOGGED BY: K. Black
HAMMER WEIGHT: 300 lb / DROP: 30"	RESPONSIBLE PROFESSIONAL: J. Long / REG. NO. L.Hg. 1354

DEPTH (feet)	SAMPLES: Sample No.	SAMPLES: Sample	SAMPLES: Blows/ Foot	OVM Reading	DESCRIPTION NAME (USCS): color, moist, % by wt., plast. density, structure, cementation, react. w/HCl, geo. inter.	WELL CONSTRUCTION DETAILS AND/OR DRILLING REMARKS
					Surface Elevation: Not surveyed	
0					ASPHALTIC CONCRETE	Traffic Rated Well Box
1					SILTY SAND with GRAVEL (SM): dark olive brown (2.5Y 3/3), moist, 60% fine to medium sand, 25% low plasticity fines, 15% fine to coarse gravel	Concrete to Ground Surface
2						
3						
4						
5			5 5 6	138.1		Bentonite Grout
6					POORLY-GRADED SAND (SP): very dark gray (2.5Y 3/1), moist, 95% fine to medium sand, 5% low plasticity fines	
7			2 2 3		medium to coarse sand, hydrocarbon odor sheen observed	2" Sch. 40 Casing
8						
9			3 4 4	3152	wet	
10				372.7		20/40 Filter Sand
11						
12						2/12 Filter Sand
13						
14			2 3 3	7.0	sheen observed	2" Sch. 40 PVC 0.010 Screen
15						

OAKWELLV (REV. 8/2011)

PROJECT: Former Kelly-Moore Paint Company - Air Sparge Well Installation
Seattle, Washington

Log of Well No. AS-5 (cont'd)

DEPTH (feet)	SAMPLES: Sample No.	SAMPLES: Sample	SAMPLES: Blows/ Foot	OVM Reading	DESCRIPTION NAME (USCS): color, moist, % by wt., plast. density, structure, cementation, react. w/HCl, geo. inter.	WELL CONSTRUCTION DETAILS AND/OR DRILLING REMARKS
15			2 2 3	251.3	POORLY-GRADED SAND (SP): Continued	
16						2/12 Filter Sand
17			3 3 3			2" Sch. 40 PVC 0.010 Screen
18				0.5	fine gravel lens	2" Sch. 40 PVC Endcap
19					Ecology Well ID BJY 328	
20						
21						
22						
23						
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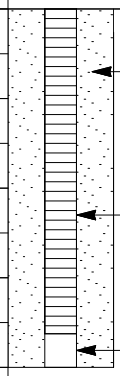
31						
32						
33						



OAKWELLV (REV. 8/2011)

Appendix D

STATE OF WASHINGTON
DEPARTMENT OF ECOLOGY
PO Box 47600 • Olympia, WA 98504-7600 • 360-407-6000
711 for Washington Relay Service • Persons with a speech disability can call 877-833-6341

January 18, 2017

Mary Logue
Kelly Moore Paint Company
301 West Hurst Blvd.
Hurst, TX 76053

RE: Registration with the Underground Injection Control (UIC) Program, Kelly-Moore Paint Co., 5400 Airport Way S., Seattle, WA 98108

Dear Ms. Logue:

This letter is to acknowledge receipt of your registration form received November 22, 2016 to register the above-mentioned site with the UIC program. The UIC wells are rule authorized and do not need a permit to operate. The site is registered as UIC site number 33439.

The project includes:

- Injecting ambient air at five locations at depths between 13 to 18 feet below ground surface. Air pressure will not exceed 100 psi. The air sparging should volatize the gasoline out of the water column and a vapor extraction system will be used to collect the volatized contaminants.

- Down gradient groundwater monitoring will ensure the contaminants are not migrating offsite due to the addition of air to the system.

Air sparging is intended to improve groundwater quality. Characterize, manage, and monitor the site to minimize risk and prevent unforeseen degradation of groundwater quality. Mobilized metals or other substances, or hazardous bi-products, are not allowed to migrate beyond the site property boundary.

