

July 7, 2020

Jerome Cruz, Ecology Site Manager Department of Ecology, Northwest Regional Office Toxic Cleanup Program 3190 160th Avenue SE Bellevue, Washington 98008-5452

Re: Quarterly Progress Report

Reporting Period: April – June 2020

Site Names: **BOTHELL LANDING**

BOTHELL PAINT & DECORATING BOTHELL FORMER HERTZ

Summary:

City of Bothell continues to implement the Cleanup Action Plans for the afore-mentioned sites as part of the Agreed Orders between the City and the Department of Ecology. Per the requirements of Section VII of the Agreed Orders "Work to be Performed", the attached quarterly progress reports (QPRs) have been prepared for the three-month period preceding this submittal.

Kane Environmental continues to conduct the quarterly groundwater monitoring for all three sites. Work on the environmental covenants (EC) has been completed by the respective legal staff at Ecology and City.

Please contact me if you have any questions.

Sincerely,

Notata Matteria

Nduta Mbuthia

Reporting Period: January – March 2020

Date submitted (electronically): July 7, 2020

Date mailed (certified w/return receipt): (deferred due to COVID-19 Stay at Home Order)

Prepared by: Nduta Mbuthia, Project Coordinator

City of Bothell, Public Works Department

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A. A list of on-site activities that have taken place during the reporting period;

- B. Detailed description of any deviations from required tasks not otherwise documented in project plans or amendment requests;
- C. Description of all deviations from Schedule (Exhibit D) during the current reporting period
- D. For any deviations in schedule, a plan for recovering lost time and maintaining compliance with the schedule
- E. All raw data (including laboratory analyses) received by PLP during the past reporting period and an identification of the source of the sample; and
- F. A list of deliverables for the upcoming reporting period if different from the schedule.

Site Name: **BOTHELL LANDING**

Agreed Order No.:15746, Effective date June 11, 2018

A. A list of on-site activities that have taken place during this quarter

Groundwater compliance monitoring for the spring quarter was performed in April 2020; sampling results are attached. An annual groundwater monitoring report was completed for 2019, and transmitted to Ecology in June 2020. Environmental Covenant related to this site were finalized and recorded in May 2020; electronic scans were emailed to Ecology and hard copy originals followed via USPS mail.

B. <u>Detailed description of any deviations from required tasks not otherwise documented in project plans or amendment requests</u>

None

C. <u>Description of all deviations from the Schedule (Exhibit D) during the current quarter and any planned deviations in the upcoming quarter</u>

None.

D. For any deviations in schedule, a plan for recovering lost time and maintaining compliance with the schedule

None; GW compliance monitoring schedule below received Ecology site manager's concurrence:-

Q1 – Winter 2019: March 5, 2019 – March 15, 2019

Q2 - Spring 2019: May 20, 2019 - June 3, 2019

Q3 – Summer 2019: July 15, 2019 - August 5, 2019

Q4 – *Fall 2019: October 7, 2019 – October 25, 2019*

Q5 – Winter 2020: January 6, 2020 – January 20, 2020

Q6 – Spring 2020: Week of April 6, 2020 through week of April 20, 2020

Q7 – Summer 2020: Week of July 6, 2020 through week of July 20, 2020

Q8 - Fall 2020: Week of October 5, 2020 through week of October 19, 2020

E. All raw data (including laboratory analyses) received by Defendants during the past quarter and an identification of the source of the sample

Groundwater compliance monitoring was conducted per the CMP Table 3-1B (as modified below). Table of the sampling results is attached.

Table 3-1B Sampling Approach -- Ground Water SUBSEQUENT ROUNDS

Sample type	Sampling location	Sampling Frequency / Rationale	Analytes
Arsenic		-	
Point of compliance	BLMW-11 BLMW-12 MW-1	Quarterly for two years, then modify based on results and consultation with Ecology*	Total Arsenic Dissolved Arsenic Total petroleum hydrocarbons, diesel and oil range TPH-D, TPH-O, Field parameters

^{*} If compliance monitoring from the Site shows that the arsenic remains at elevated concentrations for eight quarters of monitoring, with no other detections of petroleum hydrocarbon contamination, this data can be used to demonstrate that the elevated concentrations represents a locally high natural background for arsenic. Based on this evidence, a request can be made to remove the institutional controls for ground water at the site and discontinue monitoring.

Naphohalene, Methylnaphothalene, & 2-Methylnaphotheles

LANDING - To include in A. A list of on-site activities that have taken place during this quarter

During a meeting with Jerome Cruz, Ching Pi and John Kane, Naphthalene, 1-Methylnaphthalene, and 2-Methylnaphthalene will continued to be included in compliance groundwater monitoring for one well, BL-MW-12 only. Concentrations of these chemicals were above their respective MTCA cleanup standard.

F. A list of deliverables for the upcoming quarter if different from the schedule. Same as the schedule

EXHIBIT D

Bothell Landing Facility Schedule of Deliverables

Deliverables.	<u>Due Date</u>
Draft Institutional Control (IC) Plan; Draft Environmental Covenant(s); and a Title Report	Within 120 days after the effective date of the Agreed Order
Final IC Plan and Final Environmental Covenant(s)	Within 30 days of receipt of Ecology comments on the Draft IC Plan and Draft Environmental Covenant(s).
Record Final Environmental Covenant(s) with King County Auditor	Within 5 days after Ecology's approval of the Final IC Plan or Ecology's signature as grantee of the Final Environmental Covenant(s), whichever occurs last.
Start ground water monitoring	Within 90 days after final CAP is approved
Combined TPH/Arsenic ground water monitoring	Quarterly for two years, then modify based on results and consultation with Ecology
Combined TPH/Arsenic ground water monitoring reports	90 days after 4 th quarter sampling
Progress reports	Every 3 months unless Ecology authorizes less frequent reporting

Site Name: **BOTHELL PAINT & DECORATING**Agreed Order No.: 15748 (Effective date May 31, 2018)

A. A list of on-site activities that have taken place during this quarter

Groundwater compliance monitoring for the spring quarter was performed in April 2020; sampling results are attached.

An annual groundwater monitoring report was completed for 2019, and transmitted to Ecology in June 2020.

Environmental Covenant related to this site was finalized and recorded in May 2020; electronic scans were emailed to Ecology and hard copy originals followed via USPS mail.

B. <u>Detailed description of any deviations from required tasks not otherwise documented in project plans</u> or amendment requests

None

C. <u>Description of all deviations from the Schedule (Exhibit D) during the current quarter and any planned deviations in the upcoming quarter</u>

None

D. For any deviations in schedule, a plan for recovering lost time and maintaining compliance with the schedule

None; GW compliance monitoring schedule below received Ecology site manager's concurrence:-

- Q1 Winter 2019: March 5, 2019 March 15, 2019
- *Q2 Spring 2019: May 20, 2019 June 3, 2019*
- Q3 Summer 2019: July 15, 2019 August 5, 2019
- Q4 Fall 2019: October 7, 2019 October 25, 2019
- *Q5* Winter 2020: January 6, 2020 January 20, 2020
- 06 Spring 2020: Week of April 6, 2020 through week of April 20, 2020
- Q7 Summer 2020: Week of July 6, 2020 through week of July 20, 2020
- Q8 Fall 2020: Week of October 5, 2020 through week of October 19, 2020

E. All raw data (including laboratory analyses) received by Defendants during the past quarter and an identification of the source of the sample

Groundwater compliance monitoring was conducted per the CMP Table 3-1B below. Table of the sampling results is attached.

Table 3-1B Sampling Approach - Ground Water SUBSEQUENT ROUNDS

Sample type	Sampling location	Sampling Frequency / Rationale	Analytes
Petroleum hydroca	rbons – Ground	l Water	,
Point of Compliance	BPMW-6 BPMW-2R* BC-10	Quarterly for two years, then modify based on results and consultation with Ecology Duration: 5 years	Total petroleum hydrocarbons, diesel and oil range TPH-D, TPH-O, nitrate, manganese (soluble), sulfate, methane, alkalinity.
		BC-10 will be monitored for two quarters to confirm compliance, if results exceed cleanup levels, monitoring will be the same as other wells.	Field parameters: dissolved oxygen, redox potential, pH, conductivity, temperature, ferrous iron
Petroleum hydroca	rbons – Storm \	Vater	
1 sample upgradient of Site, 2 samples on Site	See Figure 2	One time event	Total petroleum hydrocarbons, gasoline, diesel and oil range, BTEX TPH-G/BTEX, TPH-D, TPH-O, HVOCs
Arsenic - Ground	Water		
Point of compliance		Same as petroleum hydrocarbon, but with additional quarterly monitoring for two years if TPH decreases to be in compliance** BC-10 will be monitored for two quarters to confirm compliance, if results exceed cleanup levels, monitoring will be the same as	Total Arsenic Dissolved Arsenic Field parameters

^{*} BPMW-2R is a replacement well to be installed 30 to 35 feet northwest of BPMW-2, which was located in the middle of the newly constructed Horse Creek and therefore decommissioned.

F. A list of deliverables for the upcoming quarter if different from the schedule. Same as the schedule

Bothell Paint & Decorating Facility Schedule of Deliverables

Deliverables.	Due Date
Draft Institutional Control (IC) Plan; Draft Environmental Covenant(s); and a Title Report	Within 120 days after the effective date of the Agreed Order
Final IC Plan and Final Environmental Covenant(s)	Within 30 days of receipt of Ecology comments on the Draft IC Plan and Draft Environmental Covenant(s).
Record Final Environmental Covenant(s) with King County Auditor	Within 5 days after Ecology's approval of the Final IC Plan or Ecology's signature as grantee of the Final Environmental Covenant(s), whichever occurs last.
Start ground water monitoring	Within 90 days after final CAP is approved
Combined TPH/MNA/Arsenic ground water monitoring	Quarterly for two years, then modify based on results and consultation with Ecology Duration: 5 years unless a different action is triggered by the decision tree shown in table 1 of the dCAP
Combined TPH/MNA/Arsenic ground water monitoring reports	90 days after 4 th quarter sampling Annually for a minimum of 5 years unless a different action is triggered by the decision tree shown in table 1 of the dCAP
Progress reports	Every 3 months unless Ecology authorizes less frequent reporting

Site Name: **BOTHELL HERTZ**

Agreed Order No.: 15747 (Effective date May 31, 2018)

A. A list of on-site activities that have taken place during this quarter

Groundwater compliance monitoring for the spring quarter was performed in April 2020; sampling results are attached.

An annual groundwater monitoring report was completed for 2019, and transmitted to Ecology in June 2020.

Environmental Covenant related to this site was finalized and recorded in May 2020; electronic scans were emailed to Ecology and hard copy originals followed via USPS mail.

B. <u>Detailed description of any deviations from required tasks not otherwise documented in project plans</u> or amendment requests

None

C. <u>Description of all deviations from the Schedule (Exhibit D) during the current quarter and any planned deviations in the upcoming quarter</u>

None

G. For any deviations in schedule, a plan for recovering lost time and maintaining compliance with the schedule

None; GW compliance monitoring schedule below received Ecology site manager's concurrence:-

- Q1 Winter 2019: March 5, 2019 March 15, 2019
- *Q2 Spring 2019: May 20, 2019 June 3, 2019*
- Q3 Summer 2019: July 15, 2019 August 5, 2019
- Q4 Fall 2019: October 7, 2019 October 25, 2019
- Q5 Winter 2020: January 6, 2020 January 20, 2020
- 06 Spring 2020: Week of April 6, 2020 through week of April 20, 2020
- Q7 Summer 2020: Week of July 6, 2020 through week of July 20, 2020
- Q8 Fall 2020: Week of October 5, 2020 through week of October 19, 2020

D. All raw data (including laboratory analyses) received by Defendants during the past quarter and an identification of the source of the sample

Groundwater compliance monitoring was conducted per the CMP Table 3-1B below. Table of the sampling results is attached.

