March 8, 2022

Christer Loftenius
Washington State Department of Ecology
PO Box 47600
Olympia, Washington 98604

Re: Progress Report No. 9, District on the River Redevelopment, March 2022
Sagamore Spokane, LLC; PPCD No. 21200059-32
Facility/Site ID #1523145 and Cleanup Site ID #3509
Project No. 190210

Dear Christer:

This Progress Report has been prepared by Aspect Consulting, LLC (Aspect) for the District on the River Redevelopment at the Hamilton Street Bridge (Site) as a requirement of the Prospective Purchaser Consent Decree (PPCD) No. 21200059-32 between Sagamore Spokane, LLC and the Washington State Department of Ecology (Ecology). The PPCD was signed and executed on January 15, 2021. Section XII of the PPCD requires Sagamore Spokane, LLC to submit to Ecology a written monthly Progress Report that describes the actions required by the PPCD during the reporting period of January 1 to March 8, 2022.

1) Progress During Reporting Period

- Aspect transmitted the Engineering Design Report (EDR) Amendment to Ecology on March 4, 2022. The EDR Amendment transmitted the Contractor's Health and Safety Plan (HASP), Spill Prevention, Control, and Countermeasure (SPCC) Plan, and the preliminary Construction Schedule as of February 22, 2022.

2) Sampling and/or Testing Reports Received

- No sampling or reports received during this reporting period.

3) Summary of Deviations

- No deviations during this reporting period.

4) Schedule

- Garco's preliminary Construction Schedule as of February 22, 2022, was transmitted with the EDR Amendment.

5) Contact with Other Parties

- Aspect provided the PLPs a copy of the EDR Amendment on Friday, March 4, 2022.
- Spokane County staff notified Aspect of diver download at the Site on Wednesday March 2, 2022.

6) List of Deliverables and Key Activities Planned for Next Month

- Sagamore Spokane, LLC executed the Ecology-approved form of financial assurance in August 2021.

- Complete contract negotiations and start construction.
- Per Ecology's written request to Aspect on March 7, 2022, construction groundwater monitoring results are included in this progress report including: boring logs with well completion diagrams (Attachment A), groundwater sampling purge forms (Attachment B), baseline construction groundwater monitoring results (Table 1 and Attachment C, Analytical Report) and EDR Figure 2 to reference monitoring well locations.

Please let us know if you have any questions.

Sincerely,

Aspect consulting, LLC

Breeyn Greer, PE
Project Engineer
bgreer@aspectconsulting.com

Adam Griffin, PE
Senior Associate Engineer
agriffin@aspectconsulting.com

Attachments: Table 1 – Baseline Construction Groundwater Monitoring Results
Figure – EDR Figure 2
Attachment A – Boring Logs
Attachment B – Purge Logs
Attachment C – Baseline Analytical Report

cc: Dave Cook, Aspect Consulting LLC (email only)

Chuck Dubroff, Sagamore Spokane LLC (email only)

Jeff Jurgensen, OAC Services, Inc. (email only)

V:\190210 Sagamore Spokane\Project Management\Progress Reports\No 9_03082022\Monthly Progress Report No 9_03082022.docx

TABLE

Table 1. Baseline Construction Groundwater Monitoring Results

DRAFT

Project No. 190210, Riverbend Redevelopment, Spokane, Washington

	Location	AMW-1A	AMW-1B
	Date	04/01/2021	04/01/2021
Analyte	Unit		
Conventionals			
Cyanide, Weak acid dissociable (WAD)	mg/L	< 0.010 U	**0.0064 J**
Metals			
Arsenic, Dissolved	mg/L	**0.0031**	**0.00078 J**
Arsenic, Total	mg/L	**0.0037**	**0.0026**
Mercury	mg/L	< 0.00030 U	< 0.00030 U
PAHs			
1-Methylnaphthalene	ug/L	**0.054 J**	**360**
2-Methylnaphthalene	ug/L	**0.067 J**	**490**
Acenaphthene	ug/L	**1.3**	**260**
Acenaphthylene	ug/L	**0.16**	**15**
Anthracene	ug/L	**0.050 J**	**32**
Benzo(g,h,i)perylene	ug/L	**0.038 J**	**0.48**
Fluoranthene	ug/L	**0.11 J**	**16 J**
Fluorene	ug/L	< 0.089 UJ	**92**
Naphthalene	ug/L	< 0.089 U	**1200**
Phenanthrene	ug/L	< 0.089 U	**150**
Pyrene	ug/L	**0.088 J**	**22**
Benz(a)anthracene	ug/L	**0.034 J**	**2**
Benzo(a)pyrene	ug/L	**0.037 J**	**1.4**
Benzo(b)fluoranthene	ug/L	**0.044 J**	**0.87**
Benzo(k)fluoranthene	ug/L	**0.016 J**	**0.48**
Chrysene	ug/L	**0.027 J**	**1.8**
Dibenzo(a,h)anthracene	ug/L	**0.022 J**	**0.1**
Indeno(1,2,3-cd)pyrene	ug/L	**0.027 J**	**0.39**
Total cPAHs TEQ (ND = 1/2 RDL)	ug/L	**0.05157 J**	**1.802**
TPHs			
Gasoline Range Organics	ug/L	< 150 U	**15000**
Diesel Range Organics	ug/L	< 230 U	**8200 X**
Motor Oil Range Organics	ug/L	< 380 U	< 390 UJ

Notes:

Bold - detected

U - Analyte not detected at or above Reporting Limit (RL) shown

J - Result value estimated

UJ - Analyte not detected and the Reporting Limit (RL) is an estimate

X - Chromatographic pattern does not match fuel standard used for quantitation

D - Dissolved Fraction (filtered) sample result

T - Total Fraction (unfiltered) sample result

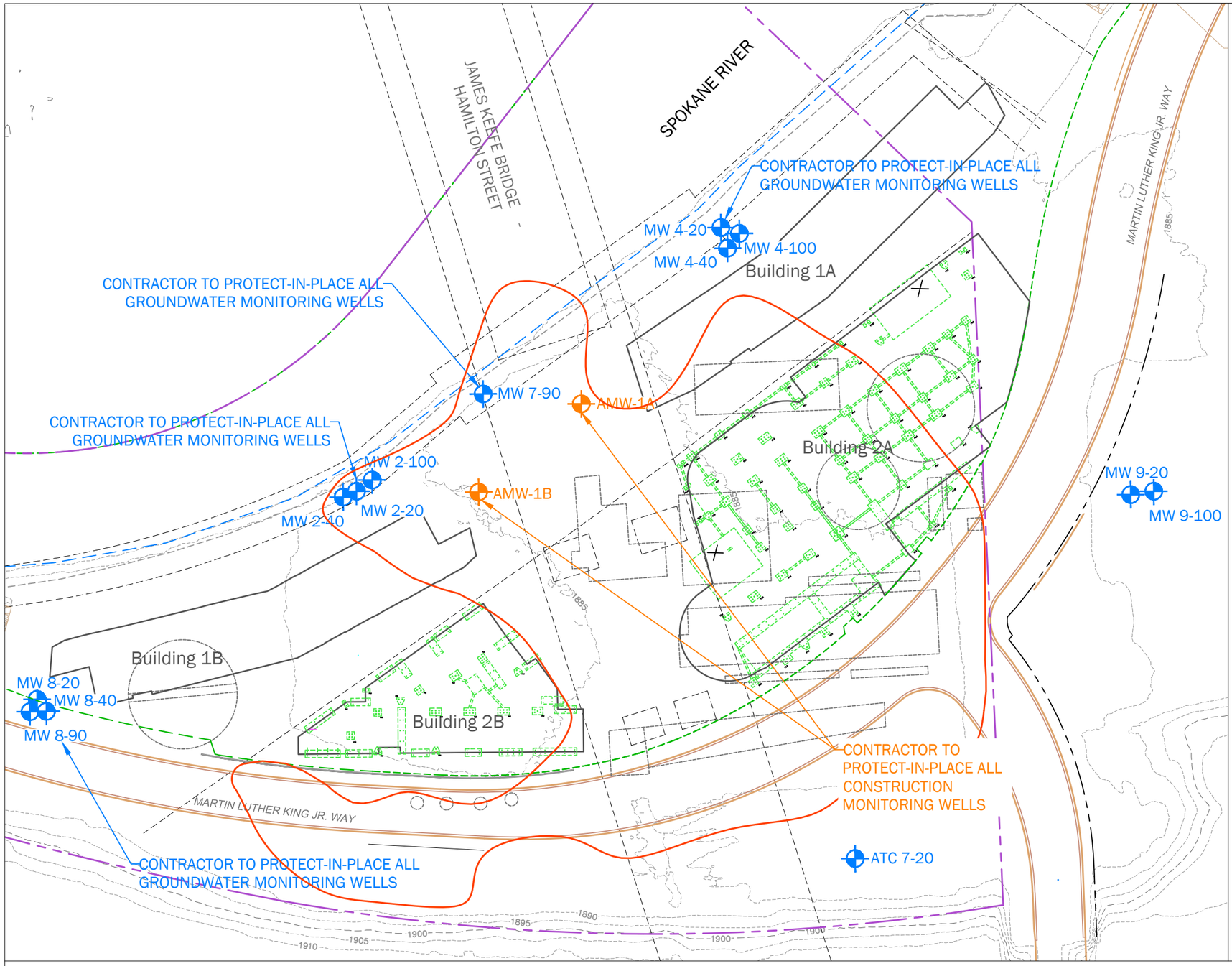
N - Fraction Not Applicable

cPAHs = carcinogenic polycyclic aromatic hydrocarbons

ND = 1/2 RDL - calculated using 1/2 the reporting limit for non-detected components

CAS = Chemical Abstracts Service Registry Number

FIGURE



Notes:

Building 2A Pile Cap Information

PILE CAP SCHEDULE

TYPE	NUMBER OF PILES	SIZE WIDTH	SIZE LENGTH	SIZE DEPTH	REFERENCE DETAIL	ASD PILE LOAD
P2.0A	2	2'-6"	5'-6"	2'-6"	1/S-302	40k - C
P2.0B	2	2'-6"	5'-6"	2'-6"	1/S-302	60k - C
P2.0C	2	2'-6"	5'-6"	2'-6"	1/S-302	100k - C
P3.0	3	5'-2"	5'-6"	3'-0"	2/S-302	100k - C
P4.0	4	5'-6"	5'-6"	2'-6"	3/S-302	100k - C
P5.0	5	5'-6"	7'-9"	3'-0"	6/S-302	100k - C
P6.0	6	5'-6"	8'-6"	3'-3"	7/S-302	100k - C
P7.0	7	7'-9"	8'-6"	3'-0"	8/S-302	100k - C

NOTE:
1. PILE LOADS SHOWN IN SCHEDULE ARE ASD LOADING.
2. PILE LOCATIONS SHOWN ON PLAN ARE FOR VISUAL REFERENCE ONLY. PILE DESIGNER IS RESPONSIBLE FOR FINAL LOCATIONS.
3. REFERENCE GEOTECH REPORT FOR PILE TYPE AND DRIVEN LENGTH.

Building 2B Pile Cap Information

PILE CAP SCHEDULE

TYPE	NUMBER OF PILES	SIZE WIDTH	SIZE LENGTH	SIZE DEPTH	REFERENCE DETAIL	ASD PILE LOAD
P2.0	2	5'-6"	2'-6"	2'-11"	1/S-302	100k-C
P3.0	3	5'-2"	5'-6"	3'-0"	2/S-302	100k-C
P4.0	4	5'-6"	5'-6"	2'-8"	3/S-302	100k-C
P5.0	5	5'-6"	7'-9"	3'-0"	6/S-302	100k-C
P6.0	6	8'-6"	5'-6"	3'-8"	7/S-302	100k-C

NOTE:
1. PILE LOADS SHOWN IN SCHEDULE ARE ASD LOADING.
2. PILE LOCATIONS SHOWN ON PLAN ARE FOR VISUAL REFERENCE ONLY. PILE DESIGNER IS RESPONSIBLE FOR FINAL LOCATIONS.
3. REFERENCE GEOTECH REPORT FOR PILE TYPE AND DRIVEN LENGTH.

The deep foundation information on this plan is for reference only; the Foundation Plans in S-101 for Buildings 2A and 2B provided by DCI Engineers supersede and are FOR CONSTRUCTION. This sheet was produced for Ecology and ONLY THE PROTECTION OF MONITORING WELLS IS FOR CONSTRUCTION.

BREEYN MICHELLE GREER
STATE OF WASHINGTON
20111194
REGISTERED
PROFESSIONAL ENGINEER
4/23/2021

Legend

- Subject Property
- Proposed Buildings
- Hamilton Street Bridge Site
- Extent of PAH Affected Soil (CAP, 2001)
- 1920 Existing Elevation Contours in Feet
- Proposed Pile Cap
- Proposed Grouted Helical Pile
- Groundwater Monitoring Well
- Construction Monitoring Well
- PAH = Polycyclic Aromatic Hydrocarbon

0 80 100 Feet

Source: Surveyed base map provided by Druyea & Associates, dated November 2, 2019.

Elevation contour data from DEM file generated by ArcGIS™ software, March, 2018.

Foundation Plans with pile layout provided by DCI Engineers, dated April 16, 2021.

The Hamilton Street Bridge Site, Extent of PAH Affected Soil and Extent of Limited Soil CAP are approximated and have not been surveyed.

DEEP FOUNDATIONS OVERLAY

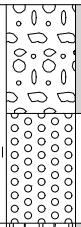
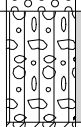
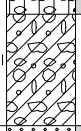
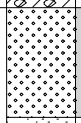
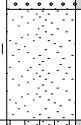
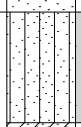
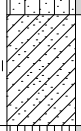
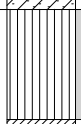
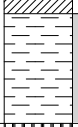
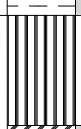
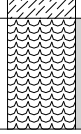
Engineering Design Report
Hamilton Street Bridge Site
Spokane, Washington

Aspect CONSULTING	April-26-2021	BY: BMG	FIGURE NO. 2
	PROJECT NO. 180003	REVISED BY: BMG	

CAD Path: Q:\Riverbend Redevelopment\2020-11 EDR\190210 - Plan Set - 2021.dwg 02 Deep Foundations Overlay || Date Saved: Apr 23, 2021 8:07am || User: bgreer

ATTACHMENT A

Boring Logs

Coarse-Grained Soils - More than 50%[1] Retained on No. 200 Sieve	Gravels - More than 50%[1] of Coarse Fraction Retained on No. 4 Sieve	≤5% Fines		GW	Well-graded GRAVEL Well-graded GRAVEL WITH SAND
				GP	Poorly-graded GRAVEL Poorly-graded GRAVEL WITH SAND
		≥15% Fines		GM	SILTY GRAVEL SILTY GRAVEL WITH SAND
				GC	CLAYEY GRAVEL CLAYEY GRAVEL WITH SAND
	Sands - 50%[1] or More of Coarse Fraction Passes No. 4 Sieve	≤5% Fines		SW	Well-graded SAND Well-graded SAND WITH GRAVEL
				SP	Poorly-graded SAND Poorly-graded SAND WITH GRAVEL
		≥15% Fines		SM	SILTY SAND SILTY SAND WITH GRAVEL
				SC	CLAYEY SAND CLAYEY SAND WITH GRAVEL
Fine-Grained Soils - 50%[1] or More Passes No. 200 Sieve	Silts and Clays Liquid Limit Less than 50%			ML	SILT SANDY or GRAVELLY SILT SILT WITH SAND SILT WITH GRAVEL
				CL	LEAN CLAY SANDY or GRAVELLY LEAN CLAY LEAN CLAY WITH SAND LEAN CLAY WITH GRAVEL
				OL	ORGANIC SILT SANDY or GRAVELLY ORGANIC SILT ORGANIC SILT WITH SAND ORGANIC SILT WITH GRAVEL
	Silts and Clays Liquid Limit 50% or More			MH	ELASTIC SILT SANDY or GRAVELLY ELASTIC SILT ELASTIC SILT WITH SAND ELASTIC SILT WITH GRAVEL
				CH	FAT CLAY SANDY or GRAVELLY FAT CLAY FAT CLAY WITH SAND FAT CLAY WITH GRAVEL
				OH	ORGANIC CLAY SANDY or GRAVELLY ORGANIC CLAY ORGANIC CLAY WITH SAND ORGANIC CLAY WITH GRAVEL
Highly Organic Soils				PT	PEAT and other mostly organic soils

"WITH SILT" or "WITH CLAY" means 5 to 15% silt and clay, denoted by a "-" in the group name; e.g., SP-SM • "SILTY" or "CLAYEY" means >15% silt and clay • "WITH SAND" or "WITH GRAVEL" means 15 to 30% sand and gravel. • "SANDY" or "GRAVELLY" means >30% sand and gravel. • "Well-graded" means approximately equal amounts of fine to coarse grain sizes • "Poorly graded" means unequal amounts of grain sizes • Group names separated by "/" means soil contains layers of the two soil types; e.g., SM/ML.