The two UIC Program requirements for rule authorization are, the UIC wells must be registered and the discharge from the well must meet the nonendangerment standard, of WAC 173-218-080.

Please call me at (360) 407-6143 if you have any questions. Additional information can also be found at our website http://www.ecy.wa.gov/programs/wq/grndwtr/uic/index.html.

Sincerely,

Mary S Hansen

Mary Shaleen-Hansen
Water Quality Program

Cc: Koorus Tahghighi, Amec Foster Wheeler

Appendix E

pscleanair.org
Puget Sound Clean Air Agency

Puget Sound Clean Air Agency

Notice of Construction No. **11291**

HEREBY ISSUES AN ORDER OF APPROVAL TO CONSTRUCT, INSTALL, OR ESTABLISH

Registration No. **29932**

Date FEB 2 2 2017

Soil and groundwater remediation site of petroleum contaminated site. This project includes an air sparge (AS) and soil vapor extraction (SVE) system equipped with either an electric catalytic oxidizer or granular activated carbon system that will be used to treat the contaminated vapors before being released to the atmosphere.

APPLICANT

Amec Foster Wheeler
600 University St, Ste 600
Seattle, WA 98101

OWNER

Kelly Moore Paint Company
5400 Airport Way S
Seattle, WA 98108

INSTALLATION ADDRESS

Kelly Moore Paint Company, 5400 Airport Way S, Seattle, WA 98108

THIS ORDER IS ISSUED SUBJECT TO THE FOLLOWING RESTRICTIONS AND CONDITIONS

1. Approval is hereby granted as provided in Article 6 of Regulation I of the Puget Sound Clean Air Agency to the applicant to install or establish the equipment, device or process described hereon at the INSTALLATION ADDRESS in accordance with the plans and specifications on file in the Engineering Division of the Puget Sound Clean Air Agency.
2. This approval does not relieve the applicant or owner of any requirement of any other governmental agency.

Soil Remediation

3. The owner and/or operator shall vent all vapors from the soil vapor extraction (SVE) system to a catalytic oxidizer or activated carbon control system prior to discharge to the atmosphere. When using an activated carbon control system, the system shall consist of at least two carbon canisters arranged in series. The SVE system shall not be used to process halogenated compounds or Resource Conservation Recovery Act (RCRA) hazardous waste.

4. The control efficiency of the SVE system abatement device shall meet the following requirements, as applicable:
   a. ≥97% if inlet TPH ≥200 ppmv, measured as hexane or its equivalent; or
   b. ≥90% if inlet TPH <200 ppmv, measured as hexane or its equivalent; or
   c. ≤10 ppmv at the outlet of the control device, measured as hexane or its equivalent.

5. The owner or operator shall meet the following operating requirements:
   a. The maximum influent flow rate to the abatement systems shall not exceed 300 standard cubic feet per minute (scfm).
   b. The owner and/or operator shall only use electric power to operate the catalytic oxidizer.
   c. The SVE system shall be operated with a minimum catalytic oxidizer temperature of at least 650

FEB 2 2 2017

degrees Fahrenheit.

d. The SVE system shall be equipped with an alarm that shuts the SVE system off when the actual temperature readings fall below the minimum operating temperature in condition 5.c.

6. The catalytic oxidizer shall be equipped with continuous temperature measuring and recording instrumentation to demonstrate compliance with the minimum inlet temperature requirements of Condition No. 5.c.

7. To demonstrate compliance with Condition No. 2 of this order, the owner or operator shall measure the inlet and exhaust gas streams by use of a hand held instrument capable of detecting concentrations at the levels expected, EPA Reference Method 8260B, EPA Method 8021, EPA Method TO-15 or other equivalent method approved by the agency at least once per month after initial start-up as follows:
   a. Analyze inlet gas stream to determine the flow rate and the concentration of TPH and Benzene present.
   b. Analyze exhaust gas to determine the flow rate, and the concentration of TPH and Benzene present.
   c. Calculate the control efficiency based on the inlet and exhaust concentrations.