E. A list of deliverables for the upcoming quarter if different from the schedule.

Same as the schedule

Table 3-1B Sampling Approach – Ground Water SUBSEQUENT ROUNDS

Sample type	Sampling location	Sampling Frequency / Rationale	Analytes
Petroleum hydroca	rbons – Ground	d Water	
Point of Compliance	HZMW-19 BLMW-8 BC-16	Quarterly for two years, then modify based on results and consultation with Ecology Duration: 5 years	Total petroleum hydrocarbons, diesel and oil range TPH-D, TPH-O, nitrate, manganese (soluble), sulfate, methane, alkalinity.
Arsenic – Ground V	Motor		Field parameters: dissolved oxygen, redox potential, pH, conductivity, temperature, ferrous iron
Point of compliance	HZMW-1 HZMW-4 HZMW-12 HZMW-17 BC-16	Same as petroleum hydrocarbon, but with additional quarterly monitoring for two years if TPH decreases to be in compliance** BC-10 will be monitored for two quarters to confirm compliance, if results exceed cleanup levels, monitoring will be the same as other wells.	Total Arsenic Dissolved Arsenic Field parameters

Bothell Former Hertz Facility Schedule of Deliverables

Deliverables.	Due Date
Draft Institutional Control (IC) Plan; Draft Environmental Covenant(s); and a Title Report	Within 120 days after the effective date of the Agreed Order
Final IC Plan and Final Environmental Covenant(s)	Within 30 days of receipt of Ecology comments on the Draft IC Plan and Draft Environmental Covenant(s).
Record Final Environmental Covenant(s) with King County Auditor	Within 5 days after Ecology's approval of the Final IC Plan or Ecology's signature as grantee of the Final Environmental Covenant(s), whichever occurs last.
Start ground water monitoring	Within 90 days after final CAP is approved
Combined TPH/MNA/Arsenic ground water monitoring	Quarterly for two years, then modify based on results and consultation with Ecology Duration: 5 years unless a different action is triggered by the decision tree shown in table 1 of the dCAP
Combined TPH/MNA/Arsenic ground water monitoring reports	90 days after 4 th quarter sampling Annually for a minimum of 5 years unless a different action is triggered by the decision tree shown in table 1 of the dCAP
Progress reports	Every 3 months unless Ecology authorizes less frequent reporting

Table 2
Compliance Groundwater Sampling
Bothell Landing Site
Bothell, Washington

Semple 10	_{Sапрые Dане}	Approvimate Depth to	Diesel Range	5 / 🕺	Joha Joha Joha Joha Joha Joha Joha Joha	Dissolved	Tolay	Dissolved	⁷ ota/	Dissolved	⁷ Oray	Dissolved	⁷ Oray	Dissolved	Мерлинавене	1-Mothymaph	2-Menymaph	Other Semi-Voluite	Compound Organic	Ferrous Iron	140	Dissolved Ortm.	Oxidetion Reduction	Conductivity	
		Feet Below Ground Surface	ug/L	ug/L		enic g/L	Cadı ug	mium g/L	Chro. ug	-		ead g/L	Mei uţ		ug/L	ug/L	ug/L	ug/L	ug/L	mg/L		mg/L	mV	uS/cm	
	9/6/2018	6.96	<50.0	101	<1.75	<1.75	<0.200	<0.200	<1.00	3.51	0.911	<0.500	<0.100	<0.100	<1.00	<0.503	<0.503	nd	nd	2.5	6.48	0.26	64.8	570	i
	3/11/2019	5.85	<52.8	<106	<1.75	<1.75	-	-	-	-	-	-	-	-	-	-	-	-	-	2.0	6.37	0.32	33.3	428.1	1
	5/24/2019	6.38	<260	<420	<3.3	<3.0	-	-	-	-	-	-	-	-	-	-	-	-	-	2.0	6.05	0.39	-77.3	488.9	1
MW-1:W	7/17/2019	7.05	<260	470	<3.3	<3.0	-	-	-	-	-	-	-	-	-	-	-	-	-	3.0	6.26	0.19	5.9	586	i
	10/8/2019	6.72	<250	<400	<3.3	<3.0	-	-	-	-	-	-	-	-	-	-	-	-	-	2.0	6.49	0.04	-8.8	512	1
	1/13/2020	5.41	<250	<400	<3.3	<3.0	-	-	-	-	-	-	-	-	-	-	-	-	-	1.5	6.58	1.79	59.8	299.4	i
	4/10/2020	5.76	<250	410	9.6	8.20	-	-	=	-	-	-	-	-	-	-	-	-	-	2.5	5.92	0.13	66.3	206	i
	9/6/2018	9.84	91.8 b	167	78.5	11.3	<0.200	<0.200	1.61	6.88	0.882	<0.500	<0.100	<0.100	<1.00	<0.501	<0.501	nd	nd	2.0	6.48	0.12	-4.7	920	i
	3/6/2019	5.02	<50.5	159	6.97	3.58	-	-	-	-	-	-	-	-	-	-	-	-	-	1.5	6.56	0.27	-49.1	388.8	i
	5/22/2019	8.31	<260	510	7.9	7.6	-	-	-	-	-	-	-	-	-	-	-	-	-	2.5	6.17	0.25	-82.2	404.7	i
BL-MW-11:W	7/19/2019	9.44	<260	<420	27	21	-	-	-	-	-	-	-	-	-	-	-	-	-	2.0	6.33	0.06	-28.9	589.6	i
	10/9/2019	9.44	<260	450	30	24	-	-	-	-	-	-	-	-	-	-	-	-	-	1.5	6.59	0.14	-100.5	601	i
	1/8/2020	5.97	<260	420	12	9.2	-	-	-	-	-	-	-	-	-	-	-	-	-	1.0	6.66	0.19	24.5	340.6	i
	4/10/2020	5.28	<260	270	7.4	5.3	-	-	-	-	-	-	-	-	-	-	-	-	-	2.5	6.56	4.45	-27.9	367.9	i
	9/6/2018	9.51	362 b	144	87.6	14.4	<0.200	<0.200	3.75	6.92	0.712	<0.500	<0.100	<0.100	370*	13.3	12.3	SR	SR	2.5	6.62	0.1	34.8	840	1
	3/11/2019	7.75	<53.1	114	17.7	3.6	-	-	-	-	-	-	-	-	<0.100	<0.100	<0.100	-	-	2.5	6.02	0.27	52.2	207.5	1
	5/22/2019	8.25	<260	<420	<3.3	<3.0	-	-	-	-	-	-	-	-	-	-	-	•	-	2.5	5.39	0.49	85.8	70.2	i
BL-MW-12:W	7/22/2019	9.52	<260	790	16.0	14.0	-	-	-	-	-	-	-	-	-	-	-	-	-	2.0	5.91	0.04	84.8	500.3	d
	10/9/2019	9.6	<250	<400	<3.3	<3.0	-	-	-	-	-	-	-	-	-	-	-	-	-	0	5.83	0.13	171.4	66.3	d
	1/30/2020	7.06	<210	<210	<3.3	<3.0	-	-	-	-	-	-	-	-	-	-	-	-	-	0	5.35	0.34	130.8	47.5	d
	4/10/2020	8.17	<210	<210	<3.3	<3.0	-	-	-	-	-	-	-	-	-	-	-	-	-	2	6.56	0.22	20.5	420.5	d
	ecific Cleanup I		500	500		10																		<u> </u>	d
MTCA Method A	A or Method B	Cleanup Level^	500	500	5	5.0	5	.0	5	0	•	15	2	.0	160	(1.51)	32	Varies#	Varies#	n/a	n/a	n/a	n/a	n/a	4

Notes:

All results reported in ug/L (micrograms per liter), or mg/L (milligrams per liter)

ug/L = micrograms per liter [equivalent to parts per billion (ppb)]

mg/L = milligrams per liter [equivalent to parts per million (ppm)]

Bold concentrations are detectable concentrations, below their Site Specific Cleanup Level (if available).

Shaded and Bold concentrations are detectable concentrations, exceeding their Site Specific Cleanup Level

nd = No analytes detected above the laboratory reporting limit. See laboratory analytical report for full list of results

= Various cleanup levels for multiple analytes. See laboratory analytical report for full list of analytes

b = Identified as Diesel Range Organics, indicating the presence of unresolved compounds eluting from dodecane through tetracosane (~C12-C24).

SR = Minor detections of other VOCs or SVOCs, at concentrations below state cleanup levels. See analytical report for specific detections.

- = Not analyzed

^ = MTCA Method B Cleanup Level in parentheses

* - Result from analysis by EPA Method 8260. Concentration of 160 ug/L reported from analysis by EPA Method 8270

+ = Site specific cleanup level as established in Cleanup Action Plan dated May 24, 2018

Kane Environmental, Inc.

Table 3 Compliance Groundwater Sampling Bothell Paint Site Bothell, Washington

Sample 10	Sample Date	Approximate Depth to	Diesel Ram.	Heavy Oil Re.	Total	Dissolved	709/	$D_{issohead}$	⁷ 0ta ₄ /	$D_{iSSOVeod}$	⁷ otay	$D_{issoneod}$	⁷ 0fa/	Dissonleag	Dissolved Ma.	Semi-Volatile Organis	Voanie Ogenie Con	Methans CS) TOOM	Niitale (as Mir-	Sulfate	Ferrous Hon	⁷ otal Alkalining C	(SOC) NA	Dissolved Oxyge.	Oxidation Reduction	Conductivity.
		Feet Below	ug/L	ug/L	Ars	senic	Cadr	mium	Chro	mium	Lea	ad	Me	rcury	ug/L	ug/L	ug/L	mg/L	mg/L	mg/L	mg/L	mg/L		mg/L	mV	uS/cm
		Ground Surface	ug/L	ug/L	ug	g/L	ug	g/L	uţ	g/L	ug	/L	и	g/L	ug/L	ug/L	ug/L	mg/L	mg/L	mg/L	mg/L	mg/L		mg/L	777	uo/cm
	11/20/2018	8.08*	51.4 ^b	<101	<1.75	<1.75	<0.200	<0.200	1.72	<1.00	<0.500	<0.500	<0.100	<0.100	161	SR	nd	0.106	<0.1	5.98	1.0	124	7.27	0.14	3.2	229.5
	3/7/2019	5.5*	122 ^b	219	-	-	-	-	-	-	-	-	-	-	94	-	-	0.651	<0.100	1.87	0.5	117	7.47	0.19	-64.7	240
	5/20/2019	7.98*	<260	<420	-	-	-	-	-	-	-	-	-	-	60	-	-	0.66	0.055	<5.0	0.5	110	7.25	0.26	-120.9	235
BPMW-2R:W	7/18/2019	8.46*	<260	<420	-	-	-	-	ı	-	-	-	-	-	92	-	-	1.2	<0.050	<5.0	0.5	110	7.14	0.07	38.9	258.7
	10/10/2019	8.50*	<260	<410	-	-	-	-	-	-	-	-	-	-	120	-	-	0.9	<0.050	<5.0	0.5	110	7.51	0	-78.5	246.7
	1/9/2020	8.09	<260	350	-	-	-	-	-	-	-	-	-	-	76	-	-	1.5	<0.050	<5.0	0.5	110	7.29	0.16	-67.6	247.1
	4/7/2020	7.95	<260	<410	-	-	-	-	-	-	-	-	-	-	130	-	-	1.2	<0.050	<5.0	0.5	120	7.38	0.14	-71.5	248.2
	11/20/2018	2.87	<50.2	194	16.5	15.0	0.207	<0.200	4.51	2.94	4.46	1.09	<0.100	<0.100	67.7	nd	nd	0.511	4.26	19.9	0.0	68.0	5.96	0.11	105.4	292.8
	3/7/2019	2.25	<50.3	<101	14.7	13.8	-	-	-	-	-	-	-	-	27.7	-	-	2.25	10 ^e	5.18	0.5	25.7	5.68	0.32	98.9	159.2
	5/20/2019	1.4	<270	500	9.3	8.4	-	-	-	-	-	-	-	-	26	-	-	1.8	25	<5.0	0.5	44.0	5.87	0.44	32.8	359.6
BPMW-6:W	7/18/2019	3.14	<300	<490	44.0	38.0	-	-	-	-	-	-	-	-	130	-	-	5.9	<0.050	<5.0	1.5	120.0	6.06	0.07	109.9	382.4
	10/10/2019	2.71	<290	740	9.1	5.8	-	-	-	-	-	-	-	-	190	-	-	4.4	9.1	<5.0	1.0	110.0	6.2	0.02	99.5	364
	1/9/2020	0.35	<210	240	11.0	8.0	-	-	-	-	-	-	-	-	23	-	-	5.3	9.4	<5.0	0.0	44.0	5.86	0.62	174	211.6
	4/7/2020	1.71	<210	430	11.0	8.7	-	-	-	-	-	-	-	-	16	-	-	3.8	19	<5.0	0.0	42.0	6	1.15	142.4	274.1
	11/27/2018	9.71	<49.9	<99.8	<1.75	<1.75	<0.200	<0.200	1.03	<1.00	<0.500	<0.500	<0.100	<0.100	184	nd	nd	0.958	<0.1	6.41	2.0	160	6.53	0.38	27.7	384.7
BC-10:W	3/15/2019	9.42	<50.3	<101	<1.75	<1.75	-	-	-	-	-	-	-	-	194	-	-	0.0872	<0.10	6.22	3.0	167	6.62	0.23	-1	351
	5/23/2019	10.9	<260	<410	<3.3	<3.0	-	-	-	-	-	-	-	-	150	-	-	0.23	<0.050	6	4.0	160	6.27	0.28	-149	348.8
	3/7/2019	10.06	-	-	<1.75	<1.75	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2.0	-	6.44	0.26	-4.8	467.4
	5/20/2019	11.06	-	-	<3.3	<3.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	4.0	-	6.22	0.33	-45.7	461.9
BC-11R	7/18/2019	11.87	-	-	<3.3	<3.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2.5	-	6.13	0.07	50	509.6
20 1111	10/10/2019	11.7	-	-	<3.3	<3.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1.0	-	6.51	0.01	-20.8	482.9
	1/21/2020	9.66	-	-	<3.3	<3.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2.0	-	6.42	0.02	-21.8	465.5
	4/7/2020	9.73	-	-	<3.3	<3.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2.0	-	6.53	0.11	2.3	501.5
	3/7/2019	12.56	-	-	12.9	4.83	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2.5	-	6.52	0.24	0.4	515.6
	5/23/2019	12.35	-	-	22.0	11.0		-	-	-	-	-	-	-	-	-	-	-	-	-	3.0	-	6.21	0.37	-162.7	514.9
BPMW-1	7/19/2019	12.42	-	-	14.0	12.0		-	-	-	-	-	-	-	-	-	-	-	-	-	2.5	-	6.56	0.08	-23.3	535.6
	10/10/2019	12.16	-	-	17.0	15.0		-	-	-	-	-	-	-	-	-	-	-	-	-	2.0	-	6.62	0	-43.9	509
	1/21/2020	11.72	-	-	16.0	8.7		-	-	-	-	-	-	-	-	-	-	-	-	-	2.5		6.65	0.1	-14.9	500.8
	4/8/2020	12.08	-	-	19.0	11.0		-	-	-	-	-	-	-	-	-	-	-	-	-	2.0	-	6.6	0.14	-24.4	527
· '	ecific Cleanup I		500	500		10																				
MTCA Method	A or Method B	Cleanup I evel^	500	500	5	5.0	5	.0	,	50	1.	5	1	2.0	(2.240)	Varies#	Varies#	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a