Soils were described and identified in the field in general accordance with the methods described in ASTM D2488. Where indicated in the log, soils were classified using ASTM D2487 or other laboratory tests as appropriate. Refer to the report accompanying these exploration logs for details.

1. Estimated or measured percentage by dry weight
2. (SPT) Standard Penetration Test (ASTM D1586)
3. Determined by SPT, DCPT (ASTM STP399) or other field methods. See report text for details.

GEOTECHNICAL LAB TESTS

MC	=	Natural Moisture Content
PS	=	Particle Size Distribution
FC	=	Fines Content (% < 0.075 mm)
GH	=	Hydrometer Test
AL	=	Atterberg Limits
C	=	Consolidation Test
Str	=	Strength Test
OC	=	Organic Content (% Loss by Ignition)
Comp	=	Proctor Test
K	=	Hydraulic Conductivity Test
SG	=	Specific Gravity Test

CHEMICAL LAB TESTS

Organic Chemicals

BTEX	=	Benzene, Toluene, Ethylbenzene, Xylenes
TPH-Dx	=	Diesel and Oil-Range Petroleum Hydrocarbons
TPH-G	=	Gasoline-Range Petroleum Hydrocarbons
VOCs	=	Volatile Organic Compounds
SVOCs	=	Semi-Volatile Organic Compounds
PAHs	=	Polycyclic Aromatic Hydrocarbon Compounds
PCBs	=	Polychlorinated Biphenyls

Metals

RCRA8	=	As, Ba, Cd, Cr, Pb, Hg, Se, Ag, (d = dissolved, t = total)
MTCA5	=	As, Cd, Cr, Hg, Pb (d = dissolved, t = total)
PP-13	=	Ag, As, Be, Cd, Cr, Cu, Hg, Ni, Pb, Sb, Se, Tl, Zn (d=dissolved, t=total)

FIELD TESTS

PID	=	Photoionization Detector
Sheen	=	Oil Sheen Test
SPT[2]	=	Standard Penetration Test
NSPT	=	Non-Standard Penetration Test
DCPT	=	Dynamic Cone Penetration Test

COMPONENT DEFINITIONS

Descriptive Term		*Size Range and Sieve Number*
Boulders	=	Larger than 12 inches
Cobbles	=	3 inches to 12 inches
Coarse Gravel	=	3 inches to 3/4 inches
Fine Gravel	=	3/4 inches to No. 4 (4.75 mm)
Coarse Sand	=	No. 4 (4.75 mm) to No. 10 (2.00 mm)
Medium Sand	=	No. 10 (2.00 mm) to No. 40 (0.425 mm)
Fine Sand	=	No. 40 (0.425 mm) to No. 200 (0.075 mm)
Silt and Clay	=	Smaller than No. 200 (0.075 mm)

ESTIMATED[1] PERCENTAGE

% by Weight		*Modifier*	*% by Weight*		*Modifier*
<1	=	Subtrace	15 to 25	=	Little
1 to <5	=	Trace	30 to 45	=	Some
5 to 10	=	Few	>50	=	Mostly

MOISTURE CONTENT

Dry	=	Absence of moisture, dusty, dry to the touch
Slightly Moist	=	Perceptible moisture
Moist	=	Damp but no visible water
Very Moist	=	Water visible but not free draining
Wet	=	Visible free water, usually from below water table

RELATIVE DENSITY

Non-Cohesive or Coarse-Grained Soils

Density[3]		*SPT*[2] *Blows/Foot*	*Penetration with 1/2" Diameter Rod*
Very Loose	=	0 to 4	≥ 2'
Loose	=	5 to 10	1' to 2'
Medium Dense	=	11 to 30	3" to 1'
Dense	=	31 to 50	1" to 3"
Very Dense	=	> 50	< 1"

CONSISTENCY

Cohesive or Fine-Grained Soils

Consistency[3]		*SPT*[2] *Blows/Foot*	*Manual Test*
Very Soft	=	0 to 1	Penetrated >1" easily by thumb. Extrudes between thumb & fingers.
Soft	=	2 to 4	Penetrated 1/4" to 1" easily by thumb. Easily molded.
Medium Stiff	=	5 to 8	Penetrated >1/4" with effort by thumb. Molded with strong pressure.
Stiff	=	9 to 15	Indented ~1/4" with effort by thumb.
Very Stiff	=	16 to 30	Indented easily by thumbnail.
Hard	=	> 30	Indented with difficulty by thumbnail.

GEOLOGIC CONTACTS

Observed and Distinct — Observed and Gradual — Inferred

Aspect CONSULTING

Exploration Log Key

Aspect CONSULTING	River Bend Development - 190210	Environmental Exploration Log	
	Project Address & Site Specific Location 111 North Erie Street, Spokane, Washington, Under Hamilton Street Bridge, south of pedestrian path	*Coordinates (SPN NAD83 ft)* E:2487300 N:259430 (est)	*Exploration Number* **AMW-1A**
Contractor Environmental West	*Equipment* Rotary drill rig	*Sampling Method* Grab	*Ground Surface Elev. (NAVD88)* 1884.2' (est)
Operator Brent	*Exploration Method(s)* Air rotary	*Work Start/Completion Dates* 3/25/2021	*Top of Casing Elev. (NAVD88)* NA
			Depth to Water (Below GS) 14' (Static)

Ecology Well Tag No. BPA 520

Depth (feet)	Elev. (feet)	Exploration Notes and Completion Details	Sample Type/ID	Analytical Sample Number & Lab Test(s)	Field Tests	Material Type	Description	Depth (ft)
		8-in diam flushmount well box in concrete			Sheen=None Odor=None		**FILL - Cap** SAND WITH GRAVEL (SW); Gray, slightly moist; fine to coarse sand with fine to coarse subangular gravel, trace silt	
		2-in diam Schedule 40 PVC casing					**FILL** GRAVEL WITH COBBLES AND BOULDERS (GW); Dark gray, slighly moist; angular, crushed, fine to coarse basalt gravel This material is interpreted as basalt cobbles and boulders based on adjacent stream bank and geophysical interpretation (Aspect, 2020)	
	1880							
5		3/8" bentonite chips			Sheen=None Odor=None			5
	1875							
10							GRAVEL WITH SAND (GW); Gray, slightly moist; fine to coarse sand, fine to coarse gravel, trace silt. Becomes rounded to subrounded. Absence of angular broken rock.	10
		▼ 3/25/2021						
	1870						GRAVEL WITH COBBLES AND BOULDERS (GP); Dark gray, slighly moist; angular, crushed, fine to coarse basalt gravel This material is interpreted as basalt cobbles and boulders based on adjacent stream bank and geophysical interpretation (Aspect, 2020).	
15								15

Legend

Sample Type
- ◯ No Soil Sample Recovery
- Grab sample

Water Level
- ▼ Static Water Level

See Exploration Log Key for explanation of symbols

Logged by: BMG
Approved by: AET 2022.03.08

Exploration Log AMW-1A
Sheet 1 of 2

NEW STANDARD EXPLORATION LOG TEMPLATE P:\GINTW\PROJECTS\RIVERBEND 190210.GPJ March 8, 2022

Aspect CONSULTING	River Bend Development - 190210		Environmental Exploration Log	
	Project Address & Site Specific Location 111 North Erie Street, Spokane, Washington, Under Hamilton Street Bridge, south of pedestrian path		*Coordinates (SPN NAD83 ft)* E:2487300 N:259430 (est)	*Exploration Number* **AMW-1A**
Contractor Environmental West	*Equipment* Rotary drill rig	*Sampling Method* Grab	*Ground Surface Elev. (NAVD88)* 1884.2' (est)	Ecology Well Tag No. BPA 520
Operator Brent	*Exploration Method(s)* Air rotary	*Work Start/Completion Dates* 3/25/2021	*Top of Casing Elev. (NAVD88)* NA	*Depth to Water (Below GS)* 14' (Static)

Depth (feet)	Elev. (feet)	Exploration Notes and Completion Details	Sample Type/ID	Analytical Sample Number & Lab Test(s)	Field Tests	Material Type	Description	Depth (ft)
							DEBRIS OR REFUSE; Orange and black, wet; fine to coarse vesicular gravel; clinker	
					Sheen=None Odor=Driller notes hydrocarbon-like odor			
	1865	12/20 sand						
20								20
					Sheen=None Odor=None			
	1860						**ALLUVIUM** GRAVEL WITH SAND (GW); Gray and blue, wet; coarse rounded sand; fine to coarse rounded gravel	
25								25
		2-in diam Schedule 40 screen 0.20-in slot			Sheen=None Odor=None			
							SAND WITH GRAVEL (SW); Gray and blue, wet; rounded medium to coarse sand with fine to coarse rounded gravel	
	1855							
		Threaded cap			Odor=None Sheen=None			
30							Bottom of exploration at 30 ft. bgs.	30

Legend

Sample Type
- No Soil Sample Recovery
- Grab sample

Water Level
- Static Water Level

See Exploration Log Key for explanation of symbols

Logged by: BMG
Approved by: AET 2022.03.08

Exploration Log AMW-1A

Sheet 2 of 2

NEW STANDARD EXPLORATION LOG TEMPLATE P:\GINTW\PROJECTS\RIVERBEND 190210.GPJ March 8, 2022

Aspect CONSULTING	River Bend Development - 190210	Environmental Exploration Log	
	Project Address & Site Specific Location 111 North Erie Street, Spokane, Washington, West of Hamilton Street Bridge, south of pedestrian path	*Coordinates (SPN NAD83 ft)* E:2487200 N:259370 (est)	*Exploration Number* **AMW-1B**
Contractor Environmental West	*Equipment* Sonic	*Sampling Method* Rotary core	*Ground Surface Elev. (NAVD88)* 1884.2' (est)
Operator Sean	*Exploration Method(s)* Sonic	*Work Start/Completion Dates* 3/24/2021	*Top of Casing Elev. (NAVD88)* NA
			Depth to Water (Below GS) 13.6' (Static)

Depth (feet)	Elev. (feet)	Exploration Notes and Completion Details	Sample Type/ID	Analytical Sample Number & Lab Test(s)	Field Tests	Material Type	Description	Depth (ft)
		8-in diam flushmount well box in concrete			Sheen=No Sheen Odor=No Odor		**FILL** GRAVEL WITH SAND (GW); Gray, slightly moist; medium to coarse sand; fine to coarse subangular gravel Brick and concrete debris with fine to coarse subangular gravel from 1-2 ft.	
		2-in diam Schedule 40 PVC casing			Sheen=Colorless Persistent Odor=No Odor		GRAVEL WITH SAND AND COBBLES (GW); Dark brown, slightly moist; fine to coarse subround gravel with cobbles (3 to 5-inch diameter), trace silt	
					Sheen=Colorless Slight Odor=No Odor		GRAVEL WITH COBBLES AND BOULDERS (GP); Black, slightly moist; angular, crushed, fine to coarse basalt gravel This material is interpreted as basalt cobbles and boulders based on adjacent stream bank and geophysical interpretation (Aspect, 2020).	
	1880							
5		3/8" bentonite chips						5
					Sheen=Irridescent Persistent Heavy Odor=Strong hydrocarbon-like odor Visual=product coated		**FILL** DEBRIS OR REFUSE; Orange and black, very moist; fine to coarse vesicular gravel; clinker	
	1875							
10								10
		▼ 3/24/2021						
	1870							
15							Driller notes no rotary or vibration needed from 10 to 20 feet bgs, low density and no recovery	15

Legend

Sample Type
- ◯ No Soil Sample Recovery
- ◧ Continuous core 4" ID

Water Level
- ▼ Static Water Level

See Exploration Log Key for explanation of symbols

Logged by: BMG
Approved by: AET 2022.03.08

Exploration Log AMW-1B
Sheet 1 of 2

NEW STANDARD EXPLORATION LOG TEMPLATE P:\GINTW\PROJECTS\RIVERBEND 190210.GPJ March 8, 2022

Aspect CONSULTING	River Bend Development - 190210	Environmental Exploration Log	
	Project Address & Site Specific Location 111 North Erie Street, Spokane, Washington, West of Hamilton Street Bridge, south of pedestrian path	*Coordinates (SPN NAD83 ft)* E:2487200 N:259370 (est)	*Exploration Number* **AMW-1B**
Contractor Environmental West	*Equipment* Sonic	*Sampling Method* Rotary core	*Ground Surface Elev. (NAVD88)* 1884.2' (est)
Operator Sean	*Exploration Method(s)* Sonic	*Work Start/Completion Dates* 3/24/2021	*Top of Casing Elev. (NAVD88)* NA
			Ecology Well Tag No. BPA 527 *Depth to Water (Below GS)* 13.6' (Static)

Depth (feet)	Elev. (feet)	Exploration Notes and Completion Details	Sample Type/ID	Analytical Sample Number & Lab Test(s)	Field Tests	Material Type	Description	Depth (ft)
							FILL DEBRIS OR REFUSE; Orange and black, very moist; fine to coarse vesicular gravel; clinker (continued)	
	1865	12/20 sand						
20								20
					Sheen=Irridescent Persistent Heavy Odor=Strong hydrocarbon-like odor Visual=product coated			
	1860						**FILL** GRAVEL WITH COBBLES (GW); Black, slightly moist; angular, fine to coarse basalt gravel with cobbles (> 4-in diameter). This material is interpreted as basalt cobbles and boulders based on adjacent stream bank and geophysical interpretation (Aspect, 2020)	
25								25
		2-in diam Schedule 40 screen 0.20-in slot						
	1855							
		Threaded cap						
30								30
							Bottom of exploration at 31 ft. bgs.	