   The SVE system shall not contain a valve or any other device which will either dilute or restrict the flow of the soil gases unless the position of the device can be measured and controlled. If a device is installed, its position must be measured and recorded any time a test sample is taken which will be used to calculate either the mass flow rate of VOCs into the atmosphere or the destruction efficiency of the control device.

8. Breakthrough: During operation of the activated carbon vessels, the owner or operator shall contemporaneously monitor the gas stream by use of a hand held instrument capable of detecting concentrations at the levels expected to prevent breakthrough at least once per week at the following locations:
   a. At the lead carbon vessel inlet;
   b. At the inlet to the last carbon vessel in series (outlet of lead carbon vessel);
   c. Outlet of the last carbon vessel prior to venting to the atmosphere.

   The owner/operator of this source may propose for Agency approval, based on actual measurements taken at the site during operation of the source, that the monitoring schedule be changed based on the decline in organic emissions and/or the demonstrated breakthrough rate of the carbon vessels.

9. The owner or operator shall immediately change out the first carbon bed with unspent carbon upon breakthrough defined as the detection at its outlet of the higher of the following:
   a. 10 % of the inlet stream concentration to the carbon vessel;
   b. 10 ppmv measured as hexane or its equivalent.

10. Spent carbon removed from the SVE system shall be stored in closed containers prior to removal from the site.

11. The owner or operator may operate the soil vapor extraction system without any controls when inlet sampling data from two or more consecutive months shows the following:
   a. Pre-control TPH emission rate is equal to or less than 2.74 lbs/day.
   b. Pre-control Benzene emission rate is equal to or less than 0.018 lbs/day.

12. The owner or operator shall maintain records of the following information:
   a. Hours and time of operation of the extraction system and control devices.
   b. The results of analysis or monitoring performed as required by condition 5.
   c. The control efficiency calculation results.
   d. A summary of the temperature readings data on an monthly basis.
   e. When operating the activated carbon vessels, the date change out occurred and the number of carbon vessel(s) changed.

13. The owner or operator shall report any non-compliance with any condition of this order to the Agency no later than 30 days in which it is first discovered. The owner or operator shall detail the corrective action taken and include the data showing the exceedance as well as the time of occurrence in the submittal.

14. Records required to be maintained by this Order of Approval shall be kept for at least two years from the date of generation, and made available to Puget Sound Clean Air Agency personnel upon request.

APPEAL RIGHTS

Pursuant to Puget Sound Clean Air Agency's Regulation I, Section 3.17 and RCW 43.21B.310, this Order may be appealed to the Pollution Control Hearings Board (PCHB). To appeal to the PCHB, a written notice of appeal must be filed with the PCHB and a copy served upon Puget Sound Clean Air Agency within 30 days of the date the applicant receives this Order.

Ralph Munoz
Reviewing Engineer

Carole Cenci PE
Carole Cenci
Compliance Manager

Notice of Completion

WARNING:

Regulation I, Section 6.09, requires that the owner or applicant notify the Agency of the completion of the work covered by the application and when its operation will begin. This form is provided for your convenience to assist you in complying with this part of the Regulation.

APPLICANT or OWNER SECTION

Notice of Construction No. **11291**

Registration No. **29932**

Mail to: Puget Sound Clean Air Agency
Compliance Division
1904 3rd Ave, Ste 105
Seattle, WA 98101-3317

The project described below was completed on October 31, 2017.

Signature of Owner and/or Applicant	Title	Phone	Date
	Senior Associate	206-342-1779	11/17/17

FOR AGENCY USE ONLY

Project Description

Soil and groundwater remediation site of petroleum contaminated site. This project includes an air sparge (AS) and soil vapor extraction (SVE) system equipped with either an electric catalytic oxidizer or granular activated carbon system that will be used to treat the contaminated vapors before being released to the atmosphere.