All results reported in ug/L (micrograms per liter), or mg/L (milligrams per liter) ug/L = micrograms per liter [equivalent to parts per billion (ppb)]

mg/L = milligrams per liter [equivalent to parts per million (ppm)]

Bold concentrations are detectable concentrations, below their Site Specific Cleanup Level (if available).

Shaded and Bold concentrations are detectable concentrations, exceeding their Site Specific Cleanup Level

nd = No analytes detected above the laboratory reporting limit. See laboratory analytical report for full list of results

= Various cleanup levels for multiple analytes. See laboratory analytical report for full list of analytes

* = Well is angled at approximately 47 degree angle

b = Identified as Diesel Range Organics, indicating the presence of unresolved compounds eluting from dodecane through tetracosane (~C12-C24).

SR = Minor detections of other VOCs or SVOCs, at concentrations below state cleanup levels. See analytical report for specific detections.

- = Not analyzed

^ = MTCA Method B Cleanup Level in parentheses

+ = Site specific cleanup level as established in Cleanup Action Plan dated May 29, 2018

Kane Environmental, Inc. Page 1 of 1

Table 1 Compliance Groundwater Sampling Bothell Hertz Site Bothell, Washington

900	nole Date	Povimate Depth to Groundwater	Sel Rance	Vy Oil Ran	"'9e O'ganics	Solved		log log	/*	Solved	/*	Noved (/*	lowed .	Dissolved Man.	0/9411	1100 OSBNC COMPOUNT	yane,	Witale (as Witz.	/ ,6	ous tron	al Alkalinik, i	, J. (** 04003)	solved Oxum	tation Redu	reaction Polem
/ ''es	/ 🐇	Feet Below) je	Новиу	Ars	senic	Cadı	/ Š mium	Chro	/ Š omium	/ ½g Le	ad Š	/ ½ ⁸ Merc	cury			/ <u>%</u>	/ ½		Sulfar	/ ½	/ ½	/ {	/ SS/ O	mV	uS/cm
		Ground Surface	ug/L	ug/L	и	g/L	ug	ı/L	ug	g/L	ug	ŋ/L	ug	ı/L	ug/L	ug/L	ug/L	mg/L	mg/L	mg/L	mg/L	mg/L		mg/L	1110	us/cm
	9/4/2018	8.05	<49.8	<99.7	<1.75	+	<0.200		13.6	12.8		<0.500	<0.100	<0.100	<2.00	nd	PCE - 10.2	<0.00863	1.69	7.42	0.0	52.1	6.52	8.48	63.7	140
	9/5/2019 5/21/2019	6.5 6.81	-	-	<1.75 <3.3	<1.75 <3.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.0	-	6.18 5.99	5.59 7	152.5 66.7	149.3 159.6
HZ-MW-1:W	7/16/2019	7.2	-	-	<3.0	<3.0	-	-	-	-	-	-	-	-	-	-	-	_	_	_	0.0	-	6.23	7.98	158.3	203.4
	10/16/2019	7.45	-	-	<3.3	<3.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.0	-	6.4	3.56	148.7	200.1
	1/10/2020	6.39	-	-	<3.3	<3.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.0	-	6.34	1.74	228.8	197.9
	4/9/2020	6.35	-	-	<3.3	<3.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.0	-	6.39	0.06	172.7	153
	9/4/2018 3/5/2019	7.61 5.8	<50.0	124	<1.75 <1.75	<1.75 <1.75	<0.200	<0.200	1.15	<1.00	<0.500	<0.500	<0.100	<0.100	165	nd	SR -	<0.00863	1.7	37.4	0.0	116	6.37	2.36 0.24	12.8 133.6	359 486.1
	5/21/2019	6.37	-	-	<3.3	<3.0	-		-	-	-	-		-	-	-	-		-	-	0.5	-	6.1	0.24	26.2	426.1
HZ-MW-4:W	7/16/2019	7.2	-	-	<3.0	<3.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.0	-	6.05	4.65	114.6	396
	10/11/2019	7.13	-	-	<3.3	<3.0	-		-	-	-	-	-	-	-	-	-	-	-	-	0.0	-	6.37	1.88	100.1	353.8
	1/10/2020	6	-	-	<3.3	<3.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.0	-	6.37	0.33	175.4	459.3
	4/9/2020	6.11	- h	-	<3.3	<3.0	-	-	-	-	-	-	-	-	-	-		-	-	-	0.0	-	6.36	0.13	166.3	489
	9/5/2018 3/6/2019	10.85 8.33	118 ^b	253	4.84 2.89	5.54 <1.75	<0.200	<0.200	<1.00	<1.00	<0.500	<0.500	<0.100	<0.100	4,090	nd	nd	3.17	<0.1	0.367	2.5 1.0	608	6.38	0.32 0.59	33.1 -66.9	1,180 1,063
	5/22/2019	9.46	-	-	4.20	3.20	-	-	-	-	-	-	-	-	-	-	-	-	-	-	5.0	-	6.01	0.39	-115.3	1,151
HZ-MW-12:W	7/19/2019	10.35	-	-	4.60	3.90	-	-	-	-	-	-	-	-	-	-	_	-	-	-	1.5	-	6.14	0.09	9.7	1,220
	10/9/2019	10.7	-	-	4.40	3.80	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2.0	-	6.38	0.03	-39.3	1,133
	1/8/2020	8.31	-	-	5.20	4.50	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2.0	-	6.38	0.21	-3.4	1,015
	4/8/2020	8.61	-	-	3.60	<3.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2.0	-	6.46	0.13	-52.2	1,085
	9/4/2018 3/5/2019	7.9 7.1	<50.0	<99.9	<1.75 <1.75	<1.75 <1.75	<0.200	<0.200	<1.00	<1.00	<0.500	<0.500	<0.100	<0.100	234	nd	SR	0.00892	<0.1	17.7	3.0 3.5	111	6.85	7.94 0.13	15 -24.9	269 269.6
	5/23/2019	7.1	-	-	<3.3	<3.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1.5	-	6.76	1.02	-24.9 -79.6	304
HZ-MW-17:W	7/17/2019	7.63	-	-	<3.0	<3.0	-	-	-	-	-	-	_	-	_	_	_	_	_	_	2.0	-	6.65	0.07	-12.1	8.44
	10/11/2019	7.7	-	-	<3.3	<3.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.5	-	6.98	0.73	41.4	340.5
	1/17/2020	7.15	-	-	<3.3	<3.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.5	-	6.96	0.14	-21.6	252.3
	4/8/2020	7.01	-	-	<3.3	<3.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2.0	-	6.74	0.4	-11.1	382.4
	9/5/2018	7.69	125 b	150	<1.75	<1.75	<0.200	<0.200	<1.00	<1.00	<0.500	<0.500	<0.100	<0.100	954	nd	SR	0.0296	<0.1	65.6	3.5	198	6.34	0.48	26.1	513
	3/5/2019 5/21/2019	6.00 6.25	210 ^b 410	<98.5 <420	<3.3	<3.0	-	-	-	-	-	-	-	-	136 720	-	-	0.0332 0.11	0.414 ^H 0.14	8.98 17	2.0 4.0	162 180	5.94 5.87	0.33	77.7 -11	221.1 330.9
HZ-MW-19:W	7/16/2019	7.1	<260	<420	<3.0	<3.0	-	-	-	-	-	-	-	-	850	-	-	0.035	<0.050	44	2.0	210	6.09	0.12	45.9	520.9
	10/16/2019	6.8	340	950	<3.3	<3.0	-	-	-	-	-	-	-	-	840	-	-	0.018	<0.050	48	1.5	190	6.33	0.04	15.9	486.5
	1/10/2020	4.82	510	<210	<3.3	<3.0	-	-	-	-	-	-	-	-	32	-	-	0.01	1.8	23	0.0	98	6.02	1.67	198.9	244.5
	4/9/2020	5.21	430	370	<3.3	<3.0	-	-	-	-	-	-	-	-	71	-	-	0.06	0.24	13	0.5	120	6.15	0.33	124.4	242.5
	9/5/2018	8.77 3.78	91.4 b	104	3.34	<1.75	<0.200	<0.200	2.35	<1.00	2.91	<0.500	<0.100	<0.100	3,470	nd	nd	2.18	<0.1	13	3.0	560	6.3	0.92	31.4	1,040
	3/6/2019 5/22/2019	5.89	<50.4 <260	179 450	2.56 <3.3	<1.75 <3.0	-	-	-	-	-	-	-	-	3,760 4,600	-	-	3.44 2.1	0.31	270 260	3.0 4.5	371 510	6.37	0.44	-31 -114.1	1,118 1,292
BC-16:W	7/19/2019	7.63	<260	540	<3.3	<3.0	-	-	-	-	-	-	-	-	4,800	-	-	8.9	<0.050	160	2.0	560	6.15	0.84	39.7	1,347
	10/11/2019	8.32	<270	<440	<3.3	<3.0	-	-	-	-	-	-	-	-	3,900	-	-	6	<0.050	61	1.0	520	6.36	0.32	-35.3	1,150
	1/8/2020	3.55	260	350	<3.3	<3.0	-	-	-	-	-	-	-	-	5,600	-	-	1.9	0.13	300	1.5	560	6.44	0.14	-30.1	1,500
	4/8/2020	4.19	570	590	<3.3	<3.0	-	-	-	-	-	-	-	-	3,800	-	-	3.1	<0.050	340	0.5	520	6.55	0.09	-46.3	1,320
	11/21/2018	8.53	879 b	1,680	6.63	2.12	0.276	<0.200	1.25	<1.00	<0.500	<0.500	<0.100	<0.100	1,070	SR	nd	0.648	<0.1	2.37	2.5	244	6.56	0.19	43.5	570.7
	3/6/2019 5/21/2019	7.72 7.91	<49.5 400	234 720	7.10	5.60	-	-	-	-	-	-	-	-	3,480 2,400	-	-	4.26 2.90	<0.100 0.14	1.7 <5.0	2.5 3.0	348 310	6.74 6.46	0.31	-64.4 -101.8	669.8 602.6
BLMW-8R:W	7/17/2019	8.34	470	1,000	8.10	6.50	-	-	-	-	-	-	-	-	2,700	-	-	3.30	<0.050	<5.0 <5.0	2.0	340	6.36	0.27	-101.8	746
	10/11/2019	8.34	<270	720	27	16	-	-	-	-	-	-	-	-	2,600	-	-	1.9	<0.050	<5.0	1.5	370	6.97	0.07	-90.5	776
	1/13/2020	7.57	220	540	26	18	-	·	-	-	-	-	-	-	3,300	-	-	4.4	<0.050	18	1.0	410	6.96	0.19	-100.1	806
	4/9/2020	7.43	300	760	31	19	-	-	-	-	-	-	-	-	3,400	-	-	6.5	<0.050	19	2.5	410	7.08	0.14	-107.9	806
	ecific Cleanup I		500	500		10																				
MTCA Method A	A or Method B (Cleanup Level^	500	500		5.0	5.	.0	5	50	1	5	2.	.0	(2,240)	Varies#	Varies#	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Notes:																										

Notes:

All results reported in ug/L (micrograms per liter), or mg/L (milligrams per liter)
ug/L = micrograms per liter [equivalent to parts per billion (ppb)]
mg/L = milligrams per liter [equivalent to parts per million (ppm)]

Bold concentrations are detectable concentrations, below their Site Specific Cleanup Level (if available).