Legend

Sample Type
- No Soil Sample Recovery
- Continuous core 4" ID

Water Level
- Static Water Level

See Exploration Log Key for explanation of symbols

Logged by: BMG
Approved by: AET 2022.03.08

Exploration Log AMW-1B
Sheet 2 of 2

NEW STANDARD EXPLORATION LOG TEMPLATE P:\GINTW\PROJECTS\RIVERBEND 190210.GPJ March 8, 2022

ATTACHMENT B

Purge Logs

Aspect CONSULTING

Sample number: AMW-1A-040121

GROUNDWATER SAMPLING RECORD

WELL NUMBER: AMW-1A Page: 1 of 1

Project Name: Sagamore
Date: 4/1/21
Sampled by: BMG
Measuring Point of Well: TOC N
Screened Interval (ft. TOC) ~~20~~ 19-30
Filter Pack Interval (ft. TOC) 19-30

Project Number: 190210
Starting Water Level (ft TOC): 13.54
Casing Stickup (ft): —
Total Depth (ft TOC): 30'
Casing Diameter (inches): 2"

Casing Volume _____ (ft Water) x _____ (Lpfv)(gpf) = _____ (L)(gal)
Casing volumes: 3/4"= 0.02 gpf 2" = 0.16 gpf 4" = 0.65 gpf 6" = 1.47 gpf
3/4"= 0.09 Lpf 2" = 0.62 Lpf 4" = 2.46 Lpf 6" = 5.56 Lpf

Sample Intake Depth (ft TOC): ~25'

PURGING MEASUREMENTS

Criteria:		Typical 0.1-0.5 Lpm	Stable	na	± 3%	± 10%	± 0.1	± 10 mV	± 10%	
Time	Cumul. Volume (gal or L)	Purge Rate (gpm or Lpm)	Water Level (ft)	Temp. (°C)	Specific Conductance (µS/cm)	Dissolved Oxygen (mg/L)	pH	ORP (mv)	Turbidity (NTU)	Comments
1510	0	0.2	13.54							Start
1515			13.55	7.1	106.3	870 sc	7.1	20.1	6.06	
1520	0.5		13.55	7.1	105.9	869	7.05	22.8	5.02	
1525			13.54	7.1	105.4	871	7.07	23.4	9.32	Very Stable
1530	1.0		13.55	7.0	105.5	878	7.08	24.2	9.6	Sample!

Total Gallons Purged: ~1.5
Total Casing Volumes Removed: —
Ending Water Level (ft TOC): 13.54
Ending Total Depth (ft TOC): 29.90

SAMPLE INVENTORY

Time	Volume	Bottle Type	Quantity	Filtration	Preservation	Appearance		Remarks
						Color	Turbidity & Sediment	
1535						none	clear	AMW-1A-040121
1535							(9.6)	
1535								
1535								
1535								

METHODS

Parameters measured with (instrument model & serial number): YSI - Yellow Turbidimeter - White
Purging Equipment: Peri Pump, dedicated Tubing Decon Equipment: Alconox Water
Disposal of Discharged Water: Drum Onsite

Observations/Comments:
DO Sensor Broken.

Aspect CONSULTING

Sample number AMW-1B-040121

GROUNDWATER SAMPLING RECORD

WELL NUMBER: AMW-1B Page: 1 of 1

Project Name: Sagamore
Date: 4/1/21
Sampled by: BMG
Measuring Point of Well: TOC
Screened Interval (ft TOC) 20-30
Filter Pack Interval (ft. TOC) 18-30

Project Number: 190210
Starting Water Level (ft TOC): 12.81
Casing Stickup (ft): —
Total Depth (ft TOC): —
Casing Diameter (inches): 2"

Casing Volume _____ (ft Water) x _____ (Lpfv)(gpf) = _____ (L)(gal)
Casing volumes: 3/4"= 0.02 gpf 2" = 0.16 gpf 4" = 0.65 gpf 6" = 1.47 gpf
3/4"= 0.09 Lpf 2" = 0.62 Lpf 4" = 2.46 Lpf 6" = 5.56 Lpf

Sample Intake Depth (ft TOC): ~25'

PURGING MEASUREMENTS

Criteria:		Typical 0.1-0.5 Lpm	Stable	na	± 3%	± 10%	± 0.1	± 10 mV	± 10%	
Time	Cumul. Volume (gal or L)	Purge Rate (gpm or Lpm)	Water Level (ft)	Temp. (°C)	Specific Conductance (µS/cm)	Dissolved Oxygen (mg/L)	pH	ORP (mv)	Turbidity (NTU)	Comments
1400	0	0.2	12.81	—	—	—	—	—	—	Start
1405			12.82	6.9	152	841	7.11	56.7	409	DO Sensor broken
1410	0.5		12.83	7.1	148	870	7.10	48.5	366	
1415			12.82	6.8	148	891	7.14	42.6	-	
1420	1		12.83	6.9	149	884	7.17	38.7	272	
1425			12.83	6.8	150	891	7.18	32.8	258	Turbidity high
1430	1.5		12.83	6.9	150	884	7.19	29.6	223	
1435			12.83	6.9	151	891	7.20	25.9	208	
1440	2		12.83	6.9	151	883	7.22	24	195	Sample

Total Gallons Purged: 2 Total Casing Volumes Removed: —

Ending Water Level (ft TOC): 12.83 Ending Total Depth (ft TOC): _____

SAMPLE INVENTORY

Time	Volume	Bottle Type	Quantity	Filtration	Preservation	Appearance		Remarks AMW-1B-040121
						Color	Turbidity & Sediment	
1445	250	Amber	2	N	no	none	yes	PAHs
1445	250	Amber	1	~~N~~ N	HCl		(170)	DX
1445	40	VOA	2	~~N~~ N	HCl			6X
1445	250	Poly	1	N	HNO_3			As (total)
1445	250	Poly		N	NaOH			Cyanide
1445	250	Poly		N	N	↓	↓	Diss As, lab filtered

METHODS

Parameters measured with (instrument model & serial number): YSI - yellow Turbidimeter - white
Purging Equipment: Peri Pump, dedicated tubing Decon Equipment: Alconox + H_2O
Disposal of Discharged Water: Drum Onsite
Observations/Comments: Petroleum-like odor
Do Sensor Broken Sheen on WLI

X:\Aspect Forms\Field Forms\Groundwater Sampling Form.xlsx

BPA 527

ATTACHMENT C

Baseline Analytical Results

eurofins | Environment Testing America

ANALYTICAL REPORT

Eurofins TestAmerica, Spokane
11922 East 1st Ave
Spokane, WA 99206
Tel: (509)924-9200

Laboratory Job ID: 590-14876-1
Client Project/Site: Sagamore/190210

For:
Aspect Consulting
710 Second Avenue
Suite 550
Seattle, Washington 98104

Attn: Breeyn Greer

Authorized for release by:
4/20/2021 4:21:59 PM

Randee Arrington, Lab Director
(509)924-9200
Randee.Arrington@Eurofinset.com

Table of Contents

Job ID: 590-14876-1

Laboratory: Eurofins TestAmerica, Spokane

Narrative

Receipt
The samples were received on 4/2/2021 8:49 AM. Unless otherwise noted below, the samples arrived in good condition, and where required, properly preserved and on ice. The temperature of the cooler at receipt was 2.6º C.

GC/MS VOA
Method 8260D: The continuing calibration verification (CCV) associated with batch 590-31185 recovered above the upper control limit for 1,1,1,2-Tetrachloroethane, 1,1,1-Trichloroethane, 1,1,2,2-Tetrachloroethane, 1,1,2-Trichloroethane, 1,2,3-Trichloropropane, 1,2-Dibromo-3-Chloropropane, 1,3-Dichloropropane, 2,2-Dichloropropane, 2-Chlorotoluene, Bromomethane, Chloroethane, Dibromomethane, Hexachlorobutadiene, Naphthalene, N-Propylbenzene and Trichlorofluoromethane. The samples associated with this CCV were non-detects for the affected analytes; therefore, the data have been reported.

Method NWTPH-Gx: Insufficient sample volume was available to perform a sample duplicate (DUP) associated with analytical batch 590-31219.

Method 8260D: The continuing calibration verification (CCV) associated with batch 590-31338 recovered outside acceptance criteria, low biased, for 2,2-Dichloropropane and Hexachlorobutadiene. A reporting limit (RL) standard was analyzed, and the target analyte was detected. Since the associated samples were non-detect for this analyte, the data have been reported.

Method 8260D: The laboratory control sample (LCS) associated with batch 590-31338 recovered outside acceptance criteria, low biased, for 2,2-Dichloropropane and Hexachlorobutadiene. A reporting limit (RL) standard was analyzed, and the target analyte was detected. Since the associated samples were non-detect for this analyte, the data have been reported.

Method 8260D: Reanalysis of the following sample was performed outside of the analytical holding time due to instrument contamination : IDW-040121 (590-14876-3).

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

GC/MS Semi VOA
Method 8270E SIM: The method blank for preparation batch 590-31145 and analytical batch 590-31143 contained Fluoranthene, Phenanthrene and Fluorene above the method detection limit. This target analyte concentration was less than the reporting limit (RL); therefore, re-extraction and/or re-analysis of samples was not performed.

Method 8270E SIM: The RPD of the laboratory control sample (LCS) and laboratory control sample duplicate (LCSD) for preparation batch 590-31145 and analytical batch 590-31143 recovered outside control limits for the following analyte: Fluoranthene.

Method 8270E SIM: Surrogate recovery for the following sample was outside control limits: AMW-1B-040121 (590-14876-2). Evidence of matrix interference due to non-target analytes is present; therefore, re-extraction and/or re-analysis was not performed.

Method 8270E SIM: The RPD of the laboratory control sample (LCS) and laboratory control sample duplicate (LCSD) for preparation batch 590-31257 and analytical batch 590-31252 recovered outside control limits for the following analytes: Indeno[1,2,3-cd]pyrene, Dibenz(a,h)anthracene and Benzo[g,h,i]perylene.

Method 8270E SIM: The following sample required a dilution due to the nature of the sample matrix: IDW-040121 (590-14876-3). Because of this dilution, the surrogate spike concentration in the sample was reduced to a level where the recovery calculation does not provide useful information.

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

GC Semi VOA
Method NWTPH-Dx: The method blank for preparation batch 590-31224 and analytical batch 590-31225 contained Residual Range Organics (RRO) (C25-C36) above the method detection limit. This target analyte concentration was less than half the reporting limit (1/2RL); therefore, re-extraction and re-analysis of samples was not performed.

Job ID: 590-14876-1 (Continued)

Laboratory: Eurofins TestAmerica, Spokane (Continued)

Method NWTPH-Dx: Detected hydrocarbons appear to be due individual peaks, and not a typical hydrocarbon pattern in the following sample: AMW-1B-040121 (590-14876-2).

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

Metals
Method 6010D: The low level continuing calibration verification (CCVL) associated with batch 590-31138 recovered above the upper control limit for Silver. The samples associated with this CCVL were >10x or non-detects for the affected analytes; therefore, the data have been reported.

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

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

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

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

Sample Summary

Client: Aspect Consulting
Project/Site: Sagamore/190210

Job ID: 590-14876-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Asset ID
590-14876-1	AMW-1A-040121	Water	04/01/21 15:35	04/02/21 08:49	
590-14876-2	AMW-1B-040121	Water	04/01/21 14:45	04/02/21 08:49	
590-14876-3	IDW-040121	Solid	04/01/21 16:05	04/02/21 08:49	

Definitions/Glossary

Client: Aspect Consulting
Project/Site: Sagamore/190210

Job ID: 590-14876-1

Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
*-	LCS and/or LCSD is outside acceptance limits, low biased.
*+	LCS and/or LCSD is outside acceptance limits, high biased.
H	Sample was prepped or analyzed beyond the specified holding time
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

GC/MS Semi VOA

Qualifier	Qualifier Description
*1	LCS/LCSD RPD exceeds control limits.
B	Compound was found in the blank and sample.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
S1-	Surrogate recovery exceeds control limits, low biased.
S1+	Surrogate recovery exceeds control limits, high biased.

GC Semi VOA

Qualifier	Qualifier Description
B	Compound was found in the blank and sample.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

Metals

Qualifier	Qualifier Description
^+	Continuing Calibration Verification (CCV) is outside acceptance limits, high biased.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

General Chemistry

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

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive

Glossary (Continued)

Abbreviation	These commonly used abbreviations may or may not be present in this report.
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

Client Sample ID: AMW-1A-040121

Date Collected: 04/01/21 15:35
Date Received: 04/02/21 08:49

Lab Sample ID: 590-14876-1

Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline	ND		150	70	ug/L			04/12/21 13:22	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*96*		*68.7 - 141*		*04/12/21 13:22*	*1*

Method: 8270E SIM - Semivolatile Organic Compounds (GC/MS SIM)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1-Methylnaphthalene	**0.054**	**J**	0.089	0.023	ug/L		04/05/21 15:45	04/05/21 19:26	1
2-Methylnaphthalene	**0.067**	**J**	0.089	0.043	ug/L		04/05/21 15:45	04/05/21 19:26	1
Acenaphthene	**1.3**		0.089	0.022	ug/L		04/05/21 15:45	04/05/21 19:26	1
Acenaphthylene	**0.16**		0.089	0.016	ug/L		04/05/21 15:45	04/05/21 19:26	1
Anthracene	**0.050**	**J**	0.089	0.025	ug/L		04/05/21 15:45	04/05/21 19:26	1
Benzo[a]anthracene	**0.034**	**J**	0.089	0.012	ug/L		04/05/21 15:45	04/05/21 19:26	1
Benzo[a]pyrene	**0.037**	**J**	0.089	0.012	ug/L		04/05/21 15:45	04/05/21 19:26	1
Benzo[b]fluoranthene	**0.044**	**J**	0.089	0.011	ug/L		04/05/21 15:45	04/05/21 19:26	1
Benzo[g,h,i]perylene	**0.038**	**J**	0.089	0.021	ug/L		04/05/21 15:45	04/05/21 19:26	1
Benzo[k]fluoranthene	**0.016**	**J**	0.089	0.015	ug/L		04/05/21 15:45	04/05/21 19:26	1
Chrysene	**0.027**	**J**	0.089	0.0099	ug/L		04/05/21 15:45	04/05/21 19:26	1
Dibenz(a,h)anthracene	**0.022**	**J**	0.089	0.013	ug/L		04/05/21 15:45	04/05/21 19:26	1
Fluoranthene	**0.11**	**B *1**	0.089	0.017	ug/L		04/05/21 15:45	04/05/21 19:26	1
Fluorene	**0.044**	**J B**	0.089	0.016	ug/L		04/05/21 15:45	04/05/21 19:26	1
Indeno[1,2,3-cd]pyrene	**0.027**	**J**	0.089	0.022	ug/L		04/05/21 15:45	04/05/21 19:26	1
Naphthalene	ND		0.089	0.052	ug/L		04/05/21 15:45	04/05/21 19:26	1
Phenanthrene	ND		0.089	0.055	ug/L		04/05/21 15:45	04/05/21 19:26	1
Pyrene	**0.088**	**J**	0.089	0.026	ug/L		04/05/21 15:45	04/05/21 19:26	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl (Surr)	*78*		*36 - 120*	*04/05/21 15:45*	*04/05/21 19:26*	*1*
Nitrobenzene-d5	*95*		*29 - 121*	*04/05/21 15:45*	*04/05/21 19:26*	*1*
p-Terphenyl-d14	*88*		*51 - 121*	*04/05/21 15:45*	*04/05/21 19:26*	*1*

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics (DRO) (C10-C25)	ND		230	110	ug/L		04/12/21 14:12	04/12/21 22:45	1
Residual Range Organics (RRO) (C25-C36)	ND		380	120	ug/L		04/12/21 14:12	04/12/21 22:45	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
o-Terphenyl	*90*		*50 - 150*	*04/12/21 14:12*	*04/12/21 22:45*	*1*
n-Triacontane-d62	*86*		*50 - 150*	*04/12/21 14:12*	*04/12/21 22:45*	*1*