Applicant

Amec Foster Wheeler
600 University St, Ste 600
Seattle, WA 98101

Owner

Kelly Moore Paint Company
5400 Airport Way S
Seattle, WA 98108

Location

Kelly Moore Paint Company, 5400 Airport Way S, Seattle, WA 98108

☐ Inspector Check ☐ Engineer _____ and Inspector check.

Follow up _____ (Estimated completion date plus 7)

Date Inspected _____ Inspector _____

Remarks _____

Notice of Completion for NC No. 11291

CONDITIONS

1. Approval is hereby granted as provided in Article 6 of Regulation I of the Puget Sound Clean Air Agency to the applicant to install or establish the equipment, device or process described hereon at the INSTALLATION ADDRESS in accordance with the plans and specifications on file in the Engineering Division of the Puget Sound Clean Air Agency.

2. This approval does not relieve the applicant or owner of any requirement of any other governmental agency.

Soil Remediation

3. The owner and/or operator shall vent all vapors from the soil vapor extraction (SVE) system to a catalytic oxidizer or activated carbon control system prior to discharge to the atmosphere. When using an activated carbon control system, the system shall consist of at least two carbon canisters arranged in series. The SVE system shall not be used to process halogenated compounds or Resource Conservation Recovery Act (RCRA) hazardous waste.

4. The control efficiency of the SVE system abatement device shall meet the following requirements, as applicable:
   a. ≥97% if inlet TPH ≥200 ppmv, measured as hexane or its equivalent; or
   b. ≥90% if inlet TPH <200 ppmv, measured as hexane or its equivalent; or
   c. ≤10 ppmv at the outlet of the control device, measured as hexane or its equivalent.

5. The owner or operator shall meet the following operating requirements:
   a. The maximum influent flow rate to the abatement systems shall not exceed 300 standard cubic feet per minute (scfm).
   b. The owner and/or operator shall only use electric power to operate the catalytic oxidizer.
   c. The SVE system shall be operated with a minimum catalytic oxidizer temperature of at least 650 degrees Fahrenheit.
   d. The SVE system shall be equipped with an alarm that shuts the SVE system off when the actual temperature readings fall below the minimum operating temperature in condition 5.c.

6. The catalytic oxidizer shall be equipped with continuous temperature measuring and recording instrumentation to demonstrate compliance with the minimum inlet temperature requirements of Condition No. 5.c.

7. To demonstrate compliance with Condition No. 2 of this order, the owner or operator shall measure the inlet and exhaust gas streams by use of a hand held instrument capable of detecting concentrations at the levels expected, EPA Reference Method 8260B, EPA Method 8021, EPA Method TO-15 or other equivalent method approved by the agency at least once per month after initial start-up as follows:
   a. Analyze inlet gas stream to determine the flow rate and the concentration of TPH and Benzene present.
   b. Analyze exhaust gas to determine the flow rate, and the concentration of TPH and Benzene present.
   c. Calculate the control efficiency based on the inlet and exhaust concentrations.

   The SVE system shall not contain a valve or any other device which will either dilute or restrict the flow of the soil gases unless the position of the device can be measured and controlled. If a device is installed, its position must be measured and recorded any time a test sample is taken which will be used to calculate either the mass flow rate of VOCs into the atmosphere or the destruction efficiency of the control device.

8. Breakthrough: During operation of the activated carbon vessels, the owner or operator shall contemporaneously monitor the gas stream by use of a hand held instrument capable of detecting concentrations at the levels expected to prevent breakthrough at least once per week at the following locations:
   a. At the lead carbon vessel inlet;
   b. At the inlet to the last carbon vessel in series (outlet of lead carbon vessel);
   c. Outlet of the last carbon vessel prior to venting to the atmosphere.

   The owner/operator of this source may propose for Agency approval, based on actual measurements taken at the site during operation of the source, that the monitoring schedule be changed based on the decline in organic emissions and/or the demonstrated breakthrough rate of the carbon vessels.