Shaded and Bold concentrations are detectable concentrations, exceeding their Site Specific Cleanup Level
nd = No analytes detected above the laboratory reporting limit. See laboratory analytical report for full list of results
= Various cleanup levels for multiple analytes. See laboratory analytical report for full list of analytes
b = Identified as Diesel Range Organics, indicating the presence of unresolved compounds eluting from dodecane through tetracosane (~C12-C24).
H = Holding times for preparation or analysis exceeded

b = redrimed as Dieser Range Organics, indicating the presence of unresolved compounds ending from dodecare infough tetracosane (~Cit SR = Minor detections of other VOCs or SVOCs, at concentrations below state cleanup levels. See analytical report for specific detections.

- = Not analyzed

^ = MTCA Method B Cleanup Level in parentheses

+ = Site specific cleanup level as established in Cleanup Action Plan dated May 29, 2018

Kane Environmental, Inc. Page 1 of 1 From: Nduta Mbuthia
To: jcru461@ecy.wa.gov

Cc: Ryan Roberts; jkane@kane-environmental.com; Jeanie Ashe

Bcc: Nduta Mbuthia

Subject: Recorded covenants for Lot D, Parcel 4 and Parcel 3 - related to BSC, Hertz & Paint Sites

Date: Wednesday, May 13, 2020 2:47:35 PM

Attachments: 981111 CITY OF BOTHELL ENVIRONMENTAL COVENANT COVENANT 20200513.pdf

981111 CITY OF BOTHELL ENVIRONMENTAL COVENANT COVENANT 20200513.pdf 981111 CITY OF BOTHELL ENVIRONMENTAL COVENANT COVENANT 20200513 002.pdf

Hi Jerome

Attached are the recorded covenants for Lot D, Parcel 4 and Parcel 3. The originals will be sent to your office per the instructions on the front page of the covenants. thanks

Nduta

From: Nduta Mbuthia
To: Cruz, Jerome (ECY)

Cc: <u>John Kane</u>; <u>Petrovich</u>, <u>Brad (ECY)</u>; <u>Jeff Jensen</u>

Bcc: Nduta Mbuthia

Subject: RE: [EXTERNAL] Compliance monitoring reporting for Hertz, Landing, and Paint?

Date: Thursday, June 25, 2020 10:56:00 AM

Attachments: image002.png

image004.png

2020.6.25 Letter of Transmittal Paint Landing Hertz Annual GW mon report.pdf

Hi Jerome

The Annual Groundwater Compliance Monitoring Report (6/23/2020) is available for download at the link below. Please see transmittal letter attached.

https://cityofbothell-

my.sharepoint.com/:b:/g/personal/nduta_mbuthia_bothellwa_gov/EUdxFOeUCapOsB762E46zUoBFHC-BxXa9scTiVUZKTniSg?e=pD0RtN

Thanks

Nduta

From: Cruz, Jerome (ECY) < JCRU461@ECY.WA.GOV>

Sent: Thursday, May 7, 2020 3:37 PM

To: Nduta Mbuthia <Nduta.Mbuthia@bothellwa.gov>

Subject: [EXTERNAL] Compliance monitoring reporting for Hertz, Landing, and Paint?

Stop! Look! Think before you click! This message originated from outside the City of Bothell network. Use caution when clicking links or opening attachments.

Hi Nduta,

I would like to discuss with you the AO requirement for compliance monitoring reports. In the City's progress reports, they include Exhibit D of the AO. This deliverable in Exhibit D appears to require monitoring reports (for example, for the Hertz site):

of the dCAP
 90 days after 4 th quarter sampling Annually for a minimum of 5 years unless a different action is triggered by the decision tree shown in table 1 of the dCAP

Past communications (see attached) appear to show that we handled this by accepting data tabulations and not a report (initially after the first 4 quarters then annually). However, reports are more informative than raw data as they organize and consolidate results better, and allows us to analyze the decisions in the CAP on MNA and MTCA compliance, monitoring frequency, natural vs. contamination induced arsenic, etc.

The progress reports do a great job tracking administrative and management requirements and site activities. They also include groundwater monitoring results in the form of the data tables. However, I think it might be better to have monitoring reports to allow us to assess groundwater quality and confirmation monitoring status, make decisions on whether to modify our compliance monitoring and well network, and evaluate performance under the objectives and standards of the original cleanup plans. Compliance monitoring reports are also a better package for the public (we can post them on the websites). So do you think we can start at

least an annual compliance monitoring report to consolidate/summarize our monitoring results for each site and evaluate MNA progress, decision paths originally in the CAPs, and recommendations for next steps?

Thanks,

Jerome



Jerome B. Cruz, Toxics Cleanup Program, Northwest Regional Office

Address: 3190 - 160th SE Bellevue, WA 98008

Phone: (425) 649-7094 **Cell**: 425-466-8732 **Fax**: (425) 649-7098

Email: Jerome.Cruz@ecy.wa.gov

Web: http://www.ecy.wa.gov/programs/tcp/cleanup.html



City of Bothell™

Public Works Department

City Hall 18415 – 101st NE Bothell, WA 98011 Phone (425) 806-6800 Fax (425) 806-6130

LETTER OF TRANSMITTAL

Date:	June 25, 2020	June 25, 2020							
Company: Attn: Address:	Department of Ecology NWRO Toxics Cleanup Program Dr. Jerome Cruz 3190 - 160th SE Bellevue, WA 98008								
From:	Nduta Mbuthia, Capital Project Engineer, Public Works								
Enclosed please	find:								
	vater Compliance Monitoring Report (eliverable #6 on Exhibit C for Paint, La	•							
☐ For you	ur information/files	☐ For your action							
☐ At you	rrequest	☐ Approved as noted							
	ur review & comments	☐ Please return all copies							
☐ Other:									
Comments: Repo	ort will be finalized after we receive and a	address Ecology's review comments							

Project File

CC:

Bothell Paint & Decorating Facility Schedule of Deliverables

<u>Deliverables.</u>	<u>Due Date</u>
Draft Institutional Control (IC) Plan; Draft Environmental Covenant(s); and a Title Report	Within 120 days after the effective date of the Agreed Order
Final IC Plan and Final Environmental Covenant(s)	Within 30 days of receipt of Ecology comments on the Draft IC Plan and Draft Environmental Covenant(s).
Record Final Environmental Covenant(s) with King County Auditor	Within 5 days after Ecology's approval of the Final IC Plan or Ecology's signature as grantee of the Final Environmental Covenant(s), whichever occurs last.
Start ground water monitoring	Within 90 days after final CAP is approved
Combined TPH/MNA/Arsenic ground water monitoring	Quarterly for two years, then modify based on results and consultation with Ecology Duration: 5 years unless a different action is
	triggered by the decision tree shown in table 1 of the dCAP
Combined TPH/MNA/Arsenic ground water	90 days after 4 th quarter sampling
monitoring reports	Annually for a minimum of 5 years unless a different action is triggered by the decision tree shown in table 1 of the dCAP
Progress reports	Every 3 months unless Ecology authorizes less frequent reporting

Bothell Landing Facility Schedule of Deliverables

<u>Deliverables.</u>	<u>Due Date</u>
Draft Institutional Control (IC) Plan; Draft Environmental Covenant(s); and a Title Report	Within 120 days after the effective date of the Agreed Order
Final IC Plan and Final Environmental Covenant(s)	Within 30 days of receipt of Ecology comments on the Draft IC Plan and Draft Environmental Covenant(s).
Record Final Environmental Covenant(s) with King County Auditor	Within 5 days after Ecology's approval of the Final IC Plan or Ecology's signature as grantee of the Final Environmental Covenant(s), whichever occurs last.
Start ground water monitoring	Within 90 days after final CAP is approved
Combined TPH/Arsenic ground water monitoring	Quarterly for two years, then modify based on results and consultation with Ecology
Combined TPH/Arsenic ground water monitoring reports	90 days after 4 th quarter sampling
Progress reports	Every 3 months unless Ecology authorizes less frequent reporting

Bothell Former Hertz Facility Schedule of Deliverables

Deliverables.	Due Date
Draft Institutional Control (IC) Plan; Draft Environmental Covenant(s); and a Title Report	Within 120 days after the effective date of the Agreed Order
Final IC Plan and Final Environmental Covenant(s)	Within 30 days of receipt of Ecology comments on the Draft IC Plan and Draft Environmental Covenant(s).
Record Final Environmental Covenant(s) with King County Auditor	Within 5 days after Ecology's approval of the Final IC Plan or Ecology's signature as granter of the Final Environmental Covenant(s), whichever occurs last.
Start ground water monitoring	Within 90 days after final CAP is approved
Combined TPH/MNA/Arsenic ground water monitoring	Quarterly for two years, then modify based on results and consultation with Ecology
	Duration: 5 years unless a different action is triggered by the decision tree shown in table 1 of the dCAP
Combined TPH/MNA/Arsenic ground water	90 days after 4 th quarter sampling
monitoring reports	Annually for a minimum of 5 years unless a different action is triggered by the decision tree shown in table 1 of the dCAP
Progress reports	Every 3 months unless Ecology authorizes less frequent reporting



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

April 21, 2020

Jeff Jensen Kane Environmental, Inc. 4015 13th Avenue West Seattle, WA 98119

Re: Analytical Data for Project 82302-13.3

Laboratory Reference No. 2004-045

Dear Jeff:

Enclosed are the analytical results and associated quality control data for samples submitted on April 7, 2020.

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

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

Sincerely,

David Baumeister Project Manager

Enclosures



Project: 82302-13.3

Case Narrative

Samples were collected on April 7, 2020 and received by the laboratory on April 7, 2020. They were maintained at the laboratory at a temperature of 2°C to 6°C.

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

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

Project: 82302-13.3

DIESEL AND HEAVY OIL RANGE ORGANICS NWTPH-Dx

				Date	Date	
Analyte	Result	PQL	Method	Prepared	Analyzed	Flags
Client ID:	BP-MW-2R:W					
Laboratory ID:	04-045-01					
Diesel Range Organics	ND	0.20	NWTPH-Dx	4-10-20	4-10-20	
Lube Oil Range Organics	ND	0.20	NWTPH-Dx	4-10-20	4-10-20	
Surrogate:	Percent Recovery	Control Limits				
o-Terphenyl	88	50-150				
Client ID:	BP-MW-6:W					
Laboratory ID:	04-045-02					
Diesel Range Organics	ND	0.22	NWTPH-Dx	4-10-20	4-10-20	
Lube Oil Range Organics	0.43	0.22	NWTPH-Dx	4-10-20	4-10-20	
Surrogate:	Percent Recovery	Control Limits				
o-Terphenyl	65	50-150				

Project: 82302-13.3

DIESEL AND HEAVY OIL RANGE ORGANICS NWTPH-Dx QUALITY CONTROL

				Date	Date	
Analyte	Result	PQL	Method	Prepared	Analyzed	Flags
METHOD BLANK						
Laboratory ID:	MB0410W1					
Diesel Range Organics	ND	0.20	NWTPH-Dx	4-10-20	4-10-20	
Lube Oil Range Organics	ND	0.20	NWTPH-Dx	4-10-20	4-10-20	
Surrogate:	Percent Recovery	Control Limits				
o-Terphenyl	85	50-150				

					Source	Per	cent	Recovery		RPD	
Analyte	Res	sult	Spike	Level	Result	Rec	overy	Limits	RPD	Limit	Flags
DUPLICATE											
Laboratory ID:	SB04	10W1									
	ORIG	DUP									
Diesel Fuel #2	0.431	0.366	NA	NA		١	NΑ	NA	16	NA	
Lube Oil Range	ND	ND	NA	NA		١	NΑ	NA	NA	NA	
Surrogate:											
o-Terphenyl						97	100	50-150			