Method: 200.8 - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	**0.0037**		0.0010	0.00020	mg/L		04/05/21 10:46	04/07/21 14:06	1

Method: 200.8 - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	**0.0031**		0.0010	0.00020	mg/L		04/13/21 16:13	04/14/21 16:53	1

Client Sample ID: AMW-1A-040121

Lab Sample ID: 590-14876-1

Date Collected: 04/01/21 15:35

Matrix: Water

Date Received: 04/02/21 08:49

Method: 245.1 - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.00030	0.00015	mg/L		04/05/21 11:34	04/06/21 17:52	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Weak Acid Dissociable	ND		0.010	0.0050	mg/L		04/14/21 09:01	04/14/21 15:17	1

Client Sample ID: AMW-1B-040121

Lab Sample ID: 590-14876-2

Date Collected: 04/01/21 14:45

Matrix: Water

Date Received: 04/02/21 08:49

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline	15000		7500	3500	ug/L			04/12/21 19:50	50

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*98*		*68.7 - 141*		*04/12/21 19:50*	*50*

Method: 8270E SIM - Semivolatile Organic Compounds (GC/MS SIM)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1-Methylnaphthalene	360		1.8	0.46	ug/L		04/05/21 15:45	04/06/21 12:22	20
2-Methylnaphthalene	490		1.8	0.88	ug/L		04/05/21 15:45	04/06/21 12:22	20
Acenaphthene	260		1.8	0.44	ug/L		04/05/21 15:45	04/06/21 12:22	20
Acenaphthylene	15		0.090	0.016	ug/L		04/05/21 15:45	04/05/21 19:49	1
Anthracene	32		0.090	0.025	ug/L		04/05/21 15:45	04/05/21 19:49	1
Benzo[a]anthracene	2.0		0.090	0.012	ug/L		04/05/21 15:45	04/05/21 19:49	1
Benzo[a]pyrene	1.4		0.090	0.012	ug/L		04/05/21 15:45	04/05/21 19:49	1
Benzo[b]fluoranthene	0.87		0.090	0.011	ug/L		04/05/21 15:45	04/05/21 19:49	1
Benzo[g,h,i]perylene	0.48		0.090	0.021	ug/L		04/05/21 15:45	04/05/21 19:49	1
Benzo[k]fluoranthene	0.48		0.090	0.015	ug/L		04/05/21 15:45	04/05/21 19:49	1
Chrysene	1.8		0.090	0.010	ug/L		04/05/21 15:45	04/05/21 19:49	1
Dibenz(a,h)anthracene	0.10		0.090	0.013	ug/L		04/05/21 15:45	04/05/21 19:49	1
Fluoranthene	16	B *1	0.090	0.017	ug/L		04/05/21 15:45	04/05/21 19:49	1
Fluorene	92	B	1.8	0.32	ug/L		04/05/21 15:45	04/06/21 12:22	20
Indeno[1,2,3-cd]pyrene	0.39		0.090	0.022	ug/L		04/05/21 15:45	04/05/21 19:49	1
Naphthalene	1200		1.8	1.1	ug/L		04/05/21 15:45	04/06/21 12:22	20
Phenanthrene	150	B	1.8	1.1	ug/L		04/05/21 15:45	04/06/21 12:22	20
Pyrene	22		0.090	0.026	ug/L		04/05/21 15:45	04/05/21 19:49	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl (Surr)	*63*		*36 - 120*	*04/05/21 15:45*	*04/05/21 19:49*	*1*
2-Fluorobiphenyl (Surr)	*80*		*36 - 120*	*04/05/21 15:45*	*04/06/21 12:22*	*20*
Nitrobenzene-d5	*179*	*S1+*	*29 - 121*	*04/05/21 15:45*	*04/06/21 12:22*	*20*
p-Terphenyl-d14	*82*		*51 - 121*	*04/05/21 15:45*	*04/05/21 19:49*	*1*
p-Terphenyl-d14	*63*		*51 - 121*	*04/05/21 15:45*	*04/06/21 12:22*	*20*

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics (DRO) (C10-C25)	8200		230	110	ug/L		04/12/21 14:12	04/12/21 23:06	1
Residual Range Organics (RRO) (C25-C36)	230	J B	390	120	ug/L		04/12/21 14:12	04/12/21 23:06	1

Client Sample ID: AMW-1B-040121

Lab Sample ID: 590-14876-2

Date Collected: 04/01/21 14:45

Matrix: Water

Date Received: 04/02/21 08:49

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
o-Terphenyl	*65*		*50 - 150*	*04/12/21 14:12*	*04/12/21 23:06*	*1*
n-Triacontane-d62	*65*		*50 - 150*	*04/12/21 14:12*	*04/12/21 23:06*	*1*

Method: 200.8 - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	**0.0026**		0.0010	0.00020	mg/L		04/06/21 18:49	04/07/21 19:46	1

Method: 200.8 - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	**0.00078**	**J**	0.0010	0.00020	mg/L		04/13/21 16:13	04/14/21 16:57	1

Method: 245.1 - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.00030	0.00015	mg/L		04/05/21 11:34	04/06/21 17:55	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Weak Acid Dissociable	**0.0064**	**J**	0.010	0.0050	mg/L		04/14/21 09:01	04/14/21 15:19	1

Client Sample ID: IDW-040121

Lab Sample ID: 590-14876-3

Date Collected: 04/01/21 16:05

Matrix: Solid

Date Received: 04/02/21 08:49

Percent Solids: 67.3

Method: 8260D - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		3.9	0.75	mg/Kg	☼	04/07/21 15:15	04/08/21 23:36	10
1,1,1-Trichloroethane	ND		3.9	0.68	mg/Kg	☼	04/07/21 15:15	04/08/21 23:36	10
1,1,2,2-Tetrachloroethane	ND		3.9	1.1	mg/Kg	☼	04/07/21 15:15	04/08/21 23:36	10
1,1,2-Trichloroethane	ND		3.9	1.4	mg/Kg	☼	04/07/21 15:15	04/08/21 23:36	10
1,1-Dichloroethane	ND		3.9	1.0	mg/Kg	☼	04/07/21 15:15	04/08/21 23:36	10
1,1-Dichloroethene	ND		3.9	1.3	mg/Kg	☼	04/07/21 15:15	04/08/21 23:36	10
1,1-Dichloropropene	ND		3.9	0.68	mg/Kg	☼	04/07/21 15:15	04/08/21 23:36	10
1,2,3-Trichlorobenzene	**2.7**	**J**	3.9	1.3	mg/Kg	☼	04/07/21 15:15	04/08/21 23:36	10
1,2,3-Trichloropropane	ND	*+	7.8	1.4	mg/Kg	☼	04/07/21 15:15	04/08/21 23:36	10
1,2,4-Trichlorobenzene	ND		3.9	0.73	mg/Kg	☼	04/07/21 15:15	04/08/21 23:36	10
1,2,4-Trimethylbenzene	**33**		3.9	0.92	mg/Kg	☼	04/07/21 15:15	04/08/21 23:36	10
1,2-Dibromo-3-Chloropropane	**20**		20	2.4	mg/Kg	☼	04/07/21 15:15	04/08/21 23:36	10
1,2-Dibromoethane (EDB)	ND		3.9	1.3	mg/Kg	☼	04/07/21 15:15	04/08/21 23:36	10
1,2-Dichlorobenzene	ND		3.9	0.91	mg/Kg	☼	04/07/21 15:15	04/08/21 23:36	10
1,2-Dichloroethane	ND		3.9	0.60	mg/Kg	☼	04/07/21 15:15	04/08/21 23:36	10
1,2-Dichloropropane	ND		4.7	1.2	mg/Kg	☼	04/07/21 15:15	04/08/21 23:36	10
1,3,5-Trimethylbenzene	**9.0**		3.9	1.3	mg/Kg	☼	04/07/21 15:15	04/08/21 23:36	10
1,3-Dichlorobenzene	ND		3.9	0.49	mg/Kg	☼	04/07/21 15:15	04/08/21 23:36	10
1,3-Dichloropropane	ND		3.9	1.2	mg/Kg	☼	04/07/21 15:15	04/08/21 23:36	10
1,4-Dichlorobenzene	ND		3.9	0.81	mg/Kg	☼	04/07/21 15:15	04/08/21 23:36	10
2,2-Dichloropropane	ND	H *-	39	9.5	mg/Kg	☼	04/07/21 15:15	04/20/21 13:16	100
2-Chlorotoluene	ND		3.9	0.64	mg/Kg	☼	04/07/21 15:15	04/08/21 23:36	10
4-Chlorotoluene	ND		3.9	0.34	mg/Kg	☼	04/07/21 15:15	04/08/21 23:36	10
Benzene	**6.5**		0.78	0.39	mg/Kg	☼	04/07/21 15:15	04/08/21 23:36	10
Bromobenzene	ND		3.9	0.87	mg/Kg	☼	04/07/21 15:15	04/08/21 23:36	10
Bromochloromethane	ND		3.9	1.6	mg/Kg	☼	04/07/21 15:15	04/08/21 23:36	10

Client: Aspect Consulting
Project/Site: Sagamore/190210

Job ID: 590-14876-1

Client Sample ID: IDW-040121
Date Collected: 04/01/21 16:05
Date Received: 04/02/21 08:49

Lab Sample ID: 590-14876-3
Matrix: Solid
Percent Solids: 67.3

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bromodichloromethane	ND		3.9	2.4	mg/Kg	☼	04/07/21 15:15	04/08/21 23:36	10
Bromoform	ND		7.8	0.75	mg/Kg	☼	04/07/21 15:15	04/08/21 23:36	10
Bromomethane	ND	*+	20	1.3	mg/Kg	☼	04/07/21 15:15	04/08/21 23:36	10
Carbon tetrachloride	ND		3.9	0.43	mg/Kg	☼	04/07/21 15:15	04/08/21 23:36	10
Chlorobenzene	ND		3.9	0.81	mg/Kg	☼	04/07/21 15:15	04/08/21 23:36	10
Chloroethane	ND	*+	7.8	2.2	mg/Kg	☼	04/07/21 15:15	04/08/21 23:36	10
Chloroform	ND		3.9	0.92	mg/Kg	☼	04/07/21 15:15	04/08/21 23:36	10
Chloromethane	ND		20	1.6	mg/Kg	☼	04/07/21 15:15	04/08/21 23:36	10
cis-1,2-Dichloroethene	ND		3.9	0.82	mg/Kg	☼	04/07/21 15:15	04/08/21 23:36	10
cis-1,3-Dichloropropene	ND		3.9	0.80	mg/Kg	☼	04/07/21 15:15	04/08/21 23:36	10
Dibromochloromethane	ND		7.8	0.64	mg/Kg	☼	04/07/21 15:15	04/08/21 23:36	10
Dibromomethane	ND		3.9	0.87	mg/Kg	☼	04/07/21 15:15	04/08/21 23:36	10
Dichlorodifluoromethane	ND		3.9	1.1	mg/Kg	☼	04/07/21 15:15	04/08/21 23:36	10
Ethylbenzene	**26**		3.9	0.64	mg/Kg	☼	04/07/21 15:15	04/08/21 23:36	10
Hexachlorobutadiene	ND	H *-	39	6.4	mg/Kg	☼	04/07/21 15:15	04/20/21 13:16	100
Isopropylbenzene	**4.9**		3.9	1.2	mg/Kg	☼	04/07/21 15:15	04/08/21 23:36	10
m,p-Xylene	**30**		16	1.1	mg/Kg	☼	04/07/21 15:15	04/08/21 23:36	10
Methyl tert-butyl ether	ND		2.0	1.2	mg/Kg	☼	04/07/21 15:15	04/08/21 23:36	10
Methylene Chloride	ND		14	7.8	mg/Kg	☼	04/07/21 15:15	04/08/21 23:36	10
Naphthalene	**1300**		78	11	mg/Kg	☼	04/07/21 15:15	04/13/21 12:28	100
n-Butylbenzene	**2.9**	**J**	3.9	1.1	mg/Kg	☼	04/07/21 15:15	04/08/21 23:36	10
N-Propylbenzene	**1.7**	**J**	3.9	1.0	mg/Kg	☼	04/07/21 15:15	04/08/21 23:36	10
o-Xylene	**15**		7.8	0.90	mg/Kg	☼	04/07/21 15:15	04/08/21 23:36	10
p-Isopropyltoluene	**4.9**		3.9	0.80	mg/Kg	☼	04/07/21 15:15	04/08/21 23:36	10
sec-Butylbenzene	ND		3.9	0.73	mg/Kg	☼	04/07/21 15:15	04/08/21 23:36	10
Styrene	ND		3.9	0.93	mg/Kg	☼	04/07/21 15:15	04/08/21 23:36	10
tert-Butylbenzene	ND		3.9	0.76	mg/Kg	☼	04/07/21 15:15	04/08/21 23:36	10
Tetrachloroethene	ND		1.6	0.69	mg/Kg	☼	04/07/21 15:15	04/08/21 23:36	10
Toluene	**16**		3.9	0.52	mg/Kg	☼	04/07/21 15:15	04/08/21 23:36	10
trans-1,2-Dichloroethene	ND		3.9	0.90	mg/Kg	☼	04/07/21 15:15	04/08/21 23:36	10
trans-1,3-Dichloropropene	ND		3.9	1.0	mg/Kg	☼	04/07/21 15:15	04/08/21 23:36	10
Trichloroethene	ND		0.98	0.30	mg/Kg	☼	04/07/21 15:15	04/08/21 23:36	10
Trichlorofluoromethane	ND		7.8	1.3	mg/Kg	☼	04/07/21 15:15	04/08/21 23:36	10
Vinyl chloride	ND		2.4	0.79	mg/Kg	☼	04/07/21 15:15	04/08/21 23:36	10

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*94*		*75 - 129*	*04/07/21 15:15*	*04/08/21 23:36*	*10*
1,2-Dichloroethane-d4 (Surr)	*114*		*75 - 129*	*04/07/21 15:15*	*04/13/21 12:28*	*100*
1,2-Dichloroethane-d4 (Surr)	*122*		*75 - 129*	*04/07/21 15:15*	*04/20/21 13:16*	*100*
4-Bromofluorobenzene (Surr)	*100*		*76 - 122*	*04/07/21 15:15*	*04/08/21 23:36*	*10*
4-Bromofluorobenzene (Surr)	*93*		*76 - 122*	*04/07/21 15:15*	*04/13/21 12:28*	*100*
4-Bromofluorobenzene (Surr)	*101*		*76 - 122*	*04/07/21 15:15*	*04/20/21 13:16*	*100*
Dibromofluoromethane (Surr)	*96*		*80 - 120*	*04/07/21 15:15*	*04/08/21 23:36*	*10*
Dibromofluoromethane (Surr)	*99*		*80 - 120*	*04/07/21 15:15*	*04/13/21 12:28*	*100*
Dibromofluoromethane (Surr)	*102*		*80 - 120*	*04/07/21 15:15*	*04/20/21 13:16*	*100*
Toluene-d8 (Surr)	*101*		*80 - 120*	*04/07/21 15:15*	*04/08/21 23:36*	*10*
Toluene-d8 (Surr)	*98*		*80 - 120*	*04/07/21 15:15*	*04/13/21 12:28*	*100*
Toluene-d8 (Surr)	*87*		*80 - 120*	*04/07/21 15:15*	*04/20/21 13:16*	*100*