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9. The owner or operator shall immediately change out the first carbon bed with unspent carbon upon breakthrough defined as the detection at its outlet of the higher of the following:
    a. 10 % of the inlet stream concentration to the carbon vessel;
    b. 10 ppmv measured as hexane or its equivalent.

10. Spent carbon removed from the SVE system shall be stored in closed containers prior to removal from the site.

11. The owner or operator may operate the soil vapor extraction system without any controls when inlet sampling data from two or more consecutive months shows the following:
    a. Pre-control TPH emission rate is equal to or less than 2.74 lbs/day.
    b. Pre-control Benzene emission rate is equal to or less than 0.018 lbs/day.

12. The owner or operator shall maintain records of the following information:
    a. Hours and time of operation of the extraction system and control devices.
    b. The results of analysis or monitoring performed as required by condition 5.
    c. The control efficiency calculation results.
    d. A summary of the temperature readings data on an monthly basis.
    e. When operating the activated carbon vessels, the date change out occurred and the number of carbon vessel(s) changed.

13. The owner or operator shall report any non-compliance with any condition of this order to the Agency no later than 30 days in which it is first discovered. The owner or operator shall detail the corrective action taken and include the data showing the exceedance as well as the time of occurrence in the submittal.

14. Records required to be maintained by this Order of Approval shall be kept for at least two years from the date of generation, and made available to Puget Sound Clean Air Agency personnel upon request.

Appendix F

TABLE F-1: SELECTION OF PRELIMINARY SOIL SCREENING LEVELS
Former Kelly-Moore Manufacturing Facility
Seattle, Washington

All values are in milligrams per kilogram (mg/kg)

Compound	MTCA Cleanup Levels Protective of Human Health				MTCA Simplified TEE Industrial or Commercial Land Use	Puget Sound Regional Background Level	Final Applicable Practical Quantitation Limit	Preliminary Soil Screening Level
	Method A - Unrestricted Land Use	Method B		Protection of Groundwater				
		Noncancer	Cancer					
Metals								
Arsenic	20	24	0.667	2.92	20.0	7.3	2.0	7.3
Cadmium	2.0	80	--	0.69	36.0	0.77	0.20	0.77
Copper	--	3,200	--	284	550	36	0.20	284
Lead	250	--	--	3000	220	24	2.0	220
Mercury	2.0	24	--	2.09	9.0	0.07	0.02	2.0
Zinc	--	24,000	--	5970	570	85	1.0	570
Total Petroleumn Hydrocarbons[2]								
Diesel Range Organics	2,000	--	--	--	15,000	--	5.0	2,000
Lube Oil	2,000	--	-	--	--	--	10	2,000
Gasoline Range Organics[3]	30/100	--	--	--	12,000	--	4.0	30/100
Volatile Organic Compounds								
Benzene	0.03	320	18.2	0.027	--	--	0.001	0.027
Ethylbenzene	6.00	8000	--	6.05	--	--	0.001	6.0
Naphthalene	5.00	1600	--	4.45	--	--	0.001	4.45
m,p-Xylene	--	--	--	13.1	--	--	0.001	13.1
o-Xylene	--	16000	--	14.4	--	--	0.001	14.4
Total xylenes	9.00	16000	--	--	--	--	0.002	9.0
Toluene	7.00	6400	--	4.52	--	--	0.005	4.52
Trichloroethene	0.03	40	12.0	0.025	--	--	0.001	0.025
Semivolatile Organic Compounds								
Benzo[a]anthracene	--	--	1.37	0.858	--	--	0.0017	0.858
Benzo[a]pyrene	0.10	24.00	0.188	2.326	300	--	0.0017	0.10
Benzo[b]fluoranthene	--	--	1.37	2.95	--	--	0.0017	1.37
Benzo[k]fluoranthene	--	--	13.7	29.5	--	--	0.0017	13.7
Chrysene	--	--	137	95.5	--	--	0.0017	95.5
Dibenz[a,h]anthracene	--	--	0.137	0.429	--	--	0.0017	0.137
Dibenzofuran	--	80.0	--	--	--	--	0.0017	80.0
Indeno[1,2,3-cd]pyrene	--	--	1.37	8.319	--	--	0.0017	1.37
Total cPAHs	0.10	24.0	0.19	--	--	--	0.00	0.10