Project: 82302-13.3

SULFATE ASTM D516-11

Matrix: Water Units: mg/L

				Date	Date	
Analyte	Result	PQL	Method	Prepared	Analyzed	Flags
Client ID:	BP-MW-2R:W					
Laboratory ID:	04-045-01					
Sulfate	ND	5.0	ASTM D516-11	4-13-20	4-13-20	
Client ID:	BP-MW-6:W					
Laboratory ID:	04-045-02					
Sulfate	ND	5.0	ASTM D516-11	4-13-20	4-13-20	

Project: 82302-13.3

SULFATE ASTM D516-11 QUALITY CONTROL

Matrix: Water Units: mg/L

				Date	Date	
Analyte	Result	PQL	Method	Prepared	Analyzed	Flags
METHOD BLANK						
Laboratory ID:	MB0413W1					
Sulfate	ND	5.0	ASTM D516-11	4-13-20	4-13-20	

	_		0 "	Source	Percent	Recovery		RPD	
Analyte	Res	sult	Spike Level	Result	Recovery	Limits	RPD	Limit	Flags
DUPLICATE									
Laboratory ID:	04-04	1 5-01							
	ORIG	DUP							
Sulfate	ND	ND	NA	NA	NA	NA	NA	10	
MATRIX SPIKE									
Laboratory ID:	04-04	15-01							
	M	S	MS		MS				
Sulfate	11	.7	10.0	ND	117	73-134	NA	NA	
SPIKE BLANK									
Laboratory ID:	SB04	13W1							
	S	В	SB		SB		•		•
Sulfate	10).3	10.0	NA	103	89-113	NA	NA	

Project: 82302-13.3

NITRATE (as Nitrogen) EPA 353.2

Matrix: Water Units: mg/L-N

				Date	Date	
Analyte	Result	PQL	Method	Prepared	Analyzed	Flags
Client ID:	BP-MW-2R:W					
Laboratory ID:	04-045-01					
Nitrate	ND	0.050	EPA 353.2	4-8-20	4-8-20	
Client ID:	BP-MW-6:W					
Laboratory ID:	04-045-02					
Nitrate	19	0.50	EPA 353.2	4-8-20	4-8-20	

Project: 82302-13.3

NITRATE (as Nitrogen) EPA 353.2 QUALITY CONTROL

Matrix: Water Units: mg/L-N

				Date	Date	
Analyte	Result	PQL	Method	Prepared	Analyzed	Flags
METHOD BLANK						_
Laboratory ID:	MB0408W1					
Nitrate	ND	0.050	EPA 353.2	4-8-20	4-8-20	_

Analyte	Res	sult	Spike Level	Source Result	Percent Recovery	Recovery Limits	RPD	RPD Limit	Flags
DUPLICATE									
Laboratory ID:	04-04	45-01							
	ORIG	DUP							
Nitrate	ND	ND	NA	NA	NA	NA	NA	13	
MATRIX SPIKE									
Laboratory ID:	04-04	45-01							
	M	IS	MS		MS				
Nitrate	2.	19	2.00	ND	110	90-127	NA	NA	
SPIKE BLANK									
Laboratory ID:	SB04	08W1							
	S	В	SB		SB				
Nitrate	2.	13	2.00	NA	107	90-125	NA	NA	

Project: 82302-13.3

DISSOLVED METALS EPA 200.8

			Date	Date	
Result	PQL	Method	Prepared	Analyzed	Flags
BP-MW-2R:W					
04-045-01					
130	10	EPA 200.8	4-7-20	4-8-20	
BP-MW-6:W					
04-045-02					
8.7	3.0	EPA 200.8	4-7-20	4-8-20	
16	10	EPA 200.8	4-7-20	4-8-20	
BC-11R:W					
04-045-03					
ND	3.0	EPA 200.8	4-7-20	4-8-20	_
	BP-MW-2R:W 04-045-01 130 BP-MW-6:W 04-045-02 8.7 16 BC-11R:W 04-045-03	BP-MW-2R:W 04-045-01 130 10 BP-MW-6:W 04-045-02 8.7 3.0 16 10 BC-11R:W 04-045-03	BP-MW-2R:W 04-045-01 130 10 EPA 200.8 BP-MW-6:W 04-045-02 8.7 3.0 EPA 200.8 16 10 EPA 200.8 BC-11R:W 04-045-03	Result PQL Method Prepared BP-MW-2R:W 04-045-01 4-7-20 130 10 EPA 200.8 4-7-20 BP-MW-6:W 04-045-02 4-7-20 4-7-20 8.7 3.0 EPA 200.8 4-7-20 16 10 EPA 200.8 4-7-20 BC-11R:W 04-045-03	Result PQL Method Prepared Analyzed BP-MW-2R:W 04-045-01 4-7-20 4-8-20 130 10 EPA 200.8 4-7-20 4-8-20 BP-MW-6:W 04-045-02 4-8-20 4-7-20 4-8-20 16 10 EPA 200.8 4-7-20 4-8-20 BC-11R:W 04-045-03 4-7-20 4-8-20

Project: 82302-13.3

DISSOLVED METALS EPA 200.8 QUALITY CONTROL

				Date	Date	
Analyte	Result	PQL	Method	Prepared	Analyzed	Flags
METHOD BLANK						
Laboratory ID:	MB0407F1					
Arsenic	ND	3.0	EPA 200.8	4-7-20	4-8-20	
Manganese	ND	10	EPA 200.8	4-7-20	4-8-20	

					Source		rcent	Recovery		RPD	
Analyte	Res	sult	Spike	Level	Result	Rec	overy	Limits	RPD	Limit	Flags
DUPLICATE											
Laboratory ID:	04-04	45-01									
	ORIG	DUP									
Arsenic	ND	ND	NA	NA		I	NA	NA	NA	20	
Manganese	131	132	NA	NA		l	NA	NA	1	20	
MATRIX SPIKES											
Laboratory ID:	04-04	45-01									
	MS	MSD	MS	MSD		MS	MSD	•			
Arsenic	79.8	77.6	80.0	80.0	ND	100	97	75-125	3	20	
Manganese	192	197	80.0	80.0	131	76	82	75-125	3	20	

Project: 82302-13.3

DISSOLVED GASES RSK 175

				Date	Date	
Analyte	Result	PQL	Method	Prepared	Analyzed	Flags
Client ID:	BP-MW-2R:W					
Laboratory ID:	04-045-01					
Methane	1200	8.3	RSK 175	4-10-20	4-10-20	
Client ID:	BP-MW-6:W					
Laboratory ID:	04-045-02					
Methane	3800	28	RSK 175	4-10-20	4-10-20	•

Project: 82302-13.3

DISSOLVED GASES RSK 175 QUALITY CONTROL

				Date	Date	
Analyte	Result	PQL	Method	Prepared	Analyzed	Flags
METHOD BLANK						
Laboratory ID:	MB0410W1					
Methane	ND	0.55	RSK 175	4-10-20	4-10-20	

Analyte	Re	sult	Spike	Level		cent overy	Recovery Limits	RPD	RPD Limit	Flags
SPIKE BLANK										
Laboratory ID:	SB04	10W1								
	SB	SBD	SB	SBD	SB	SBD				
Methane	23.0	22.6	22.1	22.1	104	102	75-125	2	25	

Project: 82302-13.3

TOTAL ALKALINITY SM 2320B

Matrix: Water
Units: mg CaCO3/L

				Date	Date	
Analyte	Result	PQL	Method	Prepared	Analyzed	Flags
Client ID:	BP-MW-2R:W					
Laboratory ID:	04-045-01					
Total Alkalinity	120	2.0	SM 2320B	4-9-20	4-9-20	
Client ID:	BP-MW-6:W					
Laboratory ID:	04-045-02					
Total Alkalinity	42	2.0	SM 2320B	4-9-20	4-9-20	

Project: 82302-13.3

TOTAL ALKALINITY SM 2320B QUALITY CONTROL

Matrix: Water
Units: mg CaCO3/L

				Date	Date	
Analyte	Result	PQL	Method	Prepared	Analyzed	Flags
METHOD BLANK						
Laboratory ID:	MB0409W1					
Total Alkalinity	ND	2.0	SM 2320B	4-9-20	4-9-20	_

Analyte	Result		Spike Level	Source Result	Percent Recovery	Recovery Limits	RPD	RPD Limit	Flags
DUPLICATE									
Laboratory ID:	04-04	47-01							
	ORIG	DUP							
Total Alkalinity	ND	ND	NA	NA	NA	NA	NA	10	
SPIKE BLANK									
Laboratory ID:	SB04	09W1							
	S	В	SB	•	SB				•
Total Alkalinity	98	3.0	100	NA	98	88-110	NA	NA	

Project: 82302-13.3

TOTAL ARSENIC EPA 200.8

				Date	Date	
Analyte	Result	PQL	Method	Prepared	Analyzed	Flags
Client ID:	BP-MW-6:W					
Laboratory ID:	04-045-02					
Arsenic	11	3.3	EPA 200.8	4-8-20	4-8-20	
Client ID:	BC-11R:W					
Laboratory ID:	04-045-03					
Arsenic	ND	3.3	EPA 200.8	4-8-20	4-8-20	

Project: 82302-13.3

TOTAL ARSENIC EPA 200.8 QUALITY CONTROL

				Date	Date	
Analyte	Result	PQL	Method	Prepared	Analyzed	Flags
METHOD BLANK						
Laboratory ID:	MB0408WM1					
Arsenic	ND	3.3	EPA 200.8	4-8-20	4-8-20	

Analyte	Res	sult	Spike	Level	Source Result		rcent	Recovery Limits	RPD	RPD Limit	Flags
DUPLICATE											
Laboratory ID:	03-12	24-02									
	ORIG	DUP									
Arsenic	9.73	10.7	NA	NA		1	NA	NA	10	20	
MATRIX SPIKES											
Laboratory ID:	03-12	24-02									
	MS	MSD	MS	MSD		MS	MSD				
Arsenic	130	137	111	111	9.73	109	114	75-125	5	20	



Data Qualifiers and Abbreviations

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

7 -

ND - Not Detected at PQL

PQL - Practical Quantitation Limit

RPD - Relative Percent Difference





Chain of Custody

Reviewed/Date	Received	Relinquished	Received	Relinquished	Received	Relinquished			, and					and .	3 BC-11	2 BP-MW	1 BRMW	77 - 17	Project Manager: Teff Sampled by:	Project Name: Bothel	Project Number:	Company: Kahe	
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14648 NE 95th Street, Redmond, WA 98052 • (425) 883-3881

April 14, 2020

Jeff Jensen Kane Environmental, Inc. 4015 13th Avenue West Seattle, WA 98119

Re: Analytical Data for Project 82302-13.3

Laboratory Reference No. 2004-055

Dear Jeff:

Enclosed are the analytical results and associated quality control data for samples submitted on April 8, 2020.

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

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

Sincerely,

David Baumeister Project Manager

Enclosures



Project: 82302-13.3

Case Narrative

Samples were collected on April 8, 2020 and received by the laboratory on April 8, 2020. They were maintained at the laboratory at a temperature of 2°C to 6°C.