Client: Aspect Consulting
Project/Site: Sagamore/190210

Job ID: 590-14876-1

Client Sample ID: IDW-040121
Date Collected: 04/01/21 16:05
Date Received: 04/02/21 08:49

Lab Sample ID: 590-14876-3
Matrix: Solid
Percent Solids: 67.3

Method: 8270E SIM - Semivolatile Organic Compounds (GC/MS SIM)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Naphthalene	1500000		29000	6100	ug/Kg	☼	04/14/21 10:34	04/15/21 13:39	2000
2-Methylnaphthalene	1200000		29000	8900	ug/Kg	☼	04/14/21 10:34	04/15/21 13:39	2000
1-Methylnaphthalene	830000		29000	6300	ug/Kg	☼	04/14/21 10:34	04/15/21 13:39	2000
Acenaphthylene	160000		29000	9500	ug/Kg	☼	04/14/21 10:34	04/15/21 13:39	2000
Acenaphthene	1000000		29000	7200	ug/Kg	☼	04/14/21 10:34	04/15/21 13:39	2000
Fluorene	780000		29000	6300	ug/Kg	☼	04/14/21 10:34	04/15/21 13:39	2000
Phenanthrene	1600000		29000	10000	ug/Kg	☼	04/14/21 10:34	04/15/21 13:39	2000
Anthracene	820000		29000	5700	ug/Kg	☼	04/14/21 10:34	04/15/21 13:39	2000
Fluoranthene	590000		29000	7100	ug/Kg	☼	04/14/21 10:34	04/15/21 13:39	2000
Pyrene	770000		29000	11000	ug/Kg	☼	04/14/21 10:34	04/15/21 13:39	2000
Benzo[a]anthracene	260000		29000	6100	ug/Kg	☼	04/14/21 10:34	04/15/21 13:39	2000
Chrysene	260000		29000	4300	ug/Kg	☼	04/14/21 10:34	04/15/21 13:39	2000
Benzo[b]fluoranthene	180000		29000	10000	ug/Kg	☼	04/14/21 10:34	04/15/21 13:39	2000
Benzo[k]fluoranthene	68000		29000	7100	ug/Kg	☼	04/14/21 10:34	04/15/21 13:39	2000
Benzo[a]pyrene	230000		29000	12000	ug/Kg	☼	04/14/21 10:34	04/15/21 13:39	2000
Indeno[1,2,3-cd]pyrene	79000	*1	29000	8500	ug/Kg	☼	04/14/21 10:34	04/15/21 13:39	2000
Dibenz(a,h)anthracene	28000	J *1	29000	8100	ug/Kg	☼	04/14/21 10:34	04/15/21 13:39	2000
Benzo[g,h,i]perylene	93000	*1	29000	6700	ug/Kg	☼	04/14/21 10:34	04/15/21 13:39	2000

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Nitrobenzene-d5	*0*	*S1-*	*33 - 120*	*04/14/21 10:34*	*04/15/21 13:39*	*2000*
2-Fluorobiphenyl (Surr)	*0*	*S1-*	*47 - 120*	*04/14/21 10:34*	*04/15/21 13:39*	*2000*
p-Terphenyl-d14	*0*	*S1-*	*74 - 120*	*04/14/21 10:34*	*04/15/21 13:39*	*2000*

Method: 6010D - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	4.1		1.4	0.54	mg/Kg	☼	04/02/21 11:27	04/06/21 16:17	1
Barium	450		1.4	0.36	mg/Kg	☼	04/02/21 11:27	04/02/21 17:08	1
Cadmium	2.9		1.1	0.064	mg/Kg	☼	04/02/21 11:27	04/02/21 17:08	1
Chromium	9.7		1.4	0.19	mg/Kg	☼	04/02/21 11:27	04/02/21 17:08	1
Lead	76		3.3	1.6	mg/Kg	☼	04/02/21 11:27	04/02/21 17:08	1
Selenium	ND		5.4	3.3	mg/Kg	☼	04/02/21 11:27	04/02/21 17:08	1
Silver	ND		1.4	0.15	mg/Kg	☼	04/02/21 11:27	04/02/21 17:08	1

Method: 7471A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.053		0.039	0.012	mg/Kg	☼	04/05/21 08:25	04/06/21 15:53	1

Method: 8260D - Volatile Organic Compounds by GC/MS

Lab Sample ID: MB 590-31183/1-A
Matrix: Solid
Analysis Batch: 31185

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 31183

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		0.10	0.019	mg/Kg		04/07/21 15:15	04/07/21 20:42	1
1,1,1-Trichloroethane	ND		0.10	0.017	mg/Kg		04/07/21 15:15	04/07/21 20:42	1
1,1,2,2-Tetrachloroethane	ND		0.10	0.029	mg/Kg		04/07/21 15:15	04/07/21 20:42	1
1,1,2-Trichloroethane	ND		0.10	0.035	mg/Kg		04/07/21 15:15	04/07/21 20:42	1
1,1-Dichloroethane	ND		0.10	0.026	mg/Kg		04/07/21 15:15	04/07/21 20:42	1
1,1-Dichloroethene	ND		0.10	0.034	mg/Kg		04/07/21 15:15	04/07/21 20:42	1
1,1-Dichloropropene	ND		0.10	0.017	mg/Kg		04/07/21 15:15	04/07/21 20:42	1
1,2,3-Trichlorobenzene	ND		0.10	0.033	mg/Kg		04/07/21 15:15	04/07/21 20:42	1
1,2,3-Trichloropropane	ND		0.20	0.037	mg/Kg		04/07/21 15:15	04/07/21 20:42	1
1,2,4-Trichlorobenzene	ND		0.10	0.019	mg/Kg		04/07/21 15:15	04/07/21 20:42	1
1,2,4-Trimethylbenzene	ND		0.10	0.023	mg/Kg		04/07/21 15:15	04/07/21 20:42	1
1,2-Dibromo-3-Chloropropane	ND		0.50	0.060	mg/Kg		04/07/21 15:15	04/07/21 20:42	1
1,2-Dibromoethane (EDB)	ND		0.10	0.034	mg/Kg		04/07/21 15:15	04/07/21 20:42	1
1,2-Dichlorobenzene	ND		0.10	0.023	mg/Kg		04/07/21 15:15	04/07/21 20:42	1
1,2-Dichloroethane	ND		0.10	0.015	mg/Kg		04/07/21 15:15	04/07/21 20:42	1
1,2-Dichloropropane	ND		0.12	0.030	mg/Kg		04/07/21 15:15	04/07/21 20:42	1
1,3,5-Trimethylbenzene	ND		0.10	0.032	mg/Kg		04/07/21 15:15	04/07/21 20:42	1
1,3-Dichlorobenzene	ND		0.10	0.013	mg/Kg		04/07/21 15:15	04/07/21 20:42	1
1,3-Dichloropropane	ND		0.10	0.030	mg/Kg		04/07/21 15:15	04/07/21 20:42	1
1,4-Dichlorobenzene	ND		0.10	0.021	mg/Kg		04/07/21 15:15	04/07/21 20:42	1
2,2-Dichloropropane	ND		0.10	0.024	mg/Kg		04/07/21 15:15	04/07/21 20:42	1
2-Chlorotoluene	ND		0.10	0.016	mg/Kg		04/07/21 15:15	04/07/21 20:42	1
4-Chlorotoluene	ND		0.10	0.0087	mg/Kg		04/07/21 15:15	04/07/21 20:42	1
Benzene	ND		0.020	0.010	mg/Kg		04/07/21 15:15	04/07/21 20:42	1
Bromobenzene	ND		0.10	0.022	mg/Kg		04/07/21 15:15	04/07/21 20:42	1
Bromochloromethane	ND		0.10	0.040	mg/Kg		04/07/21 15:15	04/07/21 20:42	1
Bromodichloromethane	ND		0.10	0.062	mg/Kg		04/07/21 15:15	04/07/21 20:42	1
Bromoform	ND		0.20	0.019	mg/Kg		04/07/21 15:15	04/07/21 20:42	1
Bromomethane	ND		0.50	0.033	mg/Kg		04/07/21 15:15	04/07/21 20:42	1
Carbon tetrachloride	ND		0.10	0.011	mg/Kg		04/07/21 15:15	04/07/21 20:42	1
Chlorobenzene	ND		0.10	0.021	mg/Kg		04/07/21 15:15	04/07/21 20:42	1
Chloroethane	ND		0.20	0.056	mg/Kg		04/07/21 15:15	04/07/21 20:42	1
Chloroform	ND		0.10	0.024	mg/Kg		04/07/21 15:15	04/07/21 20:42	1
Chloromethane	ND		0.50	0.042	mg/Kg		04/07/21 15:15	04/07/21 20:42	1
cis-1,2-Dichloroethene	ND		0.10	0.021	mg/Kg		04/07/21 15:15	04/07/21 20:42	1
cis-1,3-Dichloropropene	ND		0.10	0.020	mg/Kg		04/07/21 15:15	04/07/21 20:42	1
Dibromochloromethane	ND		0.20	0.016	mg/Kg		04/07/21 15:15	04/07/21 20:42	1
Dibromomethane	ND		0.10	0.022	mg/Kg		04/07/21 15:15	04/07/21 20:42	1
Dichlorodifluoromethane	ND		0.10	0.028	mg/Kg		04/07/21 15:15	04/07/21 20:42	1
Ethylbenzene	ND		0.10	0.016	mg/Kg		04/07/21 15:15	04/07/21 20:42	1
Hexachlorobutadiene	ND		0.10	0.016	mg/Kg		04/07/21 15:15	04/07/21 20:42	1
Isopropylbenzene	ND		0.10	0.031	mg/Kg		04/07/21 15:15	04/07/21 20:42	1
m,p-Xylene	ND		0.40	0.029	mg/Kg		04/07/21 15:15	04/07/21 20:42	1
Methyl tert-butyl ether	ND		0.050	0.030	mg/Kg		04/07/21 15:15	04/07/21 20:42	1
Methylene Chloride	ND		0.35	0.20	mg/Kg		04/07/21 15:15	04/07/21 20:42	1
Naphthalene	ND		0.20	0.028	mg/Kg		04/07/21 15:15	04/07/21 20:42	1
n-Butylbenzene	ND		0.10	0.028	mg/Kg		04/07/21 15:15	04/07/21 20:42	1
N-Propylbenzene	ND		0.10	0.026	mg/Kg		04/07/21 15:15	04/07/21 20:42	1

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

Lab Sample ID: MB 590-31183/1-A
Matrix: Solid
Analysis Batch: 31185

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 31183

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
o-Xylene	ND		0.20	0.023	mg/Kg		04/07/21 15:15	04/07/21 20:42	1
p-Isopropyltoluene	ND		0.10	0.020	mg/Kg		04/07/21 15:15	04/07/21 20:42	1
sec-Butylbenzene	ND		0.10	0.019	mg/Kg		04/07/21 15:15	04/07/21 20:42	1
Styrene	ND		0.10	0.024	mg/Kg		04/07/21 15:15	04/07/21 20:42	1
tert-Butylbenzene	ND		0.10	0.020	mg/Kg		04/07/21 15:15	04/07/21 20:42	1
Tetrachloroethene	ND		0.040	0.018	mg/Kg		04/07/21 15:15	04/07/21 20:42	1
Toluene	ND		0.10	0.013	mg/Kg		04/07/21 15:15	04/07/21 20:42	1
trans-1,2-Dichloroethene	ND		0.10	0.023	mg/Kg		04/07/21 15:15	04/07/21 20:42	1
trans-1,3-Dichloropropene	ND		0.10	0.026	mg/Kg		04/07/21 15:15	04/07/21 20:42	1
Trichloroethene	ND		0.025	0.0076	mg/Kg		04/07/21 15:15	04/07/21 20:42	1
Trichlorofluoromethane	ND		0.20	0.033	mg/Kg		04/07/21 15:15	04/07/21 20:42	1
Vinyl chloride	ND		0.060	0.020	mg/Kg		04/07/21 15:15	04/07/21 20:42	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*99*		*75 - 129*	*04/07/21 15:15*	*04/07/21 20:42*	*1*
4-Bromofluorobenzene (Surr)	*102*		*76 - 122*	*04/07/21 15:15*	*04/07/21 20:42*	*1*
Dibromofluoromethane (Surr)	*94*		*80 - 120*	*04/07/21 15:15*	*04/07/21 20:42*	*1*
Toluene-d8 (Surr)	*99*		*80 - 120*	*04/07/21 15:15*	*04/07/21 20:42*	*1*

Lab Sample ID: LCS 590-31183/2-A
Matrix: Solid
Analysis Batch: 31185

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 31183

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,1,1,2-Tetrachloroethane	0.500	0.499		mg/Kg		100	80 - 128
1,1,1-Trichloroethane	0.500	0.453		mg/Kg		91	80 - 130
1,1,2,2-Tetrachloroethane	0.500	0.641		mg/Kg		128	75 - 128
1,1,2-Trichloroethane	0.500	0.578		mg/Kg		116	80 - 125
1,1-Dichloroethane	0.500	0.547		mg/Kg		109	80 - 129
1,1-Dichloroethene	0.500	0.673		mg/Kg		135	73 - 135
1,1-Dichloropropene	0.500	0.535		mg/Kg		107	78 - 132
1,2,3-Trichlorobenzene	0.500	0.499		mg/Kg		100	66 - 130
1,2,3-Trichloropropane	0.500	0.688	*+	mg/Kg		138	67 - 131
1,2,4-Trichlorobenzene	0.500	0.454		mg/Kg		91	79 - 126
1,2,4-Trimethylbenzene	0.500	0.546		mg/Kg		109	76 - 132
1,2-Dibromo-3-Chloropropane	0.500	0.638		mg/Kg		128	49 - 139
1,2-Dibromoethane (EDB)	0.500	0.561		mg/Kg		112	80 - 121
1,2-Dichlorobenzene	0.500	0.509		mg/Kg		102	80 - 124
1,2-Dichloroethane	0.500	0.551		mg/Kg		110	80 - 129
1,2-Dichloropropane	0.500	0.597		mg/Kg		119	75 - 121
1,3,5-Trimethylbenzene	0.500	0.525		mg/Kg		105	76 - 133
1,3-Dichlorobenzene	0.500	0.518		mg/Kg		104	80 - 123
1,3-Dichloropropane	0.500	0.558		mg/Kg		112	76 - 125
1,4-Dichlorobenzene	0.500	0.475		mg/Kg		95	80 - 125
2,2-Dichloropropane	0.500	0.361	*-	mg/Kg		72	80 - 138
2-Chlorotoluene	0.500	0.568		mg/Kg		114	77 - 135
4-Chlorotoluene	0.500	0.528		mg/Kg		106	77 - 133
Benzene	0.500	0.554		mg/Kg		111	76 - 129