Abbreviations
-- = not applicable
mg/kg = milligrams per kilogram
MTCA = Model Toxics Control Act
TEE = terrestrial ecological evaluation
TPH = total petroleum hydrocarbons

TABLE F-2: SELECTION OF PRELIMINARY GROUNDWATER SCREENING LEVELS

Former Kelly-Moore Manufacturing Facility

Seattle, Washington

All values are in micrograms per liter (µg/L)

Constituents	Groundwater Method A	Groundwater Method B Non cancer	Groundwater Method B Cancer	GW (MCL - 40 CFR 141, Level)	GW (MCL - 40 CFR 141, NC Goal)	GW (MCL - Board of Health, 246-290)	Minimum Screening Level	PQLs	Natural Background	Preliminary Screening Level
Metals										
Arsenic	5.0	4.8	0.06	10	--	10	0.06	0.5	5.0	5.0
Chromium	50	24000	--	100	100	100	50	0.2	--	50
Copper	--	640	--	1300	1300	1300	640	0.1	--	640
Lead	15	--	--	15	--	15	15	0.02	--	15.0
Mercury	2.0	2.4	--	2.0	2.0	2.0	2.0	0.1	--	2.0
Nickel	--	320	--	--	--	100	100	0.2	--	100
Zinc	--	4800	--	--	--	--	4,800	0.5	--	4,800
Total Petroleum Hydrocarbons [1]										
Diesel Range Organics	500	--	--	--	--	--	500	250	--	500
Lube Oil	500	--	--	--	--	--	500	400	--	500
Gasoline Range Organics	800/1000	--	--	--	--	--	0.00	100	--	800
Volatile Organic Compounds										
1,2,4-Trimethylbenzene	--	80	--	--	--	--	80	0.20	--	80
1,3,5-Trimethylbenzene	--	80	--	--	--	--	80	0.20	--	80
Acetone	--	7,200	--	--	--	--	7,200	5.0	--	7,200
Benzene	5	32	0.8	5.0	--	5.0	0.8	0.20	--	0.80
Ethylbenzene	700	800	--	700	700	700	700	0.20	--	700
Naphthalene	160	160	--	--	--	--	160	1.0	--	160
m,p-Xylene	--	1,600	--	--	--	--	1,600	0.40	--	1,600
o-Xylene	--	1,600	--	--	--	--	1,600	0.20	--	1,600
Toluene	1000	640	--	1,000	1,000	1,000	640	1.0	--	640
Trichloroethene	5	4.0	0.5	5.0	--	5.0	0.54	0.20	--	0.54
Vinyl chloride	0.2	24.0	0.03	2.0	--	2.0	0.03	0.20	--	0.03
Semivolatile Organic Compounds										
Benzo[a]anthracene	--	--	--	--	--	--	0.00	0.01	--	--
Benzo[a]pyrene	0.10	4.8	0.023	0.20	--	0.20	0.02	0.01	--	0.02
Benzo[b]fluoranthene	--	--	--	--	--	--	0.00	0.01	--	--
Benzo[g,h,i]perylene	--	--	--	--	--	--	0.00	0.01	--	--
Benzo[k]fluoranthene	--	--	--	--	--	--	0.00	0.01	--	--
Chrysene	--	--	--	--	--	--	0.00	0.01	--	--
Dibenz[a,h]anthracene	--	--	--	--	--	--	0.00	0.01	--	--
Indeno[1,2,3-cd]pyrene	--	--	--	--	--	--	0.00	0.01	--	--
Total cPAH TEQ	0.10	4.80	0.02	0.20	--	0.20	0.02	0.01	--	0.20
Polychlorinated Biphenyls										
Total PCBs	--	--	0.04	0.50	--	--	0.04	0.01	--	0.04