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

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

Project: 82302-13.3

TOTAL ARSENIC EPA 200.8

				Date	Date	
Analyte	Result	PQL	Method	Prepared	Analyzed	Flags
Client ID:	BPMW-1:W					
Laboratory ID:	04-055-01					
Arsenic	19	3.3	EPA 200.8	4-10-20	4-10-20	

Project: 82302-13.3

TOTAL ARSENIC EPA 200.8 QUALITY CONTROL

				Date	Date	
Analyte	Result	PQL	Method	Prepared	Analyzed	Flags
METHOD BLANK						_
Laboratory ID:	MB0410WM1					
Arsenic	ND	3.3	EPA 200.8	4-10-20	4-10-20	

Analyte	Res	sult	Spike	Level	Source Result		rcent	Recovery Limits	RPD	RPD Limit	Flags
DUPLICATE											
Laboratory ID:	03-12	24-04									
	ORIG	DUP									
Arsenic	4.49	5.20	NA	NA		l	NA	NA	15	20	
MATRIX SPIKES											
Laboratory ID:	03-12	24-04									
	MS	MSD	MS	MSD		MS	MSD				
Arsenic	128	115	111	111	4.49	111	100	75-125	11	20	

Project: 82302-13.3

DISSOLVED ARSENIC EPA 200.8

				Date	Date	
Analyte	Result	PQL	Method	Prepared	Analyzed	Flags
Client ID:	BPMW-1:W					
Laboratory ID:	04-055-01					
Arsenic	11	3.0	EPA 200.8	4-8-20	4-10-20	_

Project: 82302-13.3

DISSOLVED ARSENIC EPA 200.8 QUALITY CONTROL

				Date	Date	
Analyte	Result	PQL	Method	Prepared	Analyzed	Flags
METHOD BLANK						
Laboratory ID:	MB0408F2					
Arsenic	ND	3.0	EPA 200.8	4-8-20	4-10-20	

Analyte	Res	sult	Snike	Level	Source Result		cent	Recovery Limits	RPD	RPD Limit	Flags
DUPLICATE	1101	Juit	Оріко	LOVOI	Rooun	11001	J 101 y	Limito	I I		riugo
Laboratory ID:	04-06	62-02									
-	ORIG	DUP									
Arsenic	ND	ND	NA	NA		N	IA.	NA	NA	20	
MATRIX SPIKES											
Laboratory ID:	04-06	62-02									
	MS	MSD	MS	MSD		MS	MSD				
Arsenic	74.4	74.4	80.0	80.0	ND	93	93	75-125	0	20	



Data Qualifiers and Abbreviations

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

7 -

ND - Not Detected at PQL

PQL - Practical Quantitation Limit

RPD - Relative Percent Difference





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Analytical Laboratory Testing Services 14648 NE 95th Street * Redmond, WA 98052 Phone: (425) 883-3881 * www.onsite-env.com Company: Kane Environmental Project Number: 82302-13.3 Project Manager: Jeff Jensen Sampled by: Mike Espinoze Bonn-1: W Sample Identification Sample Identification	Check One 1 Day 1 Day 2 Days 3 Days 3 Days 3 Days 4 Watrix 4 Watrix 5 A Watr	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)	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 **Yotal AS Otsolved As
	Time Sampled	NWTPH NWTPH NWTPH Volatile Haloge	Semivo (with lo PAHs 8 PCBs 8 Organo Organo Chlorin Total Re Total M HEM (o
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Reviewed/Date .	Reviewed/Date		Chromatograms with final report ☐ Electronic Data Deliverables (EDDs)



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

April 21, 2020

Jeff Jensen Kane Environmental, Inc. 4015 13th Avenue West Seattle, WA 98119

Re: Analytical Data for Project 82302-15.3

Laboratory Reference No. 2004-056

Dear Jeff:

Enclosed are the analytical results and associated quality control data for samples submitted on April 8, 2020.

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

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

Sincerely,

David Baumeister Project Manager

Enclosures



Project: 82302-15.3

Case Narrative

Samples were collected on April 8, 2020 and received by the laboratory on April 8, 2020. 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.

Nitrate (as Nitrogen) EPA 353.2 Analysis

The reported Nitrate results are a calculated value based on the subtraction of Nitrite from the Nitrate plus Nitrite result. The Nitrite analysis, which has a 48-hour holding time, was performed within the holding time. Immediately after this analysis, an aliquot of each sample was preserved with concentrated sulfuric acid and stored at 4 degrees C. The preserved samples were then analyzed within the maximum 28-day holding time for the Nitrate plus Nitrite analysis.

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

Project: 82302-15.3

DIESEL AND HEAVY OIL RANGE ORGANICS NWTPH-Dx

Amabata	Danill	DOL	NA - (la - al	Date	Date	F I
Analyte	Result	PQL	Method	Prepared	Analyzed	Flags
Client ID:	BC-16:W					
Laboratory ID:	04-056-01					
Diesel Range Organics	0.27	0.21	NWTPH-Dx	4-10-20	4-10-20	
Lube Oil Range Organics	0.59	0.21	NWTPH-Dx	4-10-20	4-10-20	
Surrogate:	Percent Recovery	Control Limits				
o-Terphenyl	94	50-150				

Project: 82302-15.3

DIESEL AND HEAVY OIL RANGE ORGANICS NWTPH-Dx QUALITY CONTROL

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
METHOD BLANK						
Laboratory ID:	MB0410W1					
Diesel Range Organics	ND	0.20	NWTPH-Dx	4-10-20	4-10-20	_
Lube Oil Range Organics	ND	0.20	NWTPH-Dx	4-10-20	4-10-20	
Surrogate:	Percent Recovery	Control Limits				
o-Terphenyl	85	50-150				

					Source	Per	cent	Recovery		RPD	
Analyte	Res	sult	Spike	Level	Result	Rec	overy	Limits	RPD	Limit	Flags
DUPLICATE											
Laboratory ID:	SB04	10W1									
	ORIG	DUP									
Diesel Fuel #2	0.431	0.366	NA	NA		١	۱A	NA	16	NA	_
Lube Oil Range	ND	ND	NA	NA		١	۱A	NA	NA	NA	
Surrogate:											
o-Terphenyl						97	100	50-150			

Project: 82302-15.3

SULFATE ASTM D516-11

Matrix: Water Units: mg/L

				Date	Date	
Analyte	Result	PQL	Method	Prepared	Analyzed	Flags
Client ID:	BC-16:W					
Laboratory ID:	04-056-01					
Sulfate	340	100	ASTM D516-11	4-13-20	4-13-20	

Project: 82302-15.3

SULFATE ASTM D516-11 QUALITY CONTROL

Matrix: Water Units: mg/L

				Date	Date	
Analyte	Result	PQL	Method	Prepared	Analyzed	Flags
METHOD BLANK						
Laboratory ID:	MB0413W1					
Sulfate	ND	5.0	ASTM D516-11	4-13-20	4-13-20	

				Source	Percent	Recovery		RPD	
Analyte	Res	sult	Spike Level	Result	Recovery	Limits	RPD	Limit	Flags
DUPLICATE									
Laboratory ID:	04-04	15-01							
	ORIG	DUP							
Sulfate	ND	ND	NA	NA	NA	NA	NA	10	
MATRIX SPIKE									
Laboratory ID:	04-04	15-01							
	M	S	MS		MS				
Sulfate	11	.7	10.0	ND	117	73-134	NA	NA	
SPIKE BLANK									
Laboratory ID:	SB04	13W1							
	S	В	SB		SB				
Sulfate	10	.3	10.0	NA	103	89-113	NA	NA	

Project: 82302-15.3

NITRATE (as Nitrogen) EPA 353.2

Matrix: Water Units: mg/L-N

				Date	Date	
Analyte	Result	PQL	Method	Prepared	Analyzed	Flags
Client ID:	BC-16:W					
Laboratory ID:	04-056-01					
Nitrate	ND	0.050	EPA 353.2	4-14-20	4-14-20	

Project: 82302-15.3

NITRATE (as Nitrogen) EPA 353.2 QUALITY CONTROL

Matrix: Water Units: mg/L-N

				Date	Date	
Analyte	Result	PQL	Method	Prepared	Analyzed	Flags
METHOD BLANK						
Laboratory ID:	MB0414W1					
Nitrate	ND	0.050	EPA 353.2	4-14-20	4-14-20	

				Source	Percent	Recovery		RPD	
Analyte	Res	sult	Spike Level	Result	Recovery	Limits	RPD	Limit	Flags
DUPLICATE									
Laboratory ID:	04-05	56-01							
	ORIG	DUP							
Nitrate	ND	ND	NA	NA	NA	NA	NA	13	
MATRIX SPIKE									
Laboratory ID:	04-05	56-01							
	M	IS	MS		MS				
Nitrate	2.:	23	2.00	ND	112	90-127	NA	NA	
SPIKE BLANK									
Laboratory ID:	SB04	14W1							
	S	В	SB		SB				
Nitrate	2.	18	2.00	NA	109	90-125	NA	NA	

Project: 82302-15.3

DISSOLVED METALS EPA 200.8

				Date	Date	
Analyte	Result	PQL	Method	Prepared	Analyzed	Flags
Client ID:	BC-16:W					
Laboratory ID:	04-056-01					
Arsenic	ND	3.0	EPA 200.8	4-8-20	4-10-20	
Manganese	3800	250	EPA 200.8	4-8-20	4-10-20	
Client ID:	HZ-MW-12:W					
Laboratory ID:	04-056-02					
Arsenic	ND	3.0	EPA 200.8	4-8-20	4-10-20	
Client ID:	HZ-MW-17:W					
Laboratory ID:	04-056-03					
Arsenic	ND	3.0	EPA 200.8	4-8-20	4-10-20	

Project: 82302-15.3

DISSOLVED METALS EPA 200.8 QUALITY CONTROL

				Date	Date	
Analyte	Result	PQL	Method	Prepared	Analyzed	Flags
METHOD BLANK						
Laboratory ID:	MB0408F2					
Arsenic	ND	3.0	EPA 200.8	4-8-20	4-10-20	
Manganese	ND	10	EPA 200.8	4-8-20	4-10-20	

					Source	Pe	rcent	Recovery		RPD	
Analyte	Res	sult	Spike	Level	Result	Rec	covery	Limits	RPD	Limit	Flags
DUPLICATE											
Laboratory ID:	04-06	62-02									
	ORIG	DUP									
Arsenic	ND	ND	NA	NA			NA	NA	NA	20	
Manganese	18.0	18.6	NA	NA			NA	NA	3	20	
MATRIX SPIKES											
Laboratory ID:	04-06	62-02									
	MS	MSD	MS	MSD		MS	MSD				
Arsenic	74.4	74.4	80.0	80.0	ND	93	93	75-125	0	20	
Manganese	84.0	84.8	80.0	80.0	18.0	83	84	75-125	1	20	

Project: 82302-15.3

TOTAL ARSENIC EPA 200.8

				Date	Date	
Analyte	Result	PQL	Method	Prepared	Analyzed	Flags
Client ID:	BC-16:W					
Laboratory ID:	04-056-01					
Arsenic	ND	3.3	EPA 200.8	4-10-20	4-10-20	
Client ID:	HZ-MW-12:W					
Laboratory ID:	04-056-02					
Arsenic	3.6	3.3	EPA 200.8	4-10-20	4-10-20	
Client ID:	HZ-MW-17:W					
Laboratory ID:	04-056-03					
Arsenic	ND	3.3	EPA 200.8	4-10-20	4-10-20	

Project: 82302-15.3

TOTAL ARSENIC EPA 200.8 QUALITY CONTROL

				Date	Date	
Analyte	Result	PQL	Method	Prepared	Analyzed	Flags
METHOD BLANK						
Laboratory ID:	MB0410WM1					
Arsenic	ND	3.3	EPA 200.8	4-10-20	4-10-20	

Analyte	Res	sult	Spike	Level	Source Result		cent overy	Recovery Limits	RPD	RPD Limit	Flags
DUPLICATE							,				
Laboratory ID:	03-12	24-04									
	ORIG	DUP									
Arsenic	4.49	5.20	NA	NA		1	NA	NA	15	20	
MATRIX SPIKES											
Laboratory ID:	03-12	24-04									
	MS	MSD	MS	MSD		MS	MSD				
Arsenic	128	115	111	111	4.49	111	100	75-125	11	20	•

Project: 82302-15.3

DISSOLVED GASES RSK 175

				Date	Date	
Analyte	Result	PQL	Method	Prepared	Analyzed	Flags
Client ID:	BC-16:W					
Laboratory ID:	04-056-01					
Methane	3100	17	RSK 175	4-10-20	4-10-20	

Project: 82302-15.3

DISSOLVED GASES RSK 175 QUALITY CONTROL

				Date	Date	
Analyte	Result	PQL	Method	Prepared	Analyzed	Flags
METHOD BLANK						
Laboratory ID:	MB0410W1					
Methane	ND	0.55	RSK 175	4-10-20	4-10-20	

Analyte	Re	sult	Spike	Level		cent overy	Recovery Limits	RPD	RPD Limit	Flags
SPIKE BLANK										
Laboratory ID:	SB04	10W1								
	SB	SBD	SB	SBD	SB	SBD				
Methane	23.0	22.6	22.1	22.1	104	102	75-125	2	25	

Project: 82302-15.3

TOTAL ALKALINITY SM 2320B

Matrix: Water
Units: mg CaCO3/L

Analyte	Result	PQL	Method	Prepared	Date Analyzed	Flags
Client ID:	BC-16:W			•	-	
Laboratory ID:	04-056-01					
Total Alkalinity	520	2.0	SM 2320B	4-9-20	4-9-20	_

Project: 82302-15.3

TOTAL ALKALINITY SM 2320B QUALITY CONTROL

Matrix: Water
Units: mg CaCO3/L

				Date	Date	
Analyte	Result	PQL	Method	Prepared	Analyzed	Flags
METHOD BLANK						
Laboratory ID:	MB0409W1					
Total Alkalinity	ND	2.0	SM 2320B	4-9-20	4-9-20	_