Client: Aspect Consulting
Project/Site: Sagamore/190210

Job ID: 590-14876-1

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

Lab Sample ID: LCS 590-31183/2-A
Matrix: Solid
Analysis Batch: 31185

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 31183

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Bromobenzene	0.500	0.567		mg/Kg		113	75 - 129
Bromochloromethane	0.500	0.556		mg/Kg		111	75 - 135
Bromodichloromethane	0.500	0.477		mg/Kg		95	80 - 128
Bromoform	0.500	0.395		mg/Kg		79	72 - 133
Bromomethane	0.500	0.795	*+	mg/Kg		159	56 - 138
Carbon tetrachloride	0.500	0.446		mg/Kg		89	72 - 138
Chlorobenzene	0.500	0.523		mg/Kg		105	80 - 129
Chloroethane	0.500	0.956	*+	mg/Kg		191	50 - 142
Chloroform	0.500	0.483		mg/Kg		97	80 - 130
Chloromethane	0.500	0.417	J	mg/Kg		83	63 - 120
cis-1,2-Dichloroethene	0.500	0.520		mg/Kg		104	80 - 124
cis-1,3-Dichloropropene	0.500	0.441		mg/Kg		88	80 - 126
Dibromochloromethane	0.500	0.420		mg/Kg		84	78 - 127
Dibromomethane	0.500	0.608		mg/Kg		122	80 - 123
Dichlorodifluoromethane	0.500	0.282		mg/Kg		56	34 - 120
Ethylbenzene	0.500	0.544		mg/Kg		109	77 - 126
Hexachlorobutadiene	0.500	0.384	*-	mg/Kg		77	80 - 136
Isopropylbenzene	0.500	0.525		mg/Kg		105	78 - 139
m,p-Xylene	0.500	0.523		mg/Kg		105	78 - 130
Methyl tert-butyl ether	0.500	0.532		mg/Kg		106	80 - 123
Methylene Chloride	0.500	0.480		mg/Kg		96	30 - 150
Naphthalene	0.500	0.564		mg/Kg		113	53 - 144
n-Butylbenzene	0.500	0.514		mg/Kg		103	80 - 131
N-Propylbenzene	0.500	0.569		mg/Kg		114	77 - 131
o-Xylene	0.500	0.530		mg/Kg		106	77 - 129
p-Isopropyltoluene	0.500	0.535		mg/Kg		107	80 - 130
sec-Butylbenzene	0.500	0.545		mg/Kg		109	76 - 130
Styrene	0.500	0.550		mg/Kg		110	80 - 128
tert-Butylbenzene	0.500	0.502		mg/Kg		100	76 - 130
Tetrachloroethene	0.500	0.530		mg/Kg		106	77 - 134
Toluene	0.500	0.589		mg/Kg		118	77 - 131
trans-1,2-Dichloroethene	0.500	0.512		mg/Kg		102	80 - 126
trans-1,3-Dichloropropene	0.500	0.467		mg/Kg		93	80 - 124
Trichloroethene	0.500	0.524		mg/Kg		105	79 - 133
Trichlorofluoromethane	0.500	0.690		mg/Kg		138	64 - 143
Vinyl chloride	0.500	0.494		mg/Kg		99	66 - 129

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*93*		*75 - 129*
4-Bromofluorobenzene (Surr)	*93*		*76 - 122*
Dibromofluoromethane (Surr)	*97*		*80 - 120*
Toluene-d8 (Surr)	*103*		*80 - 120*

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

Lab Sample ID: MB 590-31219/6
Matrix: Water
Analysis Batch: 31219

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline	ND		150	70	ug/L			04/12/21 11:56	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*97*		*68.7 - 141*		*04/12/21 11:56*	*1*

Lab Sample ID: LCS 590-31219/1005
Matrix: Water
Analysis Batch: 31219

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

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Gasoline			1000	916		ug/L		92	80 - 120		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*99*		*68.7 - 141*

Lab Sample ID: LCSD 590-31219/1016
Matrix: Water
Analysis Batch: 31219

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

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Gasoline			1000	895		ug/L		89	80 - 120	2	20

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*99*		*68.7 - 141*

Method: 8270E SIM - Semivolatile Organic Compounds (GC/MS SIM)

Lab Sample ID: MB 590-31145/1-A
Matrix: Water
Analysis Batch: 31143

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 31145

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1-Methylnaphthalene	ND		0.090	0.023	ug/L		04/05/21 15:45	04/05/21 17:07	1
2-Methylnaphthalene	ND		0.090	0.044	ug/L		04/05/21 15:45	04/05/21 17:07	1
Acenaphthene	ND		0.090	0.022	ug/L		04/05/21 15:45	04/05/21 17:07	1
Acenaphthylene	ND		0.090	0.016	ug/L		04/05/21 15:45	04/05/21 17:07	1
Anthracene	ND		0.090	0.025	ug/L		04/05/21 15:45	04/05/21 17:07	1
Benzo[a]anthracene	ND		0.090	0.012	ug/L		04/05/21 15:45	04/05/21 17:07	1
Chrysene	ND		0.090	0.010	ug/L		04/05/21 15:45	04/05/21 17:07	1
Benzo[b]fluoranthene	ND		0.090	0.011	ug/L		04/05/21 15:45	04/05/21 17:07	1
Benzo[k]fluoranthene	ND		0.090	0.015	ug/L		04/05/21 15:45	04/05/21 17:07	1
Fluoranthene	0.0272	J	0.090	0.017	ug/L		04/05/21 15:45	04/05/21 17:07	1
Benzo[a]pyrene	ND		0.090	0.012	ug/L		04/05/21 15:45	04/05/21 17:07	1
Fluorene	0.0199	J	0.090	0.016	ug/L		04/05/21 15:45	04/05/21 17:07	1
Indeno[1,2,3-cd]pyrene	ND		0.090	0.022	ug/L		04/05/21 15:45	04/05/21 17:07	1
Dibenz(a,h)anthracene	ND		0.090	0.013	ug/L		04/05/21 15:45	04/05/21 17:07	1
Naphthalene	ND		0.090	0.053	ug/L		04/05/21 15:45	04/05/21 17:07	1
Benzo[g,h,i]perylene	ND		0.090	0.021	ug/L		04/05/21 15:45	04/05/21 17:07	1

Method: 8270E SIM - Semivolatile Organic Compounds (GC/MS SIM) (Continued)

Lab Sample ID: MB 590-31145/1-A
Matrix: Water
Analysis Batch: 31143

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 31145

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenanthrene	0.0685	J	0.090	0.056	ug/L		04/05/21 15:45	04/05/21 17:07	1
Pyrene	ND		0.090	0.026	ug/L		04/05/21 15:45	04/05/21 17:07	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Nitrobenzene-d5	*92*		*29 - 121*	*04/05/21 15:45*	*04/05/21 17:07*	*1*
2-Fluorobiphenyl (Surr)	*81*		*36 - 120*	*04/05/21 15:45*	*04/05/21 17:07*	*1*
p-Terphenyl-d14	*87*		*51 - 121*	*04/05/21 15:45*	*04/05/21 17:07*	*1*

Lab Sample ID: LCS 590-31145/2-A
Matrix: Water
Analysis Batch: 31143

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 31145

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1-Methylnaphthalene	1.60	1.15		ug/L		72	49 - 120
2-Methylnaphthalene	1.60	1.15		ug/L		72	44 - 120
Acenaphthene	1.60	1.30		ug/L		81	54 - 120
Acenaphthylene	1.60	1.24		ug/L		78	50 - 120
Anthracene	1.60	1.39		ug/L		87	59 - 120
Benzo[a]anthracene	1.60	1.43		ug/L		89	51 - 128
Chrysene	1.60	1.45		ug/L		90	58 - 126
Benzo[b]fluoranthene	1.60	1.45		ug/L		91	51 - 137
Benzo[k]fluoranthene	1.60	1.41		ug/L		88	58 - 120
Fluoranthene	1.60	1.52		ug/L		95	53 - 120
Benzo[a]pyrene	1.60	1.36		ug/L		85	54 - 120
Fluorene	1.60	1.30		ug/L		82	53 - 120
Indeno[1,2,3-cd]pyrene	1.60	1.35		ug/L		85	46 - 120
Dibenz(a,h)anthracene	1.60	1.35		ug/L		84	51 - 120
Naphthalene	1.60	1.27		ug/L		79	52 - 120
Benzo[g,h,i]perylene	1.60	1.37		ug/L		86	55 - 120
Phenanthrene	1.60	1.38		ug/L		86	55 - 120
Pyrene	1.60	1.47		ug/L		92	61 - 126

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
Nitrobenzene-d5	*93*		*29 - 121*
2-Fluorobiphenyl (Surr)	*70*		*36 - 120*
p-Terphenyl-d14	*82*		*51 - 121*

Lab Sample ID: LCSD 590-31145/3-A
Matrix: Water
Analysis Batch: 31143

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 31145

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
1-Methylnaphthalene	1.60	1.23		ug/L		77	49 - 120	7	15
2-Methylnaphthalene	1.60	1.20		ug/L		75	44 - 120	5	16
Acenaphthene	1.60	1.16		ug/L		72	54 - 120	12	15
Acenaphthylene	1.60	1.13		ug/L		71	50 - 120	10	15
Anthracene	1.60	1.29		ug/L		80	59 - 120	8	15
Benzo[a]anthracene	1.60	1.36		ug/L		85	51 - 128	5	15

Method: 8270E SIM - Semivolatile Organic Compounds (GC/MS SIM) (Continued)

Lab Sample ID: LCSD 590-31145/3-A
Matrix: Water
Analysis Batch: 31143

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 31145

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chrysene			1.60	1.40		ug/L		87	58 - 126	3	15
Benzo[b]fluoranthene			1.60	1.38		ug/L		86	51 - 137	5	15
Benzo[k]fluoranthene			1.60	1.37		ug/L		86	58 - 120	2	15
Fluoranthene			1.60	1.28	*1	ug/L		80	53 - 120	17	15
Benzo[a]pyrene			1.60	1.31		ug/L		82	54 - 120	4	15
Fluorene			1.60	1.28		ug/L		80	53 - 120	2	15
Indeno[1,2,3-cd]pyrene			1.60	1.34		ug/L		84	46 - 120	1	18
Dibenz(a,h)anthracene			1.60	1.33		ug/L		83	51 - 120	1	18
Naphthalene			1.60	1.21		ug/L		76	52 - 120	5	21
Benzo[g,h,i]perylene			1.60	1.36		ug/L		85	55 - 120	1	17
Phenanthrene			1.60	1.31		ug/L		82	55 - 120	5	16
Pyrene			1.60	1.41		ug/L		88	61 - 126	4	15

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
Nitrobenzene-d5	*83*		*29 - 121*
2-Fluorobiphenyl (Surr)	*67*		*36 - 120*
p-Terphenyl-d14	*80*		*51 - 121*

Lab Sample ID: MB 590-31257/1-A
Matrix: Solid
Analysis Batch: 31252

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 31257

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1-Methylnaphthalene	ND		10	2.2	ug/Kg		04/14/21 10:34	04/14/21 11:25	1
2-Methylnaphthalene	ND		10	3.1	ug/Kg		04/14/21 10:34	04/14/21 11:25	1
Acenaphthene	ND		10	2.5	ug/Kg		04/14/21 10:34	04/14/21 11:25	1
Acenaphthylene	ND		10	3.3	ug/Kg		04/14/21 10:34	04/14/21 11:25	1
Anthracene	ND		10	2.0	ug/Kg		04/14/21 10:34	04/14/21 11:25	1
Benzo[a]anthracene	ND		10	2.1	ug/Kg		04/14/21 10:34	04/14/21 11:25	1
Chrysene	ND		10	1.5	ug/Kg		04/14/21 10:34	04/14/21 11:25	1
Benzo[b]fluoranthene	ND		10	3.5	ug/Kg		04/14/21 10:34	04/14/21 11:25	1
Benzo[k]fluoranthene	ND		10	2.5	ug/Kg		04/14/21 10:34	04/14/21 11:25	1
Fluoranthene	ND		10	2.5	ug/Kg		04/14/21 10:34	04/14/21 11:25	1
Benzo[a]pyrene	ND		10	4.2	ug/Kg		04/14/21 10:34	04/14/21 11:25	1
Fluorene	ND		10	2.2	ug/Kg		04/14/21 10:34	04/14/21 11:25	1
Indeno[1,2,3-cd]pyrene	ND		10	3.0	ug/Kg		04/14/21 10:34	04/14/21 11:25	1
Dibenz(a,h)anthracene	ND		10	2.8	ug/Kg		04/14/21 10:34	04/14/21 11:25	1
Naphthalene	ND		10	2.2	ug/Kg		04/14/21 10:34	04/14/21 11:25	1
Benzo[g,h,i]perylene	ND		10	2.4	ug/Kg		04/14/21 10:34	04/14/21 11:25	1
Phenanthrene	ND		10	3.6	ug/Kg		04/14/21 10:34	04/14/21 11:25	1
Pyrene	ND		10	3.8	ug/Kg		04/14/21 10:34	04/14/21 11:25	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Nitrobenzene-d5	*82*		*33 - 120*	*04/14/21 10:34*	*04/14/21 11:25*	*1*
2-Fluorobiphenyl (Surr)	*85*		*47 - 120*	*04/14/21 10:34*	*04/14/21 11:25*	*1*
p-Terphenyl-d14	*119*		*74 - 120*	*04/14/21 10:34*	*04/14/21 11:25*	*1*

Method: 8270E SIM - Semivolatile Organic Compounds (GC/MS SIM) (Continued)

Lab Sample ID: LCS 590-31257/2-A
Matrix: Solid
Analysis Batch: 31252

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 31257

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
1-Methylnaphthalene			133	104		ug/Kg		78	44 - 120		
2-Methylnaphthalene			133	105		ug/Kg		79	48 - 120		
Acenaphthene			133	111		ug/Kg		83	53 - 120		
Acenaphthylene			133	110		ug/Kg		82	52 - 120		
Anthracene			133	128		ug/Kg		96	60 - 120		
Benzo[a]anthracene			133	136		ug/Kg		102	61 - 131		
Chrysene			133	138		ug/Kg		104	67 - 127		
Benzo[b]fluoranthene			133	133		ug/Kg		100	61 - 127		
Benzo[k]fluoranthene			133	150		ug/Kg		113	63 - 127		
Fluoranthene			133	139		ug/Kg		104	63 - 127		
Benzo[a]pyrene			133	134		ug/Kg		100	60 - 126		
Fluorene			133	116		ug/Kg		87	55 - 120		
Indeno[1,2,3-cd]pyrene			133	148		ug/Kg		111	63 - 128		
Dibenz(a,h)anthracene			133	148		ug/Kg		111	60 - 121		
Naphthalene			133	99.0		ug/Kg		74	45 - 120		
Benzo[g,h,i]perylene			133	143		ug/Kg		107	58 - 129		
Phenanthrene			133	130		ug/Kg		97	57 - 121		
Pyrene			133	138		ug/Kg		104	61 - 125		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
Nitrobenzene-d5	*73*		*33 - 120*
2-Fluorobiphenyl (Surr)	*79*		*47 - 120*
p-Terphenyl-d14	*118*		*74 - 120*

Lab Sample ID: LCSD 590-31257/3-A
Matrix: Solid
Analysis Batch: 31252

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 31257

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
1-Methylnaphthalene			133	104		ug/Kg		78	44 - 120	0	15
2-Methylnaphthalene			133	101		ug/Kg		76	48 - 120	4	20
Acenaphthene			133	103		ug/Kg		77	53 - 120	7	15
Acenaphthylene			133	98.5		ug/Kg		74	52 - 120	11	20
Anthracene			133	116		ug/Kg		87	60 - 120	10	18
Benzo[a]anthracene			133	124		ug/Kg		93	61 - 131	9	16
Chrysene			133	127		ug/Kg		95	67 - 127	9	15
Benzo[b]fluoranthene			133	124		ug/Kg		93	61 - 127	7	16
Benzo[k]fluoranthene			133	136		ug/Kg		102	63 - 127	10	16
Fluoranthene			133	123		ug/Kg		92	63 - 127	13	18
Benzo[a]pyrene			133	122		ug/Kg		92	60 - 126	9	20
Fluorene			133	108		ug/Kg		81	55 - 120	8	21
Indeno[1,2,3-cd]pyrene			133	110	*1	ug/Kg		83	63 - 128	29	18
Dibenz(a,h)anthracene			133	111	*1	ug/Kg		83	60 - 121	29	18
Naphthalene			133	95.9		ug/Kg		72	45 - 120	3	20
Benzo[g,h,i]perylene			133	110	*1	ug/Kg		83	58 - 129	26	17
Phenanthrene			133	116		ug/Kg		87	57 - 121	11	18
Pyrene			133	121		ug/Kg		91	61 - 125	13	26