Abbreviations

-- = not applicable

µg/L = micrograms per liter

CFR = Code of Federal Regulations

cPAH = carcinogenic polycyclic aromatic hydrocarbon

PCBs = polychlorinated biphenyls

PQL = laboratory practical quantitation limit

TEQ = toxicity equivalence factor

TABLE F-3: SELECTION OF PRELIMINARY SUB-SLAB SOIL VAPOR SCREENING LEVELS

Former Kelly-Moore Manufacturing Facility

Seattle, Washington

All values are in micrograms per liter (µg/m^3)

Constituents	Sub-Slab Soil Gas Screening Level Method B Noncancer	Sub-Slab Soil Gas Screening Level Method B Cancer	Deep Soil Gas Screening Level Method B Noncancer	Deep Soil Gas Screening Level Method B Cancer
Metals				
Arsenic	--	--	--	--
Cadmium	--	--	--	--
Chromium	--	--	--	--
Copper	--	--	--	--
Lead	--	--	--	--
Mercury	4.6	--	13.7	--
Zinc	--	--	--	--
Total Petroleum Hydrocarbons [1]				
Diesel Range Organics	--	--	--	--
Lube Oil	--	--	--	--
Gasoline Range Organics	--	--	--	--
Volatile Organic Compounds				
Benzene	457	11	1,371	32.1
Ethylbenzene	15,238	--	45,714	--
Dibenzofuran	--	--	--	--
m,p-Xylene	1,524	--	4,571	--
o-Xylene	1,524	--	4,571	--
Toluene	76,190	--	228,571	--
Trichloroethene	30.5	12.3	91.4	37.0
Semivolatile Organic Compounds				
Benzo[a]anthracene	--	--	--	--
Benzo[a]pyrene	--	--	--	--
Benzo[b]fluoranthene	--	--	--	--
Benzo[g,h,i]perylene	--	--	--	--
Benzo[k]fluoranthene	--	--	--	--
Chrysene	--	--	--	--
Dibenz[a,h]anthracene	--	--	--	--
Indeno[1,2,3-cd]pyrene	--	--	--	--
Total cPAH TEQ	--	--	--	--

Abbreviations

-- = not applicable

µg/m^3 = micrograms per cubic meter

cPAH = carcinogenic polycyclic aromatic hydrocarbon

TEQ = toxicity equivalence factor

TABLE F-4: SELECTION OF PRELIMINARY GROUNDWATER VAPOR SCREENING LEVELS

Former Kelly-Moore Manufacturing Facility

Seattle, Washington

All values are in micrograms per liter (µg/L)

Constituents	Groundwater Method B Non-cancer	Groundwater Method B Cancer
Metals		
Arsenic	--	--
Chromium	--	--
Copper	--	--
Lead	--	--
Mercury	0.89	--
Nickel	--	--
Zinc	--	--
Total Petroleum Hydrocarbons [1]		
Gasoline Range Organics	--	--
Volatile Organic Compounds		
1,2,4-Trimethylbenzene	28	--
1,3,5-Trimethylbenzene	--	--
Acetone	--	--
Benzene	103	2.4
Ethylbenzene	2,783	--
Naphthalene	167	8.9
m,p-Xylene	310	--
o-Xylene	440	--
Toluene	15,584	--
Trichloroethene	3.8	1.6
Vinyl chloride	56.7	0.35
Semivolatile Organic Compounds		
Benzo[a]anthracene	--	--
Benzo[a]pyrene	--	--
Benzo[b]fluoranthene	--	--
Benzo[g,h,i]perylene	--	--
Benzo[k]fluoranthene	--	--
Chrysene	--	--
Dibenz[a,h]anthracene	--	--
Indeno[1,2,3-cd]pyrene	--	--
Total cPAH TEQ	--	--
Polychlorinated Biphenyls		
Total PCBs	--	--

Abbreviations

-- = not applicable

µg/L = micrograms per liter

PCBs = polychlorinated biphenyls