Analyte	Po	sult	Spike Level	Source Result	Percent Recovery	Recovery Limits	RPD	RPD Limit	Flags
DUPLICATE	IVE:	Suit	Spike Level	Nesuit	Recovery	Lillits	KFD	Lillin	i iags
Laboratory ID:	04-04	47-01							
	ORIG	DUP							
Total Alkalinity	ND	ND	NA	NA	NA	NA	NA	10	
SPIKE BLANK									
Laboratory ID:	SB04	09W1							
-	S	В	SB		SB				
Total Alkalinity	98	3.0	100	NA	98	88-110	NA	NA	



Data Qualifiers and Abbreviations

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

7 -

ND - Not Detected at PQL

PQL - Practical Quantitation Limit

RPD - Relative Percent Difference





Chain of Custody

Page

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H2-mw-17:W 4/8 10:18 GW 9 H2-mw-17:W 4/8 10:18 GW 9	H2-MW-17:W 4/8 10:18 GW 9 H2-MW-17:W 4/8 12:24 GW 9 H2-MW-17:W W: 61:01 GW 9	- HZ-MW-17:W 4/8 10:18 GW 9	mber: 83322-15.3 Same Day 1 Day 1 Day 1 Day 1 Day 3 Days 3 Days 3 Days 3 Days 3 Days 4 Day 1 D
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Halogenated	H2-MW-17:W H2-MW-17:W H3-MW-17:W H3-MW-	H2-MW-12:W H2-MW-12:W H3-MW-12:W H3-MW-12:W H3-MW-12:W H3-MW-12:W H4-GX NWTPH-GX	Mone Environmenta Same Day 1 Day 1 Day 1 Day 1 Day 2 Days 3 Days 3 Days 3 Cilean - 15 3 3 Cilean - 15 3 Cilean - 1
H2-MW-17:W H2-MW-17:W H3-MW-17:W H3-MW-	H2-MW-17:W H2-MW-17:W H3-MW-17:W H3-MW-	H2-MW-12:W H2-MW-12:W H3-MW-12:W H3-MW-12:W H3-MW-12:W H3-MW-12:W H3-MW-12:W H3-MW-12:W H3-MW-12:W H3-MW-12:W H3-MW-12:W NWTPH-HCID NWTPH-Gx/BTEX NWTPH-Dx (Acid Volatiles 8260C Halogenated Volatiles	Mone Environmenta Same Day 1 Day 1 Day 2 Days 3
thane: Bothell Hertz thanager: Teff Jensen The Expinoza The Sample Identification The Sample Ident	thanager: Bothell Hevtz thanager: Deff Jensen ed by: Mike Explinate Sample Identification BC-16: W H2-MW-17: W H3-MW-17: W NWTPH-Gx/BTEX NWTPH-Gx NWTPH-Dx (Acid / SG Ck Volatiles 8260C Halogenated Volatiles 8260C	t Name: Bothell Hevtz It Manager: Teff Jensen The Sample Identification BC-16: W H2-MW-17: W H3-MW-17: W NWTPH-GX NWTPH-DX (Halogenated Volatiles 8260C) Halogenated Volatiles 8260C	Kane Environmenta same Day
tName: 83302-15.3 2 Days 3 Days 1 Name: 80 thell Hevtz 2 Days 3 Days 1 Name: 80 thell Hevtz 2 Days 3 Days 3 Days 1 Name: 80 thell Hevtz 2 Date 1 Time 1 Name: 8 Sample 1 Name: 8 Nample 1 Name: 8 Nample 1 Name:	t Number: 87302-15.3 2 Days 3 Days 3 Days 1 Number: 87302-15.3 2 Days 3 Days 1 Number: 5 Deff 5 Densen 2 Days 3 Days 3 Days 4 Number: 5 Deff 5 Densen 2 Date 1 Time 5 Ample Matrix 5 Densen 4 Number of Containers 5 Densen 4 Number of Containers 5 Densen 5 Densen 6 Densen	t Number: 83302-15.3 2 Days 3 Days 3 Days 1 Days 2 Days 3 Days 3 Days 4 Manager: Teff Jensen 2 Date 1 Date 1 Date 1 Date 1 Date 2 Days 3 Days 3 Days 4 Date 1 Date 1 Date 1 Date 2 Days 4 Date 1 Date 1 Date 1 Date 2 Days 4 Date 1 Date	



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

April 21, 2020

Jeff Jensen Kane Environmental, Inc. 4015 13th Avenue West Seattle, WA 98119

Re: Analytical Data for Project 82302-15.3

Laboratory Reference No. 2004-062

Dear Jeff:

Enclosed are the analytical results and associated quality control data for samples submitted on April 9, 2020.

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

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

Sincerely,

David Baumeister Project Manager

Enclosures



Project: 82302-15.3

Case Narrative

Samples were collected on April 9, 2020 and received by the laboratory on April 9, 2020. 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.

Nitrate (as Nitrogen) EPA 353.2 Analysis

The reported Nitrate results are a calculated value based on the subtraction of Nitrite from the Nitrate plus Nitrite result. The Nitrite analysis, which has a 48-hour holding time, was performed within the holding time. Immediately after this analysis, an aliquot of each sample was preserved with concentrated sulfuric acid and stored at 4 degrees C. The preserved samples were then analyzed within the maximum 28-day holding time for the Nitrate plus Nitrite analysis.

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

Project: 82302-15.3

DIESEL AND HEAVY OIL RANGE ORGANICS NWTPH-Dx

				Date	Date	
Analyte	Result	PQL	Method	Prepared	Analyzed	Flags
Client ID:	HZ-MW-19:W					
Laboratory ID:	04-062-01					
Diesel Range Organics	0.43	0.21	NWTPH-Dx	4-10-20	4-10-20	
Lube Oil Range Organics	0.37	0.21	NWTPH-Dx	4-10-20	4-10-20	
Surrogate:	Percent Recovery	Control Limits				
o-Terphenyl	91	50-150				
Client ID:	BLMW-8R:W					
Laboratory ID:	04-062-04					
Diesel Range Organics	0.30	0.20	NWTPH-Dx	4-10-20	4-10-20	
Lube Oil Range Organics	0.76	0.20	NWTPH-Dx	4-10-20	4-10-20	
Surrogate:	Percent Recovery	Control Limits				
o-Terphenyl	99	50-150				

Project: 82302-15.3

DIESEL AND HEAVY OIL RANGE ORGANICS NWTPH-Dx QUALITY CONTROL

				Date	Date	
Analyte	Result	PQL	Method	Prepared	Analyzed	Flags
METHOD BLANK						
Laboratory ID:	MB0410W1					
Diesel Range Organics	ND	0.20	NWTPH-Dx	4-10-20	4-10-20	
Lube Oil Range Organics	ND	0.20	NWTPH-Dx	4-10-20	4-10-20	
Surrogate:	Percent Recovery	Control Limits				
o-Terphenyl	85	50-150				

					Source	Per	cent	Recovery		RPD	
Analyte	Res	sult	Spike	Level	Result	Rec	overy	Limits	RPD	Limit	Flags
DUPLICATE											
Laboratory ID:	SB04	10W1									
	ORIG	DUP									
Diesel Fuel #2	0.431	0.366	NA	NA		١	۱A	NA	16	NA	_
Lube Oil Range	ND	ND	NA	NA		١	۱A	NA	NA	NA	
Surrogate:											
o-Terphenyl						97	100	50-150			

Project: 82302-15.3

SULFATE ASTM D516-11

Matrix: Water Units: mg/L

				Date	Date	
Analyte	Result	PQL	Method	Prepared	Analyzed	Flags
Client ID:	HZ-MW-19:W					
Laboratory ID:	04-062-01					
Sulfate	13	5.0	ASTM D516-11	4-13-20	4-13-20	
Client ID:	BLMW-8R:W					
Laboratory ID:	04-062-04					
Sulfate	19	5.0	ASTM D516-11	4-13-20	4-13-20	

Project: 82302-15.3

SULFATE ASTM D516-11 QUALITY CONTROL

Matrix: Water Units: mg/L

				Date	Date	
Analyte	Result	PQL	Method	Prepared	Analyzed	Flags
METHOD BLANK						
Laboratory ID:	MB0413W1					
Sulfate	ND	5.0	ASTM D516-11	4-13-20	4-13-20	

				Source	Percent	Recovery		RPD	
Analyte	Res	sult	Spike Level	Result	Recovery	Limits	RPD	Limit	Flags
DUPLICATE									
Laboratory ID:	04-04	45-01							
	ORIG	DUP							
Sulfate	ND	ND	NA	NA	NA	NA	NA	10	
MATRIX SPIKE									
Laboratory ID:	04-04	45-01							
	M	IS	MS		MS				
Sulfate	11	.7	10.0	ND	117	73-134	NA	NA	
SPIKE BLANK									
Laboratory ID:	SB04	13W1							
	S	В	SB		SB				
Sulfate	10).3	10.0	NA	103	89-113	NA	NA	

Project: 82302-15.3

NITRATE (as Nitrogen) EPA 353.2

Matrix: Water Units: mg/L-N

				Date	Date		
Analyte	Result	PQL	Method	Prepared	Analyzed	Flags	
Client ID:	HZ-MW-19:W						
Laboratory ID:	04-062-01						
Nitrate	0.24	0.050	EPA 353.2	4-14-20	4-14-20		
Client ID:	BLMW-8R:W						
Laboratory ID:	04-062-04						
Nitrate	ND	0.050	EPA 353.2	4-14-20	4-14-20	•	

Project: 82302-15.3

NITRATE (as Nitrogen) EPA 353.2 QUALITY CONTROL

Matrix: Water Units: mg/L-N

				Date	Date	
Analyte	Result	PQL	Method	Prepared	Analyzed	Flags
METHOD BLANK						
Laboratory ID:	MB0414W1					
Nitrate	ND	0.050	EPA 353.2	4-14-20	4-14-20	

				Source	Percent	Recovery		RPD	
Analyte	Res	sult	Spike Level	Result	Recovery	Limits	RPD	Limit	Flags
DUPLICATE									
Laboratory ID:	04-05	56-01							
	ORIG	DUP							
Nitrate	ND	ND	NA	NA	NA	NA	NA	13	
MATRIX SPIKE									
Laboratory ID:	04-05	56-01							
	M	IS	MS		MS				
Nitrate	2.:	23	2.00	ND	112	90-127	NA	NA	
SPIKE BLANK									
Laboratory ID:	SB04	14W1							
	S	В	SB		SB				
Nitrate	2.	18	2.00	NA	109	90-125	NA	NA	

Project: 82302-15.3

DISSOLVED METALS EPA 200.8

				Date	Date	
Analyte	Result	PQL	Method	Prepared	Analyzed	Flags
Client ID:	HZ-MW-19:W					
Laboratory ID:	04-062-01					
Arsenic	ND	3.0	EPA 200.8	4-9-20	4-10-20	
Manganese	71	10	EPA 200.8	4-9-20	4-10-20	
Client ID:	HZ-MW-1:W					
Laboratory ID:	04-062-02					
Arsenic	ND	3.0	EPA 200.8	4-9-20	4-10-20	
Client ID:	HZ-MW-4:W					
Laboratory ID:	04-062-03					
Arsenic	ND	3.0	EPA 200.8	4-9-20	4-10-20	
Client ID:	BLMW-8R:W					
Laboratory ID:	04-062-04					
Arsenic	19	3.0	EPA 200.8	4-9-20	4-10-20	
Manganese	3400	250	EPA 200.8	4-9-20	4-10-20	

Project: 82302-15.3

DISSOLVED METALS EPA 200.8 QUALITY CONTROL

				Date	Date	
Analyte	Result	PQL	Method	Prepared	Analyzed	Flags
METHOD BLANK						
Laboratory ID:	MB0409F1					
Arsenic	ND	3.0	EPA 200.8	4-9-20	4-10-20	
Manganese	ND	10	EPA 200.8	4-9-20	4-10-20	

					Source	Pe	rcent	Recovery		RPD	
Analyte	Res	sult	Spike	Level	Result	Rec	covery	Limits	RPD	Limit	Flags
DUPLICATE											
Laboratory ID:	04-06	62-02									
	ORIG	DUP									
Arsenic	ND	ND	NA	NA			NA	NA	NA	20	
Manganese	18.0	18.6	NA	NA			NA	NA	3	20	
MATRIX SPIKES											
Laboratory ID:	04-06	62-02									
	MS	MSD	MS	MSD		MS	MSD				
Arsenic	74.4	74.4	80.0	80.0	ND	93	93	75-125	0	20	
Manganese	84.0	84.8	80.0	80.0	18.0	83	84	75-125	1	20	