Method: 8270E SIM - Semivolatile Organic Compounds (GC/MS SIM) (Continued)

Lab Sample ID: LCSD 590-31257/3-A
Matrix: Solid
Analysis Batch: 31252

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 31257

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
Nitrobenzene-d5	*73*		*33 - 120*
2-Fluorobiphenyl (Surr)	*81*		*47 - 120*
p-Terphenyl-d14	*110*		*74 - 120*

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

Lab Sample ID: MB 590-31224/1-A
Matrix: Water
Analysis Batch: 31225

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 31224

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics (DRO) (C10-C25)	ND		240	110	ug/L		04/12/21 14:12	04/12/21 17:01	1
Residual Range Organics (RRO) (C25-C36)	144	J	400	120	ug/L		04/12/21 14:12	04/12/21 17:01	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
o-Terphenyl	*85*		*50 - 150*	*04/12/21 14:12*	*04/12/21 17:01*	*1*
n-Triacontane-d62	*82*		*50 - 150*	*04/12/21 14:12*	*04/12/21 17:01*	*1*

Lab Sample ID: LCS 590-31224/2-A
Matrix: Water
Analysis Batch: 31225

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 31224

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Diesel Range Organics (DRO) (C10-C25)			1600	1400		ug/L		87	50 - 150		
Residual Range Organics (RRO) (C25-C36)			1600	1720		ug/L		108	50 - 150		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
o-Terphenyl	*87*		*50 - 150*
n-Triacontane-d62	*88*		*50 - 150*

Lab Sample ID: LCSD 590-31224/3-A
Matrix: Water
Analysis Batch: 31225

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 31224

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Diesel Range Organics (DRO) (C10-C25)			1600	1400		ug/L		87	50 - 150	0	25
Residual Range Organics (RRO) (C25-C36)			1600	1750		ug/L		109	50 - 150	2	25

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
o-Terphenyl	*89*		*50 - 150*
n-Triacontane-d62	*88*		*50 - 150*

Method: 200.8 - Metals (ICP/MS)

Lab Sample ID: MB 580-353588/14-A
Matrix: Water
Analysis Batch: 353824

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 353588

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	ND		0.0010	0.00020	mg/L		04/05/21 10:46	04/07/21 14:02	1

Lab Sample ID: LCS 580-353588/15-A
Matrix: Water
Analysis Batch: 353824

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 353588

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Arsenic	1.00	1.07		mg/L		107	85 - 115

Lab Sample ID: LCSD 580-353588/16-A
Matrix: Water
Analysis Batch: 353824

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 353588

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Arsenic	1.00	1.06		mg/L		106	85 - 115	1	20

Lab Sample ID: 590-14876-1 MS
Matrix: Water
Analysis Batch: 353824

Client Sample ID: AMW-1A-040121
Prep Type: Total/NA
Prep Batch: 353588

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Arsenic	0.0037		1.00	1.06		mg/L		105	70 - 130

Lab Sample ID: 590-14876-1 MSD
Matrix: Water
Analysis Batch: 353824

Client Sample ID: AMW-1A-040121
Prep Type: Total/NA
Prep Batch: 353588

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Arsenic	0.0037		1.00	1.06		mg/L		105	70 - 130	0	20

Lab Sample ID: 590-14876-1 DU
Matrix: Water
Analysis Batch: 353824

Client Sample ID: AMW-1A-040121
Prep Type: Total/NA
Prep Batch: 353588

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Arsenic	0.0037		0.00387		mg/L		4	20

Lab Sample ID: MB 580-353728/14-A
Matrix: Water
Analysis Batch: 353854

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 353728

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	ND		0.0010	0.00020	mg/L		04/06/21 18:49	04/07/21 18:55	1

Lab Sample ID: LCS 580-353728/15-A
Matrix: Water
Analysis Batch: 353854

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 353728

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Arsenic	1.00	1.01		mg/L		101	85 - 115

Method: 200.8 - Metals (ICP/MS)

Lab Sample ID: LCSD 580-353728/16-A
Matrix: Water
Analysis Batch: 353854

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 353728

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Arsenic			1.00	0.994		mg/L		99	85 - 115	1	20

Lab Sample ID: MB 580-354111/8-B
Matrix: Water
Analysis Batch: 354367

Client Sample ID: Method Blank
Prep Type: Dissolved
Prep Batch: 354270

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	ND		0.0010	0.00020	mg/L		04/13/21 16:13	04/14/21 14:42	1

Lab Sample ID: LCS 580-354111/9-B
Matrix: Water
Analysis Batch: 354367

Client Sample ID: Lab Control Sample
Prep Type: Dissolved
Prep Batch: 354270

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Arsenic			1.00	0.946		mg/L		95	85 - 115

Lab Sample ID: LCSD 580-354111/10-B
Matrix: Water
Analysis Batch: 354367

Client Sample ID: Lab Control Sample Dup
Prep Type: Dissolved
Prep Batch: 354270

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Arsenic			1.00	0.976		mg/L		98	85 - 115	3	20

Method: 245.1 - Mercury (CVAA)

Lab Sample ID: MB 580-353595/14-A
Matrix: Water
Analysis Batch: 353750

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 353595

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.00030	0.00015	mg/L		04/05/21 11:34	04/06/21 17:16	1

Lab Sample ID: LCS 580-353595/15-A
Matrix: Water
Analysis Batch: 353750

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 353595

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Mercury			0.00200	0.00225		mg/L		112	85 - 115

Lab Sample ID: LCSD 580-353595/16-A
Matrix: Water
Analysis Batch: 353750

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 353595

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Mercury			0.00200	0.00219		mg/L		109	85 - 115	3	20

Method: 6010D - Metals (ICP)

Lab Sample ID: MB 590-31131/2-A
Matrix: Solid
Analysis Batch: 31138

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 31131

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Barium	ND		1.3	0.34	mg/Kg		04/02/21 11:27	04/02/21 15:55	1
Cadmium	ND		1.0	0.059	mg/Kg		04/02/21 11:27	04/02/21 15:55	1
Chromium	ND		1.3	0.18	mg/Kg		04/02/21 11:27	04/02/21 15:55	1
Lead	ND		3.0	1.5	mg/Kg		04/02/21 11:27	04/02/21 15:55	1
Selenium	ND		5.0	3.0	mg/Kg		04/02/21 11:27	04/02/21 15:55	1
Silver	ND	^+	1.3	0.13	mg/Kg		04/02/21 11:27	04/02/21 15:55	1

Lab Sample ID: MB 590-31131/2-A
Matrix: Solid
Analysis Batch: 31171

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 31131

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	ND		1.3	0.50	mg/Kg		04/02/21 11:27	04/06/21 15:39	1

Lab Sample ID: LCS 590-31131/1-A
Matrix: Solid
Analysis Batch: 31138

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 31131

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Barium	100	97.4		mg/Kg		97	80 - 120
Cadmium	50.0	53.4		mg/Kg		107	80 - 120
Chromium	50.0	53.9		mg/Kg		108	80 - 120
Lead	50.0	55.0		mg/Kg		110	80 - 120
Selenium	100	106		mg/Kg		106	80 - 120
Silver	5.00	4.59	^+	mg/Kg		92	80 - 120

Lab Sample ID: LCS 590-31131/1-A
Matrix: Solid
Analysis Batch: 31171

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 31131

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Arsenic	100	99.2		mg/Kg		99	80 - 120

Method: 7471A - Mercury (CVAA)

Lab Sample ID: MB 580-353569/18-A
Matrix: Solid
Analysis Batch: 353716

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 353569

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.030	0.0090	mg/Kg		04/05/21 08:25	04/06/21 14:53	1

Lab Sample ID: LCS 580-353569/19-A
Matrix: Solid
Analysis Batch: 353716

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 353569

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Mercury	0.167	0.196		mg/Kg		117	80 - 120

Method: 7471A - Mercury (CVAA) (Continued)

Lab Sample ID: LCSD 580-353569/20-A
Matrix: Solid
Analysis Batch: 353716

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 353569

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Mercury			0.167	0.179		mg/Kg		107	80 - 120	9	20

Method: SM 4500 CN I - Cyanide, Weak Acid Dissociable

Lab Sample ID: MB 280-532454/4-A
Matrix: Water
Analysis Batch: 532553

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 532454

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Weak Acid Dissociable	ND		0.010	0.0050	mg/L		04/14/21 09:01	04/14/21 15:09	1

Lab Sample ID: HLCS 280-532454/1-A
Matrix: Water
Analysis Batch: 532553

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 532454

Analyte			Spike Added	HLCS Result	HLCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Cyanide, Weak Acid Dissociable			0.350	0.321		mg/L		92	75 - 120		

Lab Sample ID: LCS 280-532454/3-A
Matrix: Water
Analysis Batch: 532553

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 532454

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Cyanide, Weak Acid Dissociable			0.100	0.0900		mg/L		90	75 - 120		

Lab Sample ID: LLCS 280-532454/2-A
Matrix: Water
Analysis Batch: 532553

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 532454

Analyte			Spike Added	LLCS Result	LLCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Cyanide, Weak Acid Dissociable			0.100	0.0983		mg/L		98	75 - 120		

Client Sample ID: AMW-1A-040121

Lab Sample ID: 590-14876-1

Date Collected: 04/01/21 15:35

Matrix: Water

Date Received: 04/02/21 08:49

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	NWTPH-Gx		1	43 mL	43 mL	31219	04/12/21 13:22	JSP	TAL SPK
Total/NA	Prep	3510C			253.8 mL	2 mL	31145	04/05/21 15:45	NMI	TAL SPK
Total/NA	Analysis	8270E SIM		1			31143	04/05/21 19:26	NMI	TAL SPK
Total/NA	Prep	3510C			260.1 mL	2 mL	31224	04/12/21 14:12	NMI	TAL SPK
Total/NA	Analysis	NWTPH-Dx		1			31225	04/12/21 22:45	NMI	TAL SPK
Dissolved	Filtration	FILTRATION			1.0 mL	1.0 mL	354111	04/12/21 09:50	C1K	TAL SEA
Dissolved	Prep	200.8			50 mL	50 mL	354270	04/13/21 16:13	C1K	TAL SEA
Dissolved	Analysis	200.8		1	50 mL	50 mL	354367	04/14/21 16:53	FCW	TAL SEA
Total/NA	Prep	200.8			50 mL	50 mL	353588	04/05/21 10:46	C1K	TAL SEA
Total/NA	Analysis	200.8		1	50 mL	50 mL	353824	04/07/21 14:06	FCW	TAL SEA
Total/NA	Prep	245.1			50 mL	50 mL	353595	04/05/21 11:34	C1K	TAL SEA
Total/NA	Analysis	245.1		1			353750	04/06/21 17:52	C1K	TAL SEA
Total/NA	Prep	SM 4500 CN I			50 mL	50 mL	532454	04/14/21 09:01	PEV	TAL DEN
Total/NA	Analysis	SM 4500 CN I		1	50 mL	50 mL	532553	04/14/21 15:17	PEV	TAL DEN

Client Sample ID: AMW-1B-040121

Lab Sample ID: 590-14876-2

Date Collected: 04/01/21 14:45

Matrix: Water

Date Received: 04/02/21 08:49

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	NWTPH-Gx		50	43 mL	43 mL	31219	04/12/21 19:50	JSP	TAL SPK
Total/NA	Prep	3510C			250.5 mL	2 mL	31145	04/05/21 15:45	NMI	TAL SPK
Total/NA	Analysis	8270E SIM		1			31143	04/05/21 19:49	NMI	TAL SPK
Total/NA	Prep	3510C			250.5 mL	2 mL	31145	04/05/21 15:45	NMI	TAL SPK
Total/NA	Analysis	8270E SIM		20			31154	04/06/21 12:22	NMI	TAL SPK
Total/NA	Prep	3510C			259 mL	2 mL	31224	04/12/21 14:12	NMI	TAL SPK
Total/NA	Analysis	NWTPH-Dx		1			31225	04/12/21 23:06	NMI	TAL SPK
Dissolved	Filtration	FILTRATION			1.0 mL	1.0 mL	354111	04/12/21 09:51	C1K	TAL SEA
Dissolved	Prep	200.8			50 mL	50 mL	354270	04/13/21 16:13	C1K	TAL SEA
Dissolved	Analysis	200.8		1	50 mL	50 mL	354367	04/14/21 16:57	FCW	TAL SEA
Total/NA	Prep	200.8			50 mL	50 mL	353728	04/06/21 18:49	TMH	TAL SEA
Total/NA	Analysis	200.8		1	50 mL	50 mL	353854	04/07/21 19:46	FCW	TAL SEA
Total/NA	Prep	245.1			50 mL	50 mL	353595	04/05/21 11:34	C1K	TAL SEA
Total/NA	Analysis	245.1		1			353750	04/06/21 17:55	C1K	TAL SEA
Total/NA	Prep	SM 4500 CN I			50 mL	50 mL	532454	04/14/21 09:01	PEV	TAL DEN
Total/NA	Analysis	SM 4500 CN I		1	50 mL	50 mL	532553	04/14/21 15:19	PEV	TAL DEN

Client Sample ID: IDW-040121

Lab Sample ID: 590-14876-3

Date Collected: 04/01/21 16:05

Matrix: Solid

Date Received: 04/02/21 08:49

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1			31136	04/02/21 14:22	JSP	TAL SPK

Lab Chronicle

Client: Aspect Consulting
Project/Site: Sagamore/190210

Job ID: 590-14876-1

Client Sample ID: IDW-040121

Date Collected: 04/01/21 16:05
Date Received: 04/02/21 08:49

Lab Sample ID: 590-14876-3

Matrix: Solid
Percent Solids: 67.3

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.326 g	10 mL	31183	04/07/21 15:15	JSP	TAL SPK
Total/NA	Analysis	8260D		10	0.86 mL	43 mL	31185	04/08/21 23:36	JSP	TAL SPK
Total/NA	Prep	5035			4.326 g	10 mL	31183	04/07/21 15:15	JSP	TAL SPK
Total/NA	Analysis	8260D		100	0.86 mL	43 mL	31233	04/13/21 12:28	JSP	TAL SPK
Total/NA	Prep	5035			4.326 g	10 mL	31183	04/07/21 15:15	JSP	TAL SPK
Total/NA	Analysis	8260D		100	0.86 mL	43 mL	31338	04/20/21 13:16	JSP	TAL SPK
Total/NA	Prep	3550C			15.59 g	2 mL	31257	04/14/21 10:34	NMI	TAL SPK
Total/NA	Analysis	8270E SIM		2000			31280	04/15/21 13:39	NMI	TAL SPK
Total/NA	Prep	3050B			1.37 g	50 mL	31131	04/02/21 11:27	JSP	TAL SPK
Total/NA	Analysis	6010D		1			31138	04/02/21 17:08	JSP	TAL SPK
Total/NA	Prep	3050B			1.37 g	50 mL	31131	04/02/21 11:27	JSP	TAL SPK
Total/NA	Analysis	6010D		1			31171	04/06/21 16:17	AMB	TAL SPK
Total/NA	Prep	7471A			0.6789 g	50 mL	353569	04/05/21 08:25	JCP	TAL SEA
Total/NA	Analysis	7471A		1			353716	04/06/21 15:53	C1K	TAL SEA

Laboratory References:

TAL DEN = Eurofins TestAmerica, Denver, 4955 Yarrow Street, Arvada, CO 80002, TEL (303)736-0100
TAL SEA = Eurofins FGS, Seattle, 5755 8th Street East, Tacoma, WA 98424, TEL (253)922-2310
TAL SPK = Eurofins TestAmerica, Spokane, 11922 East 1st Ave, Spokane, WA 99206, TEL (509)924-9200

Accreditation/Certification Summary

Client: Aspect Consulting
Project/Site: Sagamore/190210

Job ID: 590-14876-1

Laboratory: Eurofins TestAmerica, Spokane

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

Authority	Program	Identification Number	Expiration Date
Washington	State	C569	01-06-22

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

Analysis Method	Prep Method	Matrix	Analyte
Moisture		Solid	Percent Moisture
Moisture		Solid	Percent Solids
NWTPH-Dx	3510C	Water	Residual Range Organics (RRO) (C25-C36)

Laboratory: Eurofins FGS, Seattle

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

Authority	Program	Identification Number	Expiration Date
Alaska (UST)	State	17-024	02-19-22
ANAB	Dept. of Defense ELAP	L2236	04-15-21
ANAB	ISO/IEC 17025	L2236	01-19-22
California	State	2954	06-30-21
Florida	NELAP	E87575	07-30-21
Louisiana	NELAP	03073	06-30-21
Maine	State	2020012	05-02-22
Montana (UST)	State	NA	04-14-27
New Jersey	NELAP	WA014	06-30-21
New York	NELAP	11662	04-01-22
Oregon	NELAP	WA100007	11-05-21
US Fish & Wildlife	US Federal Programs	058448	07-31-21
USDA	US Federal Programs	P330-20-00031	02-10-23
Washington	State	C788	07-13-21
Wisconsin	State	399133460	08-31-21

Accreditation/Certification Summary

Client: Aspect Consulting
Project/Site: Sagamore/190210

Job ID: 590-14876-1

Laboratory: Eurofins TestAmerica, Denver

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

Authority	Program	Identification Number	Expiration Date
A2LA	Dept. of Defense ELAP	2907.01	10-31-21
A2LA	ISO/IEC 17025	2907.01	10-31-21
Alabama	State Program	40730	09-30-12 *
Alaska (UST)	State	18-001	02-28-22
Arizona	State	AZ0713	12-21-21
Arkansas DEQ	State	19-047-0	06-01-21
California	State	2513	01-08-22
Connecticut	State	PH-0686	09-30-20 *
Florida	NELAP	E87667-57	07-01-21
Georgia	State	4025-011	01-08-22
Illinois	NELAP	2000172019-1	04-30-21
Iowa	State	IA#370	12-02-21
Kansas	NELAP	E-10166	04-30-21
Louisiana	NELAP	30785	06-30-14 *
Louisiana	NELAP	30785	06-30-21
Minnesota	NELAP	1788752	12-31-21
Nevada	State	CO000262020-1	07-31-21
New Hampshire	NELAP	205319	04-28-21
New Jersey	NELAP	190002	06-30-21
New York	NELAP	59923	04-01-22
North Carolina (WW/SW)	State	358	12-31-21
North Dakota	State	R-034	01-08-22
Oklahoma	State	2018-006	09-01-21
Oregon	NELAP	4025-011	01-08-22
Pennsylvania	NELAP	013	07-31-21
South Carolina	State	72002001	01-08-22
Texas	NELAP	TX104704183-08-TX	09-30-09 *
Texas	NELAP	T104704183-20-18	09-30-21
US Fish & Wildlife	US Federal Programs	058448	08-01-21
USDA	US Federal Programs	P330-20-00065	03-06-23
Utah	NELAP	QUAN5	06-30-13 *
Utah	NELAP	CO000262019-11	07-31-21
Virginia	NELAP	10490	06-14-21
Washington	State	C583-19	08-03-21
West Virginia DEP	State	354	11-30-21
Wisconsin	State	999615430	08-31-21
Wyoming (UST)	A2LA	2907.01	10-31-21

* Accreditation/Certification renewal pending - accreditation/certification considered valid.

Method Summary

Client: Aspect Consulting
Project/Site: Sagamore/190210

Job ID: 590-14876-1

Method	Method Description	Protocol	Laboratory
8260D	Volatile Organic Compounds by GC/MS	SW846	TAL SPK
NWTPH-Gx	Northwest - Volatile Petroleum Products (GC/MS)	NWTPH	TAL SPK
8270E SIM	Semivolatile Organic Compounds (GC/MS SIM)	SW846	TAL SPK
NWTPH-Dx	Northwest - Semi-Volatile Petroleum Products (GC)	NWTPH	TAL SPK
200.8	Metals (ICP/MS)	EPA	TAL SEA
245.1	Mercury (CVAA)	EPA	TAL SEA
6010D	Metals (ICP)	SW846	TAL SPK
7471A	Mercury (CVAA)	SW846	TAL SEA
Moisture	Percent Moisture	EPA	TAL SPK
SM 4500 CN I	Cyanide, Weak Acid Dissociable	SM	TAL DEN
200.8	Preparation, Total Metals	EPA	TAL SEA
245.1	Preparation, Mercury	EPA	TAL SEA
3050B	Preparation, Metals	SW846	TAL SPK
3510C	Liquid-Liquid Extraction (Separatory Funnel)	SW846	TAL SPK
3550C	Ultrasonic Extraction	SW846	TAL SPK
5030C	Purge and Trap	SW846	TAL SPK
5035	Closed System Purge and Trap	SW846	TAL SPK
7471A	Preparation, Mercury	SW846	TAL SEA
FILTRATION	Sample Filtration	None	TAL SEA
SM 4500 CN I	Cyanide, Distillation for Weak Acid Dissociable	SM	TAL DEN

Protocol References:

EPA = US Environmental Protection Agency
None = None
NWTPH = Northwest Total Petroleum Hydrocarbon
SM = "Standard Methods For The Examination Of Water And Wastewater"
SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

TAL DEN = Eurofins TestAmerica, Denver, 4955 Yarrow Street, Arvada, CO 80002, TEL (303)736-0100
TAL SEA = Eurofins FGS, Seattle, 5755 8th Street East, Tacoma, WA 98424, TEL (253)922-2310
TAL SPK = Eurofins TestAmerica, Spokane, 11922 East 1st Ave, Spokane, WA 99206, TEL (509)924-9200

Eurofins TestAmerica, Spokane
11922 East 1st Ave
Spokane, WA 99206
Phone (509) 924-9200 Fax (509) 924-9290

Chain of Custody Record

eurofins Environment Testing America

Client Information	Sampler: Breeyn Greer	Lab PM: Arrington, Randee E	Carrier Tracking No(s):	COC No: 590-6374-1898.1
Client Contact: Breeyn Greer	Phone: 6122327343	E-Mail: Randee.Arrington@Eurofinset.com	State of Origin:	Page: Page 1 of 1
Company: Aspect Consulting	PWSID:			Job #:
Address: 710 Second Avenue Suite 550	Due Date Requested:			
City: Seattle	TAT Requested (days): Standard			
State, Zip: WA, 98104	Compliance Project: Δ Yes Δ No			
Phone: 206-812(Tel)	PO #: Purchase Order not required			
Email: bgreer@aspectconsulting.com	WO #:			
Project Name: Sagamore 190210	Project #: 59002065			
Site:	SSOW#:			

Analysis Requested

Sample Identification	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	8260D - Standard Analyte List (VOCs)	6010D/7471 - RCRA Metals	8270E - SIM PAHs	As Total 200.8	As Dissolved 200.8 (lab Filter)	Hg 245.1	WAD Cyanide 4500	NWTPH Dx	NWTPH Gx	Total Number of containers	Special Instructions/Note:
			Preservation Code:				F	N	N								
AMW-1A-040121	4/1/21	1535	G	W	N				X	X	X	X	X	X	X		lab Filter Dis. As.
AMW-1B-040121	4/1/21	1445	G	W	N				X	X	X	X	X	X	X		
IDW-040121	4/1/21	1605	C	S			X	X	X								

Preservation Codes:

A - HCL	M - Hexane
B - NaOH	N - None
C - Zn Acetate	O - AsNaO2
D - Nitric Acid	P - Na2O4S
E - NaHSO4	Q - Na2SO3
F - MeOH	R - Na2S2O3
G - Amchlor	S - H2SO4
H - Ascorbic Acid	T - TSP Dodecahydrate
I - Ice	U - Acetone
J - DI Water	V - MCAA
K - EDTA	W - pH 4-5
L - EDA	Z - other (specify)

Other:

590-14876 Chain of Custody

Possible Hazard Identification
☒ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☒ Unknown ☐ Radiological

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

Deliverable Requested: I, II, III, IV, Other (specify) EDD, PDF

Special Instructions/QC Requirements: N/A

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

Relinquished by	Date/Time	Company	Received by	Date/Time	Company
Breeyn Greer	4/2/21 0845	Aspect	[signature]	4/2/21 0:49	TA Spo

Custody Seals Intact: Δ Yes Δ No	Custody Seal No.:	Cooler Temperature(s) °C and Other Remarks: 2.9-2.6°C

Ver: 01/16/2019

Eurofins TestAmerica, Spokane
11922 East 1st Ave
Spokane, WA 99206
Phone: 509-924-9200 Fax: 509-924-9290

Chain of Custody Record

eurofins | Environment Testing America

Client Information (Sub Contract Lab)	Sampler:	Lab PM: Arrington, Randee E	Carrier Tracking No(s):	COC No: 590-5896.1
Client Contact: Shipping/Receiving	Phone:	E-Mail: Randee.Arrington@Eurofinset.com	State of Origin: Washington	Page: Page 1 of 1
Company: TestAmerica Laboratories, Inc.		Accreditations Required (See note): State - Washington		Job #: 590-14876-1
Address: 4955 Yarrow Street,	Due Date Requested: 4/15/2021			
City: Arvada	TAT Requested (days):			
State, Zip: CO, 80002	PO #:			
Phone: 303-736-0100(Tel) 303-431-7171(Fax)	WO #:			
Email:	Project #: 59002065			
Project Name: Sagamore/190210	SSOW#:			
Site:				

Analysis Requested

Preservation Codes:

A - HCL, B - NaOH, C - Zn Acetate, D - Nitric Acid, E - NaHSO4, F - MeOH, G - Amchlor, H - Ascorbic Acid, I - Ice, J - DI Water, K - EDTA, L - EDA, M - Hexane, N - None, O - AsNaO2, P - Na2O4S, Q - Na2SO3, R - Na2S2O3, S - H2SO4, T - TSP Dodecahydrate, U - Acetone, V - MCAA, W - pH 4-5, Z - other (specify)

Other:

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	4500_CN_I/4500_CN_I_Prep (MOD) Cyanide, Weak Acid Dissociable	Total Number of containers	Special Instructions/Note:
			Preservation Code:						
AMW-1A-040121 (590-14876-1)	4/1/21	15:35 Pacific		Water			X	1	
AMW-1B-040121 (590-14876-2)	4/1/21	14:45 Pacific		Water			X	1	

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

Possible Hazard Identification	Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
Unconfirmed	☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months
Deliverable Requested: I, II, III, IV, Other (specify) Primary Deliverable Rank: 2	Special Instructions/QC Requirements:

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

	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
1	Maria Moore	4/2/21 15:50	TAPO		4/3/21 1020	Eurofins
2	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
3	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: ∆ Yes ∆ No	Custody Seal No.:	Cooler Temperature(s) °C and Other Remarks: 1.6, #9, 10.4 IR

Ver: 11/01/2020

Eurofins TestAmerica, Spokane
11922 East 1st Ave
Spokane, WA 99206
Phone: 509-924-9200 Fax: 509-924-9290

Chain of Custody Record

eurofins | Environment Testing America

Client Information (Sub Contract Lab)	Sampler:	Lab PM: Arrington, Randee E	Carrier Tracking No(s):	COC No: 590-5895.1
Client Contact: Shipping/Receiving	Phone:	E-Mail: Randee.Arrington@Eurofinset.com	State of Origin: Washington	Page: Page 1 of 1
Company: Eurofins Frontier Global Sciences LLC		Accreditations Required (See note): State - Washington		Job #: 590-14876-1
Address: 5755 8th Street East,	Due Date Requested: 4/15/2021			
City: Tacoma	TAT Requested (days):			
State, Zip: WA, 98424				
Phone: 253-922-2310(Tel) 425-420-9210(Fax)	PO #:			
Email:	WO #:			
Project Name: Sagamore/190210	Project #: 59002065			
Site:	SSOW#:			

Analysis Requested

Preservation Codes:

A - HCL	M - Hexane
B - NaOH	N - None
C - Zn Acetate	O - AsNaO2
D - Nitric Acid	P - Na2O4S
E - NaHSO4	Q - Na2SO3
F - MeOH	R - Na2S2O3
G - Amchlor	S - H2SO4
H - Ascorbic Acid	T - TSP Dodecahydrate
I - Ice	U - Acetone
J - DI Water	V - MCAA
K - EDTA	W - pH 4-5
L - EDA	Z - other (specify)

Other:

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	200.8_CWA/200.8_P_TOT (MOD) Total Arsenic	200.8_CWA/FILTRATION (MOD) Dissolved Arsenic	245.1/245.1_Prep Mercury	7471A/7471A_Prep	Total Number of containers	Special Instructions/Note:
			Preservation Code:									
AMW-1A-040121 (590-14876-1)	4/1/21	15:35 Pacific		Water			X	X	X		2	
AMW-1B-040121 (590-14876-2)	4/1/21	14:45 Pacific		Water			X	X	X		2	
IDW-040121 (590-14876-3)	4/1/21	16:05 Pacific		Solid						X	1	

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

Possible Hazard Identification	Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
Unconfirmed	☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months
Deliverable Requested: I, II, III, IV, Other (specify) Primary Deliverable Rank: 2	Special Instructions/QC Requirements:

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

Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Marla Stooce	4/2/21 15:27	TAMU		4/3/21 1111	EPGS
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

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

IR8 = 0.1 / 0.4

Login Sample Receipt Checklist

Client: Aspect Consulting

Job Number: 590-14876-1

Login Number: 14876
List Number: 1
Creator: O'Toole, Maria C

List Source: Eurofins TestAmerica, Spokane

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

Login Sample Receipt Checklist

Client: Aspect Consulting

Job Number: 590-14876-1

Login Number: 14876
List Number: 4
Creator: Rystrom, Joshua R

List Source: Eurofins TestAmerica, Denver
List Creation: 04/03/21 02:04 PM

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

Login Sample Receipt Checklist

Client: Aspect Consulting

Job Number: 590-14876-1

Login Number: 14876
List Number: 2
Creator: Vallelunga, Diana L

List Source: Eurofins TestAmerica, Seattle
List Creation: 04/03/21 11:34 AM

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	0.1/0.4
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Login Sample Receipt Checklist

Client: Aspect Consulting

Job Number: 590-14876-1

Login Number: 14876
List Number: 3
Creator: Vallelunga, Diana L

List Source: Eurofins TestAmerica, Seattle
List Creation: 04/03/21 11:36 AM

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	0.1/0.4
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	