Project: 82302-15.3

DISSOLVED GASES RSK 175

				Date	Date	
Analyte	Result	PQL	Method	Prepared	Analyzed	Flags
Client ID:	HZ-MW-19:W					
Laboratory ID:	04-062-01					
Methane	60	0.55	RSK 175	4-10-20	4-10-20	
Client ID:	BLMW-8R:W					
Laboratory ID:	04-062-04					
Methane	6500	55	RSK 175	4-10-20	4-10-20	_

Project: 82302-15.3

DISSOLVED GASES RSK 175 QUALITY CONTROL

				Date	Date	
Analyte	Result	PQL	Method	Prepared	Analyzed	Flags
METHOD BLANK						
Laboratory ID:	MB0410W1					
Methane	ND	0.55	RSK 175	4-10-20	4-10-20	

Analyte	Re	sult	Spike	Level		cent overy	Recovery Limits	RPD	RPD Limit	Flags
SPIKE BLANK										
Laboratory ID:	SB04	10W1								
	SB	SBD	SB	SBD	SB	SBD				
Methane	23.0	22.6	22.1	22.1	104	102	75-125	2	25	

Project: 82302-15.3

TOTAL ALKALINITY SM 2320B

Matrix: Water
Units: mg CaCO3/L

				Date	Date	
Analyte	Result	PQL	Method	Prepared	Analyzed	Flags
Client ID:	HZ-MW-19:W					
Laboratory ID:	04-062-01					
Total Alkalinity	120	2.0	SM 2320B	4-15-20	4-15-20	
Client ID:	BLMW-8R:W					
Laboratory ID:	04-062-04					
Total Alkalinity	410	2.0	SM 2320B	4-15-20	4-15-20	

Project: 82302-15.3

TOTAL ALKALINITY SM 2320B QUALITY CONTROL

Matrix: Water
Units: mg CaCO3/L

				Date	Date	
Analyte	Result	PQL	Method	Prepared	Analyzed	Flags
METHOD BLANK						·
Laboratory ID:	MB0415W1					
Total Alkalinity	ND	2.0	SM 2320B	4-15-20	4-15-20	

Analyte	Res	sult	Spike Level	Source Result	Percent Recovery	Recovery Limits	RPD	RPD Limit	Flags
DUPLICATE									
Laboratory ID:	04-06	62-01							
	ORIG	DUP							
Total Alkalinity	122	118	NA	NA	NA	NA	3	10	
SPIKE BLANK									
Laboratory ID:	SB04	15W1							
	S	В	SB	•	SB				
Total Alkalinity	98	3.0	100	NA	98	88-110	NA	NA	

Project: 82302-15.3

TOTAL ARSENIC EPA 200.8

				Date	Date	
Analyte	Result	PQL	Method	Prepared	Analyzed	Flags
Client ID:	HZ-MW-19:W					
Laboratory ID:	04-062-01					
Arsenic	ND	3.3	EPA 200.8	4-10-20	4-10-20	
Client ID:	HZ-MW-1:W					
Laboratory ID:	04-062-02					
Arsenic	ND	3.3	EPA 200.8	4-10-20	4-10-20	
Client ID:	HZ-MW-4:W					
Laboratory ID:	04-062-03					
Arsenic	ND	3.3	EPA 200.8	4-10-20	4-10-20	
Client ID:	BLMW-8R:W					
Laboratory ID:	04-062-04					
Arsenic	31	3.3	EPA 200.8	4-10-20	4-10-20	

Project: 82302-15.3

TOTAL ARSENIC EPA 200.8 QUALITY CONTROL

				Date	Date	
Analyte	Result	PQL	Method	Prepared	Analyzed	Flags
METHOD BLANK						
Laboratory ID:	MB0410WM1					
Arsenic	ND	3.3	EPA 200.8	4-10-20	4-10-20	

Analyte	Res	sult	Spike	Level	Source Result		rcent	Recovery Limits	RPD	RPD Limit	Flags
DUPLICATE											
Laboratory ID:	03-12	24-04									
	ORIG	DUP									
Arsenic	4.49	5.20	NA	NA		l	NA	NA	15	20	
MATRIX SPIKES											
Laboratory ID:	03-12	24-04									
	MS	MSD	MS	MSD		MS	MSD	•			
Arsenic	128	115	111	111	4.49	111	100	75-125	11	20	



Data Qualifiers and Abbreviations

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

7 -

ND - Not Detected at PQL

PQL - Practical Quantitation Limit

RPD - Relative Percent Difference





Chain of Custody

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Reviewed/Date	Ca Ca				280	9 Kane Env.	Company					4/9 1315 GW 9	4/9 1219 GWD	4/9 1122 GWD	4/9 0917 GW9	Date Time Sampled Matrix	(other)	Contain	Standard (7 Days)	2 Days 3 Days	Same Day 1 Day	(Check One)	iurnaround Request
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Chromatograms with final report ☐ Electronic Data Deliverables (EDDs) ☐	Data Package: Standard ☐ Level III ☐ Level IV ☐					lab filter	Comments/Special Instructions	1-36				メメメメメ	× ×	• X	× × × × × × ×	(with le PAHs PAHs PCBs Organ Organ Chlori Total F Tot	ow-levies 8270D/ 88270D/ 8082A Oochlori ophosp nated / WTCA N Motals sill and	ne Pest bhorus II Acid Her Metals Wetals Ved		081B es 8270 8151A	trat	04-002	0



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

April 16, 2020

Jeff Jensen Kane Environmental, Inc. 4015 13th Avenue West Seattle, WA 98119

Re: Analytical Data for Project 82302-14.3

Laboratory Reference No. 2004-069

Dear Jeff:

Enclosed are the analytical results and associated quality control data for samples submitted on April 10, 2020.

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

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

Sincerely,

David Baumeister Project Manager

Enclosures



Project: 82302-14.3

Case Narrative

Samples were collected on April 10, 2020 and received by the laboratory on April 10, 2020. They were maintained at the laboratory at a temperature of 2°C to 6°C.

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

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

Project: 82302-14.3

DIESEL AND HEAVY OIL RANGE ORGANICS NWTPH-Dx

				Date	Date	
Analyte	Result	PQL	Method	Prepared	Analyzed	Flags
Client ID:	BLMW-11:W					
Laboratory ID:	04-069-01					
Diesel Range Organics	ND	0.21	NWTPH-Dx	4-13-20	4-14-20	
Lube Oil Range Organics	0.27	0.21	NWTPH-Dx	4-13-20	4-14-20	
Surrogate:	Percent Recovery	Control Limits				
o-Terphenyl	87	50-150				
Oll of ID	DI 1004 40 144					
Client ID:	BLMW-12:W					
Laboratory ID:	04-069-02					
Diesel Range Organics	ND	0.21	NWTPH-Dx	4-13-20	4-14-20	
Lube Oil Range Organics	ND	0.21	NWTPH-Dx	4-13-20	4-14-20	
Surrogate:	Percent Recovery	Control Limits				
o-Terphenyl	86	50-150				
Client ID:	MW-1:W					
Laboratory ID:	04-069-03					
Diesel Range Organics	ND	0.21	NWTPH-Dx	4-13-20	4-14-20	
0 0		-			_	
Lube Oil Range Organics	0.41	0.21	NWTPH-Dx	4-13-20	4-14-20	
Surrogate:	Percent Recovery	Control Limits				
o-Terphenyl	100	50-150				

Project: 82302-14.3

DIESEL AND HEAVY OIL RANGE ORGANICS NWTPH-Dx QUALITY CONTROL

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
METHOD BLANK						
Laboratory ID:	MB0413W1					
Diesel Range Organics	ND	0.20	NWTPH-Dx	4-13-20	4-14-20	_
Lube Oil Range Organics	ND	0.20	NWTPH-Dx	4-13-20	4-14-20	
Surrogate:	Percent Recovery	Control Limits				_
o-Terphenyl	81	50-150				

					Source	Perc	ent	Recovery		RPD	
Analyte	Res	sult	Spike	Level	Result	Reco	very	Limits	RPD	Limit	Flags
DUPLICATE											
Laboratory ID:	SB04	13W1									
	ORIG	DUP									
Diesel Fuel #2	0.394	0.367	NA	NA		N.	A	NA	7	NA	
Lube Oil Range	ND	ND	NA	NA		N.	Α	NA	NA	NA	
Surrogate:											
o-Terphenyl						97	89	50-150			

Project: 82302-14.3

TOTAL ARSENIC EPA 200.8

				Date	Date	
Analyte	Result	PQL	Method	Prepared	Analyzed	Flags
Client ID:	BLMW-11:W					
Laboratory ID:	04-069-01					
Arsenic	7.4	3.3	EPA 200.8	4-15-20	4-15-20	
Client ID:	BLMW-12:W					
Laboratory ID:	04-069-02					
Arsenic	ND	3.3	EPA 200.8	4-15-20	4-15-20	
Client ID:	MW-1:W					
Laboratory ID:	04-069-03					
Arsenic	9.6	3.3	EPA 200.8	4-15-20	4-15-20	

Project: 82302-14.3

TOTAL ARSENIC EPA 200.8 QUALITY CONTROL

				Date	Date	
Analyte	Result	PQL	Method	Prepared	Analyzed	Flags
METHOD BLANK						
Laboratory ID:	MB0415WM1					
Arsenic	ND	3.3	FPA 200 8	4-15-20	4-15-20	

Analyte	Res	sult	Spike	Level	Source Result		rcent	Recovery Limits	RPD	RPD Limit	Flags
DUPLICATE			· · ·								
Laboratory ID:	04-08	85-01									
	ORIG	DUP									
Arsenic	ND	ND	NA	NA		l	NA	NA	NA	20	
MATRIX SPIKES											
Laboratory ID:	04-08	35-01									
	MS	MSD	MS	MSD		MS	MSD				
Arsenic	134	123	111	111	ND	121	111	75-125	9	20	•

Project: 82302-14.3

DISSOLVED ARSENIC EPA 200.8

				Date	Date	
Analyte	Result	PQL	Method	Prepared	Analyzed	Flags
Client ID:	BLMW-11:W					
Laboratory ID:	04-069-01					
Arsenic	5.3	3.0	EPA 200.8	4-10-20	4-15-20	
Client ID:	BLMW-12:W					
Laboratory ID:	04-069-02					
Arsenic	ND	3.0	EPA 200.8	4-10-20	4-15-20	
Client ID:	MW-1:W					
Laboratory ID:	04-069-03					
Arsenic	8.2	3.0	EPA 200.8	4-10-20	4-15-20	

Project: 82302-14.3

DISSOLVED ARSENIC EPA 200.8 QUALITY CONTROL

				Date	Date	
Analyte	Result	PQL	Method	Prepared	Analyzed	Flags
METHOD BLANK						
Laboratory ID:	MB0415WM1					
Arsenic	ND	3.0	FPA 200 8	4-10-20	4-15-20	

Analyte	Res	sult	Spike	Level	Source Result		rcent	Recovery Limits	RPD	RPD Limit	Flags
DUPLICATE			•								
Laboratory ID:	04-0	69-03									
	ORIG	DUP									
Arsenic	8.20	7.58	NA	NA			NA	NA	8	20	
MATRIX SPIKES											
Laboratory ID:	04-0	69-03									
	MS	MSD	MS	MSD		MS	MSD				
Arsenic	82.6	86.8	80.0	80.0	8.20	93	98	75-125	5	20	



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.
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- M Hydrocarbons in the gasoline range are impacting the diesel range result.
- M1 Hydrocarbons in the gasoline range (toluene-naphthalene) are present in the sample.
- N Hydrocarbons in the lube oil range are impacting the diesel range result.
- N1 Hydrocarbons in diesel range are impacting lube oil range results.
- O Hydrocarbons indicative of heavier fuels are present in the sample and are impacting the gasoline result.
- P The RPD of the detected concentrations between the two columns is greater than 40.
- Q Surrogate recovery is outside of the control limits.
- S Surrogate recovery data is not available due to the necessary dilution of the sample.
- T The sample chromatogram is not similar to a typical _____.
- U The analyte was analyzed for, but was not detected above the reported sample quantitation limit.
- U1 The practical quantitation limit is elevated due to interferences present in the sample.
- V Matrix Spike/Matrix Spike Duplicate recoveries are outside control limits due to matrix effects.
- W Matrix Spike/Matrix Spike Duplicate RPD are outside control limits due to matrix effects.
- X Sample extract treated with a mercury cleanup procedure.
- X1- Sample extract treated with a sulfuric acid/silica gel cleanup procedure.
- Y The calibration verification for this analyte exceeded the 20% drift specified in methods 8260 & 8270, and therefore the reported result should be considered an estimate. The overall performance of the calibration verification standard met the acceptance criteria of the method.

7 -

ND - Not Detected at PQL

PQL - Practical Quantitation Limit

RPD - Relative Percent Difference





Chain of Custody

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